

FLOOD CONTROL ZONE 4 ADVISORY BOARD UPDATE
FALL 2023

Item 1. Review Meeting Minutes: July 25, 2023

Draft minutes and the presentation can be found here:

<https://marinflooddistrict.org/meetings/zone-4-advisory-board-meeting-july-25-2023/#/tab-minutes>

Item 2. Evaluation of Channel Capacity Improvement Options at East and West Creek

At the October 2022 meeting, civil engineer and geomorphologist Matt Smeltzer of Geomorph Design Group provided the advisory board a presentation on the hydraulics and geomorphology of Zone 4 watersheds. The advisory board then requested preparation of cost estimates for potential conceptual measures identified for East and West Creeks. These were presented to the advisory board on July 25, 2023 (linked in minutes in Item 1), and based on feedback from the advisory board at that meeting, Geomorph Design Group has prepared an Executive Summary for Flood Risk Reduction Alternatives at East and West Creek which is posted on the website: <https://marinflooddistrict.org/documents/executive-summary-for-flood-risk-reduction-alternatives-at-east-and-west-creeks/>

The advisory board recommended proceeding with design for the East Creek “Medium Plan” and the West Creek “Medium Plan 3-2” as described in the Executive Summary. These Plans represent small-scale creek restoration projects totaling about \$2M in implementation cost. District staff will refine the scope of work for a proposed design contract for these restoration projects and return to the advisory board for a recommendation to proceed with the project at the January 2024 advisory board meeting.

Item 3. Annual and Preventive Maintenance Work Program

Listed below is a summary of annual and preventive maintenance completed this year. In addition to these pre-winter activities, District maintenance crews check the trash racks and pump stations before, during, and after storms. A map of the Flood Zone can be found here for reference: <https://marinflooddistrict.org/documents/map-of-flood-control-zone-4-bel-aire/>
For questions, email floodinquiry@marincounty.org.

A. **Pump Stations**

Zone 4 has three stormwater pump stations. Cove Pump Station was installed in 1978 and was significantly upgraded in 2019-2020, Pamela Court was installed in 1990, and Strawberry Circle Pump Station (Zone 4A) was installed in 2003. These pump stations allow the drainage of stormwater from residential and commercial areas to flow into creeks and wetlands where barriers on the banks and shorelines were built to 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.

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Preventive 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 Ct back-up (propane) pump was removed this summer for inspection and refurbishment. The pump itself was in good shape but the gearhead needed significant extra work amounting to about \$4k above the cost for standard maintenance. The work was completed on time and utilizing the Zone 4 baseline budget for this year. Strawberry Circle #1 is scheduled for 2024 and Strawberry Circle #2 in 2025. Since the new Cove Station pumps were installed in 2019 as part of the above-described upgrade project, all three pumps will be due for service in 2025 but they will not all be maintained the same year.

B. Vegetation and Sediment Removal

The East Creek access road and Strawberry Circle Pump Station area were mowed by Roads Division. They also trimmed vegetation at the Pamela Court Pump Station. The work by Roads, for access and fire fuel reduction, was completed at the end of June. In early August the Conservation Corps North Bay cleared potential flood hazards and removed invasive species of plants while maintaining East and West Creeks. They also cleared vegetation at the debris rack at the end of Karen Way where East Creek flows into the pipes under the road.

Sediment was removed from East Creek last year, and typically is needed approximately every 5 years. Analysis completed as described in Item 2 above suggests that sediment removal on East Creek reduces flood risk, however the District's programmatic sediment removal on West Creek at Cecilia Way is considerably less beneficial. Based on that, we don't anticipate continuing the practice of spot-sediment removal in West Creek at Cecilia Way.

C. Programmatic Maintenance Permit Status

After over a decade of coordination, the District received approval from environmental regulatory agencies for a 5-Year Programmatic Stream Maintenance Permit. This work was done primarily by staff, saving a significant amount of money. Listed below is a summary of the key steps and milestones in the process.

In 2011 District staff began working with State environmental regulatory agencies now requiring overarching recurring maintenance permits for local agencies working in waterways. Creek/ditch maintenance 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 began by developing a Stream Maintenance Program (SMP) Manual (see the latest version of it here: <https://marinflooddistrict.org/documents/marin-county-stream-maintenance-manual-2023/>) and then applying for permits from relevant agencies, which for most sites includes the CA Department of Fish and Wildlife and the San Francisco Bay Regional Water Quality Control Board.

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CA Department of Fish & Wildlife issued a Routine Maintenance Agreement for the District's creek maintenance that can be viewed here:

<https://marinflooddistrict.org/documents/ca-department-of-fish-and-wildlife-creek-maintenance-activities-permit-2021/>

The San Francisco Bay Regional Water Quality Control Board (RWQCB) adopted a new Order on July 12 that can be found here:

https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2023/R2-2023-0011.pdf

Item 4. Coordination with Caltrans and County Public Works Regarding Tidal Flooding on Greenwood Cove Dr and Tiburon Blvd (SR 131)

Caltrans has released a Draft Initial Study with Proposed Negative Declaration for a pavement rehabilitation project on MRN-131 (Tiburon Blvd) between US 101 and Main Street. The draft document can be found here: <https://bit.ly/3FoHdsj>. The purpose of the project is to improve serviceability and ride quality on MRN-131 and restore existing drainage systems to reduce the potential for highway flooding and to increase the safety for the public. As part of this project, Caltrans has proposed to install tide valves in the drainage system to prevent sunny day flooding on MRN-131, as well as a flood barrier along the road.

A representative from Caltrans will attend the next advisory board meeting to answer questions. Meanwhile, Caltrans and the County are exploring alternatives to the proposed flood barrier and will follow up with the advisory board chairwoman ahead of the next meeting to discuss.

Neighboring Greenwood Cove Dr., a County maintained road, also floods at high tides and this project will not benefit Greenwood Cove Dr. District staff met with Caltrans about suggested changes and additions to the project that would benefit Zone 4, including moving the proposed valves to a location that would benefit Greenwood Cove Dr., and rehabilitating visibly corroded corrugated metal culverts under MRN-131 between West Creek and Saltworks Canal. Though Caltrans did not incorporate the requested changes into this project due to perceived environmental impacts, Caltrans cannot make flooding worse on neighboring Greenwood Cove Dr. District staff will continue working with Caltrans separately from the pavement rehabilitation project regarding the corroded metal culverts, and will coordinate with the County Public Works Engineering division regarding protecting Greenwood Cove Dr.

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

Item 5. Greenwood Beach Restoration Project

The advisory board expressed interest in regional sea level rise planning. The County has various Engineering Sea Level rise studies, including this one near Zone 4:

<https://marinflooddistrict.org/greenwood-bay-beach-restoration-project/>

Item 6. Next Meeting

The next meeting is scheduled for January 23rd, 2024 at 6:30pm at the Westminster Presbyterian Church.