GOLDEN GATE BRIDGE, HIGHWAY AND TRANSPORTATION DISTRICT

CORTE MADERA ECOLOGICAL RESERVE
TIDAL WETLANDS RESTORATION PROJECT
FINAL INITIAL STUDY/MITIGATED
NEGATIVE DECLARATION

STATE CLEARINGHOUSE NO. 2003122139

PREPARED BY: LSA ASSOCIATES, INC.

LSA

March 2004
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Submitted to the:
Golden Gate Bridge, Highway and Transportation District
P.O. Box 9000, Presidio Station
San Francisco, CA 94129-0601

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March 2004
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A. SUMMARY INFORMATION

A draft Initial Study/Mitigated Negative Declaration (IS/MND) for the Corte Madera Ecological Reserve (CMER) Tidal Wetlands Restoration Project was released for agency and public review on December 29, 2003. The review period was closed on January 27, 2004. Comments received on the draft IS/MND have been considered and are reproduced in Appendix A of this IS/MND. Revisions to the IS/MND made in response to these comments are incorporated into this final document.

1. Project Title:

Corte Madera Ecological Reserve Tidal Wetlands Restoration Project

2. Lead Agency Name and Address:

Golden Gate Bridge, Highway and Transportation District
P.O. Box 9000, Presidio Station
San Francisco, CA 94129-0601

This Initial Study/Mitigated Negative Declaration is available at the District Secretary’s Office, Golden Gate Bridge Administration Building, Golden Gate Bridge Toll Plaza.

3. Contact Persons and Phone Numbers:

Pascale Soumoy (415) 257-4490
Lynford Edwards (415) 923-2349

4. Project Location:

The project site is located within a 72-acre parcel owned by Golden Gate Bridge, Highway and Transportation District (District) located in the town of Corte Madera, Marin County. Figure 1 depicts the regional location of the project site and surrounding land uses.

5. Project Sponsor’s Name and Address:

Golden Gate Bridge, Highway and Transportation District
P.O. Box 9000, Presidio Station
San Francisco, CA 94129-0601

6. General Plan Designation:

Wetlands

7. Zoning:

Public Open Space (POS)

8. Description of Project:

See Project Description below, in Section B.
Corte Madera Ecological Reserve
Tidal Wetlands Restoration Project
Project Vicinity and Regional Location

I://IMAGES/GRAPHICS/JOBS/PWA330/FIGURES/FIG_1AJ (12/10/03)
9. **Surrounding Land Uses and Setting:** Briefly describe the project's surroundings:

Adjacent to the project site are Shorebird Marsh and its connector channel to the west, Corte Madera Ecological Reserve (CMER) to the north and east, Muzzi Marsh to the south, and the Village Shopping Center to the southwest. CMER is owned and managed by California Department of Fish and Game (CDFG). The East Side Outfall Channel (ESOC) runs along the northern boundary of the project site. The proposed tidal wetland restoration site is adjacent to CMER in the northeast portion of the 72-acre site. The proposed seasonal wetland restoration site is in the west-central portion of the 72-acre site between two existing seasonal wetlands (see Figure 2).

10. **Other agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)**

- Town of Corte Madera
- Regional Water Quality Control Board, San Francisco Bay Region (RWQCB)
- Bay Conservation and Development Commission (BCDC)
- State Department of Fish and Game (CDFG)
- State Lands Commission
- U.S. Army Corps of Engineers (COE)
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service (USFWS)
- National Marine Fisheries Service (NMFS)
B. PROJECT DESCRIPTION

1. Background and Need for the Project

As a condition of a 1988 U.S. Army Corps of Engineers (COE) permit for maintenance dredging of the Larkspur Ferry Terminal, the Golden Gate Bridge, Highway and Transportation District (District) was required to perform a study to assess the impact of the District's ferry operations on erosion at CMER and to create replacement habitat suitable for the endangered California clapper rail on the basis of that study. The study, undertaken and performed from 1989 to 1992, failed to find a direct correlation between ferry operations and increased erosion rates, but estimated that the District's ferryboats contributed approximately 10 percent of the wave energy potentially affecting the CMER. In consultation with COE and U.S. Fish and Wildlife Service (USFWS), the District agreed to create 2 acres of tidal marsh habitat on a 72-acre parcel owned by the District adjacent to CMER to mitigate potential erosion impacts from ferry operations.

The project site is a former tidal wetland used in the 1970s for upland disposal of dredged sediments during the construction of the District's Larkspur Ferry Terminal. As shown in Figure 2, an earth embankment was constructed around the perimeter of the site to contain the dredged sediments which were pumped onto the site as a slurry. These sediments have dewatered and compacted over time. Non-native vegetation (primarily pampas grass) has been established on much of the project site, as have areas of seasonal wetland (wetlands that are normally dry during the part of the dry season). The seasonal wetlands are in shown on Figure 2.

In 1996, the District adopted a Negative Declaration for acquisition of a new, high speed ferry for the Larkspur service. In consultation with local environmental groups, the District committed to the creation of an additional 2 acres of clapper rail habitat adjacent to CMER (for a total of 4 acres on the 72-acre site) as part of the high speed ferry project.

During plan development for the tidal wetland restoration, the District consulted extensively with regulatory agencies (including USFWS, COE and California Department of Fish and Game (CDFG)) and local environmental groups (including Marin Audubon Society and Friends of Corte Madera Creek Watershed) regarding the site location and design. During the course of this review and after further environmental evaluation, it was determined that the restoration project would also need to include mitigation for impacts to seasonal wetlands on the project site resulting from the tidal wetland restoration. Regulatory agencies and environmental groups involved in determining the original mitigation requirement have agreed that the District can fulfill its wetland restoration commitment by providing a minimum of 4 acres of tidal and seasonal wetland combined. The restoration plan has therefore evolved to include development of 3.5 acres of new tidal wetlands and 1.9 acres of new seasonal wetlands to replace approximately 1.6 acres of existing seasonal wetlands.

During consultation with resource agencies and local stakeholders, it became apparent that modifications to existing public access easements were required by USFWS and CDFG as a condition of permitting for the proposed project in order to foster and protect endangered species and their habitat. The project therefore includes removal of a public access easement on the levee immediately adjacent to the proposed tidal wetland restoration and the granting of a new public access easement to the Town of Corte Madera on a levee and right-of-way owned by the District west and north of the project site (see Figure 3). The change in the easements would result in a net increase of 900 feet in the length of public access easements held by the Town of Corte Madera.
2. Site Selection

Data collection and analysis for the site was presented in the report titled *Conceptual Design for Tidal Wetland Restoration Adjacent to the Corte Madera Ecological Reserve*, originally dated April 1999 and updated and amended in 2003\(^1\) by Philip Williams and Associates, Ltd. (PWA) and LSA Associates, Inc. (LSA). The report identified preferred sites for tidal and seasonal wetland restoration within the project site. The criteria for site selection included:

1) maximize the quality of wetland habitat created;
2) minimize impacts to existing seasonal wetland habitat;
3) minimize impacts to existing tidal wetland habitat;
4) minimize earth-moving;
5) maintain access along and to the shoreline; and
6) select a site which is part of or contiguous to CMER.

3. Project Design and Components

The project consists of three major physical components, namely, tidal marsh restoration, seasonal wetland restoration and mounding areas, as described below. A list of design and construction mitigation measures is included in Appendix B of this Initial Study/Mitigated Negative Declaration (IS/MND). This list is hereby incorporated into the proposed project.

a. Tidal Marsh Restoration. The general area proposed for tidal wetland restoration is shown in Figure 2. An existing embankment along the perimeter of the District property currently separates CMER from the project site. This embankment was built to contain dredging spoils, not as a flood control feature; however, it does exclude most tidal flows from the project site. Although the areas proposed for wetland restoration have relatively higher ground surface elevations than most of the project site, the location was selected because: 1) it contains a minimal amount of existing seasonal wetland (1.6 acres); 2) it is lower in elevation than portions of the site to the north, reducing earthwork; and 3) it has a readily available tidal water supply via nearby slough channels within CMER.

Tidal flow to the restored wetland would be established by making a connection to existing tidal slough channels within CMER. Impacts to CMER would be minimized by utilizing the shortest point of connection between the restoration site and the tidal slough channel at CMER. The adequacy of the water supply was confirmed by water level monitoring. The tidal marsh wetland restoration would require removing a segment of the eastern perimeter embankment and rebuilding in a different alignment, and excavating material from 3.5 acres down to an elevation of approximately 2.5 feet National Geodetic Vertical Datum (NGVD) to permit inundation during high tides. The western edge of the realigned embankment would be graded at a shallow slope to provide a gradual transition to the marsh plain. A new tidal channel would be excavated to an elevation of approximately -2 feet NGVD to facilitate the establishment of lower order channels within the restoration site and connect the restoration area to an existing tidal slough channel within CMER. In all, approximately 36,000 cubic yards of material would be excavated and deposited on site.

The excavation elevation recommended for the restoration site (2.5 feet NGVD) is somewhat below the Mean Higher High Water level of 3.2 feet NGVD. This design is intended to promote rapid colonization

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by marsh vegetation and allow natural sedimentation to provide a desirable substrate to support wetland vegetation. Based on long-term monitoring of sedimentation at nearby Muzzi Marsh, the site is expected to reach an equilibrium elevation of approximately 3.5 feet NGVD within 30 years.

b. **Seasonal Wetland Restoration.** The project also includes on-site replacement of seasonal wetlands. The area where seasonal wetlands would be restored is shown on Figure 2. At 1.9 acres, the selected site is 19 percent larger than the seasonal wetland area that will be impacted by construction of the tidal wetland (1.6 acres). The selected site connects a large area of existing, high-quality seasonal wetland in the southern portion of the 72-acre parcel with a small area of existing seasonal wetland approximately 400 feet to the north. This placement will maximize the value of the restoration by connecting two existing seasonal wetland areas to create a larger, contiguous area of seasonal wetland habitat.

c. **Mounding Areas.** Two earthen landscaped mounds would be established within the project site using excavated material from the wetland restoration areas to reduce the requirement for off-site hauling and disposal. One mound would be built immediately to the west of the restored tidal marsh. The second mound would be built immediately to the north of the restored seasonal wetland. Both mounding areas would be constructed with shallow side slopes. The locations of the mounds are shown on Figure 2.

4. **Project Construction**

Construction of the wetland could disturb clapper rails and other wildlife in the adjacent CMER tidal marsh. Such disturbance would be minimized by limiting the physical area of construction in the tidal marsh and by avoiding construction during the clapper rail breeding season (February 1 to August 31) as a requirement of project permitting. Disturbance to wildlife using the existing seasonal wetlands would be minimized by scheduling construction during the months when those wetlands are dry.

Construction of the proposed project would begin in June 2004 and end in November 2004. However, construction activities in CMER would not begin before September 1, 2004. Construction activities would include: removing non-native vegetation from the marsh restoration areas; realigning the embankment along the eastern perimeter of the project site; excavating a new tidal channel and an extension to the existing tidal channel; excavating the restoration site; placing excavated material to the west and south of the proposed tidal marsh; and installing signage and fencing.

A staging area and access road for wetland restoration would be prepared and maintained on the project site in a location that minimizes any wetland impacts. Site clearing will include the removal of a significant area (about 4 acres) of pampas grass and other invasive, non-native plant species. The vegetation mass will be mulched and buried in the new earth mounds, to the extent possible, but it may be necessary to remove some of this material to an off-site location. Up to 130 truck-loads (assuming truck loads of 10 cubic yards) of vegetation may be hauled off-site for disposal or composting. Industrial Way (see Figure 1) would be utilized as the main road access to the project site for construction vehicles.

Appendix B to this document contains a list of construction mitigations included as part of the project.

5. **Easements and Public Access**

The proposed project involves the removal and replacement of a portion of the perimeter embankment and the construction of fences and gates on the northern and southern ends of the replacement section (see Figure 2). A public access easement exists on the embankment crest, extending from the northern end at the Eastside Outfall Channel approximately 3,400 feet to the southwestern corner of the parcel (see Figure
3). The easement is held by the Town of Corte Madera and was mandated as a condition of a prior permit from the San Francisco Bay Development and Conservation Commission (BCDC). The easement needs to be revoked as part of the proposed project because of the concerns of CDFG,² requiring the restriction of public access in the vicinity of the new wetland to minimize the potential for impacts to clapper rails and other special-status species. Additionally, the District may use other portions of the project site for future tidal marsh restoration projects that could be negatively affected by the existing public access easement. As part of this project, the District will provide a new public access easement to the Town of Corte Madera on land owned by the District to the west of the project site and connecting to the existing easement that accesses the Bay on the north side of the project site (see Figure 3).

Informal public use currently occurs along the proposed trail easement west of the project site and on the north embankment adjacent to the Eastside Outfall Channel, but there are no formal public access easements in place for these locations. Negotiations with the various agencies associated with the project site have resulted in a preliminary agreement to provide approximately 4,300 feet of new public access easements. A net increase of 900 feet in trails with formal access easements would result from implementation of the project. However, the use of the eastern embankment as part of a “loop” trail would not be possible. The District would coordinate with the Town of Corte Madera regarding abandonment of the existing easement and acceptance of the new easement as a part of project review and associated permitting.

Although the public access easement along the eastern levee will be eliminated, people would still be able to walk on the levee up to the realigned segment to enjoy Bay views. To further mitigate potential impacts to clapper rail, fencing would be constructed across the existing embankment at both ends of the realigned segment, a distance of approximately 800 feet. The fencing would run across the embankment into wetlands on each side, to discourage access to the restored marsh by people and dogs. Gates would be provided for maintenance and emergency access. To avoid blocking views while still providing an effective barrier, the fences would be a “see-through” type and high enough to discourage people and dogs from entering the tidal wetland restoration area. Educational signage describing the wetland restoration project and signs forbidding access will be posted on the fences. Temporary signs may be set up at appropriate locations during construction to advise the public of the on-going work.

PG&E has an easement over the entire CMER area (including land owned by the District and land owned by the CDFG) for access to electricity transmission towers near the District’s eastern property line. PG&E currently uses the embankment along the eastern boundary of District’s property for access to the towers. Access by PG&E to a transmission towers would be less convenient following implementation of the proposed project. One transmission tower, which is currently about 25 feet from the toe of the embankment on the eastern portion of the project site, would be approximately 250 feet from the toe of the new embankment.

6. Revegetation of Restored Areas

Salt marsh and seasonal wetland plants are expected to colonize the areas being restored, as seeds and vegetative parts (capable of rooting in mudflats) are carried via stormwater runoff, tidal flows, wind, and water birds to newly created habitats. No seeding and/or planting of marsh species would be necessary in either of the restored wetland areas.

The site is expected to be colonized rapidly through natural revegetation as described above. For example, at a recent restoration project in CMER sponsored by Marin Audubon Society, monitoring

² Botti, Fred, California Department of Fish and Game. 1998. Personal communication with Steve Granholm of LSA. June.
showed recolonization by grindelia within one month; by pickleweed in less than one year; and by cordgrass within five years. Revegetation of the Richmond Parkway Marsh, a project similar to the proposed project, achieved an 80 percent to 90 percent cover of pickleweed and the transition zone (the highest wetland zone adjacent to uplands) had 100 percent cover of wetland vegetation within a year and a half after tidal flows were introduced to the site.

7. Monitoring and Maintenance

After construction, the restored tidal marsh and seasonal wetland areas would be monitored to ensure that they achieve specific performance standards for vegetative cover and acreage of wetland creation. During each site visit, the monitor would conduct a thorough search for non-native cordgrass (Spartina spp.) in the restored tidal marsh and would document the wildlife observed in the restored tidal marsh and seasonal wetland. The monitoring would continue for five years or until the performance standards are met, whichever is later. Maintenance efforts during the monitoring period would focus on removing litter and eliminating any non-native cordgrass plants that may colonize the restored tidal marsh.

8. Long-Term Maintenance

Upon completion of the restoration project, the District would deed the tidal wetland restoration site to the CDFG to be managed as part of the CMER. Normal maintenance activities associated with CMER would therefore be extended to the restored area.
C. EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the references section. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration per Section 15063(c)(3)(D) of CEQA regulations. In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:
   a) the significance criteria or threshold; if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significant.
D. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND CHECKLIST

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

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

Determination.

On the basis of this initial evaluation:

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

- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Ewa Z. Bauer for D.J. Mulligan

Date

Golden Gate Bridge, Highway and Transportation District

For
I. AESTHETICS. Would the project:

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<th>Potentially Significant Unless Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
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a) Have a substantial adverse effect on a scenic vista?

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

a) **Have a substantial adverse effect on a scenic vista?**

Views from existing trails within the project site include Larkspur, Mt. Tamalpais, and the East Bay. Implementation of the proposed project would result in the restoration of a tidal marsh and seasonal wetland, the installation of associated signage and fencing, the removal of an existing public access easement adjacent to the eastern boundary of the project site, and the establishment of a formal public access easement along the western and northern portion of the project site. Loss of formal public access along a portion of the levee would modify views from this portion of the site. However, similar views from the northern and western portion of the project site would be maintained through the establishment of a formal public easement. Informal access would be maintained up to the realigned portion of the levee on the east side of the site, which would allow the existing views of the marsh and the San Francisco Bay to be maintained.

In addition, implementation of the wetland restoration project, which would create topographical variation and linkages between the existing tidal marsh to the east of the project site, would enhance existing visual character, and benefit existing views. Signage and fencing installed as part of the project would be low-profile and would not block existing views of Bay Area landmarks, including Mt. Tamalpais, the Richmond Bridge, and the East Bay Hills. Therefore, implementation of the proposed project would not have an adverse effect on a scenic vista.

b) **Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?**

Implementation of the proposed project, which includes the restoration of tidal and seasonal marshes, would enhance both the ecological and visual integrity of the project site. The project would not substantially damage scenic resources within the project site.
c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Implementation of the proposed project would enhance the scenic qualities of the project site by restoring tidal and seasonal marsh communities, and introducing topographical variation to an otherwise flat site. The wetland restoration would introduce new plant and wildlife communities to the project site, resulting in a net benefit to the visual quality of the site.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Implementation of the proposed project would not result in the installation of new lighting or the development of structures with reflective coverings. Therefore, the proposed project would not create a new source of light or glare within the project site or otherwise adversely affect daytime or nighttime views.

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<th>Less Than Significant Impact</th>
<th>No Impact</th>
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II. AGRICULTURAL RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use?

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use?

No agricultural resources are located on or near the project site, and the site has not been subject to agricultural use in recent history. The project site is not classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the State Department of Conservation. Therefore, implementation of the proposed project would not convert agricultural land to non-agricultural uses.
b) **Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

The project site is not zoned for agricultural uses and is not operated under a Williamson Act contract.

c) **Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?**

Implementation of the proposed project would not result in the extension of infrastructure into an undeveloped area, or the development of urban uses on a greenfield site.

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<th>Potentially Significant Impact</th>
<th>Potentially Significant Unless Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
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</table>

III. **AIR QUALITY.** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?  

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

d) Expose sensitive receptors to substantial pollutant concentrations?

e) Create objectionable odors affecting a substantial number of people?

a) **Conflict with or obstruct implementation of the applicable air quality plan?**

The project site is located within the San Francisco Bay air basin and is within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The BAAQMD's Bay Area Clean Air Plan contains BAAQMD-wide control measures to reduce carbon monoxide and ozone precursor emissions. The closest BAAQMD monitoring site to the project site is located in San Rafael. Common pollutants (carbon monoxide, nitric oxide, nitrogen oxide, and ozone) are monitored at this site. The excavation and removal of dredge material and vegetation from the project site, and the use of dredge material and marsh substrate to build the proposed mound areas could adversely affect air quality within the vicinity of the project site. However, due to the project site's location adjacent to San Francisco Bay (where prevailing westerly winds would not expose densely populated areas to high levels of particulate matter (PM_{10} or PM_{2.5})), and the relatively short duration of construction activity (less than 3 months), construction of the proposed project
is not anticipated to conflict with or obstruct implementation of relevant air quality plans. In addition, the proposed project is not expected to substantially increase visitation to the project site (which would be associated with an increase in vehicle-related emissions). Therefore, operation of the proposed project as a restored wetland would also not conflict with or obstruct implementation of an air quality plan.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

As of January 2003, the San Francisco Bay air basin is under nonattainment status for ozone, particulate (PM$_{10}$) matter, and particulate matter – fine (PM$_{2.5}$) per State standards. The air basin is also under nonattainment status for ozone at the federal level.\(^3\)

Construction at the project site, which includes excavation, grading, and on-site fill (soil mounding) and transport activities, could temporarily increase the local concentration of PM$_{10}$. If construction activities associated with the proposed project result in blowing dust, a major cause of increased PM$_{10}$ and PM$_{2.5}$ concentrations, the project could contribute to the Bay Area’s existing PM$_{10}$ air quality violation. Implementation of the following mitigation measure would reduce this impact to a less-than-significant level:

**Mitigation Measure AIR-1**: During the excavation, earthmoving, and grading phases of the proposed project, the District shall implement the following measures at the project site:

1) water all active construction sites at least twice daily, and more often during windy periods;
2) cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least 2 feet of freeboard;
3) apply water three times daily, or apply nontoxic soil stabilizers on all unpaved access routes, parking areas, staging areas at inactive construction sites, or inactive construction sites;
4) cover the exposed soil surfaces of the new embankment and the soil mound areas with biodegradable erosion control blankets until vegetation is established. (These blankets can last for two to three years without maintenance, while vegetation grows up through the material);
5) sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited on adjacent roads;
6) if construction is to be discontinued in winter and reactivated in spring, hydrosed or apply (non-toxic) soil binder to inactive construction areas;
7) enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles;
8) limit traffic speeds on all unpaved roads to 15 miles per hour; and
9) replant vegetation in disturbed areas as quickly as possible.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

As of January 2003, the San Francisco Bay air basin is under nonattainment status for ozone, particulate (PM$_{10}$) matter, and particulate matter – fine (PM$_{2.5}$) per State standards. The air basin is also under

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\(^3\) San Francisco Bay Air Quality Management District, 2003. Ambient Air Quality Standards and Bay Area Attainment Status. Website: www.baqmd.gov.
nonattainment status for ozone at the federal level. Increases in PM\textsubscript{10} and PM\textsubscript{2.5} due to implementation of the proposed project would occur only during the approximately 3-month construction period and would not result in a cumulative net increase of PM\textsubscript{10}, PM\textsubscript{2.5}, or ozone. Because the proposed project would not result in a substantial increase in car trips to the project site, cumulative long-term air quality impacts associated with automobile emissions would not occur. Therefore impacts relating to criteria pollutants for which the region is in non-attainment would be less-than-significant.

d) **Expose sensitive receptors to substantial pollutant concentrations?**

No sensitive receptors are located in the vicinity of the project site, which is surrounded by open space and recreational uses.

e) **Create objectionable odors affecting a substantial number of people?**

Implementation of the proposed project, which would include the excavation of soil and the extension and creation of tidal channels, has the potential to cause objectionable odors. Odors associated with the excavation of wetland substrate are most often caused by the decomposition of organic matter, which takes place as soil dries and associated living organisms begin to desiccate. Previous analyses undertaken by LSA for a proposed wetland restoration in Foster City, which also involved the excavation of wet substrate, found that objectionable odors would last only for the amount of time it would take to deposit and dry the excavated material.\textsuperscript{4} Therefore, odors associated with the proposed project are expected to dissipate after a few months. In addition, during the summer (the season in which construction would take place), prevailing westerly winds would blow odors generated by decaying organic material out to San Francisco Bay. Therefore, the proposed project would not expose a substantial number of people to objectionable odors.

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IV. **BIOLOGICAL RESOURCES.** Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

\[\square \quad \square \quad \square \quad \square \]

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

\[\square \quad \square \quad \square \quad \square \]
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) Through direct removal, filling, hydrological interruption, or other means?

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d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

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e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

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f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan?

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*a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

By creating 3.5 acres of new tidal marsh, the project is expected to benefit up to five federally or State-listed threatened or endangered species that may occur in the tidal marsh adjacent to the project site: California clapper rail (*Rallus longirostris obsoletus*), California black rail (*Laterallus jamaicensis coturniclus*), salt marsh harvest mouse (*Reithrodonomys raviventris*), steelhead trout (*Onchorhyncus mykiss*) (Central Coastal Evolutionary Significant Unit), and soft bird's-beak (*Cordylanthus mollis* ssp. *mollis*). Two other listed species may occur in the existing tidal marsh: coho salmon (*Onchorhyncus kisutch*) and chinook salmon (*O. tshawytsha*).

Surveys for soft bird's-beak were conducted by LSA during its blooming period in August and September, 1999. None were observed in or near the salt marsh area that will be impacted by the project, leading to the conclusion that this species is not present, and therefore no impact will occur to the species. Surveys for California black rail, California clapper rail, salt marsh harvest mouse, steelhead, coho salmon, and chinook salmon will not be conducted, because these species are assumed to be present in the project area, for the purposes of this impact assessment.

Temporary impacts to potential habitat for listed species could result from realigning the embankment and excavating a new tidal channel through the existing tidal marsh to the restoration site. Removing the existing embankment would remove a strip of tidal marsh about 550 feet long and 5 to 10 feet wide (about

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0.06 to 0.13 acre; actual acreage will be determined in the final design phase). The construction area within the existing tidal marsh would be approximately 250 feet long and 25 feet wide (0.14 acre). These impacts would be temporary, as the construction areas would be allowed to revegetate naturally after construction.

Implementation of the following mitigation measures would reduce these temporary construction-period impacts to special-status wildlife species to a less-than-significant level:

**Mitigation Measure BIO-1**: Prior to the initiation of construction activities, a biologist familiar with the special-status species occurring in the CMER shall meet with construction supervisors and workers. The purpose of the meeting shall be to: (1) provide information on special-status species present in the project area; (2) discuss mitigation measures required to minimize impacts to these species and re-enforce the importance of confining the equipment and workers to identified work areas; and (3) discuss the requirements to protect listed species under the State and federal endangered species acts.

**Mitigation Measure BIO-2**: Construction zones in and near tidal wetlands shall be staked and fenced to keep equipment and personnel out of sensitive areas.

**Mitigation Measure BIO-3**: Sediment barriers (e.g., silt fences, straw hay bales) shall be installed in the excavated portion of the embankment as necessary to prevent sediment from entering undisturbed and restored tidal wetlands.

**Mitigation Measure BIO-4**: Construction activities within the existing tidal marsh and the adjacent embankment shall be scheduled to avoid the breeding season of clapper rail and black rail, which is generally March through July for the California black rail and February 1 through August 31 for the California clapper rail. Construction activities on the inboard side of the embankment may be scheduled during April 15 through October 15, subject to the approval of the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

**Mitigation Measure BIO-5**: To minimize the possibility of adverse impacts to salt marsh harvest mouse and other tidal marsh species, the construction areas in the existing tidal marsh shall be limited to the smallest possible areas. The two construction areas in tidal marsh shall be (1) for excavating the new tidal channel (about 250 feet long and 25 feet wide), and (2) for removing a segment of the embankment (about 550 feet long and 5 to 10 feet wide). The construction areas shall be clearly demarcated by temporary fencing and signs throughout the construction period. No construction activities shall be allowed in tidal marsh, except within the fenced area.

**Mitigation Measure BIO-6**: Just before the new channel is excavated, the vegetation within the fenced areas shall be cleared using hand tools. The purpose of the vegetation clearing is to discourage salt marsh harvest mice from remaining in the construction areas, by removing the vegetative cover that they require, and making it possible to see any mice that are present. A biologist shall monitor the vegetation clearing to ensure that mice are not present in the immediate work areas, and shall be authorized to stop construction if salt marsh harvest mice are present. Construction mats shall be placed over the construction areas to provide a good base for construction vehicles.
Mitigation Measure BIO-7: The construction mats shall be set in place, and the new channel excavated, as soon as possible (and no longer than one week) after the vegetation is cleared, using equipment suitable for excavation in wet soils. A biologist shall monitor the placement of construction mats and the excavation work to ensure that mice are not present in the construction area, and shall be authorized to stop construction if salt marsh harvest mice are present.

Mitigation Measure BIO-8: To minimize impacts to steelhead and salmon that could forage in the tidal marsh and channels, excavation in these tidal areas shall occur during low tide, when little or no water is present, and Best Management Practices (BMPs) (such as silt fences) shall be implemented to control sedimentation. In addition, excavation in tidal areas shall be scheduled between September 1 and October 31, when these fish species are unlikely to be present.

Mitigation Measure BIO-9: To prevent harassment, mortality, or destruction of habitat that supports special-status animal species, pets shall not be allowed in or near the construction area.

Mitigation Measure BIO-10: Construction workers shall be permitted in the construction area only to perform job-related tasks, and shall not be allowed to enter sensitive areas that have been fenced or staked.

Mitigation Measure BIO-11: No intentional killing or injury of wildlife shall be permitted.

Mitigation Measure BIO-12: Food items may attract wildlife onto the construction site, which would expose them to construction-related hazards. The construction site shall be maintained in a clean condition. All trash (e.g., food scraps, cans, bottles, containers, wrappers, cigarette butts, and other discarded items) shall be placed in closed containers and properly disposed of off-site.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

As discussed previously, the project would involve construction-level impacts on tidal marsh habitat and seasonal wetland. The two small construction areas in the existing tidal marsh would revegetate rapidly after the completion of construction. Vegetation would be allowed to colonize the 3.5-acre restored marsh naturally. The 1.6 acres of seasonal wetland impacted by creation of the new tidal wetland would be replaced by 1.9 acres of new seasonal wetland. There would thus be a net gain in seasonal wetland area of 0.3 acre. In addition, the new tidal marsh has been designed to increase tidal flushing, and would benefit a sizable portion of the adjacent existing marsh. Implementation of the following mitigation measures would reduce construction-period impacts to wetland communities within the project site to a less-than-significant level:

Mitigation Measure BIO-13: Construction activity within the existing tidal marsh area shall be restricted to a 25-foot-wide strip centered on the existing 250-foot long tidal slough to be enlarged, and to a 550-foot long by 5- to 10-foot wide strip adjacent to the existing embankment to be removed. These construction areas shall be clearly demarcated by temporary fencing and signs throughout the construction period.
Mitigation Measure BIO-14: All personnel and equipment shall be required to stay within designated construction areas. All construction personnel shall use identified staging areas and access roads located in upland areas.

Mitigation Measure BIO-15: No intentional damage to vegetation shall be permitted outside the designated construction areas.

Mitigation Measure BIO-16: Both slopes of the new embankment around the tidal marsh restoration area shall be seeded with plant species suitable for erosion control. Non-native, invasive plant species shall be removed from the embankment at least once a year during the five-year monitoring and maintenance period, to allow natural colonization by native plant species in the area adjacent to the new marsh.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) Through direct removal, filling, hydrological interruption, or other means?

As discussed above in Sections IV.a and IV.b, small areas of existing tidal marsh would be disturbed during construction, but these areas would be allowed to revegetate naturally after construction. In addition, about 1.9 acres of seasonal wetland would be created to mitigate the loss of 1.6 acres of lower quality seasonal wetland (due to creation of the new tidal marsh). No other wetland habitats would be adversely affected.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No wildlife corridors or nursery sites would be adversely affected by the proposed project.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The proposed project would not conflict with local policies or ordinances that protect biological resources.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan?

The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.
V. CULTURAL RESOURCES. Would the project:

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<td>a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?</td>
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<td>b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?</td>
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<td>c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</td>
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<td>d) Disturb any human remains, including those interred outside of formal cemeteries?</td>
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a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

No historic resources have been identified within the project site. In addition, because the project site was historically a tidal wetland that was filled in the 1970s, it is not expected to contain historic resources. New historic resources are unlikely to be discovered during implementation of the proposed project.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

No archaeological resources have been identified within the project site. Because the project site was a tidal marsh before being filled in the 1970s, archaeological resources are unlikely to be uncovered during implementation of the project. However, should archaeological resources be identified during the project construction period, implementation of the following mitigation measure would reduce impacts to archaeological resources to a less-than-significant level:

Mitigation Measure CULT-1: If archaeological or paleontological resources are encountered during project implementation, all activity in the vicinity of the suspected resources shall be immediately suspended and the District, a qualified archaeologist or paleontologist, and the Town of Corte Madera Environmental Services Director shall be contacted to evaluate the situation. Project personnel shall not alter any of the uncovered materials or adjacent material. If resources are encountered, the District shall contact local Native American and Historical organizations for a recommendation of a further course of action, and, in consultation with a qualified archaeologist or paleontologist, shall complete a resources inventory, declaration, and mitigation plan prior to the continuation of any on-site activity in the vicinity of the resource.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No paleontological resources are expected to be uncovered within the project site. If such resources are identified, implementation of the following mitigation measure would reduce this impact to a less-than-significant level:
Mitigation Measure CULT-2: Implement Mitigation Measure CULT-1.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Because the project site was a tidal marsh prior to the 1970s, it is unlikely that ground-disturbing activities would uncover human remains. However, in the event that human remains are found within the project site, implementation of the following mitigation measure would reduce impacts to such remains to a less-than-significant level:

Mitigation Measure CULT-3: If human remains are discovered, the construction contractor shall contact the District and the County Coroner and implement Mitigation Measure CULT-1.

VI. GEOLOGY AND SOILS. Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

b) Result in substantial soil erosion or the loss of topsoil?

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on...
other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42; ii) Strong seismic ground shaking; iii) Seismic-related ground failure, including liquefaction; iv) Landslides?

Implementation of the proposed project would not result in the introduction of people or habitable structures into the project site. Therefore, although the project site, like the rest of the Bay Area, is susceptible to earthquakes, the proposed project would not expose people or structures to damage associated with seismic events.

b) Result in substantial soil erosion or the loss of topsoil?

Implementation of the proposed project would result in the excavation of an embankment adjacent to the eastern boundary of the project site, the extension of an existing tidal channel, and the development of a new tidal channel. Therefore, the project would change the patterns of soil deposition within the project site. Ultimately, implementation of the project would result in the net deposition of sediment on the restored tidal marsh, which is one of the desired effects of the restoration project. The functioning of the project site as a wetland would not result in the loss of soil, or large-scale soil erosion. However, the potential for soil erosion would be high during and immediately after the project construction period, when soil stockpiles and unvegetated graded and mounded areas are exposed to wind. Implementation of the following mitigation measures would reduce this impact to a less-than-significant level:

Mitigation Measure GEO-1: The District shall prepare an erosion control component of the construction plan to protect all areas of the project site from soil erosion and topsoil loss until final vegetation is established. The erosion control plan shall include the use of biodegradable and non-biodegradable erosion control fabrics, sediment barriers, mulch, check dams, and/or grassy waterways to protect exposed surfaces and the construction of collection and discharge surface water flow devices, as appropriate.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Like most wetland soils, the soils underlying the project site are anticipated to be susceptible to liquefaction, shrinkage, expansion, and other instabilities. However, implementation of the proposed project would not result in the introduction of people onto the project site or the development of habitable structures. Therefore, although the project site is prone to instability, the proposed project would not endanger life or property.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Refer to Section VI.c.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?
No septic tanks or other alternative wastewater disposal systems would be developed as part of the proposed project.

VII. HAZARDS. Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

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b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

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c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

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d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

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e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

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f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

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g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

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h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

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a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Implementation of the proposed project would result in the restoration of tidal and seasonal marshes and would not result in the routine transport, use, or disposal of hazardous materials. Environmental impacts associated with the use of commercially-available hazardous materials during the project construction period are discussed in Section VII.b.
b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Implementation of the proposed project would not result in the release of hazardous materials into the environment. Soil within the project site consists of dredge material from the Larkspur Ferry Terminal. This dredge material may contain low concentrations of heavy metals, total petroleum hydrocarbons, and other pollutants. Disturbance during grading and use of the material to build the proposed earthen mounds would not release substantial levels of contaminants into the Bay.

Commercially-available hazardous materials, such as gasoline, oil, and hydraulic fluid, would be used within the project site during the project construction period. Although these materials would be used in relatively small quantities, any leakage would pose an immediate threat to water quality due to the proximity of the project site to San Francisco Bay. Implementation of the following mitigation measures would reduce this impact to a less-than-significant level:

**Mitigation Measure HAZ-1:** All construction equipment shall be stored at identified staging areas located in upland areas. Vehicular access to the construction area shall be primarily on existing roads or within the construction footprint. Vehicle access within the tidal marsh shall be confined entirely to the proposed disturbance area. In addition, refueling areas for equipment shall be located inside the designated staging area. BMPs shall be applied to prevent discharge of fuels to the ground or nearby marsh.

**Mitigation Measure HAZ-2:** The District shall develop a hazardous materials control component of the construction plan. The component shall specify where construction-related hazardous materials shall be stored and protocol that shall be implemented in the event of a spill.

c) *Emi hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

No existing or proposed schools are located within ¼ mile of the project site. Therefore, implementation of the proposed project would not result in the release of hazardous materials or emissions in the vicinity of a school.

d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

The project site is not located on the list of hazardous materials sites prepared pursuant to Government Code Section 65962.5, and would not pose a significant hazard to the public or the environment.

e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*

The project site is not located within an airport land use plan and would not expose the public to airport-related hazards.
f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

The project site is not located within the vicinity of a private airstrip and would not expose the public to airport-related hazards.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The proposed project would not alter existing roadway access to or from the project site, or otherwise hinder the evacuation of people in the event of an emergency. Gates would be constructed as part of the fencing to allow emergency access to the site.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The proposed project, which would result in the removal of grasses and shrubs on the embankment along the eastern border of the project site, would slightly reduce the risk of fire hazards.

VIII. HYDROLOGY AND WATER QUALITY. Would the project:

a) Violate any water quality standards or waste discharge requirements?

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

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f) Otherwise substantially degrade water quality?

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g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

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h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

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i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?

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j) Inundation by seiche, tsunami, or mudflow?

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a) Violate any water quality standards or waste discharge requirements?

Implementation of the proposed project would not violate water quality standards or result in a significant adverse effect on the quality of stormwater entering San Francisco Bay. Wetlands benefit water quality by slowing water movement and filtering out suspended sediments and nutrients from stormwater. Therefore, implementation of the proposed project, which includes the restoration of tidal and seasonal wetlands, would ultimately result in a net benefit to stormwater quality and the quality of San Francisco Bay. Site grading will be conducted in a manner that will not violate water quality standards or waste discharge standards. Additionally, the District is required to obtain an NPDES Construction Activity Permit from the Regional Water Quality Control Board (RWQCB) which requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP). Development and implementation of a SWPPP would reduce the water quality impacts of this project to less-than-significant levels. However, contamination of surface water could occur during the project construction period in the event of a spill of commercially-available hazardous materials, such as oil or gasoline, which would be used during construction within the project site. Implementation of the following mitigation measure would reduce this impact to a less-than-significant level:

Mitigation Measure HYD-1: Implement Mitigation Measures HAZ-1 and HAZ-2.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Implementation of the proposed project would result in the restoration of wetlands and would not increase the coverage of impervious surfaces within the project site. In addition the project would not require the
long-term use of groundwater. Therefore, the proposed project would not deplete groundwater supplies or interfere substantially with groundwater recharge.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Implementation of the proposed project would result in the relocation of an embankment along the eastern boundary of the project site to connect an existing tidal marsh with a restored tidal marsh, and the extension of an existing tidal channel into the restored tidal marsh. Runoff from the project site is currently contained within the perimeter embankment around the site or discharged through culverts at the southern end of the District’s property (see Figure 2). Under the proposed project, a portion of the perimeter embankment would be realigned so that approximately 3.5 acres that are currently within the embankment will instead drain directly to the adjacent tidal wetland. The project is designed to result in minor deposition of sediment within the 3.5-acre restoration area as it evolves into a vegetated marsh plain. This deposition of sediment is an intended consequence of the project, and is necessary for the success of the restored wetland.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

The perimeter embankment around the 72-acre parcel was built to contain dredge spoils that were deposited in the interior of the site. Although the embankment was not constructed for the purpose of tidal flood protection, it currently excludes tidal flooding from the interior of the parcel. As described in Section VIII.c, a portion of the eastern side of the perimeter embankment will be realigned so that approximately 3.5 acres that are currently within the embankment will be exposed to tidal inundation in order to restore tidal wetland habitat. The promotion of flooding within the project site is a key element of the project and is necessary to maintain the restored wetlands. The realigned embankment will exclude tidal flooding from the remainder of the site interior.

Urbanized areas to the west of the project site are protected from tide-related flooding by an embankment along the western boundary of the project site. This embankment, which would not be modified as part of the proposed project, contains crest elevations that vary between 8.1 and 12.3 NGVD. The embankment thus provides approximately 6.5 feet of freeboard above the 100-year tidal elevations of San Francisco Bay. Grading for the creation of seasonal wetlands in the vicinity of the western side of the perimeter embankment is not expected to have any impact on the function of the embankment for flood control. In addition, the proposed project does not include the development of impervious surfaces that would increase surface runoff from the project site. Therefore, implementation of the proposed project would not alter the existing flood protection embankment along the western boundary of the project site, or otherwise increase flooding outside of the project site.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

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Implementation of the proposed project would not result in an increase in impervious surfaces within the project site that would create additional stormwater runoff. The wetlands that would be created by the proposed project would filter existing stormwater flowing through the project site, resulting in a net benefit to stormwater quality and the water quality in San Francisco Bay.

f) Otherwise substantially degrade water quality?

Implementation of the proposed project would not otherwise substantially degrade water quality.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The project site is located within the 100-year flood zone. However, the proposed project would not result in the construction of housing or other habitable structures within the project site. Therefore, the proposed project would not place housing or other structures within the 100-year flood zone, including structures that would redirect flood flows to areas outside of the project site.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Refer to Section VIII.g.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?

No people or structures would be exposed to a significant risk of loss, injury, or death as a result of implementation of the proposed project. Refer to Section VIII.d.

j) Inundation by seiche, tsunami, or mudflow?

Like most low-lying areas adjacent to San Francisco Bay, the project site is susceptible to inundation due to tsunamis (commonly known as “tidal waves”). Tsunamis are sea waves produced by large-scale seismic disturbances of the ocean floor. Although the project site could experience tsunami-related flooding, tsunami inundation is unlikely to cause any significant damage to the site, which would be maintained as permanent open space with no permanent structures.

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<td>b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?</td>
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c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

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a) Physically divide an established community?

The project site is surrounded by open space to the north, east, south, and west, and a shopping center to the southwest. The project site does not separate urban uses from other urban uses. Implementation of the proposed project would not remove means of access between or within a community, or otherwise create a barrier between neighborhoods. Therefore, implementation of the proposed project would not physically divide an established community.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The project site is designated as Wetlands in the Town of Corte Madera General Plan and Public Open Space in the Town of Corte Madera Zoning Ordinance. The General Plan states that: “Areas with this (Wetlands) designation could be used as wetland mitigation sites for projects undertaken elsewhere in Corte Madera or throughout the region.” Therefore, the proposed project, which would restore tidal and seasonal wetlands within the project site, is consistent with the General Plan and Zoning Ordinance. The project site and its surroundings are designated as Corte Madera Shoreline Park in the BCDC San Francisco Bay Plan. This designation would allow for the restoration of wetland areas within the project site. Although the proposed project would result in the removal of approximately 800 linear feet of public access along the eastern boundary of the project site, approximately 4,300 linear feet of new formal public access would be established. This proposed easement would allow the public to continue to have access to the project site and the Bay. Therefore, the proposed project is consistent with the San Francisco Bay Plan, which seeks to preserve and enhance public access to San Francisco Bay and shoreline areas. The proposed project would not conflict with any other applicable land use plan, policy, or regulation of any other agency with jurisdiction over the project site.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

The proposed project would not conflict with a habitat conservation plan or natural community conservation plan.

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X. MINERAL RESOURCES. Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?  

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

Because no known mineral resources are present at the project site, implementation of the proposed project would not result in the loss of availability of a known mineral resource of value.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Refer to Section X.a.

XI. NOISE. Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

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a) **Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

According to the year 2000 projected noise contours in the Town of Corte Madera General Plan, Community Noise Equivalent Levels (CNEL) within the project site are less than 65 decibels (dB). These noise levels are normally acceptable for outdoor recreation land uses, including neighborhood parks and golf courses. Therefore, the use of the project site as open space would not expose persons to noise levels in excess of noise standards established in the General Plan. Earthmoving activities that would occur as part of project implementation, including the use of bulldozers and backhoes, could temporarily expose site visitors to increased noise levels. Earthmoving activities could occur over a period of 3 months and would generate noise levels of up to 90 dB at the source. When the distance from noise sources is doubled (e.g., going from 50 to 100 feet), noise levels are reduced by approximately 4 to 6 dB. Because the portion of the project site that would be subject to earthmoving activity is over ¼ mile from the closest residential uses, the project would not expose residents to high noise levels. Because users of the project site would only be temporarily exposed to construction noise, temporary construction noise impacts would not be considered significant.

The project would be conditioned by the Town to reduce potential impacts associated with construction noise with the following:

a. During project construction, the operation of heavy equipment shall be limited to the hours between 7:00 a.m. and 5:00 p.m., Monday through Friday, in conformance with the Town Noise Ordinance, to minimize potential disturbance of adjacent residents. No construction shall occur on weekends or holidays.

b. All construction equipment operated at the project site shall be equipped with manufacturer’s standard noise control devices (i.e., mufflers, lagging, and/or engine enclosures). Equipment and trucks used for project construction shall utilize the best available noise control techniques (improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuated shields).

c. Equipment used for project construction shall have hydraulically or electrically-powered impact tools (e.g., jack hammers, pavement breakers, and rock drills) whenever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. However, where use of pneumatically-powered tools is unavoidable, an exhaust muffler on the compressed air exhaust would be used. This muffler can lower noise levels from the exhaust up to about 10 dBA. External jackets on the tools themselves would be used where feasible, and this could achieve a reduction of...
5 dBA. Quieter procedures shall be used such as drilling rather than impact equipment, whenever feasible.

d. District will coordinate with the Town Engineer to establish routes for trucks serving the construction site and to accomplish maximum noise attenuation, in the public interest.

b) *Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?*

Earthmoving activities associated with implementation of the proposed project could temporarily expose site visitors to high levels of ground borne vibration or noise levels. However, this impact would extend only for the duration of the construction period and would not represent a significant impact.

c) *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

The long-term use of the project site is as open space with no programmed activities. Therefore, noise levels after buildout of the proposed project would be similar to those that currently exist. No long-term increase in ambient noise levels is expected as a result of project implementation.

d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Construction activities associated with implementation of the proposed project would temporarily increase ambient noise levels. However, these temporary noise levels would affect only project site visitors (and not sensitive urban land uses) and so would not be considered significant.

e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

The project site is not located within an airport land use plan or within 2 miles of an airport. Therefore, implementation of the proposed project would not expose persons within the project site to high levels of airport-related noise.

f) *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*

The project site is not located within the vicinity of a private airstrip. Therefore, implementation of the proposed project would not expose site visitors to associated noise.
XII. POPULATION AND HOUSING. Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Implementation of the proposed project would restore wetlands within an existing open space area and would not directly or indirectly induce population growth.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Implementation of the proposed project would not remove existing housing.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Implementation of the proposed project would not displace people.

XIII. PUBLIC SERVICES.

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
Fire protection? □ □ □ □

Police protection? □ □ □ □

Schools? □ □ □ □

Parks? □ □ □ □

Other public facilities? □ □ □ □

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection, police protection, schools, parks, other public facilities?

Because land uses within the project site would remain the same, implementation of the proposed project would not result in a substantial increase in visitors to the project site. No additional police or fire department staff would be needed to serve the project site. Therefore, the proposed project would not result in substantial adverse physical impacts associated with the provision, need, or construction of government facilities to maintain acceptable service ratios, response times, or other performance objectives for police and fire protection, schools, parks, and other government facilities.

XIV. RECREATION.

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
Implementation of the proposed project would result in the removal of approximately 3,400 linear feet of public access easement within the project site. However, informal access would still be allowed to occur on all but 800 linear feet of the trail around the project site. The 800 linear feet of closed trail, which would be fenced in order to restrict access (as required by CDFG and USFWS to protect clapper rails and their habitat), is located adjacent to the restored tidal marsh. The removal of this public access would preclude the possibility of making a loop around the project site. The closure of 800 feet of trail represents approximately 10 percent of total trail access within the project site.

However, approximately 4,300 linear feet of public access easement would be established along the western boundary of the project site and along the embankment adjacent to the northern boundary of the project site, representing a net increase of 900 linear feet of public access easements as a result of the proposed project. Implementation of the proposed project would also preserve access along the northern portion of the project site to the trail in the CMER that connects to the shoreline of San Francisco Bay. Because recreational use of the project site would be preserved, implementation of the proposed project would not discourage visitation (and increase visitation at other open space areas). Therefore, the proposed project would not cause the physical deterioration of other recreational facilities.

b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

The proposed project does not include the development of formal recreational facilities within the project site that would have an adverse physical effect on the environment.

### XV. TRANSPORTATION/TRAFFIC.

Would the project:

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency or designated roads or highways?

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

e) Result in inadequate emergency access?
f) Result in inadequate parking capacity?  

 g) Conflict with adopted polices, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

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a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

Implementation of the proposed project would not result in an increase in visitation to the project site. Therefore, the proposed project would not increase the number of car trips associated with the project site or cause an increase in traffic.

Access to the site is via Industrial Way. During the project construction period, a temporary increase in local traffic could occur, particularly when construction activities begin and end, and vehicles travel to and from the project site. It is anticipated that a maximum of 130 truck-loads of vegetation may be hauled from the project site during the project construction period. Slow-moving construction equipment, including trucks, could impact traffic on Interstate 101 on/off-ramps (at Sir Francis Drake Boulevard and Tamalpais Drive), in the vicinity of the project site, during peak travel hours. Implementation of the following mitigation measure would reduce this impact to a less-than-significant level:

Mitigation Measure TRAF-1: Construction equipment and large hauling trucks shall enter and leave the project site only during the hours of 9:00 a.m. and 4:00 p.m., to avoid peak traffic hours.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency or designated roads or highways?

Refer to Section XV.a. Implementation of the proposed project would not generate significant amounts of car traffic that would exceed level of service standards.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The project site is not located near an airport. The proposed project would not result in a change in air traffic patterns.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed project would not result in the redesign of a roadway or intersection. In addition, land uses at the project site would not change from current use after implementation of the proposed project. Therefore, implementation of the proposed project would not substantially increase hazards due to a design feature.
e) **Result in inadequate emergency access?**

Emergency access to the site will continue to be available from the levee west of the project site and via gates constructed as part of the project. Emergency access to PG&E transmission lines would be slightly affected by relocation of the existing embankment. However, a new embankment would be built along the western edge of the restored tidal marsh and would provide substitute emergency access.

PG&E has an easement over the entire CMER area (including land owned by the District and land owned by the CDFG) for access to electricity transmission towers near the District’s eastern property line. PG&E currently uses the embankment along the eastern boundary of District’s property for access to the towers. Access by PG&E to its transmission towers would be less convenient following implementation of the proposed project. One transmission tower, which is currently about 25 feet from the toe of the embankment on the eastern portion of the project site, would be approximately 250 feet from the toe of the new embankment. However, two other PG&E towers in the vicinity are currently surrounded by marsh with no convenient access. These towers already require alternative modes of access (i.e., by boat or by helicopter). Major upgrade work was done to the towers in the vicinity of CMER in 1973 and again in 2000. Implementation of the proposed project would not significantly constrain future servicing of the transmission towers. Therefore, impacts to PG&E access are considered to be less than significant.

f) **Result in inadequate parking capacity?**

Implementation of the proposed project would not result in an increase in visitation to the project site or a shortage of parking.

g) **Conflict with adopted polices, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?**

The Northwestern Pacific Railroad right-of-way, which is located along the western boundary of the project site, is preserved for future transit and/or public access use. The proposed project would not modify the right-of-way or affect the right-of-way’s potential for future use.

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**XVI. UTILITIES AND SERVICE SYSTEMS.** Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

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c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

| □                             | □                               | □                           | □        |

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

| □                             | □                               | □                           | □        |

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

| □                             | □                               | □                           | □        |

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

| □                             | □                               | □                           | □        |

g) Comply with federal, State, and local statutes and regulations related to solid waste?

| □                             | □                               | □                           | □        |

a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

The project site receives no sanitary sewer service. Implementation of the proposed project would not result in the generation or release of wastewater and would not exceed the wastewater treatment requirements of the RWQCB.

b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Implementation of the proposed project would not generate wastewater or require the use of substantial amounts of water. Therefore, the proposed project would not require the construction of new wastewater or water facilities or the expansion of existing facilities.

c) *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Implementation of the proposed project, which includes the restoration of tidal and seasonal marshes, is anticipated to reduce the overall quantity of stormwater that reaches San Francisco Bay. The project would not require the construction of new storm drain facilities or the expansion of existing facilities.
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Construction of the proposed project would require the use of small amounts of water to clean equipment, and to ensure that exposed soil is not subject to wind erosion. For these uses, water will be trucked to the site by the contractor during construction.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?

Implementation of the proposed project would not increase the demand for wastewater treatment.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?

Implementation of the project may result in the need for disposal or composting of up to 130 truck-loads of vegetation from the project site. The District will locate a composting service or landfill with sufficient capacity to serve the proposed project.

g) Comply with federal, State, and local statutes and regulations related to solid waste?

The proposed project would comply with all federal, State, and local statutes and regulations related to solid waste.

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Potentially Significant Unless Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
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XVII. MANDATORY FINDINGS OF SIGNIFICANCE.

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?  

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?
E. REPORT PREPARATION, REFERENCES, AND CONTACTS

1. Report Preparers

**Golden Gate Bridge Highway and Transportation District:** *Lead Agency*

Box 9000, Presidio Station  
San Francisco, CA 94129-0601  
Lynford R. Edwards, Senior Engineer  
Pascale Soumoy, Associate Planner

**LSA Associates, Inc., Prime Consultant:** *Project Management and Report Production; Project Description; Biological Resources Evaluation; Initial Study Preparation*

157 Park Place  
Pt. Richmond, CA 94801  
Steve Granholm, Principal-in-Charge  
Sean Lohmann, Senior Soil Scientist  
Matthew Ricketts, Assistant Wildlife Biologist

2215 Fifth Street  
Berkeley, CA 94710  
Judith Malamut, AICP, Project Manager  
Adam Weinstein, Project Planner  
Skip Shimmin, Graphics Manager  
Patty Linder, Graphics and Production  
Sue Smith, Word Processing

**Philip Williams and Associates, Ltd.: Hydrology, Restoration Plan**

720 California Street, Suite 600  
San Francisco, CA 94108  
Bob Battalio, P.E., Principal  
Ann E. Borgonovo, P.E., Associate Principal  
Christie Beeman, P.E., Senior Associate  
Denis Ruttenberg, P.E., Associate

2. References

Botti, Fred, California Department of Fish and Game. 1998. Personal communication with Steve Granholm of LSA. June.


a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Implementation of the proposed project would result in the restoration of tidal and seasonal marsh habitat within the project site. The project is expected to have beneficial effects on the environment. As described in Section IV, Biological Resources, implementation of the proposed project would enhance habitat for a number of plant and wildlife species. Implementation of the mitigation measures in the Biological Resources section would ensure that the project would not: 1) cause a fish or wildlife population to drop below self-sustaining levels; 2) threaten to eliminate a plant or animal community; or 3) reduce the number or restrict the range of a rare or endangered plant or animal. Implementation of the proposed project would not eliminate important examples of the major periods of California history or prehistory.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

The impacts of the proposed project are individually limited and not cumulatively considerable. Specifically, the proposed project would not increase vehicle trips associated with the project site. Therefore, cumulative air quality, noise, and traffic impacts associated with the proposed project would be negligible. The proposed project, combined with other similar wetland restoration projects in the Bay Area, would provide additional habitat for wetland plant and wildlife species, and benefit overall water quality.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Implementation of the proposed project would not result in environmental impacts that would substantially affect human beings. Implementation of Mitigation Measure AIR-1 would ensure that particulate matter generated by the proposed project would be reduced to a less-than-significant level. Implementation of Mitigation Measures HAZ-1 and HAZ-2 would ensure that commercially-available hazardous materials do not contaminate bodies of water, or otherwise adversely affect the environment. Implementation of the proposed project would allow for outdoor recreation opportunities, educational opportunities, and the improvement of plant and wildlife habitat, and would generally have a beneficial effect on human beings.
Hultgren, Edwin H., Principal Engineer, Hultgren-Tillis Engineers. 2003. Geotechnical Investigation for
CMER Tidal Wetlands Restoration. December.

Restoration Project EIR. September.

Tidal Wetland Restoration Adjacent to the Corte Madera Ecological Reserve. April 1999.

Wetland Restoration Adjacent to the Corte Madera Ecological Reserve. December 22.

San Francisco Bay Air Quality Management District, 2003. Ambient Air Quality Standards and Bay
Area Attainment Status. Website: www.baaqmd.gov.
APPENDIX A
COMMENT LETTERS
January 27, 2004

Mr. Denis J. Mulligan, P.E.
District Engineer
Golden Gate Bridge Highway & Transportation District
Box 9000, Presidio Station
San Francisco, CA  94129-0601

RE:  Corte Madera Ecological Reserve Tidal Wetlands Restoration Project
      CUP Application No. 05-001

Dear Denis;

In response to your request to review the Initial Study prepared for the Corte Madera Ecological Reserve Tidal Wetlands Restoration Project, the following are the Town of Corte Madera comments, modifications and/or mitigations required to be added to the Initial Study document.

III. Air Quality

  Modify the following mitigation to include: (The changes are noted in italics.)

  1. Water all active construction areas at least twice daily and more often during windy periods.

  2. Cover all hauling trucks or maintain at least two feet of freeboard. Dust-proof chutes shall be used as appropriate to load debris onto trucks during demolition.

  3. Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at inactive construction sites, or inactive construction sites.
material. If resources are encountered, the District shall contact local Native American and Historical organizations for a recommendation of a further course of action, and in consultation with a qualified archaeologist or paleontologist, shall complete a resources inventory, a declaration, and mitigation plan prior to the continuation of any on-site activity in the vicinity of the resource.

VI. Geology and Soils

Add the following mitigation measure:

- In order to reduce potential soil erosion and sediment-related project impacts to a less-than-significant level, the application is conditioned to require the implementation of erosion control measures during construction activities. The following measures shall be implemented throughout project construction:

  a. Construction activity resulting in a land disturbance of one acre or more must obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit) from the California State Water Resources Control Board. This permit will require the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for the project. This permit shall be obtained prior to issuance of any grading or construction permits.

  b. Installation of sediment control measures, per the approved SWPPP.

  c. Implementation of the dust control measures listed under Air Quality.

XII.d. Noise

Indicate that the project would be conditioned to reduce potential impacts associated with construction noise with the following:

a. During project construction, the operation of heavy equipment shall be limited to the hours between 7:00am and 5:00pm, Monday through Friday, in conformance with the Town Noise Ordinance, to minimize potential disturbance of adjacent residents. No construction shall occur on weekends or holidays.

b. All construction equipment operated at the project site shall be equipped with manufacturer’s standard noise control devices (i.e. mufflers, lagging, and/or engine enclosures). Equipment and trucks used for project construction shall utilize the best available noise control techniques (improved mufflers, equipment redesign, use of intake silencers, ducts,
January 27, 2004

JCN: MR-04-001
Corte Madera Ecological
Tidal Wetlands Restoration
Ignacio-Alto-Sausalito 60 kV

Golden Gate Bridge, Highway
And Transportation District
P.O. Box 9000
Presidio Station
San Francisco, CA  94129-0601

Attention: Secretary of the District

This is in response to the "Notice of Intent to Adopt an Initial Study and Mitigated Negative Declaration Golden Gate Bridge, Highway and Transportation District Corte Madera Ecological Reserve Tidal Wetlands Restoration Project" submitted under cover letter dated December 23, 2003.

In PG&E's opinion your Initial Study and Mitigated Negative Declaration (IS/MND) does not adequately address the negative impacts, or required mitigation measures, this project will have on PG&E's ability to access our tower line for future maintenance.

As these wetlands are increased or refurbished, it places additional access restrictions on PG&E due to the development of endangered species habitat. Our experience has shown that in order to access our facilities without damaging habitat, or disturbing nesting wildlife, we must use less invasive forms of access than helicopters or swamp boats. We therefore are being forced to go back to boardwalks wherever road access is unavailable.

At the one tower location where your wetlands development will have the biggest impact on our access the gap between the current road and our tower will increase from approximately 25 feet to approximately 250 feet. At 25 feet we can get to the tower with either no impact or very minor impact on the surrounding wetlands. If that distance is increased to 250 feet it will be impossible to access the tower without damaging some of the habitat you will be creating.
Secretary of the District  
P.O. Box 9000  
Presidio Station  
San Francisco, CA 94129-0601

RE: Initial Study/Mitigated Negative Declaration for the Corte Madera Ecological Reserve  
Tidal Wetlands Restoration Project

Dear Sir:

The Marin Audubon Society appreciates the opportunity to comment on the CORTE MADERA ECOCLOGICAL RESERVE TIDAL WETLANDS RESTORATION PROJECT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION. MAS was involved in the early design for this project, and appreciates having had an opportunity to provide that input and this input as well.

First we want to clarify some of the history/background information. The District agreed to restore some of the diked marsh it owns to tidal action as mitigation for loss of tidal marsh/endangered species habitat because MAS and the Sierra Club questioned the validity of the EIR finding, that the ferries were not causing erosion, and were considering other action. This is because of the obvious impact to the Ecological Reserve shoreline from the ferry wake, an impact that is clearly visible during lower tides when the ferries pass and generate wakes. The District was adding two new ferries, and the impacts were anticipated to increase. We appreciate the District's commitment to this restoration.

Incidentally, the impacts of the ferry wakes can also be observed on the Triangle Marsh property at the south end of Corte Madera Bay. The shoreline of MAS's property, most of which is also an historic tidal marsh, is also suffering from significant erosion. We have had occasion to view this numerous times recently, because we are implementing a marsh restoration project and have been on the site frequently. Erosion along the Triangle Marsh shoreline was not even considered at the time of the ferry EIR.

Specific comments on Restoration Plan:
1. Figures: Only two figures are included in the plan, one showing existing conditions and figure 2 showing the overall plan. It is impossible to adequately evaluate the project without cross sections of the channels and the fill areas. I called for copies, but have received none to this date. We wish to review the mound, embankment and channel cross sections.

2. Restoration Design. The proposed site for the restored tidal and seasonal wetlands is fine, for the reasons stated at 3.b.

A Chapter of National Audubon Society
not a mitigation because the plants that would grow would be invasive non-natives that would not provide the habitat needed by Clapper Rails. The plants that would recolonize naturally are the plants that are on-site and these are primarily invasive exotics that will not provide refugia habitat. Only the excavated new tidal marsh should be allowed to revegetate naturally. All other areas must be seeded or planted with native plants.

Further, the 3.5 acres of tidal wetlands are NOT more than sufficient to mitigate the temporary impacts to the existing tidal habitat. The 3.5 acres are mitigating the loss of tidal marsh due to erosion. Additional mitigation measures should be developed for any other impacts.

Mitigation BIO-3 Matting should also be considered for erosion control depending on the time of year excavation is being done.

Mitigation BIO-5- This mitigation for impacts to SMHM should include revegetation with native plant species that will provide cover habitat for harvest mice after the construction is completed.

Mitigation BIO-12 b) As mentioned above, the 3.9 acres of tidal marsh being restored are mitigation for tidal marsh lost by erosion of the shoreline. This acreage cannot be considered mitigation for additional impacts. For those impacts, additional mitigation is needed. Further, the 1.9 acres of seasonal wetland is not sufficient to mitigate for the loss of 1.6 acres of seasonal wetland. The ratio of mitigation to acreage loss should be 2:1 or 3.2 acres provided for seasonal wetland mitigation.

Mandatory Findings
a) If the mitigation measures are not adequate, then the impacts the project is intended to mitigate and additional impacts from the project would combine to cause significant degradation of the environment for fish and wildlife, particularly endangered species. Erosion from the ferry wake will continue to result in tidal marsh loss and the existing habitat on the mitigation site will be impacted, both of which will adversely impact clapper rail and other species.

Thank you for considering our comments.

Sincerely,

Barbara Salzman
Conservation
January 26, 2004

Janet S Tarantino  
Secretary of the District  
Golden Gate Bridge Highway and Transportation District  
Box 9000  
Presidio Station  
San Francisco CA 94129-0601

RE: Initial Study/Mitigated Negative Declaration  
Corte Madera Ecological Reserve Tidal  
Wetlands Restoration Project

Dear Ms. Tarantino:

Friends of Corte Madera Creek Watershed submits this letter in response to the December 23, 2003 Notice of Intent to adopt an Initial Study/Mitigated Negative Declaration for the Corte Madera Ecological Reserve (CMER) Tidal Wetlands Restoration Project. We are pleased to see restoration of the wetlands in this area. Our concerns are focused on non-native invasives and project design.

Section 7, Long-term Maintenance includes the statement: "Both the tidal and season wetlands are designed to be self-sustaining and are not expected to require long-term maintenance." Unfortunately, this statement is overly optimistic. Biologists from the Coastal Conservancy's Invasive Spartina Project have mapped non-native cordgrass (Spartina alterniflora hybrids and S. densiflora) at the CMER. Maps of the non-native cordgrass occurrences are available at www.spartina.org. Although the source of the S. alterniflora is located in other parts of bay, the entire tidal portion of Corte Madera Creek is infested with S. densiflora and it is highly likely that it will show up in newly disturbed tidal areas. Other invasive non-native plants common in the area are jubata grass and pampas grass (Cortaderia jubata and C. selloana). They are also likely to move into freshly disturbed areas.

We are also concerned that the design of the restoration of this small portion of the site not compromise subsequent reclamation of the 69 acres not covered by this effort.

In summary, we request that the mitigated negative declaration require:

1. Long-term monitoring and control of non-natives;
2. Removal of non-native cordgrass, jubata grass, and pampas grass from throughout the 72-acre site as part of the restoration to reduce the chances that they will invade the 3-acre restoration site;
3. Planning of the restoration to facilitate subsequent restoration of the remainder of the 72-acre parcel.
APPENDIX B
MITIGATION MEASURES
Mitigation measures discussed below are hereby incorporated into the Corte Madera Ecological Reserve (CMER) Marsh Restoration Project:

1. PROJECT DESIGN

1.1 Embankment. The portion of the embankment removed from the eastern boundary of District property for tidal wetland creation will be replaced by a new embankment around the western edge of the restored tidal wetland. The new embankment will be continuous with the remainder of the existing embankment, to form a continuous barrier around the site.

1.2 Seasonal Wetland. The 1.6 acres of seasonal wetland impacted by creation of the new tidal wetland will be replaced by 1.9 acres of new seasonal wetland. There will thus be a net gain in seasonal wetland area of 0.3 acre.

1.3 Construction Area. Construction activity within the existing tidal marsh area will be restricted to a 25-foot-wide, 250-foot-long strip centered on the new tidal channel to be excavated, and to a 550-foot long by 5- to 10-foot wide strip adjacent to the existing embankment to be removed. These construction areas shall be clearly demarcated by temporary fencing and signs throughout the construction period.

1.4 Fencing. Public access will be limited in the vicinity of the restored tidal wetlands. This will be accomplished by means of fencing and signage. The amount of fencing will be limited to the minimum necessary to block public access, in order to reduce the effect of fencing on views.

1.5 Easements. New public access will be granted, via an easement to Town of Corte Madera, along the western and northern boundaries of District property.

2. PRE-CONSTRUCTION MITIGATION

2.1 Plant Surveys. Surveys for soft bird's-beak were conducted by LSA during its blooming period in August and September, 1999 (LSA 2002). None were observed in or near the salt marsh area that will be impacted by the project, leading to the conclusion that this species is not present, and therefore no impact will occur to the species.

2.2 Wildlife Surveys. Surveys for California black rail, California clapper rail, salt marsh harvest mouse, steelhead, coho salmon, and chinook salmon will not be conducted, because these species are assumed to be present in the project area, for the purposes of this impact assessment.

2.3 Pre-Construction Meeting. Prior to the initiation of construction activities, a biologist familiar with the special-status species occurring in the CMER will meet with construction supervisors and workers. The purpose of the meeting will be to: (1) provide information on special-status species
present in the project area; (2) discuss mitigation measures required to minimize impacts to these species and re-enforce the importance of confining the equipment and workers to identified work areas; and (3) discuss the requirements to protect listed species under the state and federal endangered species acts.

2.4 Staking and Fencing of Construction Areas and Sensitive Habitat Areas. Construction zones in and near tidal wetlands will be staked and fenced to keep equipment and personnel out of sensitive areas.

2.5 Sediment Barriers. Sediment barriers (e.g., silt fences, straw hay bales) will be installed in the excavated portion of the embankment as necessary to prevent sediment from entering undisturbed and restored tidal wetlands.

2.6 Erosion Control Plan. The District shall prepare an erosion control component of the construction plan to protect all areas of the project site from soil erosion and topsoil loss until final vegetation is established. The erosion control plan shall include the use of biodegradable and non-biodegradable erosion control fabrics, sediment barriers, mulch, check dams, and/or grassy waterways to protect exposed surfaces and the construction of collection and discharge surface water flow devices, as appropriate.

2.7 Hazardous Materials Control Plan. The District shall develop a hazardous materials control component of the construction plan. The component shall specify where construction-related hazardous materials shall be stored and protocol that shall be implemented in the event of a spill.

3. MITIGATION DURING CONSTRUCTION

General Protection Measures

3.1 Hazardous Materials. Hazardous materials that are most likely to be used in construction areas include fuels (e.g., gasoline and diesel), lubricants, and solvents. If any hazardous material is discharged during the construction period, the discharge will promptly be controlled, cleaned up, and properly disposed of, off-site.

3.2 Staging Areas and Vehicle Access. All equipment will be stored at identified staging areas located in upland sites. Vehicular access to the construction area will be primarily on existing roads or within the construction footprint. Vehicle access within the tidal marsh will be confined entirely to the proposed excavation area.

3.3 Construction Area. All personnel and equipment will be required to stay within designated construction areas. All construction equipment will use identified staging areas and access roads located in upland areas.

3.4 Refueling. Refueling areas for equipment will be located at upland sites outside of wetlands.

3.5 Vegetation Damage. No intentional damage to vegetation will be permitted outside the designated construction areas.

3.6 Fires. No fires will be permitted in any construction area.
3.7 Air Quality. During the excavation, earthmoving, and grading phases of the proposed project, the District shall implement the following measures at the project site:

1) Water all active construction sites at least twice daily, and more often during windy periods;

2) Cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least 2 feet of freeboard;

3) Apply water three times daily, or apply nontoxic soil stabilizers on all unpaved access routes, parking areas, staging areas at inactive construction sites, or inactive construction sites;

4) Cover the exposed soil surfaces of the new embankment and the soil mound areas with biodegradable erosion control blankets until vegetation is established. (These blankets can last for two to three years without maintenance, while vegetation grows up through the material).

5) Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited on adjacent roads;

6) If construction is to be discontinued in winter and reactivated in spring, hydroteed or apply (non-toxic) soil binder to inactive construction areas;

7) Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles;

8) Limit traffic speeds on all unpaved roads to 15 miles per hour; and

9) Replant vegetation in disturbed areas as quickly as possible.

3.8 Cultural Resources. If archaeological or paleontological resources are encountered during project implementation, all activity in the vicinity of the suspected resources shall be immediately suspended and the District, a qualified archaeologist or paleontologist, and the Town of Corte Madera Environmental Services Director shall be contacted to evaluate the situation. Project personnel shall not alter any of the uncovered materials or adjacent material. If resources are encountered, the District shall contact local Native American and Historical organizations for a recommendation of a further course of action, and, in consultation with a qualified archaeologist or paleontologist, shall complete a resources inventory, declaration, and mitigation plan prior to the continuation of any on-site activity in the vicinity of the resource.

3.9 Human Remains. If human remains are discovered, the construction contractor shall contact the District and the County Coroner and implement mitigation measure 3.8.

3.10 Storage of Construction Equipment. All construction equipment shall be stored at identified staging areas located in upland areas. Vehicular access to the construction area shall be primarily on existing roads or within the construction footprint. Vehicle access within the tidal marsh shall be confined entirely to the proposed disturbance area. In addition, refueling areas for equipment shall be located inside the designated staging areas. BMPs shall be applied to prevent discharge of fuels to the ground or nearby marsh.
3.11 **Traffic.** Construction equipment and large hauling trucks shall enter and leave the project site only during the hours of 9:00 a.m. and 4:00 p.m., to avoid peak traffic hours.

**Species-Specific Mitigation Measures**

As discussed above, potential habitat for California black rail, California clapper rail, salt marsh harvest mouse, steelhead trout, coho salmon, and chinook salmon is present within the existing tidal marsh on the project site, but impacts on this habitat area will be temporary and limited in extent.

Pre-construction surveys for these six special-status animals will not be conducted because these species are assumed to be present, for the purposes of this impact assessment, as discussed above. Specific measures to minimize impacts to special-status animals include:

3.12 **California Clapper Rail and California Black Rail.** Construction activities within the existing tidal marsh and the adjacent embankment will be scheduled to avoid the breeding season of clapper rail and black rail, which is generally March through July for the California black rail and February 1 through August 31 for the California clapper rail. Construction activities on the inboard side of the embankment may be scheduled during April 15 through October 15, subject to the approval of the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

3.13 **Salt Marsh Harvest Mouse.** To minimize the possibility of adverse impacts to salt marsh harvest mouse and other tidal marsh species, the construction areas in the existing tidal marsh will be limited to the smallest possible areas. (See Mitigation Measure 1.3, above.)

3.14 **Clearing Marsh Vegetation.** Just before the new channel is excavated, the vegetation within the fenced areas will be cleared using hand tools. The purpose of the vegetation clearing is to discourage salt marsh harvest mice from remaining in the construction areas, by removing the vegetative cover that they require, and making it possible to see any mice that are present. A biologist will monitor the vegetation clearing to ensure that mice are not present in the immediate work areas, and will be authorized to stop construction if salt marsh harvest mice are present. Construction mats will be placed over the construction areas to provide a good base for construction vehicles.

3.15 **Construction Mats.** The construction mats will be set in place, and the new channel excavated, as soon as possible (and no longer than one week) after the vegetation is cleared, using equipment suitable for excavation in wet soils. A biologist will monitor the placement of construction mats and the excavation work to ensure that mice are not present in the construction area, and will be authorized to stop construction if salt marsh harvest mice are present.

3.16 **Steelhead Trout, Coho Salmon, and Chinook Salmon.** To minimize impacts to steelhead and salmon that could forage in the tidal marsh and channels, excavation in these tidal areas will occur during low tide, when little or no water is present, and Best Management Practices (such as silt fences) will be implemented to control sedimentation. In addition, excavation in tidal areas will be scheduled between September 1 and October 31, when these fish species are unlikely to be present.

3.17 **Pets.** To prevent harassment, mortality, or destruction of habitat that supports special-status animal species, pets will not be allowed in or near the construction area.
3.18 Firearms. Firearms will be prohibited in or near the construction area.

3.19 Personal Access. Construction workers will be permitted in the construction area only to perform job-related tasks, and will not be allowed to enter sensitive areas that have been fenced or staked.

3.20 Intentional Harm. No intentional killing or injury of wildlife will be permitted.

3.21 Sanitation. Food items may attract wildlife onto the construction site, which would expose them to construction-related hazards. The construction site will be maintained in a clean condition. All trash (e.g., food scraps, cans, bottles, containers, wrappers, cigarette butts, and other discarded items) will be placed in closed containers and properly disposed of off-site.

3.22 Final Cleanup. After construction is completed, a final cleanup will include removal of all stakes, flagging, and other general refuse generated by construction. No naturally occurring plant material (e.g., shrubs) will be removed or disturbed in the cleanup process.

4. POST-CONSTRUCTION MITIGATION

4.1 The two small construction areas in the existing tidal marsh will revegetate rapidly after construction.

4.2 Both slopes of the new embankment around the tidal marsh restoration area will be seeded with plant species suitable for erosion control. Non-native, invasive plant species will be removed from the embankment at least once a year during the five-year monitoring and maintenance period, to allow natural colonization by native plant species in the area adjacent to the new marsh.
APPENDIX C
MITIGATION MONITORING AND REPORTING PLAN
MITIGATION MONITORING AND REPORTING PROGRAM
CORTÉ MADERA ECOLOGICAL RESERVE
TIDAL WETLANDS RESTORATION PROJECT IS/MND

This Mitigation Monitoring and Reporting Program (MMRP) was formulated based on the findings of the Final Initial Study and Mitigated Negative Declaration (IS/MND) for the Corte Madera Ecological Reserve Tidal Wetlands Restoration Project IS/MND. This MMRP is in compliance with Section 15097 of the CEQA Guidelines, which requires that the Lead Agency "adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects." The MMRP lists mitigation measures recommended in the IS/MND and identifies mitigation monitoring requirements. These requirements are provided only for mitigation measures that would reduce or avoid significant impacts of the proposed project.

The attached table presents the mitigation measures identified for the proposed project. Each mitigation measure is numbered according to the topical section to which it pertains. As an example, Mitigation Measure AIR-1 is the first mitigation measure identified in Section III of the IS/MND, Air Quality.

The first column of the table provides the mitigation measures that were identified in the IS/MND. The column entitled "Party Responsible for Implementing Mitigation" identifies the party responsible for carrying out the required actions. The columns entitled "Party Responsible for Monitoring," and "Timing," identify the party ultimately responsible for ensuring that the mitigation measure is implemented, and the approximate timeframe for the oversight agency to ensure implementation of the mitigation measure.
## MITIGATION MONITORING AND REPORTING PROGRAM
### Corte Madera Ecological Reserve

<table>
<thead>
<tr>
<th>Mitigation Measures</th>
<th>Party Responsible for Implementing Mitigation</th>
<th>Party Responsible for Monitoring</th>
<th>Timing</th>
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<tr>
<td><strong>Air Quality</strong></td>
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<tr>
<td>AIR-1: During the excavation, earthmoving, and grading phases of the proposed project, the District shall implement the following measures at the project site:</td>
<td>District contractor</td>
<td>District</td>
<td>During construction.</td>
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<tr>
<td>1) Water all active construction sites at least twice daily, and more often during windy periods;</td>
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<td>2) cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least 2 feet of freeboard;</td>
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<tr>
<td>3) apply water three times daily, or apply nontoxic soil stabilizers on all unpaved access routes, parking areas, staging areas at inactive construction sites, or inactive construction sites;</td>
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<tr>
<td>4) cover the exposed soil surfaces of the new embankment and the soil mound areas with biodegradable erosion control blankets until vegetation is established. (These blankets can last for two to three years without maintenance, while vegetation grows up through the material);</td>
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<td>5) sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited on adjacent roads;</td>
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<tr>
<td>6) if construction is to be discontinued in winter and reactivated in spring, hydroseed or apply (non-toxic) soil binder to inactive construction areas;</td>
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<td>7) enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles;</td>
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<td>8) limit traffic speeds on all unpaved roads to 15 miles per hour; and</td>
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<td>9) replant vegetation in disturbed areas as quickly as possible.</td>
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<tr>
<td><strong>Biological Resources</strong></td>
<td>District</td>
<td>District</td>
<td>After Notice-to-Proceed, but prior to start of construction.</td>
</tr>
<tr>
<td>BIO-1: Prior to the initiation of construction activities, a biologist familiar with the special-status species occurring in the CMER shall meet with construction supervisors and workers. The purpose of the meeting shall be: (1) provide information on special-status species present in the project area; (2) discuss mitigation measures required to minimize impacts to these species and re-enforce the importance of confining the equipment and workers to identified work areas; and (3) discuss the requirements to protect listed species under the State and federal endangered species acts.</td>
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<td>BIO-2: Construction zones in and near tidal wetlands shall be staked and fenced to keep equipment and personnel out of sensitive areas.</td>
<td>District</td>
<td>District</td>
<td>Prior to start of construction.</td>
</tr>
<tr>
<td>BIO-3: Sediment barriers (e.g., silt fences, straw hay bales) shall be installed in the excavated portion of the embankment as necessary to prevent sediment from entering undisturbed and restored tidal wetlands.</td>
<td>District contractor</td>
<td>District</td>
<td>During and post-construction.</td>
</tr>
<tr>
<td>Mitigation Measures</td>
<td>Party Responsible for Implementing Mitigation</td>
<td>Party Responsible for Monitoring</td>
<td>Timing</td>
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<td>---------------------</td>
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<tr>
<td>BIO-12: Food items may attract wildlife onto the construction site, which would expose them to construction-related hazards. The construction site shall be maintained in a clean condition. All trash (e.g., food scraps, cans, bottles, containers, wrappers, cigarette butts, and other discarded items) shall be placed in closed containers and properly disposed of off-site.</td>
<td>District contractor</td>
<td>District</td>
<td>During construction.</td>
</tr>
<tr>
<td>BIO-13: Construction activity within the existing tidal marsh area shall be restricted to a 25-foot-wide strip centered on the existing 250-foot long tidal slough to be enlarged, and to a 550-foot long by 5- to 10-foot wide strip adjacent to the existing embankment to be removed. These construction areas shall be clearly demarcated by temporary fencing and signs throughout the construction period.</td>
<td>District contractor</td>
<td>District</td>
<td>During construction</td>
</tr>
<tr>
<td>BIO-14: All personnel and equipment shall be required to stay within designated construction areas. All construction personnel shall use identified staging areas and access roads located in upland areas.</td>
<td>District contractor</td>
<td>District</td>
<td>During construction</td>
</tr>
<tr>
<td>BIO-15: No intentional damage to vegetation shall be permitted outside the designated construction areas.</td>
<td>District contractor</td>
<td>District</td>
<td>During construction</td>
</tr>
<tr>
<td>BIO-16: Both slopes of the new embankment around the tidal marsh restoration area shall be seeded with plant species suitable for erosion control. Non-native, invasive plant species shall be removed from the embankment at least once a year during the five-year monitoring and maintenance period, to allow natural colonization by native plant species in the area adjacent to the new marsh.</td>
<td>District</td>
<td>District</td>
<td>After construction</td>
</tr>
</tbody>
</table>

**Cultural Resources**

CULT-1: If archaeological or paleontological resources are encountered during project implementation, all activity in the vicinity of the suspected resources shall be immediately suspended and the District, a qualified archaeologist or paleontologist, and the Town of Corte Madera Environmental Services Director shall be contacted to evaluate the situation. Project personnel shall not alter any of the uncovered materials or adjacent material. If resources are encountered, the District shall contact local Native American and Historical organizations for a recommendation of a further course of action, and, in consultation with a qualified archaeologist or paleontologist, shall complete a resources inventory, declaration, and mitigation plan prior to the continuation of any on-site activity in the vicinity of the resource.

CULT-2: Implement Mitigation Measure CULT-1.

CULT-3: If human remains are discovered, the construction contractor shall contact the District and the County Coroner and implement Mitigation Measure CULT-1.

**Geology and Soils**

GEO-1: The District shall prepare an erosion control component of the construction plan to protect all areas of the project site from soil erosion and topsoil loss until final vegetation is established. The erosion control plan shall include the use of biodegradable and non-biodegradable erosion control fabrics, sediment barriers, mulch, check dams, and/or grassy waterways to protect exposed surfaces and the construction of collection and discharge surface water flow devices, as appropriate.