Final Initial Study / Mitigated Negative Declaration

CORTE MADERA FOUR-ACRE TIDAL MARSH RESTORATION PROJECT

TOWN OF CORTE MADERA, MARIN COUNTY, CALIFORNIA

Prepared For:

Golden Gate Bridge, Highway, and Transportation District
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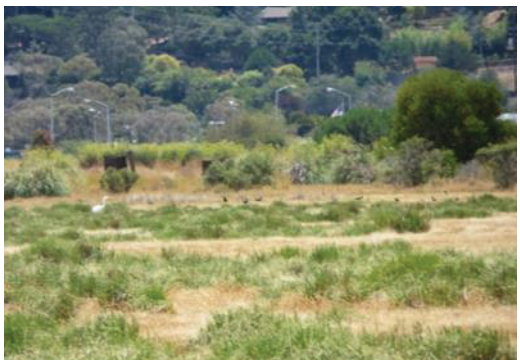
Date:

July 2019



GOLDEN GATE BRIDGE
HIGHWAY & TRANSPORTATION DISTRICT

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Biological Resources Inventory (BRI), WRA 2015 (Updated in 2019)

Cultural Resources Report, GANDA 2016 (Updated in 2019)

Soil Report, Northgate 2016 (Updated in 2019)

Geotechnical Investigation, Miller Pacific 2016 (Updated in 2019)

Hydrology Report, Noble Consultants, January 2016 (Updated in 2019)

1.0 INTRODUCTION

The Golden Gate Bridge, Highway and Transportation District (District) has prepared this Initial Study in conformance with the requirements of the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations 15000 et. seq.), and the regulations and policies of the District.

The purpose of this Initial Study is to evaluate the potential environmental impacts, which might reasonably be anticipated to result from implementation of the Corte Madera Four-Acre Tidal Marsh Restoration Project (Project).

The Golden Gate Bridge, Highway and Transportation District is the Lead Agency under CEQA and has prepared this Initial Study to address the impacts of implementing the Project.

2.0 PROJECT INFORMATION

2.1 Project Title

Corte Madera Four-Acre Tidal Marsh Restoration Project

2.2 Lead Agency Name and Address

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

2.3 Contact Person and Phone Number

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2.4 Project Sponsor Name and Address

Golden Gate Bridge, Highway and Transportation District

P.O. Box 9000, Presidio Station

San Francisco, CA 94129-06012.5 Project Location

2.5 Project Location

The Project Site is located in the North Bay region of the San Francisco Bay (Bay) area, within the Town of Corte Madera (Town) and the County of Marin (County), Figure 1. The Project Site is located at Assessor's Parcel Number (APN) 023-070-13, on a 72-acre parcel owned by the District adjacent to the Corte Madera Marsh Ecological Reserve (CMER). The property is bordered by CMER to the east and south and by a narrow drainage channel on the north side that connects to the Bay to the east (See Figure 2). To the west, the property is bordered by the Sonoma-Marin Area Rail Transit (SMART) right-of-way (ROW), which is used by the public to access the site.

2.6 General Plan Designation and Zoning District

Town of Corte Madera General Plan

Open Lands - Wetland and Marshland

Town of Corte Madera Zoning Ordinance

Parks, Open Space, and Natural Habitat (POS)

Baylands Risk Zone Overlay

Path: L:\Acad 2000 Files\23000\23294\GIS\ArcMap\2018\Redesign\Figure 1 Location.mxd

Sources: National Geographic, WRA | Prepared By: mweidenbach, 12/12/2018

Figure 1. Vicinity Map - Project Site Location

Corte Madera Four-Acre
Tidal Marsh Restoration Project
Town of Corte Madera, Marin County, California

0 0.5 1 Miles

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2.7 Surrounding Land Uses and Setting

The Project Site's immediate surroundings largely consist of open space land uses. Marshland associated with the CMER borders the District's 72-acre property on the north, east, and south. The District's property and the Project Site are bordered on the west by a strip of land formerly owned by the Northwestern Pacific Railroad that is owned by SMART and within SMART's ROW. ~~a strip of land associated with the SMART ROW.~~ Immediately to the west of the SMART ROW is the Shorebird Marsh that collects treated stormwater from the Town. In the greater vicinity of the Project Site, land uses include the Redwood Highway and commercial development. The 72-acre property is presently devoid of any developed land and recreationists currently use both a formal public access easement and informal trails for dog walking, jogging, and other activities.

A number of easements exist on and around the property. These are shown in Figure 2. Existing easements within the property include a public access easement held by the Town along the eastern, southern, and a portion of the northern perimeter berms; a Pacific Gas and Electric (PG&E) access easement; and the Town's drainage easement that includes the drainage channel along the northern perimeter berm and associated tidal marsh habitat located at the northwest corner of the property. The PG&E easement is unspecified in location across the property to maintain power lines; PG&E currently uses the Town's existing public access easement for ingress to and egress from their easement. Additionally, on the western edge of the property, the District has an easement within the SMART ROW. Similarly, AT&T (formerly Pacific Telephone and Telegraph) has a ten-foot wide easement that runs along the western border of the property for its telephone lines.

Access easements to the property include a longitudinal easement along the SMART ROW between Industrial Way and the northern berm entrance to the property; and a crossing easement from the SMART ROW to the southern berm entrance. See Figure 2.

The site of the proposed restoration is located in the northwestern portion of the property (Project Site). The total project footprint covers approximately 14.71 acres of non-tidal habitat. Immediately northwest of the Project Site, the northern drainage channel connects to the Town's pump station where flows are managed into and out of Shorebird Marsh. The northern drainage channel extends east-west, connecting to Bay in the east and to Shorebird Marsh in the west. The northern extent of the Project Site intercepts with the Town's drainage easement and the Town's tidal marsh associated with the drainage easement. See Figure 2.

2.8 Required Project-Related Approvals, Agreements, and Permits

- Bay Conservation and Development Commission (BCDC)
  - BCDC Permit
- San Francisco Bay Regional Water Quality Control Board (SFRWQCB)
  - Section 401 Water Quality Certification
- U.S. Army Corps of Engineers (Corps)
  - Clean Water Act Section 404 Nationwide Permit
- United States Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS)
  - Endangered Species Act (ESA) Section 7 Consultation

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3.0 PROJECT DESCRIPTION

3.1 Project Background and Purpose

3.1.1 Project Background

The District proposes to construct the Corte Madera Four-Acre Tidal Marsh Restoration Project (Project) within the District's 72-acre property. The property, formerly named Muzzi Marsh, was historically tidal marsh, was later diked and received Bay dredge materials as early as the 1950s. The property was then purchased in the 1970s by the District as part of a larger, approximately 600-acre land purchase as mitigation for the construction of Larkspur Ferry Terminal (Terminal). The 72-acre upland portion was retained for District use. A larger portion of the property (203 acres) was restored by the District to tidal marsh and deeded to the California Department of Fish and Wildlife (CDFW; formerly California Department of Fish and Game) in 1982. The remaining land was composed of mud flats, also transferred to CDFW in 1982. A berm was constructed around the perimeter of the 72-acre property to contain the dredged sediments associated with construction of the Terminal. Over time, the Project Site has been colonized by non-native vegetation and has subsided, leading to the formation of seasonal wetlands in the southern part of the property.

A Corps permit issued in 1988 authorized the dredging and disposal of 90,000 cubic yards of dredge sediment associated with maintenance of the Larkspur Ferry Terminal. As a condition of the permit covering these activities, the District was required to create a maximum of 2.0 acres of tidal marsh suitable for California Ridgway's rail (*Rallus longirostris obsoletus*, formerly California clapper rail, Federal Endangered). In 1996, ferry operations were modified to include the use of a high-speed ferry boat for the Larkspur Ferry Terminal operations. Consequently, the District consulted with local environmental groups and agreed to create an additional 2.0 acres of tidal marsh habitat, resulting in a commitment to restore a total of 4.0 acres of tidal marsh.

The District has discussed the design and location of tidal marsh restoration with local regulatory agencies and environmental groups. Within the portion of the Project Site to be restored to tidal marsh, current land uses have reduced the ecological value of what was historically tidal marsh habitat. Existing conditions include elevated land (due to historical sediment disposal that is contained by berms), the presence of non-native invasive species (e.g. pampas grass), and regular site disturbances.

Several criteria were considered to identify a suitable site for tidal marsh restoration within the District's 72-acre property. Such considerations included continuity with existing tidal marsh, maximization of restored habitat quality, minimization of impacts to existing habitat, and maintenance of shoreline access. The Project would also contain a seasonal wetland restoration component to offset any impacts to seasonal wetlands during the tidal marsh creation.

3.1.2 Project Purpose

The primary goal of the Project is to restore 4 acres of tidal marsh habitat, thereby fulfilling obligations to establish:

- 2 acres of tidal marsh suitable for California Ridgway's rail in accordance with the 1988 Corps permit (#17486N), and

- 2 acres of tidal marsh habitat associated with a 1996 modification to ferry operations at the Larkspur Ferry Terminal.

The proposed restoration efforts would restore tidal connectivity to the Project Site and provide tidal marsh habitat in support of Federal-listed species such as the California Ridgway's rail and salt marsh harvest mouse (SMHM, *Reithrodontomys raviventris*, Federal Endangered).)

3.2 Proposed Project

The Project meets the needs of the District's outstanding restoration obligations. The Project Site offers opportunities to restore tidal marsh habitat suitable for species including California Ridgway's rail and SMHM. The Project includes grading approximately four acres of land to elevations suitable for tidal inundation, relocating portions of the existing western and northern berms to the east and south sides of the new marsh, breaching the northern berm adjacent to the drainage channel, and restoring native marsh vegetation. Accounting for grading of all excavation and fill material across the site, approximately 12.16 acres of land would be graded in total.

The Project Site was selected using a number of criteria, including: minimizing impacts to existing seasonal and tidal marsh habitats, providing tidal connection to a channel of sufficient tidal prism to maintain channel stability, minimizing disturbance to existing formal and informal public access, and maximizing the quality of created habitat by selecting a site contiguous with existing tidal marsh habitat. The location chosen satisfies all of the criteria described above.

Because the four-acre tidal marsh restoration design on the Project Site would unavoidably impact 0.28 acre of seasonal wetland habitat, 0.28 acre of seasonal wetland would be created south of the newly restored tidal marsh to maintain this wetland resource type. This is consistent with the February 1999 resolution adopted by the District, which states that any seasonal wetlands lost by the restoration will be replaced elsewhere on the District-owned site.

Additionally, the Project would temporarily impact 0.18 acre of existing tidal marsh vegetation (pickleweed bench) and permanently convert 0.01 acre of pickleweed bench to tidal channel. Although, the Project would restore 3.42 acres of pickleweed bench, resulting in net creation. The Project would also create 0.28 acre of tidal channel and 0.60 acre of cordgrass bench, resulting in a total of approximately 4.3 acres of tidal marsh, 0.30 acre beyond the District's 4.0-acre obligation.

3.2.1 Tidal Marsh Restoration

The area proposed for tidal marsh restoration is shown in Figure 3. Views of existing conditions at the property are available in Figure 4.

An existing berm along the perimeter of the District property currently separates the Project Site from CMER. This berm was built to contain dredged sediments and was not designed to provide flood protection from Bay waters. This berm excludes tidal connectivity to the Project Site from the north and the east.

The creation of tidal marsh habitat would occur by tidally connecting the Project Site to an existing tidal channel (i.e., the northern drainage channel) within the District's property boundary. This would require breaching the existing northern berm on the perimeter of the Project Site and excavating material from 4 acres of high ground down to appropriate elevations to allow tidal inundation of the new 4.0-acre surface during high tides. An elevation survey was performed at the 72-acre property and its immediate surroundings during the Project design process to determine elevation ranges for mud flats, low marsh, high marsh, and transition zones based on indicator plant species. This information was subsequently used to establish design elevations within the Project Site. This process was conducted to assure suitable design elevations for tidal marsh vegetation establishment and habitat connectivity with adjacent marsh.

The tidal marsh plain would be created by excavating the Project Site to elevations that range from 6.5 feet to 3.75 feet NAVD88. Existing tidal marsh plain in the northwestern corner of the District property (immediately west of the Project Site) ranges in elevation from 6.0 feet to 5.0 feet NAVD88. A new tidal slough channel within the new 4-acre surface would be excavated to an elevation of approximately 2.0 feet North American Vertical Datum of 1988 (NAVD88) that would connect the tidal marsh plain to the northern drainage channel.

3.2.2 Seasonal Wetland Restoration

The Project includes relocation of approximately 0.28 acre of seasonal wetlands that occur within the Project boundaries. The area where seasonal wetlands would be restored is shown on Figure 3. Proposed seasonal wetland creation is the same area as the seasonal wetland area to be impacted by the construction of tidal marsh habitat. Creation of new seasonal wetland habitat would necessitate the excavation of approximately 300 cubic yards of soils that would be re-used on-site. The seasonal wetlands are designed to be approximately four to eight inches deep with a bottom elevation of 7.0 feet NAVD88 and a top elevation of 7.8 feet NAVD88.

Sources: 2016 DigitalGlobe Aerial, WRA | Prepared By: mweidenbach, 3/8/2019

Figure 2. Project Site Setting and Easements

Corte Madera Four-Acre
Tidal Marsh Restoration Project
Town of Corte Madera, Marin County, California

0 200 400 Feet

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Path: L:\Acad 2000 Files\23000\23294\GIS\ArcMap\2018\Redesign\CEQA\Figure 3 Project Design Overview.mxd

Sources: USDA NAIP 2016 Aerial, WRA | Prepared By: pkobylarz, 6/6/2019

Figure 3.
Project Design Overview

Corte Madera Four-Acre
Tidal Marsh Restoration Project
Town of Corte Madera,
Marin County, California

- Parcel Boundary (72.31 acres)
- Project Site (14.71 ac.)
- Existing Unsanctioned Trail
- Proposed Informal Trail
- Pedestrian/Animal Exclusion Fence
- Limit of Grading (12.16 ac.)
- Grading Contours

Existing Seasonal Wetlands

- Permanent Impact (0.28 ac.)

Existing Tidal Marsh

- Temporary Impact (0.18 ac.)*

Existing Easements (surveyed)

- Town of Corte Madera Drainage Easement
- AT&T Easement

District Access Easements (mapped from legal descriptions)

- 20' Public Access Easement within SMART ROW
- 35' Public Access Easement within SMART ROW

Proposed Habitat Restoration

- Seasonal Wetlands (0.28 ac)
- Tidal Marsh - Channel (0.28 ac)
- Tidal Marsh - Cordgrass Bench (0.60 ac.)
- Tidal Marsh - Pickleweed Bench (3.42 ac.)
- Upland Transition Zone (0.47 ac.)

*This impact will result in the conversion of 0.01 ac. of pickleweed bench to tidal channel

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0 200 400

Feet

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View facing east from near pump station on SMART right of way of northern drainage channel on left, existing marsh in foreground on right, and project site in distance. Arrow indicates approximate location of proposed project.

View facing east from existing western perimeter berm of seasonal wetland. Arrow indicates approximate location of tidal marsh for proposed project.

View facing southeast from informal public access trail of trees located in area of proposed upland mound. Arrow indicates approximate location of upland area for proposed project.

View facing west of breach area for proposed tidal connection of Project Site to northern drainage channel. Arrow indicates approximate location of tidal channel and tidal marsh for proposed project.

Figure 4. Views of Project Site

Corte Madera Four-Acre Tidal Marsh Restoration Project
Town of Corte Madera, Marin County, California

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3.2.3 Public Access

The 72-acre property contains the Town's formal public access easement for shoreline access along the eastern and southern perimeter berms and along the eastern end of the northern perimeter berm. In addition, the District has an access easement on the SMART ROW that runs parallel and adjacent to the western boundary of the Project Site. This easement allows access to and from the Project Site and is used by the public as an informal walking trail. The 72-acre property has no other public access easements within its boundary. An ~~unsanctioned~~ informal trail loops around a portion of the outer perimeter of the property and within the Project Site, along the northwestern and northern perimeter berms. The District has allowed the public to use this informal trail while prohibiting public access to the interior areas of the property including the existing seasonal wetlands.

During construction, portions of the northern berm and the associated informal trail would be removed for creation of Project elements. A new berm around the eastern and southern extent of the proposed restored tidal marsh area would be constructed and would connect into the remaining portions of the informal trail. The new berm around the newly restored tidal marsh area would function similarly to the existing ~~unsanctioned~~ informal trail. The District plans on allowing the public to continue to use the informal trail. However, the District reserves the right to restrict public access to any part of the Project Site or 72-acre property that is not within the Town's formal public access easement.

3.2.4 Design Suitability for Ridgway's Rail and Salt Marsh Harvest Mouse

As discussed in Section 3.1.2, the Project is proposed to create two acres of tidal marsh and Ridgway's Rail habitat in accordance with a 1988 Corps Permit for maintenance activities at the Larkspur Ferry Terminal and two acres of tidal marsh and Ridgway's Rail habitat pursuant to a 1996 agreement to mitigate impacts associated with service modifications at the Larkspur Ferry Terminal. Accordingly, the Project was designed to create tidal marsh habitat suitable for special-status species that occur at the CMER in the vicinity of the 72-acre parcel such as Ridgway's Rail and SMHM. The paragraphs below describe habitat elements required for both species and how these elements were incorporated into the Project design.

Description of Ridgway's Rail and SMHM Habitat Needs

Viable habitat for Ridgway's rail includes the following components:

- Tidal channels with intertidal mudflats;
- Low marsh with cordgrass;
- High marsh with pickleweed and other species;
- Transition zone with vegetative refugia including marsh gumplant (*Grindelia stricta*), saltmarsh baccharis (*Baccharis douglasii*), and coyote brush (*Baccharis pilularis*); this area should be protected from disturbance by pedestrians and dogs.

The salt marsh harvest mouse requires similar habitat components to Ridgway's rail with the following exceptions:

- Upland areas with refugia (in addition to the transition zone described above) with a minimum vegetative coverage of grasses and other herbaceous plants; these areas should be protected from disturbance from pedestrians and dogs;
- Less dependence on tidal channels, mudflats, and low marsh.

Tidal channels, mudflats, low marsh, high marsh, and transition zone are defined by elevation ranges, and specific plant associations have adapted to these elevation zones. Viable upland refugia consists of upland areas that are adjacent to the tidal marsh that are also protected from disturbance by pedestrians and dogs. Upland refugia includes the transition zone and can extend to include areas at higher elevations.

During both normal and extreme high tide events, Ridgway's rail and SMHM require areas to seek shelter from tidal waters. These areas should be adjacent to the tidal marsh, provide vegetative cover, and be protected from disturbance by pedestrians and dogs.

Description of Created Habitat Suitability for Ridgway's Rail and SMHM

The Project would provide upland refugia habitat that would include the transition zone and some additional upland areas. The upland refugia would be fenced off from pedestrians and dogs that use the public trail. The upland refugia area would vary from 50 to 135 feet wide, which is adequate for Ridgway's rail and SMHM. A revegetation program was developed to promote development of viable tidal marsh and habitat suitable for Ridgway's rail and SMHM and is discussed in Section 3.3.6.

The Project would create all necessary habitat components for Ridgway's rail, including mudflats, low marsh, high marsh, and a transition zone with vegetative refugia. The Project would also create all necessary habitat components for SMHM, including low to high marsh, a transition zone, and adjacent vegetated uplands.

3.3 Construction

3.3.1 Site Access and Equipment Staging

All equipment would access the site via a gated access road that extends south from Industrial Way to the entrance to the property, along which the District retains a longitudinal easement from SMART. See Figure 2. Public access to the SMART easement may be temporarily impacted during periods when larger equipment is being brought onto the site. Signs would be posted prior to the start of construction to provide trail users adequate advance warning of any temporary closure. Flaggers would be deployed to assist with pedestrian and bicycle traffic flow.

The Project shall comply with all Town of Corte Madera traffic regulations related to Project Site access.

During construction, all equipment, construction vehicles, and work crew vehicles would be staged within the Project Site during construction.

3.3.2 Construction Equipment

Equipment expected to be used for Project construction is listed below:

- Long-Reach Excavator – Standard excavator used for most land-based construction Projects. It would be used for all excavation activities in the Project, including removing existing fill from the marsh plain and excavating the new tidal channel.
- Bulldozer – Standard bulldozer used for most land-based construction Projects. It would be used for grading the new marsh plain, new berms, and upland areas.
- Dump Truck – Standard dump truck used for most land based construction Projects. It would be used to haul material excavated from the new marsh plain to other areas on the site for building berms, and, if necessary, for off-hauling all cleared vegetation and debris to a selected disposal site. Each dump truck would have the capacity to hold 10 cubic yards of soil. Haul trailers capable of holding an additional 10 cubic yards of material may be hitched to dump trucks to increase capacity to reduce hauling trips.
- Earth moving Scraper Blade and Skiploader - Standard elevating or pull-type scrapers used for most large land based construction Projects. It would be used for the large earth moving and excavation grading of the new marsh plain and the habitat transition areas.
- Water Truck – Standard water truck readily available in case the site produces dust.
- Wooden Mats – Wooden construction mats would be used to support the use of construction equipment over soft fill.

3.3.3 Construction Schedule

To minimize disturbance to wildlife in adjacent tidal marsh, construction is scheduled to occur outside of California Ridgway's rail breeding season, which spans February 1st through August 31st. Construction is anticipated to occur between September 1, 2019 and January 31, 2020. Construction mobilization and earthwork is expected to comprise the first three months of this period with marsh planting to follow. If necessary, construction would extend into the Fall of 2020.

Construction would occur during daytime hours (typically from 7:00 a.m. to 5:00 p.m.), Monday through Friday, and between 10:00 a.m. and 5:00 p.m. on Saturdays and Sundays, in accordance with the Town's Noise Ordinance.

3.3.4 Grading and Tree Removal

During construction, the Project would require removal of non-native, invasive trees that are located within the on-site re-use area. Trees slated for removal have been evaluated by a certified arborist and have been confirmed to all be invasive. Additionally, vegetation would be removed throughout the restoration area prior to grading. Existing vegetation that would be removed is primarily non-native grassland.

Earthmoving and grading are required to achieve proper elevations for full tidal inundation in the restored tidal marsh habitat and to retain sufficient inundation in the seasonal wetland habitat from precipitation and adjacent sheet flow. Equipment used during this part of construction would

include bulldozers, scrapers, blades, skiploaders, water trucks, excavators, and dump trucks. Excavation would be used to create mudflats, low marsh, high marsh, transition zones, and tidal channels. In all, approximately 28,300 cubic yards of material would be excavated and re-used on-site.

All excavation and grading would be balanced on-site, which would reduce vehicle trips to the site and construction disturbance. Retained excavated material would be used for the relocation of the informal public trail. Any residual excavated material would be placed in the upland area south of the restored marsh. The height of the re-use area would be minimized to not impede public views of the adjacent tidal marsh and Bay.

Soils within the proposed marsh area that have been identified as having improper composition for wetland restoration would be overexcavated and removed. These overexcavated areas would subsequently be backfilled to appropriate design elevations with on-site soils that are suitable for restoration activities. These removed soils would be integrated into the upland mound.

3.3.5 Permanent Exclusionary Fencing

A~~n~~ wildlife friendly exclusion fence would be installed on both sides of the informal trail ~~erected around the eastern and southern perimeter of the restored tidal marsh~~ to minimize disturbance by humans and off-leash dogs in the restored tidal marsh and associated upland areas, as well as in the interior of the property. The fence would be constructed of galvanized wire mesh mounted on either steel T-posts or wood posts. T-posts or wood posts would be installed and fencing would be attached to posts with clips. Posts would be placed approximately ~~8~~ 10 feet apart and the fence would be approximately 4 feet tall. The mesh wire would be installed approximately 8 inches above the ground to allow wildlife movement underneath the fence, and the wire mesh would have openings approximately 6x12 inches throughout. ~~Additionally, an outer fence may be installed to prevent access to the interior of the property.~~

3.3.6 Restoration Planting

Native salt marsh plants would be naturally recruited and actively planted in the restored tidal marsh plain. Planting would occur with appropriate container plantings sourced from local nurseries. Native marsh species will naturally colonize restored tidal areas, as seeds and vegetative propagules capable of rooting in mudflats are carried on-site via tidal flows. Project design is intended to promote rapid colonization by creating suitable substrates and elevation profiles for the establishment of salt marsh vegetation. Additionally, upland transition zones would be actively planted ~~hydroseeded~~ with appropriate native grass and shrub species. ~~an appropriate native plant species.~~ Planting would occur following the final site grading, which is anticipated to conclude in Winter 2019, during the rainy season.

Following the grading, the created seasonal wetland habitat would be seeded with native facultative wetland plant species. Installation of seasonal wetland plant species during the onset of the rainy season would provide sufficient hydrology for both seed germination and establishment of plantings.

The planting methodologies outlined above have been successful in revegetation efforts for other Bay Area restoration Projects such as those in Peyton Slough and the Sonoma Baylands.

The following is a summary of the Project's revegetation program:

- Low marsh – active planting of cordgrass and natural recruitment;
- High marsh – active planting of high marsh species and natural recruitment;
- Transition zone – active planting of transition zone species including shrubs and seeding of native grass and shrub species;
- Upland refugia excluding the transition zone – hydroseeding of grass and shrub species.

3.4 Monitoring and Reporting

After construction, the restored tidal marsh and seasonal wetland areas would be monitored periodically to evaluate progress in achieving specific performance standards for vegetative cover and acreage of wetland creation. Specific performance standards would be developed during the Project-related permits approval process discussed in Section 2.8.

The monitoring would continue for five years depending on agency permit requirements. Maintenance efforts during the monitoring period would focus on removing litter and repairing the access control fence.

Upon completion of the monitoring phase of the Project, the District intends to deed the tidal marsh restoration site to CDFW to be managed as part of the CMER. Normal maintenance activities associated with CMER would therefore be extended to the restored area. Should deeding the property to CDFW be infeasible, the property would be transferred to another suitable land trust for long-term management.

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4.0 ENVIRONMENTAL SETTING

4.1 Historic Land Use

The Project Site was at one time part of a large complex of tidal marshes and mudflats that fringed San Francisco Bay. The Project Site, along with the rest of the 72-acre District property, was filled with dredged material starting in the 1950s, including during construction and maintenance of the Larkspur Ferry Terminal in the 1970s. Review of aerial photographs and historic topographic maps do not reveal prior human development on the site.

4.2 Current Land Use

The Project Site is zoned as Parks, Open Space, and Natural Habitat (POS) with a Baylands Risk Zone Overlay per the Town of Corte Madera's Zoning Ordinance. The Town's General Plan designates the site as Open Lands – Wetland and Marshland. The site is mostly occupied by invasive grassland and large patches of pampas grass stands, as well as pools of seasonal wetland, which both colonized the area after deposit of dredged materials. Portions of the site are currently used recreationally for an informal pedestrian trail popular with walkers, joggers, and dog owners. Additionally, the Town has a drainage easement on the northern portion of the site, AT&T has an easement for its telephone lines in the western portion of the site, and PG&E has an easement on the site unspecified in location.

4.3 Surrounding Land Uses and Habitats

The District's property which includes the Project Site is mostly surrounded by open space land uses, namely, the CMER, which encompasses the property to the north, south, and east. The 620-acre CMER is managed by CDFW and provides tidal salt marsh habitat for a variety of avian and mammalian species, including the SMHM and California Ridgway's rail. The habitat consists of vegetation such as cordgrass, pickleweed, salt grass, coyote bush, gum-plant, marsh rosemary, dock, annual grasses and herbs, and various exotic shrub species. In addition to providing tidal marsh habitat for an array of species, the CMER provides recreational opportunities such as hiking and birdwatching.

To the west, the property is bordered by the SMART ROW. The District has an easement within this ROW, and the public uses the ROW to access the District property. Other nearby land uses to the west include commercial development (a shopping mall), the Shorebird Marsh, Redwood Highway, and a pump station which manages tidal flow between the San Francisco Bay and Shorebird Marsh via the drainage channel along the property's northern border. Adjacent and parallel to the eastern boundary of the property, PG&E owns a line of electrical towers (pylons) and boardwalk along the base of the pylons.

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5.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED – INITIAL STUDY CHECKLIST

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is potentially significant unless mitigation is incorporated, as indicated by the checklist on the following pages.

___	5.1 Aesthetics	___	5.8 Greenhouse Gas Emissions	___	5.15 Public Services
___	5.2 Agricultural Resources	X	5.9 Hazards/Hazardous Materials	___	5.16 Recreation
X	5.3 Air Quality	X	5.10 Hydrology/Water Quality	___	5.17 Transportation
X	5.4 Biological Resources	___	5.11 Land Use/Planning	___	5.18 Tribal Cultural Resources
X	5.5 Cultural Resources	___	5.12 Mineral Resources	___	5.19 Utilities and Service Systems
___	5.6 Energy	X	5.13 Noise and Vibration	___	5.20 Wildfire
X	5.7 Geology and Soils	___	5.14 Population/Housing	X	5.21 Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

☐ I find that the Project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the 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 Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the 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 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 Project, nothing further is required.

J. R. Ell
Signature
John Eberle, P.E., Deputy District Engineer

7/11/2019
Date

Initial Study Checklist

This section describes the existing environmental conditions in and near the Project Site and evaluates environmental impacts associated with the Project. The environmental checklist, as recommended in the CEQA Guidelines (Appendix G), was used to identify environmental impacts that could occur if the Project is implemented. The right-hand column in the checklist lists the source(s) for the answer to each question. The cited sources are identified at the end of this section.

Each of the environmental categories in the checklist has been fully evaluated, and one of the following four determinations was made for each checklist question:

- **"No Impact"** means that no impact to the resource would occur as a result of implementing the Project.
- **"Less than Significant Impact"** means that implementation of the Project would not result in a substantial and/or adverse change to the resource, and no mitigation measures are required.
- **"Less than Significant with Mitigation Incorporated"** means that the incorporation of one or more mitigation measures is necessary to reduce the impact from potentially significant to less than significant.
- **"Potentially Significant Impact"** means that there is either substantial evidence that a Project-related effect may be significant, or, due to a lack of existing information, could have the potential to be significant.

Each question on the checklist was initially answered by evaluating the Project as proposed, that is, without considering the effect of any added mitigation measures. Then, where applicable and necessary, mitigation measures were discussed to minimize and reduce any potentially significant impacts to a less-than-significant status. The checklist includes a discussion of the impacts and mitigation measures that have been identified. Sources used in this Initial Study are numbered and listed in Section 7.0.

5.1 Aesthetics

I.	**AESTHETICS** — Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source(s)*
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐	*2, 27*
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒	*1, 27*
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐	*2, 27*
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒	*27*

Environmental Setting

The Project Site is located within a marshland area and is separated from the San Francisco Bay by the CMER, a complex of tidal marsh maintained by CDFW. The CMER borders the District's property to the north, south, and east.

Given the prominence of the CMER and the undeveloped nature of the District property, the area has a largely open space character. The visual character of the District property is distinct from that of the CMER, with the former being overrun by non-native, grassy vegetation and the latter consisting of native tidal marsh ecosystem. The site is devoid of development, but has an informal pedestrian loop where vegetation has been disturbed around the perimeter of the property. As the path is informal, no lighting is provided for pedestrians; and no other lighting fixtures are present within the Project Site.

The Town of Corte Madera describes view preservation as an important goal for the community and outlines important scenic viewsheds in its General Plan[1]. These viewsheds include the open ridge tops of Mt. Tamalpais (Mt. Tam) and the bayside wetlands of the San Francisco Bay that occupy much of the Town's shoreline. To that end, the Town calls for the preservation of open space areas while promoting recreational uses and the protection of wetlands.

Discussion of Impacts

a) Would the Project have a substantial adverse effect on a scenic vista?

Less-than-Significant Impact. The Town's General Plan designates bayside wetlands as an important scenic viewshed. Additionally, vistas of the Bay from atop the area's hillsides are important scenic resources. The Project would have a small, temporary adverse impact on views of the Bay and wetlands, as earth disturbance and construction would degrade visual quality. Following construction, the Project Site would be restored to native tidal wetland, providing more contiguous wetland and enhancing a scenic viewshed important to the Town. As scenic vistas would be temporarily adversely impacted and permanently enhanced through the creation of additional wetland, the Project would not have a substantial adverse effect on a scenic vista. Impacts would therefore be less than significant.

b) Would the Project substantially damage scenic resources including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no designated or eligible state scenic highways near the Project Site[2]. Further, there are no designated state scenic highways in Marin County. The nearest eligible state scenic highway is Highway 1, which is over three miles south of the Project Site. There would be no impact.

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[1] Town of Corte Madera, "General Plan," April 2009, https://www.townofcortemadera.org/182/General-Plan.

[2] Dennis Cadd Brian Shultis, "OFFICIALLY DESIGNATED STATE SCENIC HIGHWAYS AND HISTORIC PARKWAYS," accessed June 20, 2018, http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm.

c) In non-urbanized areas, would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less-than-Significant Impact. The Project Site is located in an undeveloped portion of an urbanized area. The Project would change the visual character of the site by restoring tidal marshlands and seasonal wetlands. This would be achieved by redistributing accumulated fill and recontouring, which would require earth-disturbing processes that would temporarily degrade the visual quality of the site during construction. Following construction, the site would be converted from invasive grassland to native tidal marsh. This is consistent with regulations governing scenic quality such as the Town's Zoning Ordinance, which zones the site as Parks, Open Space and Natural Habitat (POS). This zoning designation is intended for open space sites, including areas used for preservation or restoration of a natural habitat[3].

In summary, temporary degradation of the site's visual quality would be followed by permanent visual changes that are consistent with the area's current visual character and quality. As such, the Project would not substantially degrade the existing visual character or quality of the Site and its surroundings. Thus, there would be less-than-significant impacts.

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

No Impact. The Project would not create a new permanent source of light or glare because no lighting would be installed at the site. No nighttime construction is anticipated, so no lighting sources would be installed to accommodate nighttime construction. As no lighting or glare would be introduced by Project construction or operation, daytime and nighttime views would not be adversely impacted by any such light or glare, and there would be no impact.

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[3] Town of Corte Madera, Town of Corte Madera Zoning Districts, March 2018, March 2018, https://www.townofcortemadera.org/DocumentCenter/View/296/Zoning-District-Map-PDF?bidId=.

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5.2 Agricultural and Forestry Resources

	II. AGRICULTURAL AND FORESTRY RESOURCES[4] — Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
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 non-agricultural use?	☐	☐	☐	☒	*3, 4, 5, 27*
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒	*3, 4, 5, 27*
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒	*3, 4, 5, 27*
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒	*3, 4, 5, 27*
e)	Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use??	☐	☐	☐	☒	*3, 4, 5, 27*

[4] 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. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information complied by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Environmental Setting

The Project Site is designated as Wetland and Marshland by the Town of Corte Madera General Plan[5]. It is zoned Parks, Open Space, and Natural Habitat (POS) with a Baylands Risk Zone Overlay[6]. There is no agricultural, forest, or timberland zoned land within or near the Project Site. The site is designated as "Other Land" by the California Department of Conservation", as opposed to farmland of statewide importance, prime farmland, or unique farmland[7]. There are no active Williamson Act Contracts on the Project Site[8]. Historically, the site was tidal marshland, but it was drained in the early 1900s and used as grazing land up until the mid-1990s. At this time, agricultural uses ceased and the property was used to deposit dredge material, including by the District to deposit dredged material from Larkspur Ferry Terminal construction in the 1970s.

Discussion of Impacts

a-e) Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; conflict with existing zoning for agricultural use, or a Williamson Act contract; conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland; or result in or cause to result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. According to the Farmland Mapping and Monitoring Program from the State Department of Conservation, the Project is located in an area that is designated as "Other Land". The Project would, therefore, not convert prime farmland, unique farmland, or farmland of statewide importance to non-agricultural uses.

The Project Site is not zoned as agricultural land, forestland, or timberland, and is not under a Williamson Act contract. The Project would therefore not conflict with agricultural, forestry, or timberland zoning or result in the conversion of forest land or farmland to a non-forest or non-agricultural use, and would not conflict with a Williamson Act Contract.

As such, the Project would not conflict with agricultural or forestry land uses or convert any such lands away from their current use, and there would be no impact.

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[5] Town of Corte Madera, "General Plan."
[6] Town of Corte Madera, "Town of Corte Madera Zoning Districts."
[7] California Department of Conservation, Marin County Important Farmland 2016, April 2018, April 2018, ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/mar16.pdf.
[8] California Department of Conservation, Marin County Williamson Act FY 2015/2016, 2016, 2016, ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Marin_15_16_WA.pdf.

5.3 Air Quality

III.	**AIR QUALITY**— Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐	*6, 7, 27*
b)	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?	☐	☒	☐	☐	*6, 7, 27*
c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐	*6, 7, 27*
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒	*6, 7, 27*

Environmental Setting

Criteria Air Pollutants

The Project Site is located in Marin County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the state and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone (O_3), respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$)[9].

High ozone levels are caused by cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x), which react to form ozone under certain meteorological conditions. Controlling emissions of these precursor pollutants is therefore the focus of the Bay Area's attempts to reduce ozone levels.

Particulate matter of concern is respirable particulate matter, or particles that have a diameter of 10 micrometers or less (PM_{10}), and fine particulate matter, particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both cumulative regional emissions and localized emissions. High particulate matter levels aggravate

[9] *Bay Area Air Quality Management District, "Air Quality Standards and Attainment Status," January 5, 2017, http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status.*

respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung growth in children.

Toxic Air Contaminants (TACs)

Toxic Air Contaminants (TACs) are a broad class of airborne compounds known to cause morbidity and mortality, usually through serious illnesses such as cancer and reproductive harm. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are regulated at the regional, state, and federal level based on risk to human health.

Project Emissions

Construction would generate most of the Project's emissions. Approximately 28,300 cubic yards of material would be excavated and filled on-site. This would require multiple handling of soil and the use of bulldozers, scrapers, blades, skip loaders, water trucks, excavators, and dump trumps. This equipment would emit ozone precursors, particulate matter, and TACs for the duration of the construction period. Additionally, there would be emissions associated with materials transportation and construction worker travel to and from the site.

During the operational phase the Project would generate few, if any, emissions. Prior to successful ecosystem establishment, there may be some limited emissions associated with excess vehicle trips to the site for ecosystem maintenance and monitoring shortly after construction. Following successful ecosystem establishment, no maintenance or monitoring would be necessary, as the restored tidal marsh and wetland ecosystems have been designed to be self-sufficient. Excess vehicle emissions to the site would therefore be minimal and short term.

Sensitive Receptors

Children, elderly, asthmatics, and people with pre-existing health conditions are considered sensitive receptors and may be especially vulnerable to the effects of air pollution. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks[10].

Land uses near the Project Site are primarily open space in the north, east, and south and commercial in the west. As such, there are few sensitive receptors in the immediate vicinity of the Project Site. The nearest residential developments are roughly 0.17 miles to the northwest and 0.28 miles to the south. Corte Madera Town Park is approximately 0.61 miles west and Neil Cummins Elementary School is approximately 0.64 miles west.

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[10] Bay Area Air Quality Management District, "California Environmental Quality Act Air Quality Guidelines," May 2017, http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

Thresholds of Significance

BAAQMD provides screening criteria and thresholds of significance for operational and construction-related air pollutant emissions for each criteria pollutant. Qualitative screening criteria provide rough context for whether or not a Project may result in a potentially significant impact. Where a potentially significant impact is possible, the Project should be evaluated against BAAQMD's thresholds of significance. These thresholds establish where an individual Project's emissions would be cumulatively considerable and result in significant adverse air quality impacts

Discussion of Impacts

a) Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant with Mitigation Incorporated. BAAQMD's most recently adopted plan is the 2017 Bay Area Clean Air Plan (BACAP). In assessing consistency with the 2017 BACAP, BAAQMD encourages lead agencies to consider whether the Project supports the primary goals of the plan, includes applicable control measures from the plan, and fails to disrupt or hinder implementation of any plan control measures.

The primary goals of the 2010 BACAP are to attain air quality standards, protect public health in the Bay Area, and protect the climate. Greenhouse gas emissions and climate change are considered in Section 5.8, Greenhouse Gases. Despite the Project's temporary construction emissions, the Project supports the BACAP's goals by permanently protecting an open space area. The Project's construction emissions would be temporary and would be insufficient to make a cumulatively considerable contribution to the non-attainment of an air quality standard or harm public health in the Bay Area. The permanent preservation of open space ensures that the Project Site will not generate air pollutants in the long-term and provides a place for exercise and enjoyment of the outdoors, measures which help protect and promote public health.

The BACAP provides 85 control measures by economic sector. The control measures are designed to achieve the primary goals of reducing emissions of criteria air pollutants and TACs, reducing super GHG emissions, decreasing demand for fossil fuels, and decarbonizing the energy system. The Project does not propose any new, permanent sources of emissions; so the Project would not impede any control measures in the long-term. During construction, the Project would implement air-related BMPs pursuant to Mitigation Measure AIR-1, which include dust control, stockpile management, and outfitting construction equipment with clean, emission-reducing technology. Construction would therefore be consistent with the BACAP's emission control measures.

Given that the Project would be consistent with the goals of the BACAP, include applicable control measures pursuant to Mitigation Measure AIR-1, and fail to disrupt or hinder any control measures, the Project would not conflict with or obstruct the implementation of the

applicable air quality plan. Impacts related to conflict with the applicable air quality plan would therefore be less than significant with mitigation incorporated.

Mitigation Measure AIR-1

The contractor shall implement the following basic measures recommended by the Bay Area Air Quality Management District during construction:

- All exposed soil surfaces (e.g., parking areas, staging areas, soil piles, graded areas) shall be watered at least two times per day.

- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage containing reminders shall be provided for construction workers at all access points. This includes but is not necessarily limited to the gated access road running south from Industrial Way.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications, and all equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to on-site use.

- A publicly visible sign with the telephone number and person to contact at the lead agency regarding any dust complaints shall be posted in or near the Project Site. The contact person shall respond to complaints and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

b) Would the Project 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?

Less than Significant with Mitigation Incorporated. The Project would involve the use of diesel and gasoline-powered equipment during ground-disturbing construction activities and would require the movement of approximately 28,300 cubic yards of soil. Soil movement may involve multiple handling—including excavation, stockpiling, and fill/reuse. While these practices may generate emissions, including PM_{10}/fugitive dust, BAAQMD-

recommended BMPs would be implemented in accordance with Mitigation Measure AIR-1 to minimize construction's emission of criteria air pollutants.

While construction activities would emit criteria pollutants, this would be temporary. Following a brief maintenance period after the completion of construction, the Project would generate no emissions. As such, the Project would make no long-term contribution to the Bay Area's non-attainment of applicable federal or state ambient air quality standards.

In designing screening criteria for criteria air pollutant impacts, BAAQMD has considered what would constitute a cumulatively considerable air quality impact. Where a Project meets the applicable screening criteria, its air quality impacts would therefore not be cumulatively considerable.

The San Francisco Bay Air Basin is in non-attainment of the ozone, PM_{10}, and $PM_{2.5}$ ambient air quality standards. According to screening criteria provided in the 2017 BAAQMD CEQA guidelines, a Project's impacts to air quality are less than significant if the Project would:

- Be below the applicable screening size for the proposed use;
- Include all BAAQMD-recommended basic construction BMPs in the Project's design; and
- Not include any of the following:
    - Demolition;
    - More than one simultaneous construction phase;
    - Greater than 10,000 cubic yards import or export of cut or fill material from off-site; or
    - Necessitate extensive site preparation.

No screening size is provided for restoration projects in the BAAQMD guidelines. The most similar land use is city parks—for which the applicable screening sizes are 2,613 acres for operational ROGs and 67 acres for construction PM_{10}. The Project Site is below these screening criteria at a total of 14.2 acres.

Pursuant to Mitigation Measure AIR-1, the Project would implement all applicable BAAQMD-recommended construction BMPs.

There are no structures present on the Project Site, so no demolition would be required. Multiple simultaneous construction phases and land uses are not proposed. The Project Site would remain entirely in open space and conservation land use and would require the completion of each construction phase before subsequent phases being (i.e. the Site must be graded before revegetation commences). All excavation and grading would be balanced on-site, so no soil import or export would be required. It is possible that some

removed vegetation would need to be hauled off-site, but this would not occur in sufficient quantities to generate significant air quality emissions. Further, extensive site preparation would not be required.

In summary, the Project would only temporarily generate emissions and would not do so in large quantities. All applicable screening criteria would be met, including implementation of all BAAQMD-recommended construction BMPs. Thus, the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Bay Area is in non-attainment under applicable state and federal laws; and impacts would be less than significant with mitigation incorporated.

Mitigation Measure AIR-1

Please see above.

c) Would the Project expose sensitive receptors to substantial pollutant concentrations?

Less-than-Significant Impact. The nearest sensitive land use is a small residential development 0.17 miles northwest of the Project Site. Given that air pollutants dissipate as they move away from their source and minimal air pollutants would be generated by the Project, residents of this development would not be exposed to substantial pollutant concentrations by the Project. Further, prevailing winds in Corte Madera blow from the west for most of the year[11]; so winds from the Project Site would blow pollutants away from the nearest residential developments. Other sensitive land uses are not located sufficiently close to the Project Site for sensitive receptors to be exposed to substantial pollutant concentrations. Given the Project Site's distance from sensitive land uses, the direction of prevailing winds, and air pollutants' tendency to disperse as they move away from their source, there would be less-than-significant impacts regarding the exposure of sensitive receptors to substantial pollutant concentrations.

d) Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

No Impact. According to BAAQMD, odor-generating uses of concern include wastewater facilities, landfills, transfer stations, refineries, asphalt plants, chemical and/or fiberglass manufacturers, coffee roasters, confined animal feeding facilities, recycling operations, and metal smelting plants. While this is not intended to be an exhaustive list, it provides an idea of the generally industrial nature of typical odor-generating facilities. As the Project

[11] Weather Spark, "Average Weather in Corte Madera, California, United States, Year Round," accessed December 20, 2018, https://weatherspark.com/y/503/Average-Weather-in-Corte-Madera-California-United-States-Year-Round.

Site would remain undeveloped, it would not create a new source of odor-generating emissions.

It is possible that construction would create some emissions that may lead to odors through ground disturbance of bay muds and the use of gas and diesel-powered equipment. This would be temporary and minimal, halting after completion of construction. Further, there are few sensitive receptors close enough to the Project Site to perceive any objectionable odors created by construction emissions.

In conclusion, the Project would not create new, permanent emission sources that may affect a substantial number of people and odors from construction emissions would be temporary and affect minimal quantities of people. The Project would therefore not create other emissions, including those leading to odors, affecting a substantial number of people; and there would be no impact.

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5.4 Biological Resources

IV.	**BIOLOGICAL RESOURCES** — Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
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?	☐	☒	☐	☐	*8, 9, 10, 27*
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐	*8, 9, 27*
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐	*8, 9, 10, 27*
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?	☐	☒	☐	☐	*8, 9, 27*
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒	*2, 12, 27*
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?	☐	☐	☐	☒	*11, 27*

Environmental Setting

Analysis of potential biological impacts has incorporated information from multiple site visits by WRA, a Biological Resources Inventory (BRI; WRA 2015), a Biological Assessment (BA; WRA 2018) and a Jurisdictional Delineation of Waters of the United States (WRA 2015). The BRI was the primary technical support study used to assess the Project's potential impacts on biological resources, and is available for review on the District website or at the District office. The BRI originally studied the entire 72-acre District property and has since been re-evaluated and determined to apply to the updated Project design and location. The basis of this determination was qualitative, and was primarily based on observations by WRA biologists during site visits and the fact that reducing the size of the Project Site does not alter the biological baseline. To further validate this conclusion, in June 2019 a WRA biologist visited the Project Site and searched regulatory databases to verify that no changes to biological communities within or special-status species sighting near the Project Site which would invalidate the BRI's findings have occurred. Their findings are documented in a memo appended to the BRI, which is available on the District's website.

The purpose of the BRI was to provide an inventory of the biological resources present in the Study Area, which would inform potential tidal marsh and seasonal wetland restoration and other Project Site modifications. The purpose of the BA was to assess the Project's ability to affect endangered or threatened species or critical habitat. The Study Area consisted of an approximately 96-acre area, which includes the Project Site, the entirety of the 72-acre subject parcel owned by the District, and adjacent lands that may be included in the proposed restoration efforts (e.g. tidal channels that may be used to restore tidal hydrology to the subject parcel).

In addition to the BRI and BA, WRA conducted a jurisdictional delineation of the 96-acre study area to determine the presence and extent of potential waters of the U.S. under federal jurisdiction, Waters of the State under RWQCB jurisdiction, and waters under the jurisdiction of the Bay Conservation and Development Commission (BCDC). The Study Area contains approximately 42.50 acres of wetlands, including 20.55 acres of seasonal wetlands and 21.95 acres of tidal salt marsh. Additionally, the Study Area contains 2.97 acres of non-wetland waters that may be subject to federal regulation under Section 404 of the Clean Water Act (CWA) and/or Section 10 of the Rivers and Harbors Act (RHA).

Of this acreage, approximately 24.31 acres of wetlands (including 20.24 acres of seasonal wetlands and 4.07 acres of tidal salt marsh) and 1.94 acres (2,020 linear feet) of non-wetland waters occur within the subject parcel. All areas determined to be subject to federal jurisdiction are also potentially subject to state jurisdiction under Section 401 of the CWA and under the Porter-Cologne Act (PCA). The Study Area was determined to contain approximately 25.22 acres of land within the BCDC's San Francisco Bay jurisdiction and 13.95 acres of land within their

Shoreline Band jurisdiction, of which the property contains 6.58 acres of land within the BCDC's San Francisco Bay jurisdiction and 12.49 acres of land within their Shoreline Band jurisdiction

BRI Methods

Prior to the site visit, reference materials were reviewed, including the Soil Survey of Marin County, online soil data, U.S. Geological Survey (USGS) 7.5-minute maps for the San Rafael quadrangle, and current and historic aerial photographs of the Study Area. These materials were reviewed to determine whether any unique soil types or other features capable of supporting special-status plant species, sensitive plant communities, and/or aquatic features were present on the Study Area. Database searches were conducted for known occurrences of special-status plant and wildlife species focused on the San Rafael, San Quentin, Novato, Petaluma Point, Point Bonita, and San Francisco North USGS 7.5-minute quadrangles.

WRA biologists surveyed the Study Area on foot on July 15 and 29, August 13, and September 11, 2014 to document biological communities and assess their conditions and suitability for hosting special-status species. Biological communities were identified in the field and divided into sensitive and non-sensitive communities. Sensitive biological communities were classified as those communities afforded special consideration under CEQA, all vegetation alliances with a State ("S") ranking of S1 through S3, communities designated with an asterisk (*) by Holland (1986), or on the CDFW natural communities list, and communities considered jurisdictional under Sections 404 or 401 of the CWA, Section 10 of the RHA, and/or Section 1600 of the California Fish and Game Code. Non-sensitive biological communities were classified as those not afforded special consideration under the CEQA or other federal, state, or local laws, regulations, or ordinances.

Biological Communities

Seven sensitive and seven non-sensitive biological communities were observed in the Study Area. These biological communities and their total acreage across the Study Area and the Project Site are summarized in Table 1 and Figure 5.

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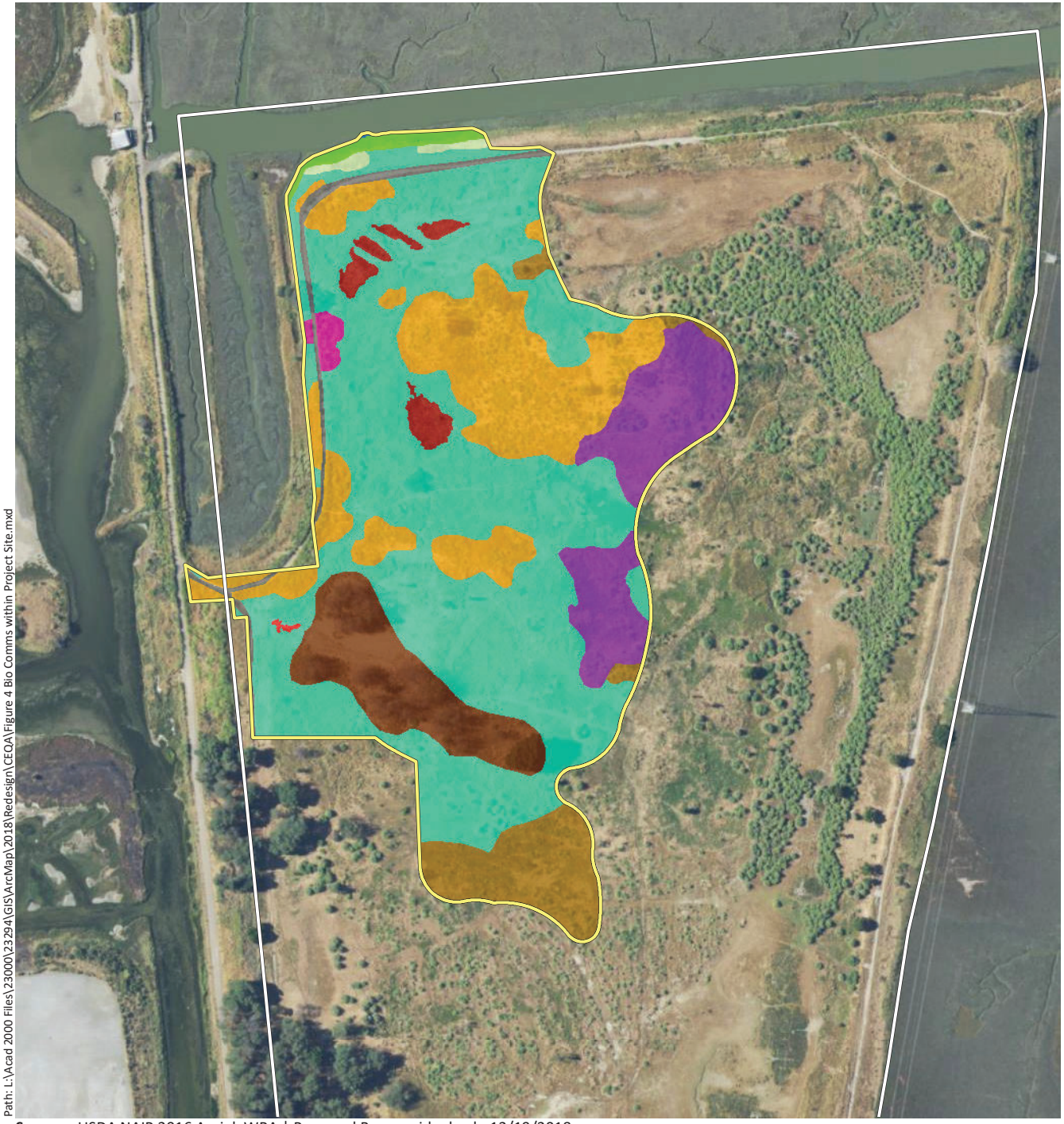
Table 1. Biological Communities in the District Property and Project Site

Community	Acres within District Property	Acres within Project Site
Sensitive Communities		
Curly dock seasonal wetlands	1.49	0.26
Fat hen and brassbutton fields	12.94	0.01
Pickleweed mats (non-tidal)	5.47	0.0
Salt marsh bulrush marshes	0.31	0.0
Pickleweed mats (tidal)	3.73	0.17
Saltgrass flats	0.48	0.07
Open Water	1.94	0.0
Total Sensitive	*26.36*	*0.5*
Non-Sensitive Communities		
Acacia woodland	3.23	1.19
Coyote brush scrub	5.01	1.42
Fennel patches	4.40	2.63
French broom patches	0.31	0.10
Non-native grassland	19.37	7.60
Pampas grass patches	11.90	1.00
Developed	1.74	0.27
Total Non-Sensitive	*45.96*	*14.21*



Path: L:\Acad 2000 Files\23000\23294\GIS\ArcMap\2018\Redesign\CEQA\Figure 4 Bio Comms within Project Site.mxd

Sources: USDA NAIP 2016 Aerial, WRA | Prepared By: mweidenbach, 12/19/2018

Figure 5. Biological Communities within Project Site

Corte Madera Four-Acre
Tidal Marsh Restoration Project
Town of Corte Madera,
Marin County, California

ENVIRONMENTAL CONSULTANTS

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Special-Status Species

Special-Status Plant Species

No special-status plant species were observed in the study area during the site visits conducted for this assessment, and based on conditions observed at the site, it was determined that the study area does not contain suitable habitat for the majority of the 89 special-status plant species documented from the vicinity. These species are generally associated with less disturbed habitats and habitats which are not present on the study area. Some special-status plant species were also determined to have low potential to occur within the study area due to the lack of current observations within the vicinity of the study area. Special-status plant species with a moderate to high potential to occur within the Study Area are summarized in Table 2 below.

Table 2. Special-Status Plant Species with Potential to Occur in the Study Area

Common Name	Scientific Name	Potential
Point Reyes Bird's-Beak	(Chloropyron maritimum ssp. palustre)	High
Marin Knotweed	(Polygonum marinense)	High

Special-Status Wildlife Species

Special-status wildlife species include species that have been formally listed, are proposed as endangered or threatened, or are candidates for listing under the federal and/or California Endangered Species Acts (ESA, CESA). CDFW Species of Special Concern and USFWS Birds of Conservation Concern are also considered special-status species. Although the latter two categories generally have no special legal status, they are given special consideration under the CEQA. Finally, wildlife species considered sensitive by the County of Marin are treated as special-status within this document.

Based on the database searches conducted for this assessment, it was determined that 39 special-status species of wildlife have been recorded from the referenced quadrangles. Two special-status wildlife species were observed in the Study Area during site visits: California Ridgway's rail and San Pablo song sparrow (Melospiza melodia samuelis). An additional five special-status wildlife species were determined to have a moderate or high potential to occur in the study area. Special-status species that were observed or determined to have moderate to high potential to occur on the Study Area are summarized in Table 3. Of these species, the BA determined that the Project would have the potential to affect California Ridgway's Rail and Salt Marsh Harvest Mouse. Each of these species are discussed below.

Table 3. Special-Status Wildlife Species with Potential to Occur in the Study Area

Common Name	Scientific Name	Potential
California Ridgway's Rail	*Rallus longirostris obsoletus*	Present.
San Pablo Song Sparrow	*Melospiza melodia samuelis*	Present.
Salt Marsh Harvest Mouse	*Reithrodontomys raviventris*	High potential
Northern Harrier	*Circus cyaneus*	Moderate potential
White-Tailed Kite	*Elanus leucurus*	Moderate potential
California Black Rail	*Laterallus jamaicensis coturniculus*	Moderate potential
San Francisco (Salt Marsh) Common Yellowthroat	*Geothlypis trichas sinuosa*	Moderate potential

California Ridgway's Rail (Rallus longirostris obsoletus). California Ridgway's rail nests predominantly in the low portions of coastal wetlands and tidal sloughs. Factors important for breeding are well-developed sloughs and secondary tidal channels; extensive cordgrass stands; dense salt marsh vegetation for cover, nest sites, and brooding areas; intertidal mudflats, gradually sloping tidal channel banks, and cordgrass beds for foraging; abundant invertebrate food resources; and transitional vegetation at the upland edge of the salt marsh for refuge during high tides. Nests are placed in locations that are not flooded by tides and have dense vegetative cover.

This species was observed foraging on an exposed mudflat in the northwestern portion of the Study Area and is often observed by conservation groups during breeding season surveys in nearby marshes. It is unlikely that California Ridgway's rail nests in the Study Area due to human activity and the presence of off-leash dogs. However, it is likely that California Ridgway's rail nests within approximately 650 feet of the Study Area in adjacent tidal salt marsh habitat. Restoration of tidal salt marsh habitat within the portions of the Study Area inboard of the perimeter levee would increase the value of this habitat for Ridgway's rail.

Salt Marsh Harvest Mouse (Reithrodontomys raviventris). Salt marsh harvest mouse (SMHM) is found only in saline emergent wetlands of San Francisco Bay where dense vegetative cover is present for escape during high tides. SMHM is thought to prefer pickleweed-dominated vegetation, although may be supported in pickleweed-dominated and mixed vegetation, including native and non-native salt and brackish marsh vegetation.

The tidal pickleweed habitat and the non-tidal pickleweed habitat within seasonal wetlands in the southern and eastern portions of the Study Area provide potentially suitable habitat for SMHM. Trapping performed in 1990 confirmed the species was present directly east of the Study Area. No substantial changes in habitat have occurred since that time; so SMHM is presumed to be present in the tidal marshes surrounding the Study Area. The seasonal wetland habitat (when not inundated) and upland habitats within the Study Area may provide upland refuge habitat for SMHM during high tides. Restoration of tidal salt marsh habitat within the study area would increase value of this habitat for SMHM.

Discussion of Impacts

a) Would the Project 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?

Less than Significant with Mitigation Incorporated. The Project is a tidal marsh restoration and seasonal wetland relocation. Although 0.28 acre of seasonal wetland would be displaced as a result of the Project, the Project would create 0.28 acre of seasonal wetland, resulting in no net change in the quantity of seasonal wetland present within the Project Site. Further, while 0.01 acre of pickleweed bench would be converted to tidal channel, the Project would create 3.42 acres of pickleweed bench, 0.28 acre of tidal channel, and 0.60 acre of cordgrass bench. This would result in a net gain of all tidal marsh habitat components. Thus, there would be no adverse effect on special-status species' habitat. The only habitat that would suffer a net loss would be invasive grassland, which is unimportant to candidate, sensitive, and special-status species.

Special-status species observed at or likely to occur within the Project Site are listed in Tables 2 and 3 above. Given special-status species are known to be present and the Project Site is within essential fish habitat, it is possible that construction activities could have adverse impacts on these species through direct physical harm or through habitat disturbance. Mitigation Measures BIO-1 and BIO-2 require the District to implement USFWS-recommended mitigation to reduce potential impacts to special-status species. With implementation of Mitigation Measures BIO-1 and BIO-2, potential impacts are reduced to less-than-significant levels. Thus, the Project would not have a direct or indirect substantial adverse effect on special-status, candidate, or sensitive species pending implementation of Mitigation Measures BIO-1 and BIO-2; and impacts would be less than significant with mitigation incorporated.

Mitigation Measure BIO-1

Upon conclusion of the Section 7 consultation process and prior to advertising for construction, the District shall incorporate all mitigation measures recommended by USFWS during the Section 7 consultation process, into the construction documents for the project. The District and its contractor shall implement the mitigation measures before and during construction. Such measures may include, but are not limited to:

- A USFWS-approved biologist will be present on-site during all construction work taking place in or adjacent to salt marsh and other pickleweed-dominated habitats, including all vegetation removal and initial ground-disturbing work in these areas;

- When construction activities are to take place in potential SMHM habitat, vegetation removal in work areas will be performed using non-motorized or hand-held motorized equipment to remove cover and render these areas unattractive to SMHM, beginning in less suitable SMHM habitat and moving towards more suitable habitat. Vegetation will be cut in two phases, first to mid-canopy height then to ground level or no higher than one inch off the ground;

- Temporary SMHM exclusion fencing will ~~may~~ be erected around work areas if deemed beneficial by USFWS using the best available science;

- If California Ridgway's Rail or SMHM is observed at any time during construction, work will not be initiated or will be stopped immediately by the biological monitor until the rail or mouse leaves the vicinity of the work area of its own accord.

Mitigation Measure BIO-2

Upon conclusion of the Section 7 consultation process and prior to advertising for construction, the District shall incorporate all mitigation measures recommended by NMFS during the Section 7 consultation process into the construction documents for the project. Such measures may include, but are not limited to:

- The berm breach will be excavated in dry conditions (above the water line, or during low-tide conditions); no in-water work will occur;

- Final grading of the berm breach will be timed so that a rising tide will complete the tidal hydrologic connection. Any turbidity created by the

breach will be as minimal as possible, and will cause as little water velocity change as possible when the breach occurs;

- Any equipment used during construction will be maintained to be free of leaks.

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

Less than Significant with Mitigation Incorporated. Sensitive biological communities identified on the Project Site include curly dock seasonal wetlands, fields of fat hen and brassbuttons, tidal pickleweed mats, salt marsh bulrush marshes, and saltgrass flats. Adverse impacts could result upon sedimentation of area waters or pollution with hazardous materials during construction. However, Mitigation Measures HYDRO-1 and HYDRO-2 integrate BMPs to minimize these possibilities.

The Project would involve temporary impacts to tidal marsh through removal of 0.18 acre of tidal marsh vegetation. The Project would involve permanent impacts to 0.01 acre of pickleweed tidal marsh vegetation and 0.28 acre of seasonal wetland, which would be replaced as part of the project. However, the Project includes construction of approximately 0.30 of tidal marsh beyond the District's 4.0-acre obligation and the construction of 0.28 acre of seasonal wetlands, so impacts to these natural communities would be considered temporary.

On a permanent basis, there would be a net positive impact on sensitive natural communities, as the Project would result in a net gain of approximately 4.30 acres of tidal marsh habitat. Given the Project is designed to minimize temporary impacts to sensitive natural communities and permanent impacts to sensitive natural communities would be positive, the Project would not have a substantial adverse effect on any such communities. Thus, any impacts would be less than significant with mitigation incorporated.

Mitigation Measure HYDRO-1

The District and its contractor shall, at minimum, implement the following erosion control measures:

- Implementation of erosion control measures such as silt fencing and dust control in areas of ground disturbance
- Establishment of appropriate soil/materials management controls during pre-clearing, vegetation removal, and earthmoving/grading
- Preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP)

The District shall additionally implement erosion control measures in accordance with its Section 401 permit, which may include but are not limited to:

- Limiting access routes and stabilizing access points.
- Stabilizing graded areas as soon as possible with seeding, mulching, erosion control materials, or other effective methods.
- Delineating clearing limits, easements, setbacks, sensitive areas, vegetation, and drainage courses by marking them in the field.
- Stabilizing and preventing erosion from temporary conveyance channels and outlets.
- If rainfall occurs, using sediment controls and filtration to remove sediment from water collected on-site during construction.

Mitigation Measure HYDRO-2

All refueling, staging, and/or maintenance of heavy equipment shall take place at a minimum of 50 feet away from all identified jurisdictional wetlands, waters of the U.S., and drainage courses. The refueling/maintenance and construction staging area shall be bermed, graveled or covered with straw and incorporate measures for capture of any accidental spills.

c) Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less-than-Significant Impact. According to a jurisdictional delineation of Waters of the United States and Waters of the State conducted by WRA, there are approximately 20.24 acres of seasonal wetland and 4.07 acres of tidal salt marsh on the District property that includes the Project Site. These constitute federally protected waters under Section 404 of the CWA and state protected waters under the Porter-Cologne Act and Section 401 of the CWA. In addition to waters of the U.S. and the State within the District property, the property is neighbored by the tidal marshes of the CMER and a drainage channel which connects to tidal marsh and the San Francisco Bay.

The Project would temporarily impact 0.18 acre of tidal marsh along the drainage channel. This marsh habitat would undergo grading and temporarily lose its vegetation, but would be revegetated and restored to comparable quality to baseline levels upon Project completion. Additionally, 0.01 acre of tidal marsh dominated by pickleweed would be converted to low marsh dominated by cordgrass. Impacts to the quality of this tidal marsh habitat would be permanent and occur during site grading before revegetation.

Although the Project would result in the conversion of some vegetation types to others, there would be a net gain of all habitat components. The Project would create approximately 0.28 acre of tidal channel, 0.60 acre of cordgrass bench, and 3.42 acres of

pickleweed bench, resulting in at least 4.30 acres of tidal marsh habitat, roughly 0.30 beyond the District's 4.0-acre obligation. As the Project would create more tidal marsh habitat than it would convert or remove, there would be a net gain of habitat, and any habitat conversion or loss would constitute a less-than-significant impact.

The site selected for restoration of tidal marsh habitat currently contains seasonal wetlands, which have developed on the property since historical dredge material was deposited in the late 1900s. Approximately 0.28 acre of seasonal wetland would be removed and reconstructed farther south of their current location to allow creation of the new tidal marsh plain.

In conclusion, the Project would include temporary impacts to protected wetlands under Section 404 of the CWA and all permanent impacts are accounted for and offset by the Project's creation of additional wetlands. Thus, there would be less-than-significant impacts.

d) Would the Project 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?

Less than Significant with Mitigation Incorporated. The Project Site is adjacent to the CMER, which currently provides 620 acres of tidal marsh habitat for migratory and resident species.

The Project Site is part of a mosaic of wetland habitats within the San Francisco Bay that function as an important landscape linkage for bird species by providing resting and foraging habitat during migration along the Pacific Flyway. Restoration of tidal salt marsh habitat, including upper marsh, would increase the regional availability of this habitat. Connectivity for local non-avian tidal salt marsh species would be improved through habitat enhancement and restoration activities which increase the amount of tidal salt marsh habitat and create a network of tidal channels.

To maximize the utility of newly created habitat as a migratory and dispersal corridor, the Project would include creation of upland habitat for high tide refuge and an exclusion fence to minimize disturbance by off-leash dogs. Further, should disturbance by dogs or humans prove an issue for habitat quality, the District would reserve the right to restrict public access to the property. These actions would create additional high-quality habitat adjacent to pre-existing habitat, enhancing habitat connectivity and utility for migratory and resident species.

During construction, there could be a temporary, negative effect on wildlife movement and on the use of native wildlife nursery sites due to extensive site disturbance. Although, construction would be designed to minimize impacts through features such as scheduling construction to occur outside of rail breeding season. Nonetheless, construction disturbance could adversely affect native fish and wildlife species' use of nursery sites. With implementation of Mitigation Measures BIO-1 and BIO-2, this impact would become

less than significant.

In summary, permanent impacts to the movement of wildlife (i.e. migratory birds) would be positive. There would be temporary adverse impacts on wildlife movement and use of nursery sites, but the Project would minimize these impacts to a less-than-significant level by design and through implementation of Mitigation Measures BIO-1 and BIO-2. Thus, impacts regarding the movement of resident or migratory wildlife species and the use of native wildlife nursery sites would be less than significant with mitigation incorporated.

Mitigation Measure BIO-1

Please see above.

Mitigation Measure BIO-2

Please see above.

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

No Impact. The Project would remove some invasive trees that are not protected by any local policies or ordinances. No local policies or ordinances were identified where a potential conflict might arise. Thus, there would be no conflict with local policies protecting biological resources; and no impact would occur.

f) Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. No regional Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs) have been adopted in Marin County[12]. Further, no HCPs or NCCPs adopted by the District were identified. As there are no HCPs or NCCPs applicable to the Project, the Project would not conflict with any such plan; and there would be no impact.

[12] *California Department of Fish and WIldlife, California Regional Conservation Plans, October 2017, October 2017, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626.*

5.5 Cultural Resources

V.	**CULTURAL RESOURCES** — Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒	*13, 27*
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐	*13, 27*
c)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	*13, 27*

Environmental Setting

The Project Site was historically tidal marsh but was filled in the 1970s during development of the Larkspur Ferry Terminal. Garcia and Associates (GANDA) conducted a Cultural Resources Study of the Project Site in June 2014. A copy of this technical support study is available for review on the District's website and at the District's office, and its findings are summarized below. GANDA concluded that no historical resources are likely to be impacted as a result of the Project.

Archival research conducted by GANDA included examination of library and Project files. A review (NWIC File No. 13-1930) was completed of the archaeological site base maps and records, survey reports, and other materials on file at the Northwest Information Center (NWIC), Sonoma State University, Rohnert Park. Sources of information included but were not limited to the current listings of properties on the National Register of Historic Places (National Register), California Historical Landmarks, California Register of Historical Resources (California Register), and California Points of Historical Interest as listed in the Office of Historic Preservation's Historic Property Directory.

The Office of Historic Preservation has determined that structures older than 45 years should be considered potentially important historical resources, and former building and structure locations could be potentially important historic archaeological sites. Archival research included an examination of historical maps to gain insight into the nature and extent of historical development in the general vicinity, and especially within the study area. Maps ranged from hand-drawn maps of the 1800s (e.g., GLO plats) to topographic maps issued by the United States Geological Survey (USGS) and the USACE from the early to the middle 20th century.

Archival research found that the study area had not previously undergone a cultural resources study and that no known cultural resources have been recorded within the area. However, during a field survey for this investigation, a previously unrecorded cultural resource was discovered—a

0.4 mile segment of the Northwestern Pacific Railroad (NWPRR) (P-21-002618). The NWPRR as a whole has previously been recommended as ineligible for listing in the National and California Registers. Since the newly discovered segment is part of a larger resource previously recommended as ineligible, it is also recommended as ineligible. No prehistoric or historic-period archaeological resources were identified. Remains of modern built environment infrastructure were identified, but as they are less than 45 years old, they are not considered cultural resources.

While the results of the geo-archaeological analysis indicate potential for buried prehistoric deposits within Holocene Bay Mud and Holocene Alluvium strata beneath the study area, such deposits are found at a depth significantly deeper than the Project impacts. For example, recent discoveries of cultural and archaeological resources in historic marsh around the Bay have ranged from 9.8-13.4 feet below ground surface and 23 feet below sea level. Most of the vertical disturbed area is not anticipated to extend below fill, and the majority of ground disturbances are proposed to correspond with the elevation of the existing tidal marsh in the adjacent CMER and will occur primarily within previously imported dredge material. A small portion of ground disturbance could extend into shallow portions of bay mud, but the higher strata of bay mud are not considered sensitive for cultural and archaeological resources. In summary, an assessment of the potential for buried prehistoric archaeological deposits within the Project Site resulted in a finding that the study area is not sensitive for such deposits.

The Native American Heritage Commission (NAHC) was contacted on October 28, 2014 with a request for information about sacred lands that might be located within the Project Site and a list of interested Native American groups and individuals who might have information regarding resources within or near the site. NAHC responded on November 17, 2014 but did not identify any sacred lands within the Project Site. NAHC provided a list of individuals and groups that may have knowledge of resources within the Project Site, and these groups were contacted on November 21, 2014. Correspondence with these groups included a description of the Project, Project maps, and a request that GANDA be notified with any information about the Project Site or concerns about the Project.

On December 11, 2014, GANDA received a letter from Nick Tipon, a representative of the Federated Indians of Graton Rancheria (FIGR) Sacred Sites Protection Committee. FIGR expressed concern over buried cultural resources and requested information on the depths of soil disturbance and other details of the Project. The tribe was provided with ground disturbance information and the results of an archaeological field survey on March 18, 2015 and a copy of the Cultural Resources Report on March 23, 2017. FIGR subsequently requested that the Project include a notification provision to contact FIGR's Tribal Heritage Preservation Officer if cultural resources are encountered during ground-disturbing activities.

Discussion of Impacts

a) Would the Project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

No Impact. Pursuant to State CEQA guideline 15064.5, record searches, field surveys, and research were conducted by GANDA to determine the potential presence of historic resources. The Project Site does not contain any resource listed in or determined to be eligible by the State Historical Resource Commission and does not contain a resource included in a local register of historic resources or identified as significant in a historical resource survey. Additionally, the Project Site does not contain any object, building, structure, site, area, place, record, or manuscript that a lead agency determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Therefore, no impact would occur.

b) Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than Significant with Mitigation Incorporated. GANDA identified no evidence of prehistoric or historic archaeological sites. The cultural resources study conducted at the site did not identify any archaeological resources through archival research or field survey. It is unlikely that construction would result in the discovery of any new archaeological resources, as ground disturbance would primarily occur on fill material. Nonetheless, there is a slight possibility of unanticipated and accidental archaeological discoveries during ground-disturbing Project-related activities. Unanticipated and accidental archaeological discoveries during Project implementation have the potential to affect significant archaeological resources, but this possibility is substantially mitigated by State requirements to cease work and evaluate the find upon accidental discovery of archaeological resources. The Project would comply with these requirements, as discussed in Mitigation Measure CULT-1. Impacts to archaeological resources would therefore be less than significant with mitigation incorporated.

Mitigation Measure CULT-1

Pursuant to PRC Section 21082 and Section 15064(f) of the CEQA Guidelines, the District shall make provisions for discovery of historical or unique archaeological resources during construction. These provisions shall include immediate evaluation by a qualified archaeologist upon accidental discovery. If the find is determined to be a historical or unique archaeological resource, contingency funding and time allotment should be allocated to allow implementation of avoidance measures or appropriate mitigation should be available.

c) Would the Project disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant with Mitigation Incorporated. Although findings indicate that no cultural resources are located within the Project Site, earthmoving activities associated with the Project could encounter previously unknown burials associated with the villages historically located in the area. Disturbance of these remains would result in a significant impact to human remains interred outside of formal cemeteries. However, compliance with State requirements outlining procedures for the accidental discovery of human remains is required per Mitigation Measure CULT-2, and would reduce the possibility of disturbance to less-than-significant levels. Impacts to human remains would therefore be less than significant with mitigation incorporated.

Mitigation Measure CULT-2

Pursuant to CEQA Guidelines Section 15064(e), upon accidental discovery of human remains, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the county coroner is contacted to determine that no investigation of the cause of death is required.

If the coroner determines the remains are Native America, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC shall subsequently identify the most likely living descendent, who may make recommendations to the landowner or person responsible for excavation for means of treating or disposing of the remains and any associated grave items.

If the NAHC is unable to identify the most likely descendent, or the descendent fails to make a recommendation within 24 hours of notification, or the landowner rejects the recommendation and mediation by NAHC fails to yield a mutually agreeable recommendation, the landowner or representative shall rebury the remains and associated items with appropriate dignity on the property in a location not subject to further subsurface disturbance.

5.6 Energy

VI.	**ENERGY** — Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation?	☐	☐	☒	☐	*26, 27*
b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒	*26, 27*

Discussion of Impacts

a) Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation?

Less-than-Significant Impact. During construction, energy resources would be required to transport equipment, workers, and solid waste to and from the site as well as to power construction equipment. On-site vehicle staging and minimization of equipment idling pursuant to California law would ensure that energy resources would not be used in a wasteful or inefficient manner during construction.

During the ecosystem monitoring and management period following the completion of construction, a few vehicle trips associated with monitoring and management activities would occur. Following this period, the Project would not require any energy use, as the newly restored ecosystem would be self-sustaining. There may be some vehicle trips and consequent fuel use associated with recreational use of the informal pedestrian loop, but this would not present an increase over baseline fuel use to reach the Project Site and would not constitute wasteful, inefficient, or unnecessary energy use.

In summary, the Project may result in a short-term increase in energy use during construction. Any such increase would not be unnecessary, wasteful, or inefficient; as measures to minimize the need for transportation and equipment idling are built into the Project design. In the long-term, the Project is not anticipated to lead to any change in energy usage for automobile trips to and from the site. As construction energy use would not be wasteful, inefficient, or unnecessary and there would be negligible operational energy use, there would be a less-than-significant impact.

b) Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The Corte Madera Climate Action Plan provides the local framework for expansion of renewable energy and energy efficiency. The Plan contains recommended government and community actions, none of which are applicable to construction or ecosystem restoration. The Plan's recommendations generally encourage the expansion of renewable and efficient energy. The proposed ecosystem restoration Project would not conflict or interfere with these goals.

Similarly, there are few requirements of state-wide plans and policies such as Title 24 that apply to open space projects. As few local and state energy renewability and efficiency programs and policies apply to the Project, there would be no conflict with any such programs and policies; and no impact would occur.

5.7 Geology and Soils

VII.	**GEOLOGY AND SOILS** — Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a)	Directly or indirectly cause 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?	☐	☐	☒	☐	*17, 18, 27*
	ii) Strong seismic ground shaking?	☐	☒	☐	☐	*18, 27*
	iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐	*18, 27*
	iv) Landslides?	☐	☐	☒	☐	*18, 27*
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐	*14, 15, 16, 27*
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?	☐	☐	☒	☐	*14, 15, 16, 27*
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐	*14, 15, 16, 27*
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒	*14, 15, 16, 27*
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☒	☐	☐	*14, 15, 16, 27*

Environmental Setting

Regional Geology

The Project Site is located in the Coast Ranges Geomorphic Province, which consists of northwest-trending mountain ranges (2,000 to 4,000, occasionally 6,000 feet elevation above sea level) and valleys. The ranges and valleys trend northwest, subparallel to the San Andreas Fault. The bedrock at the Project Site underlies fill, marsh deposits, and alluvial soils. To the west, the coastline is comprised of uplifted, terraced, and wave-cut bedrock ridges abutting the Pacific Ocean.

Soils

According to the United States Geological Survey (USGS), the Project Site consists almost entirely of Xerorthents, fill[13]. This material was deposited by the District to support dredging activities at the Larkspur Ferry Terminal. The soil has a 0-5% slope and does not flood or pond. Xerorthents are not considered hydric soils.

Project site soils and geologic hazards were investigated in 2014 by Miller Pacific Engineering Group (Miller Pacific). Miller Pacific found that 5-10 feet of sandy silty clay fill material exists above approximately 20 to 40 feet of bay mud on the Project Site, followed by medium stiff to stiff alluvial clays that extend in excess of 50 feet below the ground surface. They found that the existing perimeter berm is composed of medium stiff, clay-like soils that transition to soft bay mud at a depth of about 10 feet. Miller Pacific's evaluation of on-site geological hazards concluded that the risk of fault rupture is low, the risk of liquefaction and lateral spreading is low, the risk of erosion is low with proper control measures, the risk of seiche and tsunami is low, the risk of site settlement is high, the risk of seismically-induced slope instability is moderate, and the risk of expansive soils is low to moderate. Each of these findings are discussed below in greater detail.

Seismicity

The San Francisco Bay Area is one of the most seismically active regions in the United States. The Project Site could be affected by ground shaking due to movement along any one of a number of active faults in the region, including major faults such as the San Andreas and Hayward Faults, the two nearest faults to the Project Site. Both are located approximately 9.3 miles away[14]. Given the site's proximity to two major faults, it is unsurprising that its probabilistic seismic hazard, which assesses probable shaking severity during a Bay Area earthquake event, is rated as very strong[15].

The Project Site is situated in a low-lying area. Apart from the perimeter berm and mounds of dredging material that were deposited to create artificial upland areas, the site is relatively flat. The property is surrounded by areas that were rated as having moderate susceptibility to

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[13] United States Department of Agriculture, "Custom Soil Resource Report for Marin County, California," n.d., 17.
[14] California Geological Survey, "Earthquake Zones of Required Investigation," accessed August 23, 2018, https://maps.conservation.ca.gov/cgs/EQZApp/app/.
[15] Association of Bay Area Governments, "Bay Area Hazards," accessed July 16, 2018, http://gis.abag.ca.gov/website/Hazards/?hlyr=concordGV&co=6013.

liquefaction[16]. Based on site-specific subsurface exploration, the potential for liquefaction is low. The site has the potential for lateral displacement and ground cracking of existing berms and planned re-use areas during strong seismic ground shaking. It is not, however, a potential debris flow source during a rainfall-induced landslide and does not have a history of landslides[17].

Geotechnical Design and Evaluation

A geotechnical report was prepared for the District's entire parcel, including the Project Site. The report has since been updated to reflect the most current Project design and to confirm that the broader study covering the entire 72-acre property is applicable to the updated location in the northwest corner of the property. The report concluded that there would be no significant geotechnical risks related to the creation of the tidal marsh and new berm. A licensed geotechnical engineer reviewed the Project's 35% design documents and determined that the report's findings were applicable to the Project. The Geotechnical Report, prepared by Miller Pacific, is available for review on the District website or at the District office.

Discussion of Impacts

a-i) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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?

Less-than-Significant Impact. The Project Site is not located within the Alquist-Priolo Earthquake Fault Zone. The nearest fault zones are roughly nine miles away to the east and southwest. Miller Pacific found that there are no known active faults under the site and a deep soil layer overlies the bedrock, so the potential for fault rupture is insignificant.

Further, the Project would not create any structures apart from a fence around the restored habitat and would not draw new people to an area subject to fault rupture. The new improvements would be built to all applicable standards of safety. Given there are no known active faults present within the Project Site and the risk of rupture is insignificant, the Project would not directly or indirectly cause substantial adverse effects related to rupture of a known earthquake fault; and impacts would be less than significant.

a-ii) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Less than Significant with Mitigation Incorporated. The Project would not create structures or facilities for human habitation or services. A new berm would be constructed around the restored marsh area. This berm could be susceptible to minor shifting and cracking in the event of strong seismic shaking due to the placement of new fill over soft, compressible soils. This is particularly true in the short-term, and such risks would reduce over time as the soils settle.

[16] *Association of Bay Area Governments.*
[17] *Association of Bay Area Governments.*

Even though shifting and cracking are possible in the event of a strong earthquake, adverse effects are unlikely due to the fact that there are no structures within the Project Site that would be affected by berm damage. Further, the entire District property underwent geotechnical evaluation and it was determined that geological impacts associated with construction of the berm and restored marsh area are unlikely. A geotechnical engineer further examined these findings during the Project planning phase and found that these conclusions were applicable to the Project Site.

Although the risk of adverse effects is low and seismic risks were accounted for in Project Site evaluation and Project design, additional investigation by a geotechnical engineer in the event of a strong earthquake would further affirm the berm's safety in the event of strong seismic ground shaking. Thus, with implementation of Mitigation Measure GEO-1, impacts related to seismic ground shaking would be less than significant with mitigation incorporated.

Mitigation Measure GEO-1

In the event of a significant earthquake, a licensed geotechnical engineer should inspect the new berm, assess the level of damage, and recommend any necessary repairs. Such repairs may include but are not limited to re-grading the berm.

a-iii) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Less-than-Significant Impact. The Miller Pacific study identified low on-site liquefaction risk and determined that the potential for berm liquefaction is low because of the thick layer of bay mud beneath fill soils. Given the Project Site does not have a substantial risk of liquefaction and the Project would not construct any structures for human habitation or services, the Project would not cause substantial adverse effects such as loss, injury, or death related to seismic-ground failure, including liquefaction.

A new berm/mound would be constructed around the restored marsh area. This berm/mound could be susceptible to minor damage such as shifting and cracking in the event of strong seismic ground shaking due to fill over strong, compressible soils. This possibility would reduce over time. Further, the Project Site and its soils were investigated for geotechnical suitability and the Project was designed accordingly. As such, the Project would not directly or indirectly cause substantial adverse effects involving seismic-related ground failure. Impacts would therefore be less-than-significant.

a-iv) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Less-than-Significant Impact. The Project Site has not been assessed by the state geologist for seismic-induced landslide risk. However, the site is not a potential debris-flow source during rainfall-induced landslides, and does not have a history of landslides. Further, the Project Site is located on a low-lying area with no adjacent hills or mountains that might contribute to landslide risk. A study of the District Property by Miller Pacific

Engineering Group did not identify significant risk of landslides within the Project Site. Given the site's topography and lack of history of landslides, as well as the fact that the Project would not construct structures for human habitation or services, the Project would not expose people or structures to substantial adverse effects involving landslides. There would therefore be less-than-significant impacts.

b) Would the Project result in substantial soil erosion or the loss of topsoil?

Less than Significant with Mitigation Incorporated. To create suitable elevations and contouring for tidal marsh and seasonal wetland habitat, the Project would require excavation and grading of approximately 28,300 cubic yards of fill material. Following ground disturbance, a planting plan would be followed to ensure colonization by tidal marsh and wetland vegetation. Through revegetation of disturbed land, the risk of erosion and loss of topsoil would generally be comparable to the baseline risk upon Project completion.

Although the completed Project would not substantially contribute to the risk of soil erosion or the loss of topsoil, construction activities could potentially elevate such risks, particularly following ground disturbance and berm removal and prior to revegetation of the Project Site.

In compliance with Mitigation Measure HYDRO-1, the District and its contractor would implement a series of erosion control measures, including preparation and compliance with a SWPPP, use of silt fencing and dust control, and establishment of appropriate soil management controls. With the erosion control activities required under Mitigation Measure HYDRO-1, the Project would not result in substantial erosion or loss of topsoil. Impacts would therefore be less than significant with mitigation incorporated.

Mitigation Measure HYDRO-1

The District and its contractor shall, at minimum, implement the following erosion control measures:

- Implementation of erosion control measures such as silt fencing and dust control in areas of ground disturbance
- Establishment of appropriate soil/materials management controls during pre-clearing, vegetation removal, and earthmoving/grading
- Preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP)

The District shall additionally implement erosion control measures in accordance with its Section 401 permit, which may include but are not limited to:

- Limiting access routes and stabilizing access points.
- Stabilizing graded areas as soon as possible with seeding, mulching, erosion control materials, or other effective methods.

- Delineating clearing limits, easements, setbacks, sensitive areas, vegetation, and drainage courses by marking them in the field.
- Stabilizing and preventing erosion from temporary conveyance channels and outlets.
- If rainfall occurs, using sediment controls and filtration to remove sediment from water collected on-site during construction.

c) Would the Project 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?

Less-than-Significant Impact. As discussed above, the Project Site does not have a history of landslides and is not anticipated to be susceptible to landslides based on information on the site's soils and the adjacent parcel's liquefaction risk. The soil types identified on the Project Site are relatively stable under static conditions and do not present special risk of lateral spreading or collapse.

To reduce the possibility of geologic instability, a geotechnical study was conducted for the entire District property, including the Project Site. The report concluded that there would be no geological impacts from construction of the berm and restored marsh. A geotechnical engineer reviewed preliminary plans and concluded that the report's finding extended to the Project Site. During plan review, it was determined that the new berm could settle one to two feet over time, but that this would not present any on- or off-site risks because the berm is not intended for flood control and there are no structures which would be affected by berm settlement. As such, the Project would not be located on a geologic unit or soil that is unstable or would become unstable as a result of the Project; and impacts would be less than significant.

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

Less-than-Significant Impact. The soil study conducted by Northgate Environmental did not identify expansive soils on the Project Site. Further, the Project involves construction of only one structure, a perimeter fence. The rest of the Project would result in open space with no structures that might be at risk of failure if located on expansive soil. As the Project is not situated on soils with characteristics that lend themselves to expansiveness and the Project does not propose to construct any major structures, the Project would not create substantial risks to life or property due to location on expansive soil. Thus, impacts would be less than significant.

e) Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The Project would not require the use of septic tanks or alternative wastewater disposal systems. The Project is a wetland restoration, and human uses of the site would be secondary to mitigation/conservation uses. Construction of facilities intended for humans would be limited to an informal pedestrian trail and no wastewater disposal facilities would be constructed. Therefore, no impacts would occur.

f) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation Incorporated. There are no known paleontological resources or unique geologic features on site. Soils underlying the Project Site have the potential for buried paleontological resources, but such deposits would generally be too deep to be impacted by ground-disturbing activities. Most ground disturbance would only affect dredged fill material deposited on the site by the District and the shallow surface of exposed bay mud. Regardless, construction excavation could expose and have an adverse impact on undiscovered paleontological resources. This impact would be reduced to a less-than-significant level with implementation of Mitigation Measure GEO-2. Thus, impacts to paleontological resources and unique geologic features are less than significant with mitigation incorporated.

Mitigation Measure GEO-2

If buried paleontological resources or unique geologic features are discovered during ground-disturbing activities, work shall stop in that area and within 100 feet of the find until a qualified paleontologist or geologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with appropriate agencies.

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5.8 Greenhouse Gas Emissions

	IIX. GREENHOUSE GAS EMISSIONS — Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐	*6, 27*
b)	Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒	*6, 27*

Environmental Setting

Gases that trap heat in the atmosphere are known as greenhouse gases (GHGs) and affect the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. The most common GHGs are carbon dioxide (CO_2) and water vapor but there are also several others, most importantly methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO_2 and N_2O are byproducts of fossil fuel combustion.
- N_2O is associated with agricultural operations such as fertilization of crops.
- CH_4 is commonly created by agriculture (ex. livestock produce methane through their digestion) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and sulfur hexafluoride emissions are commonly created by industries such as aluminum production and semi-conductor manufacturing.

Each GHG has its own potency and effect upon the earth's energy balance. This is expressed in terms of a global warming potential (GWP), with CO_2 being assigned a value of 1 and sulfur hexafluoride being several orders of magnitude stronger with a GWP of 23,900. In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of CO_2 equivalents (CO_{2e}).

A scientific consensus supports the theory that global warming is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several natural

resources within California could be adversely affected by the global warming trend. Increased precipitation and sea level rise could increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

Although wetland soils release some GHGs into the atmosphere (e.g. CH_4), wetlands have the potential to absorb large amounts of carbon dioxide via photosynthesis and flooded soils have low oxygen levels which decrease rates of decomposition to promote the retention of soil carbon. The type of GHGs emitted from wetlands varies by wetland type and soil condition. In general, wetlands' carbon sequestration capacities are thought to outpace their tendency to release GHGs.

BAAQMD provides guidance to lead agencies in the Bay Area for assessing impacts related to GHGs. In 2017, BAAQMD adopted an update to their CEQA guidelines, which outline thresholds of significance for operational impacts to GHGs. BAAQMD does not offer a threshold for construction-related impacts, but encourages lead agencies to examine construction-related impacts in the context of the California Global Warming Solutions Act (AB32) and to evaluate whether construction impacts might impede attainment of AB32 goals.

Discussion of Impacts

a) Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-than-Significant Impact. The Project is a tidal marsh restoration, which would have neutral or potentially positive impacts on carbon sequestration capabilities and would not directly or indirectly emit any GHGs in the long-term. During construction, vehicle trips to the Project Site by workers and use of gasoline or diesel-powered grading and loading equipment would emit GHGs. Staging equipment on-site would minimize the GHGs associated with the transport of equipment and materials.

Although there are no quantitative thresholds for GHG emissions adopted by BAAQMD, lead agencies are encouraged to examine construction emissions in the context of AB-32 goals. AB-32 aims to reduce GHG emissions to 1990 levels by 2020 and 80% below 1990 levels by 2050. 5.4The temporary, slight increase in GHG emissions on the Project Site during construction would not be sufficient to impede the state's ability to attain this goal and would not make a cumulatively considerable contribution to an inability to attain this goal. Given there would be no emissions associated with the operational Project and construction emissions would be temporary and minimal, the Project would not generate GHGs that would have a significant impact on the environment. Thus, impacts would be less than significant.

b) Would the Project conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. This Project is a tidal marsh restoration and does not conflict with any plan, policy, or regulation of an agency adopted for the purpose of reducing the emission of GHGs. A conflict might occur if the Project were to prompt an increase in population or vehicle miles traveled (VMT) large enough to violate key assumptions used when developing plans and policies to reduce GHG emissions. The Project would result in a small, temporary increase in VMT with VMT returning to its baseline conditions following construction. The Project would not result in any population increase. Thus, there would be no conflict with applicable plans, policies, or regulations related to GHG reduction; and there would be no impact.

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5.9 Hazards and Hazardous Materials

IX.	**HAZARDS AND HAZARDOUS MATERIALS** — Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒	*27*
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?	☐	☒	☐	☐	*15, 21, 27*
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒	*18, 27*
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?	☐	☐	☐	☒	*19, 20, 27*
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?	☐	☐	☐	☒	*18, 27*
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	*27*
g)	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?	☐	☐	☐	☒	*22, 27*

Environmental Setting

Hazardous Materials

"Hazardous materials" are defined in this Initial Study as substances with chemical and physical properties that could pose a substantial present or future hazard to human health or the environment if improperly handled, stored, disposed, or otherwise managed.

Construction workers typically have the greatest risk of exposure to hazardous or contaminated materials. Accidents or spills during transport of hazardous materials or wastes can expose the general public and the environment to these substances.

A review of DTSC's EnviroStor database did not reveal any known hazards within one-quarter mile of the Project Site[18]. A review of DWR's GeoTracker database revealed seven completed Leaking Underground Storage Tank (LUST) cleanup sites just under a quarter mile from the site. These cases have all been completed and closed. The Marin Carwash is the only active LUST cleanup site near the Project Site. It is located roughly 0.25 miles to the northwest and is under assessment for potential gasoline contamination[19].

Site Assessment

In December 2015, WRA conducted a Phase I Environmental Site Assessment (Phase I). The Phase I was developed to assess potential impacts to soil and groundwater resulting from historical land use and placement of undocumented fill soil. Additionally, data gathered from the Phase I was used to aid wetlands restoration design and fill material reuse and disposal options. A copy of the Phase I is available for review on the District's website or at its office.

The District's property containing the Project Site was analyzed for chemicals of concern (COCs) using questionnaires, historical documents, and site reconnaissance. During the Phase I Assessment, fill material dredged from the Bay was identified as a potential concern due to the likely presence of lead and mercury. Additionally, the Phase I identified municipal drainage channels containing runoff of an unknown composition on the northern end of the property. The environmental professional conducting the Phase I concluded that the latter observation was not an environmental concern while the former was a potential constraint. Consequently, the Phase I concluded that additional sampling should be conducted prior to soil disturbance at the Project Site and in order to establish compliance with RWQCB standards for hazardous materials in soils used for tidal marsh restoration.

In 2018, the District implemented a soil sampling and analysis program with Northgate Environmental Management, Inc. for this Project to determine if the dredge spoils were suitable for tidal marsh restoration and public recreation. The program was developed using guidelines developed by the RWQCB for the beneficial reuse of dredge material. The results of the program indicated that all of the dredge material was suitable for recreation and can therefore be placed

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[18] "EnviroStor Database," accessed August 23, 2018, https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=corte+madera%2C+ca.
[19] California Department of Water Resources, "GeoTracker," accessed August 3, 2018, https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Sacramento.

in upland areas. Soil results within the proposed tidal marsh area indicated these soils were suitable for wetlands, with the exception of one soil sample that characterized a half-acre area where nickel was detected at levels greater than established screening levels. Within this area, the elevated detection only occurred at a depth that corresponded to the proposed surface elevation of the tidal marsh.

When presented these results, the RWQCB recommended that the soil corresponding with this half-acre area be removed and placed in an upland area. As a result, soils within the proposed tidal marsh surface that have been identified as having unsuitable composition for wetland restoration would be excavated and removed from the proposed tidal marsh surface area. The removed soils be placed in the upland areas. The resulting excavated area would subsequently be backfilled to appropriate design elevations with on-site soils that are suitable for restoration activities.

In a previous study, Northgate Environmental Management, Inc. (2016) concluded that that sediments in the northern drainage channel did not have sufficiently high contaminant concentrations to adversely impact water quality or tidal marsh habitat.

Other Hazards

The nearest schools to the Project Site are Redwood High School, Neil Cummins Elementary School, and San Andreas High School. All three schools are roughly 0.7 miles from the Project Site. There are no schools within one-quarter mile of the site. The nearest public use airport is Gnoss Field, located approximately 15 miles north of the site. The site is not within this airport's land use plan. The nearest private airstrip is the San Rafael airport, located approximately 5.7 miles north. The Project Site is located at the urban-wildland interface[20]. Although, according to CalFire, the site is not located in a high fire hazard severity zone[21].

Discussion of Impacts

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

No Impact. The Project is a wetland restoration. The Project does not involve routine transport, use, or disposal of hazardous materials, so no hazard to the public or the environment would be created and no impact would occur.

b) Would the Project 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?

Less than Significant with Mitigation Incorporated. Implementation of the Project would not result in the release of hazardous materials into the environment. Northgate

[20] *Association of Bay Area Governments, "Bay Area Hazards."*
[21] *California Department of Forestry & Fire Protection, "CAL FIRE - Marin County FHSZ Map," accessed August 23, 2018, http://www.fire.ca.gov/fire_prevention/fhsz_maps_marin.*

found that metal concentrations in on-site soil are within acceptable conditions for wetlands restoration and for upland recreational uses.

Accident and upset conditions involving construction equipment could result in a release of hazardous materials such as fuel and lubricants. Although, in compliance with Mitigation Measure HYDRO-2, heavy construction equipment would not be used or stored where associated hazardous materials might enter the San Francisco Bay or the storm drain system. Furthermore, in keeping with Mitigation Measure HAZ-1, a spill prevention and control plan would be created and implemented to minimize the chance of toxic spills and toxic spill kits would be present for work adjacent to open waters. Upon implementation of Mitigation Measures HAZ-1 and HYDRO-2, impacts would be reduced to a less-than-significant level. Thus, impacts would be less than significant with mitigation incorporated.

Mitigation Measure HAZ-1

The contractor shall comply with the following Best Management Practices to minimize risk to people and the environment from accident and upset conditions during work involving hazardous chemicals.

- The contractor shall follow all safety and health requirements set forth by the Occupational Health and Safety Administration
- The District shall include performance specifications in construction documents and the contractor shall prepare and implement a Spill Prevention and Control Plan to minimize the risk of toxic spills. Spill kits shall contain oil booms of sufficient length to surround excavation equipment when working in or near open water. Spill kits shall be present for any work adjacent to open waters. All spills of oil and other hazardous materials shall be immediately cleaned up and contained. Any hazardous materials cleaned up or used on-site shall be properly disposed of at an approved disposal facility.
- Any materials removed during pre-clearing activities and determined to be unsuitable for re-use shall be disposed of off-site according to current laws and regulations. If materials are characterized as hazardous waste, then a hazardous materials licensed contractor and transporter shall be required to handle and transport the materials to a disposal facility permitted to receive the waste in accordance with California laws.

Mitigation Measure HYDRO-2

All refueling, staging, and/or maintenance of heavy equipment shall take place at a minimum of 50 feet away from all identified jurisdictional wetlands, Waters of the U.S., and drainage courses. The refueling/maintenance and construction staging area shall be bermed, graveled or covered with straw and incorporate measures for capture of any accidental spills.

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

No Impact. As there are no schools within 0.25 miles of the Project Site, the Project would not emit hazardous emissions or handle hazardous waste or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Thus, no impact would occur.

d) Would the Project 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?

No Impact. The Project is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. According to a review of regulatory databases, the nearest hazardous waste site is roughly 0.25 miles away. As the Project is not located on a hazardous waste site pursuant to Government Code Section 65962.5, it would not create a hazard to the public or the environment. Thus, there would be no impact.

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 or excessive noise for people residing or working in the Project area?

No Impact. The Project is not included within an airport land use plan or within two miles of a public airport or public use airport. Thus, the Project would not result in a safety hazard or excessive noise for people living or working within an airport land use plan or within two miles of a public use airport; and no impact would occur.

f) Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. During construction, some additional vehicle trips may be generated on area roadways, but equipment would be staged on-site, resulting in only minimal increases in traffic, which would not obstruct evacuation plans. Further, the Project would not draw any new people to the area or construct any new structures which might physically impede emergency response. As the Project would not modify roadways, create substantial quantities of traffic, or result in new people or structures in the area, it would not impair implementation of or physically interfere with emergency response or evacuation. Thus, there would be no impact.

g) Would the Project 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?

No Impact. According to the Association of Bay Area Governments and CalFire, the Project Site is located at the urban-wildland interface, but is not in a high fire hazard severity zone. No new structures apart from a perimeter fence would be constructed as part of the Project. No new people would be drawn to the area apart from construction workers, who would likely be local to the area and would not experience increase wildfire risk. Further, the Project would result in the removal of grasses and shrubs over the footprint of the site, which would result in a reduction of fire risk. As the Project would introduce no new people or human-serving structures to the area and there would be a net reduction in fire risk, there would be no impact.

5.10 Hydrology and Water Quality

X.	HYDROLOGY AND WATER QUALITY — Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐	*23, 27*
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒	*27*
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:					
	i) Result in substantial erosion or siltation on- or off-site;	☐	☒	☐	☐	*27*
	ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐	*2, 27*
	iii) 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; or	☐	☐	☐	☒	*2, 27*
	iv) Impede or redirect flood flows?	☐	☐	☐	☒	*23, 27*
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	☐	☐	☒	☐	*18, 27*
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☒	☐	☐	*27*

Environmental Setting

The Project Site is located in the lower reaches of the Ross Valley Watershed, which extends north from the Project Site and contains the municipalities of Corte Madera, Larkspur, Fairfax, and San Anselmo. The watershed includes the Corte Madera Creek and San Clemente Creek as main surface hydrological features.

The Corte Madera Creek Watershed comprises approximately 28 square miles, which extends southeasterly from the foothills of Mount Tamalpais in the Coastal Ranges into the waters of the San Francisco Bay. Corte Madera Creek is north of the Town of Corte Madera and is approximately 4.2 miles in length.

The San Clemente Creek Watershed is located primarily within the Town of Corte Madera and does not have any known tributaries. San Clemente Creek is a tidal slough that is located between subdivisions and open space in Corte Madera. The primary function of San Clemente Creek is to drain stormwater runoff into the San Francisco Bay from the Town of Corte Madera.

The Town of Corte Madera, particularly its low-lying areas, are vulnerable to flooding. The High Canal and associated channels, lagoons, and the Shorebird Marsh ponding area are flood control facilities that enhance the Town's flood control capabilities. Factors that affect flooding in the lowland area of Corte Madera are fluvial hydrology, precipitation, tides, sea level rise, sedimentation, and land subsidence. The Project Site sits in a low-lying portion of Corte Madera along the San Francisco Bay, and is located within a 100-year flood plain. The Project's potential impacts on hydrology and water quality were the subject of a Hydrology Report completed by Noble Consultants, which is available for review on the District website or at the District office. The report originally studied the entire 72-acre District property and has since been updated to reflect the new Project design and location.

Regulatory Framework

The Clean Water Act (CWA) of 1972 is the primary federal law governing the protection of water quality and creating a cooperative federal-state framework for the creation, implementation, and enforcement of water quality standards. The law contains protections for wetlands and establishes which waters are considered federally protected, jurisdictional Waters of the United States. The CWA further requires the establishment of water quality standards for all surfaces waters of the United States and establishes a permitting system for municipal and industrial discharges into surface waters.

Similarly, the Porter-Cologne Water Quality Control Act of 1969 establishes California's authority to protect water quality. Porter-Cologne grants the SWRCB and various RWQCBs the authority to oversee water quality planning, issuance of discharge permits, enforcement of water quality standards, and issuance of water quality certifications.

Construction activities must comply with a unique set of water quality regulations. The SWRCB permits all regulated construction activities under the NPDES General Permit for Storm Water

Discharges Associated with Construction Activity[22]. The permit is administered at the County level. Construction activities that disturb one acre or more of land must comply with a Construction General Permit that regulates storm water leaving construction sites. The Project applicant must file Permit Registration Documents (PRDs) before beginning construction, including filing a Notice of Intent (NOI), and a Stormwater Pollution Prevention Plan (SWPPP).

The SWPPP must be implemented and monitored to ensure its effectiveness. The plan, which must also address control of pollutants in stormwater post-construction, must be on-site and available to inspectors. A SWPPP must include Best Management Practices (BMPs) designed to reduce potential impacts to surface water quality through the construction and service life of the Project.

Discussion of Impacts

a) Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant with Mitigation Incorporated. The Project would not violate any water quality standards or waste discharge requirements or otherwise degrade surface or groundwater quality. Wetlands provide a benefit to water quality by slowing water movement and filtering out suspended sediments, excess nutrients, and pollutants from stormwater. However, contamination of surface water could occur during construction in the event that sediment-laden runoff from disturbed work areas enters local waterways and increases turbidity, or if fuel or other construction chemicals are accidentally spilled or leaked into the water. Implementation of mitigation measure HYDRO 1 through HYDRO 2 would reduce impacts to water quality standards and waste discharge requirements to a less-than-significant level.

Mitigation Measure HYDRO-1

The District and its contractor shall, at minimum, implement the following erosion control measures:

- Implementation of erosion control measures such as silt fencing and dust control in areas of ground disturbance
- Establishment of appropriate soil/materials management controls during pre-clearing, vegetation removal, and earthmoving/grading
- Preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP)

The District shall additionally implement erosion control measures in accordance with its Section 401 permit, which may include but are not limited to:

[22] *Order No. 2009-009-DWQ, NPDES No. CAR000002, adopted September 2, 2009.*

- Limiting access routes and stabilizing access points.
- Stabilizing graded areas as soon as possible with seeding, mulching, erosion control materials, or other effective methods.
- Delineating clearing limits, easements, setbacks, sensitive areas, vegetation, and drainage courses by marking them in the field.
- Stabilizing and preventing erosion from temporary conveyance channels and outlets.
- If rainfall occurs, using sediment controls and filtration to remove sediment from water collected on-site during construction.

Mitigation Measure HYDRO-2

All refueling, staging, and/or maintenance of heavy equipment shall take place at a minimum of 50 feet away from all identified jurisdictional wetlands, waters of the U.S., and drainage courses. The refueling/maintenance and construction staging area shall be bermed, graveled or covered with straw and incorporate measures for capture of any accidental spills.

b) Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

No Impact. The Project does not involve groundwater pumping or construction of large impervious areas. There are therefore no activities that would affect groundwater supplies or recharge in the area and there would be no impact.

c.i) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

Less than Significant Impact with Mitigation Incorporated. The Project would involve earthwork and grading, excavation and relocation of the northwestern berm to the east and south sides of the new marsh, the construction of new tidal channels and seasonal wetlands. This could potentially result in erosion or siltation on- or off-site that could adversely affect the quality of receiving waters, including adjacent San Francisco Bay waters. For example~~s~~, if water velocity entering or leaving the restored wetlands is significant, embankment erosion could occur. With implementation of Mitigation Measure HYDRO-1, impacts related to erosion and siltation in the restored wetland would be less than significant.

The District sponsored a Hydrology Report that examined several restoration alternatives at this site. Noble Consultants prepared the report and the report was included as a

Technical Support Study to the IS/MND. The restoration alternatives that were evaluated in the report ranged in size from 4.9 acres to 30 acres of tidal marsh. All of the alternatives that were examined in the report incorporated a connection to the northern drainage channel as the source of tidal inundation. The report evaluated whether the restoration alternatives would have any significant adverse effects on the northern drainage channel.

In general, the size and configuration of the northern drainage channel are determined by the large discharge events that occur when the Town of Corte Madera pumps water from the Shorebird Marsh in the northern drainage channel and out to the Bay. The discharge rates, velocities, and associated shear stress for these events are much larger than the discharge rates, velocities, and associated shear stress associated with existing tidal action in the northern drainage channel and increased tidal action associated with the Project. These large discharge events have over the years enlarged the northern drainage channel and keep it free of sedimentation.

Shorebird Marsh was constructed to enable the Town of Corte Madera to store and manage stormwater. The facility includes a pump station, which is used to lower the water levels within Shorebird Marsh in anticipation of winter storm events to increase the storage capacity of the marsh. In addition, the pump station has an adjustable water inlet/outlet, which allows the Town of change water levels within the marsh seasonally and enhance habitat for shorebirds.

Hydrologically, the former SMART railroad ROW isolates Shorebird marsh from free flowing tidal inundation. The pump station and the adjustable water inlet/outlet structure provide a hydrologic connection to the marsh, and are used to raise and lower the water elevations within the marsh seasonably. Water entering and exiting the Shorebird Marsh is managed by the Town of Corte Madera. As a result, the Shorebird Marsh is not susceptible to erosion or sedimentation from the northern drainage channel.

The evaluation of restoration alternatives in the Hydrology Report included estimating the velocity and shear stress of water within the northern drainage channel for existing conditions and each of the proposed alternatives. The study concluded that none of the restoration alternatives would cause significant changes in the morphology (width, depth, and plan form) of the northern drainage channel). The report concluded that the increase in velocity associated with the restoration alternatives would not be significant. The risk of increased sedimentation was not a concern because all of the restoration alternatives would increase velocities slightly, which would aid in the removal of unwanted sediments from the northern drainage channel.

Noble reviewed the Project design in the context of the Hydrology Report and concluded that the results of the report were applicable to the Project. They concluded that the Project would also not cause significant changes in the morphology (width, depth, and plan form) of the northern drainage channel, unless significant erosion occurs in the new Project Site. This conclusion was documented in a letter from Noble, which was included in the Draft IS/MND.

As the Project would not result in erosion or siltation in the northern drainage channel or Shorebird Marsh, and Mitigation Measure HYDRO-1 further reduces the possibility of erosion and siltation within and near the Project Site, impacts would be less than significant with mitigation incorporated.

Mitigation Measures

Please see Mitigation Measure HYDRO-1.

c.ii) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less-than-Significant Impact. The Project proposes to create a new tidal slough channel connecting the drainage channel north of the Project Site with the restored habitat. This is anticipated to result in a positive change, as improved flood conveyance would result from the Project's restoration of tidal marsh and seasonal wetland ecosystem. As such, the Project would create a less-than-significant impact on- and off-site flooding.

c.iii) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would 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?

No Impact. The Project is restoration of tidal marsh and seasonal wetland habitat, both of which would enhance the Project Site's drainage capacities. The Town of Corte Madera maintains a stormwater drainage easement on the northern end of the District's property. The area under easement is used for municipal runoff and is located immediately north of the Project Site. Upon Project completion, the tidal marsh channel on the Project Site would provide additional conveyance for runoff, thereby improving stormwater drainage capacity. The Project would not create any new sources of polluted runoff, as the Project would restore native ecosystem. Thus, there would be no impact.

c.iv) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

No Impact. As previously discussed, the Project's impact to flooding is anticipated to be slightly positive. The Project would increase the area available to receive flood water from the Bay by up to four acres. Restoration of tidal marsh and seasonal wetland ecosystems would provide a small quantity of additional floodwater conveyance. No structures are proposed as part of the Project apart from a permeable perimeter fence. As such, there would be no impact on impedance and redirection of flood flows.

d) In flood hazard, tsunamic, or seiche zones, would the Project risk release of pollutants due to Project inundation?

Less-than-Significant Impact. The new marsh and wetland could potentially be inundated by flooding or tsunami but not seiche. Tsunami and seiche are caused by a large transfer of energy due to earthquake or landslide that creates potentially destructive waves in an ocean or lake, respectively. As the Project Site is not on a lake, there is no possibility of seiche. Portions of the Project Site are located within a tsunami hazard zone.

Portions of the Project Site would be regularly flooded with changing tides. These portions were evaluated by Northgate (See Section 5.9, Hazards and Hazardous Materials), who concluded that the sediment identified for the tidal marsh surface slightly exceeded screening values for nickel at one sampling location, and that these soils would be removed from the new tidal marsh area and placed in the uplands. The RWQCB agreed with this conclusion.

As the Project Site is not subject to seiche and the Project would not increase the risk of pollutant release upon tsunami, flooding, or tidal inundation, there would be less-than-significant impacts.

e) Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant with Mitigation Incorporated. The Project would not interfere with groundwater management; as no groundwater would be used and no impervious surfaces would be introduced. However, soil erosion and accidental spills during construction could conflict with water quality control plans, including Total Maximum Daily Loads (TMDLs) for the San Francisco Bay and Corte Madera Creek. Preparation and implementation of the Project's SWPPP, as required by Mitigation Measure HYDRO-1, would minimize the risk of conflict with water quality control plans. Thus, there would be no conflict with groundwater management or water quality control plans and no impact.

Mitigation Measures

Please see Mitigation Measure HYDRO-1.

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5.11 Land Use and Planning

XI.	**LAND USE AND PLANNING** – Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a)	Physically divide an established community?	☐	☐	☐	☒	*2, 3, 27*
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒	*2, 3, 27*

Environmental Setting

The Town of Corte Madera's general plan designates the site for Wetland and Marshland[23] land use. It is zoned Parks, Open Space, and Natural Habitat (POS) with a Baylands Risk Zone Overlay[24].

Land uses adjacent to the Project Site include the CMER, a publicly owned and accessible marsh reserve. The CMER borders the District's property to the north, south, and east, sitting adjacent to portions of the Project Site. To the west, the property is bordered by a channel connecting to Shorebird Marsh and further west, Shorebird Marsh. Also west of this channel the site is neighbored by commercial land uses such as strip malls and parking lots.

The Project Site is subject to Corte Madera's General Plan and Zoning Ordinance. It is not part of a coastal zone, and is therefore not subject to Marin's Local Coastal Program. Additionally, no habitat conservation plans (HCPs) or natural communities conservation plans (NCCPs) applicable to the Project Site were identified.

Portions of the Project Site are within the Bay Conservation and Development Commission (BCDC)'s jurisdiction. The Project is therefore subject to the provisions of BCDC's Bay Plan. The Plan defines the Bay and its shoreline and identifies impacts of development within the Bay and shoreline. The Plan includes seven major proposals, one of which is to maintain wildlife refuges in diked historic baylands and add to the existing refuge system.

[23] *Town of Corte Madera, "General Plan."*
[24] *Town of Corte Madera, "Town of Corte Madera Zoning Districts."*

Discussion of Impacts

a) Would the Project physically divide an established community?

No Impact. The Project involves restoration of tidal marshland on existing open space parcels. These tidal marshlands are located adjacent to the San Francisco Bay and are not located adjacent to any existing communities or residential developments. Therefore, the Project would not divide an established community and no impact would occur.

b) Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The Project is consistent with the plans and policies delineated in the Town of Corte Madera General Plan, including those that were adopted for the purpose of avoiding or mitigating an environmental effect. The Plan discusses the importance of Corte Madera's natural resources, including wetlands adjacent to the Bay, as aesthetic, cultural, and economic resources for the Town. It calls for the protection of such resources and encourages the concurrent furtherance of recreational opportunities. Similarly, the Project is consistent with BCDC's Bay Plan, which calls for the maintenance and expansion of wildlife refuges in historic marshland.

As the Project would further the goals of the Town's General Plan and BCDC's Bay Plan and there are no significant conflicts with either plan, no impact would occur regarding conflict with land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect.

5.12 Mineral Resources

XII.	**MINERAL RESOURCES** — Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
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?	☐	☐	☐	☒	*2, 24, 27*
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?	☐	☐	☐	☒	*2, 24, 27*

Environmental Setting

The Project Site was historically tidal marsh but was filled in the 1950s and 1970s to support development. The state geologist's Mines Online database does not reveal any mineral resource recovery sites within or near the Project Site. The nearest such site is located several miles north in the City of San Rafael[25]. The Town's General Plan does not delineate any locally important resource recovery sites within the Project Site.

Discussion of Impacts

a, b) ***Would the Project 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, or of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?***

No Impact. The Project Site does not contain any lands designated for mineral production or known for mineral deposits according to the California Mines Online Database and the Town of Corte Madera General Plan. Therefore, the Project would have no impact on mineral resources.

[25] *"Mines Online," accessed August 23, 2018, https://maps.conservation.ca.gov/mol/index.html.*

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5.13 Noise

XIII.	**NOISE** — Would the Project result in:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a)	Generation of a substantial temporary or permanent increase in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐	*2, 3, 27*
b)	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐	*27*
c)	For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	☐	☐	☐	☒	*2, 27*

Environmental Setting

Fundamentals of Environmental Acoustics

A decibel (dB) is a unit of measurement, which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. Each 10-decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. For every doubling of distance from a source, noise typically decreases by 6 dBA.

There are several methods of characterizing sound. The most common in California is the *A*-weighted sound level or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA.

The Community Noise Equivalent Level, CNEL, is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 pm - 10:00 pm) and a 10 dB addition to nocturnal (10:00 pm - 7:00 am) noise levels. The Day/Night Average Sound Level, DNL or L_{dn},

is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

Town of Corte Madera General Plan and Noise Ordinance

The District property that contains the Project Site is roughly 600 feet from the San Francisco Bay, adjacent to the CMER, and approximately 0.17 miles from the nearest residential development. Adjacent land uses include the CMER to the north, south, and east. To the west, the property neighbors Shorebird Marsh and an associated drainage channel, developed commercial land used for retail facilities, the Redwood Highway, and Highway 101.

The Town of Corte Madera General Plan describes Highway 101 as the principal source of ambient noise in the community. The General Plan shows noise contours along Highway 101, placing the Project Site within an area anticipated to have a baseline noise level of approximately 60 Ldn.

The Town's General Plan and noise ordinance govern acceptable noise levels at the Project Site. Maximum noise levels are established for new land uses affected by traffic noise. The most closely applicable standard is the standard for parks and playground land uses, which establishes a maximum outdoor activity area noise level of 70 Ldn.

Additionally, the Plan outlines rules for construction schedules and equipment. The Plan dictates that construction activities must occur between 7:00 a.m. and 5:00 p.m. on weekdays and 10:00 a.m. and 5:00 p.m. on weekends, unless an exemption is obtained from the Town due to special circumstances. Further, the Plan requires that all internal combustion engines used in conjunction with construction shall be muffled according to manufacturer's requirements.

Discussion of Impacts

a) Would the Project result in generation of a substantial temporary or permanent increase in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant with Mitigation Incorporated. The Project would take place in the Town of Corte Madera, which has established regulations within the Municipal Code and noise guidelines within the General Plan.

The Town's General Plan and noise ordinance require that construction occur between 7:00 a.m. and 5:00 p.m. weekdays and 10:00 a.m. and 5:00 p.m. weekends. The noise ordinance dictates rules for construction equipment, including a requirement that mufflers be utilized in accordance with manufacturer's recommendations. Should these restrictions be applied, the more specific noise limits delineated in Table 1 of the Noise Ordinance are not applicable to construction noise.

The restoration of the Project Site would require the grading and excavation of fill material, which would be balanced on-site. Although, vegetation removed as part of the grading process would need to be hauled off-site in trucks.

Construction equipment expected to be used for construction of the Project includes long-reach excavators, bulldozers, dump trucks, earth-moving scrapers, and water trucks. According to the Federal Highway Administration, the loudest of these is typically a scraper, which can generate a maximum noise level of 84 dBA from 50 feet away. Given the attenuation of noise with distance from its source, the 0.17 mile (~900 ft) distance of the nearest residential development, and the fact that machinery would only be powered on for a portion of the day during construction, noise at sensitive uses would be less than the 70 Ldn maximum allowed by the Town. For example, a scraper would reach less than 60 dBA at the nearest residences and would only be turned on for part of the day.

All equipment would be staged on-site during construction. All equipment would access the site via Industrial Way on the northwest side of the Project Site. Dump trucks taking excavated fill from the construction site to an approved off-site disposal area would use Industrial Way and Highway 101.

Based on the use of excavating and bulldozing equipment and the quantity of earth to be disturbed as part of the Project, it is anticipated that absent any noise abatement measures, the Project would result in a substantial temporary noise increase during construction and violate applicable policies related to noise in the Town's General Plan and Municipal Code. With implementation of mitigation measure NOISE-1, however, these impacts would be reduced to a less-than-significant level. Thus, impacts related to conflict with the Town's General Plan and noise ordinance policies and creation of temporary noise increases would be less than significant with mitigation incorporated.

Mitigation Measures NOISE-1

Prior to the start of ground-disturbance, the Contractor shall develop a construction noise mitigation plan, which considers the following available controls, to reduce construction noise levels as low as practical.

- Develop a construction schedule that minimizes potential cumulative construction noise impacts.
- Require internal combustion engines used for construction purposes to be equipped with a properly operating muffler of a type recommended by the manufacturer.
- Utilize "quiet" models of air compressors and other stationary noise sources where technology exists.
- Unnecessary idling of internal combustion engines shall be prohibited.
- Designate a Project liaison responsible for responding to noise complaints during the construction phase. The name and phone number of the liaison shall be conspicuously posted at construction areas and on all advanced notifications. This person shall take steps to resolve complaints.

- Require a reporting program that documents complaints received, actions taken to resolve problems, and effectiveness of these actions.
- Hold a preconstruction meeting with the job inspectors and the general contractor/on-site Project manager to confirm that noise mitigation and practices (including construction hours, construction schedule, and noise coordinator) are implemented in compliance with the noise mitigation plan.

b) Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

Less-than-Significant Impact. Excavation and grading on the Project Site would require the use of equipment such as bulldozers, scrapers, blades, skiploads, water trucks, excavators, and dump trucks. These machines have the potential to temporarily create some groundborne noise and/or vibration. However, excavation and grading activities would occur in relatively soft soils, so only low levels of ground vibration are anticipated.

Construction would take place during daytime hours in accordance with the Town's General Plan in order to minimize disturbing people in the vicinity of the Project with noise and vibration. After construction is complete, no increase in groundborne noise or vibration above current levels in anticipated. Given there would be no permanent generation of groundborne noise or vibration, equipment associated with excess groundborne noise and vibration would not be used, and construction would occur during daytime hours, the Project would not expose people to excessive groundborne noise or vibration; and there would be less-than-significant impacts.

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

No Impact. The Project is not located within two miles of a public airport or public use airport, in the vicinity of a private airstrip, or within an airport land use plan area and would not expose people residing or working in the area to excessive noise levels; therefore, the Project would result in no impact with respect to aircraft noise.

5.14 Population and Housing

XIV. POPULATION AND HOUSING — Would the Project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a)	Induce substantial unplanned 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)?	☐	☐	☐	☒	*2, 27*
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	*2, 27*

Environmental Setting

The Project Site was historically tidal marsh but was filled in the 1970s to support development of the Larkspur Ferry Terminal. There is no housing present on the Project Site and no housing is proposed as part of the Project. The proposed action is a tidal marsh restoration. The only structure being created for humans is a fence around the restored area to prevent recreationists and their dogs from entering the restored tidal marsh as they use the informal pedestrian loop on the District property. No employment or population-inducing elements are included in the Project.

Discussion of Impacts

a-b) Would the Project induce substantial unplanned population growth in an area, either directly or indirectly, or displace substantial numbers of existing people or housing, necessitating the construction of housing elsewhere?

No Impact. The Project would not induce population growth, as it does not propose any new homes, businesses, or infrastructure that could potentially induce growth. No permanent employment opportunities would be created from the Project. A limited number of short-term employment opportunities would be created by the Project. It is likely that construction workers would come from within Marin County. Even a temporary population increase is therefore unlikely, but should it occur, it would be minimal and would not constitute an impact. The Project would not displace any people, as there is no existing housing on the Project Site. As the Project would not induce unplanned population growth, destroy housing, displace people, or require new housing, there would be no impacts to population and housing.

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5.15 Public Services

	XV. PUBLIC SERVICES — 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 following public services:	***Potentially Significant Impact***	***Less than Significant with Mitigation Incorporated***	***Less than Significant Impact***	***No Impact***	***Source***
i)	Fire protection?	☐	☐	☐	☒	*2, 27*
ii)	Police protection?	☐	☐	☐	☒	*2, 27*
iii)	Schools?	☐	☐	☐	☒	*2, 27*
iv)	Parks?	☐	☐	☐	☒	*2, 27*
v)	Other public facilities?	☐	☐	☐	☒	*2, 27*

Environmental Setting

Corte Madera has a population of approximately 10,000 people and an area of roughly 4.4 square miles.

Fire protection services are provided by the Corte Madera Fire Department. The department has two stations and is staffed daily by a fire engine with one firefighter, one engineer paramedic, and an engine company officer, as well as one battalion chief, and an ambulance with two paramedics who also cross-staff an engine. On a yearly basis, the department has between 1,700 and 1,900 calls for service[26].

Police protection services are provided by the Central Marin Police Authority, which also serves Larkspur, San Anselmo, and portions of Greenbrae. The department operates on an annual budget of $11.9 million with 58 employees, 42 of which are sworn officers. In total, the authority provides service to approximately 35,000 people.

Corte Madera is located in the Mt. Tamalpais High School District and the Larkspur Elementary School District. There are many schools located near the Project Site. Public schools within one mile of the Project Site include Redwood High School, San Andreas High School, and Neil Cummins Elementary School.

The Town of Corte Madera manages seven public parks over a span of 35.55 acres, providing recreational opportunities such as sporting fields, barbeque areas, and walking and hiking trails.

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[26] *"About the Corte Madera Fire Department | Corte Madera, CA - Official Website," accessed August 24, 2018, https://www.townofcortemadera.org/146/About-the-Corte-Madera-Fire-Department.*

Corte Madera Town Park is the nearest Town-managed park to the Project Site, located approximately 0.6 miles away.

Other nearby public recreational opportunities are managed by CDFW and Marin County. Hiking and birdwatching opportunities are available in the CMER, which is managed by CDFW and open for public use. Between the CMER and other nearby marsh areas (excluding the District property), there are roughly 228 acres of open marsh and wetland available for public enjoyment. Five County open space preserves are located adjacent to or within the Town and provide additional recreational opportunities for Corte Madera residents. Approximately 200 acres of these reserves are located within Town limits.

Discussion of Impact

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 following public services:

a-i) Fire Protection

No Impact. The Project would not create or enhance facilities intended for human use or structures that might require fire protection. The operational Project would therefore not require any additional fire services over the current baseline level of protection and would not necessitate the creation of new or expanded facilities. During the Project's construction, some additional fire protection or paramedic services could be required due to an increase in people on-site and the risk of occupational injuries. This would be temporary and any increase in demand for fire protection would be insufficient to require new or expanded fire protection facilities. As the Project would only lead to a temporary, minimal increase in demand for fire protection during construction and no new fire protection facilities would be constructed, there would be no impact.

a-ii) Police Protection

No Impact. Implementation of the Project would result in the restoration and enhancement of tidal marsh habitat on an open space already popular with the general public for recreation. In the event that extra security is needed during construction, the District would use its own security forces as necessary. There would therefore be no need for increased police protection and no new facilities would be constructed; thus, there would be no impact

a-iii) Schools

No Impact. The Project does not propose any residential development, and therefore would not affect the number of students attending public schools. Furthermore, the Project would not create any permanent jobs that would result in persons relocating to the area. Thus, the Project is not anticipated to induce population growth.

a-iv) Parks

No Impact. The Project would not result in any permanent population growth. Temporary population growth is possible but unlikely, as employment opportunities during construction would likely be filled locally. The Project does not contain any park-related elements. The only recreational component is a temporary closure along, rerouting of, and subsequent reopening of an informal pedestrian loop. While sections of the loop near the construction site are closed, it is possible that recreationists could instead visit other parks and outdoor areas. However, much of the loop would remain open, and upon rerouting and completion, the entire loop is anticipated to reopen. As there would only be a temporary closure of an existing facility used for recreation and no new park facilities would be required, there would be no impact.

a-v) Other Public Facilities

No Impact. The Project does not propose any residential development, and therefore would not create additional demands on other public resources. The Project would not create any new permanent jobs and temporary job opportunities would likely be filled locally. Therefore, the Project is not anticipated to add to the current population surrounding the site.

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5.16 Recreation

XVI.	**RECREATION** — Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a)	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?	☐	☐	☒	☐	*2, 27*
b)	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐	*2, 27*

Environmental Setting

The Project Site currently includes a portion of an informal~~, unsanctioned~~ pedestrian loop trail. A formal public access easement exists on the east and south perimeter of the District property, and is continuous with the informal loop trail. Area residents use the loop trail for walking, jogging, and taking their dogs out for exercise.

Other nearby recreational opportunities are managed by CDFW, the Town of Corte Madera, and Marin County. Hiking and birdwatching opportunities are available in the CMER, which is managed by CDFW and open for public use. Between the CMER, Shorebird Marsh, and other nearby marsh areas (excluding the District property), there are roughly 228 acres of open marsh and wetland available for public enjoyment. The Town additionally manages seven public parks over a span of 35.55 acres, providing recreational opportunities such as sporting fields, barbeque areas, and walking and hiking trails. Five County open space preserves are located adjacent to or within the Town and provide additional recreational opportunities for Corte Madera residents. Approximately 200 acres of these reserves are located within Town limits. In total, there are roughly 460 acres of open space and recreational lands available to Corte Madera's 9,858 residents (0.0467 acre per resident), including the District property.

Discussion of Impacts

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

Less-than-Significant Impact. The Project would not result in any permanent population growth. Temporary population growth is possible but unlikely, as employment opportunities during construction would likely be filled locally. The Project does not contain any park-related elements.

The only recreational component is a temporary closure along, rerouting of, and subsequent reopening of an informal pedestrian loop. While sections of the loop near the construction site are closed, it is possible that recreationists could instead visit other parks and outdoor areas. However, much of the loop would remain open, and upon rerouting and completion, the entire loop is anticipated to reopen. Although, the District would reserve the right to restrict public access at a later date.

Any increased traffic to other public parks and recreational facilities resulting from the Project is anticipated to be temporary. Should recreational opportunities be permanently lost on the Project Site, this would still yield a negligible increase in traffic to other parks based on the minimal loss of per-capita park and open space land. Any such change would not be sufficient to require construction or expansion of new park facilities or to accelerate or cause their substantial physical deterioration. Thus, there would be less-than-significant impacts.

5.17 Transportation

	XVII. **TRANSPORTATION** — Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?	☐	☐	☒	☐	*2, 25, 27*
b)	Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☐	☒	*2, 25, 27*
c)	Substantially increase hazards to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒	*27*
d)	Result in inadequate emergency access?	☐	☐	☒	☐	*27*

Environmental Setting

Policy Setting

The Town of Corte Madera is located in Marin County in the San Francisco Bay Area. The Metropolitan Transportation Commission (MTC) is the authority for circulation planning in the greater Bay Area region.

More locally, the Town is subject to the provisions of Marin County's congestion management agency, the Transportation Authority of Marin (TAM). TAM issued its most recent congestion management plan (CMP) update in November 2017. The plan outlines level of service (LOS) standards for freeways and major arterials such as Highway 101 and for alternative methods of transportation such as walking and biking. LOS standards include metrics such as delay time at intersections and travel time reliability.

Operational Trip Generation

The Project would not likely lead to increased usage of the site. The area is already a publicly accessible open space with tidal marsh and invasive grassland present. The Project would merely shift the ratios of tidal marsh and invasive grassland by converting some grassland to marsh. The pedestrian loop currently present on the site would be rerouted but would not undergo any enhancements that might induce more people to visit the site. Further, no additional parking

would be added to the site. Visits to the site are therefore anticipated to stay comparable to the baseline, and few extra vehicle trips would be generated.

Construction Trip Generation

Construction traffic would be temporary in nature, lasting only for the duration of construction activity, which is anticipated to occur over a span of six months. During the grading and construction phases, construction traffic would primarily consist of worker vehicles that would enter and exit the Project Site via Industrial Way. Construction equipment would be staged on-site. Construction activity would occur during daytime hours from Monday through Friday.

The restoration of the Project Site would require extensive grading and excavation on-site. Before grading, vegetation would need to be removed from the site. This would necessitate excess vehicle trips by large dump trucks filled with vegetation, which would go to and from the site via Industrial Way, which has almost immediate access to Highway 101 near the Project Site.

Discussion of Impacts

a) Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?

Less-than-Significant Impact. The nearest road or Highway subject to the Marin County Congestion Management Plan (CMP) is Highway 101. During Project operation, there would likely be no increase in vehicle miles traveled (VMT) or level of service (LOS) and therefore no adverse impacts on Highway 101. During construction, movement of construction workers to and from the site would lead to a temporary increase in VMT. Equipment would be staged on-site, minimizing the effects of equipment transportation on Highway 101. However, construction worker trips to access the site and hauling vegetation off-site would still generate some small increase in VMT. This increase would be temporary and would not cause sufficient delays, increases to peak traffic volume, or increase in VMT to conflict with any applicable LOS standards or travel demand measures. Given the temporary, minimal increase in traffic and VMT anticipated to result from the Project, there would be no conflict with applicable plans addressing roadways.

The SMART ROW is currently preserved for future transit and/or public access use. The Project would not modify the ROW's potential future use, as the ROW would not be physical modified and changes the adjacent area would not impede its use. Pedestrians would temporarily lose access to an informal trail along the perimeter of District property, which would be re-routed around the newly restored marsh and re-opened for pedestrian use. Temporary closure of segments of the trail would not affect the Town's pedestrian network connectivity, as this trail is primarily used for recreational purposes rather than circulation purposes. The Project would therefore not conflict with any transit, bicycle, or pedestrian plans or policies.

As there would be no change to the SMART ROW's future use, there would be no impact on the Town's pedestrian network, and minimal impacts on roadways, the Project would

not conflict with adopted plans, policies, or programs addressing the circulation system. Impacts would be less than significant.

b) Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

No Impact. According to CEQA Guidelines Section 15064.3, Subdivision (b), a Project's effects on automobile delay do not constitute significant environmental impacts. Instead, vehicle miles traveled (VMT) is the most appropriate measure of the Project's impact on transportation; and projects that would reduce VMT in their vicinity should be considered to have a less-than-significant transportation impact.

The Project would lead to a small, minimal increase in VMT due to the transportation of construction equipment and personnel. On-site construction staging and on-site grading balance would minimize construction VMT, making this increase less than significant. In the long-term, the Project would not lead to any increase in VMT. The site would continue to be used by the Town for drainage, PG&E for maintenance, and recreationists for walking. No increase in use is anticipated, and VMT would likely remain more or less unchanged. As no substantial increases in VMT are anticipated to result from the Project, the Project would be consistent with CEQA Guidelines Section 15064.3, subdivision (b); and no impact would occur.

c) Would the Project substantially increase hazards to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The Project would not involve new road construction or activities that could increase hazards due to a design feature or incompatible uses. As the Project proposes no permanent changes to design or use of area roadways, no hazards would be introduced, and no impacts would occur.

e) Would the Project result in inadequate emergency access?

Less-than-Significant Impact. All existing access would be maintained, except for a temporary closure of the SMART right-of-way and portions of the informal ~~unsanctioned~~ trail to pedestrians. There would be no modifications to existing access that would reduce access for emergency vehicles. Slight increases to traffic on Industrial Way could temporarily reduce the ease of emergency access, but the District or its construction contractors would coordinate with law enforcement and emergency service providers prior to the start of construction to ensure minimal disruption to service during construction. As there would be no permanent changes to emergency access and temporary impacts would be minimized in cooperation with emergency service providers, impacts relating to emergency access would be less than significant.

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5.18 Tribal Cultural Resources

	XIIX. TRIBAL CULTURAL RESOURCES — Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
i)	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☐	☐	☒	*13, 27*
ii)	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒	*13, 27*

Environmental Setting

Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014) establishes a formal consultation process for California Native American tribes as part of CEQA and equates significant impacts on "tribal cultural resources" with significant environmental impacts. Tribal cultural resources are defined in PRC 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are included in or eligible for inclusion in the California Register of Historical Resources or included in a local register of historic resources; or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant to a California Native American Tribe per the criteria provided in PRC Section 5024.1. In order to be eligible under Section 5024.1, a resource must be over 50 years old, retain its historic integrity, and satisfy one or more of the following criteria:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- Is associated with the lives of persons important in our past.
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- Has yielded, or may be likely to yield, information important in prehistory or history.

AB 52 defines a "California Native American Tribe" as a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission. Under AB-52, formal consultation with California Native American Tribes is required prior to determining the

level of environmental review if a tribe has requested to be informed by the lead agency of proposed projects. AB-52 also requires that consultation address project alternatives and mitigation measures for significant effects, if requested by the California Native American Tribe.

No tribe has requested consultation from the District under AB-52. The Project is therefore not subject to consultation requirements. Although, as part of a separate tribal consultation process, the FIGR requested notification should any accidental discovery of tribal cultural resources occur during ground-disturbing activities. As FIGR did not request AB-52 consultation, their correspondence with the District is discussed in Section 5.5, Cultural Resources. Mitigation measures for the accidental discovery of archaeological resources or human remains are also described in Section 5.5. The below discussion of impacts pertains only to Tribal Cultural Resources considered pursuant to AB-52.

Discussion of Impacts

a-i-ii) Would the Project cause a significant adverse change in a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or

Cause a significant adverse change in a tribal cultural resource that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

No Impact. As no Native American tribe has contacted the District requesting AB-52 consultation, the Project is not subject to the statute's consultation requirements. Furthermore, archival research and a pedestrian survey of the Project Site conducted by a qualified archaeologist did not discover any tribal cultural resources that are listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources; and there are no cultural resources on the site that the District has determined to be significant to a California Native American Tribe. As there are no known tribal cultural resources on the site and no tribes requested consultation pursuant to AB-52, the Project would not cause a significant adverse change in a tribal cultural resource; and no impact would occur.

5.19 Utilities and Service Systems

XIX.	**UTILITIES AND SERVICE SYSTEMS** — Would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a)	Require or result in the relocation or construction of new or expanded water or wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒	*3, 27*
b)	Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☒	*27*
c)	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?	☐	☐	☐	☒	*27*
d)	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐	*3, 27*
e)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒	*27*

Environmental Setting

The Project Site is located in Marin County in the San Francisco Bay Area. The site is located within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB). Wastewater treatment service in Corte Madera is provided by the Central Marin Sanitation Agency (CMSA). Annually, CMSA treats and disposes of approximately 6 billion gallons of wastewater. The Project Site does not currently have water or wastewater services, as there is no human development on the site. Solid waste from the Project Site would most likely be disposed of at Redwood Landfill, which serves greater Marin County and has permitted capacity until 2024.

Discussion of Impacts

a) Would the Project require or result in the relocation or construction of new or expanded water or wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Impact. There are no telecommunications, natural gas, or wastewater treatment facilities within the Project Site; and the Project would not generate new demand for any such facilities. There would therefore be no need for relocation, construction, or expansion of telecommunications, natural gas, or wastewater treatment facilities.

The Town of Corte Madera has a drainage easement along the northern boundary of the District Property. The Project would connect a tidal channel to the drainage channel. This would not interfere with use of the drainage channel or create a need for new stormwater drainage facilities. Similarly, PG&E has an easement to maintain their power lines on the Project Site. The Project would not interfere with their use of this easement and would not create a need for new electrical power.

The Project would not create new demand for or necessitate the relocation of wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities. There would therefore be no environmental effect from the construction, relocation, or expansion of any such facilities; and no impact would occur.

b) Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?

No Impact. The Project would not require any water use following successful ecosystem establishment. The newly restored ecosystem would be self-sufficient and resilient to changes in precipitation because it would be exposed to daily and seasonal tidal cycles of inundation. The long-term Project would therefore have sufficient water supply during normal, dry, and multiple dry years. During construction, exposed soil surfaces would be watered twice a day in keeping with BAAQMD-recommended BMPs (See Mitigation Measure AIR-1). This would use water brought in from off-site. Because of the relatively small size of the area of disturbance (approximately 12.16 acres) and the short duration of construction (approximately six months), this would not require a large quantity of water; and supplies would be sufficient to serve the Project.

As the Project would not require long-term water use and construction use would be limited in duration and scope, there would be sufficient water supplies to serve the Project during normal, dry, and multiple dry years. No further development of the site is reasonably foreseeable because the site would be placed under a conservation easement. As such, no impact would occur.

c) Would the Project 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?

No Impact. The Project would not generate wastewater. There are no wastewater disposal systems within the Project Site and none are proposed. Thus, there would be no need for wastewater treatment and no impact would occur.

d) Would the Project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less-than-Significant Impact. The Project would generate solid waste during construction but not during operation. Grading would be balanced on-site, but vegetation removed from the Project Site would require disposal. Solid waste generated on-site would most likely be discarded at Redwood Landfill, which has permitted capacity through 2024. The Project is anticipated to be completed in the Spring of 2020, with the potential for some work to be completed in 2021 if necessary, so the Project's solid waste generation would not exceed the capacity of local infrastructure. As all materials would be disposed of in a landfill with sufficient permitted capacity, there would be less-than-significant impacts.

e) Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. Title Six of the Corte Madera Code of Ordinances regulates the disposal of solid waste. Title Six does not contain any reduction requirements. The US EPA encourages solid waste reduction, but does not impose any substantive requirements. The State of California has a goal of 75% recycling, composting, or source reduction of solid waste by 2020, which is to be attained using a statewide approach. Solid waste associated with construction would be reduced to the extent practical through on-site balance of grading and excavation and otherwise be disposed of in accordance with all applicable laws and regulations on solid waste, including waste reduction laws. Because the Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, no impact would occur.

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5.20 Wildfire

XX.	**WILDFIRE** — If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*	*Source*
a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	*3, 27*
b)	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	☐	☐	☐	☒	*27*
c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power line or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒	*27*
d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒	*3, 27*

Environmental Setting

According to CalFire's Fire Hazard Severity Zone maps for Marin County, the Project Site is not located within a very high fire hazard severity zone or in the state responsibility area. The nearest very high fire hazard severity zone is roughly 1.3 miles southwest of the Project Site in the Cities of Mill Valley and Larkspur. The nearest state responsibility area is roughly 0.65 miles northeast, across the San Francisco Bay in unincorporated Marin County—and is rated as having moderate fire hazard severity.

Discussion of Impacts

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The Project Site is not located within or near a very high fire hazard severity zone, the nearest of which is 1.3 miles away. While it is not located in a state responsibility area, it is relatively close, with the nearest state responsibility area 0.65 miles away.

The Project would not modify roadways, create substantial quantities of traffic, or result in new people or structures in the area; so it would not impair emergency response or evacuation. Thus, there would be no impact.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?

No Impact. There would be a small, temporary increase in on-site fire risk during construction due to the presence of construction workers and equipment. However, there are no human-serving facilities such as housing within the Project Site—so the Project would not expose occupants to pollutant concentrations from wildfire. Further, construction season would last for six months, part of which would occur during rainy season, so any increase in fire risk on the site would be minimal. The Project would replace dry, non-native grassland with tidal marsh vegetation and facilitate tidal inundation of the restored tidal channels and marsh plain ~~portions of the Project Site~~; so there would be a slight, long-term decrease in fire risk. As short-term increases to fire risk would be minimal, there would be a small long-term reduction in risk, and there are no people present within the Project Site, the Project would not exacerbate wildfire risk and expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire. Thus, there would be no impact.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The Project would not yield any long-term increase in fire risk or introduce any new population to an area at risk of wildfire. The only new infrastructure to be introduced as part of the Project would be an exclusion fence and a berm, neither of which's installation or maintenance would exacerbate fire risk. Thus, no impact would occur.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The Project Site is flat and is located along the San Francisco Bay. There are no downslope or downstream areas which could be exposed to risks of flooding or landslides due to wildfire within the Project Site. Therefore, no impact would occur.

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5.21 Mandatory and Findings of Significance

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Does the Project have the potential to substantially 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, substantially 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)?	☐	☐	☐	☒
c)	Does the Project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion of Impacts

a) Does the Project have the potential to substantially 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, substantially 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?

Less than Significant with Mitigation Incorporated. The Project would have an overall positive impact on wildlife species by restoring habitat for special-status species such as California Ridgway's Rail and the Salt Marsh Harvest Mouse. Ground disturbance would occur in an area that has generally been overtaken by invasive plant species and would include invasive species removal, which would benefit the area's plant and animal communities. The possibility of eliminating examples of any major period of history or prehistory is unlikely, as a cultural resources study did not identify any potential resources on the site. Mitigation measures are included to minimize the possibility of harming any accidentally discovered resources. All mitigation measures incorporated to reduce the Project's potentially significant impacts are provided in Chapter 7, Mitigation Monitoring and Reporting Program. As the Project would have a generally positive impact on plants and wildlife and mitigation measures would assure the Project would not eliminate important examples of history or prehistory, impacts would be less than significant with mitigation incorporated.

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)?

No Impact. As presented in the impacts analysis above, the Project would result in individually minor impacts and would not contribute substantially to cumulative impacts in conjunction with the implementation of other Projects in the area. Further, the Project would have a net benefit on the environment through the creation of tidal marsh, which performs important ecosystem services such as water filtration and carbon sequestration.

No reasonably foreseeable future projects with the potential to create cumulative impacts in conjunction with the proposed Project were identified. As decided by the California Fourth Circuit Court of Appeals in 2012 in *Preserve Wild Santee v. City of Santeee*, when specific details about the impacts of potential future cumulative development are unavailable, speculation about cumulative impacts that might occur is not required.

As none of the Project's impacts would be cumulatively considerable, ~~and~~ the Project would generally be environmentally beneficial, and related projects are insufficiently developed for their potential environmental impacts to be considered reasonably foreseeable, there would be no cumulatively considerable impacts; and no impact would occur.

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

Less than Significant with Mitigation Incorporated. With implementation of the various mitigation measures discussed in this Initial Study alongside compliance with applicable regulations, the Project would not result in substantial adverse effects to human beings, either directly or indirectly. As such, impacts would be less than significant with mitigation incorporated. All mitigation measures incorporated to reduce the Project's potentially significant impacts are included in Chapter 8, Mitigation Monitoring and Reporting Program.

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6.0 REPORT PREPARERS AND PERSONS/ ORGANIZATIONS CONSULTED

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7.0 RESPONSE TO COMMENTS ON THE DRAFT INITIAL STUDY / MITIGATED NEGATIVE DECLARATION

Introduction

The District released a Draft Initial Study / Proposed Mitigated Negative Declaration for the Proposed Corte Madera Four-Acre Tidal Marsh Restoration Project (SCH #2019049151) on April 26, 2019. The 30-day public review and comment period on the Draft Initial Study began on April 26, 2019 and closed at 4:30 p.m. on May 26, 2019. On May 15, 2019, the District hosted a public meeting at the Town of Corte Madera Council Chambers to provide the public with information on the Project, answer questions, and provide opportunity to comment.

This section summarizes and responds to the comments and questions on the Draft Initial Study / Proposed Mitigated Negative Declaration circulated by the District to public agencies and the public as required by CEQA. As discussed below in Response to Comments, edits to the Draft Initial Study / Proposed Mitigated Negative Declaration have incorporated the comments where appropriate to clarify, amplify, or to make insignificant modifications to information provided in the Draft Initial Study / Proposed Mitigated Negative Declaration. With these edits, the Final Initial Study / Mitigated Negative Declaration does not identify any new significant, avoidable effects or substantially more severe project-related environmental impacts than those identified and analyzed in the Draft Initial Study / Proposed Mitigated Negative Declaration. Therefore, in accordance with CEQA Guidelines Section 15073.5, recirculation of the Draft Initial Study / Proposed Mitigated Negative Declaration is not required.

The Draft Initial Study / Proposed Mitigated Negative Declaration and the response to comments on the Draft Initial Study / Proposed Mitigated Negative Declaration are informational documents prepared by the Lead Agency that must be considered by the District's Board before approving the proposed project and that must reflect the Lead Agency's independent judgement and analysis (CEQA Guidelines, Section 15074(b)).

This section contains the comment letters submitted during the public review period on the Draft Initial Study / Proposed Mitigated Negative Declaration, and the individual responses to those comments. Each written comment letter is designated with a number in the upper right-hand corner of the letter. Within each written comment letter, individual comments are labeled with the designated numbers in the margin. Immediately following each comment letter is an individual response to each numbered comment. Where responses have resulted in changes to the Draft Initial Study / Proposed Mitigated Negative Declaration, these changes are shown in the response and also appear in this document as <u>underlined</u> or ~~stricken out~~ text.

Commenters

The following organizations / persons provided the District with written comments on the Draft Initial Study / Proposed Mitigated Negative Declaration:

Public Agencies

1. Federated Indians of Graton Rancheria (FIGR)
2. Town of Corte Madera (TOWN)

Non-Profit Organizations

3. Marin Audubon Society (MAS)
4. Marin Baylands Advocates (MBA)

Private Residents

5. Susie Beatie, Town Resident (SB)
6. Eli Beckman, Corte Madera Town Council (EB)
7. Mai Billaud, Town Resident (MB)
8. Peter Brown, Town Resident (PB)
9. Roger Harris, Town Resident (RH)

Dear Amorette Ko,

Thank you for notifying the Federated Indians of Graton Rancheria about Golden Gate Bridge, Highway and Transportation District, Corte Madera Marsh Ecological Marsh, a project within the Tribe's Ancestral Territory. We appreciate being notified and will review your project within 10 business days. If you have an immediate request please contact the Tribal Heritage Preservation Office for assistance by phone at (707) 566-2288 or by email at thpo@gratonrancheria.com. 1

Sincerely,
Buffy McQuillen
Tribal Heritage Preservation Officer (THPO)
Native American Graves Protection and Repatriation Act (NAGPRA)
Office: 707.566.2288; ext. 137
Cell: 707.318.0485
FAX: 707.566.2291

Antonette Tomic
NAGPRA Specialist
Federated Indians of Graton Rancheria
6400 Redwood Drive, Suite 300
Rohnert Park, CA 94928
Office: 707.566.2288, ext. 143
Fax: 707.566.2291
atomic@gratonrancheria.com


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Response to Comment: FIGR-1

The commenter notes that the Project Site is within FIGR's ancestral territory. The commenter expresses appreciation for being notified of the Project and states that FIGR will review the Project within 10 business days. The commenter offers contact information for the Tribal Heritage Preservation Office.

The District thanks FIGR for its review and engagement. The District has not received additional communication from FIGR at the time of writing and assumes that FIGR has reviewed the Project and has no further comment at this time. The District notes that FIGR has separately requested consultation during the Section 106 process and will engage with the Tribe as part of that process.

THE TOWN OF
CORTE MADERA
MARIN COUNTY CALIFORNIA

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TOWN MANAGER
TOWN COUNCIL
415-927-5050

TOWN CLERK
415-927-5086

FINANCE / BUS. LICENSE
415-927-5055

FIRE DEPARTMENT
415-927-5077

PLANNING / ZONING
415-927-5064

BUILDING INSPECTOR
415-927-5062

TOWN ENGINEER
PUBLIC WORKS
415-927-5057

RECREATION DEPARTMENT
415-927-5072

SANITARY DISTRICT NO. 2
415-927-5057

CENTRAL MARIN
POLICE AUTHORITY
415-927-5150

May 24, 2019

Amorette Ko
Secretary of the District
Golden Gate Bridge, Highway and Transportation District
PO Box 9000, Presidio Station
San Francisco, CA 94129-0601

RE: Public Comment on IS/MND for the Corte Madera Tidal Marsh Restoration Project

Dear Ms. Ko,

Thank you for the opportunity to comment on the Draft Initial Study/Proposed Mitigated Negative Declaration (April 2019) for the Corte Madera Four-Acre Tidal Marsh Restoration Project. We fully support the Golden Gate Bridge District's project purpose to restore four acres of diked and filled baylands to tidal marsh habitat within the Town of Corte Madera to meet its mitigation obligations related to previous permitting activity. The restoration of this area to tidal marshlands will provide increased contiguous habitat for native animals and plants, including endangered species, and further an important adaptation strategy to protect the Town against rising Bay levels expected in the coming years. In addition, the project's reconfiguration and maintenance of a popular walking trail, connecting the Town's public access easement with the SMART Right of Way public access easement, is greatly appreciated as this trail – with its loop configuration – is a significant recreational amenity to our community.

These overall project benefits are a direct result of the District's collaboration with the Town in developing its project proposal and we look forward to a continuation of this relationship as the District works to implement the project construction and plan details. To that end, while we don't have any specific concerns or comments on the IS/MND, we would like to ensure that a follow-up meeting is scheduled with Town Staff to allow for the review and comment on the following project areas:

- Fence Details: The design of the proposed permanent exclusionary fence and potential "outer fence"
- Grading Plan: The proposed final grading and berm construction plans
- Construction Logistics: A full construction management plan including construction parking, hours of construction, erosion control measures, trail closures and required notices, project construction contacts, coordination with Town projects, access needs, etc.
- Permitting Process: Agency approvals (local, regional, and state) required for project approval

Please reach out to Adam Wolff (awolff@tcmmail.org) and Peter Brown (pbrown@tcmmail.org) to schedule a meeting regarding the above items prior to the scheduled June 21, 2019, Board of Director's meeting at which this project will be considered for approval.

Additionally, the Golden Gate Bridge Highway and Transportation District (GGBHTD) should be aware of the Town's Climate Adaptation Plan (CAP). The CAP, currently under development, will likely recommend future marsh restoration projects so please be aware that the GGBTHD may be asked to participate in those efforts. Thank you again for the opportunity to comment and your continued efforts to work with the Town on important restoration efforts.

Sincerely,

Todd Cusimano
Town Manager
Town of Corte Madera

Response to Comment TOWN-1:

The commenter expresses support for the Project, citing benefits to biological resources, climate adaptation efforts, continued public access, and recreational opportunity and stating that the Project meets its restoration obligations. No response is needed.

Response to Comment TOWN-2:

The commenter attributes the Project's public benefits to collaboration between the Town and the District and expresses excitement for continued collaboration. The commenter requests a follow-up meeting between the Town and the District prior to the tentatively scheduled District Board meeting to discuss exclusion fence details, the grading plan, construction logistics, and the permitting process. The District will follow up with the Town as necessary.

Response to Comment TOWN-3:

The commenter notifies the District of the Town's in-progress Climate Action Plan (CAP), noting that the Town will likely reach out to the District for future collaboration on marsh restoration efforts as part of the CAP.

The District notes the Town's ongoing CAP process and thanks the Town for notification. As the size, scope, and location of future marsh restoration efforts are under development and have not yet been selected, no further response or discussion of the CAP is necessary.

Marin Audubon Society

P.O. Box 599 | Mill Valley, CA 94942-0599 | marinaudubon.org

May 26, 2019

Amorette Ko, District Secretary
Golden Gate Bridge, Highway and Transportation District
P.O. Box 9000, Presideo Station
San Francisco, CA 94129-0601
CMERPublicComments@goldengate.org

RE: COMMENTS ON CORTE MADERA FOUR-ACRE TIDAL MARSH RESTORATION PROJECT DRAFT INITIAL STUDY/NEGATIVE DECLARATION

Dear Ms. Ko,

Thank you for the opportunity to present these comments on the Draft Initial Study/Negative Declaration for the Corte Madera Four-Acre Tidal Marsh Restoration Project and on the project itself. The purpose of the project is to fulfill mitigation requirements for erosion impacts of increased ferry wakes when additional ferries were added to the system in 1985. Since Marin Audubon was one of the organizations that brought to the District's attention to the need to implement the required mitigation, we are very pleased that it is finally happening. Thirty years is too long to wait for mitigation, particularly for the Ecological Reserve marsh losses. Also, we appreciate the District's keeping us informed of the general progress of the Project and the opportunity for early comment. We preferred an earlier design that involved the entire 72-acre site, but the District decided against doing that larger project. This design is for a 4-acre marsh including marsh plain, a tidal channel extending into the marsh plain, transition zone, seasonal wetland, trail and exclusion fencing between the transition zone and trail. The design appears to meet the mitigation requirements. We have the following comments and questions: 1

As we have mentioned to the District on previous occasions, locating the project to the east so that it could connect with the tidal marsh of the Ecological Reserve would provide more habitat benefits as it would expand the area of contiguous marsh for the endangered Ridgway's Rail and other species. In the proposed location, it connects only with the narrow strip of marsh to the west that, to our knowledge, does not provide much in the way of endangered species habitat. We are not aware that Ridgway's Rail have ever been observed in that marsh. . 2

Given that the project is intended to restore tidal marsh habitat to mitigate the erosion-caused loss of historic tidal marsh along the outboard edge of this major Ridgway's Rail marsh. Particular attention needs to be paid to ensuring the project design will successfully compensate for the loss of this critical tidal marsh habitat.

INITIAL STUDY (IS)

BIOLOGICAL RESOURCES

The key to success of tidal marsh restoration is the elevation of the marsh plain. What is the target elevation of the marsh plain and what is the elevation of the surrounding tidal marshes? 3

BIO 1 addresses only construction-related impacts, but these mitigations are not adequate. Mitigation to ensure the long-term success of the Project should be required. Also, in the second Bullet, the measures that will be taken to remove vegetation should be stated. The third bullet allows for temporary exclusion fencing to be optional: "may" is used, instead of "will" or "shall". Considering the SMHM are known to use uplands several miles from tidal marsh, fencing should be required. 4

Discussion of Impacts

Fencing - The analysis of IS question d) "Would the Project interfere substantially with the movement of any native resident or migratory...wildlife...." is inaccurate. The Project fencing would interfere with the movement of native resident wildlife and would not "maximize the utility of the newly created habitat as a migratory and dispersal habitat" as claimed. A four foot tall cyclone fence that would be located at the edge of the transition zone along the east and south sides, and the possibility of a second fence is mentioned. These fences would block the movement of wildlife unless they are designed to accommodate wildlife movement. We agree fencing is needed to exclude people and off leash dogs which are a problem here. To not interfere with wildlife movement, the fence at minimum needs to be raised above the ground at least a half foot to a foot to allow wild species larger than sparrows to move through to habitat on the other side. Additional information should be included about the possible second fence, e.g. where it would be located, height, materials, how the decision would be made whether or not to include it in the Plan. 5

Transition Zone/Refugia - d) states "To maximize utility of the newly created habitat as a migratory and dispersal corridor, the Project would include creation of upland habitat for high tide refuge and an exclusion fence...." Our comments on the fence blocking wildlife are above. In addition, the transition zone/refuge habitat, as described, is not adequate. Most sections appear to be no more than 25 feet wide (Figure 3), except along the western edge. Twenty five feet is too narrow. It should be a minimum of 100 feet wide. 6

Further, apparently no vegetation would be planted on the transition zone, only hydroseeding would be applied. Upland habitat for high tide refugia will not be created using only a hydroseed mix. Native vegetation of adequate height and density to provide suitable cover habitat for Ridgway's Rails and Salt Marsh Harvest Mouse must be planted and maintained for at least five years or until they are well established. Otherwise the adjacent upland will not provide high tide refuge habitat as committed. A list of the native plant species that will be planted in the transition zone should be included for public review. From our experience, *Grindelia* S and *Elymus triticoides* should be among the species planted. 7

The levee between the new marsh and existing marsh on the west will remain. This levee also should be well vegetated to provide cover for wildlife moving across it. If there is no cover vegetation, wildlife that are crossing between the two marshes would be vulnerable to predation. 8

Also, we suggest interpretive signs to inform the public of the sensitivity of the habitat. 9

Public Access – Public access is proposed on the graded area to the east, and would be located from 100 feet to fewer than 25 feet from the new marsh which, as discussed above, is too close. Figure 3 also indicates that the new trail will connect with the "unsanctioned" trail along the north and then the north-south trail adjacent to the Ecological Reserve marsh. The Reserve marsh is important wildlife habitat for endangered species. Locating trails and encouraging access adjacent to this critical habitat should not be condoned. Further, the District should not be encouraging access on an "unsanctioned" and, as discussed above, the new trail is as much as 75 feet too close to the new marsh. This marsh mitigation project should not be required to provide public access, but under any circumstances, one trail should be sufficient. 10

5.10 HYDROLOGY

The design would lower a portion of the levee along the south bank of the East Side Outfall Channel (referred to as the Northern Drainage Channel on figure 3). This channel is the only outfall for draining the Shorebird Marsh, which is the major flood ponding basin for much of Corte Madera. It is essential that this channel maintain capacity to drain Shorebird Marsh to avoid flooding parts of the town during high rainfall events. If sediments accumulate in the channel, capacity would be reduced. The Noble Hydrology Report addresses the adequacy of the Northern drainage channel to provide tidal exchange for the new marsh. It does not address possible sedimentation of portions of the northern drainage channel or in Shorebird Marsh. It is not clear whether the Project could have any impact on the functioning of Shorebird Marsh and the ability of the Town to manage it. This issue was raised 20 years ago, when the District initially proposed another Plan for mitigation. 11

The IS should address whether lowering of the section of levee could have any impact on the operation of the Shorebird Marsh flood control system? Could water movement slowing as it enters the new marsh, cause sediments to deposit in the Northern Drainage Channel, accumulate in the new marsh or in Shorebird Marsh? Would a less hydrologically complicated alternative be to bring tidal waters into the new marsh from the east, by locating the mitigation marsh in the northeastern corner of the 72 acres? If this Plan is approved, the Monitoring Plan include surveys measuring sediments in the channel.

FIRE RISK

g) States "The project would result in the removal of grasses and shrubs over the footprint of the site, which would result in reduced fire risk...." This statement is misleading and inaccurate. If the Project were to remove grasses and shrubs over the site footprint, it would not comply with its mitigation requirements and would not create tidal marsh habitat. The plants on the site that are the most flammable and burned multiple times are invasive Pampas grass, and the reason it caught fire was because there were homeless encampments among the plants and the fires they were burning got out of hand. . The District cannot remove all grasses and shrubs to reduce the fire risk, the District needs to do more comprehensive job of enforcement to keep homeless encampments out of the habitat, restore the maximum marsh which is not a fire risk, and keep the non-native plants out. 12

PUBLIC SERVICES

3

Sea Level Rise - The IS should include a discussion of the Project in relation to sea level rise (SLR). The Project site is along the SMART right-of-way, which provides the Town's primary defense against SLR currently. One of the most logical methods and locations for providing SLR protection, in our view, would be a horizontal levee along the north-south SMART levee. In its current location, would the Project interfere with or make it more complicated or difficult to construct a horizontal levee or other nature based SLR adaptation measure? 13

MONITORING

The District will be required to monitor the Project but the Monitoring Plan is not included in the IS. Several important components should be monitored and we recommend they be included in the Monitoring Plan. The following should be monitored for at least five years, as well as

- Sedimentation and erosion of the marsh plain and northern channel particularly west of the new marsh and in Shorebird Marsh.
- Naturally recruited and planted vegetation of the tidal marsh, seasonal wetland and of the transition zone. In addition, the upland plants should be maintained for the first five years: watered, weeded, and replaced where necessary. 14
- Public use of the mitigation marsh and adjacent area to track compliance, by users and their dogs, with access restrictions. The District needs this information to determine when enforcement is needed. There should be criteria for the amount of use that would trigger closure of the trail.

Thank you for considering our input.

Sincerely,

Barbara Salzman, Co-chair
Conservation Committee

Phil Peterson, Co-chair
Conservation Committee

Cc:
SF Bay Regional Water Quality Control Board
Army Corps of Engineers
Bay Conservation and Development Commission
Town of Corte Madera

Response to Comment MAS-1:

The commenter offers introductory comments and expresses gratitude for the opportunity to comment. The commenter states that the purpose of the Project is to mitigate for erosion impacts from ferry operations and expresses that mitigation ideally should have occurred sooner. The commenter expresses support for an earlier design of the Project. However, the commenter also states that "the design appears to meet the mitigation requirements". As the purpose of this paragraph is to contextualize subsequent comments and provide introductory comments, no response is needed.

Response to Comment MAS-2:

The commenter states that the Project Site would be better located on the eastern side of the District property to provide continuity with the existing marsh of the CMER. The commenter states that they are unaware of Ridgway's Rail observations in the marsh that connects to the Project Site in the west and expresses dissatisfaction with the size of the connected marsh area. The commenter emphasizes the importance of ensuring that loss of marsh habitat is adequately mitigated for.

According to CNDDB and as noted in this Figure 6 of the BRI that was provided as a technical support study to the Draft Initial Study (available on the District's website at goldengate.org/cmer), Ridgway's Rail (labeled California Clapper Rail in Figure 6) has been documented to the north, east, and south of the District Property. This includes the marsh area to the north and east that would provide habitat connectivity with the proposed restoration area. Connectivity with existing habitat was considered when selecting the Project Site, and the Project has been designed, in consultation with permitting agencies, to create high-quality rail habitat. Given the existence of rail in adjacent habitat and the habitat features considered during the design process, the Project would adequately mitigate for erosion impacts and provide habitat for Ridgway's Rail.

Response to Comment MAS-3:

The commenter emphasizes the importance of marsh plain elevation in tidal marsh restoration and inquires about the target elevation of the marsh plain and the elevation of surrounding tidal marshes.

Proposed elevations are depicted in Figure 3 and discussed in Section 3.2.1 of the Draft Initial Study. In summary, the tidal marsh plain would range in elevation from 6.5 to 3.75 feet NADV88. Please refer to the Initial Study sections noted above for further detail. Additionally, Paragraph 3 on Page 11 of the Draft Initial Study has been modified to address design surveys and the elevation of adjacent marsh plain:

> *The creation of tidal marsh habitat would occur by tidally connecting the Project Site to an existing tidal channel (i.e., the northern drainage channel) within the District's property boundary. This would require breaching the existing northern berm on the perimeter of the Project Site and excavating material from 4 acres of high ground down to appropriate elevations to allow tidal inundation of the new 4.0-acre surface during high tides. An elevation survey was performed at the 72-acre property and its immediate surroundings*

during the Project design process to determine elevation ranges for mud flats, low marsh, high marsh, and transition zones based on indicator plant species. This information was subsequently used to establish design elevations within the Project Site. This process was conducted to assure suitable design elevations for tidal marsh vegetation establishment and habitat connectivity with adjacent marsh.

The tidal marsh plain would be created by excavating the Project Site to elevations that range from 6.5 feet to 3.75 feet NAVD88. Existing tidal marsh plain in the northwestern corner of the District property (immediately west of the Project Site) ranges in elevation from 6.0 feet to 5.0 feet NAVD88. A new tidal slough channel within the new 4-acre surface would be excavated to an elevation of approximately 2.0 feet North American Vertical Datum of 1988 (NAVD88) that would connect the tidal marsh plain to the northern drainage channel.

Response to Comment MAS-4:

The commenter expresses dissatisfaction with Mitigation Measure BIO-1, stating three specific concerns which are discussed individually below.

The commenter asserts that mitigation for construction impacts is inadequate, and that mitigation should be required to ensure the long-term success of the Project.

No long-term significant environmental impacts associated with the Project were identified. According to Section 15126.4(a)(3) of the CEQA Guidelines, no mitigation is required for effects which are not determined to be significant. Furthermore, long-term management and monitoring efforts to assure long-term Project success will occur at a later time at the discretion of permitting agencies, as discussed in Section 3.4 of the Draft Initial Study.

The commenter requests that vegetation removal methods be discussed in the second bullet.

The second bullet of Mitigation Measure BIO-1 (Draft Initial Study Page 46) has been modified to read accordingly:

- *When construction activities are to take place in potential SMHM habitat, vegetation removal in work areas will be performed using non-motorized or hand-held motorized equipment to remove cover and render these areas unattractive to SMHM, beginning in less suitable SMHM habitat and moving towards more suitable habitat. Vegetation will be cut in two phases, first to mid-canopy height then to ground level or no higher than one inch off the ground;*

The commenter observes that SMHM exclusion fencing is optional and expresses that they would like exclusion fencing to be required. The commenter notes that SMHM is known to use upland habitat in the vicinity of tidal marsh.

Similar to other measures included in Mitigation Measure BIO-1, if deemed beneficial by the USFWS using the best available science and recommended during the Section 7 consultation

process, SMHM exclusion fencing will be required of the Project. The third bullet of Mitigation Measure BIO-1 (Draft Initial Study Page 46) has been altered to read accordingly:

- *Temporary SMHM exclusion fencing will ~~may~~ be erected around work areas if deemed beneficial by USFWS using the best available science;*

Response to Comment MAS-5

The commenter expresses that analysis of question d in the Biological Resources Chapter of the Draft Initial Study is inaccurate, stating that the permanent exclusion fence would block wildlife movement unless specifically designed to accommodate wildlife movement. The commenter provides potential design features to accommodate wildlife. The commenter requests information on a potential second fence along the eastern side of the Project Site.

The commenter refers to the permanent exclusion fence as a cyclone fence in their comment. This is not accurate. Section 3.3.5 of the Draft Initial Study describes the fence, stating that it will be constructed of galvanized wire mesh on steel T-posts or wood posts. The exclusion fence was designed to be wildlife friendly. The eastern fence would be constructed with the same materials and methods. Page 17 of the Draft Initial Study has been modified for clarity and reads accordingly:

> *3.3.5 Permanent Exclusionary Fencing*
>
> *A~~n~~ wildlife friendly exclusion fence would be installed on both sides of the informal trail ~~erected around the eastern and southern perimeter of the restored tidal marsh~~ to minimize disturbance by humans and off-leash dogs in the restored tidal marsh and associated upland areas, as well as in the interior of the property. The fence would be constructed of galvanized wire mesh mounted on either steel T-posts or wood posts. T-posts or wood posts would be installed and fencing would be attached to posts with clips. Posts would be placed approximately ~~8~~ 10 feet apart and the fence would be approximately 4 feet tall. The mesh wire would be installed approximately 8 inches above the ground to allow wildlife movement underneath the fence, and the wire mesh would have openings approximately 6x12 inches throughout. ~~Additionally, an outer fence may be installed to prevent access to the interior of the property.~~*

Response to Comment MAS-6:

The commenter expresses their view that the transition zone is inadequate for wildlife refuge purposes as designed. The commenter states that the transition zone is too narrow and should be at least 100 feet wide.

Per CEQA Guidelines Section 15151, disagreement among experts does not make an EIR inadequate, so long as the main points of disagreement are summarized. The same standard may also be applied in the context of an MND. The commenter's view that the upland transition zone is too narrow is noted and will be passed on to the District's board.

For the purposes of this discussion, the transition zone is defined as the area within about a one foot elevation range adjacent to the tidal marsh. The vegetation found within the transition zone

is unique and characterized by its tolerance to infrequent inundation by salt water. This area provides refugia for Ridgway's rail and the salt marsh harvest mouse during extreme high tide events. For this Project, the transition zone is approximately 10' wide.

The upland refugia is defined as upland areas adjacent to the tidal marsh that are accessible by wildlife during extreme tide events. The upland refugia includes the transition zone and may extend to higher elevations and include more area. The upland refugia should be protected from disturbance from humans and off-leash dogs when there is a public trail close by.

Although upland refugia was considered adequate as originally designed, the Project would be improved by making the upland refugia wider. The District has therefore realigned the exclusion fence in response to this comment and to provide additional upland habitat. The access control fence was originally located along the 9.0' elevation contour, which would provide an approximately 25-foot wide high tide refuge area (including transition zones and adjacent upland habitat) for target species such as Ridgway's Rail and SMHM. The revised location of the access control fence would increase the width of the upland refugia area, which would now range between 50 and 135 feet wide. Figure 3 (Page 13 of the Draft Initial Study) has been updated to reflect the fence's new alignment.

The updated alignment would create additional upland habitat for SMHM and Ridgway's Rail and would not create any new environmental impacts. The same materials and installation processes would be retained from the original design and the fence would continue to be wildlife friendly. T-posts or wood posts would be installed approximately ten feet apart and galvanized wire mesh would be mounted to the posts. The top of the fence would be approximately four feet tall and there would be an eight inch opening at the bottom of the fence to allow for wildlife passage. As the aesthetic character of the fence would remain similar, installation processes would be unchanged, the fence would continue to allow for wildlife passage, and on-site recreation would be unaffected, no new impacts would occur.

In response to this comment and Comment MAS-7, a new section, 3.2.4, has been included in this document beginning on Page 15 of the Draft Initial Study. This section describes habitat requirements for Ridgway's Rail and SMHM and Project design elements intended to meet these requirements. Relevant text from Section 3.2.4 reads as follows:

Description of Ridgway's Rail and SMHM Habitat Needs

Viable habitat for Ridgway's rail includes the following components:

- Tidal channels with intertidal mudflats;
- Low marsh with cordgrass;
- High marsh with pickleweed and other species;
- Transition zone with vegetative refugia including marsh gumplant (*Grindelia stricta)*, saltmarsh baccharis (*Baccharis douglasii*), and coyote brush (*Baccharis pilularis*); this area should be protected from disturbance by pedestrians and dogs.

The salt marsh harvest mouse requires similar habitat components to Ridgway's rail with the following exceptions:

- Upland areas with refugia (in addition to the transition zone described above) with a minimum vegetative coverage of grasses and other herbaceous plants; these areas should be protected from disturbance from pedestrians and dogs;
- Less dependence on tidal channels, mudflats, and low marsh.

Tidal channels, mudflats, low marsh, high marsh, and transition zone are defined by elevation ranges, and specific plant associations have adapted to these elevation zones. Viable upland refugia consists of upland areas that are adjacent to the tidal marsh that are also protected from disturbance by pedestrians and dogs. Upland refugia includes the transition zone and can extend to include areas at higher elevations.

During both normal and extreme high tide events, Ridgway's rail and SMHM require areas to seek shelter from tidal waters. These areas should be adjacent to the tidal marsh, provide vegetative cover, and be protected from disturbance by pedestrians and dogs.

Description of Created Habitat Suitability for Ridgway's Rail and SMHM

The Project would provide upland refugia habitat that would include the transition zone and some additional upland areas. The upland refugia would be fenced off from pedestrians and dogs that use the public trail. The upland refugia area would vary from 50 to 135 feet wide, which is adequate for Ridgway's rail and SMHM. A revegetation program was developed to promote development of viable tidal marsh and habitat suitable for Ridgway's rail and SMHM and is discussed in Section 3.3.6.

The Project would create all necessary habitat components for Ridgway's rail, including mudflats, low marsh, high marsh, and a transition zone with vegetative refugia. The Project would also create all necessary habitat components for SMHM, including low to high marsh, a transition zone, and adjacent vegetated uplands.

Response to Comment MAS-7:

The commenter states that more revegetation effort is needed than hydroseeding for the transition zone, and that native vegetation should be planted and maintained for at least five years or until well-established. The commenter requests a list of native plant species to be planted in the upland transition zone and suggests two species for inclusion.

As discussed in Section 3.3.6 of the Draft Initial Study, the Project was designed to provide suitable substrates and elevation profiles for salt marsh and upland vegetation establishment. The restoration area will be monitored by permitting agencies, which will establish monitoring methodologies and performance criteria, as discussed in Chapter 3.4 of the Draft Initial Study. In response to this comment and to enhance the restoration area's suitability for Ridgway's rail, the Project was modified to include active planting of native grass and shrub species in the transition zone. Revised planting methodologies are non-intrusive and mostly involve manually planting native grass and shrubs. Native species would be selected based on species known to occur at this site or in similar regional habitats. Accordingly, no new impacts would occur.

Active planting would enhance habitat suitability for special-status species by facilitating more rapid establishment of vegetative cover in the upland transition zone which may be used as refuge during high tides. Section 3.2.4 was added beginning on Page 15 of the Draft Initial Study to describe Project design suitability for Ridgway's rail and SMHM. Relevant text from this section reads as follows:

Description of Ridgway's Rail and SMHM Habitat Needs

Viable habitat for Ridgway's rail includes the following components:

- *Tidal channels with intertidal mudflats;*
- *Low marsh with cordgrass;*
- *High marsh with pickleweed and other species;*
- *Transition zone with vegetative refugia including marsh gumplant (Grindelia stricta), saltmarsh baccharis (Baccharis douglasii), and coyote brush (Baccharis pilularis); this area should be protected from disturbance by pedestrians and dogs.*

The salt marsh harvest mouse requires similar habitat components to Ridgway's rail with the following exceptions:

- *Upland areas with refugia (in addition to the transition zone described above) with a minimum vegetative coverage of grasses and other herbaceous plants; these areas should be protected from disturbance from pedestrians and dogs;*
- *Less dependence on tidal channels, mudflats, and low marsh.*

Tidal channels, mudflats, low marsh, high marsh, and transition zone are defined by elevation ranges, and specific plant associations have adapted to these elevation zones. Viable upland refugia consists of upland areas that are adjacent to the tidal marsh that are also protected from disturbance by pedestrians and dogs. Upland refugia includes the transition zone and can extend to include areas at higher elevations.

During both normal and extreme high tide events, Ridgway's rail and SMHM require areas to seek shelter from tidal waters. These areas should be adjacent to the tidal marsh, provide vegetative cover, and be protected from disturbance by pedestrians and dogs.

Description of Created Habitat Suitability for Ridgway's Rail and SMHM

The Project would provide upland refugia habitat that would include the transition zone and some additional upland areas. The upland refugia would be fenced off from pedestrians and dogs that use the public trail. The upland refugia area would vary from 50 to 135 feet wide, which is adequate for Ridgway's rail and SMHM. A revegetation program was developed to promote development of viable tidal marsh and habitat suitable for Ridgway's rail and SMHM and is discussed in Section 3.3.6.

The Project would create all necessary habitat components for Ridgway's rail, including mudflats, low marsh, high marsh, and a transition zone with vegetative refugia. The

Project would also create all necessary habitat components for SMHM, including low to high marsh, a transition zone, and adjacent vegetated uplands.

Additionally, a summary of the updated planting program was added to Section 3.3.6, beginning on Page 17 of the Draft Initial Study (Page 18 of the Final Initial Study). Section 3.3.6 now reads accordingly:

3.3.6 Restoration Planting

Native salt marsh plants would be naturally recruited and actively planted in the restored tidal marsh plain. Planting would occur with appropriate container plantings sourced from local nurseries. Native marsh species will naturally colonize restored tidal areas, as seeds and vegetative propagules capable of rooting in mudflats are carried on-site via tidal flows. Project design is intended to promote rapid colonization by creating suitable substrates and elevation profiles for the establishment of salt marsh vegetation. Additionally, upland transition zones would be actively planted ~~hydroseeded~~ with appropriate native grass and shrub species. ~~an appropriate native plant species.~~ Planting would occur following the final site grading, which is anticipated to conclude in Winter 2019, during the rainy season.

Following the grading, the created seasonal wetland habitat would be seeded with native facultative wetland plant species. Installation of seasonal wetland plant species during the onset of the rainy season would provide sufficient hydrology for both seed germination and establishment of plantings.

The planting methodologies outlined above have been successful in revegetation efforts for other Bay Area restoration Projects such as those in Peyton Slough and the Sonoma Baylands.

The following is a summary of the Project's revegetation program:

- *Low marsh – active planting of cordgrass and natural recruitment;*
- *High marsh – active planting of high marsh species and natural recruitment;*
- *Transition zone – active planting of transition zone species including shrubs and seeding of native grass and shrub species;*
- *Upland refugia excluding the transition zone – hydroseeding of grass and shrub species.*

Response to Comment MAS-8:

The commenter states that the western levee between the proposed marsh and existing marsh will stay in place and suggests that it should be well-vegetated to facilitate wildlife movement between marsh habitat.

As discussed in response to Comment MAS-7, a paragraph has been added to the end of Initial Study Section 3.3.6 (Draft Initial Study Page 17) to summarize the Project's revegetation program. As highlighted in this text, all upland areas that would be disturbed during construction would be seeded with native grass and shrub species. Additionally, the project was modified to include

active planting of native shrub species within the transition zone. These actions would facilitate the development of vegetative coverage to support wildlife needs at the site, including movement between existing and restored marsh.

A summary of the updated planting program was added to Section 3.3.6, beginning on Page 17 of the Draft Initial Study (Page 18 of the Final Initial Study). Section 3.3.6 now reads accordingly:

> *3.3.6 Restoration Planting*
> *Native salt marsh plants would be naturally recruited and actively planted in the restored tidal marsh plain. Planting would occur with appropriate container plantings sourced from local nurseries. Native marsh species will naturally colonize restored tidal areas, as seeds and vegetative propagules capable of rooting in mudflats are carried on-site via tidal flows. Project design is intended to promote rapid colonization by creating suitable substrates and elevation profiles for the establishment of salt marsh vegetation. Additionally, upland transition zones would be actively planted ~~hydroseeded~~ with appropriate native grass and shrub species. ~~an appropriate native plant species.~~ Planting would occur following the final site grading, which is anticipated to conclude in Winter 2019, during the rainy season.*
>
> *Following the grading, the created seasonal wetland habitat would be seeded with native facultative wetland plant species. Installation of seasonal wetland plant species during the onset of the rainy season would provide sufficient hydrology for both seed germination and establishment of plantings.*
>
> *The planting methodologies outlined above have been successful in revegetation efforts for other Bay Area restoration Projects such as those in Peyton Slough and the Sonoma Baylands.*
>
> *The following is a summary of the Project's revegetation program:*
>
> - *Low marsh – active planting of cordgrass and natural recruitment;*
> - *High marsh – active planting of high marsh species and natural recruitment;*
> - *Transition zone – active planting of transition zone species including shrubs and seeding of native grass and shrub species;*
> - *Upland refugia excluding the transition zone – hydroseeding of grass and shrub species.*

Response to Comment MAS-9:

The commenter suggests that the District install interpretive signs on the sensitivity of the habitat.

This comment is noted and will be passed along to the District's board as part of the environmental record. The commenter does not provide a specific comment on the adequacy of the IS/MND; and no further response is needed.

Response to Comment MAS-10:

The commenter expresses concern over the proximity of the proposed informal public access area to the restoration area. The commenter states that public access should not be encouraged adjacent to endangered species habitat. The commenter believes that the Project should not be required to provide public access.

This comment will be passed along to the District's board as part of the Final Initial Study. However, we note that other commenters have expressed support for continued public access. As discussed throughout the Initial Study, various Project design features are intended to minimize disturbance by dogs and humans within sensitive habitat. These include a permanent exclusion fence separating the informal trail from the restoration area and re-routing the berm to the eastern side of the Project Site, which would create distance between recreationists and existing marsh on the western side of the District property. Furthermore, as noted in Section 3.2.2 of the Draft Initial Study, public access to the property remains informal, and the District retains the right to restrict access if necessary.

Response to Comment MAS-11:

The commenter asks if the Project has the potential to cause significant sedimentation within the eastside outfall channel (northern drainage channel) or Shorebird Marsh. In response to this comment, Noble Consultants reviewed the Project and the Hydrology Report and reasserted the conclusion that the Project would not cause any significant changes in the morphology of the northern drainage channel including erosion or sedimentation. The potential impact on the adjacent Shorebird Marsh is discussed below.

The District sponsored a Hydrology Report that examined several restoration alternatives at this site. Noble Consultants prepared the report and this report was included in the Draft IS/MND. The restoration alternatives that were evaluated in the report ranged in size from 4.9 acres to 30 acres of tidal marsh. All of the alternatives that were examined in the report incorporated a connection to the northern drainage channel as the source of tidal inundation. The report evaluated whether the restoration alternatives would have any significant adverse effects on the northern drainage channel.

In general, the size and configuration of the northern drainage channel are determined by the large discharge events that occur when the Town of Corte Madera pumps water from the Shorebird Marsh into the northern drainage channel and out to the Bay. The discharge rates, velocities, and associated shear stress for these events are much larger than the discharge rates, velocities, and associated shear stress associated with existing tidal action in the northern drainage channel and increased tidal action associated with the Project. These large discharge events have over the years enlarged the northern drainage channel and kept it free of sedimentation.

Shorebird Marsh was constructed to enable the Town of Corte Madera to store and manage stormwater. The facility includes a pump station, which is used to lower the water levels within Shorebird Marsh in anticipation of winter storm event to increase the storage capacity of the

marsh. In addition, the pump station has an adjustable water inlet/outlet, which allows the Town to change water levels within the marsh seasonally to enhance habitat for shorebirds.

Hydrologically, the former SMART railroad ROW isolates Shorebird Marsh from free flowing tidal inundation. The pump station and the adjustable water inlet/outlet structure provide a hydrologic connection to the marsh and are used to raise and lower the water elevations within the marsh seasonally. Water entering and exiting the Shorebird Marsh is managed by the Town of Corte Madera. As a result, the Shorebird Marsh is not susceptible to erosion or sedimentation from the northern drainage channel.

In general, connecting new areas of tidal marsh to the northern drainage channel has the potential to increase water velocities within the northern drainage channel, which if significant, could result in erosion. The potential to cause increased sedimentation within the northern drainage channels is not likely because the expected increase in velocity would, if significant, remove unwanted sediments from the northern drainage channel.

The evaluation of restoration alternatives in the Hydrology Report included estimating the velocity and shear stress of water within the northern drainage channel for existing conditions and each of the proposed alternatives. The study concluded that none of the restoration alternatives would cause significant changes in the morphology (width, depth, and plan form) of the northern drainage channel. The report concluded that the increase in velocity associated with the restoration alternatives would not be significant. The risk of increased sedimentation was not a concern because all of the restoration alternatives would increase velocities slightly, which would aid in the removal of unwanted sediments from the northern drainage channel.

Noble Consultants reviewed the Project design in the context of the Hydrology Report and concluded that the results of the report were applicable to the Project. They concluded that the Project would also not cause significant changes in the morphology (width, depth, and plan form) of the northern drainage channel, unless significant erosion occurs in the new Project Site. This conclusion was documented in a letter from Noble Consultants, which was included in the Draft IS/MND.

Noble Consultants noted that the design team would need to confirm that the internal channel design would not cause significant erosion within the Project Site which could be a source of sedimentation for the northern drainage channel. The design team is currently in the process of evaluating the design and has determined that it is feasible to design the channel system so there will not be significant erosion.

Noble Consultants also recommended that the District monitor the topography and bathymetry of the northern drainage channel and the tidal channels within the Project Site after completion of the Project to confirm that there are no significant changes in the channel morphology. The District incorporated this monitoring as part of the Habitat Mitigation Monitoring Plan that is required by the regulatory agencies.

Noble Consultant’s response to the commenter’s question is included in a letter that has been attached to this response to comment from Page 147-151.

WRA is the District's lead consultant for the Project, including the lead for the Project design team. The design team is working to refine the preliminary design of the internal channel system to ensure that the Project is not likely to promote erosion, which could be transported as sedimentation into the northern drainage channel. The internal channels system will be designed to convey water within in a range of velocities that would not cause significant erosion or promote sedimentation within the new tidal marsh area. Preliminary channel sizing was performed using published regression equations, which provided a correlation between tidal area and channel dimensions such as depth and top width. In addition, the design team is using a hydro-dynamic model to validate the design. Preliminary results of the model indicate that it will be feasibility to design the internal channel system such that the water moving in and out of the new tidal marsh area will not cause significant erosion. Therefore the new tidal marsh is not likely to contribute sediment into the northern drainage channel.

WRA reviewed the Hydrology Report and the letter response from Noble Consultants in the context of the commenter's question regarding the potential for sedimentation to potentially impact the northern drainage channel or Shorebird Marsh. In general, WRA agreed with Noble Consultants that the Project would not cause any significant changes in the northern drainage channel including erosion and sedimentation. In addition, WRA concluded that Shorebird Marsh would not likely be adversely affected by the small amounts of erosion or sedimentation that might be caused by the Project because Shorebird Marsh is isolated from the natural tidal action via the SMART right-of-way and the pump station. WRA's response to the commenter's question is included in a memorandum that has been attached to this response to comment from Page 147-151, and Page 78 of the Draft Initial Study has been modified to read as follows:

c.i) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

Less than Significant Impact with Mitigation Incorporated. *The Project would involve earthwork and grading, excavation and relocation of the northwestern berm to the east and south sides of the new marsh, the construction of new tidal channels and seasonal wetlands. This could potentially result in erosion or siltation on- or off-site that could adversely affect the quality of receiving waters, including adjacent San Francisco Bay waters. For example~~s~~, if water velocity entering or leaving the restored wetlands is significant, embankment erosion could occur. With implementation of Mitigation Measure HYDRO-1, impacts related to erosion and siltation in the restored wetland would be less than significant.*

The District sponsored a Hydrology Report that examined several restoration alternatives at this site. Noble Consultants prepared the report and the report was included as a Technical Support Study to the IS/MND. The restoration alternatives that were evaluated in the report ranged in size from 4.9 acres to 30 acres of tidal marsh. All of the alternatives that were examined in the report incorporated a

connection to the northern drainage channel as the source of tidal inundation. The report evaluated whether the restoration alternatives would have any significant adverse effects on the northern drainage channel.

In general, the size and configuration of the northern drainage channel are determined by the large discharge events that occur when the Town of Corte Madera pumps water from the Shorebird Marsh in the northern drainage channel and out to the Bay. The discharge rates, velocities, and associated shear stress for these events are much larger than the discharge rates, velocities, and associated shear stress associated with existing tidal action in the northern drainage channel and increased tidal action associated with the Project. These large discharge events have over the years enlarged the northern drainage channel and keep it free of sedimentation.

Shorebird Marsh was constructed to enable the Town of Corte Madera to store and manage stormwater. The facility includes a pump station, which is used to lower the water levels within Shorebird Marsh in anticipation of winter storm events to increase the storage capacity of the marsh. In addition, the pump station has an adjustable water inlet/outlet, which allows the Town of change water levels within the marsh seasonally and enhance habitat for shorebirds.

Hydrologically, the former SMART railroad ROW isolates Shorebird marsh from free flowing tidal inundation. The pump station and the adjustable water inlet/outlet structure provide a hydrologic connection to the marsh, and are used to raise and lower the water elevations within the marsh seasonably. Water entering and exiting the Shorebird Marsh is managed by the Town of Corte Madera. As a result, the Shorebird Marsh is not susceptible to erosion or sedimentation from the northern drainage channel.

The evaluation of restoration alternatives in the Hydrology Report included estimating the velocity and shear stress of water within the northern drainage channel for existing conditions and each of the proposed alternatives. The study concluded that none of the restoration alternatives would cause significant changes in the morphology (width, depth, and plan form) of the northern drainage channel). The report concluded that the increase in velocity associated with the restoration alternatives would not be significant. The risk of increased sedimentation was not a concern because all of the restoration alternatives would increase velocities slightly, which would aid in the removal of unwanted sediments from the northern drainage channel.

Noble reviewed the Project design in the context of the Hydrology Report and concluded that the results of the report were applicable to the Project. They concluded that the Project would also not cause significant changes in the morphology (width, depth, and plan form) of the northern drainage channel, unless

significant erosion occurs in the new Project Site. This conclusion was documented in a letter from Noble, which was included in the Draft IS/MND.

As the Project would not result in erosion or siltation in the northern drainage channel or Shorebird Marsh, and Mitigation Measure HYDRO-1 further reduces the possibility of erosion and siltation within and near the Project Site, impacts would be less than significant with mitigation incorporated.

Mitigation Measures

Please see Mitigation Measure HYDRO-1.

Response to Comment MAS-12:

The commenter questions the validity of the Draft Initial Study's statement that the Project would reduce fire risk through invasive vegetation removal, stating that removing grasses and shrubs would inhibit the District's ability to meet its mitigation requirements and create tidal marsh. The commenter asserts invasive Pampas grass is the most flammable vegetation in the property and that better management of the property is needed with regard to encampments and non-native vegetation to reduce fire risk.

Grasses and shrubs present within the Project Site that would be targeted for vegetation removal are primarily non-native and invasive, and include pampas grass. There would be a net increase in wetland vegetation, including through the replacement of non-native grassland with tidal marsh. The non-native grasslands within the Project Site are drier and more likely to provide a significant fuel source during a fire than the hydrophytic wetland vegetation which would replace them in the restored marsh plain. As such, the Initial Study's statement that the Project would slightly decrease fire risk within the Project Site remains valid. The third to last paragraph of Page 16 and the second paragraph of Page 108 of the Draft Initial Study have been updated to reflect the nature of vegetation removal and to expand on discussion of reduced fire risk:

Draft Initial Study Page 16

3.3.4 Grading and Tree Removal

During construction, the Project would require removal of non-native, invasive trees that are located within the on-site re-use area. Trees slated for removal have been evaluated by a certified arborist and have been confirmed to all be invasive. Additionally, vegetation would be removed throughout the restoration area prior to grading. Existing vegetation that would be removed is primarily non-native grassland.

Draft Initial Study Page 108, Section 5.20.b

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?

No Impact. *There would be a small, temporary increase in on-site fire risk during construction due to the presence of construction workers and equipment. However, there are no human-serving facilities such as housing within the Project*

Site—so the Project would not expose occupants to pollutant concentrations from wildfire. Further, construction season would last for six months, part of which would occur during rainy season, so any increase in fire risk on the site would be minimal. The Project would replace dry, non-native grassland with tidal marsh vegetation and facilitate tidal inundation of the restored tidal channels and marsh plain ~~portions of the Project Site~~; so there would be a slight, long-term decrease in fire risk. As short-term increases to fire risk would be minimal, there would be a small long-term reduction in risk, and there are no people present within the Project Site, the Project would not exacerbate wildfire risk and expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire. Thus, there would be no impact.

Response to Comment MAS-13:

The commenter requests discussion of the Project's potential impacts on adaptation to sea level rise, presenting a potential concept for adaptation along the SMART ROW and questioning how the Project would affect such a plan.

Per the California Supreme Court's decision in California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal. 4th 369[27], CEQA analysis is required to examine the Project's impact on the environment, not the environment's impact on the Project. Put differently, a lead agency is not required to consider how existing environmental conditions, such as rising seas, affect its project. Previous decisions by lower courts, including the Second District's decision in Ballona Wetlands Land Trust, et al. v. City of Los Angeles (2011) 201 Ca. App. 4th 255[28], have ruled that sea level rise falls into the realm of the environment affecting the Project. Analysis of sea level rise is therefore not required under CEQA.

Furthermore, the District is not required to consider under CEQA how the Project may affect future sea level rise adaptation efforts that have not yet been developed, such as the concept introduced in the commenter's letter. CEQA analysis is only required to consider reasonably foreseeable environmental impacts, and an adaptation strategy that does not yet have any specifics developed cannot be considered reasonably foreseeable, making analysis of how it might be affected inherently speculative.

Response to Comment MAS-14:

The commenter observes that the requisite post-construction Monitoring Plan is not included in the IS. The commenter provides suggestions for inclusion in the Monitoring Plan, including sedimentation monitoring, upland vegetation maintenance, and enforcement criteria for access restrictions.

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[27] California Building Industry Association v. Bay Area Air Quality Management District, No. S213478 (Supreme Court of California December 17, 2015).

[28] Ballona Wetlands Land Trust v. City of Los Angeles, No. B231965 (California Court of Appeals, Second District, Division Three November 9, 2011).

As discussed in Section 3.4 of the Draft Initial Study, the monitoring and reporting plan will be developed in cooperation with regulatory agencies during the permitting process. The plan will be developed at the discretion of permitting agencies and is not a part of the CEQA process. A Mitigation Monitoring and Reporting Program, as required by CEQA, is included as part of this Initial Study.

MEMORANDUM

To:	**Lynford Edwards**	**From:**	**Ben Snyder, Project Engineer and George Salvaggio, Project Manager**
cc:	**John Eberle, Carolina Wallin**		
Date:	**7/10/2019**		
Subject:	**Response to CEQA comment regarding potential sedimentation of the northern drainage channel or Shorebird Marsh**		

Background Information

Hydro-dynamic Model - The design team is using a two-dimensional HEC-RAS hydrodynamic model to evaluate the hydraulics of the design. This includes the hydraulics of the marsh plain and tidal channels. The geometry of the model was defined using the existing topography and bathymetry of the study area, and the proposed grading plan. The computational mesh was created using 6 ft. rectilinear grid spacing. Manning's roughness values of 0.15 and 0.035 were applied to the marsh plain and the channels, respectively. The model boundary condition was set in the bay side of the northern drainage channel, and defined using tides observed at the National Oceanic and Atmospheric Administration tide gage at Richmond, CA.

Model Outputs - Model outputs included dynamic water surface elevations, velocities, depths, and shear stresses throughout the study area, including the proposed tidal marsh and channel network, surrounding marsh plain, and northern drainage channel.

Soils Information - Geotechnical investigations have encountered Bay Mud (clay and colloidal alluvial silt) as deep as 40 feet throughout the site (Miller Pacific, 2016). An approximately one foot deep layer of silty sand was also encountered at a depth of 5 ft. Permissible shear thresholds for colloidal alluvial silt and silty sand are 0.26 lb./sf and 0.03 lb./sf, respectively (Fischenich, 2001). Portions of the proposed tidal channel network may intersect the silty sand layer.

Preliminary Assessment of the Design and Recommendations

Likelihood of Erosion within the Project - The design team used this type of modeling to evaluate the preliminary design (65%) of the Project. Stability of the northern drainage channel and the proposed tidal channel network was assessed using the shear stress and velocity predicted by the model. Maximum shear stresses are predicted to occur near the mouth of the proposed tidal channel. In this area, the predicted shear stress are predicted to be

approximately 0.05 lb./sf. The maximum predicted shear stress at the mouth of the proposed tidal channel does not exceed the permissible shear thresholds for the bay mud, which is the predominant soil type throughout the project. The maximum predicted shear stress at the breach location does however exceed the permissible shear thresholds for small amount of silty sand found at the site. As a result, minor scour, within the silty sand layer may occur at the mouth of tidal channel for the current design.

Estimate of the amount of potential sediment for the preliminary design - The surface area of the zone where shear stresses exceed the permissible value of 0.03 lb./sf is roughly 500 square feet, and the depth of the sand layer is estimated to be one foot. This could result in approximately 20 cubic yards of sediment being deposited in the northern drainage channel. This is a negligible amount of deposition, considering the overall volume of the northern drainage channel is roughly 340,000 cubic yards.

Recommended Design Change - In response to this preliminary assessment, the design team will widen the mouth of the tidal channel at the mouth of the channel when we refine the design, and the widening of the mouth of the channel will reduce shear stress to acceptable levels.

Discharges from Shorebird Marsh will likely flush any potential sediment out of the northern drainage channel - Shorebird Marsh is lowered via pumping to an elevation of 0.6 ft. NAVD 88 by the Town of Corte Madera to provide flood control prior to winter rains (Noble, 2016). Any minor sediment discharge from the Project into the northern drainage channel would likely be mobilized out of the northern drainage channel when pumping occurs. The likelihood of this could be tested with additional modeling if pumping rates can be obtained from the Town of Corte Madera.

Background information about Shorebird Marsh - Shorebird Marsh was constructed to enable the Town of Corte Madera to store and manage stormwater. The facility includes a pump station, which is used to lower the water levels within Shorebird Marsh in anticipation of winter storm event to increase the storage capacity of the marsh. In addition, the pump station has an adjustable water inlet/outlet, which allows the Town to change water levels within the marsh seasonally to enhance habitat for shorebirds.

Hydrologically, the former SMART railroad right-of-way isolates Shorebird Marsh from free flowing tidal inundation. The pump and the adjustable water inlet/outlet provides a hydrologic connection to the marsh, which is used to raise and lower the water elevations within the marsh seasonally. Water entering and exiting the Shorebird Marsh is managed by the Town of Corte Madera. As a result, the Shorebird Marsh is not susceptible to erosion or sedimentation from the northern drainage channel.

Potential for erosion or sedimentation in the northern drainage channel or Shorebird Marsh - We reviewed the Hydrology Report and the letter response from Noble Consultants in the context of the commenters question regarding the potential for sedimentation to potentially impact the northern drainage channel or Shorebird Marsh. In general, we agreed with Noble Consultants that the Project would not cause any significant changes in the northern drainage channel including erosion and sedimentation. In addition, because of the fact Shorebird Marsh is isolated from the natural tidal action via the SMART right-of-way and the pump station, Shorebird Marsh would not likely be adversely affected by the small amounts of erosion or sedimentation that might be caused by the Project.

Summary of Evaluation

- *Predominant soils (bay mud) within the site are suitable for the velocities associated with the new tidal channels.*

- *Based on the current design, small deposits of silty sand may be a potential source of an insignificant quantity sediment discharged into the northern drainage channel.*

- *The design of the channel at the mouth will be widened to reduce the likelihood of erosion within areas with silty sand soils.*

- *The Project is not likely to contribute a significant amount of erosion or sediment to the northern drainage channel.*

- *The Project is not likely to contribute a significant amount of sediment or cause a significant amount of erosion in Shorebird Marsh.*

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Ronald M. Noble, P.E., President

ENR TOP 500 DESIGN FIRMS

June 24, 2019

Mr. George Salvaggio
WRA, Inc.
2169-G East Francisco Blvd.
San Rafael, CA 94901

Re: **Assessment of Sedimentation in the Northern Drainage Channel**
Corte Madera 4-Acre Tidal Marsh Restoration Project

Dear Mr. Salvaggio,

Noble Consultants, Inc. (NCI) has reviewed the 35% design plans, dated December 13, 2018, and the corresponding project description that were prepared by WRA, Inc. for the Corte Madera 4-Acre Tidal Marsh Restoration Project. Based on these documents provided by WRA, the proposed project will create 4 acres of tidal marsh within Corte Madera Ecological Reserve (CMER). This marsh will be connected to the existing northern drainage channel to restore tidal connectivity to the project site.

NCI (2016) performed a hydrological analysis[1] for four project alternatives that were proposed at that time. The area of the proposed tidal marsh ranges from 4.9 acres to 32.9 acres for those four alternatives. Among these four alternatives, Alternative 1 is the smallest restoration alternative and provides approximately 4.9 acres of restored tidal marsh. It was concluded in NCI (2016) analysis that Alternative 1 with optimized size for the breach and internal tidal channels will not induce any noticeable morphologic change to the northern drainage channel.

The area of the tidal marsh proposed by WRA in 2018 is 4 acres, which is smaller than the marsh area of Alternative 1 in NCI's (2016) analysis. The changes to the tidal currents and to the resulting sediment transport capacity in the northern drainage channel caused by the 4-Acre Tidal Marsh Restoration Project are expected to be less than those associated with Alternative 1 in NCI's (2016) analysis. Therefore, it is concluded that the proposed 4-Acre Tidal Marsh Restoration Project will not induce noticeable sediment deposition or erosion in the northern drainage channel, provided that the proposed marsh, levee breach and internal tidal channels will be stable and will not cause additional sediment inflow to the northern drainage channel.

A monitoring plan that includes periodic topographic and bathymetric surveys of the northern drainage channel is also recommended as part of the District's permitting process.

Please let us know if you have any questions.

[1] Noble Consultants, Inc., 2016. Hydrology Report, Wetland Restoration Design and Permitting Support Services at Corte Madera Ecological Reserve, Corte Madera, Marin County, California. Prepared for Golden Gate Bridge Highway and Transportation District. Prepared on August 14, 2015, and revised on January 11, 2016.

Sincerely,

NOBLE CONSULTANTS, INC.

Wenkai Qin, Ph.D., P.E., D.CE

Principal Engineer

MARIN BAYLANDS ADVOCATES P.O. BOX 2598 MILL VALLEY, CALIFORNIA 94942

May 24, 2019

Amorette Ko, Secretary to the District
Golden Gate Bridge Highway and Transportation District
P.O. Box 9000. Presidio Station
San Francisco, CA 94129-0601
Email: CMERPublicComments@goldengate.org

RE: *Draft Initial Study/Proposed Mitigated Negative Declaration*
Corte Madera Four-Acre Tidal Marsh Restoration Project

Dear Ms. Ko:

The Marin Baylands Advocates wishes to thank the District for keeping us informed as this mitigation project has progressed. As part of a partnership that advocated for the District to complete this project, we support its implementation moving forward speedily. We do have some questions and comments on the project.

1) 2.5 Project Location
Please provide an analysis of why the project is located in the southwestern corner of the site, instead of the northeastern corner of the District's 72 acres where it would be closer to, and could be directly connected with, endangered species habitat of the Corte Madera Ecological Reserve Marsh. We have previously advised the District of our preference for the eastern location.

2) Surrounding Land Uses and Setting
Section 2.7 states "The District's property and the Project Site are bordered on the west by a strip of land associated with the SMART ROW."
What does "associated with" mean? Who owns the strip of land referred to in the sentence?

3) There are various references to informal and unsanctioned trails (see below). What is the difference between informal and unsanctioned?
2.7: The 72-acre property is presently devoid of any developed land and recreationists currently use both a formal public access easement and **informal trails** for **dog walking**, jogging, and other activities.
3.2.3: "An **unsanctioned informal trail loops** around a portion of the outer perimeter of the property and within the Project Site, along the northwestern and northern perimeter berms."

3.2.3 "The District plans on allowing the public to continue to use the informal trail."

We question the wisdom (from both an environmental and process standpoint) of allowing continued use of an illegal trail, particularly given the reality that that usage includes dog walking, often with dogs off-leash. Any trail should either be sanctioned, after adequate environmental review, or not. How can the district expect users to follow their rules if they give carte blanche to disregard their rules?

4) 3.3.6 Restoration Planting
This discussion states that native salt marsh plants would be naturally recruited and actively planted in the restored marsh plain; that native marsh species would naturally recolonize the restored marsh; and that the transition zone would be hydroseeded.

It sounds like active planting would occur in the marsh, even though it is recognized that natural recruitment occurs in the tidal marshes. But the transition zone, where the natural recruitment is unlikely to occur (except by invasive species), would only be hydroseeded. The transition zone should be planted with species that will provide cover habitat for Ridgway's Rails and other marsh species because hydroseeding alone will not result in the kind of cover habitat needed by the endangered and other species. Species that would be in the hydroseed mix and that would be planted should be stated.

5) Biological Information
There are various confusing statements Under 5.4 Environmental Setting:

"Analysis of potential biological impacts has incorporated information from multiple site visits by WRA, a Biological Resources Inventory (**BRI; WRA 2015)**...
"The BRI was the p**rimary technical support study** used to assess the Project's potential impacts on biological resources, a….. The BRI originally studied the entire 72-acre District property and has **since been re-evaluated** and determined to apply to the updated Project design and location."
* "WRA biologists surveyed the Study Area on foot on **July 15 and 29, August 13, and September 11, 2014** to document biological communities and assess their conditions…"

Given that the 2015 BRI is the primary study used to assess impacts and apparently used information gathered in 2014*, how, when, and by whom was the BRI re-evaluated? Please provide a written report (description) of the methodology and results.

We look forward to your responses to our concerns. Thank you.

Sincerely,

Susan Ristow

Susan Ristow

Response to Comment MBA-1:

The commenter provides introductory comments. No response is needed.

Response to Comment MBA-2:

The commenter expresses their preference that the Project Site be located on the eastern side of the District property and requests an explanation as to why the western side was selected. The commenter states that the eastern side would provide better habitat connectivity and expresses a preference for this side over the proposed westerly location.

The commenter does not provide a specific comment on the adequacy of the Draft Initial Study. The commenter's preference for the western side of the property is noted and will be passed along to the District's board. As discussed in Initial Study Section 3.1.1, habitat connectivity was among the factors considered when selecting the Project Site's location within the District's 72-acre property. As designed, the Project would provide connectivity to existing tidal marsh to the west. Furthermore, as noted in Chapter 3.4 of the Draft Initial Study, according to CNDDB Ridgway's Rail has been documented in habitat adjacent to the District Property. This includes the marsh area to the north and east that would provide habitat connectivity with the proposed restoration area in the western portion of the District Property. Given the existence of rail in adjacent habitat and other habitat features considered during the design process, the Project would provide suitable habitat for Ridgway's Rail.

Response to Comment MBA-3:

The commenter asks for clarification as to who owns the land immediately to the west of the Project Site, referencing language on Page 7, Paragraph 1 of the Draft Initial Study that they find ambiguous.

Northwestern Pacific Railroad previously owned the land to the west, which has since been acquired by SMART and is a part of SMART's ROW. Page 7, Paragraph 1 of the Draft Initial Study has been altered to read accordingly:

> *The Project Site's immediate surroundings largely consist of open space land uses. Marshland associated with the CMER borders the District's 72-acre property on the north, east, and south. The District's property and the Project Site are bordered on the west by a strip of land formerly owned by the Northwestern Pacific Railroad that is within SMART's ROW. ~~a strip of land associated with the SMART ROW.~~ Immediately to the west of the SMART ROW is the Shorebird Marsh that collects treated stormwater from the Town. In the greater vicinity of the Project Site, land uses include the Redwood Highway and commercial development. The 72-acre property is presently devoid of any developed land and recreationists currently use both a formal public access easement and informal trails for dog walking, jogging, and other activities.*

Response to Comment MBA-4:

The commenter requests clarification on the difference between "unsanctioned" and "informal", referencing use of both words throughout the Draft Initial Study to describe the informal trail.

The two words are meant synonymously in this context. The word "unsanctioned" has been removed for clarity, including on Page 15, Paragraph 1; Page 95, Paragraph 1; and Page 99, Final Paragraph of the Draft Initial Study.

3.2.3 Public Access

The 72-acre property contains the Town's formal public access easement for shoreline access along the eastern and southern perimeter berms and along the eastern end of the northern perimeter berm. In addition, the District has an access easement on the SMART ROW that runs parallel and adjacent to the western boundary of the Project Site. This easement allows access to and from the Project Site and is used by the public as an informal walking trail. The 72-acre property has no other public access easements within its boundary. An ~~unsanctioned~~ informal trail loops around a portion of the outer perimeter of the property and within the Project Site, along the northwestern and northern perimeter berms. The District has allowed the public to use this informal trail while prohibiting public access to the interior areas of the property including the existing seasonal wetlands.

During construction, portions of the northern berm and the associated informal trail would be removed for creation of Project elements. A new berm around the eastern and southern extent of the proposed restored tidal marsh area would be constructed and would connect into the remaining portions of the informal trail. The new berm around the newly restored tidal marsh area would function similarly to the existing ~~unsanctioned~~ informal trail. The District plans on allowing the public to continue to use the informal trail. However, the District reserves the right to restrict public access to any part of the Project Site or 72-acre property that is not within the Town's formal public access easement.

5.16 - Recreation

Environmental Setting

The Project Site currently includes a portion of an informal~~, unsanctioned~~ pedestrian loop trail. A formal public access easement exists on the east and south perimeter of the District property, and is continuous with the informal loop trail. Area residents use the loop trail for walking, jogging, and taking their dogs out for exercise.

5.17 Transportation

e) Would the Project result in inadequate emergency access?

Less-than-Significant Impact. *All existing access would be maintained, except for a temporary closure of the SMART right-of-way and portions of the informal ~~unsanctioned~~ trail to pedestrians. There would be no modifications to existing access that would reduce access for emergency vehicles. Slight increases to traffic on Industrial Way could temporarily reduce the ease of emergency access, but the District or its construction contractors would coordinate with law enforcement and emergency service providers prior to the start of construction to ensure minimal disruption to service during construction. As there would be no permanent changes to emergency access and temporary impacts*

would be minimized in cooperation with emergency service providers, impacts relating to emergency access would be less than significant.

Response to Comment MBA-5:

The commenter expresses dissatisfaction with continued use of the informal trail, arguing that the trail should either be official or not exist. The commenter states that their concerns are both procedural and environmental.

The commenter does not remark on the adequacy of the IS/MND. This comment is noted and will be passed along to the District's board as part of the environmental record. As previously discussed, the Project was designed with such features as a permanent exclusion fence and a relocated trail to maximize compatibility between wildlife habitat and public access and minimize the likelihood of humans and dogs disturbing the marsh area.

Response to Comment MBA-6:

The commenter summarizes the proposed revegetation concept and expresses skepticism on its effectiveness. The commenter feels that the transition zone should be actively planted to provide adequate cover for wildlife and avoid invasive species establishment. The commenter requests that the plant profile for hydroseeding and any planting be provided.

As discussed in Section 3.3.6 of the Draft Initial Study, the Project was designed to provide suitable substrates and elevation profiles for salt marsh vegetation establishment. Nonetheless, in response to this and other comments and to enhance habitat suitability for Ridgway's rail, the District has modified the Project's planting program to include active planting in the transition zone. Draft Initial Study Section 3.3.6 beginning on Page 18 has been modified accordingly. Revised planting methodologies are not anticipated to create any new environmental impacts due to their relatively non-intrusive nature and compatibility with the vegetation profile of nearby land. The restoration area will be monitored by permitting agencies, which will establish monitoring methodologies and performance criteria, as discussed in Section 3.4 of the Draft Initial Study. Establishment of monitoring methodologies is not a part of the CEQA process and will be finalized by permitting agencies at a later date. The profile of species to be planted as part of revegetation efforts will similarly be developed in collaboration with permitting agencies.

3.3.6 Restoration Planting

Native salt marsh plants would be naturally recruited and actively planted in the restored tidal marsh plain. Planting would occur with appropriate container plantings sourced from local nurseries. Native marsh species will naturally colonize restored tidal areas, as seeds and vegetative propagules capable of rooting in mudflats are carried on-site via tidal flows. Project design is intended to promote rapid colonization by creating suitable substrates and elevation profiles for the establishment of salt marsh vegetation. Additionally, upland transition zones would be actively planted ~~hydroseeded~~ with appropriate native grass and shrub species. ~~an appropriate native plant species.~~ Planting would occur following the final site grading, which is anticipated to conclude in Winter 2019, during the rainy season.

Following the grading, the created seasonal wetland habitat would be seeded with native facultative wetland plant species. Installation of seasonal wetland plant species during the onset of the rainy season would provide sufficient hydrology for both seed germination and establishment of plantings.

The planting methodologies outlined above have been successful in revegetation efforts for other Bay Area restoration Projects such as those in Peyton Slough and the Sonoma Baylands.

The following is a summary of the Project's revegetation program:

- *Low marsh – active planting of cordgrass and natural recruitment;*
- *High marsh – active planting of high marsh species and natural recruitment;*
- *Transition zone – active planting of transition zone species including shrubs and seeding of native grass and shrub species;*
- *Upland refugia excluding the transition zone – hydroseeding of grass and shrub species.*

Response to Comment MBA-7:

The commenter expresses confusion as to how the BRI was determined to still apply to the updated Project Site and Project Design and requests a written description of methodology and results.

The BRI was qualitatively assessed and determined to still apply to the updated Project Site. In response to this comment and out of an abundance of caution, a WRA biologist performed a supplemental site visit and search of regulatory databases on June 5, 2019 to confirm that on-site biological communities still approximately mirror those documented in the BRI and that no new special-status species sightings that might impact the previous BRI's conclusion have been documented in the vicinity of the Project Site. Figure 5 and Section 5.4, Page 38, Paragraph 1 of the Draft Initial Study was modified to reflect the above information:

Analysis of potential biological impacts has incorporated information from multiple site visits by WRA, a Biological Resources Inventory (BRI; WRA 2015), a Biological Assessment (BA; WRA 2018) and a Jurisdictional Delineation of Waters of the United States (WRA 2015). The BRI was the primary technical support study used to assess the Project's potential impacts on biological resources, and is available for review on the District website or at the District office. The BRI originally studied the entire 72-acre District property and has since been re-evaluated and determined to apply to the updated Project design and location. The basis of this determination was qualitative, and was primarily based on observations by WRA biologists during site visits and the fact that reducing the size of the Project Site does not alter the biological baseline. To further validate this conclusion, in June 2019 a WRA biologist visited the Project Site and searched regulatory databases to verify that no changes to biological communities within

or special-status species sighting near the Project Site which would invalidate the BRI's findings have occurred. Their findings are documented in a memo appended to the BRI, which is available on the District's website.

Dear Golden Gate Bridge District, and Town of Corte Madera

Regarding the GGB title marsh restoration project in Corte Madera, thank you to GGB for taking the steps to restore this special marshland.

I have a concern, it follows;

I'm not totally clear about the jurisdiction of the present dirt pathway that goes completely around the marsh. There is mention that the Town of Corte Madera owns a path in that area. My concern is; will we still have the ability to walk all the way around the entire marsh as we as we have for so many years? In the plans that I am looking at, I don't see that option.

This area is treasured by locals and has been used by many people for many, many years for bay side strolling and a calm place to watch the birds and other wildlife.

I know there are some environmental folks who prefer that there be no access to marshlands at all. I consider myself an environmentalist as well, but not extreme. I believe people are important too. I learned to care about our environment by close up exposure. People, especially thise who don't live in rural areas need places such as this for hands on observation & education. I believe a welcoming natural path all the way around this marsh gives one an opportunity to immerse oneself in the nature by our bay, without backtracking. It is purposeful & meaningful to be on a real nature trail. One can gain knowledge of nature there & have peace as well, right near the more frantic areas of freeways & malls!

If I'm looking in the right place, I believe I'm seeing only out and back paths, one is a very short access which I object to entirely. I would hope for as lengthy a trail as possible, certainly not just a viewpoint!

Possibly the reasoning for no complete circular pedestrian access is that there need be a canal or such for water to ebb and flow. If that is the case, it would certainly be possible for a bridge of some sort to allow a continuous path. This would be my favored plan.

The more time humans spend out in nature the more respect they gain for the environment.

Maybe you are doing this but I encourage you to please consider maintaining continuous access around this marsh.

Thank you,

Suzi Beatie

Response to Comment: SB-1

The commenter thanks the District for undertaking restoration efforts. The commenter subsequently expresses confusion surrounding the jurisdiction of the dirt pathway around the marsh, alluding to Town of Corte Madera ownership of a path in the area.

As discussed throughout the Initial Study, the District owns the 72-acre property that contains the proposed restoration site. Formal and informal public access of the site is depicted in Figure 2 (Page 12) and Section 3.2.3 (Page 15) of the Draft Initial Study. In summary, the District owns the informal dirt trail around the marsh and the Town of Corte Madera has a public access easement with the District that formally allows public access to portions of the trail in the south and east of the property. Outside of the formal agreement with the Town, public access to the informal trail is provided at the District's discretion. For further detail, please see Figure 2.

Response to Comment: SB-2

The commenter questions whether the public will retain its ability to walk around the entire marsh.

As described in Section 3.2.3 (Page 15) of the Draft Initial Study, the public would temporarily lose access to portions of the informal trail in the northern half of the property during construction. Portions of the trail would remain accessible. Following construction, the northern berm would be breached and the newly constructed berm around the east side of the restored marsh would take its place facilitating informal public access in a loop around the site. Public access to the site would remain informal and be administered at the discretion of the District, which owns the property. For further detail on existing and proposed public access, please see Figure 2.

Response to Comment: SB-3

The commenter expresses that the public values the site. The commenter explains why she values public access and exposure to nature, including in the context of the Project Site.

The commenter does not provide a specific comment on the adequacy of the Draft Initial Study. This comment is noted and will be forwarded to the District's Board as part of the Final Initial Study. No further response is needed.

Response to Comment: SB-4

The commenter indicates that she perceives the Project to result in out-and-back paths and short public access points within the District property and expresses opposition to such a layout. The commenter speculates that a loop trail may be precluded by a need to permit tidal flow within the site and expresses support for a bridge if that is the case.

As discussed in Section 3.2.3 of the Draft Initial Study, informal public access to a complete loop trail around the District property would be temporarily disrupted during construction but would resume following Project completion. The northern berm would be breached and the informal loop trail would be rerouted atop a newly constructed berm around the eastern edge of the restored marsh area. For further detail on existing and proposed public access, please see Figure 2.

Response to Comment: SB-5

The commenter reiterates her desire for public access to nature and for continued access to a complete loop around the District property.

This comment will be forwarded to the District's Board as part of the Final Initial Study. No further response is needed.

Corte Madera 4-Acre Tidal Marsh Restoration Project
Draft Initial Study / Negative Declaration Public Meeting

COMMENT CARD

Thank you for your comment. Comments may be submitted by:

- Turning in this form at the Scoping Meeting in the comment box provided
- Emailing your comments to CMERPublicComments@goldengate.org
- Mailing this form to: Amorette Ko, Secretary of the District
  Golden Gate Bridge, Highway and Transportation District
  P.O. Box 9000, Presidio Station
  San Francisco, Ca 94129-0601

Please submit your comments no later than May 26, 2019 at 4:30 p.m.

Space is provided on the back of this card. You may use additional paper if necessary.

Please print clearly. All comments become part of the public record.

Name: Eli Beckman

Organization (if applicable): Corte Madera Town Council

Email (optional): ebeckman@tcmmail.org **Phone (optional):** (415) 737-5020

Comment: Please restore the rest of the site as quickly as possible, or sell it to someone who will! Let me know if I can help in any way. 1

Response to Comment: EB-1

The commenter expresses a desire for the remainder of the District property to be restored and offers his help.

This comment does not provide remarks on the adequacy of the Draft Initial Study. This comment will be forwarded to the District's Board as part of the Final Initial Study. No further response is needed.

Attn/ Lynford Edwards, P. E., Senior Engineer,

Dear Mr. Edwards,

Is the project absolutely necessary?

Will it curb the velocity at which the coast line is eroding?

Will it really bring back the Ridgeway rail?

Will it prevent flooding?

So far, the restoration project conceived and completed at the site of the Audubon parcel, adjacent to your Corte Madera property does not show the greatest of improvements. It floods now at the end of Industrial way, at the base of the newly built mound, with high tides.

We have yet to see Clapper Rails in the dug up mud pit on the other side of the mound. The pit fills with water only during extreme tides. No flocks of birds can be seen, let alone one or two. You do see Clapper rails at the point, where the Corte Madera creek runs into the bay.

Please accept these tidbits. We go to the marsh nearly everyday, and have for years.

We quietly remove discarded plastics, cans, and unsightly debris so they do not end up in the bay. The marsh is a little bit of a Paradise for us - raw, barely touched. Rabbits run through the grasses, a burrowing owl has made its home there, and the birds are abundant naturally.

Thank you for your time. May the best decisions be made regarding this possible future change at the Corte Madera marsh.

Mai M. Billaud

Larkspur Resident

Marin Master Gardener

415-860-1832

Response to Comment MB-1:

The commenter questions whether the Project is necessary.

As discussed in Section 3.1.1 of the Draft Initial Study, the District is required to mitigate for two acres of impact to Ridgway's Rail habitat and two acres of impact to tidal marsh per a 1988 Army Corps of Engineers Permit for maintenance activities at the Larkspur Ferry Terminal and a 1996 agreement with local environmental organizations to mitigate for erosion impacts associated with high speed ferry wakes. As such, the District is required to restore four acres of tidal marsh habitat.

Response to Comment MB-2:

The commenter inquires about the Project's ability to slow coastal erosion.

The Project is required as mitigation for ferry wake impacts associated with the operation of commuter ferry service at the Larkspur Ferry Terminal. Tidal salt marsh habitat is known to protect shorelines from erosion by buffering wave action and trapping sediments[29]. The Project Site is currently bermed to contain dredged sediments, and berms and seawalls can worsen coastal erosion on neighboring shorelines by reflecting wave energy and interrupting sediment supply[30]. The project's introduction of tidal salt marsh vegetation and removal of a portion of the northern berm is therefore intended to improve baseline conditions regarding coastal erosion and mitigate for coastal erosion impacts from high-speed ferry service.

Response to Comment MB-3:

The commenter asks whether the Project will bring back Ridgway's Rail.

As discussed throughout the Initial Study, the Project was designed to provide additional habitat for Ridgway's Rail alongside other existing habitat. The Project is therefore designed to provide an overall benefit to the species.

Response to Comment MB-4:

The commenter asks if the Project will prevent flooding.

---

[29] National Oceanic and Atmospheric Administration US Department of Commerce, "What Is a Salt Marsh?," accessed June 28, 2019, https://oceanservice.noaa.gov/facts/saltmarsh.html.

[30] San Francisco Estuary Institute and SPUR, "San Francisco Bay Shoreline Adaptation Atlas: Working with Nature to Plan for Sea Level Rise Using Operational Landscape Units" (Richmond, CA, April 2019), https://www.sfei.org/sites/default/files/biblio_files/SFEI%20SF%20Bay%20Shoreline%20Adaptation%20Atlas%20April%202019_medres_0.pdf.

As discussed in response to Comment MB-2, the Project is not required to mitigate for existing, ongoing environmental impacts unless it would exacerbate such impacts. As shown in the Hydrology Report and discussed in Section 5.10 of the Draft Initial Study, the Project would not lead to increased flooding. Accordingly, the Project is not required to mitigate for flood impacts.

Response to Comment MB-5:

The commenter questions the results observed at adjacent restoration sites, stating that they observe flooding and do not observe Ridgway's Rail.

This comment will be passed on to decision makers as part of the Final Initial Study. As it provides general comments about adjacent lands and does not comment on the adequacy of the Draft Initial Study, no further response is required.

Response to Comment MB-6:

The commenter expresses their enjoyment of the District property and leaves concluding comments. No response is needed.

Corte Madera 4-Acre Tidal Marsh Restoration Project
Draft Initial Study / Negative Declaration Public Meeting

COMMENT CARD

Thank you for your comment. Comments may be submitted by:

- Turning in this form at the Scoping Meeting in the comment box provided
- Emailing your comments to CMERPublicComments@goldengate.org
- Mailing this form to: Amorette Ko, Secretary of the District
  Golden Gate Bridge, Highway and Transportation District
  P.O. Box 9000, Presidio Station
  San Francisco, Ca 94129-0601

Please submit your comments no later than May 26, 2019 at 4:30 p.m.

Space is provided on the back of this card. You may use additional paper if necessary.

Please print clearly. All comments become part of the public record.

Name: PETER BROWN

Organization (if applicable): Town Resident

Email (optional): _____ **Phone (optional):** _____

Dear GGBHTD BOARD:

Comment: If you don't expand the 4-acre restoration site at this time, be prepared to partner with the Town of Corte Madera and other agencies for near-term marsh restoration efforts in coordination with Climate Adaptation efforts under way. 1

Response to Comment: PB-1

The commenter intimates that the remainder of the District property not currently proposed for restoration may be targeted by the Town and other agencies for marsh restoration and climate adaptation efforts in the near future.

This comment does not provide remarks on the adequacy of the Draft Initial Study. It is noted and will be forwarded to the District's Board as part of the Final Initial Study. No further response is necessary.

Amorette Ko, District Secretary
Golden Gate Bridge, Highway and Transportation District
P.O. Box 9000 Presideo Station
San Francisco, CA 94129-0601
CMERPublicComments@goldengate.org

Re: Comments on the Corte Madera 4-Acre Tidal Marsh Restoration Project

Dear Ms. Ko:

Thank you for the opportunity to offer comments on the *Draft Initial Study/Negative Declaration for the Corte Madera Four-Acre Tidal Marsh Restoration Project*.

I live in Corte Madera a half a block from the Corte Madera Marsh and have been visiting the marsh for over 30 years, almost as long as this project has been proposed to mitigate for ferry impacts. I would have preferred the earlier design that involved the entire 72 acres site, which would have provided greater habitat benefits.

Regarding **Public Access,** I would urge the District not to install a new trail. The property is currently signed "no trespassing" except for the "peripheral trail." This proposed new trail is not a peripheral trail, but one that goes through sensitive habitat. Instead of building a new "proposed informal trail," this restoration project is an opportunity to better protect the habitat by not having an access trail into biologically sensitive areas.

As the recreation section of the IS states (p. 95), the area is used for "taking their dogs out for exercise." This is not a compatible use of sensitive wildlife habitat. Currently this area is used as a dog run, contrary to the Town of Corte Madera ordinance which requires dogs to be on leash in areas open to the public such as private shopping malls and this property (*fide* the police chief).

The District to my knowledge makes no effort to police this area other than evicting poor people who sleep out there. There is an unfortunate bias in evicting poor people with no place to sleep but facilitating access by building a new trail for more well-off folks to run their off-leash dogs in violation of the local ordinance.

Thank you for considering my comments.

Sincerely,

Roger D. Harris, Certified Wildlife Biologist
Roger.harris@comcast.net
Corte Madera, CA

Response to Comment RH-1:

The commenter provides an introduction and context for his comments. The commenter expresses a preference for an earlier iteration of the Project that incorporated all 72 acres.

This comment does not remark on the adequacy of the Draft Initial Study. This comment is noted and will be forwarded to the District's board as part of the Final Initial Study. No further response is needed.

Response to Comment RH-2:

The commenter advises the District against installing a new trail, citing concern that it would cut through sensitive habitat. The commenter opines that dog walking is not a compatible use of sensitive wildlife habitat and observes that many dogs are let off leash within the Property, contrary to Town ordinances requiring leashes.

The commenter does not provide a specific comment on the adequacy of the Draft Initial Study. This comment will be passed along to the District's board as part of the environmental record. As discussed throughout the Initial Study, various Project design features are intended to minimize disturbance by dogs and humans within sensitive habitat. These include a permanent exclusion fence separating the informal trail from the restoration area and re-routing the berm to the eastern side of the Project Site, which would create distance between recreationists and existing marsh on the western side of the District property. Furthermore, as noted in Section 3.2.2 of the Draft Initial Study, public access to the project site remains informal, and the District retains the right to restrict access if necessary.

Response to Comment RH-3:

The commenter expresses concern over biases on which rules are enforced within the Project Site, particularly rules regarding trespass and off-leash dogs.

This comment will be forwarded to the District's board as part of the Final Initial Study. As this comment does not remark on the adequacy of the Draft Initial Study, no further response is needed.

8.0 MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared pursuant to CEQA Guidelines (California Code of Regulations, Title 14), which state the following:

> *In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall 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. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.*
>
> *The public agency may choose whether its program will monitor mitigation, report on mitigation, or both. "Reporting" generally consists of a written compliance review that is presented to the decision making body or authorized staff person. A report may be required at various stages during project implementation or upon completion of the mitigation measure. "Monitoring" is generally an ongoing or periodic process of project oversight. There is often no clear distinction between monitoring and reporting and the program best suited to ensuring compliance in any given instance will usually involve elements of both.*

Table 4 lists the potentially significant impacts and proposed mitigation measures identified in the Initial Study/Mitigated Negative Declaration (IS/MND). Table 4 describes the timing of implementation of the mitigation measures (i.e., when the measure will implemented) and District staff or individual responsible for ensuring implementation of the measures. Finally, Table 4 describes the District staff or individual responsibility for monitoring the mitigation measures.

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Table 4. Mitigation Monitoring and Reporting Program (MMRP)

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
Section				
Impact AIR-a: Conflict with or obstruct implementation of the applicable air quality plan? ***Significance of Impact Before Mitigation:*** Potentially Significant ***Significance of Impact After Mitigation:*** Less than Significant	*Mitigation Measure AIR-1* The contractor shall implement the following basic measures recommended by the Bay Area Air Quality Management District during construction: • All exposed soil surfaces (e.g., parking areas, staging areas, soil piles, graded areas) shall be watered at least two times per day. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage containing reminders shall be provided for construction workers at all access points. This includes but is not necessarily limited to the gated access road running south from	***Implementation Responsibility:*** Project Manager from District and Contractor ***Monitoring Frequency:*** Prior to and during ground disturbance	***Monitoring Responsibility:*** Construction Inspector; District (after construction)	***Initials*** _____ ***Date*** _____

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
	Section			
	Industrial Way. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications, and all equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to on-site use. • A publicly visible sign with the telephone number and person to contact at the lead agency regarding any dust complaints shall be posted in or near the Project Site. The contact person shall respond to complaints and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.			
Impact AIR-b: 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?	Mitigation Measure AIR-1 The contractor shall implement the following basic measures recommended by the Bay Area Air Quality Management District during construction: • All exposed soil surfaces (e.g., parking areas, staging areas, soil piles, graded areas) shall be	***Implementation Responsibility:*** Project Manager from District and Contractor	***Monitoring Responsibility:*** Construction Inspector; District	***Initials*** _____ ***Date*** _____

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
	Section			
Significance of Impact Before Mitigation: Potentially Significant ***Significance of Impact After Mitigation:*** Less than Significant	watered at least two times per day. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage containing reminders shall be provided for construction workers at all access points. This includes but is not necessarily limited to the gated access road running south from Industrial Way. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications, and all equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to on-site use. • A publicly visible sign with the telephone number and person to contact at the lead agency regarding	***Monitoring Frequency:*** Prior to and during ground disturbance		

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
Section				
	any dust complaints shall be posted in or near the Project Site. The contact person shall respond to complaints and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.			
Biological Resources				
Impact BIO-a: Would the Project 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? ***Significance of Impact Before Mitigation:*** Potentially Significant	*Mitigation Measure BIO-1* Upon conclusion of the Section 7 consultation process and prior to advertising for construction, the District shall incorporate all mitigation measures recommended by USFWS during the Section 7 consultation process, into the construction documents for the project. The District and its contractor shall implement the mitigation measures before and during construction. Such measures may include, but are not limited to: • A USFWS-approved biologist will be present on-site during all construction work taking place in or adjacent to salt marsh and other pickleweed-dominated habitats, including all vegetation removal and initial ground-disturbing work in these areas; • When construction activities are to take place in potential SMHM habitat, vegetation removal in work areas will be performed using non-motorized or	***Implementation Responsibility:*** Project Manager from District or/ and Consulting Biologist ***Monitoring Frequency:*** Prior to and during ground disturbance	***Monitoring Responsibility:*** Construction Inspector; District	***Initials*** _____ ***Date*** _____

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
Section				
Significance of Impact After Mitigation: Less than Significant	hand-held motorized equipment to remove cover and render these areas unattractive to SMHM, beginning in less suitable SMHM habitat and moving towards more suitable habitat. Vegetation will be cut in two phases, first to mid-canopy height then to ground level or no higher than one inch off the ground; • Temporary SMHM exclusion fencing will ~~may~~ be erected around work areas if deemed beneficial by USFWS using the best available science; • If California Ridgway's Rail or SMHM is observed at any time during construction, work will not be initiated or will be stopped immediately by the biological monitor until the rail or mouse leaves the vicinity of the work area of its own accord. *Mitigation Measure BIO-2* Upon conclusion of the Section 7 consultation process and prior to advertising for construction, the District shall incorporate all mitigation measures recommended by NMFS during the Section 7 consultation process into the construction documents for the project. Such measures may include, but are not limited to: • The berm breach will be excavated in dry conditions (above the water line, or during low-tide conditions); no in-water work will occur;			

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
Section				
	• Final grading of the berm breach will be timed so that a rising tide will complete the tidal hydrologic connection. Any turbidity created by the breach will be as minimal as possible, and will cause as little water velocity change as possible when the breach occurs; • Any equipment used during construction will be maintained to be free of leaks.			
Impact BIO-b: Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? ***Significance of Impact Before Mitigation:*** Potentially Significant ***Significance of Impact***	*Mitigation Measure HYDRO-1* The District and its contractor shall, at minimum, implement the following erosion control measures: • Implementation of erosion control measures such as silt fencing and dust control in areas of ground disturbance • Establishment of appropriate soil/materials management controls during pre-clearing, vegetation removal, and earthmoving/grading • Preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) The District shall additionally implement erosion control measures in accordance with its Section 401 permit, which may include but are not limited to: • Limiting access routes and stabilizing access points. • Stabilizing graded areas as soon as possible with seeding, mulching, erosion control materials, or other effective methods.	***Implementation Responsibility:*** Project Manager from District and Contractor ***Monitoring Frequency:*** Prior to and during ground disturbance	***Monitoring Responsibility:*** Construction Inspector; District	***Initials*** _____ ***Date*** _____

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
Section				
After Mitigation: Less than Significant	• Delineating clearing limits, easements, setbacks, sensitive areas, vegetation, and drainage courses by marking them in the field. • Stabilizing and preventing erosion from temporary conveyance channels and outlets. • If rainfall occurs, using sediment controls and filtration to remove sediment from water collected on-site during construction. *Mitigation Measure HYDRO-2* All refueling, staging, and/or maintenance of heavy equipment shall take place at a minimum of 50 feet away from all identified jurisdictional wetlands, Waters of the U.S., and drainage courses. The refueling/maintenance and construction staging area shall be bermed, graveled or covered with straw and incorporate measures for capture of any accidental spills.			
Impact BIO-d: Would the Project 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??	*Mitigation Measure BIO-1* Upon conclusion of the Section 7 consultation process and prior to finalization of construction documents, the District shall incorporate all mitigation measures recommended by USFWS during the Section 7 consultation process, into the construction documents for the project. The District and its contractor shall implement the mitigation measures before and during construction. Such measures may include, but are not limited to:	***Implementation Responsibility:*** Project Manager from District and Consulting Biologist ***Monitoring Frequency:*** Prior to and during ground	***Monitoring Responsibility:*** Construction Inspector; District	***Initials*** _____ ***Date*** _____

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
Section				
Significance of Impact Before Mitigation: Potentially Significant ***Significance of Impact After Mitigation:*** Less than Significant	• A USFWS-approved biologist will be present on-site during all construction work taking place in or adjacent to salt marsh and other pickleweed-dominated habitats, including all vegetation removal and initial ground-disturbing work in these areas; • When construction activities are to take place in potential SMHM habitat, vegetation removal in work areas will be performed to remove cover and render these areas unattractive to SHMH; • Temporary SMHM exclusion fencing may be erected around work areas if deemed beneficial by USFWS using the best available science; • If California Ridgway's Rail or SMHM is observed at any time during construction, work will not be initiated or will be stopped immediately by the biological monitor until the rail or mouse leaves the vicinity of the work area of its own accord. *Mitigation Measure BIO-2* Upon conclusion of the Section 7 consultation process and prior to advertising for construction, the District shall incorporate all mitigation measures recommended by NMFS during the Section 7 consultation process into the construction documents for the project. Such measures may include, but are not limited to: • The berm breach will be excavated in dry conditions (above the water line, or during low-tide conditions); no in-water work will occur;	disturbance		

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
Section				
	• Final grading of the berm breach will be timed so that a rising tide will complete the tidal hydrologic connection. Any turbidity created by the breach will be as minimal as possible, and will cause as little water velocity change as possible when the breach occurs; • Any equipment used during construction will be maintained to be free of leaks.			
Impact CULT-b: Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? Accidental Discovery ***Significance of Impact Before Mitigation:*** Potentially Significant ***Significance of Impact After Mitigation:*** Less than Significant	*Mitigation Measure CULT-1:* Pursuant to PRC Section 21082 and Section 15064(f) of the CEQA Guidelines, the District shall make provisions for discovery of historical or unique archaeological resources during construction. These provisions shall include immediate evaluation by a qualified archaeologist upon accidental discovery. If the find is determined to be a historical or unique archaeological resource, contingency funding and time allotment should be allocated to allow implementation of avoidance measures or appropriate mitigation should be available.	***Implementation Responsibility:*** Project Manager from District; qualified archaeologist ***Monitoring Frequency:*** During ground disturbance	***Monitoring Responsibility:*** Construction Inspector; District; qualified archaeologist	***Initials*** _____ ***Date*** _____

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
Section				
Impact CULT-c: Disturb any human remains, including those interred outside of formal cemeteries? ***Significance of Impact Before Mitigation:*** Potentially Significant ***Significance of Impact After Mitigation:*** Less than Significant	*Mitigation Measure CULT-2:* Pursuant to CEQA Guidelines Section 15064(e), upon accidental discovery of human remains, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the county coroner is contacted to determine that no investigation of the cause of death is required. If the coroner determines the remains are Native America, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC shall subsequently identify the most likely living descendent, who may make recommendations to the landowner or person responsible for excavation for means of treating or disposing of the remains and any associated grave items. If the NAHC is unable to identify the most likely descendent, or the descendent fails to make a recommendation within 24 hours of notification, or the landowner rejects the recommendation and mediation by NAHC fails to yield a mutually agreeable recommendation, the landowner or representative shall rebury the remains and associated items with appropriate dignity on the property in a location not subject to further subsurface disturbance.	***Implementation Responsibility:*** Project Manager from District; county coroner ***Monitoring Frequency:*** During ground disturbance	***Monitoring Responsibility:*** Construction Inspector; District; county coroner	***Initials*** _____ ***Date*** _____

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
Section				
Geology and Soils				
Impact GEO a-ii: Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking? ***Significance of Impact Before Mitigation:*** Potentially Significant ***Significance of Impact After Mitigation:*** Less than Significant	*Mitigation Measure GEO-1* In the event of a significant earthquake, a licensed geotechnical engineer should inspect the new berm, assess the level of damage, and recommend any necessary repairs. Such repairs may include but are not limited to re-grading the berm.	***Implementation Responsibility:*** Project Manager from District; licensed geotechnical engineer ***Monitoring Frequency:*** Post construction	***Monitoring Responsibility:*** Construction Inspector; District; licensed geotechnical	***Initials*** _____ ***Date*** _____
Impact GEO-b: Would the Project result in substantial soil erosion or the loss of topsoil? ***Significance of Impact Before Mitigation:***	*Mitigation Measure HYDRO-1* The District and its contractor shall, at minimum, implement the following erosion control measures: • Implementation of erosion control measures such as silt fencing and dust control in areas of ground disturbance • Establishment of appropriate soil/materials	***Implementation Responsibility:*** Project Manager from District and Contractor	***Monitoring Responsibility:*** Construction Inspector; District	***Initials*** _____ ***Date***

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
	Section			
Potentially Significant ***Significance of Impact After Mitigation:*** Less than Significant	management controls during pre-clearing, vegetation removal, and earthmoving/grading • Preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) The District shall additionally implement erosion control measures in accordance with its Section 401 permit, which may include but are not limited to: • Limiting access routes and stabilizing access points. • Stabilizing graded areas as soon as possible with seeding, mulching, erosion control materials, or other effective methods. • Delineating clearing limits, easements, setbacks, sensitive areas, vegetation, and drainage courses by marking them in the field. • Stabilizing and preventing erosion from temporary conveyance channels and outlets. • If rainfall occurs, using sediment controls and filtration to remove sediment from water collected on-site during construction.	***Monitoring Frequency:*** Prior to and during ground disturbance		_____

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
Section				
Impact GEO-f: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ***Significance of Impact Before Mitigation:*** Potentially Significant ***Significance of Impact After Mitigation:*** Less than Significant	*Mitigation Measure GEO-2* If buried paleontological resources or unique geologic features are discovered during ground-disturbing activities, work shall stop in that area and within 100 feet of the find until a qualified paleontologist or geologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with appropriate agencies.	***Implementation Responsibility:*** Project Manager from District and Contractor ***Monitoring Frequency:*** During ground disturbance	***Monitoring Responsibility:*** Construction Inspector; District	***Initials*** _____ ***Date*** _____

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
Section				
Hazards and Hazardous Materials				
Impact HAZ-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? ***Significance of Impact Before Mitigation:*** Potentially Significant ***Significance of Impact After Mitigation:*** Less than Significant	*Mitigation Measure HAZ-1* The contractor shall comply with the following Best Management Practices to minimize risk to people and the environment from accident and upset conditions during work involving hazardous chemicals. • The contractor shall follow all safety and health requirements set forth by the Occupational Health and Safety Administration • The District shall prepare and the contractor shall comply with a Spill Prevention and Control Plan to minimize the risk of toxic spills. Spill kits shall contain oil booms of sufficient length to surround excavation equipment when working in or near open water. Spill kits shall be present for any work adjacent to open waters. All spills of oil and other hazardous materials shall be immediately cleaned up and contained. Any hazardous materials cleaned up or used on-site shall be properly disposed of at an approved disposal facility. • Any materials removed during pre-clearing activities and determined to be unsuitable for re-use shall be disposed of off-site according to current laws and regulations. If materials are characterized as hazardous waste, then a hazardous materials licensed contractor and transporter shall be required to handle and transport the materials to a disposal facility permitted to receive the waste in accordance with California laws.	***Implementation Responsibility:*** Project Manager from District and Contractor ***Monitoring Frequency:*** Prior to and during ground disturbance	***Monitoring Responsibility:*** Construction Inspector; District	***Initials*** _____ ***Date*** _____

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
Section				
	Mitigation Measure HYDRO-2 All refueling, staging, and/or maintenance of heavy equipment shall take place at a minimum of 50 feet away from all identified jurisdictional wetlands, Waters of the U.S., and drainage courses. The refueling/maintenance and construction staging area shall be bermed, graveled or covered with straw and incorporate measures for capture of any accidental spills.			
Hydrology and Water Quality				
Impact HYRDO-a: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? ***Significance of Impact Before Mitigation:*** Potentially Significant ***Significance of Impact After Mitigation:*** Less than Significant	*Mitigation Measure HYDRO-1* The District and its contractor shall, at minimum, implement the following erosion control measures: • Implementation of erosion control measures such as silt fencing and dust control in areas of ground disturbance • Establishment of appropriate soil/materials management controls during pre-clearing, vegetation removal, and earthmoving/grading • Preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) The District shall additionally implement erosion control measures in accordance with its Section 401 permit, which may include but are not limited to: • Limiting access routes and stabilizing access points. • Stabilizing graded areas as soon as possible with seeding, mulching, erosion control materials, or other effective methods.	***Implementation Responsibility:*** Project Manager from District and Contractor ***Monitoring Frequency:*** Prior to and during ground disturbance	***Monitoring Responsibility:*** Construction Inspector; District	***Initials*** _____ ***Date*** _____

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
Section				
	• Delineating clearing limits, easements, setbacks, sensitive areas, vegetation, and drainage courses by marking them in the field. • Stabilizing and preventing erosion from temporary conveyance channels and outlets. • If rainfall occurs, using sediment controls and filtration to remove sediment from water collected on-site during construction. *Mitigation Measure HYDRO-2* All refueling, staging, and/or maintenance of heavy equipment shall take place at a minimum of 50 feet away from all identified jurisdictional wetlands, Waters of the U.S., and drainage courses. The refueling/maintenance and construction staging area shall be bermed, graveled or covered with straw and incorporate measures for capture of any accidental spills.			
Impact HYRDO c-i: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial	*Mitigation Measure HYDRO-1* The District and its contractor shall, at minimum, implement the following erosion control measures: • Implementation of erosion control measures such as silt fencing and dust control in areas of ground disturbance • Establishment of appropriate soil/materials management controls during pre-clearing, vegetation removal, and earthmoving/grading • Preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) The District shall additionally implement erosion control measures in accordance with its Section 401 permit, which	***Implementation Responsibility:*** Project Manager from District and Contractor ***Monitoring Frequency:*** Prior to and during ground disturbance	***Monitoring Responsibility:*** Construction Inspector; District	***Initials*** _____ ***Date*** _____

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
Section				
erosion or siltation on- or off-site? ***Significance of Impact Before Mitigation:*** Potentially Significant ***Significance of Impact After Mitigation:*** Less than Significant	may include but are not limited to: • Limiting access routes and stabilizing access points. • Stabilizing graded areas as soon as possible with seeding, mulching, erosion control materials, or other effective methods. • Delineating clearing limits, easements, setbacks, sensitive areas, vegetation, and drainage courses by marking them in the field. • Stabilizing and preventing erosion from temporary conveyance channels and outlets. • If rainfall occurs, using sediment controls and filtration to remove sediment from water collected on-site during construction.			
Noise				
Impact NOISE a: Would the Project result in generation of a substantial temporary or permanent increase in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other	*Mitigation Measures NOISE-1* Prior to the start of ground-disturbance, the Contractor shall develop a construction noise mitigation plan, which considers the following available controls, to reduce construction noise levels as low as practical. • Develop a construction schedule that minimizes potential cumulative construction noise impacts. • Require internal combustion engines used for construction purposes to be equipped with a properly	***Implementation Responsibility:*** Project Manager from District and Contractor ***Monitoring Frequency:*** Prior to and	***Monitoring Responsibility:*** Construction Inspector; District	***Initials*** _____ ***Date*** _____

Environmental Impact	Mitigation Measures	Implementation Responsibility & Timing	Monitoring Responsibility	Performance Objective
	Section			
agencies? ***Significance of Impact Before Mitigation:*** Potentially Significant ***Significance of Impact After Mitigation:*** Less than Significant	operating muffler of a type recommended by the manufacturer. • Utilize "quiet" models of air compressors and other stationary noise sources where technology exists. • Unnecessary idling of internal combustion engines shall be prohibited. • Designate a Project liaison responsible for responding to noise complaints during the construction phase. The name and phone number of the liaison shall be conspicuously posted at construction areas and on all advanced notifications. This person shall take steps to resolve complaints. • Require a reporting program that documents complaints received, actions taken to resolve problems, and effectiveness of these actions. • Hold a preconstruction meeting with the job inspectors and the general contractor/on-site Project manager to confirm that noise mitigation and practices (including construction hours, construction schedule, and noise coordinator) are completed.	during ground disturbance		

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