

**FLOOD CONTROL ZONE 1 ADVISORY BOARD MEETING**  
**NOVEMBER 16, 2017**

**STAFF REPORT**

**Item 1. Welcome New Advisory Board Member**

Gary Butler, appointed 8/22/17 by District Board of Supervisors

**Item 2. Approval of Meeting Minutes: August 3, 2017**

**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. Results of Zone Parcel Tax Revenue Measure**

Measure E, the Novato Watershed Restoration and Flood Protection Measure, was placed on the November 7, 2017 ballot. Ballot results will be discussed.

**Item 5. Grant Programs Status**

The following is an update of the Zone's active Grant Programs

	<b>Project Name</b>	<b>Granting Agency</b>	<b>Grant Amount</b>	<b>Date</b>	<b>Grant Status</b>
a)	Marin County Home Elevation Program	FEMA/Cal OES	\$2 M	Applied 2016	Project in NEPA review, (award decision within the next year)
b)	Lynwood Pump Station Improvement Project	FEMA/Cal OES	\$2.42 M	Applied 2017	Application in CAL OES review
c)	HWY 37 Adaptation Planning	Caltrans	\$411 K	Applied 2017	Application in Caltrans review
d)	Deer Island Basin Tidal Wetlands Restoration Project	Measure AA SF Bay Restoration Authority	~\$700k	Preparing Application, due 11/15/17	Not yet submitted
e)	Simmons Slough Water Management System Project	Dept. of Water Resources (DWR)	\$1.45 M	Awarded 2016; approved "migration" in September 2017	Successfully migrated grant funds to this project. In process, See Item 6, Project Updates a)
f)	Flood Emergency Response Project	Dept. of Water Resources (DWR)	\$30k	Awarded 2016	In process, See Item 6, Project Updates b)
g)	Local Levee Evaluation	Dept. of Water Resources (DWR)	\$403 K	Awaiting signed grant	In process, See Item 6, Project Updates c)

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### a) FEMA 2016-2017 Hazard Mitigation Grant Program – Home Elevation Program

The Marin County Structure Elevation Program is a proposed grant program whereby individual homeowners can raise their homes above the FEMA base flood elevation with up to 75% of their eligible costs reimbursed by the federal government. An application for this project was submitted in June 2016 (based on a 2015 disaster declaration), and is currently under FEMA's environmental and historic review which is expected to be completed within the next 6 months. This project is likely to be funded by FEMA for the 2015 disaster, and is expected to be ongoing with additional funding rounds to be available due to additional disasters declared in 2017. Over 90 homeowners have expressed interest county-wide, but it is anticipated that only about 10 will be able to be funded in each grant round. One homeowner in unincorporated Zone 1 is likely to be offered funding in the next few months. Homeowners who are interested in participating in future opportunities may contact Hannah Lee at [hlee@marincounty.org](mailto:hlee@marincounty.org). Hannah will provide more specific updates to homeowners as more information becomes available.

### b) Cal OES/FEMA 2017 Hazard Mitigation Grant Program –Immediate Needs- Lynwood Pump Station Improvement Project

This grant was submitted by staff to Cal OES for the Lynwood Pump Station Improvement Project on June 15, 2017. Staff has responded with additional supporting documentation for requested maintenance records and additional data and references to support benefit/cost assumptions. Staff is currently awaiting Cal OES review and approval to forward grant application on to FEMA for consideration of funding. If awarded, the required cost share match from the Flood Control Zone 1 would be \$605,268, which represents 25% of the total estimated cost of \$2,421,070. A match commitment letter was submitted indicating \$630,000 was available in our budget to cover the 25% match plus additional funding for construction contingency. No action is required of the Advisory Board at this time.

### c) Caltrans HWY 37 Adaptation Planning Grant

The County worked with the Transportation Authority of Marin (TAM) to prepare a grant application to Caltrans under this planning grant program for improvements to infrastructure related to Highway 37 adjacent to Novato Creek with a goal to reduce roadway flooding. The Transportation Authority of Marin has committed to providing \$24,000 in matching funds; however, a total of \$48,000 of matching funds will be required if awarded the grant. It is our understanding that we will be notified if we are successful in early 2018.

**Recommended Action:** Recommend the authorization of matching funds in the amount of \$24,000 from Flood Control Zone 1 (FCZ1) budget to use for the Grant if awarded.

### d) Measure AA SF Bay Restoration Authority- Deer Island Basin Tidal Wetlands Restoration Project

District staff is preparing a grant application to Measure AA for final design, preparation of plans and specifications for construction and final permitting for the Deer Island Basin Tidal Wetlands Restoration Project currently in 30% design as described below. Proposals are due November 15<sup>th</sup>, 2017. It is our understanding that applicants will be notified if their projects are successful in early 2018. Note that at the time of preparation of the staff report the results from Measure E are not known. If Measure E passes, staff will add \$100,000 to the grant application which will increase our chances of success. If Measure E does not pass, then the match will be limited to some staff time and no local match, thereby potentially affecting the overall chances of success in obtaining the grant. If awarded this grant, additional funds will need to be identified for construction.

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### e) DWR IRWMP Simmons Slough Water Management Grant

The District has been notified that the Bay Area Integrated Regional Water Management Plan (IRWMP) sub-committee has authorized the migration of the \$1.45M California Department of Water Resources (DWR) grant, originally intended to construct a weir at Deer Island Basin along with wetland enhancements in the watershed to the Simmons Slough Water Management System project. See project updates below under Item 6, Project Updates a).

## **Item 6. Project Updates**

See the April 13, 2017 Staff report and minutes for additional background and more details on these projects. Updates are provided below.

### a) Simmons Slough Water Management System

We have developed a final scope and budget with Wood-Rogers to finalize the design work and prepare plans and specifications for construction and permitting for the final system. The scope of work includes project management and monthly status reports, an alternatives analysis, and development of the selected alternative to 100% plans with project specifications and cost estimates for construction. A biological avoidance and minimization memorandum, biological technical report, wetland delineation, and cultural resources evaluation will be developed by WRA as a sub-consultant to Wood Rogers. District staff will be doing final CEQA which is assumed to be a mitigated negative declaration. We currently plan to go to the District Board of Supervisors (BOS) on December 5, 2017 to award the contract to Wood-Rogers. The \$1.45 million available under the grant for construction still requires completion by 2019.

### b) Flood Emergency Response Program (FERP)

The FCZ1 Advisory Board recommended approval of an additional \$10,000 to cover expenses to install an additional tide gage during the August 3, 2017 meeting. Staff is working on obtaining final vendor quotes and access agreements for the new rain, stream and tide gages. It is currently unclear if the new gages will be installed in time for this winter. We hope to provide an additional update at the zone meeting.

### c) Novato Creek Levee Evaluations

This grant is under the DWR Local Levee Assistance Program (LLAP), and includes the evaluation of the Novato Creek levees between Highway 101 and Highway 37, the left bank levee downstream of Highway 37 and the eastern Pacheco Pond levee. Staff is preparing a Request for Proposals (RFP) from qualified consultants to perform the work. We anticipate soliciting proposals by early 2018 with an award in spring 2018 and commencement of geotechnical field work in summer 2018. Note that staff has not received the fully executed grant agreement from DWR at the time of this staff report.

### d) Deer Island Basin Tidal Restoration Project – 30% Design

The scope of the original contract with Schaaf & Wheeler for the “former” North Deer Island Flood Detention Basin and Weir Design has been modified to achieve an end goal of preparing a 30 percent design report and plans that are a grant-ready (e.g. Measure AA) preliminary design for a potential levee setback and tidal wetland restoration project in Deer Island Basin. Design work is underway and expected to be completed by early 2018 within the existing budget.

### e) Rush Creek and North Railroad Drainage Ditch Study

This project was identified by the Advisory Board as a secondary priority after the Simmons Slough Water Management System. Staff, the City of Novato, and Caltrans have each sent letters to the primary property owner in the lower Rush Creek area (east

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of Binford Road), the California Department of Fish & Wildlife (CDFW), requesting their cooperation and participation in the study as well as partnering on future maintenance activities. At the time of this staff report, no response has been received from CDFW. A request for proposals for an engineering design study of water management options in the Rush Creek drainage area will be released by early 2018. We anticipate awarding the contract in spring 2018. Water level gages that were placed in Rush Creek last winter will provide helpful data to the to-be-selected consultant.

f) Rush Creek Tide Gate Repairs

The Marin Sonoma Mosquito Vector Control District brought to District staff attention that one of the existing tide gate structures for Rush Creek marsh behind the Valley Memorial Park Cemetery had failed. Questa Engineers was selected to quickly assemble a scope of work and informal bid to facilitate repairs for this structure, but despite several interested Contractors that were contacted, none submitted a cost proposal. District staff utilized the very low tide window in September to plug the outfall with an inflatable device, and will continue to monitor the outfall until a repair is scheduled or the Rush Creek drainage study is completed.

### **Item 7. Zone Engineer's Report**

The following is an update of the Zone's annual and preventive maintenance work program and storm damage repair efforts.

a) End of Year Creek and Facility Maintenance Review

1) Creek/ Vegetation Maintenance

All of the planned vegetation maintenance activities have been completed (see 08/03/17 Staff Report Item 4.b)

2) Sediment Removal

Sediment removal was completed at the following locations:

- Vineyard Creek at Center Road
- Rush Creek ditch network\* upstream of the Highway 101 right-of-way

\*Zone 1 managed the coordination between Caltrans, City of Novato, North Marin Water District and our own District-maintained reach for vegetation removal within the Rush Creek drainage ditch network from Golden Gate Place north to the Highway 101 crossing.

Downstream of the County's Binford Road right-of-way, the issue of lack of channel maintenance was brought to the attention of CDFW, the property owner, by a letter sent by District staff on 10/20/17 (see Item 6.e.).

3) Pump Maintenance

Individual pumps and motors are scheduled for major maintenance on a six year interval at each of the zone's three stations. In addition to major maintenance, preventive maintenance at all pump stations also takes place every year and includes the inspection, testing, and as needed replacement of electrical and mechanical components. Below are highlights for each pump station in which work was completed this summer.

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- Simmons Slough Pump: Has been disassembled, removed, inspected, repaired, and reinstalled. The existing pump is operational, but due to environmental requirements is only to be utilized for emergency pumping or auxiliary pumping needs.
- Simmons Slough Pumping/Shared use with Novato Sanitary District Update  
On October 24, 2017 a Statement of Proposed Action was sent to the Flood Zone 1 Advisory Board Members. As staff have not been notified of any objections, the Simmons Slough flows will be directed to the Novato Sanitary District (NSD) Pumps #3 and #7 as needed this winter season once the Memorandum of Agreement between the Flood District Zone 1 and NSD is approved as scheduled for 11/13 with the NSD Board, and for 11/14 with the District Board of Supervisors. The Flood District will maintain a log of use for the existing drainage gate that directs flows to Pump #3, and cover the expense of additional electricity use per month above and beyond the historic monthly 5-year usage of these facilities. The agreement also includes the possibility of using a portable generator and additional rented portable pumps if necessary, but this is not anticipated.

As reported at the August 3, 2017 AB Meeting, Federal Emergency Management Agency (FEMA) is still reviewing approximately \$125,000 in invoices for mobilizing, renting, fueling, and operating the 3 portable pumps as a back-up to the Simmons Slough Pump which failed during the January storms (Federal Disaster Declaration number 4301-DR-CA). The District is still awaiting confirmation that FEMA will reimburse these costs.

- Cheda: Commercial Pump & Mechanical (CPM) removed and refurbished both pumps at the Cheda Pump Station this summer. The pumps were removed on June 28 and re-installed on October 2<sup>nd</sup>.
- Lynwood: Bartley Pump installed a new motor on pump #3 on August 22, 2017. The need to replace this motor was reported to FEMA as part of the January federal emergency declaration. A total repair/replacement cost of \$24,050 has been submitted to FEMA for reimbursement under Declaration Number 4301-DR-CA. There is not a guarantee that the costs will be reimbursed. However, the County of Marin had an insurance policy covering equipment damage for the Lynwood Pump Station, and the Zone received a claim reimbursement of \$19,050 (total amount minus a \$5,000 deductible) in September.

CPM removed and refurbished pump #2 plus its motor on August 8, 2017. During the removal, the support beams for the #2 pump were in such poor condition that they required replacement, and this work delayed the re-installation of the pump, which is now scheduled for November 20, 2017. This is a very large pump that requires a larger crane than is typically used for major preventive pump maintenance, and divers to connect the fittings under water.

- Farmer's: Bartley Pump repaired the Farmer's pump which had seized up due to debris and corrosion, and is now in good working condition.

#### 4) Monitoring Equipment

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The Novato Creek stage and rain gauge were upgraded to ALERT2 under the Department of Water Resources' Flood Emergency Response Project (FERP) grant earlier this year. Planning is underway to expand the District's gauge network. All gauges have been inspected and maintained in preparation for the upcoming rainy season. Stream and rain data are available at [www.marin.onerain.com](http://www.marin.onerain.com).

### 5) Levees

In response to significant erosion, cracking, and slumping which were observed on the levee system between Deer Island Basin and Lynwood Basin following last year's storms, and a visual inspection and GIS mapping of sites to monitor, staff consulted with Hultgren Tillis Engineers for their repair/remediation recommendations. These recommendations included removal of the 2016 Novato Creek dredged sediment stockpiles, which were placed along the top of the Lynwood Levee. The stockpiles were removed and mixed with additional earthen materials, placed and compacted along the western edge of Heron's Beak Pond in two reaches between the Cheda Creek Pump Station and the northerly extent of the pond where the most severely eroded sections were identified (508 LF & 580 LF respectively) to reconstruct the levee embankment in a more stable configuration. Work was completed for this season by October 13<sup>th</sup>, and the District plans to continue stabilization efforts in 2018 as well.

A longitudinal crack was observed along the easterly Novato Creek levee between Novato Creek and Deer Island. Hultgren Tillis Engineers provided recommendations, and the District will continue to monitor this site through the winter.

Damages to the Novato Creek levees described above were also reported to Cal/OES and FEMA as part of the Declaration Number 4301-DR-CA. Staff submitted expenses totaling \$5,430 related to repairs of a levee breach on the Novato levee between the northern end of Heron's Beak Pond and Novato Creek last winter. In addition, staff will be submitting expenses to FEMA related to the repairs to the Lynwood Levee described above. The total cost of these expenses is not available but is estimated to be approximately \$50,000.

Long-term solutions for levee repairs will be identified through the Department of Water Resources' (DWR) grant for Local Levee Evaluation in 2018.

### **Item 8. Community Rating System (CRS) Program Update**

The Community Rating System (CRS) is a voluntary program for National Flood Insurance Program (NFIP) participating communities. The goals of the CRS program are to reduce flood damages to insurable property, strengthen and support the insurance aspects of the NFIP, and encourage a comprehensive approach to floodplain management. The County entered into the CRS program for the unincorporated communities in order to earn its property owners flood insurance premium discounts for the County's implementation of floodplain management practices that exceed the minimum requirements of the NFIP. The County was initially rated as Class 7, but has been working with FEMA to move to class 6, increasing the discount to property owners from 15% to 20%. This increased discount will take effect when individual policies renew after May 2018. The Flood Control District encourages unincorporated area property owners to ask their insurers to prove that they received the CRS discount of 20%. For reference, the NFIP community identification number in Marin County is 06041C.

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The following cities and towns are participants:

<b>Jurisdiction</b>	<b>CRS Rating</b>	<b>Insurance Discount</b>	<b>CRS Program Entry Date</b>
County of Marin	6 (effective 5/1/2018)	20%	5/1/2016
Town of Corte Madera	7	15%	10/1/2003
City of Novato	6	20%	10/1/1995
Town of San Anselmo	9	5%	5/1/2016
Town of Ross	8	10%	5/1/2015
Town of Fairfax	10	0%	N/A
City of Sausalito	10	0%	N/A
Town of Belvedere	10	0%	N/A
City of Larkspur	10	0%	N/A
City of San Rafael	10	0%	N/A
City of Mill Valley	10	0%	N/A
Town of Tiburon	10	0%	N/A

### **Item 9. Next Meeting Date**

The following regular Advisory Board meeting dates are tentatively scheduled:  
February 1, 2018