

***Marin County Flood Control and Water Conservation District***

**FLOOD ZONE 4 ADVISORY BOARD MEETING**  
**FEBRUARY 26<sup>TH</sup> 2013**

**STAFF REPORT**

**Item 1. Approval of Meeting Minutes for June 5, 2012**

**Recommended Action:** Approve minutes.

**Item 2. Open Time for Items Not on the Agenda**

Comments will be heard for items not on the agenda (**limited to three minutes per speaker**).

**Item 3. Annual and Preventive Maintenance Program**

a) Pump stations

In 2012, three pumps were serviced as described below.

- Cove Pump Station - Back-up Pump: The back-up motor and pump were both reconditioned at this station. No unusual wear and tear on this equipment. Maintenance requirements were as expected.
- Strawberry Circle Pump Station – Pumps No.1 & 2: Both submersible pumps and motors were reconditioned at this station. Based on experience with the same type of pump in Santa Venetia, the District expected little work would be required. However, when the pumps were removed from the wet well, considerable wear was evident. This may have been the result of rocks, sand, and/or saltwater infiltration into the wet well. The deteriorated parts, including the impellers and ring inserts, were replaced and upgraded with especially hardened steel parts. The total cost for maintenance and repair was under the \$20,000 budgeted for the work.

Since pump maintenance occurred, follow-up measures were taken to protect and improve the zones pump stations:

- Tidewater intrusion into the Strawberry Circle Pump Station has been substantially reduced by plugging an abandoned pipe that penetrates the wet well. In addition, maintenance of tide gates inside existing drainage pipes on Strawberry Circle is being investigated to determine maintenance options to reduce tidal inflows into the system.
- During the November storm this fall, high-water alarms combined with overheating motors indicated a problem with the Cove Pump Station. To address this situation, leaves were cleared from the intakes and the mesh spacing of the strainer baskets widened to allow leaves to pass through and reduce future clogging. No problems have been observed since then.

b) Creek Maintenance

Prior to the winter season, the Conservation Corps North Bay performed annual vegetation maintenance in East and West Creeks and at the Karen Way Trash Rack. The East Creek access road was mowed. The orange Water Inflated Property Protector (WIPP) bags along the Blackfield Dr. side of West Creek were reinstalled this season. The WIPP bags were intended as a temporary flood control measure not as a long term solution.

The erosion that was reported to your Board on the right bank of West Creek looking downstream from Cecilia Way at the end of the sackrete wall appears to be stable for now. Stabilization of the bank was

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intended to be included as part of the West Creek Flood Control Improvement project. Staff recommends waiting until the Watershed Program studies are completed before initiating a new project in West Creek. The situation will continue to be monitored.

In June the Advisory Board asked about trash racks on Reed Ranch Road. These racks are the responsibility of the Town of Tiburon to maintain and are on their regular maintenance and monitoring schedule. Any problems may be reported to the Town or District.

### **Item 4. FEMA Map Revisions**

FEMA is updating their Flood Insurance Rate Maps (FIRMs) for coastal, tidally influenced areas in Richardson Bay, including Bel Aire and Strawberry. According to the FEMA schedule, the coastal analysis and floodplain mapping of preliminary FIRMs will be released in September 2013 and a public meeting will be held in October 2013. The schedule also indicates the new FIRMs would likely become effective in March 2015. For more information see FEMA's website:

<http://www.r9map.org/Pages/San-Francisco-Coastal-Bay-Study.aspx>

### **Item 5. Project Status Update**

#### a) Watershed Program

##### *Background*

The Southern Marin Watershed Program is a collaborative effort of the City of Mill Valley, the County of Marin, and Flood Control Zones 3 and 4. The purpose of the Program is to provide a framework to integrate flood protection and environmental restoration with public and private partners to protect and enhance Marin County's watersheds and to identify solutions that will enhance and protect the diverse habitat of the lands that drain into Richardson Bay.

##### *Feasibility Study to increase level of flood protection*

The Flood Control District investigated the feasibility of removing Pamela Court from the FEMA Special Flood Hazard Area (SFHA) in 2011 through construction of a floodwall along West Creek in Tiburon as an independent Flood Control Zone 4 project. It was found that FEMA included this area in the SFHA due to the chance of tidal inundation from Richardson Bay waters crossing CalTrans' Tiburon Blvd (i.e. coastal flooding), rather than riverine flooding from West Creek overtopping its banks. Therefore the Flood Control District decided that an effort to remove homes from the SFHA would be better pursued through the Watershed Program which has been developing strong partnerships with other organizations and has greater likelihood of obtaining outside funding for a project of this magnitude.

Through the Watershed Program in 2013 and 2014, staff will investigate the feasibility and costs of various measures to improve flood protection in Flood Control Zone 4. One measure to be considered is a tidal barrier along Tiburon Blvd and associated improvements to creek crossings at East and West Creeks. It is anticipated that issues with intersections and driveway access across the tidal barrier would have to be addressed. Capacities and operation of existing pump stations will also be assessed and potential improvements identified. Additionally, wetland restoration opportunities near Strawberry Elementary School and bank stabilization on West Creek will be explored.

Evaluation of the tidal barrier measure will include a review of the FEMA map revisions mentioned above in order to address changes to the extent of flood inundation identified therein. However, FEMA does not consider future sea level rise in their flood mapping efforts. Therefore for our planning purposes, impacts from sea level rise will be evaluated using the new Sea Level Rise GIS tool created

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by PRBO (Point Reyes Bird Observatory), an organization that researches conservation science and Sea Level Rise impacts. Using this information a conceptual assessment of the feasibility and costs for various flood protection measures will be completed. Coordination with FEMA, CalTrans, and the Town of Tiburon will be required to complete the feasibility analysis and cost estimates.

### *Other Current and Upcoming Tasks*

The recent Golden Gate Light Detection and Ranging (LiDAR) Project provides an improved topographic survey dataset for the Southern Marin watershed. This dataset will be used to update our hydrology modeling for selected watersheds. The Golden Gate LiDAR project was a grant funded collaborative effort between the US Geological Service and San Francisco State University.

### b) West Creek Flood Control Improvements

The West Creek Flood Control Improvement Project, to be located between Tiburon Boulevard, Via Los Altos, Rancho Drive and Backfield Drive, was proposed to construct a floodwall and raise the access road along the creek in order to alleviate overbank flooding of properties along Blackfield Drive.

Since the last Advisory Board meeting on June 5, 2012, Eric Lueder of the County's Real Estate Division has been working to obtain the easements needed for the project to proceed. A final letter was sent out on January 7 to the property owners notifying them that they would need to donate the easements. Following this, Mr. Lueder followed up by telephone and in person with the property owners that had either not replied to the letter or had indicated they were unwilling to donate easements. Six of the nine property owners along the project reach have expressed a willingness to donate easements; however three centrally located property owners are not willing to donate easements. Staff recommends that the project be halted until such time that all the easements are donated to the District to allow construction and maintenance of the proposed improvements.

The existing drainage easement along West Creek only provides access to maintain the "free and natural flow" of the creek and therefore the District will not continue to maintain any sand bags and WIPP bags along the creek.

**Recommended Action:** Recommend that the West Creek Flood Control Improvements Project be halted until all easements required to implement the project are donated.

### **Item 6. Next Meeting**

Schedule the next meeting of the Zone 4 Advisory Board. The bylaws specify that the next meeting be held on June 4, 2013.