

Marin County Flood Control and Water Conservation District

FLOOD CONTROL ZONE 3 ADVISORY BOARD MEETING
MARCH 15, 2018

STAFF REPORT

Item 1. Approval of Meeting Minutes: October 24, 2017

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. Zone Engineer's Report

a. 2018 Sediment Removal from Coyote Creek Concrete Channel

Staff has completed the permitting and CEQA requirements for removing 560 cubic yards of sediment from the concrete channel portion of Coyote Creek. Next steps include preparing a Request for Bids and awarding a contract for the project. Funding for this sediment removal was recommended by the Advisory Board (AB) in FY 2017-18, and staff anticipates the work will be completed this summer.

b. Coyote Creek Tidal Reckoning Update

Data gathering for this tidal reckoning is underway. CLE Engineering installed the temporary pressure transducer last November, and tidal data will be gathered through April. Once the data gathering is complete, said data will be correlated to the San Francisco tide gage.

c. Charles F. McGlashan Pathway Wetland Restoration Project Update

As reported at a previous AB meeting, staff has determined that the project location for the Charles F. McGlashan Pathway Wetland Restoration Project includes District-owned property and County-owned property. On May 25, 2017, the Z3 AB approved funds for the District's portion of this project. The County owned portion is being managed by Marin County Parks (Parks). Parks is also undertaking a restoration project of the nearby Bothin Marsh. Parks asked the various resource agencies (RWQCB, CDFW, USACE, etc.) if there could be an extension of the deadline for the pathway restoration so that work could coincide with the timing of the Bothin Marsh restoration that would occur in five years. The resource agencies denied this request, and the pathway restoration will occur in calendar year 2018. Parks has agreed to fund the County portion of the pathway restoration, and they have ordered the plants required for the restoration.

d. Marin City Projects Update

The draft report for Lower Marin City Drainage Study was posted for comments until December 24, 2017. A final report will be issued once all of the comments received are addressed. At the October 24, 2017 AB meeting, the AB recommended that staff apply for a FEMA grant that funds improvements that were identified in the Lower Marin City Drainage Study.

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These improvements constitute a \$1.5 M project (including soft costs). \$1,125,000 (75%) would be contributed by FEMA, and the AB recommended that up to \$375,000 (25%) in matching funds could come from Zone 3. Staff has completed and submitted the grant application, and it is currently under review.

e. Manzanita Flood Mitigation Update

The District and Caltrans have been coordinating efforts to address “sunny day” non-storm event flooding caused by very high (King) tides. To date, the District has installed and periodically modifies a sandbag wall along County property that encompasses one of the two drainage ditches in the area subject to tidal flooding. Caltrans has installed a check valve on one of these ditches, and two screw gates on the other ditch. These measures have helped alleviate sunny day flooding in the area. The County is also applying for a Caltrans SB1 grant to study the area’s flooding in more detail to address storm related flooding as well as sea level rise.

f. Annual and Preventative Maintenance Work Program

Pump Stations:

Individual pumps and motors are scheduled for major maintenance on a six year interval at each of the zone’s pump stations. In addition to major maintenance, preventative 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 major pump station maintenance, both for work completed this current fiscal year, as well as work scheduled for the upcoming 2018-2019 fiscal year (FY).

For FY 2017-2018:

The following work was completed:

Cardinal Court Pump Station: Preventive maintenance was performed. Pump No. 2 was removed and serviced as part of the six-year maintenance cycle. No significant problems were found.

For FY 2018-2019:

The following work is scheduled:

Seminary Drive Pump Station: Preventive maintenance to be performed, with Pump No. 1 scheduled to be removed and serviced for maintenance.

An invitation for bids to perform removal and service of pumps throughout the District, including Zone 3, will be released. Staff will prepare a recommendation to the Board of Supervisors to award a contract to the lowest qualified bidder following the receipt of bids.

Vegetation:

Prior to the next winter season, the Conservation Corps North Bay will perform annual vegetation maintenance in Zone 3. Additionally, the District will provide for the mowing of grasses along the Coyote Creek levee system. The District also provides for ongoing creek maintenance on an as-needed basis.

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Sediment Removal

Sediment removal in the concrete channel of Coyote Creek is scheduled to occur in 2018 as previously mentioned.

Item 4. Proposed 2019 Sediment Removal from Nyhan and Coyote Creeks

The AB approved a hydrologic and hydraulic study of Coyote and Nyhan Creeks as part of the FY 2017-18 budget. The goal of this study was to help identify any need to remove sediment from Coyote and Nyhan Creeks. On August 22, 2017, the Marin County Flood Control and Water Conservation District Board of Supervisors approved a contract with Cinquini & Passarino to conduct the Study. Preliminary results of the Study identify that approximately 5,000 cubic yards of sediment should be removed from the earthen channels of Nyhan Creek and from Coyote Creek. According to the Study's hydraulic modeling, this sediment removal is required to meet the design standards as determined by the U.S. Army Corps of Engineers (USACE). Staff recommends that permitting work for this project begins in FY 2018-19, and that the subsequent sediment removal take place in the summer of 2019. To meet this schedule, staff anticipates that a Request for Bids would be released in February 2019, and that the contract for said removal would be approved in FY 2018-19. The initial cost estimate for this work is \$1,500,000.

Recommended Action: Recommend that District Board of Supervisors adopt a Resolution with a Notice to Undertake the Coyote and Nyhan Creeks Sediment Removal Project in accordance with Water Code 68-11

Item 5. Proposed Amendment to Existing Agreement with the City of Mill Valley - Flood Studies Funding Agreement Regarding Phase 2 Re-Evaluation of Conceptual Flood Reduction Measures on Arroyo Corte Madera Del Presidio (ACMdP) and Comprehensive Flood Control and Drainage Master Plan within Flood Control Zone 3.

The Zone 3 AB had previously recommended the original agreement with the City of Mill Valley for \$320,000 and a subsequent First Addendum to the Agreement for \$110,000. Currently, the City of Mill Valley is requesting a Second Addendum with a funding increase of \$45,000. This Second Addendum would place the total project cost at \$475,000. District staff supports this additional funding request. This additional funding will be used to convert the current steady-state computer model for ACMdP to an unsteady state, and this conversion will allow for a more accurate depiction for water flow dynamics in ACMdP. Also, this funding increase will provide for a 2-dimensional rendering of potential flows and flooding. This type of 2-dimensional modeling will be helpful when presenting the results of the study and potential projects to members of the public, as well as to the AB. Funding for the increase would come for the current FY 2017/18 budget. Please see the attached request letter from the City of Mill Valley for more details.

Recommended Action: Recommend that the District BOS approve this funding increase of \$45,000.

Item 6. Zone 3 Grant Funding Match of \$15,000 for Caltrans' Adaptation Planning Grant

The District is partnering with Marin County Parks in developing a grant application to study flooding in the area along the shoreline near Coyote Creek and Bothin Marsh. If awarded, this Caltrans' Adaptation Planning Grant will study a variety of potential issues to address sea level rise and tidal flooding in the area, including a realignment of the mouth of Coyote Creek into Bothin Marsh. This realignment could potentially reduce existing flooding of interior drainages

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along the shoreline near the mouth of the creek. The creek realignment portion of the grant would include a topographic survey and computer modelling of realignment alternatives. The overall grant request from Caltrans is \$400,000, and the grant has received written support from the Transportation Authority of Marin (TAM), the City of Mill Valley, and the Golden Gate Bridge District. Additionally, TAM has agreed to commit \$15,000 in matching funds. Staff recommends that the AB recommend that \$15,000 of Zone 3 funds be used as a match if the grant is awarded.

Recommended Action: Recommend that, if the Caltrans' Adaptation Planning Grant is awarded, Zone 3 contribute \$15,000 in matching funds.

Item 7. Proposed 2018 Coyote and Nyhan Creeks Encroachment Survey

The Coyote Creek Flood Control Project (Project) is currently conditionally qualified to remain in the USACE PL 84-99 Program. This Program allows for reimbursement for damages to the Project incurred during a federally declared disaster. As part of staying in the PL 84-99 Program, USACE is requiring that existing encroachments in the Project area be resolved. These encroachments could potentially include walkways, patios and portions of homes. In order for the District to accurately assess the needs of the USACE requirements, staff recommends that a land survey be performed for all encroachments along the Project. This survey will provide an assessment of property lines and encroachments in the Project area, and this information can be used to help guide the next steps for the Project and PL 84-99. Staff estimates this survey will cost \$250,000.

Recommended Action: Recommend that District Board of Supervisors adopt a Resolution with a Notice to Undertake the Coyote and Nyhan Creeks Encroachment Survey Project in accordance with Water Code 68-11

Item 8. Zone 3 2018-19 Budget Review

For the most recently closed fiscal year (FY 2016-17), actual operating expenses were lower than budgeted operating expenses. Additionally, for FY 2016-17 actual revenues were higher than budgeted revenues. Part of the 2016-17 revenue increase included \$313,397 in grant reimbursements.

The following provides a summary of the proposed budget:

Line Item #

1. Building Maintenance Staff: This line item includes staff time for pump station operations and maintenance, and staffing during storm events.
2. Road Maintenance Staff: This line item includes staff time for tide gate operations and maintenance, mowing, and small-scale sediment removal.
3. Real Estate Division Staff: This line item includes staff time for right of way negotiations. For FY 2018-19, this includes support for an encroachment survey along Coyote Creek.
4. Engineering Division Staff: This line item included staff time for engineering support.
5. Water Resources Staff: This line item includes time for District support. For FY 2018-19, this item includes support for project management, creek maintenance, vegetation

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maintenance, pump station maintenance, budgeting, Advisory Board meetings, public inquiries, legal services, indirect overhead, and administrative support.

6. Maintenance – Buildings and Improvements: This line item includes support for pump station maintenance, District creek vegetation and sediment removal, City of Mill Valley sediment and vegetation grant (\$90,000), permitting for creek maintenance, rodent abatement along levees, and the Charles F. McGlashan Pathway Restoration.
7. Professional Services Contracts: This line item includes support for the City of Mill Valley Flood Study (\$480,000 which includes a \$35,000 amendment to the existing contract), Coyote Creek Encroachment Survey (\$250,000), Environmental/permitting requirements for Coyote Creek 2019 sediment removal (\$60,000), and a study contingency (\$75,000).
8. Construction: This line item for a construction includes funding to remove sediment from the concrete channel of Coyote Creek in 2018, sediment removal from the earthen channels of Nyhan and Coyote Creeks in calendar year 2019, and a contingency for potential construction and/or repairs to pipes and infrastructure throughout the zone. .
9. Utilities: This item includes costs for electricity, natural gas, and water for District facilities in Zone 3.
10. Misc. Expenses: This item includes costs for unexpected expenses not accounted for under another line item, including pump station supplies, printing, office expenses, and unforeseen expense needs.
11. Revenues: Revenues are conservatively projected to increase by 0.5% compared to the current FY projection.

Recommended Action: Recommend that the District Board of Supervisors approve the budget.

Item 9. Schedule Next Meeting

At this time, the AB could consider when they would like to meet next.

**Flood Zone 3 FY 2018-19 Proposed Operating Budget
with anticipated three-year cash flow projection**

DRAFT

FY 2016-2017 Fund Ending Balance: \$8,359,421

Proposed budget, subject to change

Expected Expenditure Description Some expenditures include 3% annual increase	FY 2016-17	FY 2016-17	FY 2017-18	Year 1	Year 2	Year 3
	Budget	Actuals	Budget	FY 2018-19 Proposed	FY 2019-20 Estimate	FY 2021-22 Estimate

Staffing Costs							
1	Building Maintenance Staff	\$ 94,518	\$ 42,775	\$ 96,003	\$ 96,000	\$ 98,880	\$101,846
2	Road Maintenance Staff	\$ 46,350	\$ 18,549	\$ 48,410	\$ 48,410	\$ 49,862	\$51,358
3	Real Estate Division Staff	\$ 80,000	\$ -	\$ 80,000	\$ 80,000	\$ 80,000	\$80,000
4	Engineering Division Staff	\$ 103,000	\$ -	\$ 78,150	\$ 78,150	\$ 80,495	\$82,909
5	Water Resources Staff	\$ 586,383	\$ 566,843	\$ 562,065	\$ 650,000	\$ 669,500	\$689,585
	Salaries, Benefits, and Overhead	\$ 910,251	\$ 628,167	\$ 864,628	\$ 952,560	\$ 978,737	\$ 1,005,699
Maintenance & Repair Services							
6	Maintenance - Buildings and Improvements	\$ 392,527	\$ 217,542	\$ 540,612	\$ 500,000	\$ 515,000	\$ 530,450
Professional Services							
7	Professional Services Contracts	\$ 235,000	\$ 263,568	\$ 405,000	\$ 865,000	\$ 75,000	\$ 75,000
Construction							
8	Construction	\$ 1,340,000	\$ 388,099	\$ 522,000	\$ 1,850,000	\$ 150,000	\$ 150,000
Miscellaneous							
9	Utilities	\$ 15,000	\$ 17,374	\$ 16,000	\$ 19,000	\$ 19,570	\$20,157
10	Misc. Expenses	\$ 77,800	\$ 23,885	\$ 78,500	\$ 80,000	\$ 80,000	\$80,000
	Service and Supplies	\$ 2,060,327	\$ 910,468	\$ 1,562,112	\$ 3,314,000	\$ 839,570	\$ 855,607
	Total Expenditures	\$ 2,970,578	\$ 1,538,635	\$ 2,426,740	\$ 4,266,560	\$ 1,818,307	\$ 1,861,306
11	Revenues (increase approx. 0.5% annually)	\$1,499,512	\$2,309,087	\$1,826,930	\$1,836,065	\$1,845,245	\$1,854,471
	Projected Fund Ending Balance**	\$ 2,174,417	\$ 8,359,421	\$ 7,759,611	\$ 5,329,116	\$ 5,356,054	\$ 5,349,219

**Fund ending balance will change with updated information

Note: project funds not expended in a given fiscal year will roll over into the next fiscal year



February 28, 2018

Scott McMorrow
Area Engineer, Marin County Flood Control Zone 3
3501 Civic Center Drive, Room 304
San Rafael, CA 94903

Re: Funding Request to Upgrade the Stetson Phase 2 Conceptual Flood Reduction Measures on Arroyo Corte Madera del Presidio Flood Model to Unsteady State HEC-RAS model to be used for the Flood Control and Drainage Study Master Plan

Dear Mr. McMorrow,

On July 19, 2016 the Board of Supervisors approved a funding agreement that authorized the expenditure of \$55,000 of Zone 3 funds for the City's Phase 2 Re-evaluation of Conceptual Flood Reduction Measures on Arroyo Corte Madera del Presidio (ACMDP). The City subsequently entered an agreement with Stetson Engineers to complete the study for the amount that was authorized. That study is now complete.

The Army Corps of Engineers has recently made available a new version of the flood modeling technology that will be of great benefit during the community outreach effort to make decisions on flood protection. This new model is a dynamic, two-dimensional model that allows a visualization of flood flow with and without protection measures. City staff was recently able to see a demonstration of this technology as it has been applied to the Sleepy Hollow area of Ross Valley. It is clearly a vast improvement to the previous Corps model that has been around for decades. The Ross Valley experience has taught us all about the importance of gaining broad consensus on flood mitigation, and this new model will help the public understand its complexities.

The City is currently working on the Flood Control and Drainage Study Master Plan with Consulting Civil Engineers Schaff and Wheeler. To fully incorporate the Stetson Study Model into the Flood Control and Drainage Study Master Plan, the existing Steady State HEC-RAS modeling should be updated to Unsteady HEC-RAS 5 so that the Flood Control and Drainage Study Master Plan can reflect a complete storm hydrograph and assess the storm drain system performance over time. HEC-RAS 5 which was released end of 2016 also gives users the ability to map overland flow that leaves the creek channel. This model would allow us to map areas of inundation from the Creek system in 2D. Graphics that are developed from 2D are more pleasing to the eye and can show an audience the timing and the extent of flooding as it occurs.

City of Mill Valley Department of Public Works

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The City is requesting that our funding agreement be amended include the cost to convert the existing steady state model to a new unsteady state model. The amount requested is \$45,000. County Flood Control staff is supportive of the upgrade to the unsteady state HEC-RAS 5 model with 2D visualization and its benefits as previously done in Ross Valley.

Please let us know when this can be presented to the Flood Zone 3 Advisory Board for its recommendation to the Board of Supervisors.

Feel free to contact me with any questions.

Thank you for your consideration.

Sincerely,



Elisa Sarlatte
City of Mill Valley
Public Works Engineering Manager