

**CRS Activity 510**  
**Annual Progress Report on Implementation of Credited Plan**

**Which Plan is this for (use separate templates for each credited Plan):**

- Floodplain Management Plan (Hazard Mitigation Plan)**
- Repetitive Loss Area Analysis**
- Floodplain Species Plan**
- Substantial Damage Plan**

Name of Community:       Unincorporated Marin County

Date this Annual Progress Report was prepared (not the date of adoption of the credited Plan):   June 21, 2022

Name of Plan:   Marin County Multi-Jurisdiction Local Hazard Mitigation Plan (MCM LHMP)

Date of Adoption of Plan:       2018

*5 Year CRS Expiration Date:*    2023

1. How can a copy of the credited Plan be obtained: Marin County Multi-Jurisdiction Local Hazard Mitigation Plan (MCM LHMP) is available online at <https://www.marinwatersheds.org/sites/default/files/2020-07/Marin%20County%20Multi-Jurisdictional%20Local%20Hazard%20Mitigation%20Plan%202018.pdf>
  
2. Describe how ***this annual progress report*** (not the credited Plan) was prepared and how it was submitted to the governing body, released to the media, and made available to the public:

Quarterly meetings consist of a discussion and report out from current staff assigned to the Planning Committee by the participating jurisdictions. The discussions may include, an overall review of the plan update process, an update on management of the plan update project grant, an update on participating jurisdiction Community Resilience System program elements, and activity reports from all participating jurisdictions related to project updates

and new projects, existing Notice of Intent (NOI) grant application status, new NOIs submitted, changes to plans related to the MCM LHMP, and changes to staff or staff lead related to the MCM LHMP. The report to the DC3 was submitted at the June 2022 session and will be posted on the Department of Public Works website for media and public access.

3. Provide a description of the implementation of each recommendation or action item in the action plan or area analysis report, including a statement on how the project was implemented or not implemented during the previous year:

Unfortunately, due to existing staffing limitations which were exacerbated by the local government COVID-19 response effort, some objectives identified in the 2018 plan were not reached. Staff with participating jurisdictions are working to re-prioritize projects which remain important and viable as well as assessing new projects to meet standing objectives. See attached spreadsheet for Project status.

4. Discuss why any objectives were not reached or why implementation is behind schedule:

Unfortunately, due to existing staffing limitations which were exacerbated by the local government COVID-19 response effort, some objectives identified in the 2018 plan were not reached. Staff with participating jurisdictions are working to re-prioritize projects which remain important and viable as well as assessing new projects to meet standing objectives.

5. What are the recommendations for new projects or revised recommendations?

It is recommended that local government leadership consider a set of projects that represent necessary work, without building out complete project scopes. This process would allow for local government to utilize the plan as a “living document”, making project additions as staff bandwidth and other factors permit.

## LHMP Project Status Update

7/11/2022

Project	Status
<b>Seismic Retrofit of County-owned buildings not current to code.</b>	Staff also continue gathering available seismic assessment data on County-owned (and possibly leased sites in the future) facilities. This information will be brought into an asset management database, which is in the early stages of development, and will support risk assessment and work plan development
(1) West Marin Service Center, Point Reyes	completed
(2) Civic Center Roof Replacement	completed
(3) Tomales Fire Station- Replacement	completed
(4) 120 N. Redwood- Seismic Assessment	Local hazard mitigation by the States Office
(5) Marin Center- Seismic Assessment of the Veteran's Memorial Auditorium & Exhibit Hall	Completed assessment, and HMGP grant secured for upgrades. Seismic retrofit work at the Exhibit Hall underway, with construction to be completed by the end of the year. The retrofit design work for the Veterans' Memorial Auditorium is complete. Construction work scheduled to run from Aug-22 to July-23.
Seismic upgrades (bolting and anchoring pumps and roof) to the Cove Pump Station	Construction completed in 2020.
Ross Valley 10 Year Work Plan	Completed - Plan described technical rationale for a suite of on-the-ground flood reduction measures, spread watershed-wide, that work together as a system to reduce flooding and seek to restore the ecological health and function of Corte Madera Creek and its tributaries. A Flow Reduction Study re-examined the flood control measures proposed in the plan and added other new measures either not previously considered, or if considered, were ruled out based on prior screening criteria. One of the key goals of the Flow Reduction Study was to reexamine the proposed detention basin sites, as well as consider additional detention basin sites, to ensure every option was assessed before moving forward with complex flood reduction measures. The Study reaffirmed the need for detention basins to be implemented alongside creek improvement measures to achieve Program objectives. <u>The final projects which are currently being implemented as part of this work</u>
Marin County Watershed Program	Completed - The Marin County Watershed Program provides a framework to integrate flood protection and environmental restoration with public and private partners to protect and enhance Marin's watersheds. A multi-phase process was carried out between 2006 and 2016 to study various watersheds and identify project alternatives and funding sources. This is complete and most of the flood risk reduction projects on this list came from that process. <u>The County continues to leverage</u>
Las Gallinas Levee Evaluation	Completed - has led to the Santa Venetia Timber Reinforced Berm project, update provided separately.
Marin County Structure Elevation Program	FEMA funding approved and 7 permits are being reviewed
Acquire electric bikes and safety equipment for official use during major disasters	Not yet prioritized
San Anselmo Flood Risk Reduction Project	Construction of stormwater basin to be completed in 2022

Corte Madera Creek Flood Risk Management Project,	Construction in progress through 2023 - The Marin County Flood Control and Water Conservation District (District) proposed the Corte Madera Creek Flood Risk Management Project, Phase 1 to reduce the 25-year flood risk along Corte Madera Creek in the Town of Ross and unincorporated Kentfield and to enhance natural stream functions. The project is located in the Corte Madera Creek watershed within the Town of Ross and census-designated place of Kentfield in Marin County. The Project area is divided into three units, as identified from the original construction by the US Army Corps of Engineers, from upstream to downstream: Unit 4, Unit 3, and Unit 2. Corte Madera Creek within the project area is a concrete lined channel in Unit 3 and Unit 2 and currently has a natural bottom in Unit 4. The project area is approximately 1.4 miles long. The proposed project includes elements that would increase flow conveyance capacity, provide flood protection, and/or enhance habitat within Corte Madera Creek. District staff have been working with the Town of Ross, Friends of Corte Madera Creek, and other stakeholders to continue moving forward with the project design, permitting, and Environmental Impact Report (EIR). The EIR was certified by the District Board of Supervisors on August 17, 2021. The project construction will be bid as two contracts (Parts 1 and 2). Part 1-Granton Park: The project has funding from a CA Department of Water Resources Grant that had been set to expire on March 31, 2023, but was recently extended to allow for continued construction through 2023. The plan set for construction of the new stormwater pump station and the maintenance access ramp in the Granton Park neighborhood was advertised and awarded to a contractor in 2022. Plans and Specifications for this project are available to view free of charge on the County's new online bidding process through Bid Express. <a href="https://www.bidexpress.com/businesses/53528/home">https://www.bidexpress.com/businesses/53528/home</a> . The District received a low bid of \$4,104,227.00. Part 2- In-channel improvements: Some of the in-channel improvements do cause a minor rise in water surface elevation within the existing concrete channel, and therefore need to be approved by FEMA and the Town of Ross and the County's respective floodplain administrators. The projects will follow a Conditional Letter of Map Revision process which is expected to take from 6 to 9 months and will therefore likely delay the construction of these project components to the 2023 construction season. These components include removal of the existing wooden fish ladder structure, and replacement of the transition structure between the upstream natural channel and the existing concrete channel plus any work to raise the height of the existing concrete channel walls downstream. Work downstream of the Lagunitas Road bridge which includes widening the channel along the right bank looking downstream and grading of the channel bed is also likely to be postponed until 2023. The CMC FRM EIR includes the removal of a portion of the concrete channel and
Azalea Ave Bridge Replacement	On hold due to lack of FHWA and local funding
Nokomis Ave Bridge Replacement	On hold due to lack of FHWA and local funding
Madrone Ave Bridge Replacement	On hold due to lack of FHWA and local funding
Winship Bridge Replacement	CEQA and preliminary design completed.
Sycamore Ave Bridge Replacement	On hold due to lack of FHWA and local funding
Lower Corte Madera Creek Improvements	Levee evaluation completed in 2020 under a DWR grant and a geomorphic dredge assessment in process to
Continue supporting the Sonoma County Water Agency led Advanced Quantitative Precipitation Information effort.	In progress - 11 bay area agencies are collaborating on the Bay Wide AQPI weather radar system which was funded in 2016 by a DWR grant. In 2019/2020, DPW staff worked with Sonoma Water to obtain a FEMA grant for a weather radar for Marin County. The Marin grant is in final radar site selection which should be done by Fall 2022 Radar to be installed either on Mount Tam or Mt Barnabas in Marin. Once the site is selected, staff will help with final site design and permitting. This weather radar is essential for development of real-time
Pacheco Pond Project	On hold
Deer Island Basin Project	Measure AA grant for partial design and CEQA awarded and will be completed in 2023. Need to seek construction funding next, likely through Measure AA funds.
Rush Creek Drainage Improvements	On hold.
Novato Levee Study	The Levee Evaluation was completed in 2020 under a DWR grant
Upgrade Farmers, Cheda, and Lynwood pump stations	In progress - preparing a design for a transfer switch and other accessories required for a portable generator hookup at Lynwood Pump Station.
Simmons Slough flood risk Reduction Project	Construction completed in 2022 with grant from DWR.
City of Novato Drainage Improvements	Working to expand storm drainage improvement planning into Nave Gardens through a Flood District funded study currently underway through 2023. The study is looking at ways of most effectively bypassing high flows and potential options such as increasing storage, building flood barriers, daylighting drainages, and installing pump stations and/or tide gates. Funding for future improvements would likely be sought through FEMA HMGP.
Encourage property owners in SFHA to purchase flood insurance.	annual outreach in October

Easkoot Creek Flood Flow Bypass Project	National Parks Service is working with the FHWA and the Flood District on incorporating an overflow channel from Easkoot Creek out to the ocean through their parking lot as part of a parking lot renovation currently being planned. NPS/FHWA are currently working on scoping for environmental review.
Santa Venetia Timber-Reinforced Berm Improvement Project	The District secured a Federal Emergency Management Agency (FEMA) grant in 2020 to upgrade the levee along Gallinas Creek. During final design of the levee upgrade in February 2022, the engineer's updated construction cost estimate came in at \$12M, exceeding the project's available funding for project design and construction. The District was advised by the California Office of Emergency Services (Cal OES), the state agency administering the FEMA Hazard Mitigation Grant Program (HMGP), that there were insufficient funds remaining in this round of FEMA disaster grant funding for additional construction funds. Therefore Cal OES advised the District to request a scope change to shift all grant funds previously set aside for construction to further design related tasks. In May the District submitted the scope of work and budget change request to the Federal Emergency Management Agency (FEMA) to reallocate \$1,515,170 from the original \$3,235,180 allocation that had previously been designated for construction. The new request to FEMA is to support additional design, environmental compliance, and public outreach activities. Cal OES, expects FEMA to respond to the District's scope of work and budget change request in mid-July 2022. To support project design, the District released a request for qualifications and proposals (RFQ/RFP) for engineering design services in April. While up to six firms indicated interest, only one proposal from CSW Stuber Stroeh (CSW-ST2) was received for approximately \$617,549. CSW-ST2's team is comprised of experts in the fields of land surveying, geotechnical, and civil engineering, and has proven experience with the design and permitting of complex public works water resource projects. Both preliminary and final design products would be shared through the <a href="http://www.santavenetialevee.org">www.santavenetialevee.org</a> site and community meetings. If FEMA approves the District's scope of work and budget change, up to 75% of the professional services cost will be recoverable through the HMGP. The remaining 25% will be paid from Flood Control Zone 7 funds. The District continues to track opportunities for project construction funding. The Santa Venetia levee project has a high benefit-to-cost ratio, meaning that the cost of creating the flood protection is low compared to the value of the properties that would be protected. The benefit-to-cost ratio is expected to make the project competitive in the next round of FEMA grant funding. Grant funding will become available each time a major federal disaster is declared in California, which has occurred multiple times per year since 2017 (unfortunately due to devastating fires, floods, and the pandemic). On July 12, 2022, the Board of Supervisors awarded CSW-ST2 the design contract. On July 13, the District held a kickoff meeting with the CSW design team.
Meadow Drive Interceptor and Ditch Upgrades	Interim upgrades were made by adding an in-line check valve to prevent tides from flooding Meadow Dr. No funding (or local match) currently available for full conceptual upgrades to proceed to design.
Santa Venetia Pump Station No. 4 Upgrades	In 2022 all pump stations in Santa Venetia were upgrade to Trimble Unity System for alerts and notifications to staff. Funding for additional upgrades not available at this time.
Pump Station No. 2 Upgrade, and interconnection to Pump Station No. 1	In 2022 all pump stations in Santa Venetia were upgrade to Trimble Unity System for alerts and notifications to staff. Funding for additional upgrades not available at this time.
Pump Station No. 5 Upgrade	In 2022 all pump stations in Santa Venetia were upgrade to Trimble Unity System for alerts and notifications to staff. Funding for additional upgrades not available at this time.
Carrillo Drive Pipe Rehabilitation	Completed by City of San Rafael in cooperation with Flood Zone 6
Santa Venetia and Rafael Meadows Street Drain Upgrades	Coordinating with County Engineering to include drainage upgrades with road rehabilitation projects. Labrea Way, vulnerable to recurrent stormwater ponding, is currently in design.
Gallinas Creek Geomorphic Dredge	Public Works staff continue to work closely with Parks staff to design the placement of 100,000 cubic yards of dredge sediment including approximately 9,000 cubic yards of sediment classified by the Regional Water Quality Control Board as "foundation" and thus requiring burying under three feet of clean cover sediments. This placement design requirement is being designed into the McInnis project.

McInnis Park Wetland Restoration	In 2020, the McInnis Marsh Restoration project ran into design slowdowns due to a number of issues including additional hydraulic flood modeling and the need to address the existing LGVSD force main pipe. Parks staff is continuing to work with LGVSD regarding the force main issue, which may result in redesign. To obtain the necessary funding to continue final design, CEQA and permitting activities, County and Parks staff submitted a grant application in December 2020 to the San Francisco Bay Restoration Authority (SFBRA) Measure AA bay region wetlands grant program. In March 2021, staff were informed that the grant was recommended for approval at an upcoming SFBRA board meeting. This grant funding will allow the McInnis Marsh Restoration project to continue work on final design, compliance with the California Environmental Quality Act (CEQA), and permitting including the proposed CSA 6 Gallinas Creek geomorphic dredge project. Note that the proposed McInnis Marsh Restoration project is not currently funded for implementation. However, a project that has its CEQA and permits completed is much more likely to find funding for implementation. Therefore, we have no definite date for dredging, transporting sediments into McInnis for use in the marsh restoration project but the earliest date for dredging the creek would be 2024 or more likely 2025. County staff will continue to work on the final design, CEQA and permitting for placement of South Fork Gallinas Creek sediments as our primary focus of staff time.
Levee Setback and Upgrade Project near San Rafael airport	Initiation of this project depends on completion of a land exchange through State Lands Commission. County is working on surveying needed to support that exchange.
Pump Station No. 1 Upgrade	In 2022 all pump stations in Santa Venetia were upgrade to Trimble Unity System for alerts and notifications to staff. Funding for additional upgrades not available at this time.
Estancia Ditch and Pump Station Upgrades	In 2022 all pump stations in Santa Venetia were upgrade to Trimble Unity System for alerts and notifications to staff. Funding for additional upgrades not available at this time.
Cove Pump Station Improvements	Completed construction in 2020.
Tiburon Street Drainage Improvements	Flood district is supporting the town of Tiburon's storm drainage master plan implementation out by designing the upgrade to the Cove Stormwater Pump Station (construction completed) to have capacity to handle the increased flows that would be conveyed to the station by the full buildout of the Town's master plan.
Karen Way Ditch Improvements	On hold
Strawberry Levee Improvements	To be incorporated into future sea level rise adaptation planning
West Creek Flood Wall	On hold due to lack of property owner easements.
East Creek Outfall Modifications	Coordinating with Caltrans on a scheduled 2024 pavement rehabilitation project to potentially include tide gates to reduce sunny day flooding of Tiburon Blvd.
Mill Valley Comprehensive Flood Control & Drainage Master Plan	Completed in 2021. City is working with Flood Zone 3 on implementation of projects.
Coyote Creek Levee Improvements	Insufficient funding at this time to implement improvements analyzed in the levee evaluation completed in 201
Marin City Drainage Improvements	On June 23, 2020, the Marin County Flood Control and Water Conservation District (District) received award of a grant from the Federal Emergency Management Agency (FEMA) through CalOES for \$337,500 (Phase I of a larger grant) to be used for design, permitting and preparation of plans and specifications for construction of Marin City Stormwater Pond improvements. The 2020 project award included the design of a new drainage culvert under 101 to be installed using trenchless technology and a floodwall along a portion of the Marin City Pond. The trenchless approach was subsequently found to be technically infeasible following a geotechnical investigation in August 2021 due to issues around the subsurface soils that made trenchless installation highly risky and prone to failure.  In response, the Project design team has developed a new design with a pump station from the pond that utilizes the existing pipe under the 101 and provides better flood protection under current and sea level rise conditions as compared to the 2020 proposal, but at a cost of approximately \$9M, or more than double the original grant amount. To fill this funding gap, District staff has requested a scope change from FEMA to significantly increase the grant amount. In the same request, staff have also included an ask for dredging of the pond at approximately \$2M. This request is in the final stages of review by CalOES and is waiting on the BCA (benefit to cost analysis) to be completed in the next two to three weeks and then will be passed along to FEMA for final review and approval. FEMA has not provided a timeline for approval, but the District should learn if the new grant request is funded in the next eight to eight weeks.

	<p>Staff did apply and received a one-year extension to Phase I design and permitting until March 23, 2023. However, the design firm's (BKF) work and schedule has been severely inhibited by a lack of access to the stormwater pond. In addition, the project will require the property Owner's consent to submit permits to the regulatory agencies and for construction. The pond is privately-owned, and the Flood District is not a regulatory agency and can only work with willing landowners. Given the delays in access, the costs for the proposed flood improvements are preliminary. The Zone anticipates needing an additional \$2M for this project if the FEMA grant is approved. We will return to your Board when staff have an update. In the short term, \$60,000 is recommended for additional sampling of pond sediments to support design. Discussions regarding future pond ownership and maintenance are happening at a high level at the County. The District and County have a legal and fiscal duty to fully understand any liabilities when using public funds. In addition to this FEMA grant, staff have released an RFP for preparation of a Comprehensive Stormwater Plan to identify potential additional drainage improvement projects in Marin City.</p>
Richardson Bay Shoreline Protection	To be incorporated into future sea level rise adaptation planning. A 2015 study was completed and will be used as a reference.
Bothin Marsh Restoration	District is working with the County's Parks Department to evaluate a potential pilot project for thin-lift placement of sediment from Coyote Creek in Bothin Marsh. It would require a Measure AA grant to design, permit, construct, and monitor. Based on a 2017 hydraulic study of Coyote Creek by GHD ( <a href="https://www.marinwatersheds.org/sites/default/files/2022-03/TM%20-%202017%20Coyote%20Creek%20and%20Nyhan%20Creek%20v2r.pdf">https://www.marinwatersheds.org/sites/default/files/2022-03/TM%20-%202017%20Coyote%20Creek%20and%20Nyhan%20Creek%20v2r.pdf</a> ), including what was stockpiled from the concrete channel sediment removal in 2018, the amount of sediment needed for this pilot project is approximately the same as what is currently available in Coyote and Nyan Creeks to increase freeboard in the Coyote Creek earthen channel and reduce flood risk at Marin Ave and Enterprise Concourse bridges in Nyhan Creek. The application would leverage a 2017 study by the District that can be found here: <a href="https://www.marinwatersheds.org/sites/default/files/2022-04/Bothin_Marsh_Feasibility.pdf">https://www.marinwatersheds.org/sites/default/files/2022-04/Bothin_Marsh_Feasibility.pdf</a>
Manzanita Modifications	Caltrans is working on a project initiation document for June 2023 for sea level rise adaptation at the US 101/SR 1 between Manzanita and Marin City. County is supporting this work through hydraulic studies.
Lower Ryan Creek Pump Station Study and Upgrades	Unable to prioritize at this time
Crest Marin, Cardinal, and Shoreline Pump Station Upgrades	An RFP for a condition assessment of Crest Marin Pump Station is being finalized in 2022 with work anticipated to kick off in 2023. Following the condition assessment design will proceed in 2024. After construction of the crest marin improvements a study of Cardinal and shoreline pump stations and associated drainage is anticipated.
Arroyo Corte Madera del Presidio Riverine Flood Risk Reduction	Stetson Engineers previously developed a model of Arroyo Corte Madera del Presidio and identified several potential mitigation measures that were subsequently reviewed during the Mill Valley Comprehensive Flood Control & Drainage Master Planning process. No identified mitigation measures associated with the creek were determined to have meaningful benefits.
Flood Preparedness Pilot Program	County maintains a flood preparedness webpage with resources and information for landowners.
Consider sea level rise adaptation from CSMART	Ongoing through Local Coastal Program update, funded and completed, nature-based adaptation studies, and the Safety Element update.
Initiate Community Plans for Adapting to Coastal Hazards	Funded through Ocean Protection Council grant and AARPA funds. Ongoing Stinson Beach Adaptation and Resilience Collaboration (Stinson ARC) project.
Develop a "Homeowners Guide to Flood Preparedness"	Project has not started due to lower community priority. However, the project has not been abandoned and may be completed in the next year.
52 Follow all four phases of FEMA's How-to-Guide: "Integrating Historic Property and Cultural Resource Considerations Hazard Mitigation Planning"	Project will not be completed.
Conduct a comprehensive finished floor-elevation inventory	Project completed by DPW interns.
Protect and restore natural buffers	Ongoing. Two funded and completed nature-based studies explored the feasibility of these projects and follow up work is now happening through the Stinson ARC project and through pursuit of other grant opportunities.
Assess bulkheads surrounding Tomales Bay	In progress

Establish additional local funding mechanisms for increased flood and fire mitigation.

MPWA measure passed. Measure A renewed. SMFD passed a wildfire mitigation tax measure.