

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

**FLOOD CONTROL ZONE 7 ADVISORY BOARD MEETING**  
**FEBRUARY 26, 2019**

**STAFF REPORT**

**Item 1. Approval of Meeting Minutes: July 24, 2018**

**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. Updated Flood Control Zone 7 Bylaws**

An update of the Flood Control Zone Bylaws was undertaken by an ad hoc committee of the District Board of Supervisors consisting of Supervisors Rice and Sears, an ad hoc committee of a selected Flood Control Zone Advisory Board (AB), District staff, and County Counsel (acting on behalf of the District). The goals were to improve consistency between the bylaws and the State Water Code, which governs the District, and to provide clarity on the types of matters referred to the Advisory Board for consultation. As a result of this process, new Flood Control Zone 7 Bylaws are attached to this staff report for the AB to review and consider recommending to the District Board of Supervisors for approval. Zone 7 bylaws were last updated in 2015. New bylaws bear a close resemblance to the existing bylaws but expand upon the purpose and role of the Advisory Board. This same effort is taking place with all other Flood Control Zones and makes them consistent across the District. The final step will be to present all the zones' updated bylaws to the District Board of Supervisors for approval later this year.

Item 3 Attachment: Updated Flood Zone 7 Bylaws

**Recommended Action:** Recommend the District Board of Supervisors approve the Updated Flood Zone 7 Bylaws.

**Item 4. Zone 7 2019-20 Budget Review**

The advisory board will review the attached proposed budget for the current fiscal year which ends on June 30, 2019. For reference, below is a summary of prior fiscal year budgets, revenues, and expenditures and line items in the FY 2018-19 budget.

<b>Zone 7 Budget Item</b>	<b>Fiscal Year 2015-2016</b>	<b>Fiscal Year 2016-2017</b>	<b>Fiscal Year 2017-2018</b>
<b>Budget Recommended by the AB</b>	\$587,957	\$436,287	\$564,448
<b>Actual Expenditures</b>	\$314,402	\$360,239	\$337,613
<b>Actual Revenues</b>	\$415,220	\$476,254	\$498,037

For the prior three closed fiscal years (FY 2015 through 2018), actual operating expenses were lower than budgeted operating expenses and within available revenue.

Item 4 Attachment: Proposed 2019-20 Budget with A87 cost explanation

The following provides a summary of the proposed FY 18-19 budget:

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### **Line Item #**

1. Building Maintenance Staff: This line item includes staff time for pump station operations & maintenance and staffing during storm events, including leading up to, during and post storms (known as storm response). It covers salaries, benefits, and direct overhead. In 2018-19 this line item was increased \$5,000 annually to cover increased cost of complying with OSHA and new confined space policies (e.g. baseline air monitoring, implement new fall hazards controls and procedures, employee training, confined space labels, as needed for operations, maintenance, and repairs); and additional wet well cleanings to comply with the State's Water Quality Order No. 2013-0001-DWQ National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000004 Waste Discharge Requirements (WDR) for Storm Water Discharges From Small Municipal Separate Storm Sewer Systems (MS4s) (General Permit), also called "Phase II Permit."
2. Road Maintenance Staff: This line item includes staff time for mowing (for fire fuel reduction and drainage), miscellaneous maintenance & repairs, and storm response. It covers salaries, benefits, and direct overhead. This amount is decreasing as we rely more on Conservation Corps in line item #8.
3. Real Estate Division Staff: This line item includes staff time for right of way negotiations. This includes support for the TRB Improvement Project and assumes all adjacent property owners are cooperative. It covers salaries, benefits, and direct overhead. TRB project costs under this line item are not eligible for FEMA reimbursement.
4. Engineering Division Staff: This line item includes staff time for engineering and surveying support. For the TRB Improvement Project it includes constructability review of designs, bidding and construction services, and completion of the post-project survey. Up to 75% of eligible TRB project engineering costs may be reimbursed by FEMA. The Engineering Division also conducts elevation settlement surveying every 4 years (next one is 2020). It covers salaries, benefits, and direct overhead.
5. Print Shop: This line item includes time and expenses incurred for printing and mailing Zone 7 items. Assumes mailers may go out related to the Timber-Reinforced Berm Improvement Project. Up to 75% of eligible TRB project outreach costs may be reimbursed by FEMA.
6. Water Resources Staff: This line item includes time for support by water resources planners, coordinators, engineers, and technicians. This item includes management of: projects and grants, annual ditch and levee maintenance, major pump station maintenance, budgeting, Advisory Board meetings, public inquiries and outreach. It covers salaries, benefits, and direct overhead, as relevant, for each hour spent. Through Fiscal Year 2017-2018 the County's allowed indirect overhead/A87 cost allocation was also included and had been budgeted at \$9,816 (may vary annually, but includes County Management & Budget, Department of Finance, Building Maintenance, Printing Services, Countywide Expenses, and Enterprise Resource Planning System Development).

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Staff costs are projected to increase for 3 years due to TRB Improvement Project management which includes design review, environmental review, outreach, and construction management. Up to 75% of those costs may be reimbursable by FEMA. Staff costs for CEQA and permitting are being reimbursed through the County's Watershed Program.

This item also includes initiation of the levee safety projects described in item 4.

7. A87 Indirect Cost Allocation: Beginning in Fiscal Year 2018-19 the Department of Finance is using this line item for A87 Indirect Cost Allocation charges from the County, separate from line item 6. The State approved A87 Cost Allocation Plans for Marin County are available here: [https://sco.ca.gov/ard\\_county\\_cost\\_approvals.html](https://sco.ca.gov/ard_county_cost_approvals.html)
8. Maintenance – Buildings and Improvements: This line item includes contractor support for pump station and tide gate repairs and preventive maintenance, sediment or debris removal as needed, rodent abatement along levees, limited repair of TRBs, vegetation management in ditches and levees, and storm response/patrolling.
9. Professional Services Contracts: This line item includes geotechnical analysis and engineering design for the TRB, of which up to 75% may be reimbursable by FEMA. Depending on project schedule, it also may include appraisals for obtaining TRB right-of-way and geotechnical analysis of conceptual levee safety projects (item 4) designs, neither of which are eligible for FEMA funding.
10. Construction: This line item for construction includes a projected budget for next fiscal year to begin construction of the TRB (project is expected to be constructed over the course of two fiscal years so this does not represent the full project construction cost). Up to 75% of TRB project costs may be reimbursed by FEMA.
11. Utilities: This item includes costs for electricity, natural gas, and water for District-operated facilities in Zone 7.
12. Misc. Expenses: This item includes costs for unexpected expenses not accounted for under another line item, including pump station supplies, printing (not in-house), office expenses, and unforeseen expense needs. For next fiscal year, it is anticipated this line item will be used for title reports and other right-of-way related expenses
16. Revenues: Portions of the revenues are projected to increase by 2.4% per year. Actual revenues may vary considerably from what is projected here. The advisory board is not being asked to make a recommendation regarding budget for this line item.
17. Potential Special Tax Revenue: This line item represents potential annual revenue from a special tax measure of approximately \$189 per parcel to support the TRB project local share/right-of-way costs. This is only a potential scenario and shown for cash flow illustration purposes only.

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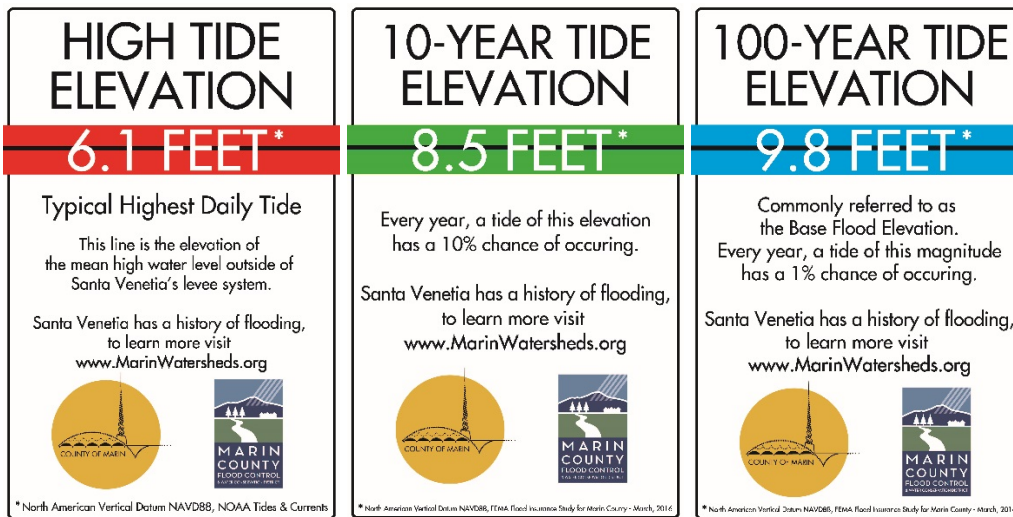
- 18. Potential Loan Income: This line item represents potential one-time revenue from a loan to support TRB grant cash flow needs. This is only a potential scenario and shown for cash flow illustration purposes.
- 19. Potential County Contribution to TRB Project: This line item represents potential one-time revenue from the County to support the TRB project local share and right-of-way costs. This is a potential cost subject to Board of Supervisors approval and shown for cash flow illustration purposes.
- 20. Potential FEMA Reimbursement: This represents an estimate of the 75% FEMA reimbursement of eligible costs incurred due to the TRB project. This is shown for cash flow illustration purposes and is dependent on FEMA approval.

**Recommended Action:** Recommend that the District Board of Supervisors approve the FY 2019-20 proposed budget.

**Item 5. Zone 7 Public Outreach Update**

Staff and the ad-hoc subcommittee have been implementing public outreach ideas as discussed at the July 24, 2018 AB meeting including installation of High Water Mark signs and authoring a biannual Zone newsletter.

Four High Water Mark signs were printed and installed along Vendola Drive and La Pasada. The signs, depicted below, are printed on 12” x 18” aluminum. We plan to install one or two more signs in the neighborhood.



The fall newsletter was posted to the website, emailed, and linked in the SVNA newsletter. ([www.marinwatersheds.org/sites/default/files/2018-12/FCZ7%20newsletter%20FALL%202018\\_0.pdf](http://www.marinwatersheds.org/sites/default/files/2018-12/FCZ7%20newsletter%20FALL%202018_0.pdf)) It largely covers the information in this staff report, with some additional information on facility maintenance and non-district programs such as the San Rafael Airport MOU, McInnis Marsh Restoration, the Community Rating System, and new stream and weather gauges around the County. We recommend mailing a newsletter to Zone 7 residences in June. The June edition could include an update on the potential FEMA grants, the grant for the Timber-Reinforced Berm Improvement Project, a

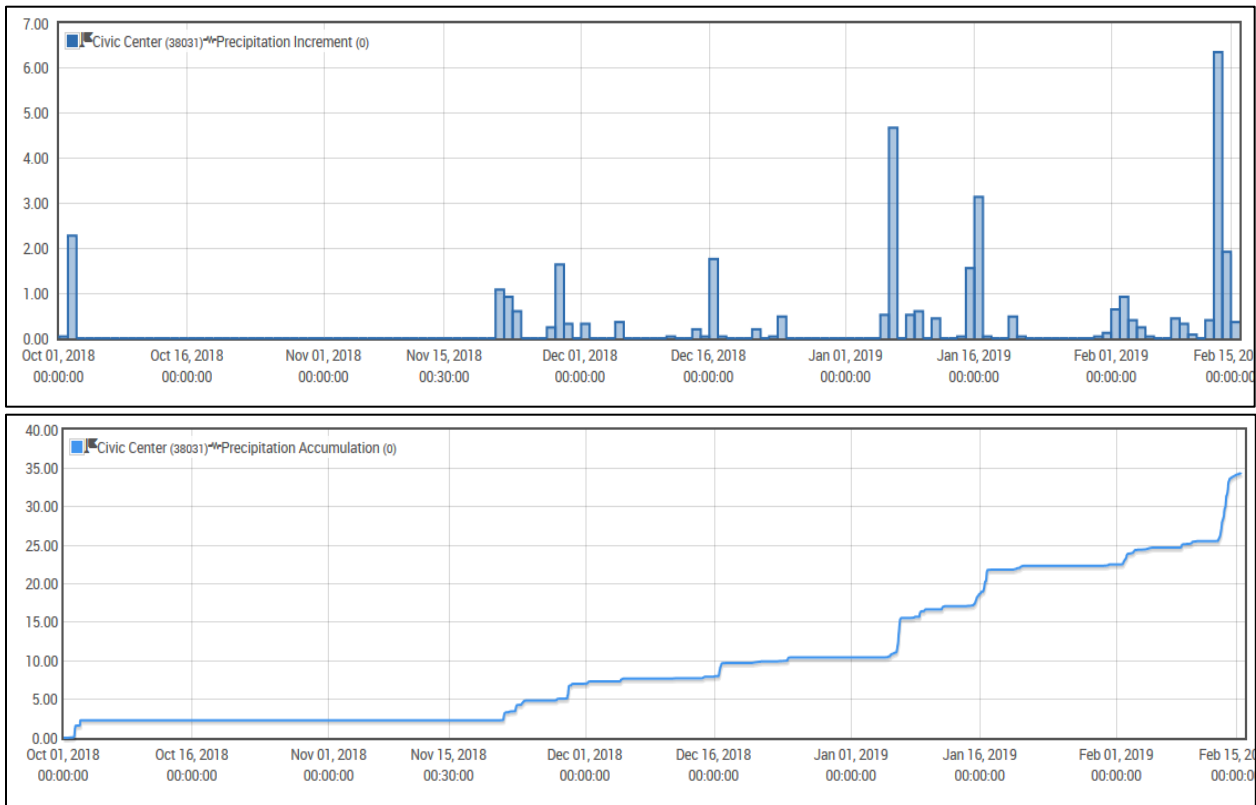
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report on this winter's storms based on the new Civic Center precipitation gauge, and the work plan for the fiscal year ahead. It is also recommended to mail a newsletter in the fall with updates and information on winter preparedness.

Staff and members of the ad hoc sub-committee have been conducting outreach along the water side of Vendola Drive, as described in Item 4 below.

### **Item 6. Winter Storm Report**

The figures below show this year's pattern of storms as recorded at the new civic center rain gauge (<https://marin.onerain.com>). Storms have been arriving at one or two week intervals consistently since mid-November and as of February 15 we have received 35 inches, which is slightly above the average for a whole year. The three biggest storms were January 6, January 17 and February 14. The rain on January 6 was particularly intense over a short duration when 4.5 inches of rain fell in six hours, which is the 100-year recurrence interval for that duration<sup>1</sup>. Over 8 inches fell between February 13<sup>th</sup> and 15<sup>th</sup>.



Two interior drainage issues were reported following the January storms. The intersection at the corner of Rosal and LaBrea flooded the street and sidewalk there, causing some serious concern for nearby residents and homeowners because their houses are not elevated above the surrounding ground surface.

This particular issue with standing water in the stormdrain catch basins had been brought to the District's attention earlier this winter and staff had referred it to the County Roads department which

<sup>1</sup> NOAA Precipitation Frequency Data Server-  
[https://hdsc.nws.noaa.gov/hdsc/pfds/pfds\\_map\\_cont.html?bkmrk=ca](https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca)

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maintains the drainage systems that feed the pump stations. After these storms, District staff and County Roads looked closer at the system, identifying potential factors compromising the system and solutions.

The primary factor causing water to stand in catch basins and drain slowly from the area seems to be the differential settlement of the neighborhood. The District surveys portions of Santa Venetia regularly every four years and this intersection is sinking 1 foot every 30 years, or 1 inch every 2.5 years. This is generally consistent but somewhat faster than nearby settlement rates, which means that a little bit at a time the system is performing worse and worse.

Underground street drains are typically designed for a 10 to 25-year storm capacity and the street and gutter typically convey the excess away from neighborhoods. This system was appropriately designed and built, but as the area settles stormdrains and gutters lose their capacity because their slope is decreased and many of the gutters have been filled as driveway ramps to create a smoother transition for cars. Parked car tires and garbage cans can also slow or divert water on its way to the catch basins.

Stormwater from this area flows up LaBrea to Vendola in a 12" concrete stormdrain, where 30" smooth plastic lines connect to both pump stations #1 and #5. Residents suggested that the pump stations were overwhelmed or needed adjusting, but several factors indicate the pumps were working correctly and could have handled much greater volumetric flow. First, the Rosal-LaBrea intersection is at the upstream end of the stormdrain system, so if the station had been overwhelmed flooding would have occurred in multiple other places. Second, review of the pump run logs on Jan 6th indicate that all the pumps were working during the peak of the storm but were not all running at the same time for any significant period. Because the pump settings are tiered to come on at different levels, if the system was overwhelmed they would all have been running at the same time.

The pump station's on and off elevation settings have already been significantly lowered below the original pump station design. They are now as low as they can be without increasing the risk of mechanical issues due to excessive cycling on and off and/or cavitation. The community has settled so much around the pump station that the pump station would have to be demolished and rebuilt at a lower elevation in order to lower the pump settings further. Such a project would cost at least \$2 million.

Leveraging the Santa Venetia Interior Drainage Study model, District staff are coordinating with the County Engineering and Roads Divisions staff to investigate feasible storm drainage upgrades that Public Works can design and prioritize over the next three years. While this particular area is currently being prioritized by Public Works, this issue is illustrative of drainage problems across the zone. As inland areas sink faster than the pump stations, the whole system shifts away from its designed performance.





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the project has made the first cut. CalOES has passed the application to FEMA, which is now spending money on reviewing the application.

District staff have met with environmental regulatory agencies for initial feedback on environmental permits for the project. Certain agencies have concerns that raising the TRB height may trap the endangered salt marsh harvest mouse during king tides therefore the project design may have to incorporate native plantings to give them temporary shelter and access during the highest tides.

For CEQA, the State's environmental quality act, the District has started work on an Initial Study scope of work. The County's Gallinas Watershed Program is funding this study, which includes surveys of the threatened Ridgway's Rail this spring. A draft of the Initial Study is expected to be completed and available for review this summer.

In November, District staff submitted a preapplication notification for an Integrated Regional Water Management (IRWM) grant. IRWM funds multi-benefit water-related projects in the Bay Area using California Prop 1 monies. This application targeted \$1 million to import clean soil for buttressing the TRB on either side and for planting native marsh vegetation on the creek side which would benefit flood control and environmental efforts and create high tide refugia for the mice. State funds are eligible to be used as a match with Federal FEMA HMGP funds. We will plan to submit a full application for this grant when the solicitation opens.

In October, the District initiated outreach to the 118 homes along the TRB by mailing the four-page project information sheet along with a questionnaire card for sending back. An example of the questionnaire card is pasted here.



*Please respond by November 1. Thank you for your time and responses.*

1. Do you support rebuilding and improving the existing levee system that crosses your property by building and/or rebuilding an improved timber reinforced berm that raises the levee height 1-3 feet so there is a consistent height across the levee system?

yes       no

2. Are you concerned if the levee fails on your property that there would be extensive flood damages to your property and/or in your neighborhood?

yes       no

If you have any further comments, please provide them here:

3. Would you be willing to cooperate in granting easements to the Flood Control District over your property to allow for an approximate 1-2 week construction period and subsequent maintenance of this project?

yes       no

*Relating to Question 3:* If yes, what concerns or questions do you have regarding granting an easement to the District? If no, why?

*Relating to Question 3:* If no, are there any circumstances that would change your mind and allow you to grant the District an easement?

A total of 46 mailed responses were received with 80% yes and 20% no for all three questions (79% - 21% for questions 2 and 3). Comments expressed a full range of opinions and levels of support. Some



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thought 2-3 feet was too high, others thought it might not be enough. People mentioned the various other potential or historic causes of flooding or solutions. Many responses were qualified or requesting more information.

In December, staff began going door to door and conducting in-person outreach with members of the ad hoc outreach subcommittee (Roger and Jeff) and Russ. Over the course of two two-hour sessions with each AB member (12 hours total) we spoke with approximately 50 residents along the creek. These in-person conversations allowed us to delve into specific issues and get a more nuanced picture of opinions. With an old survey in hand, staff was able to provide rough estimates of the height increase at individual properties and talk about how the easement would presumably be used. The tone was overwhelmingly civil, curious, and open to the possibility of it being a successful project. The for/against number is harder to quantify with these conversations, in part because the project is still in a conceptual phase.

Design work on the project has not begun beyond the 10% conceptual level developed for the grant application. The Zone could recommend moving forward on the design, but ahead of the grant award and ballot measure, this investment risks not being reimbursed or useable. Staff feels the current 10% level of design is sufficient for starting CEQA and generally representative for the ballot measure.

Also looking forward, staff is suggesting that the possible ballot initiative be shifted back 6 months to March 2020. This would give us the time to complete the initial study before ballot language would be due for the November election and it is probably better aligned with FEMA's grant review timeline.

### **Item 8. Annual and Preventive Maintenance Work Program**

Zone staff have continued to implement annual and preventative maintenance on levees, ditches, pump stations, storm drain interceptors, and the TRB.

Pump station maintenance is rotational, so the District pulls one pump every six years for a complete inspection, overhaul and repairs as necessary for optimal performance. This year four pumps in Zone 7 were due for this major maintenance service. The bid for maintenance was won by Koffler, an electrical-mechanical systems repair company in San Leandro. The #1 pump at station 2 was pulled and serviced. Service includes disconnecting the electrical and mechanical components and lifting the pump out with a crane. In the shop the components are disassembled and sandblasted, at which point they get inspected, cleaned, greased and reassembled. The #2 pump at station 4 was serviced and received a new impeller. The #2 & 3 pumps at station 5 were deemed too old and worn out for service and were thus replaced with new pumps. Koffler charged the zone \$75,400 for all this work.

The County's garage services each of the zone's back-up generators every year, which includes diesel engines at pump stations 1, 2 & 5, a diesel engine for mechanical right-angle pump at station 3, and a natural gas engine for generator at station 4. The garage also serviced the seven portable trailer mounted diesel pumps and the portable gasoline pumps that are used in Zone 7. Generators are load tested every three years and the four generators all passed.

Additional pump station maintenance occurred at station 4 this year. The bottom of the wet well ladder had corroded away and was replaced. The trash rack at the wet well intake had corroded and had an unacceptably large hole, so a new trash rack grate was fabricated and installed (see photo below). Additionally, cattails were found growing inside the trash rack and the inlet area was cleaned and accumulated sediment removed. Corrosion around the pump discharge was causing pumped storm water to spill out adjacent to the pump station building so a metal collar was added to the outfall. These three repairs together cost about \$5,000.

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New trash rack grate at Pump Station 4



4-inch portable pump on Estancia Way



This coming summer there is only one pump scheduled for overhaul maintenance; the electric pump at station #3. Otherwise routine maintenance will include inspections for gopher problems, engine and generator tests, fire fuel and vegetation maintenance. Repairs to fences, gates, and trash racks will be done as the budget allows.

**Item 9. Schedule Next Meeting**

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