

Marin County Flood Control and Water Conservation District

FLOOD CONTROL ZONE 1 ADVISORY BOARD MEETING

FEBRUARY 9, 2017

STAFF REPORT

Item 1. Closed Session

Conference with Legal Counsel - [Anticipated Litigation](#)

Item 2. Approval of Meeting Minutes: December 8, 2016

Recommended Action: Approve minutes.

Item 3. 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 4. Grant Programs Progress

a. **FEMA Hazard Mitigation Grant Program Funding (HMGP) – Home Elevation Grant Submittal:**

The District submitted an application in June to raise 89 homes across the County, including several homes in Novato, with assistance from FEMA's HMGP grant funds. The project is currently undergoing environmental review by FEMA. Note: due to a \$4 million funding cap, not all homes will receive funding under this current grant cycle.

b. **Flood Emergency Response Program (FERP) Grant:**

The FERP Grant has been awarded by the Department of Water Resources (DWR) and a contract was signed in August 2016. The District has upgraded all nine (9) of its existing stream and rain gages to ALERT2 protocols throughout the County. The grant also includes two new rain gages for Zone 1 and sites tentatively are Ignacio and Upper Novato Creek. A new stream gage is also included in the grant and a site is tentatively identified for Ignacio Creek.

As a side note, District Staff is evaluating two new tide gages in Novato Creek at yet unidentified locations upstream and downstream of Highway 37. These gages would not be covered by this grant and will likely be part of the next year's budget.

c. **Local Levee Assistance Program Grant:**

In March of 2015, the District applied for a Local Levee Assistance Program (LLAP) grant through the Department of Water Resources (DWR) to conduct geotechnical levee evaluations of the Novato Creek levees between state Highways 101 and 37. The District is proposing to modify the original grant application to include the eastern Pacheco Pond border levee under this Grant.

The District is in process of finalizing the contract with DWR. Our goal is to conduct the field work this summer. However, the schedule depends on the DWR contracting process.

Item 5. Zone Engineer's Report

a. **Post Storm Report**

- Novato Creek overall did not experience wide spread overtopping in the December 2016 and January 2017 storms. We believe that by completing the quadrennial sediment removal, artificial breaching of the erodible weir downstream of the SMART bridge was not needed.

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- There was reported flooding at Armstrong Mobile Home Park off of the Rush Creek drainage.
- Inspection of the Nave Gardens neighborhood during the January 7-10 storms revealed that portions of the streets contained storm water up to the curb or slightly above, but did not identify any structural flooding of buildings. Upon making a post-storm follow-up site visit and speaking with three neighborhood residents, none of the three were aware of building flooding.
- Water levels within the western Deer Island Basin appeared to be higher and more prolonged than in past storm events following the dredge sediment placement work this summer. Deer Island Basin and associated drainage facilities are being evaluated as part of the Deer Island Flood basin Final Design to determine any new water accumulation and/or drainage changes to the area.
- The Highway 37 flooding and subsequent closure that occurred early in January was due to high water in Novato Creek and subsequent overtopping of Caltrans levees at the Highway 37 bridge over the creek, as well as potential backing up of highway drainage facilities. The cause of the high water can be attributed to a combination of, (1) three consecutive intense storms, (2) high volumes of run-off from saturated soil conditions and, (3) king tides. Caltrans placed two portable pumps on the northwest Highway 37 levee and pumped the accumulated water into Cheda Creek, which in turn gravity fed to Lynwood Basin where the District's Lynwood pumps transferred water into Novato Creek. District staff met with Caltrans in mid-January 2017 and discussed possible short term solutions that can be implemented by Caltrans to partially reduce this recurrent flooding.

In late January, the second Highway 37 closure was caused by flooding from a combination of the same Caltrans levees overtopping, excessive run-off from saturated soils and a private levee breach along Novato Creek within the Leveroni property (south of Highway 37 Bridge). District staff will continue to be available to Caltrans for short term solution advice and will be helping the Leveroni's with processes involved with repairing the levee.

b. Deer Island Flood Basin Final Design Contract

In May 2016, the BOS awarded Schaaf and Wheeler (S&W) the contract to prepare a final design and plans and specifications for construction of the Deer Island Flood Basin overflow weir. The work is proceeding with an updated working hydraulic model using the new 1D/2D USACE program HEC-RAS 5.0. Three draft project deliverables were received in November 2016 (hydraulic design report, geotechnical data summary report and a draft wetlands alternatives evaluation report), which are being reviewed by staff. The geotechnical alternatives design report has not been received but it should be submitted by the February meeting. A more detailed presentation is planned for the next Flood Zone meeting following the February meeting.

Item 6. Update on Possible New Projects

This section provides an update on potential studies that staff recommends to support Zone 1 operations and maintenance. If the Board recommends one or more of these studies then the next step will be to prepare a Request for Proposal to solicit consultant cost estimates for implementation.

a. Pacheco Pond Water Quality and Flood Storage Improvement Hydraulic Study

The District completed a hydrographic survey of Pacheco Pond in May 2016 in preparation for a request for proposals for modeling to evaluate potential improvements to Pacheco

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Pond. Potential improvements would address flood capacity and water quality (reduce ongoing odor issues) while maintaining and enhancing habitat. The plan is to add Pacheco Pond into the new hydraulic model being built by Schaaf and Wheeler (S&W) for main-stem Novato Creek as part of the Deer Island Flood Detention basin design project. Given the status of the S&W hydraulic model, which is still being developed, we now anticipate soliciting proposals in the Spring/Summer of 2017. We will present more details on the Study purpose along with a preliminary assessment of likely Consultant costs to perform this work. The proposed work is building on previous work done for the Pond, including the Pacheco Pond Water Management Plan developed in 2014.

b. Simmons Slough Drainage Study and Pump (Big Bertha) Replacement Update

The semi-portable pump that has served Simmons Slough has failed and needs a full motor replacement and other repairs. Temporary portable pumps will be staged for the remainder of this season. District staff is planning to meet with Novato Sanitary District (NSD) staff to discuss options for implementing a plan to add a permanent replacement pump station near the existing NSD pump station.

Staff will present a conceptual scope and anticipated cost ranges for an H&H study of the Simmons Slough drainage area. The study will extend to the Olive and Atherton roadways that have recently experienced road closures due to flooding and include the drainage system that extends down to the new permanent pump replacement for Big Bertha.

c. Rush Creek and North Railroad Drainage Ditch Study

The recent January 2017 storm events resulted in flooding within Armstrong Trailer Park and Golden Gate transit. This study would focus on the entire Rush Creek and Railroad ditch drainage areas including the Zone 1-owned tide gates at Cemetery Marsh outlet. This drainage system is complicated because it includes multiple property owners such as Caltrans, Audubon Society, the State of California, the Flood Control District and SMART. A potential scope and approximate budget will be presented at a future meeting for AB input.

d. Baccaglio Basin to Scottsdale Pond Flood Improvement Study

The flood reduction benefit for Scottsdale Pond was evaluated through the Novato Watershed Study and limited benefits were identified. However, the Study on perform a limited evaluation of the range of potential solutions or improvements and their costs and benefits. Therefore, District Staff recommends conducting a study that does a focused H&H evaluation of this area owned by the District and the City. The evaluation will further assess how additional flood reduction benefits may improve conditions in nearby areas of significant flooding. Staff will present the draft concept scope and approximate cost range for this focused study at upcoming AB meetings.

e. Pacheco Pond Levee Evaluation/Repair

District staff has made an initial assessment of the eastern boundary levee and is in the process of determining if its evaluation can be added to the LLAP Grant.

f. Encroachments on District-owned Land

Periodically staff has responded to evidence of private property owners encroaching on District-owned land. These encroachments can have an impact on the Zone's creek maintenance program as well as the potential to impair creek conveyance and flow. In lieu of handling these issues as they arise, which can impact staff time, a comprehensive analysis of critical creek reaches throughout the Zone may be prudent to identify all encroachments. District staff will be formulating a plan and present it to the AB for review and comment.

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Item 7. Zone Funding

The Watershed Program Policy Advisory Committee recommended proceeding with a special tax election in November 2017. The purpose of special tax funding could include:

- Better utilize District- and County-owned lands in the lower watershed for flood control and habitat restoration
- Improve water quality in creeks, streams and the Bay
- Restore marsh habitat for birds, fish, and wildlife
- Reduce roadway flooding
- Upgrade levees, pump stations, and other flood protection facilities
- Partner with City of Novato to improve stormdrain functioning
- Continue and enhance the partnerships formed by the Novato Watershed Program
- Leveraging local funding to attract grants
- Integrate sea level rise adaptation into Zone projects

Item 8. Zone Education and Outreach Plan

Polling consultant Bryan Godbe recommended additional outreach and education about the needs and benefits of flood control and habitat restoration projects within Zone 1, especially in the lower Novato Creek watershed.

Recommended Action: Create an ad-hoc subcommittee of two Advisory Board members, working with District staff, to develop and implement a Zone education and outreach plan.

Potential outreach strategies could include the following:

- Online community surveys
- Increasing understanding of Zone residents about flood protection facilities and funding needs via watershed hikes co-sponsored with Marin County Parks, levee walks, pump station open houses, and landowner workshops for levee/gopher/vegetation control, and
- Participation in on-going community events such as Novato's Festival of Art, Wine and Music and the annual July 4th Parade.

Item 9. Schedule 2017 Meeting Dates

District Staff proposes the following 2017 Advisory Board meeting schedule:

April 6, 2017

August 3, 2017

November 2, 2017

Item 10. Adjourn