

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

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December 23, 2009

Application Summary

(For Commission consideration on January 7, 2010)

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Staff Assigned: Max Delaney (415/352-3668 maxd@bcdc.ca.gov)

Summary

Applicant: Marin County Department of Public Works

Location: Along Coyote Creek, immediately west of the Richardson Bay Bridge, in an unincorporated area of Marin County near Mill Valley (Exhibit A). The Tennessee Valley Pathway connects to the Mill Valley-Sausalito Multi-Use Trail to the east and Marin Avenue to the west.



Making San Francisco Bay Better



Project: The goals of the Tennessee Valley / Manzanita Connector Pathway Project (Project) are to: (1) upgrade the existing path to meet current American Disabilities Act (ADA) accessibility and design standards for a multi-use pathway; and (2) encourage area residents to use the trail as an alternative to vehicular travel to reach key destinations such as shopping and transit facilities (e.g., the Sausalito ferry and the Manzanita park and ride).

The Commission has Bay jurisdiction from Richardson Bay up Coyote Creek to the Shoreline Highway Bridge and 100-foot shoreline band jurisdiction on both sides of the creek. The project is being planned in three different segments from Richardson Bay to Marin Avenue (Exhibit B). The proposed activities within Segment One and a small portion of Segment Two would fall within the Commission's jurisdiction (Exhibit C).

Within the Commission's jurisdiction, the proposed project would remove approximately 1,622 linear feet of degraded asphalt path from the Coyote Creek

marsh and relocate approximately 550 linear feet of the path on adjacent upland. The project would replace the remaining segment of the path with a 960-foot elevated boardwalk and a 150-linear-foot at-grade asphalt path to connect to the Sausalito-Mill Valley Multi-Use Pathway. The project also would construct a new at-grade asphalt path (approximately 100 linear feet of which would be in the Commission's jurisdiction) called the Manzanita Connector Trail that would connect from the Tennessee Valley Pathway south to Highway One and the Manzanita Park and Ride (Exhibit C). Other work within the Commission's 100-foot shoreline band jurisdiction includes installing a pre-fabricated pedestrian/bicycle bridge across Coyote Creek approximately 45 feet to the west of the Shoreline Highway bridge, (Exhibit D) and a new crosswalk and traffic signal at the intersection of Shoreline Highway and Tennessee Valley Road.

Except for about a third of the path that will be relocated to an adjacent upland area, the remainder of the path would be built almost entirely within the footprint of the original path in order to minimize impacts on the surrounding marsh. However, a small section (approximately 90 linear feet) of the elevated boardwalk would cross undisturbed marsh. Removing the degraded asphalt path and packed earth shoulders used as informal paths and relocating about a third of the path to adjacent uplands would improve tidal circulation to the marsh lying inland of the path and allow the applicant to restore tidal marsh habitat where the existing path is being removed.

**Issues
Raised:**

The staff believes that the application raises five primary issues: (1) whether the proposed project would be consistent with the McAteer-Petris Act and the San Francisco Bay Plan policies on fill; (2) whether the proposed project would be consistent with the Commission's policies on public access; (3) whether the project would adequately protect fish, other aquatic resources and wildlife, and provide benefit to tidal marsh and tidal wetlands at the site; (4) whether the proposed project would be consistent with the Commission's policies on transportation; and (5) whether the project is consistent with the Commission's safety of fills policies, including sea level rise.

Background

The Tennessee Valley Pathway (within the Commission’s jurisdiction) was built on a small levee bordering a dredged portion of Coyote Creek. The path pre-dates the Commission and is bordered by tidal marsh. The path has long been used by the public for recreation and transportation but over the years, the levee and path have subsided and much of the pavement is severely cracked and deteriorated. When the trail was built, several small pipes were installed underneath the pavement to allow for tidal connectivity between the creek side marsh and the back marsh (inland of the path). Today, almost all of these culverts are either non- or partly-functional due to the path’s ongoing subsidence and sediment clogging the culverts. The path is currently low enough that it is inundated frequently at higher tides and tidal waters are able to reach the back marsh on a regular basis (Exhibit E). Despite the poor conditions of the path, it is still used frequently by the public, though the deterioration of the path surface has led to the creation of informal trails on both sides of the path.

The current condition of the path through Coyote Creek marsh (east of Shoreline Highway) consists of a swath of pavement averaging around 4.5 feet with five to 10-foot-wide compacted earthen shoulders on both sides of the path where walkers and bikers have strayed off the pavement and trampled the vegetation. At the Highway One Bridge, a narrow and uneven dirt pathway leads under the bridge, where there is restricted headroom (approximately five feet) and frequent tidal inundation. There is also a narrow wooden pedestrian bridge on the eastern side of the Highway One connecting the path to the north side of Coyote Creek and Tam Valley Junction. The bridge is too narrow for bikes, and given that Shoreline Highway is a very busy roadway with narrow shoulders, there is no easy access route for bikers coming from or going to Tam Valley Junction. For all these reasons, the Marin County Department of Public Works (County) has proposed to upgrade the condition of the Tennessee Valley Pathway and create better connections from the surrounding community to the path. While the Tennessee Valley Pathway is not currently part of the Bay Trail system, it is a valuable link between the Sausalito–Mill Valley Multi-Use Pathway (a designated Bay Trail segment) and the recreational trails further to the west in the Golden Gate National Recreation Area (GGNRA).

Project Description

Project

Details: The applicant, the Marin County Department of Public Works, describes the

project as follows:

In the Bay:

- a. Remove the asphalt surface from approximately 1,622 feet of a 4.5-foot-wide path (65 cubic yards of solid fill) and dispose at a location outside the Commission's jurisdiction;
- b. Construct, use and maintain an approximately 960-foot-long by ten-foot-wide multi-use elevated boardwalk with four 32-foot-long by four-foot-wide belvederes (turnouts), resulting in approximately 9,966 square feet of pile-supported fill;
- c. Construct, use and maintain an approximately 150-foot-long by eight-foot-wide at-grade asphalt path with two-foot-wide earthen shoulders on either side (connecting to the Sausalito-Mill Valley Multi-Use Pathway) resulting in approximately 1,800 square feet of solid fill (10 cubic yards); and
- d. Restore tidal marsh on an approximately 9,250-square-foot (0.21 acres) area where the path has been relocated, on approximately 2,500 square feet (0.06 acres) adjacent to the boardwalk (restoration of the informal dirt path), and potentially additional marsh vegetation underneath the boardwalk.

Within the 100-foot Shoreline Band:

- a. Construct, use and maintain a 680-foot-long by eight-foot-wide at-grade asphalt path with two-foot-wide earthen shoulders on either side over an area of approximately 8,160 square feet (adjacent to the Holiday Inn parking lot);
- b. Construct, use and maintain an approximately 54-foot-long by eight-foot-wide asphalt path with two-foot-wide earthen shoulder covering approximately 648 square feet which would connect the boardwalk to the Shoreline Highway and crosswalk;
- c. Construct, use and maintain a 43-foot-long by eight-foot-wide flood control access ramp with two-foot-wide earthen shoulders on the east side of the Shoreline Highway Bridge over an area of approximately 516 square feet;
- d. Construct, use and maintain an 100-foot-long by eight-foot-wide at-grade asphalt path with two-foot-wide earthen shoulders on either side on an approximately 1,200-square-foot area (part of the new Manzanita Connector trail);
- e. Construct, use and maintain a 73-foot-long by eight-foot-wide at-grade asphalt path with two-foot-wide gravel shoulders on either side (part of Segment Two) over an approximately 876-square-foot area;
- f. Install, use and maintain a 100-foot-long by eight-foot-wide prefabricated pedestrian/bicycle bridge across Coyote Creek, approximately 45 feet to the west of the Shoreline Highway Bridge; and
- g. Install a painted crosswalk and a traffic signal, install a new removable bollard at the east end of the crosswalk, and replace up to 89 linear feet of

guardrail and construct up to 75 linear feet of new guardrail on both sides of Shoreline Highway for the new crosswalk.

Bay Fill: The proposed project would remove approximately 7,300 square feet (65 cubic yards) of solid fill (the existing degraded asphalt trail) and replace it with approximately 1,800 square feet of solid fill (10 cubic yards), for the at-grade path adjacent to the Sausalito-Mill Valley Multi-Use Pathway, and 9,966 square feet of pile-supported fill, for the new elevated boardwalk. The proposed fill would all be within the footprint of the original path except for an approximately 60-foot-long section of boardwalk (600 square feet), that would cross undisturbed marsh in order to reach the realigned upland portion of the pathway. Thus, the project would result in a decrease of 5,500 square feet of solid fill (55 cubic yards) and increase of 9,966 square feet of pile-supported fill in the Bay for a net increase of 4,466 square feet of Bay fill.

Public

Access: The project would improve the existing access by constructing an elevated boardwalk through Coyote Creek marsh, improving the condition of the path (making it wider with an improved surface), making it ADA-compliant, and allowing for use of the path at all tides (it currently is inundated several days each month). In order to improve connections to the community and surrounding access areas, the project would install a new pedestrian/bicycle bridge on the west side of Shoreline Highway to provide a more accessible route between the path and Tam Junction, and install a new crosswalk and traffic signal to allow the public to more safely cross the highway instead of having to pass underneath the Shoreline Highway bridge. The project would also construct a new path to create a connection between the Tennessee Valley Pathway and the Manzanita Park and Ride and other points to the south. No new parking is proposed for the project, as the project aims to encourage alternative means of non-motorized transportation.

Priority

Use: The proposed project is not located within a priority use area.

**Schedule
and Cost:**

The applicant anticipates beginning construction on September 1st, 2010 and completing construction by January 31st, 2011. The County of Marin DPW expects the project would take six months to construct. The project would monitor restored tidal areas for five years following construction. The total cost of the project would be approximately \$2,925,000.00.

Staff Analysis

A. **Issues Raised:** The staff believes that the application raises four primary issues: (1) whether the proposed project would be consistent with the McAteer-Petris Act and the San Francisco Bay Plan policies on fill; (2) whether the proposed project would be consistent with the Commission's policies on public access; (3) whether the project would adequately protect fish, other aquatic resources and wildlife, and tidal marsh and tidal wetlands at the site;

(4) whether the proposed project would be consistent with the Commission's policies on transportation; and (5) whether the project is consistent with the Commission's safety of fills policies, including sea level rise.

1. **Bay Fill.** The proposed project would result in approximately 1,800 square feet (10 cubic yards) of solid fill in the Bay to raise and widen an at-grade asphalt path and 9,966 square feet of pile-supported fill in the Bay for an elevated boardwalk. The Commission may authorize fill if the fill meets the requirements identified in Section 66605 of the McAteer-Petris Act, which states, in part: (a) the public benefits from fill must clearly exceed the public detriment from the loss of water areas, and fill should either be limited to water-oriented uses, such as water-oriented recreation, or minor fill for improving shoreline appearance or public access; (b) no alternative upland location exists for the fill; (c) the fill should be the minimum amount necessary; (d) the fill should minimize harmful effects to the Bay including the water volume, circulation, and quality, fish and wildlife resources, and marsh fertility; and (e) the fill should be authorized when the applicant has valid title to the affected property. Further, the Bay Plan policies on public access state, in part, that "[a] proposed fill project should increase public access to the Bay to the maximum extent feasible."
 - a. **Public Benefit.** The applicant states that "the entire existing path needs to be improved to meet current ADA accessibility and design standards for a multi-use pathway" and that the proposed project would upgrade the path to achieve these goals. The applicant further states that the upgraded pathway would be a "significant safety improvement over existing conditions." In addition, the County of Marin Department of Public Works (County) believes the proposed project would "encourage area residents to use alternative modes of transportation to reach local destinations" and "provide access to the Tennessee Valley area of the Golden Gate National Recreation Area and the Bay Trail." The applicant believes the fill would provide substantial public benefit since all proposed fill would be for the purpose of upgrading existing public access and improving tidal marsh habitat.
 - b. **Alternative Upland Location.** As part of their application, the County submitted an alternatives analysis document, entitled "Tennessee Valley Multi-Use Pathway - Alternatives Analysis" prepared by Royston, Anamoto, Alley, and Abbey and dated April 25, 2003. At the request of the Commission staff, the applicant also prepared an addendum document, dated May 13, 2009. Both of these documents assess alternative locations for the pathway, including upland alternatives, as well as other trail design considerations. For the proposed project, the applicant proposes to relocate approximately 550 feet of the existing 1,600-foot-long path to an adjacent upland location. The applicant states that "locating the pathway outside the Bay, possibly along Shoreline Highway, for the other portion of [the path] is not an option for the following reasons: the property along Shoreline Highway is privately-owned, there are slope issues (steep contours), and the environmental impacts would be greater." The alternative analysis addendum further elaborates that the shoulders along Shoreline Highway are extremely narrow and constrained by steep hillslopes on both sides. Thus, the alternative analysis concluded that there is inadequate room to construct the trail along the roadway without having to widen the roadway and place an extensive retaining wall system, which would be cost-prohibitive for the applicant and require additional approvals from CalTrans. The BCDC staff also

explored relocating the pathway from its current alignment to the inland edge of Coyote Creek marsh, along the base of hillside below Highway One. However, this option would also require a substantial amount of fill because of the steep bank bordering the marsh, and may have greater environmental impacts to the marsh from construction activities since machinery and vehicles would not be able to utilize the existing trail footprint to conduct work in the marsh but would have to traverse undisturbed marsh in order to conduct work. Further, attempting to cantilever a boardwalk from the hillside at the inland edge of the marsh would be expensive and would have significant impacts on transition habitat providing upland refugia for marsh animal species. In addition, rerouting the trail to an upland location would diminish the public's recreation experience by placing them closer to a busy roadway and further away from the Bay.

- c. **Minor Fill for Public Access.** As noted above, under the provisions of the McAteer-Petris Act, the Commission can approve a minor amount of fill for public access. All the Bay fill for the proposed project would be for the purpose of improving public access, and the proposed locations of the upgraded trail segments have been designed to minimize the quantity of solid fill placed in the Bay, replace solid fill with pile-supported fill, and place most of the fill within the footprint of the existing path to minimize impacts to the marsh and the Bay.
- d. **Minimum Amount Necessary.** The project has been designed so that the upgraded portion of the path through the marsh would be constructed almost entirely within the footprint of the original path. A short section of the proposed pile-supported fill would be placed in an undisturbed area of the marsh, but this would be to achieve the purpose of realigning a portion of the Tennessee Valley Pathway to an upland location. By removing the existing degraded asphalt path and realigning a portion of path upland, the project would remove approximately 7,300 square feet of fill (65 cubic yards) from Coyote Creek marsh. Therefore the project would result in a net reduction of approximately 5,500 square feet of solid fill in the Bay.

The applicant originally proposed an eight-foot-wide elevated boardwalk because they felt that was an adequate width to accommodate pedestrians, bicyclists and wheelchairs. The project was then brought to the Design Review Board (DRB) on June 8, 2009. The DRB voiced concerns that the width of the boardwalk was too narrow to function as an ADA-compliant, multi-use pathway and could pose safety issues for the variety and number of expected users. The DRB recommended a twelve-foot-wide elevated boardwalk with belvederes every 150 feet on both sides to allow users to have spaces along the boardwalk to escape congestion and oncoming traffic because of their concern that the eight-foot-wide boardwalk without rails and 30 inches above grade were too narrow for safe passage. Consequently, the applicant worked with staff to modify the boardwalk design to be ten-foot-wide with four 32-foot-long by four-foot-wide belvederes (pullouts). The applicant states that "the ten-foot-wide elevated boardwalk was chosen because it has essentially the same footprint as the originally designed pathway" and that "four belvederes were chosen because there are four barren [free of marsh vegetation] locations where cantilevered belvederes could be constructed without impacting any salt marsh vegetation." The applicant further states that "a 12-foot-wide elevated pathway would have created additional impacts that would have required the preparation of a Biological Opinion

by the U.S. Fish and Wildlife Service (USFWS).” For the reasons stated above, the applicant believes that the proposed quantity of fill is the minimum amount necessary to achieve the project goals.

- e. **Minimize Harmful Effects to the Bay.** In addition to the requirements in Section 66605 of the McAteer-Petris Act, the Bay Plan policies on water surface area and volume state, in part, that “[w]ater circulation in the Bay should be maintained, and improved as much as possible. Any proposed fills, dikes or piers should be thoroughly evaluated to determine their effects upon water circulation or at least minimize harmful effects.” The proposed project would remove an approximately 1,622-foot-long by 4.5-foot-wide section (7,300 square feet) of degraded asphalt from Coyote Creek marsh. In addition, approximately 550 feet of the trail would be relocated upland and the remaining 960 feet of trail would be reconstructed as an elevated boardwalk. The applicant states that “the elevated boardwalk and removal of the existing asphalt pathway will allow the tidal flow and circulation into Coyote Creek marsh to be improved and the connection with Coyote Creek to be enhanced.” Once the asphalt path has been removed, the former path and adjacent informal trails would be restored. It is likely that some marsh vegetation may grow beneath the edges of the boardwalk as well. This would result in the additional restoration of many additional square feet of tidal marsh vegetation (additional discussion of the effects of the proposed project on the Bay, can be found in Section A3, the “Natural Resources” section, below).
- f. **Valid Title of Project Site.** The County of Marin has provided valid property documents for the portions of the proposed project that the Commission would authorize.

The Commission should determine whether the fill for the proposed project is consistent with its law and policies on Bay fill.

2. **Public Access.** The McAteer-Petris Act requires that the Commission approve a project only if it can find that the proposal provides the maximum feasible public access consistent with the project. In addition The Bay Plan Public Access Policy 1 states, in part, that “[a] proposed fill project should increase public access to the Bay to the maximum extent feasible, in accordance with the policies for Public Access to the Bay.” Public Access Policy 3 states that “Public access to some natural areas should be provided to permit study and enjoyment of these areas. However, some wildlife are sensitive to human intrusion. For this reason, projects in such areas should be carefully evaluated in consultation with appropriate agencies to determine the appropriate location and type of access to be provided.” Public Access Policy 4 states that “Public access should be sited, designed and managed to prevent significant adverse effects on wildlife. To the extent necessary to understand the potential effects of public access on wildlife, information on the species and habitats of a proposed project site should be provided, and the likely human use of the access area analyzed. In determining the potential for significant adverse effects (such as impacts on endangered species, impacts on breeding and foraging areas, or fragmentation of wildlife corridors), site specific information provided by the project applicant, the best available scientific evidence, and expert advice should be used. In addition, the determination of significant adverse effects may also be considered within a regional context. Siting, design and management strategies should be employed to avoid or minimize adverse effects on wildlife, informed by the

advisory principles in the Public Access Design Guidelines. If significant adverse effects cannot be avoided or reduced to a level below significance through siting, design and management strategies, then in lieu public access should be provided, consistent with the project and providing public access benefits equivalent to those that would have been achieved from on-site access. Where appropriate, effects of public access on wildlife should be monitored over time to determine whether revisions of management strategies are needed." Public Access Policy 6 states, in part, that public access improvements should "[b]e designed and built to encourage diverse Bay-related activities and movement to and along the shoreline and should permit barrier free access for the physically handicapped..." Public Access Policy 8 states, in part, that "[a]ccess to and along the waterfront should be provided by walkways, trails, or other appropriate means to connect the nearest public thoroughfare where convenient parking or public transportation may be available..." and "[d]iverse and interesting public access experiences should be provided which would encourage users to remain in the designated access areas to avoid or minimize potential adverse effects on wildlife and their habitat." The Bay Plan Recreation Policy 7 states, in part, that "[b]ecause of the need to increase the recreational opportunities available to Bay Area residents, small amounts of Bay filling may be allowed for shoreline parks and recreational areas that provide substantial public benefits and that cannot be developed without some filling."

- a. **Maximum Feasible Public Access.** The applicant states that the sole purpose of the proposed project is to increase access to the Bay by upgrading an existing path and improving habitat adjacent to the path. Because the current pathway consists of a narrow band of rough asphalt pathway and uneven dirt shoulders which are often muddy due to inundation by tidal waters, the pathway is not accommodating to users with disabilities who require a wider path with a smoother surface. Sections of the pathway are also often inaccessible to all users at higher tides. The proposed project would upgrade the entire pathway so that it is ADA-compliant. The applicant states that "the pathway will be a significant safety improvement over existing conditions." In addition, the project would elevate the section of the pathway that is most often inundated as a boardwalk. Constructing a boardwalk would not only allow users to have increased use of the pathway but would also enhance the appearance of the pathway. The proposed project would also provide greater connectivity between the Tennessee Valley Pathway and other public access areas and the community. The applicant states that "the Tennessee Valley Multi-Use Pathway will also serve as an important connector for pedestrians and bicyclists between Tamalpais Valley, Tennessee Valley and the rest of Marin County. The Tennessee Valley Multi-Use Pathway will also connect two major regional trails: the Bay Trail and the Bay Area Ridge Trail. The lower half of the pathway will serve as an important community connector providing safe bicycle and pedestrian routes between the residential areas of Tamalpais Valley and the Shoreline Highway commercial area and local schools." The construction on the new Manzanita Connector trail would provide new access for the commuters to more easily reach the Manzanita Park and Ride and for the general public to reach businesses and schools in the vicinity. Additionally, the proposed pedestrian / bicycle bridge would provide a better connection for trail users to Tam Valley Junction.
- b. **Public Access and Wildlife Compatibility.** The Bay Plan public access policies state

that “public access to some natural areas should be provided to permit study and enjoyment of these areas” but recognizes that such access may adversely impact wildlife and sensitive species. For this reason, the policies also recommend that “siting, design and management strategies should be employed to avoid or minimize adverse effects on wildlife.”

As noted above in the discussion of possible alternative upland locations for the project, the applicant evaluated alternatives to the proposed path through the marsh, including locating the path on Shoreline Highway, placing it along the base of the steep bank along the inland border of the marsh, or constructing a path through Tam Junction and then along Miller Drive until its connection to the Sausalito-Mill Valley bike path near Almonte Boulevard. Each of these alternatives poses significant problems. Shoreline Highway is a major state highway (Highway 1) leading to Muir Woods, Mount Tamalpais, Stinson Beach, Tennessee Valley and other popular Bay area recreation spots. It is cut into a relatively steep hill between Tennessee Valley Road and Highway 101 with narrow shoulders, and poor visibility. Widening the road to provide a safe bicycle/pedestrian path would involve significant construction and would provide a much less direct and desirable public access experience than the current path alignment.

Routing the path along the base of the steep embankment that runs along the inland edge of the marsh would likely be costly because of problems anchoring the path to the hill, would impact transition habitat providing upland refugia for marsh animals, would almost certainly require construction access through undisturbed portions of the marsh, would be less direct, and would bring path users closer to the highway with its associated noise.

Threading a bike/pedestrian path through busy Tam Junction to Almonte Boulevard would also be much less direct, would bring pedestrians and bicyclists in close proximity to weaving and merging automobiles, and would be adjacent to the Bay for only a portion of the path.

For these reasons, because of the long historical use of this path, because the existing route provides the most direct, safe, and pleasurable experience, the applicant determined that the existing route was the most desirable and designed the path to minimize its impact on the Coyote Creek marshlands. Where adjacent uplands were available, the path was relocated there so almost a third of the path has been relocated upland. This section of the former path will be restored to tidal marsh.

Where the path goes through the marsh, it will be raised above the marsh plain as a boardwalk, a design feature intended to eliminate the frequent tidal inundations of the path while promoting tidal circulation throughout the marsh and providing a more defined separation between the path and the marshlands. Because the condition of the paved portion of the current pathway has deteriorated over time and the path is too narrow to accommodate bicyclists moving in opposite directions, pedestrians and bicyclists have created additional impacts to the marsh by straying off the pavement into the marsh, which has resulted in trampled marsh vegetation and compacted soils creating a barren area as much as 30 feet wide. An elevated boardwalk would create a designated pathway with better separation from the marsh, encouraging users to stay within the public access area and not enter the marsh. The boardwalk will also be constructed of materials that will not leach into Bay water, as does the existing asphalt surface.

The Commission should determine whether the proposed project is consistent with its laws and policies on public access.

3. **Natural Resources Policies**

- a. **Tidal Marshes and Tidal Flats.** The Bay Plan policies on tidal marshes and tidal flats state, "where and whenever possible, former tidal marshes and tidal flats that have been diked from the Bay should be restored to tidal action in order to replace lost historic wetlands or should be managed to provide important Bay habitat functions...." The policies also state, "[a]ny tidal restoration project should include clear and specific long-term and short-term biological and physical goals, and success criteria and a monitoring program to assess the sustainability of the project." In addition to Section 66605 of the McAteer-Petris Act regarding effects of fill on water volume and circulation, the Bay Plan policies on water surface area and volume state that, "[w]ater circulation in the Bay should be maintained, and improved as much as possible. Any proposed fills, dikes or piers should be thoroughly evaluated to determine their effects on water circulation and then modified as necessary to

improve circulation or at least to minimize any harmful effects.”

The proposed project would remove an existing asphalt path and associated earthen fill that currently impedes tidal action within Coyote Creek marsh. Relocating a portion of this path to an upland location and constructing an elevated boardwalk for the rest of the trail would greatly improve the tidal connection between the creek side marsh and the marsh inland of the trail. After removing the degraded asphalt, the County would score the uncovered earth formerly occupied by pavement as well as the packed earth shoulders in order to loosen the sediment and allow for natural colonization of these areas by marsh plants. In addition, increased tidal circulation within Coyote Creek marsh would likely improve the existing marsh vegetation and potentially expand habitat for endangered estuarine marsh species such as the California clapper rail and the salt marsh harvest mouse. An approximately 60-foot-long by 10-foot-wide section of boardwalk (600 square feet) would cross undisturbed marsh. The applicant would monitor the restored tidal marsh areas for five years after construction has been completed, collect data on specific biological and physical parameters (such as plant measurements, invasive species, hydrology, etc.) with the intent to meet performance criteria of 80% cover of the site by native species by the end of the fifth year. If the performance criteria are not met, then additional measures would be taken to ensure restoration success.

- b. **Fish, Other Aquatic Organisms and Wildlife.** The Bay Plan policies on fish, other aquatic organisms and wildlife state: “[T]o assure the benefits of fish, other aquatic organisms and wildlife for future generations...the Bay’s tidal marshes, tidal flats, and subtidal habitat should be conserved, restored, and increased.” These policies also state that “[t]he Commission should consult with the California Department of Fish and Game and the U.S. Fish and Wildlife Service or the National Marine Fisheries Service whenever a proposed project may adversely affect an endangered or threatened plant, fish, other aquatic organism or wildlife species...(and) give appropriate consideration of (their) recommendations in order to avoid possible adverse impacts of a proposed project on fish, other aquatic organisms and wildlife habitat.”

As part of their application, the County submitted a Biological Assessment (BA) prepared by the California Department of Transportation, which assessed special-status species that may occur within the vicinity of the site. The project has been designed so the installation of the elevated boardwalk would not impact a large patch of Point Reyes bird’s beak, a listed plant under the California Endangered Species Act, located within the project site. The BA also states that “habitat for the salt-marsh harvest mouse is marginal on the project site because of short and sparse pickleweed.” On July 23, 2009, the U.S. Fish and Wildlife Service (USFWS) issued an informal letter to the U.S. Army Corps of Engineer’s request for informal consultation that found the proposed project “is not likely to adversely affect the endangered California clapper rail and salt marsh harvest mouse.” The USFWS letter, however, did specify a list of conservation and mitigation measures to be incorporated into the project in order to minimize impacts to the marsh and wildlife, including setting construction work windows, requiring qualified biologists to be present during construction, installing exclusionary fencing to prevent salt marsh harvest mice from being impacted, etc. The California Department of Fish and Game (CDFG) also

issued a letter on May 16, 2009, which stated that they would not issue a Streambed Alteration Agreement due to lack of staff time but that the applicant had the legal authority to proceed with the project as proposed. The CDFG staff also concurred that the recommended conservation measures from USFWS should be implemented. On July 21, 2009, NOAA National Marine Fisheries Service (NMFS) issued a consultation letter, pursuant to Section 7 of the Clean Water Act and the Magnuson Stevens Fisheries Conservation and Management Act, for the project. The letter made a determination that the proposed project “is not likely to adversely affect listed anadromous salmonids or green sturgeon” but that the project “would impact Essential Fish Habitat (EFH) for various federally-managed fish species within the Pacific Groundfish, Pacific Salmonid and Coastal Salmonid Fishery Management Plan. However the project contained adequate measures to avoid, minimize, mitigate or otherwise offset the adverse effects to EFH.” The NMFS letter also specified conservation measures to be employed, such as the use of a vibratory hammer to install the boardwalk pilings in order to minimize disturbances to any special-status fish that may occur within Coyote Creek. Since the initiation of the informal consultation process and the application for a Streambed Alteration Agreement, the project has been revised to include a wider elevated boardwalk and four belvederes. The applicant informed the resource agencies of the changes to the scope of the project and worked with the appropriate staff to ensure that no additional consultation or conservation measures would be required for the wider path.

The Commission should determine whether the project is consistent with its laws and policies regarding natural resources.

4. **Transportation.** The Bay Plan section on transportation includes a finding stating that “A continuous network of paths and trails linking shoreline communities and crossing the Bay’s bridges is a vital component in a regional transportation system and provides travel alternatives to the automobile.” Transportation Policy 4 states that “Transportation projects on the Bay shoreline on bridges over the Bay or certain waterways should include pedestrian and bicycle paths that will either be a part of the Bay Trail or connect the Bay Trail with other regional and community trails. Transportation projects should be designed to maintain and enhance visual and physical access to the Bay and along the Bay shoreline.”

A stated goal of the project is to improve access for alternative transportation to schools, businesses, park and ride facilities, and popular nearby recreation areas in an effort to reduce dependence on automobiles (see discussion under Fill for Public Access above). This trail will connect the Bay Trail (the Sausalito-Mill Valley bike/pedestrian path) with local communities, businesses, and is a significant leg to the Tennessee Valley Trail, one of the most popular trailheads in the Marin Headlands National Recreation Area.

The Commission should determine whether the project is consistent with its law and policies regarding transportation.

5. **Safety of Fills and Sea Level Rise.** The Bay Plan policies on the safety of fills state that, “[t]o prevent damage from flooding, structures on fill or near the shoreline should have adequate flood protection including consideration of future relative sea level rise as determined by competent engineers.” Additionally, these policies state in part that, “[t]o minimize the potential hazard to Bay fill projects and bayside development from

subsidence, all proposed development should be sufficiently high above the highest estimated tide level for the expected life of the project or sufficiently protected by levees...”

Currently, proposed projects reviewed by the Commission are reviewed using sea level rise rates projected over a fifty-year period, generally consistent with the California Climate Action Team Reports on Climate Change. These reports project the following sea level rise scenarios: (1) a low rate of 0.08 inches (2 mm) per year; (2) a medium rate of 0.18 in (4.6 mm) per year; and (3) a higher rate of 0.33 in (8.4 mm) per year. The scenario with the highest projected sea level rise in these reports would result in sea level rise of approximately 16 inches over 50 years. A significant portion of the project involves building at-grade pathways within the 100-foot shoreline band at elevations above Mean High Water sufficient so that they would rarely be flooded by a projected 16-inch rise in sea level. The proposed elevated boardwalk would be constructed so that the boardwalk deck surface structure would be inches above the marsh plain. The applicant has stated that “the elevated boardwalk was designed with an elevation of 30 inches so handrails would not be required.” The addition of railings would add substantial cost and thus be cost-prohibitive for the applicant. Even if the project had additional funding for railings, the construction of railings would have an increased visual impact on the marsh in that the boardwalk would appear as a much more substantial structure within a small marsh. Even under the highest sea level rise scenarios, if the proposed boardwalk is 30 inches above the marsh plain it would be higher than the projected 16-inch sea level rise. The boardwalk may still be susceptible to overtopping from storm surges and extreme tide events. Given that the current public access pathway gets regularly inundated, occasional inundation of the path would be a vast improvement over existing conditions. Further, the applicant states that “the design life of the elevated boardwalk is 40-50 years” and “when it has to be replaced, the elevation of the boardwalk will be raised.”

The Commission should determine whether the proposed project would be consistent with its laws and policies on safety of fills, particularly whether the public access pathway would be adversely affected by future sea level rise.

B. Review Boards

1. **Engineering Criteria Review Board.** The Commission’s Engineering Criteria Review Board (ECRB) did not review this project because the Commission’s staff engineer reviewed the plans for the proposed project and determined that the project elements, consisting of at-grade pathways, the installation of a pre-fabricated pedestrian/bicycle bridge, and the construction of an elevated boardwalk, did not warrant engineering criteria review.
2. **Design Review Board.** The Design Review Board (DRB) reviewed this project on June 8, 2009. During their review, the DRB members were all concerned that an eight-foot-wide boardwalk would be too narrow to safely accommodate multiple types of users. The DRB recommended widening the boardwalk possibly to twelve feet in width. In addition, the DRB members recommended that the project add belvederes (pullouts), possibly every 100-150 feet, to allow the public safe “escape points” from congestion along the trail and to allow places for them to stop and view the Bay and surrounding areas. The applicant agreed to reassess the project proposal in light of these comments

and ultimately revised the project to widen the boardwalk to ten feet and add four belvederes.

C. **Environmental Review.** On November 10, 2009, the Marin County Community Development Agency, acting as lead agency under the California Environmental Quality Act, certified a Negative Declaration (ND) for the revised project. The final ND is attached (minus the exhibits) (Exhibit F).

D. **Relevant Portions of the McAteer-Petris Act**

1. Section 66605
2. Section 66602

E. **Relevant Portions of the San Francisco Bay Plan**

1. Bay Plan Policies on Public Access Bay Plan Policies on Fish, Other Aquatic Organisms, and Wildlife
3. Bay Plan Policies on Tidal Marshes and Tidal Flats
4. Bay Plan Policies on Safety of Fills
5. Bay Plan Policies on Recreation
6. Bay Plan Policies on Transportation

Exhibits

A. **Vicinity Map**

B. **Site Plan**

C. **Project Plans for Activities within BCDC Jurisdiction**

D. **Proposed Pedestrian / Bicycle Bridge**

E. **Picture of Current Site Condition at Higher Tides**

F. **Negative Declaration**