

Marin County Flood Control and Water Conservation District

FLOOD CONTROL ZONE 4 ADVISORY BOARD MEETING

APRIL 27, 2022

STAFF REPORT

Item 1. Swearing in of new Board members and Election of Chairperson and Vice-Chairperson

Five advisory board members were appointed by the board of supervisors on January 25, 2022 and will be sworn into office. The officers should be elected by the newly sworn in members. Article VI of the Advisory Board's bylaws stipulate that officers of the Advisory Board be elected to a two-year term by a majority vote of the Advisory Board. There are two officers – chairperson and vice-chairperson. The chairperson will conduct each meeting following [Robert's Rules of Order](#).

Recommended Action: Elect a chairperson and vice-chairperson for the advisory board.

Item 2. Approval of Meeting Minutes: September 25, 2018

Draft minutes can be found here:

<https://www.marinwatersheds.org/sites/default/files/2022-04/draft%20minutes%20from%20prior%20meeting.pdf>

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). *(While members of the public are welcome to address the Advisory Board, under the Brown Act Board members may not deliberate or take action on items not on the agenda, and generally may only listen.)*

Item 4. Overview of Zone 4 and 4A Flood Facilities and Maintenance Program

The District's mission is to reduce the risk of flooding for the protection of life and property while employing sustainable practices. The Flood District boundaries are the same as the County's, eight flood zones were created in areas with specific flooding impacts including Zone 4 and 4a. The District's geographical boundary is the same as the County's and, as a whole, has no source of revenue. Instead, revenue is primarily collected via a portion of ad valorem taxes within each of the eight flood zones and in some cases via special taxes, benefit assessments, and/or fees paid by property owners. All expenditures by the Flood Zone require authorization by the District Board of Supervisors. The five members of the Marin County Board of Supervisors serve on the District's board.

Zone 4 was established in the 1960s and consists of the watershed that drains the Bel Aire neighborhood and a small portion of Strawberry. Houses which were built within the low-lying floodplain experienced frequent flooding over the years until improvements were made, including the construction of the Cove, Pamela Court, and Strawberry Circle stormwater pump stations

Pump Stations:

Zone 4 has three stormwater pump stations. Cove Pump Station was installed in 1978 and significantly upgraded in 2020, Pamela Court in 1990, and Strawberry Circle Pump Station (Zone 4A) in 2003. These pump stations allow the drainage of stormwater from residential and commercial areas into creeks and wetlands where the banks and shorelines were built up to

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reduce tidal flooding. Each pump station has 2-3 pumps and two forms of power including a back-up generator or back-up propane powered pump.

Preventative maintenance at all pump stations takes place every year and includes the inspection, testing, and as needed replacement of electrical and mechanical components. Additionally, individual pumps and motors are typically removed and serviced for *major* maintenance on a six-year interval at each of the Zone's three stations. The Pamela Court #2 pump was removed and serviced in 2021 for a total contracting cost of \$21,052 including the cost for a new bowl assembly, oil tubes and line shafts which were worn beyond repair. The next pump planned for major maintenance in 2022 is Pamela Ct #1. The Pamela Ct back-up (propane) pump will be serviced in 2023. Strawberry Circle #1 is scheduled for 2024 and Strawberry Circle #2 in 2025. Since the new Cove pumps were installed in 2019, all three pumps will be due for service in 2025 but they will not all be maintained the same year.

On January 23, 2020, a ribbon cutting ceremony was held to celebrate the upgraded Cove Stormwater Pump Station which was completed under budget for \$2.5M. The upgrade of the Cove Stormwater Pump Station included:

- replacing pumps and motors to increase pumping capacity;
- modifying the existing pump bays and wet well;
- installing an onsite generator with diesel fuel pod and automatic transfer switch;
- replacing the trash rack with one designed to be less prone to clogging;
- replacing the motor control center;
- electric and structural upgrades;
- replacing the existing programmable logic controller and Operator Interface Terminal;
- adding wet well access hatches;
- providing redundant, water-level sensors and associated controls;
- installing a protective fence around the proposed generator (bid additive item);
- replacing existing 36-inch corrugated metal pipe (CMP) connected to the wet well with 48-inch reinforced concrete pipe (RCP);
- replacing existing 18-inch CMP connected to the wet well with 18-inch RCP;
- installing new storm drain manholes; and
- installing a SCADA system and autodialer.



In the next 5 years, staff recommends planning for rehabilitation and upgrade of the Pamela Court Pump Station, which will be around the end of its expected design life in 2030. It is likely the cost to replace and/upgrade the station will range between \$2 to \$3 million.

a. Vegetation Maintenance:

The East Creek access road will be mowed in the spring. Late in the summer or early fall the Conservation Corps North Bay will trim cattails and remove any low or downed branches in the channel at East Creek, and clean debris from West Creek and the Karen Way Trash Rack.

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b. Sediment Removal

Sediment removal is planned this year in East Creek in the vicinity of the Cecilia Way crossing. Sediment was last removed from this site in 2017. Sediment was removed from West Creek at the Cecilia crossing in 2018. Sediment removal is typically needed at these sites approximately every 5 years, depending on flow patterns and vegetation growth during that period.

c. Programmatic Maintenance Permit Status

State environmental regulatory agencies (CA Department of Fish and Wildlife and the San Francisco Bay Regional Water Quality Control Board) require programmatic maintenance permits for flood district agencies working in waterways. Activities requiring programmatic permitting include vegetation management, sediment and debris removal, erosion control, maintenance and repair of flood control structures, and levee maintenance. The process is described in the District's Stream Maintenance Program (SMP) Manual. (see it here:

<https://www.marinwatersheds.org/resources/publications-reports/marin-county-stream-maintenance-manual>)

i. Department of Fish & Wildlife (DFW) Routine Maintenance Agreement (RMA)

In October of 2012 the CA Department of Fish & Wildlife issued a Routine Maintenance Agreement (see it here: <https://www.marinwatersheds.org/resources/publications-reports/dfw-saa-routine-maintenance-agreement-permit>) for the District's creek maintenance activities.

This RMA describes the various measures required to minimize impacts to valuable fish and wildlife resources. The measures are not significantly different from procedures outlined in the SMP Manual. Conditions of approval include annual notifications, reports, and fees. The 2012 RMA was set to expire at the end of 2016, but an extension was approved until the end of 2021. This year staff applied to renew the permit with a consolidated "site" definition in order to reduce annual fees.

ii. San Francisco Bay Regional Water Quality Control Board (RWQCB) Order

This permit took an additional two years to develop and update after the DFW permit was approved. During the summer of 2017 RWQCB issued the first Waste Discharge Requirements and Water Quality Certification for five years of the District's Stream Maintenance Program. The thirty-page order came with 62 conditions (see it here: <https://www.marinwatersheds.org/resources/publications-reports/rwqcb-smp-permit>) and RWQCB has allowed the District to stagger their compliance over the first several years of the permitted period. With this permit expiring soon, the District is working with RWQCB to request a one to two-year extension. Some conditions resulting in the most significant changes to maintenance practices, creek inspection, and documentation processes include:

- Maintenance activities including vegetation management (not including annual fire fuel reduction), sediment and debris removal, erosion control, maintenance and repair of flood control structures, and levee maintenance may not exceed a program wide cumulative total of 5,000 linear feet of creek channel and 11,000 cubic yards of sediment and debris.
- Vegetation management activities are limited to trimming and limbing of trees. The SMP Manual allows for limited treatment of emergent vegetation (like cattails and tules). The work must leave the subsurface root structures behind to allow it to reestablish in the spring and summer. Full root mass removal of cattails is permitted using hand tools to maintain a low flow channel but requires approval on an annual basis.
- By May 1 of each year RWQCB requests that the District submit a list of sites to be maintained that summer for their review and approval. 2019 is the first year that

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RWQCB denied vegetation management approval until it could verify planned work would not exceed program limits. In response, staff identified a subset of sites that would not exceed the 5000 linear foot limit. Previously staff had been notifying DFW and RWQCB each May that the full length of nearly all sites would be included in the program as it is difficult to predict which sites need work that early in the year, but this exceeded the program limits of 5,000 linear feet by approximately twelve-fold. To improve compliance with the order, staff track maintenance needs based on GIS data collection coupled with prioritization of sites on District owned or maintained lands that allows for more accurate reporting to the regulatory agencies.

- With respect to sediment removal, when the District notifies the RWQCB of planned activities, it also must consider whether any potential capital improvement projects (i.e., new bridge or culvert) may be recommended to reduce or eliminate the need for sediment removal in the future.

d. Coordination with Caltrans and County Public Works Regarding Tidal Flooding on Greenwood Cove Dr and Tiburon Blvd (SR 131)

Flooding – even on sunny days – has been reported on Greenwood Cove and Tiburon Blvd. This is expected to become a more regular occurrence with rising sea levels due to climate change. Tidal flooding of the road network causes regional traffic and transportation delays and the burden of sea level rise adaptation on these roadways should not solely fall on the flood zone (see this article for more information: <http://www.homelandsecuritynewswire.com/dr20200806-bay-area-coastal-flooding-triggers-regionwide-commute-disruptions>). To this end, Zone 4 staff coordinate with the County's [BayWAVE Program](#), County Road Maintenance and Engineering Divisions of Public Works, and Caltrans to promote the design and maintenance of flood-resilient roadways.

Caltrans is in the planning phase for a project to rehabilitate pavement on MRN-131 (Tiburon Blvd) between US 101 and Main Street. Caltrans has proposed to install tide valves in the drainage system in coordination with county staff. Project construction is scheduled for 2024 and 2025. Caltrans suggests the county add a barrier on the back of the sidewalk at Greenwood Cove because King Tides also overtop there. The sidewalk is not a Zone 4 facility.



Photo of Greenwood Cove and SR 131 during King Tide from Mark Morancy (Caltrans).

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Item 5. Zone 4 and 4A FY 2022-23 Proposed Baseline Budgets

The County Administrator's Office requested that the zones recommend a baseline budget for the beginning of each fiscal year that **does not include major project expenses**. Baseline budgets are intended to be relatively consistent year to year. **Major project expenditures will require separate actions from the AB and District BOS to adjust the budget as needed**. As usual, the approved budget may always be adjusted as necessary as priorities and project cost estimates for this coming fiscal year are more clearly identified. The advisory board is asked to focus on expenditures that are shaded green within the baseline budgets.

Flood Zone 4:

<https://www.marinwatersheds.org/sites/default/files/2022-04/Flood%20Zone%204%20Baseline%20Budget.pdf>

Flood Zone 4A:

<https://www.marinwatersheds.org/sites/default/files/2022-04/Flood%20Zone%204%20Baseline%20Budget.pdf>

The budget for flood zone 4A only includes maintenance contracting and supplies for the Strawberry Circle pump station. The amount proposed for the next two years is for unexpected repairs only. Staff and utility costs associated with that pump station are charged to Zone 4 to allow the Zone 4A account to slowly accumulate funds to replace the pumps when they reach the end of their expected useful life (typically around 30 years).

Recommended Action: Recommend the Board of Supervisors approve the FY 22-24 baseline budgets.

Item 6. Schedule Next Meeting

The AB may consider setting the next meeting date.