HAMILTON WETLAND RESTORATION PROJECT
DRAFT PUBLIC ACCESS PLAN

Submitted to:
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Project Description

Description

The Hamilton Wetland Restoration Project (HWRP) will restore approximately 650 acres to tidal and seasonal wetlands at the former Hamilton military airfield. Originally the land was made up of tidal wetlands, was then diked and used for agricultural purposes before later being converted into an airfield. The HWRP will restore the land back to its original form as tidal wetlands as well as other habitats. Since being diked off from the Bay and protected by levees, the site has subsided below the elevation of surrounding properties. In order to restore the land to wetlands, the site will be raised to the appropriate elevation in order to re-create wetlands through the placement of dredged material, much of which will come from the Port of Oakland's deepening project, slated to begin later this year.

The U.S. Army Corps of Engineers (USACE), San Francisco District, is the lead federal agency for the project and the California State Coastal Conservancy (SCC) is the local sponsor. BCDC serves as a collaborating partner on the project.

The USACE and SCC are planning to add the adjoining State Lands Commission parcel, Navy Ballfields parcel and the Bel Marin Keys V property to the north of the project which would expand the wetland restoration project size to almost 2,500 acres. The State Lands Commission parcel and Navy Ballfields parcel are awaiting final environmental cleanup by the Army and Navy respectively which is likely to be completed by 2007. The inclusion of the Bel Marin Keys V property into the project is awaiting authorization from Congress.

Goal Statement

The following project goal statement provides a brief description of the type of habitats that the project aims to create:

> The goal of the Hamilton Wetland Restoration Project is to create a diverse array of wetlands and wildlife habitats at the Hamilton site that benefit a number of endangered species as well as other migratory and resident species. The ecological objectives of the project include the creation of a mixture of tidal habitats on 80 percent of the land area available for restoration. This mix will consist of: subtidal open water; intertidal mudflats; low, middle and high intertidal marsh; channels; interior tidal ponds; and tidal panes. The relative amount of each type changing over time as the site evolves following restoration. The project will also create a mixture of seasonal wetland habitats on 20 percent of the land area available for restoration.

Site Calculations

As required in the Design Review Board (DRB) submittal, following are the area and length calculations of the project site:

Site acreage	approx. 650 acres
Length of shoreline	12,497 linear feet (measured at mean high water)
Square footage of shoreline band	1,189,485 square feet (27 acres)

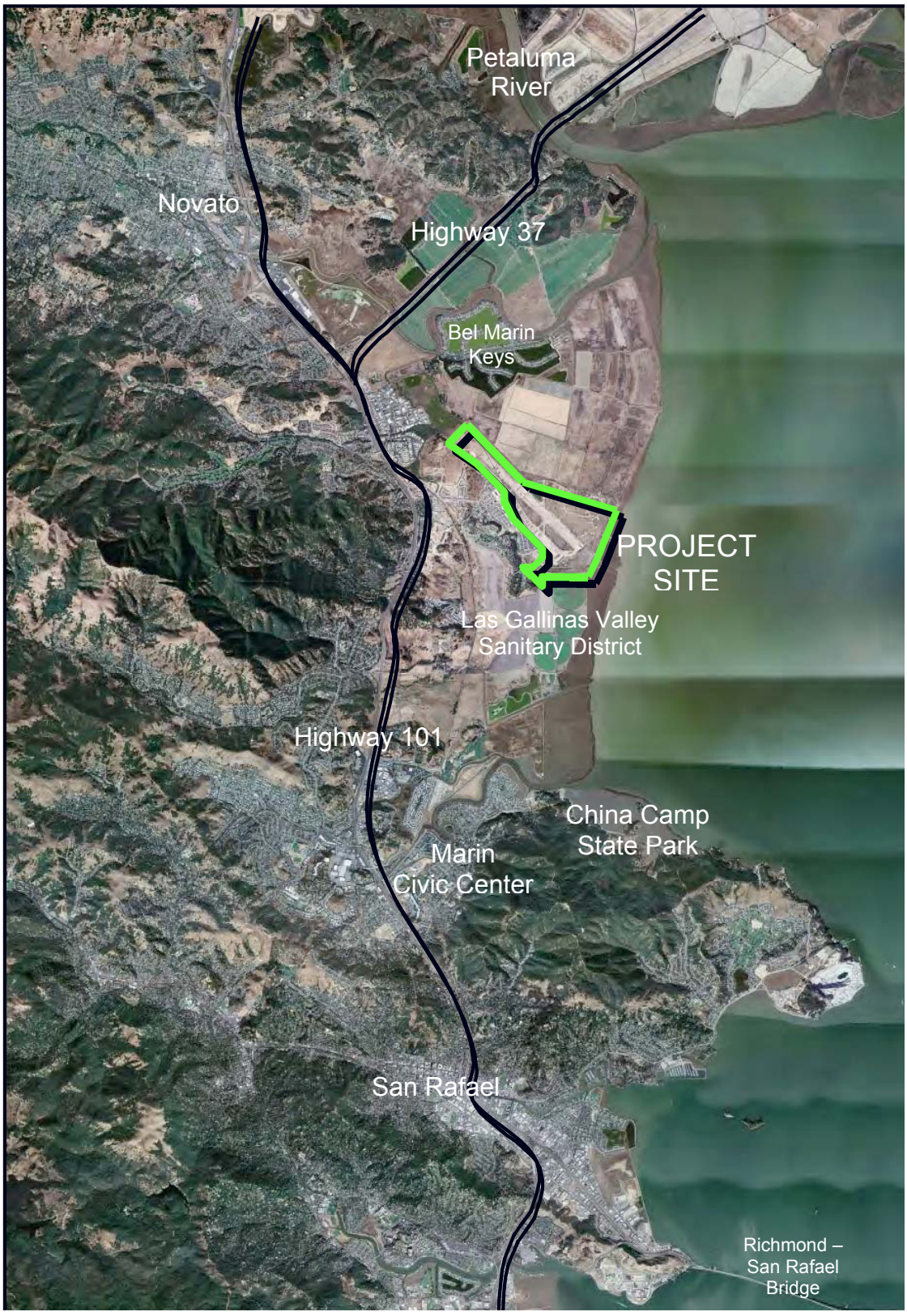
Project Location

Context Description

The HWRP site is located along the shores of San Pablo Bay in the City of Novato. The Bay is located along the eastern side of the project. Immediately to the west of the project site, former lands of the Hamilton Air Force Base have been redeveloped as housing, artist studios, offices for non-profit organizations, commercial offices and various community uses. Many of the original military buildings have been retained and redeveloped to house some of these uses. Immediately adjacent to the trail, two large developments of single-family homes were developed approximately ten years ago. In between these residential developments, lie a series of old air force hangars, a few of which have been redeveloped for commercial and public uses, while a few remain undeveloped and two are used by the Coast Guard. Southwest of these hangars, lies a Coast Guard housing development made up of both apartments and single-family homes. Immediately north of the project site, lies Pacheco Pond, a wildlife preserve, and the Bel Marin Keys V expansion site. Las Gallinas Sanitary District lands and the Saint Vincent School for Boys lies to the south of the project site. Highway 101 sits approximately one mile west of the project site.

Regional Location Map

Local Context Aerial Photo



Project Site Aerial Photo

Proposed Biological Setting

As described earlier in the Goal Statement, the purpose of the HWRP is to restore tidal and non-tidal wetlands on the site. The project goal is to restore the site with approximately 20 percent seasonal wetlands and 80 percent tidal wetlands. The diverse array of wetland and wildlife habitats would benefit a number of endangered species as well as other migratory and resident species including:

Salt Marsh Harvest Mouse	Steelhead
California Clapper Rail	Green Sturgeon
Chinook Salmon	Bay Shorebirds
Coho Salmon	Waterfowl along Pacific Flyway

The "Biological Assessment for the Hamilton Wetland Restoration Project" (USACE, February 2005) describes the status and distribution, reason for decline, habitat requirements, construction and operation impacts and long-term direct benefits of the project for each of these species. **Please refer to the 11x17 plan entitled "Figure P-1: Proposed Biological Context Plan" at the back of this packet for an understanding of how the proposed habitats will be developed on the site.**

One very important objective of the project is to provide public access that is compatible with the protection of resource values in order to maintain wetland habitats that sustain viable wildlife populations. In projects such as this one, there will always be conflicting views on the part of various interested parties and the public regarding how much public access there should be, if at all, and also on how that public access is designed and provided.

On this project, efforts have been made through both the design of the restoration project itself and also specific design features of the public access trail and facilities to provide adequate buffers and barriers between the proposed habitats and the public access so that the two uses may be compatible with one another. For example, the proposed wildlife corridor/buffer serves a dual purpose both as a corridor through which upland wildlife may traverse as well as also providing a large buffer of open space between the public access trail and the wetland habitats. The next section along with the drawings at the back of this report will describe and depict in detail how the public access has been designed to be compatible with the proposed restoration project.

Public Access Plan

Public Access Goals

The following are broad, general statements pertaining to the Bay Trail and other public access features of the Hamilton Wetland Restoration Project.

Goal #1: Opportunity
The Bay Trail and related facilities should provide access to the Hamilton Wetland Restoration Project shoreline for passive recreation and education opportunities for all residents of the City of Novato and visitors.

Goal #2: Timelessness
The Bay Trail should direct attention to the Hamilton Wetland Restoration Project and the Bay and the qualities of timelessness that a tidal environment imparts.

Goal #3: Education
The Bay Trail should include focal points along its route to portray the distinctive habitat improvements created by the Hamilton Wetland Restoration Project.

Goal #4: Ecology
The Bay Trail should be developed and managed in a way that enhances water quality, open space, and natural resource values while minimizing conflicts between public access and habitat conditions.

Goal #5: Security
The Bay Trail should be developed and managed in a way that minimizes conflicts between public access and adjacent residential land uses, and that considers its proximity to Coast Guard facilities and related homeland security requirements.

Goal #6: Quality
Improvements to the Bay Trail should be designed and constructed for: structural integrity, function, and safety; cost effectiveness; and efficiency in long-term maintenance and operations.

Goal #7: Safety
Development and management of the Bay Trail should provide safe public use opportunities and should not preclude long-term construction access needs, emergency access, and maintenance access to nearby facilities.

Conceptual Diagrams

The following conceptual diagrams depict, in a very simplified manner, the wildlife and human uses in relation to the project site, how construction access will be provided and visibility of the project from the Bay Trail.

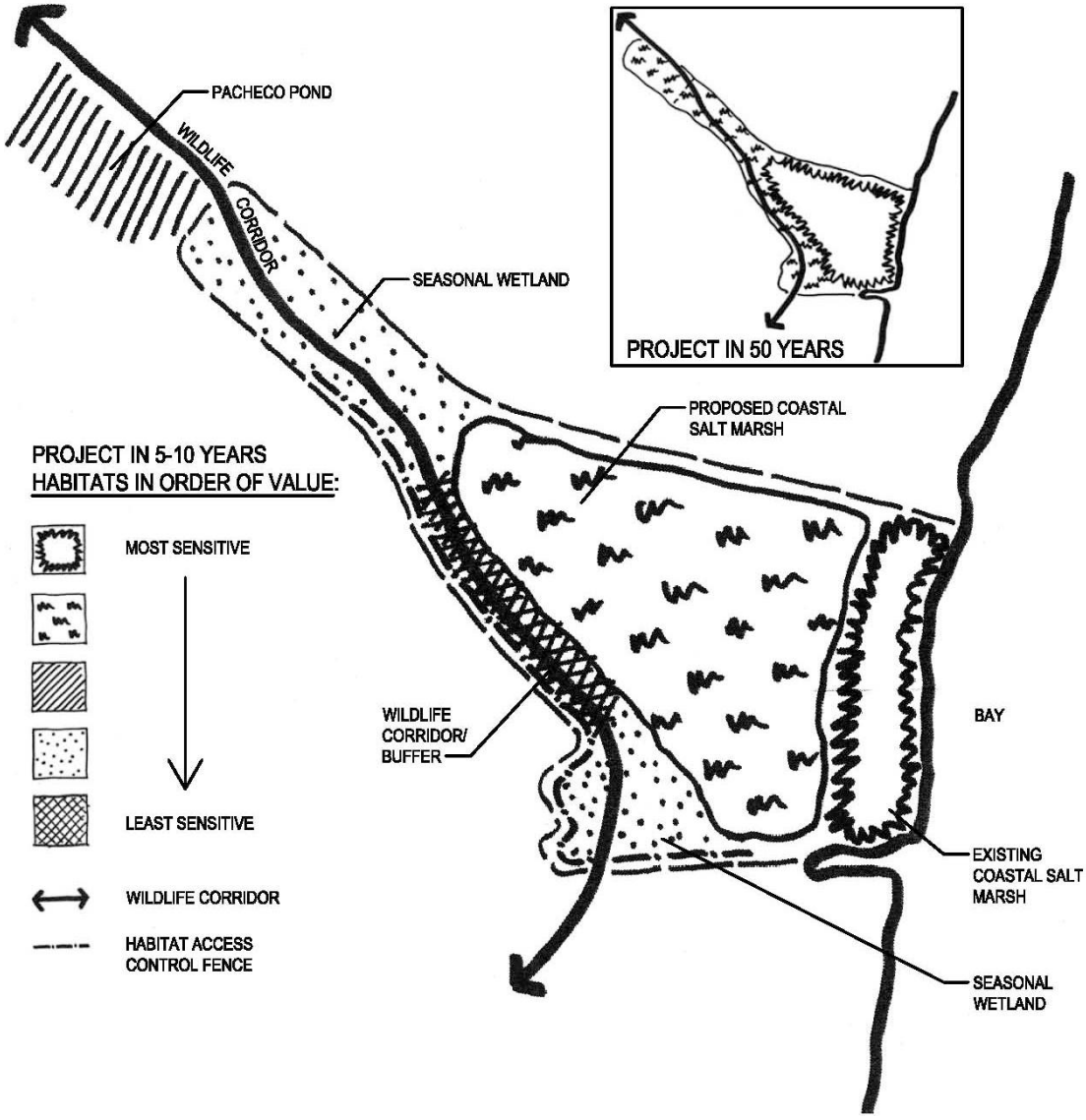


Figure C-1 Wildlife Uses and Connections

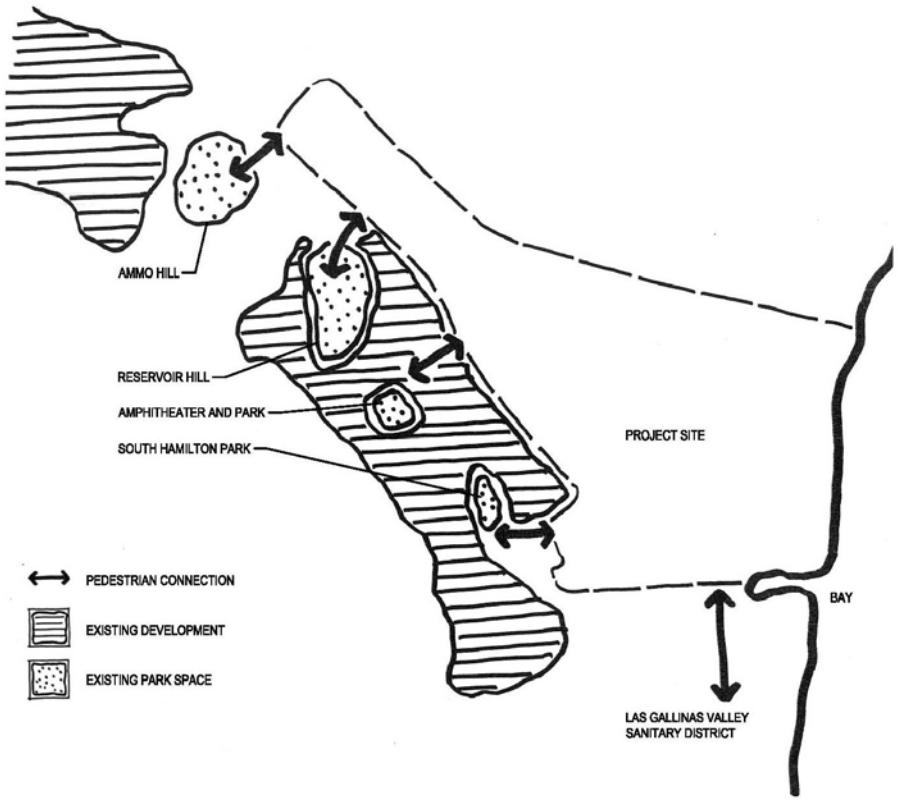


Figure C-2 Human Uses and Connections

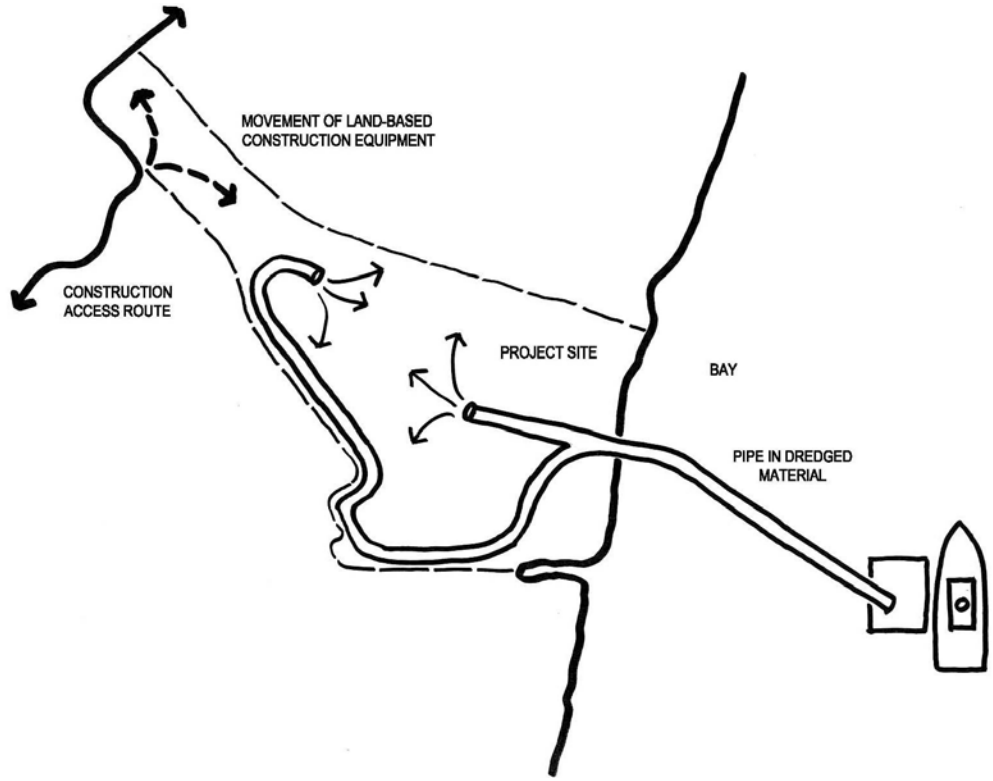


Figure C-3 Construction Access

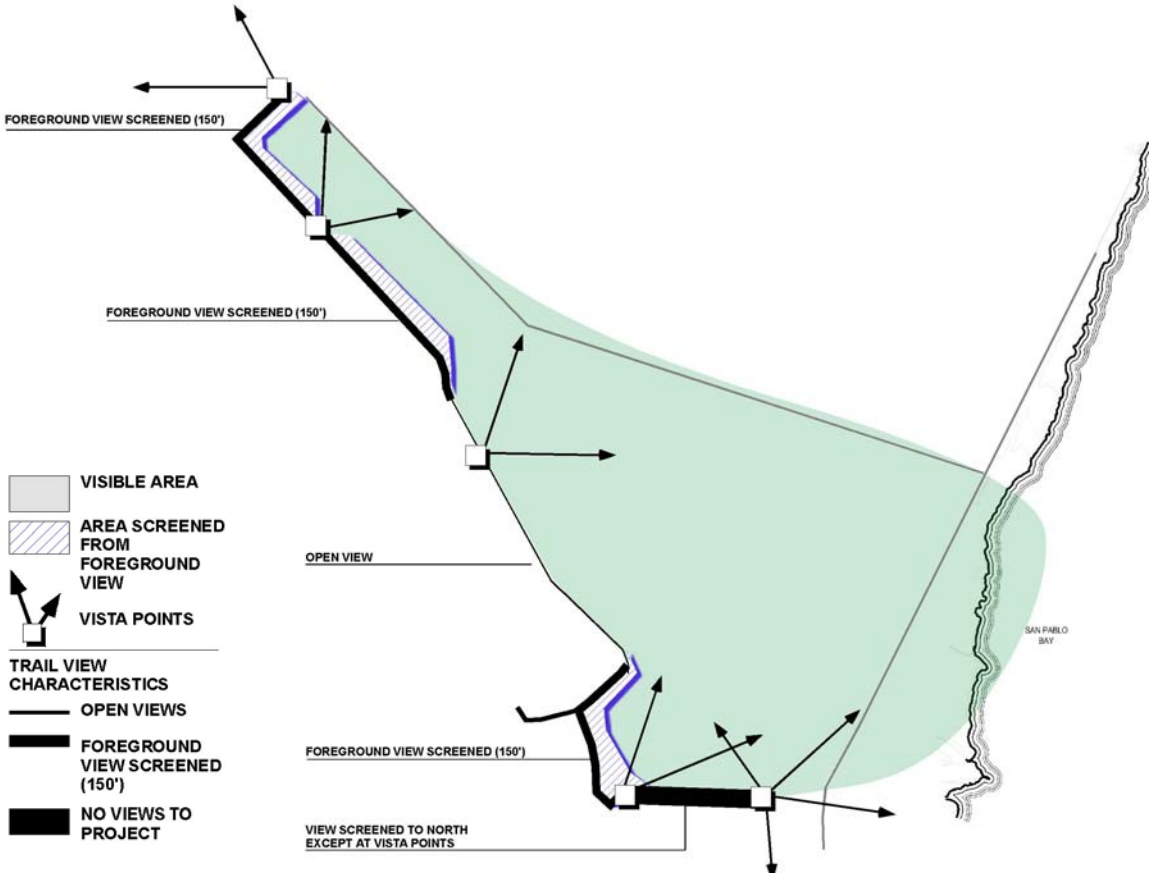


Figure C-4 Project Visibility from the Bay Trail

Public Access and Wildlife Compatibility Toolbox

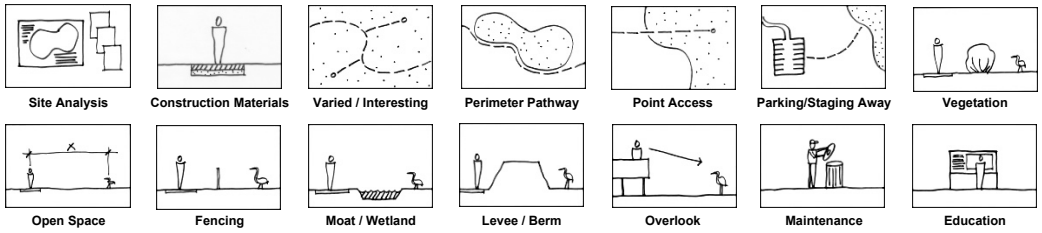
In March 2001, BCDC completed a staff report entitled "Public Access and Wildlife Compatibility." This report was the result of the Public Access and Wildlife Compatibility Project that was jointly initiated by BCDC and the Bay Trail Project. For this project, the Bay Trail Project conducted original field research while BCDC undertook extensive research regarding siting, design and management strategies, surveyed land managers and established a Policy Advisory Committee. The Committee, which was comprised of a wide range of professionals, non-governmental organization activists and recreation and wildlife protection advocates, reviewed and analyzed the information, formed conclusions regarding the material and proposed policy directions. The resulting conclusions and policy concepts of the study were then adopted by BCDC as revised San Francisco Bay Plan public access findings and policies. Among several conclusions of the project, the report states that there is evidence that public access may adversely affect wildlife but that these adverse effects may be addressed through siting, design and management strategies.

The report included "Table A. Public Access and Wildlife Compatibility Siting, Design and Management Strategies Matrix" which lists all of the various techniques that may be employed to make public access compatible with wildlife habitats. This table is included

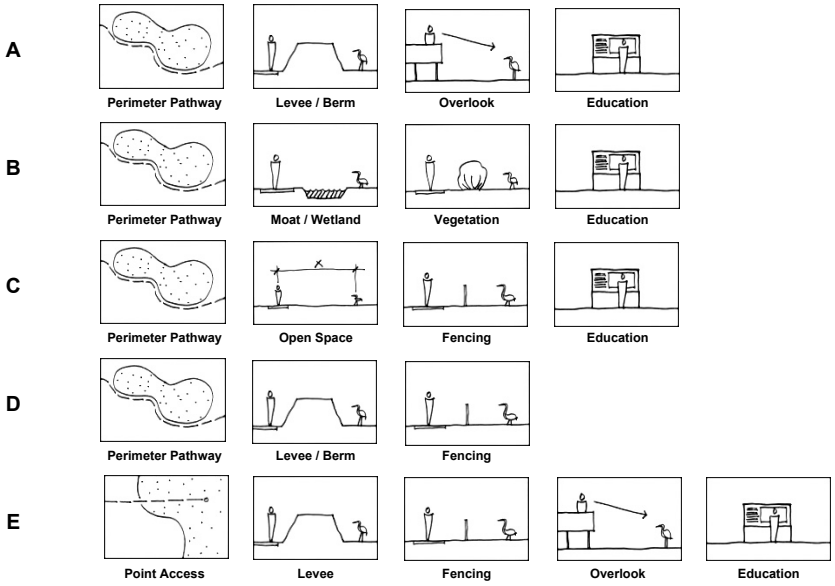
in Appendix A of this document for easy reference. The matrix below indicates how this particular public access plan, employs many of the strategies listed in this table.

Matrix of Public Access and Wildlife Compatibility Strategies Applied to the Hamilton Wetland Restoration Project

Overall Public Access Plan



Trail Segments



Existing Public Access Facilities

In the immediate area surrounding the site, there are several existing, and a few proposed, public access facilities that this project will connect with. **Please refer to the 11x17 plan entitled "Figure P-2: Existing Conditions and Public Access Facilities" at the back of this packet.** Moving from north to south along the project site, they are:

- Ammo Hill: A series of access roads used informally as trails lead to the top of this City property and buried water reservoir. The roads lead past the remnants of old military bunkers where ammunition was stored. Panoramic views of the project area are afforded from the top of this hill.

- Proposed City Park and Interpretive Center: A City Park and Interpretive Center are identified by the City for an area immediately adjacent to the Bulge Levee. The HWRP public access plans for the Bay Trail are designed to support this development. Currently, there are no specific plans for the City Park and

Interpretive Center and no funding has been secured. The Interpretive Center is conceptually envisioned as an approximately 1,000-square-foot building that would house exhibits on the wetland restoration project and local flora and fauna.

- Reservoir Hill: A Bay Trail connector trail has recently been constructed leading from the southwest side of this hill over the top and down to the northeast side, connecting up with the Bay Trail spine. Benches, trash cans and viewing scopes have been installed at the top of the hill where there are spectacular views in all directions. A note regarding nomenclature: this hill also contains a buried water reservoir, however it is non-functional and fenced from the public.

- Proposed Future Local Trail Connection: This trail connection, as shown on the City of Novato's General Plan Park and Recreation Facilities and Trails Map (dated July 16, 2002), would be provided by the City. The City will seek an agreement with the adjacent property owners to provide access up to the levee and also designated public access parking spaces. Trail users already informally use this parking area and have created a volunteer trail up the side of the levee.

- South Hamilton Park: This community park includes playing fields, a playground, portable restrooms, trash/recycling receptacles and approximately 36 parking spaces.

- Las Gallinas Valley Sanitary District: The Las Gallinas Valley Sanitary District, which lies directly south of the project site, has four miles of public trails. Trails encircle three large ponds near the treatment plant and a levee paralleling the Bay shoreline is also used for public access. This levee connects to the existing south levee on the project site.

Proposed Public Access and Bay Trail Features

The proposed public access for this project will include a 2.66 mile long length of the Bay Trail spine, a short spur trail to the existing Ammo Hill trail and five interpretive overlooks. Seating would be provided at the interpretive points and selected areas along Segment C of the Bay Trail. Seating would be in the form of concrete seat walls and benches with backs. Once plans for the City Park and Interpretive Center come to fruition, the federal government has agreed to share the expenses of an "access area" associated with the Center that would include 10-20 parking spaces, restrooms and information kiosks. **Please refer to the 11x17 plan entitled "Figure P-3: Proposed Public Access Plan" at the back of this packet.**

The proposed public access is consistent with the following environmental documents:

- Hamilton Wetland Restoration Plan, Volume II: Final EIR/EIS (December 1998)
- Final Supplemental EIR/EIS Bel Marin Keys Unit V Expansion of the Hamilton Wetland Restoration Project (April 2003)
- Supplement to the Hamilton Wetland Restoration Plan, Volume II: Final EIR/EIS Hamilton Public Access Bay Trail Element (Submitted to and funded by the City of Novato)

As one of the mitigation measures requires, this draft public access plan has been developed in coordination with the following parties: the San Francisco Bay Conservation and Development Commission, the Department of Fish and Game, the United States Fish and Wildlife Service, the County of Marin, the City of Novato and the San Francisco Bay Trail.

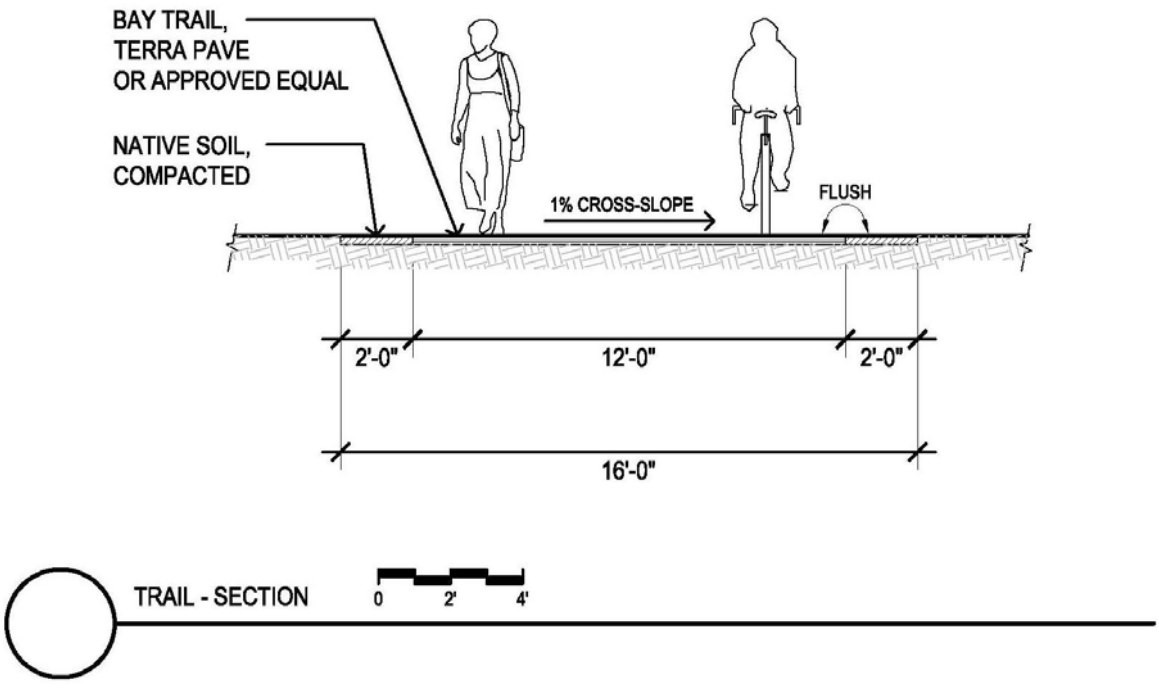
Calculation of Total Public Access Area

As required in the DRB submittal, following is an approximate calculation of the proposed public access area:

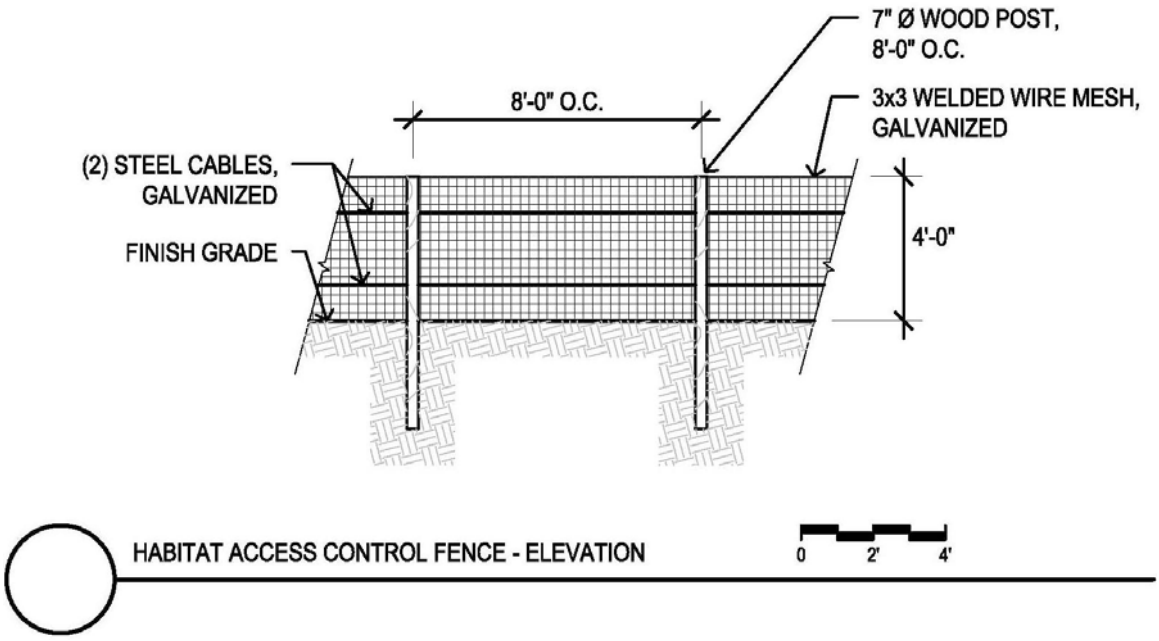
Bay Trail	12' width x 14,057 lineal feet =	168,684 SF
Overlooks	5 overlooks x approx. 225 SF =	1,125 SF
Total Public Access Area		169,809 SF (3.9 acres)

Description of Trail and Individual Segments

The proposed Bay Trail Spine will have a 12-foot-wide paved center portion with two 2-foot-wide shoulders of compacted soil vegetated with native herbaceous plants. The trail would be paved with a product such as TerraPave (or an equivalent product) which has a natural appearance similar to decomposed granite but is hardened like asphalt. The proposed width and surfacing of the trail are consistent with the Bay Trail Design Guidelines for a multi-use trail.



In many areas of the project, a 4-foot-high Habitat Access Control Fence, as shown in the detail below, would serve to discourage people and dogs from entering the restoration site.



In some areas, an approximately 1.5-foot-high earth berm vegetated with grasses would serve to provide a visual buffer for the first 150 feet of the restoration site. This berm is shown in the diagram below.

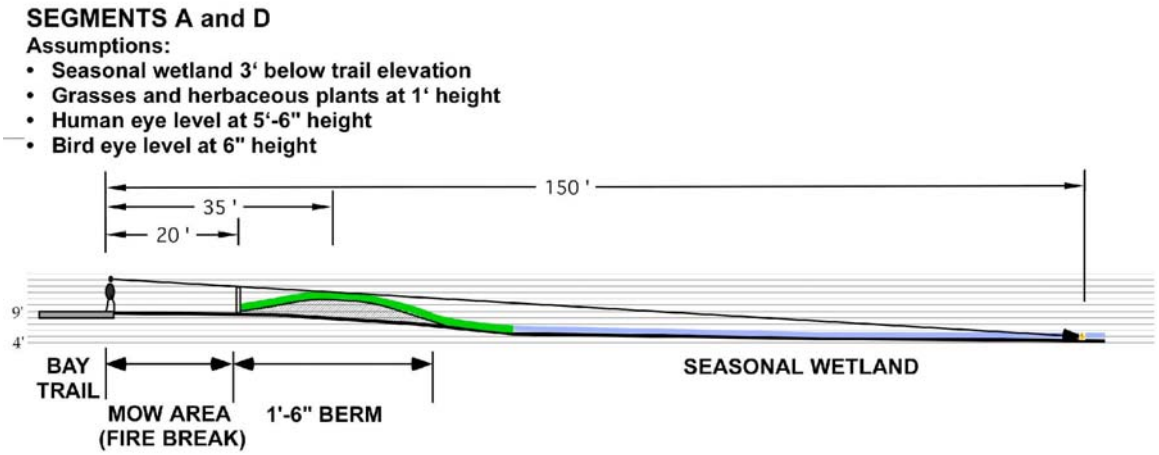


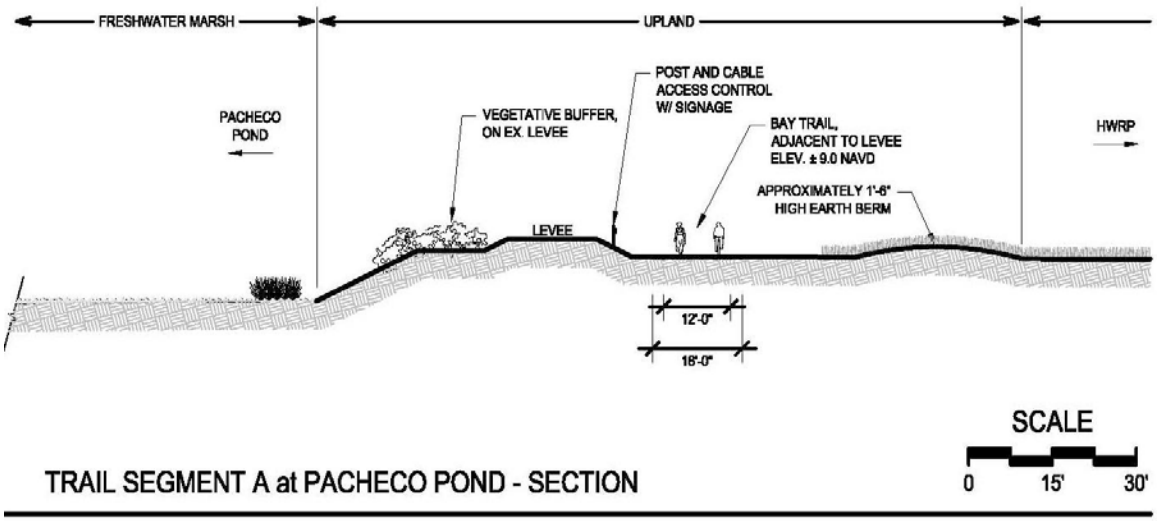
Figure D-3 Earth Berm for Foreground View Screening

Trail Segments

SEGMENT	APPROXIMATE LENGTH FEET / MILES
Segment A: From: North Overlook at Southeast Corner of Pacheco Pond To: Southwest Corner of Pacheco Pond	807 / 0.15
Segment B: From: Southwest Corner of Pacheco Pond To: Intersection of Reservoir Hill Trail (beginning of NHP levee)	2,199 / 0.42
Segment C: From: Intersection of Reservoir Hill Trail (beginning of NHP levee) To: South Hamilton Park (end of NHP levee)	7,155 / 1.36
Segment D: From: South Hamilton Park (end of NHP levee) To: Long Point	1,765 / 0.33
Segment E: From: Long Point To: South Overlook	2,130 / 0.40
TOTAL	14,056 / 2.66

Segment A

From: North Overlook at Southeast Corner of Pacheco Pond
To: Southwest Corner of Pacheco Pond



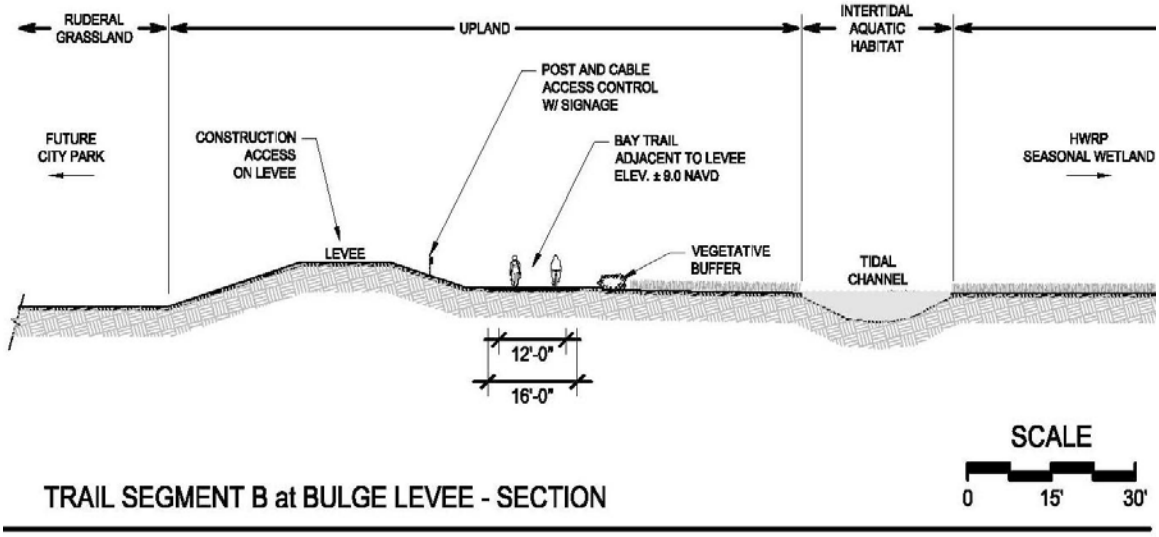
TRAIL SEGMENT A at PACHECO POND - SECTION

Trail	• 12-foot-wide paved multi-use trail with two 2-foot wide vegetated shoulders • Elevation of trail at 9 feet North American Vertical Datum 1988 (NAVD) or greater
Trail Connections	• Future Bay Trail extension to the north proposed along eastern side of Pacheco Pond in conjunction with the Bel Marin Keys Unit V Expansion Project • Connection proposed from southwest corner of Pacheco Pond to existing trail on Ammo Hill
Relationship to Wildlife Habitat	• Trail located on southern side of levee in order to buffer sensitive habitat at Pacheco Pond from public access
Barriers/Fences	• An approximately 1.5-foot-high earth berm vegetated with grasses would be located between trail and proposed Hamilton Wetland Restoration Project (HWRP) to block views of the immediate foreground (see Figure D-3) • Post and cable railing with “Limit of Restoration Area” signage placed between trail and top of levee in order to protect public from construction traffic as well as discourage the public from crossing over to sensitive habitat at Pacheco Pond • No Habitat Access Control Fencing is provided here in order to allow movement of upland wildlife to the north and south along the wildlife corridor
Interpretive Elements	• Overlook towards Pacheco Pond provided at northern terminus of trail: seating, viewing scopes and interpretive displays

Adjacent Land Use	• Existing sensitive habitat at Pacheco Pond on the north side of the trail • Proposed HWRP on the south side of the trail; this particular area planned as uplands adjacent to seasonal wetlands
Construction Access Considerations	• Top of the levee would be used for future construction access for the Bel Marin Keys Unit V Expansion Project • Two controlled crossings are required to provide public access across the levee to the north overlook adjacent to Pacheco Pond and also access to the trail connection to Ammo Hill

Segment B

From: Southwest Corner of Pacheco Pond
To: Intersection of Reservoir Hill Trail (beginning of NHP levee)

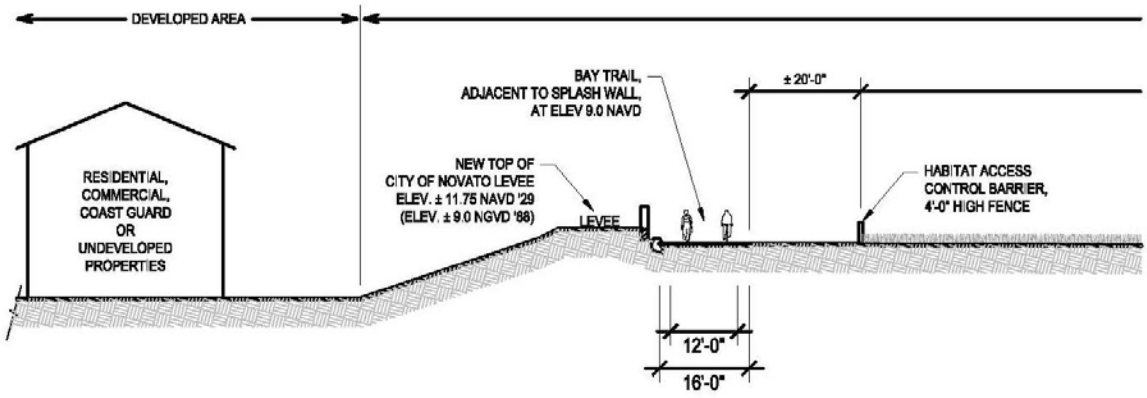


Trail	• 12-foot-wide paved multi-use trail with two 2-foot wide vegetated shoulders • Elevation of trail at 9 feet NAVD or greater
Trail Connections	• Future connection across levee will be constructed when the City Park and Interpretive Center are constructed at the “Bulge” property; stairs and a ramp will be required on each side of the levee • Connection to newly constructed Bay Trail connector trail on Reservoir Hill; parking area with 4 spaces located on opposite side of hill
Relationship to Wildlife Habitat	• Trail would be located on eastern side of levee adjacent to the proposed seasonal wetlands; greater visual buffer to wildlife provided by locating trail below top of levee; vegetation along edge of tidal channel also provides visual and physical buffer for wildlife

Barriers/Fences	• Vegetation along the western edge of the proposed tidal channel would provide a Habitat Access Control Barrier in this area; the area would be monitored over time to determine whether an additional barrier is needed to protect the wildlife in this area • Post and cable railing placed between trail and top of levee in order to protect public from construction traffic
Interpretive Elements	• Interpretive overlook towards HWRP opposite to future City Park and Interpretive Center: seating and interpretive displays
Adjacent Land Use	• Future City Park and Interpretive Center would be located on western side of trail • Proposed HWRP on the eastern side of the trail; this particular area planned as seasonal wetlands
Construction Access Considerations	• Top of the levee would be used for future construction access for the Bel Marin Keys Unit V Expansion • One controlled crossing is required to provide access across the levee from the future City Park and Interpretive Center to the trail

Segment C

From: Intersection of Reservoir Hill Trail (beginning of NHP levee)
To: South Hamilton Park (end of NHP levee)



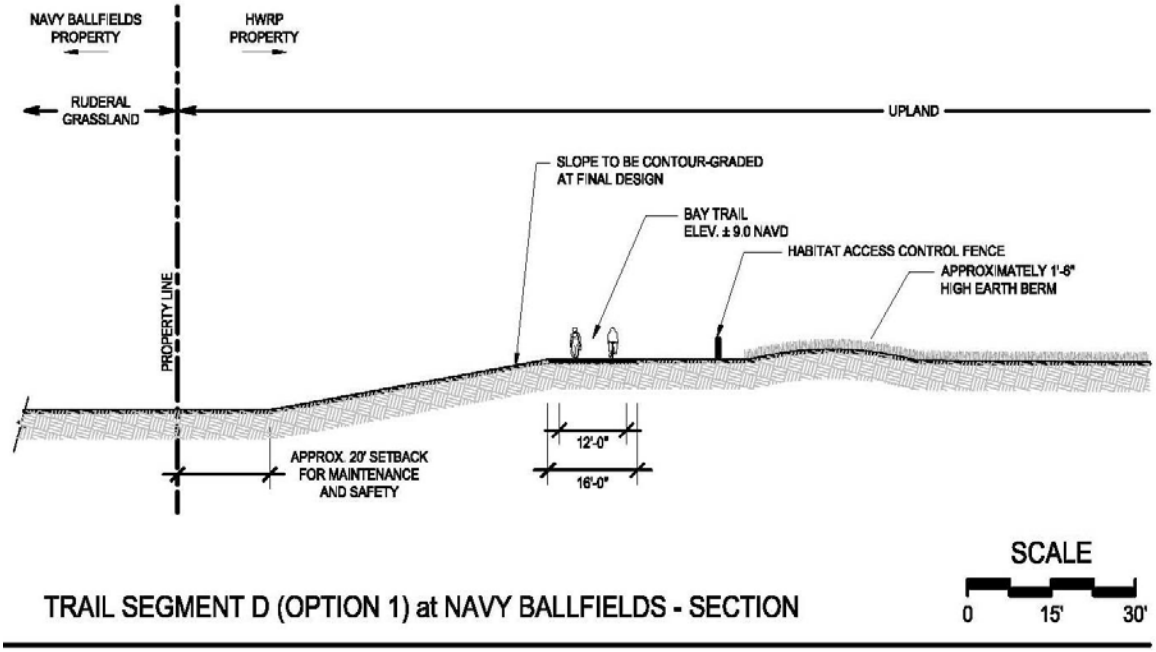
TRAIL SEGMENT C at CITY OF NOVATO LEVEE - SECTION

Trail	• 12-foot-wide paved multi-use trail with two 2-foot wide vegetated shoulders • Elevation of trail at 9 feet NAVD or greater • Bridge provided at stormwater outfall
Trail Connections	• Potential future connection between Hangars 5/6 and 7; public access parking, stairs/ramps over levee and opening in splashwall proposed; City of Novato will seek agreement regarding designated parking and access to levee with adjacent property owners

Relationship to Wildlife Habitat	• Trail would be located on eastern side of levee adjacent to wildlife corridor/buffer; by locating trail below top of levee less visual impact on wildlife
Barriers/Fences	• A 4-foot high Habitat Access Control Fence would be constructed between the trail and the wildlife corridor/buffer; the fence would be located approximately 20 feet west of the trail; the area in between would be hydroseeded with herbaceous plant material varying in height between 6 inches and 3 feet (hydroseed mix to be determined by Project Botanist) • Splashwall on top of the NHP levee would provide a barrier to the levee and uses on the other side
Interpretive Elements	• Interpretive overlook towards HWRP adjacent to future local trail connection between Hangars 5/6 and 7: seating and interpretive displays
Adjacent Land Use	• Land uses on western side of NHP levee include residential, commercial, undeveloped parcels and two Coast Guard Hangars • Proposed HWRP on the eastern side of the trail; this particular area planned as wildlife corridor/buffer to allow movement of upland wildlife
Construction Access Considerations	• Top of the levee may be used for some construction access purposes during construction of HWRP although this would occur prior to opening the trail for public use

Segment D

From: South Hamilton Park (end of NHP levee)
To: Long Point

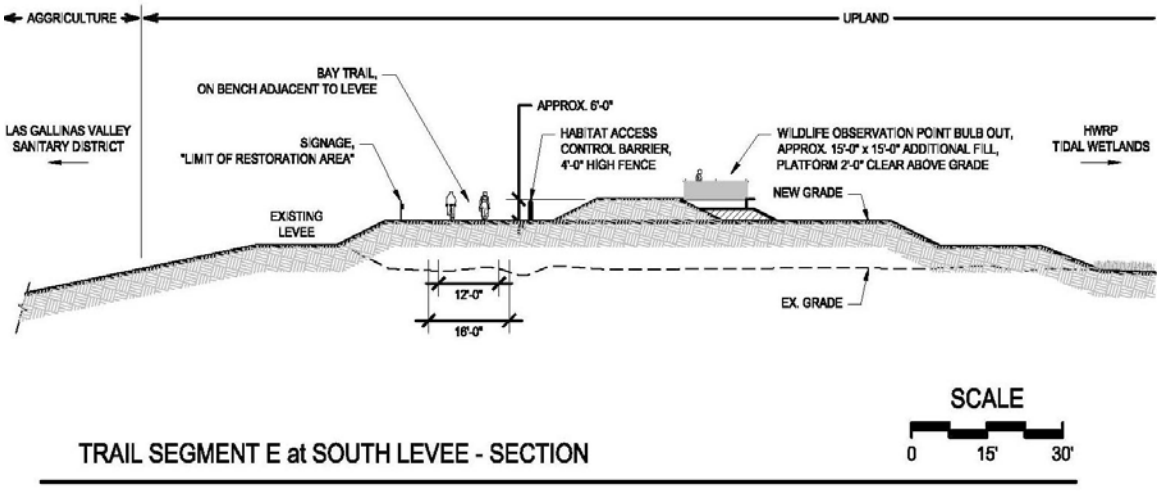


TRAIL SEGMENT D (OPTION 1) at NAVY BALLFIELDS - SECTION

Trail	• 12-foot-wide paved multi-use trail with two 2-foot wide vegetated shoulders • Elevation of trail at 9 feet NAVD or greater
Trail Connections	• Connection to existing South Hamilton Park: playground, playing fields, portable restrooms and approximately 36 parking spaces
Relationship to Wildlife Habitat	• Trail would be placed on a levee between oak woodlands on Coast Guard property and proposed seasonal wetlands on HWRP
Barriers/Fences	• A 4-foot-high Habitat Access Control Fence would be constructed between the trail and the proposed HWRP; there would be an opening in this fence at the intersection of trail Segments D and E in order to allow movement of upland wildlife along the wildlife corridor to the north of this area • An approximately 1.5-foot-high earth berm, vegetated with grasses, would be located behind the Habitat Access Control Fence to block views of the immediate foreground (see Figure D-3) • Periodic signage stating “Limit of Restoration Area” would discourage the public from entering the Coast Guard housing property
Interpretive Elements	• None in this area
Adjacent Land Use	• Coast Guard housing located on hill to the west of the trail in this area • Proposed HWRP on the eastern side of the trail; this particular area planned as seasonal wetlands
Construction Access Considerations	• Trail may be used for periodic construction or maintenance access

Segment E

From: Long Point
To: South Overlook



Trail	• 12-foot-wide paved multi-use trail with two 2-foot wide shoulders
Trail Connections	• Future Bay Trail extension south if property to the south is restored or redeveloped in the future
Relationship to Wildlife Habitat	• Placement of trail at approximately 6 feet below the top of the adjacent levee would provide a visual and physical buffer/barrier between the public access and proposed HWRP
Barriers/Fences	• A 4-foot high Habitat Access Control Fence would be placed between trail and top of levee • Railing with "Limit of Restoration Area" signage placed between trail and Las Gallinas Valley Sanitary District property to keep public out of spray fields
Interpretive Elements	• Overlook at seasonal wetland near the intersection of trail Segments D and E • South Overlook towards HWRP to the north provided at southern terminus of trail: seating, viewing scopes and interpretive displays
Adjacent Land Use	• Proposed HWRP on the north side of the trail • Las Gallinas Valley Sanitary District property located on the south side of the trail
Construction Access Considerations	• Levee would be used for periodic maintenance access

Interpretive Overlooks

As shown on the 11x17 plan entitled "Figure P-3: Proposed Public Access Plan" at the back of this packet, five interpretive overlooks are proposed for the project. Moving from north to south on the site, the proposed overlooks are as follows:

- Pacheco Pond: The overlook at this point would provide interpretive displays regarding the wildlife found at this pond. The overlook would also include viewing scopes and seating. It is envisioned that the overlook would have an opaque enclosure from railing height down in order to minimize visual disturbance for the wildlife while allowing an open feeling for users.

- City Interpretive Center: An overlook, adjacent to the future site of the City Interpretive Center, would provide interpretive information regarding the seasonal wetlands in this area. Seating would also be provided.

- Future Local Trail Connection: At the point where a potential future local trail connection is made, an overlook interpreting the transformation of the site over time, would be provided. The interpretive displays would explain how much of the site once formed tidal marsh, was then diked off for agricultural purposes, then converted into a military airfield, and is now being reconstructed as tidal marsh and other habitats.

- Transitional Uplands: This overlook would interpret the seasonal wetlands in this area. Similar to the Pacheco Pond overlook, this overlook would have an opaque enclosure from railing height down. It would include viewing scopes and seating as well.

- South Overlook: This overlook would provide users the opportunity to get a closer look at the tidal marsh areas but be partially concealed from view of endangered species. This overlook would also have an opaque enclosure from railing height down and would include viewing scopes and seating.

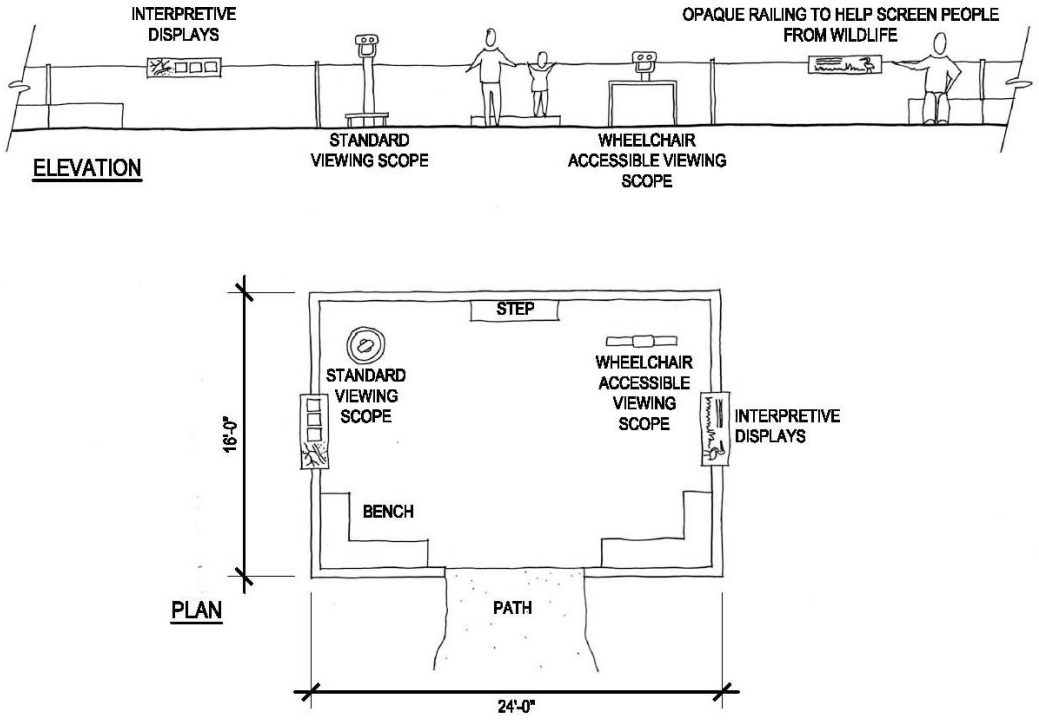


Figure O-2: Typical Overlook

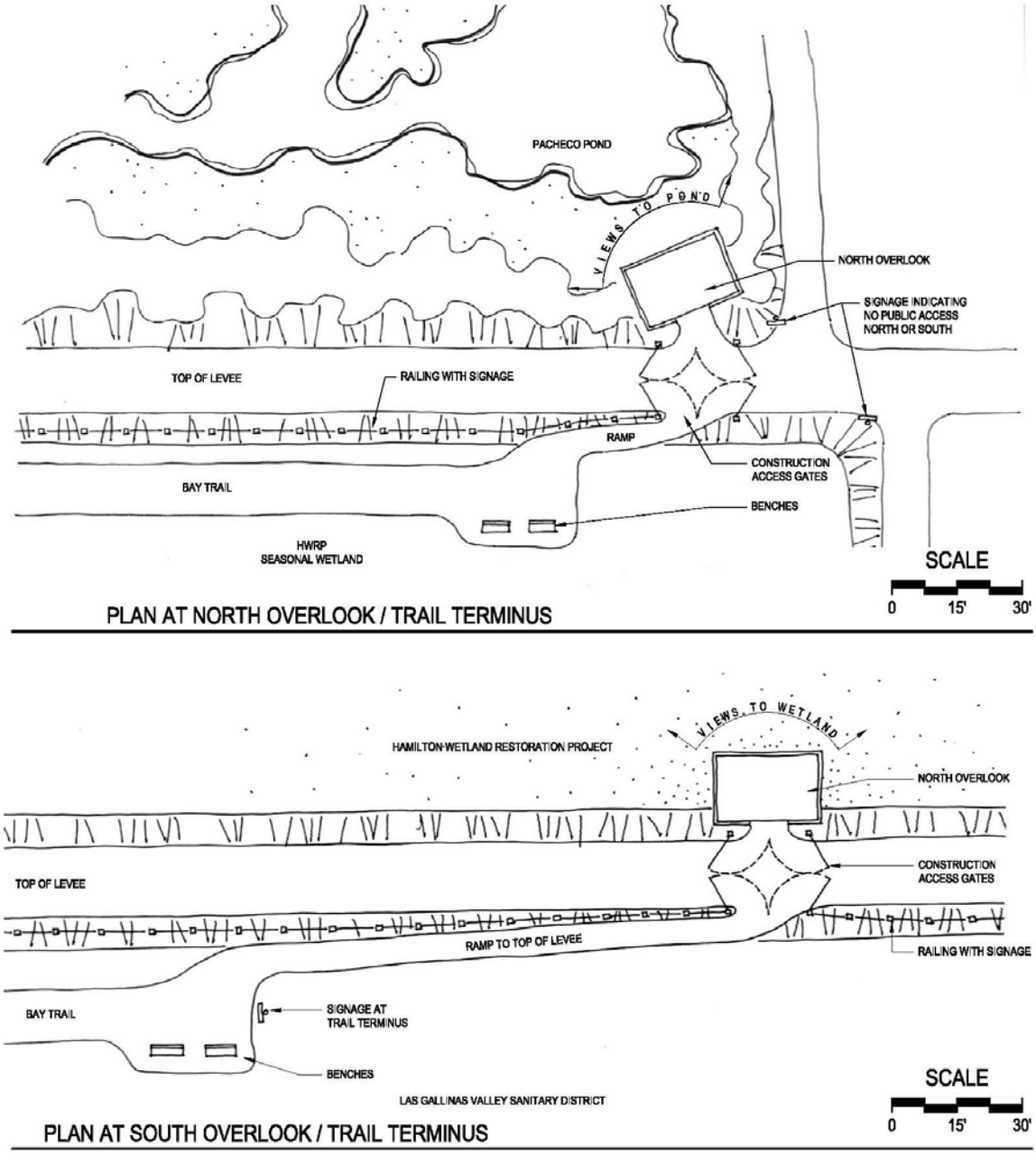
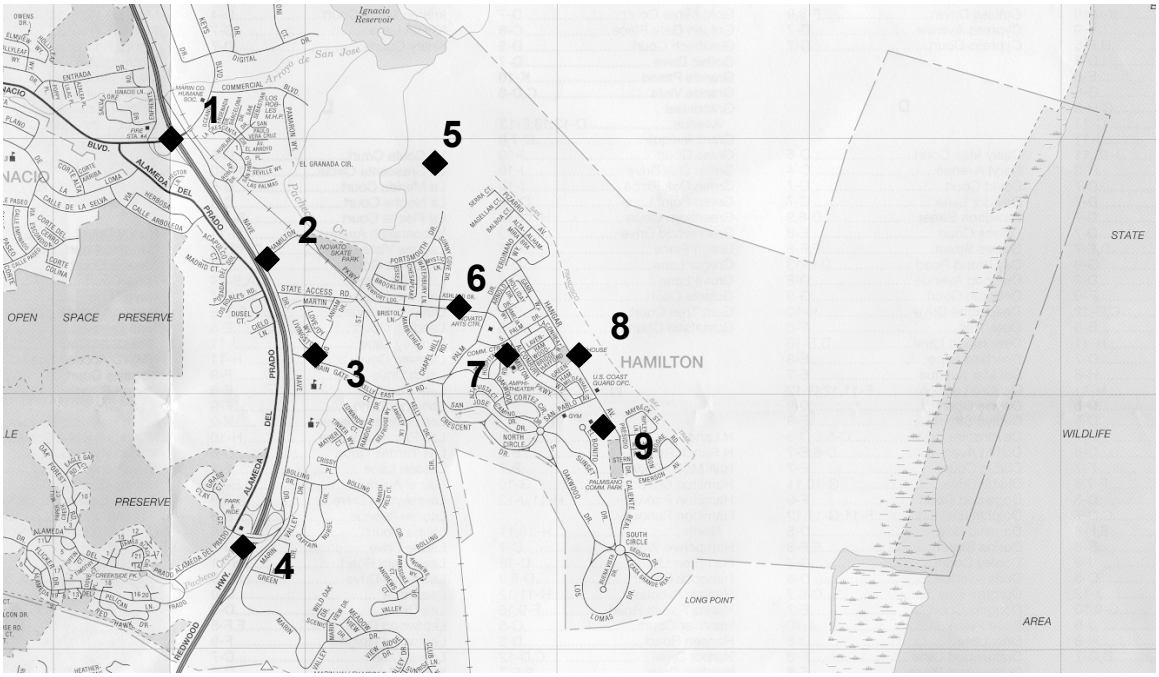


Figure O-1: North and South Overlooks

Directional Signage Plan

Signs directing the public to the Bay Trail are proposed at the following points within the immediately surrounding vicinity of the project:



1. Bel Marin Keys Boulevard exit from Highway 101
2. Intersection of North Hamilton Parkway with Nave Drive
3. Intersection of Main Gate Road with Nave Drive
4. Hamilton Airfield/Nave Drive exit from Highway 101
5. Future City Park and Interpretive Center
6. Parking area on southwest side of Reservoir Hill
7. Community Center area
8. Future local connection between Hangars 5/6 and 7
9. South Hamilton Park

Proposed Phasing Schedule

The projected phasing for completion of the public access improvements is as follows:

Phase 1	Segment A	3-5 years
Phase 2	Segment B	3-5 years
Phase 3	Segment C	3-5 years
Phase 4	Segment D	to be determined
Phase 5	Segment E	to be determined