SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION
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TO: All Design Review Board Members

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SUBJECT: Tennessee Valley / Manzanita Connector Trail Project
(For Board consideration on June 8, 2009)

Project Summary

Applicant: Marin County Department of Public Works

Project Representatives: Georgia McDaniel, CSW ST2; Pat Echols, Marin County Department of Public Works

Project Status. The Marin County Department of Public Works began planning for the Tennessee Valley / Manzanita Connector Trail Project in 2007. BCDC staff received an application for this project on February 3, 2009. A draft Initial Study and Negative Declaration is currently being prepared under CEQA by the Marin County Community Development Agency and is anticipated for release for a 30-day public comment period in late June 2009. A major permit would likely by considered by the Commission at a public hearing in late summer, with construction to commence shortly thereafter.

Project Site. The proposed project would be located mainly within the alignment of an existing 0.65-mile public access pathway, called the Tennessee Valley Trail, along the south bank of Coyote Creek in an unincorporated area of Marin County. The trail pre-dates the existence of the Commission and has long been used for recreation and transportation by the public. To the east of the Tennessee Valley Trail is the Mill Valley-Sausalito Multi-Use Trail, which has been designated as part of the Bay Trail and provides access for bicycle commuters, access to recreational areas, and connections to regional transit and local schools. At the west end of the trail is Marin Avenue. To the north of the project site is Tam Valley Junction that includes a cluster of stores and shopping plazas. At the eastern end of the trail, the project is bordered on the south by the Holiday Inn and Highway One (a.k.a. Shoreline Highway. As the trail passes underneath the Highway One Bridge to the west, it is bordered by Tennessee Valley Road.

East of the Highway One Bridge, the Tennessee Valley Trail consists of an approximately 1,600-foot-long segment that bisects Coyote Creek Marsh. The trail is comprised of an approximately 4.5-foot-wide worn and uneven asphalt pathway with two- to three-foot-wide at-grade, dirt shoulders on either side. A series of 4-inch-in-diameter culverts were installed underneath the trail to allow tidal influence to reach the marsh on the southern side of the trail, however, most of the culverts have become damaged or clogged by sediment. Since the trail has subsided over the

years and it is currently at a very low elevation, Bay waters are able to reach the back marsh as portions of the trail are inundated frequently at higher tides.

At the Highway One Bridge, a narrow and uneven dirt pathway leads under the bridge, where there is restricted headroom (approximately five feet). There is also a narrow, wooden pedestrian bridge on the eastern side of the Highway One that provides a connection to the north side of Coyote Creek and Tam Valley Junction. On the west side of the Highway One Bridge, an at-grade, six- to eight-foot-wide gravel pathway extends approximately 750 feet from the Highway Bridge to the Tamalpais Community Services District Cabin. From the cabin to Marin Avenue, the trail is approximately 1,000 feet long and becomes extremely narrow, only one or two feet wide in places, traversing along the steep southern bank of Coyote Creek.

Public access currently exists along the entire length of the 0.65-mile Tennessee Valley Trail. Despite the poor condition of the trail, the applicant states that several hundred bicycles and/or pedestrians use the existing path each day. There are no existing public access amenities or signage along the length of the trail.

Proposed Project Overview. The applicant proposes to upgrade and widen the existing 0.65-mile Tennessee Valley Trail from the Mill Valley-Sausalito multi-use pathway to Marin Avenue. The project involves removing portions of the existing trail from Coyote Creek Marsh and reconstructing it in an upland area. In addition, the project includes constructing a new connector path (Manzanita connector) between Highway One, at the entrance to the Holiday Inn/Frantoio Restaurant parking lot, and the Tennessee Valley Pathway. A new pre-fabricated, pedestrian/bicycle bridge would be installed across Coyote Creek, approximately 45 feet upstream from the Highway One Bridge, and a new crosswalk and traffic signal would be installed to the south of the Highway One Bridge to allow for the public to cross the highway safely instead of having to pass underneath the bridge. No new parking is proposed for the project, as the project aims to encourage alternative means of non-motorized transportation.

Project Goals. The applicant has identified four project goals that include: (1) upgrade the existing trail to meet current American Disabilities Act (ADA) accessibility and design standards for a multi-use pathway; (2) encourage area residents to use the trail as an alternative to vehicular travel to reach key destinations such as shopping and transit facilities (such as Sausalito ferry and Manzanita bus stop); (3) provide better connectivity to the Tennessee Valley area of the Golden Gate National Recreation Area and the Bay Trail; and (4) design the new trail to reduce the likelihood of future inundation.

Proposed Activities Within the Commission's Jurisdiction. Not all of the proposed project would occur within the Commission's jurisdiction. In this vicinity, the Commission has Bay jurisdiction from Richardson Bay, up Coyote Creek, to the eastern edge of the Highway One Bridge. The Commission also has shoreline band jurisdiction that extends inland 100 feet from the eastern edge of the bridge and around all Coyote Creek Marsh.

a. **Public Access Improvements within BCDC Jurisdiction.** Between the Mill Valley-Sausalito multi-use path and the new Manzanita Connector path, the improved pathway would consist of an eight-foot-wide, at-grade asphalt surface with two-foot-wide granular shoulders on either side. This segment of trail would be located along the upland area adjacent to the Holiday Inn parking lot. From the new Manzanita Connector path to the western edge of the marsh (near the Highway One Bridge), the trail would consist of an eight-foot-wide, elevated boardwalk composed of wood and/or synthetic wood materials. An eight-foot-wide, at-grade asphalt path with two-foot-wide granular shoulders would connect the boardwalk up to Highway One just south of the Highway One Bridge and just north of the intersection of Tennessee Valley Road. A new traffic signal would be installed at the intersection along with a

striped crosswalk. West of the Highway One Bridge, the path along the south bank of Coyote

Creek would be an eight-foot-wide, at-grade asphalt path that runs along the existing pathway alignment up to the Tamalpais Community Services District Cabin. A short portion of this trail segment would fall within the Commission's shoreline band jurisdiction. The new pre-fabricated pedestrian/bicycle bridge, to be installed to the west of the Highway One Bridge, would also fall within the Commission's shoreline band jurisdiction.

b. **Marsh Restoration.** One of the objectives in realigning a portion of the existing trail from the marsh to upland and elevating a portion as a boardwalk, would be to allow marsh to recolonize for improved hydrologic connection throughout Coyote Creek Marsh. The majority of the existing pavement within the marsh, approximately 7,705 square feet, would be removed. In addition, the existing two to three-foot-wide dirt shoulders on either side of the asphalt would also be restored to tidal marsh. Approximately 14,000 to 16,000 square feet of tidal marsh would be restored. Once the existing pavement is removed, the ground underneath (and along the dirt shoulders) would be scarified to allow for marsh vegetation to recolonize in those areas. The applicant would monitor the site to ensure that the marsh restoration is successful.

c. **Alternative alignments.** In the planning of the proposed project, several alternative options were considered for the new and improved trail including placing addition solid fill to maintain the trail in it's current location and realigning the trail alongside Highway One. The applicant has stated that relocating the path upland (alongside Highway One) would not be possible because of the lack of space along the roadway shoulder. The applicant has also stated that attempting to cantilever the trail along the slope to the east of the guardrail would be difficult to achieve due to cost, environmental impacts, and engineering issues. The applicant also states that the new preferred alignment and design of the path (on upland and elevated boardwalk) would facilitate restoration of the existing asphalt pathway area to tidal marsh habitat.

d. **Biological Resources.** A Biological Assessment and a Natural Environmental Study were prepared by the California Department of Transportation (CalTrans) in January 2009. Both documents identified a number of state and federally-listed species that may potential occur within the project area. The U.S. Army Corps of Engineers has initiated informal consultation with both the USFWS and NOAA National Marine Fisheries Service to evaluate whether the proposed trail would have any adverse impacts on these species or habitat. Initial discussions between the applicant and the U.S. Fish and Wildlife Service indicate that the salt marsh harvest mouse may be the only species that is potentially vulnerable to impacts from the project. Commission staff will rely on the opinions of the resource agencies in evaluating whether the project would impact biological resources at the project site.

Issues. The staff believes that the project raises four primary issues for the Board to address in its review of this master plan: (1) is the design of the project consistent with the Commission's laws and policies regarding fill in the Bay; (2) is the public access sited and designed to be compatible with wildlife utilizing the project site; (3) does the project provide adequate, usable, and attractive public access improvements; and (4) is the project sited and designed to be resilient to the potential impacts of sea level rise.

1. **Is the design of the project consistent with the Commission's laws and policies regarding fill in the Bay?** Section 66605 of the McAteer-Petris Act states that fill in the Bay should only be authorized: (a) "…when public benefits from fill clearly exceed public detriment…" and should be "…limited to water-oriented uses…"; (b) when there is "…no alternative upland location…" for the project; (c) if the fill is "…the minimum necessary to achieve the purpose of the fill"; and (d) when "…the nature, location, and extent of any fill should be such that it will

minimize harmful effects to the bay..." The Bay Plan also has policies which state, in part, that

"small amounts of Bay fill may be allowed for waterfront parks and recreational areas that provide substantial public benefits and that cannot be developed without some filling" and that "…a small amount of fill may be allowed if the fill is necessary and is the minimum absolutely required to develop the project in accordance with the Commission's public access requirements."

The project involves placing approximately 7450 square feet of new pile-supported fill in the Bay to construct the elevated boardwalk section of the upgraded trail.

The Board should advise the Commission and the applicant on whether the design of the project is consistent with the Commission's laws and policies regarding fill in the Bay described above.

2. **Is the public access sited and designed to be compatible with wildlife utilizing the project site?** Bay Plan public access policies state, in part, that "public access should be sited, designed and managed to prevent significant adverse effects on wildlife." In many locations around the Bay, the shoreline edge is a vital area for wildlife. Access to some wildlife areas allows visitors to discover, experience and appreciate the Bay's natural resources and can foster public support for Bay resource protection. However, in some cases, public access may have adverse effects on wildlife (including flushing, increased stress, interrupted foraging, and/or nest abandonment), and may result in adverse long-term population and species effects. The type and severity of effects, if any, on wildlife depend on many factors, including site planning, the type and number of species present and the intensity and nature of the human activity. Methods for avoiding adverse effect of public access on wildlife include: (1) using design elements to encourage or discourage specific types of human activities; (2) using durable materials to reduce erosion impacts on adjacent habitats and to keep users from creating alternate access routes; (3) providing spur trails to reduce informal access into and through more sensitive areas; (4) locating parking and staging areas away from sensitive habitat areas; (5) using physical design features to buffer wildlife from human use; (6) managing type and location of public use; and (7) incorporating educational and interpretive elements within public access areas.

   The Board should advise the Commission and the applicant on whether the proposed public access employs appropriate siting, design, and management strategies (such as buffers or use restrictions) to reduce or prevent adverse human and wildlife interactions. The Board should also advise the Commission and the applicant on whether the public access balances the needs of wildlife and the public on an area-wide scale, where possible. Further, the Board should advise the Commission and the applicant on whether the proposed project provides visitors with diverse and satisfying public access opportunities that focus activities in designated areas and avoid habitat fragmentation, vegetation trampling, and erosion.

3. **Does the project provide adequate, usable, and attractive public access improvements?** The goals of the Public Access Design Guidelines for the San Francisco Bay are in part, to maximize views and physical connections to the Bay and to create a "sense of place." The Public Access Design Guidelines also state that, "[s]horeline access areas are most enjoyed when they are designed to encourage diverse, Bay-related activities" and should "maximize comfort, take advantage of existing site characteristics," and provide, "public access spaces that are safe and secure."

The proposed upgraded public access trail would likely increase the number of pedestrians and cyclists using the trail each day. In addition, the new trail will be wider and provide greater accessibility to a wider variety of users along and would be ADA-accessible. The applicant has not proposed any addition amenities.

The Board should advise the Commission and the applicant whether the proposed public access areas are sufficient to accommodate the expected level of use, designed to take advantage of existing site characteristics and opportunities, are safe and secure, and include appropriate site amenities.

4. **Is the project sited and designed to be resilient to the potential impacts of sea level rise?** The Bay Plan states that "structures on fill or near the shore should have adequate flood protection including consideration of future relative sea level rise…". The Intergovernmental Panel on Climate Change's (IPCC) has projected approximately one meter of sea level rise by 2100.

   The applicant is proposing to construct a portion of this trail as an elevated boardwalk, approximately 30-inches-in-height above the marsh plain. Given current sea level rise projections, this elevation would reduce regular inundation of the trail but would likely still leave the trail vulnerable to higher tides and storm events.

   The Board should advise on whether the project sponsors should address the impacts of future sea level rise on public access now, as part of the proposed project, or in the future through continued maintenance of the public access areas.