

Marin County Flood Control and Water Conservation District

FLOOD CONTROL ZONE 4 ADVISORY BOARD MEETING

MARCH 10, 2016

STAFF REPORT

Item 1. Election of Chairperson and Vice-Chairperson

Article VI of the Advisory Board's bylaws stipulate that officers of the Advisory Board be elected to a one-year term by a majority vote of the Advisory Board. There are two officers – chair and vice-chair.

Recommended Action: Elect chairperson and elect vice-chairperson.

Item 2. Approval of Meeting Minutes: October 21, 2015

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. Zone Engineer's Report

a. **FEMA Community Rating System (CRS) in Unincorporated Areas Update**

The FEMA CRS program is a voluntary program that provides discounts directly to property owners who are paying for federally backed flood insurance for actions taken by the County above the base level requirements of the federal flood insurance program. The County completed our application and audit with FEMA last spring. The results of the scoring by FEMA have just arrived, and the County has received a CRS rating of Class 7, which is better than anticipated. This class rating translates to a 15% discount directly to rate payers as their flood insurance policies renew after May 2016. Future implementation of additional community floodplain management activities that exceed minimum National Flood Insurance Program requirements could result in increased discount rates. The County will be continuously striving to achieve a better Class rating that provides a higher discount rate to its residents. While the result is good, it is important to note that FEMA continues to raise their flood insurance rates, therefore, individual property owners will still likely see their overall rates rise, just at a rate 15% less than otherwise. The County has no input or control over the Federal flood insurance rates or payments. The County's effort under this program only applies to residents in unincorporated areas.

b. **FEMA Hazard Mitigation Funding Opportunity**

Last fall, the California Valley and Butte Fires led to the declaration of a major disaster. As a result, the Federal Emergency Management Agency (FEMA) has made available hazard mitigation assistance to the State of California Office of Emergency Services (Cal OES). The District submitted notices of interest to use this funding for potential projects in Zone 4. Cal OES then reviewed all the notices of interest received across the state and selected ones most likely to attract hazard mitigation funding. As a result of this review, the District received an invitation for submittal of full applications for one project potentially affecting Zone 4 by June 2016. The project for the Advisory Board to discuss and potentially recommend is:

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Marin County Structure Elevation Program

This is a program whereby individual homeowners can raise their homes above the FEMA base flood elevation with 75% of their costs reimbursed by the federal government.

Project Budget:

\$3,000,000 Federal Share (FEMA)

\$1,000,000 Local Share (Individual Property Owners)

Costs to design and construct home elevations vary, but for reference may range between \$100,000 and \$250,000, including temporary relocation costs. Thus homeowner contributions would be \$25,000-\$62,500 per structure. Application costs to the Zone will vary depending on method of outreach and number of applicants from Zone 4, but an initial estimate could be \$25,000.

c. Cove Stormwater Pump Station Evaluation*

***Note: Due to pending litigation, staff is unable to discuss or comment on matters which may be related to flooding which occurred in the vicinity of the Cove Shopping Center on December 3, 2014.**

The Cove Stormwater Pump Station Evaluation will be completed this spring. The contract cost for this study is \$174,750, with all costs paid for from the existing FY 2015-2016 Flood Control Zone 4 Professional Services Budget. Schaaf & Wheeler will present an update on this evaluation to the advisory board.

BACKGROUND

Construction of the Cove Stormwater Pump Station was completed in 1976 as a measure for reducing flood risk to the Cove Shopping Center, as well as nearby homes located in a low-lying area of Tiburon's Bel Aire neighborhood. The station receives stormwater from District, Town of Tiburon, and privately owned stormwater collection systems, and then pumps it into nearby East Creek. The station undergoes regular maintenance and has been upgraded several times since its construction. At nearly 40 years old, a thorough evaluation will verify if the station is still meeting its intended design parameters. This evaluation will also assess current operation and maintenance practices, and also provide recommendations for both short- and long-term improvements. Among the improvements considered are increasing the station's capacity to the level required to receive FEMA accreditation.

Upon the recommendation of the Flood Control Zone 4 Advisory Board, staff solicited a Request for Proposals to secure professional services for carrying out the evaluation. Three proposals were received and all three proposing consultants were interviewed by staff. After a thorough review and discussion of the proposals and interviews, staff recommended that the Board of Supervisors approve a professional services contract with Schaaf & Wheeler Consulting Civil Engineers to furnish services for the evaluation. Staff requested the Board of Supervisor's approval at their October 20, 2015 meeting. Schaaf & Wheeler is a small, local civil engineering consulting firm headquartered in Santa Clara, with additional offices in San Francisco, Santa Rosa, and Salinas. Their team, including sub-consultants, is

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comprised of experts in the fields of hydrology and hydraulic engineering, and has proven experience with and an understanding of stormwater pump station design and rehabilitation.

Item 5. Watershed Program Update

a. Southern Marin Watershed Guide

The Southern Marin Watershed Guide (WG) will be available for public review at http://www.marinwatersheds.org/southern_marin.html in mid to late March. Comments will be accepted through May 1. The Guide describes existing conditions and summarizes flooding conditions at the watershed scale in a user-friendly, graphics-rich format. The purpose of the Guide is to organize information and data for the sub-watersheds draining to Richardson Bay (Marin City, Coyote Creek, Arroyo Corte Madera del Presidio, Ryan Creek, Sutton Manor/Alto/Strawberry, and East and West Creeks) and to identify a list of project concepts to address both short term and long term flood and creek management needs. The goal of the WG is to effectively communicate information, findings and recommendations to partner agencies and the community in a concise manner to guide decision making and future commitments.

b. Draft Project List

Staff reported that a draft project list was created in tandem with the Watershed Guide to communicate the status of potential watershed and flood protection projects. Additional community meetings are anticipated in Mill Valley to coincide with the work of their Flood Task force.

c. Richardson Bay Shoreline Study: Sea Level Rise Impacts Assessment and Concept Level Alternatives Evaluation

The Shoreline Study is available for comment and can be viewed at http://www.marinwatersheds.org/southern_marin.html. The Shoreline Study was presented at a November 18, 2015 community meeting. The comment period for the Shoreline Study is scheduled to close by May 1, 2016.

Item 6. Zone 4 & 4A FY 2016-17 Budget Review

The Zone 4 and Zone 4A budgets for FY 2016-2017 (begins July 1, 2016 and ends June 30, 2017) will be presented to the Board of Supervisors at a hearing this summer. A proposed budget summary will be presented to the AB by staff for review.

Recommended Action: Recommend Board of Supervisors approve budget.

Item 7. Schedule Next Meetings

It is recommended to meet again regarding the ongoing Cove pump station evaluation on May 12, 2016 and discuss next steps.

Southern Marin Watersheds: DRAFT List of Potential Projects (2016)

Updated: 2/29/16

This list of potential projects summarizes flood risk reduction projects in the Southern Marin Watershed Program area which are in the study, design, or construction phase of development. It includes new projects and conceptual projects which, if constructed, would provide for significant modifications to existing facilities; however, the list does not reflect the current needs of existing facilities which are met through the District's operation and maintenance program. As of FY 2015-16, ongoing maintenance of existing facilities is budgeted at \$1,000,000 in Zone 3 and \$235,000 in Zone 4, and accounts for approximately two-thirds of the annual budget. In addition, a preliminary estimate of deferred maintenance in Zone 3 is \$1M and is expected to require an increasingly higher percentage of the annual budget for addressing both current and emerging operation and maintenance needs. Total operation and maintenance costs in both zones are expected to increase with the construction of any new projects.

Project Name	Description / Benefits	Watershed	Flooding Type		Potential Project Type													Current Stage	Status	Possible Next Steps	Construction Cost Estimate	Required Right of Way Secured? (Yes/No/Maybe)	Additional Remarks			
			Creek Overflow	Storm Drain Overflow	Stormwater Ponding	Tidal Inundation	Bypass	Channel Restoration	Creek Maintenance	Drainage Improvements	Fish Passage Barrier Removal	Floodwall / Levee	Habitat Enhancement	Increase Conveyance	Shoreline Adaptation	Structure Elevation	Stormwater Detention							Stormwater Pump		
ZONE 3 PROJECTS																										
Arroyo Corte Madera del Presidio Riverine Flood Risk Reduction Alternatives (detention basin, bridge replacements, bypass, channel conveyance improvements, flood walls, levees)	Provide flood protection against creek overflow within floodplain. Potential alternatives could be combined to achieve up to 100 year level of protection.	ACMdP	•																		Study	2012 Study Complete; additional study and public input required before beginning design	(1) Update costs to reflect changes made to model following 2014 model calibration. (2) Community outreach, recommendations for preferred alternatives to take to further study/design	\$26M - \$50M (25 yr. level of protection to 100 yr. level of protection) Estimates lack costs for real estate, utilities and other elements required for design	Maybe (Depends on recommended alternative. Possibly for detention basin, some bridge replacements, and bypass. Existing ROW along creek is insufficient for construction of a levee/floodwalls.)	Stetson Engineers Inc. was hired by the City to perform the pre-design study which included development of a hydraulic model. The model has been improved by recalibrating it with recent storm data; previous alternatives and costs may now be reconsidered based on the revised model. A SOW to arrive at revised alternatives/cost estimates is being developed and work may commence in late-summer or early-fall 2015.
Crest Marin Riverine Flood Risk Reduction Alternatives	Provide flood protection (25 yr) against creek overflow within floodplain.	Coyote Creek	•																		Study	Partially Complete, on hold until levee evaluation is completed	Update H&H and reassess potential improvement alternatives	\$3M - 4M	Maybe (Depends on chosen alternative)	Preliminary conceptual level plans completed by consultants.
Coyote Creek Levee Improvements	Provide flood protection against creek overflow within floodplain, including alternatives which would allow for removal of properties from SFHA.	Coyote Creek	•																		Study	Study Complete-2016	Selection and further development of preferred alternative following completion of pre-design	Preliminary cost est. available early-2016	Maybe (Depends on chosen alternative)	Levee evaluation to include assessment of and recommendations for improvements to existing facilities which would be necessary even to maintain the existing level of flood protection; it is anticipated that these improvements could be significant in cost. Additional improvements (interior drainage) would be required if properties were to be removed from the Special Flood Hazard Area.
Lower Marin City Drainage Improvements	Identify extent of existing flooding and potential alternatives which could help reduce existing flood risk.	Marin City		•	•	•															Pending Grant Award	Grant Award Pending RFP released for Hydraulic Study	Selection and further development of preferred alternative following completion of pre-design	Preliminary cost est. available mid- to late-2016 (est.)	Maybe (Depends on chosen alternative)	Pre-design study to begin pending ratification of funding agreement with TAM. Presently waiting for agreement to be drafted. Following ratification of the agreement, a SOW will be completed and an RFP for professional services will be released for a contractor to complete the SOW.
Richardson Bay Shoreline Protection	Construct shoreline protection measures which reduce or eliminate tidal inundation of shoreline under various scenarios, including sea level rise.	Richardson Bay	•	•	•																Study	Draft Study Complete	Selection and further development of preferred alternative following completion of pre-design	Preliminary cost est.	No	Richardson Bay Shoreline Study - Evaluation of Sea Level Rise Impacts and Adaptation Alternatives (2015) posted to www.marinwatersheds.org
Hydraulic Study of lower Ryan Creek and Pump Station	Make pump modifications and culvert replacements to reduce flooding inundation area and depths upstream of the pump station.	Ryan Creek	•	•																	Study	Study Complete-2013	Selection and further development of preferred alternative, including cost estimates	Preliminary cost est. for the potential improvements were not included as part of the SOW	Maybe (Depends on chosen alternative)	Potential alternatives mentioned are those described in the report Hydraulic Analysis of Lower Ryan Creek and Pump Station completed by Stetson Engineers Inc. (2013) and include modifications to current stormwater pump intake as well as culvert improvements upstream of the pump station which may be at least partially outside of existing public ROW.
Sutton Manor Creek Improvements	Identify extent of existing flooding and potential alternatives which could help reduce existing flood risk, including alternatives which would remove properties from the existing FEMA SFHA.	Sutton Manor-Strawberry	•	•	•	•															Study	Future	Develop SOW for pre-design evaluation to identify issues and potential alternatives	No preliminary cost estimates available	Maybe (Depends on recommended alternative)	Scope of work for a pre-design evaluation to identify issues and potential alternatives has not been initiated

Southern Marin Watershed Project List (2016)

ZONE 4 PROJECTS																		
Cove Pump Station Improvements	Make pump and drainage modifications to reduce flooding inundation area and depths upstream of the pump station.	Bel Aire	•								•	•	Study	In Progress Est. completion mid-2016	Recommendation and further development of preferred alternative following completion of pre-design	Preliminary cost est. available mid-2016 (est.)	Maybe (Depends on recommended alternative)	Work underway to perform a pre-design evaluation to identify issues and potential alternatives. To be completed by mid-2016
Karen Way Ditch Improvements	Modification to existing ditch which would establish a more uniform cross section and provide for increased flow capacity and greater ease of maintenance.	Bel Aire	•								•	•	Study	Future	Create SOW for study to determine design details including ditch capacity and alignment.	No preliminary cost est. available	Yes	
Strawberry Levee Improvements	Modifications to existing levees/embankment to provide a greater amount of flood protection from coastal inundation. Area of protection to include homes along Strawberry Circle.	Bel Aire										•	Study	Future	Create SOW for study to determine design details including levee cross section dimensions and alignment.	No preliminary cost est. available	Yes	Will likely require mitigation for the take of wetland vegetation; possibility for self-mitigating project to be pursued if possible.
West Creek Flood Wall	Install floodwall at creek bank in order to increase the level of flood protection.	Bel Aire	•									•	Design	On-hold at request of Advisory Board	Further development of preferred alternative, including revising cost estimate, followed by final design and environmental review	\$400K (2012)	No	ROW acquisition cost not reflected in cost estimate.
Study In Progress or Complete																		
Draft Study-Limited or No Costs Available																		

**FY 2016 - 2017 Budget Report
FCZ #4A - Strawberry
Fund 23740**

Budget Summary			
Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget
Fund Beginning Balance	\$ 12,386	\$ 28,032	\$ 25,782
Expenses			
Salaries and Benefits	\$ -	\$ -	\$ -
Service and Supplies (see details below)	\$ 9,000	\$ 9,000	\$ 22,000
Capital Outlay	\$ -	\$ -	\$ -
Total Expenditures	\$ 9,000	\$ 9,000	\$ 22,000
Revenue			
Taxes	\$ 6,734	\$ 6,734	\$ 6,734
Revenues From Use of Money and Property	\$ 15	\$ 16	\$ 15
Intergovernmental Revenues	\$ -	\$ -	\$ -
Total Revenue	\$ 6,749	\$ 6,750	\$ 6,749
Fund Ending Balance	\$ 10,135	\$ 25,782	\$ 10,531

Major "Services & Supplies" Expenditures			
Professional Services	\$0	\$0	\$0
Maintenance & Repair Services - Equipment (Pump Maintenance and Outfall Valves)	\$5,000	\$5,000	\$18,000
Maintenance & Repair Supplies - Equipment (Contingency)	\$2,000	\$2,000	\$2,000
Utilities	\$1,500	\$1,500	\$1,500
Fuel for Generator	\$ 500	\$ 500	\$ 500
Total	\$9,000	\$9,000	\$22,000

**FY 2016 - 2017 Budget Report
FCZ #4 Bel Aire
Fund 23730**

Budget Summary

Account Description	FY 2015-16 Budget	FY 2015-16 Projected	FY 2016-17 Budget
Fund Beginning Balance	\$ 2,239,520	\$ 2,729,009	\$ 2,273,636
Expenses			
Salaries and Benefits	\$ 430,207	\$ 430,207	\$ 430,207
Service and Supplies	\$ 452,156	\$ 565,701	\$ 379,656
Capital Outlay	\$ -	\$ -	\$ -
Total Expenditures	\$ 882,363	\$ 995,908	\$ 809,863
Revenue			
Taxes	\$ 535,235	\$ 535,235	\$ 535,235
Revenues From Use of Money and Property	\$ 1,600	\$ 2,000	\$ 2,000
Intergovernmental Revenues	\$ 3,300	\$ 3,300	\$ 3,300
Total Revenue	\$ 540,135	\$ 540,535	\$ 540,535
Fund Ending Balance	\$ 1,897,292	\$ 2,273,636	\$ 2,004,308

Major "Services & Supplies" Expenditures

Professional Services

Balance of previously encumbered contracts	\$ -	\$ 59,977	\$ -
Cove Pump Station Evaluation	\$ -	\$ 174,750	\$ -
Labor Compliance Program for DWR Grant	\$ -	\$ 12,500	\$ -
Study Contingency	\$ 175,000	\$ -	\$ 100,000
Total	\$ 175,000	\$ 247,227	\$ 100,000

Maintenance & Repair Services - Equipment

Balance of previously encumbered contracts	\$ -	\$ 18,990	\$ -
Pump Repair Service	\$ 25,000	\$ 25,000	\$ 25,000
Precipitation & Stream Gauge Mtn	\$ 2,500	\$ 2,500	\$ 5,000
ALERT System	\$ 3,000	\$ 3,000	\$ 3,000
SCADA	\$ 1,420	\$ 1,420	\$ 1,420
Miscellaneous (Cove & Pamela Improvements)	\$ 110,000	\$ 97,750	\$ 110,000
Total	\$ 141,920	\$ 148,660	\$ 144,420

Maintenance & Repair Services - Land & Buildings

Balance of previously encumbered contracts	\$ -	\$ 34,578	\$ -
Conservation Corps North Bay	\$ 48,600	\$ 48,600	\$ 48,600
Miscellaneous (including trees and fences)	\$ 20,000	\$ 20,000	\$ 20,000
Total	\$ 68,600	\$ 103,178	\$ 68,600

Miscellaneous Services & Supplies

	\$ 66,636	\$ 66,636	\$ 66,636
Total	\$ 452,156	\$ 565,701	\$ 379,656