

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

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TO: Commissioners and Alternates
FROM: Will Travis, Executive Director (415/352-3653, travis@bcdc.ca.gov)
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SUBJECT: Briefing on Redwood Shores Peninsula Levee Improvement Project
(For Commission consideration on November 5, 2009)

Background and Recommendations

On March 1, 2010, the Federal Emergency Management Agency (FEMA) will implement new 100-year flood certification requirements. To meet those federal requirements, the City of Redwood City, which is acting as the primary project proponent on behalf of four separate permit applicants, proposes to raise and fortify approximately five miles of levees at the Redwood Shores peninsula (Exhibit A). The project, as proposed, would involve amending four separate BCDC permits by the end of 2009 to avoid assessing the residences of the Redwood Shores peninsula additional flood insurance (Exhibit B).

The Commission's regulations allow these amendment applications to be processed in a number of ways. While all four amendment requests could potentially be processed administratively, due to the size, scope and various approaches associated with the proposed projects, the staff is seeking guidance from the Commission on how to process these amendments. All of the permit applications are incomplete and, thus, not filed. Therefore, the Commission will not act on the proposed permit amendments at its November 5, 2009 meeting.

Staff recommends including each of the proposed permit amendments on the Commission's Administrative Listing at a future date to provide the Commission and the public with the opportunity to review and comment on the projects before the amendments are issued. The staff further recommends that if the U.S Fish and Wildlife Service determines that the City of



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Redwood City project (Project No. One) or the County of San Mateo project (Project No. Three) would adversely impact threatened or endangered species under the Endangered Species Act, these projects should be processed as material amendments requiring a public hearing and Commission vote. Further, if it is determined that the sheet pile wall project (Project No. Two) is located within the Wildlife Refuge Priority Use Area, the staff believes that this project should also be processed as a material amendment.

Because of the cumulative scope of the four proposed levee projects, the public will be given an opportunity at the November 5, 2009 meeting to comment on the staff's intended approach.

Project Details

The proposed levee improvement projects would occur along approximately five miles of shoreline in the Commission's Bay and shoreline band jurisdictions. The proposed levee improvements would implement five different design approaches, including: (1) placing earth material at existing levees; (2) creating earthen berms at the bayward edge of existing levees; (3) installing a vinyl sheet pile wall along the bayward edge of one existing levee; (4) installing a concrete wall at one levee; and (5) deploying a temporary device—similar to a water-filled rubber bladder—during 50- to 100-year storm events (Exhibit C). The overall project goal of improving the levees would be achieved through amending four separate Commission permits for the individual projects described below.

Project No. One. The City of Redwood City and Keech Properties, LLC propose to place earth material along an approximately 3.5-mile-long section of shoreline adjacent to the three sloughs at the project site. Within the Commission's Bay jurisdiction, the City proposes to raise the levee by placing approximately 80 cubic yards of fill at an approximately 1,742-square-foot area of marsh, and restore the area to marsh habitat after the levee is raised. Within the Commission's 100-foot shoreline band jurisdiction, approximately 6,500 cubic yards of earth material would be placed at an approximately 450,000-square-foot area, portions of which are located within a Wildlife Refuge Priority Use Area designated in the *San Francisco Bay Plan*. Along this section of the shoreline, two different approaches are proposed: (1) raising sections of the entire levee between 6 and 30 inches (Exhibit D), and (2) creating 1- to 3-foot-high berms along the outboard side of the levee (Exhibit E). These two approaches would maintain all existing public access trails. Because portions of this project are within the Commission's Bay jurisdiction and in a Wildlife Refuge Priority Use Area, Commission staff is consulting with the U. S. Fish and Wildlife Service (USFWS) to determine if it would result in any adverse environmental impacts.

Project No. Two. The South Bayside System Authority (SBSA) proposes to install a five-foot-high, 1,538-foot-long vinyl sheet pile wall at the bayward edge of an existing levee and place approximately 6 inches of earth material at an approximately 13,842-square-foot area of a levee maintenance road within the 100-foot shoreline band. According to the applicant, the sheet pile wall would provide flood protection for the 100-year tidal event (7.2 feet above Mean Sea Level) and protect against wave run-up and future sea level rise (12 feet above Mean Sea Level). Also, the wall eliminates the need for a significant amount of solid fill on the levee top to offset settlement that would occur over time. Additionally, if solid fill were placed on the levee,

marsh habitat within the Commission's Bay jurisdiction would be impacted, an existing 66-inch outfall pipe would mostly likely fail due to the additional weight of the material, and the SBSA storm water detention pond to the south of the levee would need to be filled, thereby impacting its capacity to treat stormwater during storm events.

In 2004, due to the presence of the endangered California clapper rail, the salt marsh harvest mouse, and other special-status species, and after consultation with the USFWS, the area where the sheet pile wall is proposed was closed to public access. Therefore, the proposed project would not affect public access. SBSA has stated that if the endangered species were ever delisted, it would provide public access along the levee via an elevated boardwalk, which would allow the public to view the Bay over the proposed sheet pile wall. At this time, no further details have been provided to the Commission's staff regarding this proposal.

Currently, Commission staff is determining if this portion of the levee is located within the Commission's Wildlife Refuge Priority Use Area designated in *Bay Plan* Map No. 6. If the levee is within the Priority Use Area, staff will consult with the USFWS in order to better understand the potential impacts of the sheet pile wall on nearby wildlife. The applicant initiated a consultation with the USFWS earlier this year, which stated that the proposed project may adversely affect the California clapper rail and the salt marsh harvest mouse.

Project No. Three. San Mateo County proposes to utilize three different approaches to raise the levees at the San Carlos Airport to meet FEMA's standards. Within the Commission's Bay jurisdiction, an approximately 1,700-foot-long temporary fiber roll and silt fence would be placed on the in-board slope of a levee to avoid impacts to the adjacent marsh habitat. Within the 100-foot-shoreline band, the following activities would occur: (1) a 4,000-foot-long section of levee would be raised between six and 30 inches by placing approximately 1,500 cubic yards of earth material; (2) an approximately 150-foot-long, one-foot-high concrete wall would be constructed at the bayward side of the levee (Exhibit G); (3) landscaping would be replaced; and (4) a portable "closure device" would be temporarily deployed across the top of a 575-foot-long section of the levee during 50 to 100 year storm events. These various approaches are proposed to maintain the existing airport access road along the shoreline and to avoid impacts to the existing airport runways. Due to the presence of the San Carlos Airport, there is no public access along this section of the shoreline. San Mateo County submitted a permit application to the U.S. Army Corps of Engineers, which triggered consultation with the USFWS to review potential impacts of the proposed project to the California clapper rail and the salt marsh harvest mouse.

Project No. Four. Within the Commission's 100-foot shoreline band, the City of San Carlos and the EOP Trust propose to place fill on an approximately 660-foot-long section of the levee using two different approaches: raising sections of the entire levee by 6 inches to 1.5 feet and creating 1- to 4-foot-high berms along the outboard side of the levee. Once complete, the project would not affect the width and length of the existing BCDC required public access.