



Staff Report

Date:

June 10, 2021

To:

Mayor Elizabeth Robbins and Council Members

From:

Richard Simonitch, Public Works Director

Subject:

Annual evaluation report on progress towards implementation of the adopted 2018

Marin County Multi-Jurisdictional Local Hazard Mitigation Plan.

Recommendation:

Council consider and discuss the 2021 annual evaluation report on progress towards implementation of the adopted 2018 Marin County Multi-Jurisdictional Local Hazard Mitigation Plan. (MCM LHMP).

Background and discussion:

In 2000, the Federal Emergency Management Agency (FEMA) adopted revisions to the Code of Federal Regulations, known as "Disaster Mitigation Act (DMA)." DMA 2000, Section 322 (a-d) requires that local governments, as a condition of receiving federal disaster mitigation funds, have a Local Hazard Mitigation Plan (LHMP) that describes the process for assessing hazards, risks and vulnerabilities, identifying and prioritizing mitigation actions, and engaging/soliciting input from the community (public), key stakeholders, and adjacent jurisdictions/agencies. As required, the LHMP must be updated every five (5) years to remain in compliance with regulations and Federal mitigation grant conditions. FEMA requires local jurisdictions to develop a LHMP in order to mitigate future disasters and reduce repetitive Federal and State claims for similar disasters in the same location. FEMA has indicated that jurisdictions without a Hazard Mitigation Plan approved by FEMA and adopted by local governing body will be ineligible for future pre-and-post disaster mitigation funds.

In 2018, Town staff partnered with the Marin County Sheriff's Office of Emergency Services (OES), Marin County Department of Public Works, Fire Department, and Marin County Community Development Agency to produce the Marin County Multi-Jurisdictional Local Hazard Mitigation Plan (MCM LHMP) which incorporates significant elements of the Town's previously adopted 2012 plan. The cooperative planning process included public workshops and listening sessions and posting of the DRAFT plan on the County website for comment and press releases. The draft MCM LHMP was approved by CalOES in November 2018, and was subsequently submitted to FEMA, and was approved by FEMA on November 28, 2018. The Marin County Board of Supervisor's adopted the MCM LHMP on December 18, 2018. Ross Town Council subsequently adopted the MCM LHMP on January 10, 2019. The 2018 MCM LHMP evaluates hazard risk mitigation for five primary risk categories: earthquake, flooding, wildfire, landslide, and Phoenix Lake Dam inundation.

In 2014, the Town of Ross joined FEMA's Community Rating System (CRS). CRS is a voluntary incentive program that recognizes and encourages community floodplain management practices that exceed the minimum requirements of the National Flood Insurance Program (NFIP). In CRS communities, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community's efforts that address the three goals of the program. Ross currently maintains a CRS rating of 8, meaning that Ross residents who maintain a flood insurance policy with the 100-yr flood plain "Special Flood Hazard Area" receive a 10% discount from their flood insurance premiums (the best CRS rating for any agency is 1, providing a 45% discount.)

To maintain the Town's credit for the CRS "Floodplain Management Planning" Activity, the Town of Ross must evaluate its progress toward implementing the projects and programs in the LHMP and submit an annual report of that evaluation with its annual CRS recertification. The objective of this activity is to credit the production of an overall strategy of programs, projects, and measures that will reduce the adverse impact of the hazard on the community and help meet other community needs.

Town Council and the public are encouraged to review the Annual Report (Attachment 1) which lists the progress on the implementation of the 2018 MCM LHMP local and regional goals and provide staff with any comment on the current plan and/or suggestions for new hazard mitigation efforts when the MCM LHMP is updated in 2024.

Fiscal, resource and timeline impacts:

None, other than staff time to evaluate the LHMP progress and develop the annual report.

Environmental review:

In 2018, a CEQA Notice of Exemption was filed by the County of Marin as CEQA lead agency.

Attachments

2021 Annual LHMP Progress Report

CRS Activity 510

Progress Report on Implementation of Credited Plan

Date this Report was Prepared: June 10, 2021

Name of Community:

Town of Ross, CA

Name of Plan: Marin County Multi-Jurisdiction Local Hazard Mitigation Plan

Date of Adoption of Plan: January 10, 2019

5 Year CRS Expiration Date: January 10, 2024

- 1. How can a copy of the original plan or area analysis report be obtained?
 - Town of Ross website:
 https://www.townofross.org/emergencyservices/page/local-hazard-mitigation-plan
 - b. Marin County website:
 https://www.marinwatersheds.org/sites/default/files/2020-07/Marin%20County%20Multi-Jurisdictional%20Local%20Hazard%20Mitigation%20Plan%202018.pdf
- 2. Describe how this evaluation report was prepared and how it was submitted to the governing body, released to the media, and made available to the public:

The annual evaluation report for 2021 was presented to Ross Town Council at a regular public meeting held on June 10, 2021. Information on the report and the presentation to Council was included in the June 2021 edition of the Town's newsletter "The Morning After" and publicized by a Town-wide email to Ross residents on June 11, 2021.

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:

See Attachment A for Regional Objectives and Attachment B for Ross-specific Objectives.

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

Most of the objectives that have not been met or implemented involve changes to the Municipal Code, involve cross-jurisdictional involvement, or are not applicable to the Town of Ross.

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

Some of the items listed in 5. will be re-evaluated for the 2024 update of the 2018 Multi-Jurisdictional LHMP. Phoenix Lake Dam Inundation awareness and public outreach methods should be increased, and wildfire awareness updated to incorporate MWPA programs.

| Common Mitigation Actions

No.	Description	Hazard and Goal Addressed	Existing Local Mechanism to Implement	HMA Eligible Activity Type	Potential Funding Source	Responsible Agencies	2021 STATUS
DAM-1	Encourage property owners in dam inundation areas to purchase insurance	Dam inundation		Public awareness or education campaigns about mitigation	5 Percent Initiative	Planning and public works departments, Special districts (water districts)	Considering adding Phoenix Lake Dam inundation to annual flood risk mailer
DAM-2	Consider/implement improvements to armoring of dams or other improvements.	Dam inundation (related: flood, earthquake and wind)					Not Applicable
DAM-3	Install accelerometers on and adjacent to dams to provide information on structural impacts of seismic events.	Dam inundation (earthquake and flood)					Not Applicable
EQ-1	Use incentives for mitigation of privately owned at-risk or seismically deficient structures (soft story / unreinforced masonry/old bridges).	Earthquake	Grants for property owners, guidance materials, workshops, events or other public engagement initiatives	Structural Retrofitting of Existing Buildings	HUD CDBG, HMGP, PDM	Planning or Building departments	Considered
EQ-2	Adopt applicable standards and identification/assessme nt protocols for voluntary or mandatory retrofits of seismically vulnerable buildings (such as soft story buildings).	Earthquake		Hazard Mitigation Planning Related Activity	НМСР	Planning departments	Considered

EQ-3	Upgrade deficient ramps and bridges.	Earthquake	Infrastructure Retrofit	HMGP, PDM	Public Works departments	Not Applicable
EQ-4	Require engineered plan sets for seismic retrofits of homes on steep hillsides, soft- story homes, and other split-level or vulnerable homes not covered by standard plan set A	Earthquake and Debris Flow	Hazard Mitigation Planning Related Activity	HMGP	Planning or Building departments	Considered
FIR-1	Develop a plan for appropriate access and evacuation in hillside wildland-urban interface areas, For example creation of no parking areas, signage, and early warning and evacuation.	Wildfire	Hazard Mitigation Planning Related Activity	HMGP and other federal, state and local sources	Fire and Emergency Services departments	Considered
FIR-2	Develop a method and technologies for regulating and/or enforcing defensible spaces.	Wildfire	Hazard Mitigation Planning Activity	HMGP and other federal, state and local sources	Planning and Fire departments	RVFD/MWPA
FIR-3	Encourage Fire Departments to expand vegetation management programs in wildland-urbaninterface areas to more effectively manage the fuel load through various methods including, but not limited to, roadside collection and chipping, mechanical fuel reduction equipment, selected harvesting, use of goats or other organic methods of fuel reduction.	Wildfire	Wildfire Mitigation (Creation of Defensible Space, Hazardous Fuels Reduction)	HMGP and other federal, state and local sources	Fire departments	Chipper Days successful. Town approves of use of Goats in hillside areas.
FIR-4	Fuel reduction program for publicly owned or open spaces. May include targeting invasive and exotic plants that contribute to fire (and flooding) hazards such as eucalyptus, broom, and cordgrass.	Wildfire	Wildfire Mitigation (Hazardous Fuels Reduction)	HMGP and other federal, state and local sources	Fire departments	RVFD/MWPA

FIR-5	Promote residential fuel modification program. May include special programs for elderly/disabled.	Wildfire		Wildfire Mitigation (Creation of Defensible Space, Hazardous Fuels Reduction)	HMGP and other federal, state and local sources	Fire and Planning departments?	RVFD/MWPA
FIR-6	Post-fire soil stabilization such as planting heat and drought tolerant vegetation. May include re-routing water channels to prevent landslides from affecting local roadways.	Post-fire debris flow		Soil stabilization	HMGP	Fire, Planning, and Public Works departments	Town of Ross supports this effort
FIR-7	Develop and implement early warning systems that monitor surface water movement and alert citizens of possible post-fire flash floods and debris flows.	Post-fire debris flow	>	Early warning systems that monitor and alert of possible post- fire debris flows	HMGP 5% Post Fire Funding	Fire and Emergency Services departments	Town of Ross supports this effort
FLD-1	Maintain participation in the National Flood Insurance Program and manage beyond minimum requirements as appropriate for local conditions. Consider improving Community Rating System (CRS) score if benefit exceeds cost for a given jurisdiction.	Flood	CRS staff	Hazard Mitigation Planning Related Activity	HMGP, PDM, FMA, other federal, state and local funds	Public Works and Planning departments	ONGOING
FLD-2	Incorporate flood planning into local permitting and planning.	Flood	Capital improvement plans, zoning, codes,	Hazard Mitigation Planning Related	HMGP and other federal, state and	Planning and Public Works departments.	ONGOING
FLD-4	Conduct education & outreach for homeowners regarding flood mitigation as part of hazard mitigation plan update.	Flood	Annual flood preparedness fair, CRS annual outreach, sea level rise guide for homeowners.	Hazard Mitigation Planning Related Activity (as part of plan update)	HMGP	Public Works, Planning, Emergency Services, Fire, special districts.	ONGOING

FLD-5	Inspect, assess, maintain, improve, and expand flood management systems, such as berms, levees, seawalls, drainage basins, catch basins, pipes, pump stations, channels or other flood and stormwater infrastructure. Includes stabilization of grades and banks in creeks, especially where critical facilities are nearby or crossing.	Flood and erosion due to flood flows	Capital improvement programs and maintenance programs	Localized Flood Risk Reduction Projects	HMGP	Public Works departments	ONGOING
FLD-6	Identify structures, collect and assess information to support policy decisions regarding pre- or post-disaster acquisition, relocation, elevation, or wet/dry floodproofing of flood- prone structures, particularly Repetitive Loss. Consider views and aesthetic impacts early in planning.		Post-disaster community planning, CRS, Local Coastal Program, building codes, BayWAVE/C -SMART	Demolition/Rel ocation and Structure Elevation	FMA, HMGP, Flood Control & Water Conservation District	Planning and Public Works departments	ONGOING

			704 11					
1 1	FLD-7	Continue to support the San	Flooding		Non-localized Flood	Partially funded by	Somona County Water	ONGOING
		Francisco Bay Area Advanced			Risk Reduction Project	California	Agency is the lead	
		Quantitative Precipitation			resiliency. Mitigation		1	
		Information System project to			project adapts to new	Resources Integrated	partners may include	
		provide both improved observing			challenges posed by	Water Management	special districts (water	i I
		capabilities and a suite of numerical			more powerful storms,	and the Sonoma	and sanitary) and	l l
		forecast models. accurate and timely			frequent heavy	County Water	Public Works	
	- 1	information for a variety of user			precipitation, prolonged	Agency. Potential	Departments	
		needs, including improved			droughts, extreme	future funding		l 1
	- 1	precipitation and hydrologic			flooding, and other	sources include		
		information to assist the region in			weather events.	FEMA and additional		
		mitigating flood hazards, maximize			Miscellaneous/ Other	partner agencies		
		water supply, and enhance ecosystem			project that addresses	(flood, water, sanitary		
		services. The primary emphasis will			climate change	agencies in the		
		be to improve short-term (48 hour)			adaptation and	region, particularly in		
1		monitoring and prediction of high-			encourages	the north San		
		impact rainfall events. The				Francisco Bay areas).		
		secondary emphasis will focus on						
		improved medium- range						
		precipitation forecasts (out to 10						
	- 1	days) for water supply.						
				-				
-	FLD-8	Conduct multi- jurisdictional	Flood	CRS program 5-year	Hamand Mitigation	ID/CD	Public Works	D '
1 1	ן א-עםי		Flood		Hazard Mitigation	HMGP,		Ross is supportive
		repetitive loss area analysis for full		update	Planning Related	County general fund	departments	of this but County
		county as part of multi-jurisdictional			Activity			should be lead
		local hazard mitigation planning						agency
	- 1							
I	FLD-9	Encourage at least one member of	Severe Storm/	CRS program points,	Hazard Mitigation	HMGP,	Planning, Building,	Ross DPW Director
		City/Town to be a Certified	Flood	Floodplain Managers	Planning Related	professional	and Public Works	is a CFPM as of
	- 1	Floodplain Manager.		Association	Activity (as part of plan	development funds	departments	2019
				Conferences,	update)			
				professional				
1		-		development,				
				consider hosting a				
1				local workshop				
				*				

FLD-10	Participate in C- SMART and BayWAVE adaptation planning and implement strategies stemming from these programs.	Flood	C-SMART and BayWAVE programs, capital improvement planning	Hazard Mitigation Planning Related Activities	HMGP, other federal, state and local funding	Planning and Public Works departments	Town of Ross supports this effort
FLD-11	Encourage integration of SLR and climate change into planning documents, systems, operations, and maintenance	Flood		Hazard Mitigation Planning Related Activities	HMGP, other federal, state and local funding	Planning, Emergency Services, and Public Works departments	Town of Ross supports this effort
LS-1	Increase efforts to reduce landslides and erosion in existing and future development by improving appropriate code enforcement and use of applicable standards for private property, such as those appearing in the California Building Code, California Geological Survey Special Report 117 – Guidelines for Evaluating and Mitigating Seismic Hazards in California, American Society of Civil Engineers (ASCE) report and the California Board for Geologists and Geophysicists Guidelines for Engineering Geologic Reports. Such standards should cover excavation, fill placement, cut-fill transitions, slope stability, drainage and erosion control, slope setbacks, expansive soils, collapsible soils, environmental issues, geological and geotechnical investigations, grading plans and specifications, protection of adjacent properties, and review and permit issuance.	Landslide		Hazard Mitigation Planning Related Activity		Planning and Public Works departments	Town of Ross supports this effort

LS-2	Develop and implement projects that	Landslide	Emergency response	Soil Stabilization and	HMGP and other	Public Works	Considered
	prevent landslide impacts to roadways.		stabilization and capital improvement projects	Infrastructure Retrofit	federal, state and local sources	departments	
MLT-1	Integrate the MCM LHMP into all jurisdictions general plan safety elements.	All	General Plan updates	Hazard Mitigation Planning Related Activity	Jurisdiction general funds (soft match), HMGP	Planning or Public Works departments.	Town of Ross supports this effort for upcoming General Plan Update
MLT-2	Assess vulnerability of critical facilities and public buildings to damage in natural disaster. Make recommendations to staff and governing board on priorities for mitigation, identify funding mechanisms, conduct improvements.	All	Needed	Planning Related Activity Works deg and special with critical		Building and Public Works departments and special districts with critical facilities.	ONGOING
MLT-3	Adopt, amend as needed, and enforce updated versions of state and federal regulations for Building and Fire Codes so that optimal standards are used in construction and renovation projects of public and private buildings and infrastructure.	Earthquake, Severe Storm, Wildfire, Tsunami	Existing construction codes	Hazard Mitigation Planning Related Activity	Building permit fees	Planning, Building, and Fire departments.	ONGOING
MLT-4	Develop/ enforce regulations requiring replacement of above-ground utilities with underground utilities. Require underground utilities be effectively sealed to prevent backflow of floodwaters into buildings.	All	Varies by jurisdiction	Hazard Mitigation Planning Related Activity	HMGP	Planning departments.	Town of Ross supports this effort

MLT-5	Prepare, study, and or provide hazard information to residents, property owners and merchants, such as hazard maps (e.g. MarinMap and MyHazard) and private mitigation resources. Do this as part of Hazard Mitigation Planning to be eligible for HMA funding.	All	Through existing public outreach methods, newsletters, social media	Hazard Mitigation Planning Related Activity (information dissemination as part of plan update)	HMGP, PDM	Emergency Services, Planning, Fire, and Public Works departments	ONGOING
MLT-6	Partner with utility system providers and other lifeline infrastructure and municipal partners to develop strong and effective mitigation strategies as part of multi-jurisdictional hazard mitigation planning.	All	Biannual Marin County Utilities and Public Works Meetings	Hazard Mitigation Planning Related Activity (as part of plan update)	HMGP, PDM	Emergency Services departments?	Town of Ross supports this effort
MLT-7	Train staff in emergency response and hazard mitigation by hosting trainings and by encouraging attendance at conferences and workshops as part of multijurisdictional hazard mitigation planning.	All	Professional Development. County host Cal OES CSTI for training offered to participating jurisdictions.	Hazard Mitigation Planning Related Activity (as part of plan update)	HMGP, PDM, EMPG	Emergency Services, Planning, Building, Public Works, and Fire Departments.	ONGOING
MLT-8	Use partnerships to protect as open space or parks, wetlands and those areas susceptible to extreme hazards (such as through land acquisition, zoning, and designation as Priority Conservation Areas).	A 11	General plan land use/open space elements, easements and conservation easements	Hazard Mitigation Planning Related Activity; Property Acquisition and Structure Demolition/ Relocation	HMGP, PDM, FMA (if protect RL); other federal, state and local funds	Parks and Planning Departments, County Open Space and Flood Control	Town of Ross supports this effort
MLT-9	Develop and implement energy assurance plans. May include backup generators, energy storage (e.g. diesel fuel tanks), and microgrids for critical facilities.	All	As part of capital improvement projects.	Generators	HMGP (5 percent initiative), PDM	Emergency Services, Public Works, Fire, and special districts	Town of Ross has upgraded BBU and generator systems since 2018

MLT-10	Reinforce and/or elevate ramps,	Flood, Debris	Capital improvement	Infrastructure Retrofit	HMGP,	Public Works and	Town of Ross
	bridges, and roads as needed.	flow, and Earthquake	plans	Amasa dotato Ronom	other federal, state and local funding sources	Planning departments	
MLT-11	Conduct two new fire- related assessments taking into account lessons learned from the 2017 North-Bay wildfires. The new data points needed in order to support improved fire hazard mitigation include 1) assessing vulnerability of public and private structures in the wildland-urban interface zones based on building material and roof type, and 2) identifying areas with aging population and/or access and functional needs. This analysis could support new mitigation strategies that would make Marin more resilient to the type of disaster that occurred in our northern neighboring county.	Wildfire, Post- fire Debris Flow	Part of the 5- year update to the LHMP	Hazard Mitigation Planning Related Activity	HMGP	Planning, Fire, and Public Works departments	Town of Ross supports this effort
MLT-12	Prepare powerful graphics for the 2023 MCM LHMP that show how one or both of fire and/or flood hazards affects the vast majority of populated areas. The goal is to encourage communities to work together towards a common goal of minimizing hazard risk for all.	Flood/SLR and Wildfire	Part of the 5- year update to the LHMP	Hazard identification or mapping for the implementation of mitigation activities Public awareness or education campaigns about mitigation	HMGP	Emergency Services, Planning, Fire, and Public Works departments	Town of Ross supports this effort
MLT-13	Update landslide or wildfire hazard considerations, including roads leading to development, when new construction or major remodels are proposed in hillside areas discourage construction or add mitigation measures as appropriate.	Debris flow and wildfire	Building and fire code updates. Local Coastal Program.	Hazard Mitigation Planning Related Activity	HMGP	Planning and Public Works departments	Town of Ross supports this effort

MLT-14	Work to ensure a reliable source of water for fire suppression and general use during/after hazards through the cooperative efforts of water districts, sanitary districts, fire districts, residents and commercial property owners.	Wildfire	Hazard Mitigation Planning Related activity	HMGP and other federal, state and local sources	Fire departments and special districts (water districts)	MMWD, RVFD, MWPA
MLT-15	Mitigate against wind- induced wave erosion on the coast and in critical ponds (drinking, water treatment, or stormwater storage/detention) through relocation of facilities or improving (such as armoring) banks/berms/levees/sh orelines. Secondary benefits include protection against earthquake-induced damage to critical facilities and flooding that may result due to their damage.	Wind, Flood, Earthquake				Town of Ross supports this effort
MLT-16	Assessment of properties countywide to facilitate rapid damage assessment post-disaster, and pre- disaster vulnerability analysis for hazard mitigation planning update.	All	Hazard Mitigation Planning Related Activity	HMGP, PDM	Planning departments	Not Applicable

MLT-17	Follow all four phases of FEMA's How-to- Guide: "Integrating Historic Property and Cultural Resource Considerations into Hazard Mitigation Planning" to develop and implement a mitigation plan for at risk cultural resources.	All					Town of Ross supports this effort
MLT-18	Design and implement projects that protect and expand natural flood mitigation functions. Example projects include nature-based sea level rise adaptation projects that attenuate waves utilizing a living shoreline.	Flood, Tsunami, Wind	Capital improvement projects, zoning and setbacks, partnership based efforts, stream conservation ordinances, local coastal plans, building codes.	Hazard Mitigation Planning Related Activity	HMGP, PDM, FMA, other federal, state and local funds	Planning and Public Works departments	Not Applicable
MLT-19	Prevent infrastructure expansion in high-risk areas	Flood, Tsunami		Hazard Mitigation Planning Related Activities		Planning and Public Works departments	Town of Ross supports this effort
MLT-20	Protect buildings and infrastructure from flood damage, such as by moving sewers and roads upland.	Flood, Tsunami	Capital improvement projects, multi- benefit restoration projects	Localized flood risk reduction projects	HMGP, other federal, state and local funding	Planning and Public Works departments	Town of Ross supports this effort
TSU-1	Continue participation in NOAA TsunamiReady program, in communities with significant tsunami risk.	Tsunami		Hazard Mitigation Planning Related Activities		Emergency Services departments	Not Applicable

ATTACHMENT B - TOWN OF ROSS OBJECTIVES 2021 ANNUAL REPORT

Action Number / Name		Estimated Cost	Potential Funding Sources	Timeline	Responsible Agency	2021 STATUS
AH-17	Consider establishing a hazard mitigation fee for building permits to create a hazard mitigation funding source for initiatives or grant cost-share requirements	Low	Revenue generating	1-3 years	Administration, Planning and/or Building	NO CHANGE
АН-19	Consider improvement of currently unused pedestrian rights-of-way/paths as walkways to serve as additional evacuation routes.	High	General Fund	2-5 years	Public Works and/or Planning	Some "fire-safe"communities that have these 10' pathways have recently incorporated them into planned evacuation routes
AH-2	Conduct periodic tests of the alerting and warning system.	Low	General Fund	Continuous	Fire	Continuous
AH-30	Develop and enforce a repair and reconstruction ordinance to ensure that damaged buildings are repaired in an appropriate and timely manner and retrofitted concurrently.	Low	General Fund	6-12 months	Planning	NO CHANGE
AH-31	Develop post-disaster development and recovery ordinance to facilitate recovery.	Low	General Fund	6-12 months	Planning	NO CHANGE
АН-4	Encourage the formation of a community- and neighborhood-based approach to wildfire education and action through local Fire Safe Councils and the Fire Wise Program to take advantage of grant funds currently available to offset costs	TBD	General Fund and State fire grants	1-2 years	Fire	NO CHANGE
АН-41	Obtain at least three laptop computers for use outside of Police Department should the public safety building be uninhabitable due to hazards.	\$3,000	General Fund and/or State/Federal Grants	1 Year	Police	Completed
AH-42	Obtain propane heaters, stoves and lanterns for emergency use for employees.	Low	General Fund and/or State/Federal Grants	1 Year	Police	Completed
АН-8	Consider expanding residential building reports to include hazard disclosure for known natural hazards in Ross: 1) Special Flood Hazards Areas (designated by FEMA), 2) Areas of Potential Flooding from dam failure inundation, 3) Very High Fire Hazards Severity Zones, 4) Wildland Fire Zones, and 5) Liquefaction and Landslide Hazards Zones (designated under the Seismic Hazards Mapping Act).	Low	General Fund	1-3 years	Building and/or Planning	Building Dept, considering adding Dam failure and liquifaction disclosures
DAM-1	Improve coordination among the Marin Municipal Water District and the Town so that the Town can better plan for evacuation of areas that could be inundated if the Phoenix Lake Dam fails.	Low	General Fund/staff time	1-3 years	Fire	NO CHANGE
FL-16	Install grates to catch debris.	Medium	General Funds, DPW	Continuous	Public Works	NO CHANGE

ATTACHMENT B - TOWN OF ROSS OBJECTIVES 2021 ANNUAL REPORT

FL-20	Work with other Ross Valley jurisdictions to explore and adopt land use regulations to minimize additional runoff, or reduce runoff, within the Ross Valley watershed. (General Plan Program 6.C)	Low	General Funds	Ongoing	Public Works, Planning and/or Administration	Continually developing and enforcing a "no net runoff" policy based on Marin County Storm Water Program and BASMAA
FL-21	Prepare GIS storm water map of the watershed to determine the water flow and design a culvert system appropriate to the volume and flow of peak runoff. Complete the identification of existing culverts and the need for new ones.	\$80,000	General Funds and County Partnerships	Two to Five months	Public Works	Storm Drain Master Plan scheduled to be completed in 2021
FL-23	Construct a new 1,400 ft. long, 42-48" diameter reinforced concrete pipe culvert network running under the south gutter line on lower Bolinas Avenue. The culvert would originate with inlets at the Richmond Avenue intersection and outfall to Corte Madera Creek at the Sir Francis Drake Boulevard Bridge, as identified as Measure 4 in the "Final Draft Report: Planning-Level Hydrology and Hydraulics Study for Reducing Street Inundation and Overflow by Stormwater; Bolinas Avenue in Ross and San Anselmo, California," January 25, 2011.	\$780,000	State Federal Grants	1-2 years	Public Works	First phase of Bolinas Drainage Project completed in 2019, Final phase scheduled for FY22/23
FL-25	Create bioretention areas at the St. Anselm Church overflow parking lot and the Town's adjacent right of way as identified as Measure 4b in the "Final Draft Report: Planning-Level Hydrology and Hydraulics Study for Reducing Street Inundation and Overflow by Stormwater; Bolinas Avenue in Ross and San Anselmo, California,"	\$220,000	State Federal Grants/ drainage fees, Partnership with San Anselmo	1-2 years	Public Works	NO CHANGE
FL-27	Secure a one-way flap gate at the existing Corte Madera Creek outfall at the Winship Avenue Bridge section as identified as Measure 2j in the "Final Draft Report: Planning-Level Hydrology and Hydraulics Study for Reducing Street Inundation and Overflow by Stormwater; Bolinas Avenue in Ross and San Anselmo, California," January 25, 2011.	\$20,000	State Federal Grants/ drainage fees, Partnership with San Anselmo	1-2 years	Public Works; County of Marin agencies responsible for implementing the Ross Valley Flood Reduction and Creek Management Strategy.	Flap gate installation currently in regulatory permitting. Completion scheduled for 2021
FL-34	When properties that may provide opportunities for drainage improvements are for sale, acquire easements to install drainage improvements, such as between Bolinas Avenue and Fernhill.	High	unknown	Ongoing	Public Works	Currently aquiring new drainage wasement on MCFCD property on SFDB.
FL-36	Create a building and elevation inventory of structures in the floodplain	Medium	General Fund	1-3 years	Building and/or Planning	NO CHANGE
FL-38	Amend Town floodplain management regulations to adopt freeboard regulation to require finished floor to be 18" above the base flood elevation, rather than at the base flood elevation, to protect joists and vents from flood damage. Develop base flood elevation map using historical flood data.	Low	General Fund	1-5 years	Building and/or Planning	DWR consultation suggested limiting freeboard to 12". Code amended in 2019 to 12" freeboard.
FL-39	Purchase three pair hip-wader pants, for use by on-duty personnel to reach flooded areas.	\$1,500	General Fund	1 Year	Police	NO CHANGE
FL-40	Purchase one SUV for use in flooding situations where patrol cars may not be able to operate due to high water.	\$45,000	General Fund, state/federal grants	1 Year	Police	NO CHANGE

ATTACHMENT B - TOWN OF ROSS OBJECTIVES 2021 ANNUAL REPORT

FL-8	Continue to provide link to web enabled and publicly-accessible County automated system of flood gauges.	0	General Fund	Completed	Administration	NO CHANGE
LS-1	Establish and enforce provisions under the creek protection, grading, storm water management, and discharge control ordinances designed to control erosion and Town.	Low	General Fund	Ongoing	Building	NO CHANGE
LS-4	Require geotechnical and soil-hazard investigations be conducted and filed to prevent grading from creating unstable slopes, and that any necessary corrective actions be taken prior to development approval.	Low	General Fund	Ongoing	Building and/or Planning	NO CHANGE
WF-11	Prepare an accurate database of water tanks owned by Marin Municipal Water District and privately owned tanks and swimming pools that are available for fire fighting.	TBD	General Fund, staff time, partnerships	1 to 5 years	Fire and/or Planning	NO CHANGE
WF-15	Create a mechanism to enforce provisions of the California Building and Fire Codes and other local codes that require the installation of smoke detectors and fire- extinguishing systems on existing residential buildings by making installation a condition of finalizing a permit for any work valued at over a fixed amount and/or as a condition for the transfer of property.	Low	General Fund	Continuous	Building and Fire	NO CHANGE
WF-16	Require fire sprinklers in all new or substantially remodeled structures.	Low	General Fund, Fire Department staff time	Continuous	Fire	NO CHANGE
WF-20	Prepare Water System (Pressure) Master Plan. Coordinate with the Marin Municipal Water District (MMWD) to evaluate water pressure and water lines to ensure adequate fire protection. Identify locations where improvements are needed and adopt requirements and funding mechanisms in coordination with MMWD to implement these improvements. (General Plan Program 5.A)	TBD	General Fund, Fire Department staff time	Ongoing	Fire	NO CHANGE
WF-4	Increase local patrolling during periods of high fire weather.	Low	General Fund, Fire Department	Continuous	Fire	NO CHANGE
WF-5	Monitor weather during times of high fire risk using, for example, weather stations tied into police and fire dispatch centers.	Low	General Fund, Fire Department staff time	Continuous	Fire	NO CHANGE
WF-6	Participate in multi-agency efforts to mitigate fire threat, such as the Hills Emergency Forum (in the East Bay), various FireSafe Council programs, and town/city-utility task forces. Such participation increases a jurisdiction's competitiveness in obtaining grants.	Low	General Fund, partnerships & Fire Department staff time	Continuous	Fire	NO CHANGE