

FLOOD ZONE 3 ADVISORY BOARD MEETING

January 7, 2025

Staff Report

Item 1. Approval of Meeting Minutes: July 9, 2024

Review July 9, 2024 minutes at this link: <https://marinflooddistrict.org/meetings/zone-3-advisory-board-meeting-july-9-2024/#/tab-minutes>

Recommended Action: Approve draft minutes of July 9, 2024

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. December 2024 Storm Report

During the period of King Tides between December 11 and December 17, 2024, several waves of precipitation delivered more than 7" of rain on Mount Tamalpais. According to the Sheriff's Office, southern Marin had the majority of the emergency calls, largely related to shoreline flooding and downed trees caused by high winds. The Emergency Command Center logged over 300 storm-related calls. County firefighters responded to 35 fallen branches or trees, 31 downed power lines, and one water rescue.

County maintenance crews patrolled 24/7 during this period, cleaning trash racks, making sure pumps were running, and (mostly in West Marin) removing mudslides and dozens of trees from roads. Additionally, a contract crew was operating the Marin City Pond tide gate and portable pumps at the intersection of Drake and Donahue through Saturday, December 14 in order to maintain access into and out of Marin City. There are more details on this in Item 5.C.

We received reports of Gate 6 flooding on Saturday. The tide peaked well above the predicted King Tide, at over 8 feet elevation, covering the access road and parking area for Gate 6. The access road and parking area has a mixture of public and private ownership.

We are monitoring closely the forecast for another period of heavy rain expected December 21-22, and another period of high tides predicted on December 29-31. These periods are in the future at the time of writing this report, but an update will be provided at this meeting.

Item 4. Annual and Preventive Maintenance Work Program

Below is a summary of the anticipated preventive maintenance work program for this summer/fall.

A. Pump Stations

i. Regular Maintenance:

Individual pumps and motors are scheduled for major maintenance on a six-year interval at each of the zone's pump stations. Major preventive maintenance is scheduled in 2025 for one of the large diesel pumps at Crest Marin Pump Station. One of the pumps at Seminary Drive is also due for this major maintenance. Unless extensive additional work is needed, these contracting costs (~\$40k) are covered under the baseline budget for Zone 3.

ii. Repair Needs:

All repair needs are being completed utilizing the Zone's baseline budget.

Saltwater affecting pump stations:

At several high tides water was observed running into the Shoreline Pump Station wet well. After investigation it was determined that the water is coming through an old pipe through the levee at the parking lot next to the former Dipsea Cafe. We are plugging that pipe to prevent damage to the pump station. Additionally, corrosion protection will be implemented at all the pump stations which will help protect equipment from damage by salty water. Furthermore, extensive maintenance is planned for tide gates associated with Cardinal and Crest Marin pump stations this summer to reduce saltwater exposure to their pumping equipment.

Pump station generators:

The generator's automatic transfer switch is currently being replaced at Ryan Creek Pump Station as it was found to be malfunctioning last fall. All generators were load tested last summer and are otherwise in good shape.

B. Vegetation and Sediment Removal

Vegetation overhanging the concrete channel of Coyote Creek is removed as needed to facilitate inspection of the concrete walls and tide gates. Sediment removal needs will be evaluated in April.

For many years the City of Mill Valley has been conducting maintenance of their stormwater facilities and drainage channels each year with funding support through a cooperative agreement with Flood Zone 3, the last of which expired at the end of last June. The City suggested it would be more efficient for the District to conduct the maintenance work in creeks directly through its annual creek maintenance contract with the Conservation Corps North Bay (CCNB). The City and District are working on right-of-way agreements so the CCNB can work in the City's roadway, property, and easement rights-of-way. Last year the CCNB conducted maintenance

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in locations where the District has existing easements or ownership within the City, such as certain segments of Sutton Manor Creek.

C. Levee Maintenance

Gopher holes in the earthen levees along Coyote Creek are filled in early fall to reduce the risk of seepage in the winter. Due to the continued proliferation of burrows, the cost for this has risen this year to \$50,000 and is expected to remain at that level until a permanent solution to prevent seepage through the levee can be implemented (see item 6.B). Conditions of the levee are continually inspected throughout the winter during storms, and/or high tides when seepage is most evident.

Item 5. Engineer's Report for Zone 3 Marin City Projects (Information Item)

A. Marin City Stormwater Plan (Judd Goodman)

Background: The Marin City Stormwater Plan is aimed at reducing flood risk in Marin City, an unincorporated neighborhood near Richardson Bay. The goal of the Plan is to understand existing flooding conditions and identify potential solutions that will enhance flood resilience in Marin City while accounting for community priorities. The Plan will pinpoint areas for flood risk reduction, drainage improvement, and preservation for public access. It will provide detailed recommendations for potential projects that local, regional, state, or federal agencies may implement in the future. Additionally, the plan will support grant funding applications necessary for project implementation. For more information on the Marin City Stormwater Plan, including a summary of completed Marin City Stormwater Task Force and Community meetings and those planned for the future, please see the project [website](#).

Update: The upcoming Community Meeting for the Marin City Stormwater Plan, originally planned for fall of 2024, is being rescheduled to late January or February 2025. This adjustment reflects the County Executive Leadership Team's commitment to ensuring that the Executive Summary of this work and the accompanying Stormwater Plan report aligns with the intent of the project and the community's flood needs. Based on the work of this plan, some other agencies have already begun planning projects described in Item 5.D. **A presentation will be given at this meeting on the Marin City Stormwater Plan, focusing on strong community feedback received this summer, updated scoring of project concepts, and the recommended projects.**

B. Marin City Stormwater Pond Infrastructure Improvements (written update only)

Background: The scope of work for this FEMA grant-funded project has expanded significantly since 2020 and currently consists of an estimated \$15 million construction project to install a permanent 50 cubic feet per second (cfs) stormwater pump station and a floodwall at the Pond along with drainage pipe upgrades in the shopping center. Though twice as expensive as the original proposed project (which did not include a pump station), the benefits of the upgraded project as currently

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scoped are much better for Marin City flood reduction than the original 2017 grant proposal under both current and especially future sea level rise conditions. In June 2023, FEMA approved the revised scope for Phase I final design and permitting and a new \$883,636 contract with consultant BKF was approved by the District Board of Supervisors on September 19, 2023 for the pump station design (to 65% level) and environmental compliance. Up to 75% of the design cost is reimbursable by FEMA through a design grant, with the rest from Zone 3 funds.

Following design and CEQA, FEMA will complete a NEPA review prior to consideration of award for Phase II of the funding for final plans and specifications (from 65% to 100%) and construction. Note: While the Marin City Stormwater Plan (Item 5.A. above) includes this project in the models that were created, the Stormwater Plan does not change the scope of this project or design.

District staff received approval from the property owner to conduct site investigations and survey around the pond which was completed in September 2023. The design team is continuing work on the pump station and floodwall design. CEQA/NEPA for this project began mid-2024 and the current schedule for the 30-day public comment period is to begin in early Spring 2025. The entire Phase I is scheduled to be completed by May 2025.

Update: The project continued design work on the Marin City pond pump station. The District has reviewed the 65% design package. Permit applications were submitted in Fall 2024. The remaining work under the current grant scope are the completion of studies required for CEQA and then the public outreach and finalizing of CEQA. The formal public review process for CEQA is anticipated to begin in early Spring 2025.

The grant pool that funded Phase I (preliminary design and CEQA) has since run out of money to fund Phase II. The District is exploring additional grants for construction.

A public meeting will be held to seek input on pump station aesthetics early in 2025. We are working with Marin City Arts & Culture to facilitate public input and develop recommendations to be used by the project design engineer in the final pump station construction plans.

C. Marin City Donahue Portable Pump Station

Background: The purpose of this project is to reduce flooding duration at the intersection of Donahue and Drake by installing and operating two temporary trailer mounted pumps and associated piping systems for up to three years, after which time it is anticipated that the permanent project described in Item 5.B above can be constructed. Flood District staff are managing the work, including the \$236k design contract, \$1.16M construction contract, \$89k construction inspection contract, \$267k pump purchase order, \$5k water level gauge purchase order, and \$300k pump and tide gate operations contract. However, Flood Zone 3 will receive full reimbursement for the cost of the project through a TAM Agreement funded by Senator McGuire.

Update: The goal is to get the pump station operational during 2024/25 winter season. GSW Construction, Inc. has finished constructing the necessary storm drain

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modifications at the intersection to accommodate the temporary pumps and initial system testing took place in December. Adjustments and testing may continue into January. An operations contractor is already engaged to operate the tide gate at the Marin City pond, as well as portable pumps as appropriate. At this time, the plan is to only deploy the pumps when a storm that would be expected to flood the intersection is forecast.

On December 14, 2024, there were extreme high tides, with preliminary values peaking at 8.16ft at the Golden Gate Bridge. During this period of high tides an estimated 2.5" of rain fell in the Marin City watershed. The Marin City Pond was filled to capacity after about 1" of rain fell in the saturated watershed, so the portable pump operators ran the pumps through the morning and afternoon to keep the intersection of Drake and Donahue passable.



Figure 1. Photograph of portable pumps running at the intersection of Drake and Donahue nearest the U.S. 101 offramp.

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D. State and Federal Projects Affecting Marin City

Because of the stormwater planning work to identify potential solutions to flooding issues, state and federal agencies have already begun moving forward with projects. Staff have worked tirelessly to coordinate efforts and expedite this work because funding has limited time frames. We anticipate additional staffing and resource needs to support these projects and we will update the advisory board when we better understand those needs.

i. Caltrans 2nd Culvert Under Hwy 101:

Currently, runoff from the 340-acre Marin City watershed drains to Richardson Bay through one culvert under Hwy 101. Caltrans proposes to build a second culvert under Hwy 101, which would split runoff to two Bay outfalls and help reduce flood risk in Marin City. This improvement concept ranks high in the Marin City Stormwater Plan. Information on this proposed project can be found here: <https://dot.ca.gov/caltrans-near-me/district-4/d4-projects/d4-second-culvert-project-us101-marin-city>

ii. U.S. Army Corps of Engineers Continuing Authorities Project (CAP):

Up to \$14.7 million of federal funds, without local match, can be used for planning, design, and construction of project(s) that will reduce flood risk in Marin City. This funding is not tied to any one project and a feasibility study is underway to evaluate how to best utilize the resources. The Marin City Community Services District (CSD) successfully applied for this CAP grant. The funds will be spent by USACE. Find information on the project at this site: <https://www.spn.usace.army.mil/Media/News-Stories/Article/3956905/usace-partners-kick-off-marin-city-flood-resilience-project-with-nov-7-community/>

iii. U.S. Army Corps of Engineers Emergency Action Plan (EAP):

This multi-jurisdictional project began a few years ago, led by USACE, with the intent of coordinating the various agencies involved in Marin City for better emergency resilience. This Emergency Action Plan (EAP) - Traffic and Roads component identifies high-priority actions to: (1) prepare and respond to flooding on Marin City access roads; (2) inform Marin City community members of flood risk along Marin City access roads; and (3) reduce flood risk to people trying to enter or leave Marin City. This plan includes emergency actions specific to the interagency coordination, deployment of traffic management resources and public notification that would occur in the face of a potential flood. Visit the project webpage here:

<https://www.spn.usace.army.mil/Missions/Projects-and-Programs/Current-Projects/Marin-City-Emergency-Action-and-Resilience-Planning/>

Item 6. Engineer's Report for Tam Valley Project Updates (Action Item)

A. Proposed Cardinal Levee Seepage Mitigation (Information Item)

Background: The purpose of the Proposed Cardinal Road Levee Seepage Project ("proposed project") is to design a flood barrier to resolve seepage issues which are partly due to rodent burrows. The proposed project would upgrade a 1,100+ linear foot portion of the Coyote Creek Levee along Cardinal Road located in the unincorporated community of Tamalpais Valley. See Figure 1 for proposed extents.

The proposed project would also re-route a ditch that runs behind some properties on Cardinal Road and drains through a tide gate in the levee. The flows would be directed to Shoreline Pump Station, located on the opposite side of the shopping center employee parking area. The proposed levee upgrade will be extended approximately an additional 150 feet to cut off potential for seepage through the gated pipeline in the levee that we are considering abandoning. Doing this would eliminate the need to stage a portable pump there.

Preliminary estimated costs to construct this proposed project are \$3-5M. The Advisory Board previously recommended a budget of \$600,000 for a consulting contract that will cover the design, right-of-way planning, environmental compliance and re-routing the Cardinal ditch to Shoreline Pump Station. Construction of the proposed project would likely occur in 2027.

This proposed project is being coordinated with the County's Stormwater Division which is overseeing a project to add a Trash Capture Device to the Shoreline Pump Station in 2026 to meet changing environmental regulatory requirements. The Trash Capture Device is not funded by Zone 3.

More information on this project can be found on the project website:

<https://marinflooddistrict.org/cardinal-road-levee-project/>

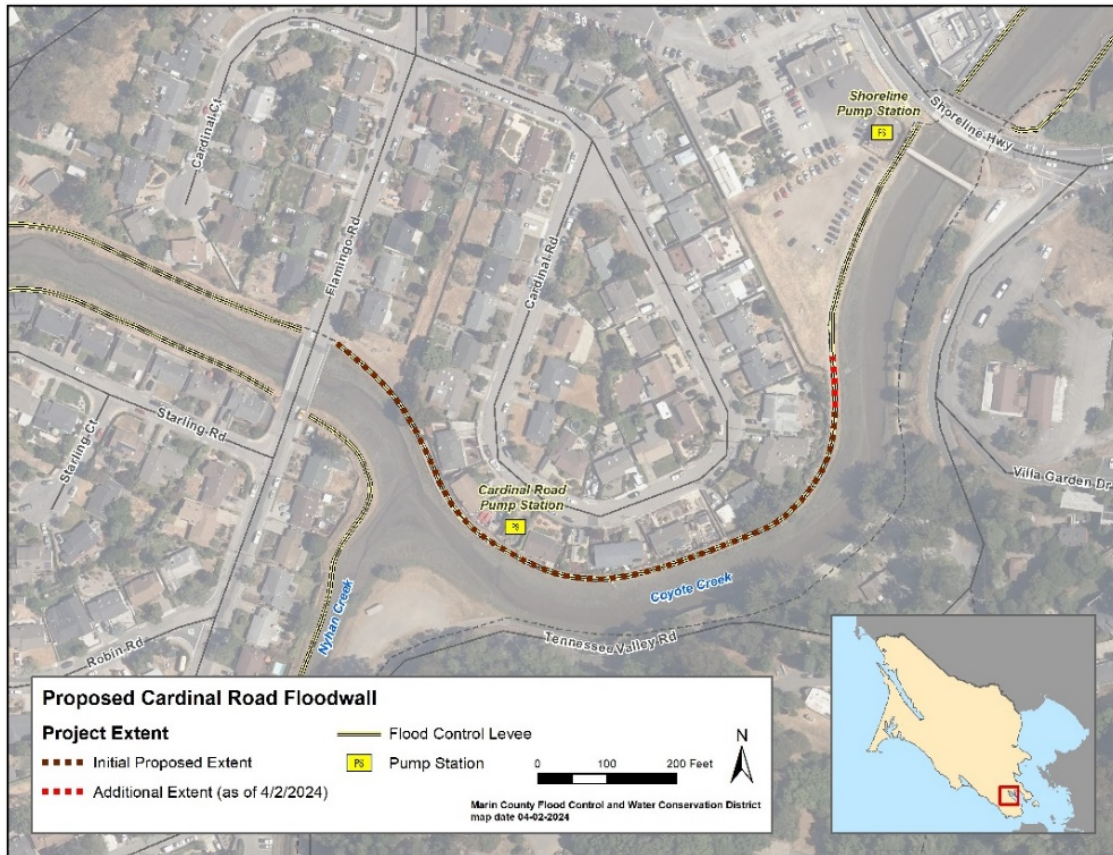


Figure 2. Proposed Extent of the Cardinal Road Levee Flood Barrier

Update: The District selected the most highly qualified consultant, CSW/Stuber-Stroeh Engineering Group, Inc., to move forward with design for the proposed project and the firm was approved by District Board of Supervisors on September 24, 2024. The design process started in early October 2024 and is in the data gathering and analysis stage.

On December 7, 2024, the design team held a Meet & Greet with the Cardinal Road neighborhood to get early input from residents during the data gathering stage. The turnout was excellent and the information we got from the neighborhood was invaluable. We anticipate having more of these meetings during the design process.



Figure 3. Photo from Jen Imbimbo during the Cardinal Road neighborhood Meet & Greet on December 7, 2024

At the last meeting, the Advisory Board requested more information about costs for easement acquisition. Easement acquisition costs include obtaining title reports, appraisal fees, paying for the labor of a Real Property Agent, and paying for the project's impacts to improvements (e.g. structures) on the property. Compensation to property owners for the easement is based on the fair market value as determined by an appraiser. Updates on easement acquisition budget needs will be provided to the Advisory Board over the coming year as we learn more about the proposed project right of way needs.

B. Crest Marin Pump Station Rehabilitation Design (Action Item)

Background: The Crest Marin Pump Station is a stormwater pump station that discharges to Nyhan Creek and is located at 297 Flamingo Road (near the intersections of Tennessee Valley Road/Flamingo Road and Marin Ave). The Crest Marin Pump Station was constructed in 1978 and is reaching the end of its

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expected useful life. Staff have been reporting to the Advisory Board about increasing maintenance needs and costs at this station. Schaaf & Wheeler was awarded a consulting contract by the District Board of Supervisors in January 2023 to conduct a condition assessment of the Crest Marin Pump Station. They summarized the assessment for the Advisory Board in October 2023 and provided recommendations for short term and long-term improvements to address condition and reliability issues. Based on the assessments, age of equipment, and reliability of the pump station it is recommended to complete a full pump station rehabilitation. The Advisory Board on October 10, 2023 recommended the District Board of Supervisors award a design and environmental compliance contract for the pump station and potentially associated drainage improvements with a budget no more than \$500,000.

The construction cost estimate for a full pump station upgrade amounts to \$3.24 million which includes a 20% construction contingency. Design, construction management, permitting, and administration could add another 50% or \$1,350,000 for a total budget estimate of \$4,600,000.

This work is being coordinated with PG&E, which needs to relocate a leaning transmission tower away from the Nyhan Creek levee. Though the transmission tower has been removed, a permanent location still needs to be identified (more on this in Item 5).

Update: The District recently advertised a Request for Qualifications and Proposals for potential consultants to carry out design and environmental compliance. Two proposals were received and evaluated. Negotiations are complete with the most highly qualified firm, but the cost to carry out this work exceeds by \$40,924 the \$500,000 budget that the advisory board recommended on October 10, 2023 for this purpose. It is anticipated that the firm will be recommended to the District Board of Supervisors for approval this month. Work is also underway to develop a project website.

Recommended Action: recommend the District Board of Supervisors approve a total \$540,924 budget adjustment for a professional services agreement for environmental permitting, engineering design and bid package preparation for the Crest Marin Stormwater Pump Station – Rehabilitation Design.

Item 7. U.S. Army Corps of Engineers Coyote Creek Flood Control Project

In response to questions from the Advisory Board at the July meeting, following is a summary of responsibilities of the District and U.S. Army Corps of Engineers (USACE) with respect to this project.

The Coyote Creek Flood Control Project was constructed by USACE in partnership with the District in the 1960s. In this partnership, the District is the local sponsor, and as such is responsible for all ongoing maintenance and upgrades to the system following initial construction. USACE maintains the following roles in the project:

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- Their Levee Safety Program staff periodically perform visual inspections focusing on maintenance and encroachments. On a separate cycle, they also periodically update their analyses of the system's risk.
- They oversee compliance with Section 408 of the United States Code when any alterations to the project are proposed, ranging from District-initiated levee upgrades or encroachments by a swimming pool in a back yard on an easement for the project. The USACE must approve all alterations or encroachments through Section 408 permission.
- Their regulatory branch also oversees compliance with Section 404 of the Clean Water Act and Section 7 of the Endangered Species Act (through consultation with U.S. Fish & Wildlife Service) to protect water quality and habitat. USACE provides permits for maintenance and alterations to the project.
- Their Rehabilitation Program provides post-disaster assistance in repairing facilities damaged due to floods. USACE provides technical assistance to all its partners, however financial assistance is contingent up on complying with certain standards as verified by the Levee Safety Program staff in their periodic inspections. Due to encroachments, the Coyote Creek project is not currently eligible for this post-disaster financial assistance.

The Advisory Board asked at the last meeting what constitutes an encroachment on the USACE project and who pays for abatement. Any structure within the project easement and also trees within 15 feet of the land-side levee toe must be approved through Section 408 or it is considered an encroachment on the project. Examples of encroachments on this project not approved through Section 408 include:

- Certain pipes that penetrate the levee
- Private fences and landscaping
- Public non-motorized pathway
- A portion of a residential structure
- Vegetation

Previously, USACE cited a high-risk encroachment - a PG&E power transmission tower on the bank of Nyhan Creek, but this tower started leaning and was removed by PG&E in 2023. The District is currently coordinating with PG&E and the Tam Valley Community Services District (TCSD) to identify a permanent location that does not encroach on the project. Regarding the relocation of the PG&E transmission tower, the District 3 Supervisor has convened a small working group with representatives of TCSD, Flood Zone 3, and PG&E to evaluate locations for the tower. This group will bring recommendations to TCSD in the future. The initial meeting was held October 21, 2024.

Item 8. Zone 3 Fund Report and Projections

On January 9, 2024 the advisory board recommended baseline budgets for fiscal years 2024-2025 and 2025-2026. Baseline budgets do not include major project expenses and are meant to be relatively consistent from year to year. Major project expenses, like design contracts and construction contracts, have to be accompanied by additional recommendations for budget amendments (such as the one recommended for Item 5.B on this meeting's agenda). At this time, staff do not recommend any changes to the fiscal year 2025-2026 baseline budget that the advisory board already recommended.

Updated financial projections are provided in the attachment, which include the cost of Crest Marin Pump Station and Cardinal Levee projects with the baseline budget costs, as well as the Marin City Permanent Pump Station (assuming a FEMA grant for construction, which may change). This projection does not include the Marin City Portable Pump Station at Donahue because that is fully reimbursed through a Transportation Authority of Marin funding agreement.

By 2028 the projection shows a fund balance of about \$9 million which will be needed at that time for renovation of Cardinal and Shoreline Pump Stations which are nearing the end of their expected design life.

Item 9. Schedule of Next Meeting and Adjourn

Advisory Board adopted a schedule of meetings on the second Tuesday of the months of January, April, July, and October. Special meetings can be called if needed, and regular meetings may be canceled if there is no business need.

The schedule of regular meetings adopted by the Advisory Board differs from what is in the Zone bylaws. Later this year, we will return to the Advisory Board with recommendations for edits to the bylaws that are consistent with the preferred meeting schedule.