

Sonoma County Multijurisdictional Hazard Mitigation Plan Update 2021

PART 3—MITIGATION STRATEGY

19. MISSION STATEMENT, GOALS, AND OBJECTIVES

Hazard mitigation plans must identify goals for reducing long-term vulnerabilities to identified hazards (44 CFR Section 201.6(c)(3)(i)). The Steering Committee reviewed the guiding principle, goals and objectives from the 2010 Hazard Mitigation Plan. It was determined that the 2010 plan's guiding principle, goals, and objectives still reflect community priorities and the results of the risk assessment. Therefore, only minor changes were made, to clarify intent and meaning. The guiding principle, goals, objectives and actions in this plan all support each other. Goals were selected to support the guiding principle. Objectives were selected that met multiple goals. Actions (presented in Chapter 19) were prioritized based on their ability to meet multiple objectives.

19.1 MISSION STATEMENT

A mission statement focuses the range of objectives and actions to be considered. This is not a goal because it does not describe a hazard mitigation outcome, and it is broader than a hazard-specific objective. The mission statement for this hazard mitigation plan is as follows:

Create a resilient Sonoma County for the whole community.

19.2 GOALS

The following are the mitigation goals for this plan:

1. Protect people and minimize loss of life, injury, and social impacts.
2. Minimize potential for loss of property, economic and social impacts, and displacement due to hazards.
3. Minimize potential for environmental impacts and consider a broad-range of mitigation solutions, including nature-based solutions where feasible.
4. Communicate natural hazard risk to the whole community within Sonoma County.
5. Support and inform the development of relevant mitigation policies and programs.
6. Promote an adaptive and resilient Sonoma County that proactively anticipates the future impacts from hazards within the county.
7. Pursue the development and implementation of long-term, cost-effective, and environmentally sound mitigation projects.
8. Enhance the capability/capacity of the Sonoma County planning area to prepare, respond, and recover from the impact of natural hazards.

The effectiveness of a mitigation strategy is assessed by determining how well these goals are achieved.

19.3 OBJECTIVES

The selected objectives meet multiple goals, as listed in Table 19-1. Therefore, the objectives serve as a stand-alone measurement of the effectiveness of a mitigation action, rather than as a subset of a goal. The objectives also are used to help establish priorities.

Table 19-1. Objectives for the Hazard Mitigation Plan

Objective Number	Objective Statement
O-1	Incorporate mitigation best management measures into plans, codes, and other regulatory standards for the private sector, nonprofit agencies, and community-based organizations within the planning area.
O-2	Maintain established partnerships in the identification and implementation of mitigation measures in the Sonoma County Planning area.
O-3	Retrofit, purchase, mitigate or relocate structures in high hazard areas, with an emphasis on those subject to repetitive damages.
O-4	Promote and implement hazard mitigation plans and projects that are consistent with state, regional, and local climate action and adaptation goals, policies, and programs.
O-5	Improve and expand systems that provide warning and emergency communications to the whole community.
O-6	Increase resilience and capabilities of community lifelines.
O-7	Prevent (or discourage) new development in hazardous areas to ensure that if building occurs in high-risk areas that it is done in such a way as to minimize risk.
O-8	At the local government level, continually improve understanding of the location and potential impacts of natural hazards in all planning mechanisms that address current and future land uses within the planning area.
O-9	Consider the impacts of natural hazards in all planning mechanisms that address current and future land uses within the planning area
O-10	Minimize adverse impacts from flood risk on vulnerable communities.
O-11	Through the enforcement of relevant federal, state, and local regulations, sustain life and property protection measures for all communities and structures located in the Sonoma County planning area.
O-12	All cities, the County, special districts, and tribal organizations will develop, adopt, and implement local hazard mitigation principles that may be integrated with local comprehensive plan safety elements, Community Wildfire Protection Plans, floodplain management plans, facilities master plans, and other local planning initiatives.

20. MITIGATION BEST PRACTICES AND ADAPTIVE CAPACITY

20.1 MITIGATION BEST PRACTICES

Catalogs of hazard mitigation best practices were provided to the planning partnership that present a broad range of alternatives to be considered for use in Sonoma County, in compliance with 44 CFR (Section 201.6(c)(3)(ii)). One catalog was developed for each hazard of concern evaluated in this plan. These catalogs are based on practical experience from around the country as well as FEMA guidance on mitigation best-management practices. The catalogs present alternatives that are categorized in two ways:

- By who would have responsibility for implementation:
 - Individuals (personal scale)
 - Businesses (corporate scale)
 - Government (government scale).
- By what the alternative would do:
 - Manipulate the hazard
 - Reduce exposure to the hazard
 - Reduce vulnerability to the hazard
 - Build local capacity to respond to or prepare for the hazard.

The catalogs were provided to each planning partner in a “toolkit” prepared by the core planning team to support the development of the action plans identified in this plan. The alternatives presented include actions to mitigate current risk from hazards and actions to reduce risk from changes in hazard impacts resulting from climate change. Hazard mitigation actions recommended in this plan were selected from an analysis of the alternatives in the catalogs. The catalogs provide a baseline of mitigation alternatives that are backed by a planning process, are consistent with the established goals and objectives, and are generally within the capabilities of the planning partners to implement. The catalogs provide a list of what could be considered to reduce risk from natural hazards within the planning area. Recommended actions were selected based on an analysis of each partner’s ability to implement the action. Actions may not have been selected for one or more of the following reasons:

- The action is not feasible.
- The action is already being implemented.
- The planning partner does not have the capability to implement the action.
- There is an apparently more cost-effective alternative.
- The action does not have public or political support.

The catalogs for each hazard are presented in Table 20-1 through Table-20-8.

Table 20-1. Alternatives to Mitigate the Dam Failure Hazard

Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ None • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Relocate out of dam failure inundation areas • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Elevate home to appropriate levels • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Learn about risk reduction for the dam failure hazard ❖ Learn the evacuation routes for a dam failure event ❖ Educate yourself on early warning systems and the dissemination of warnings 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ Remove dams ❖ Harden dams • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Replace earthen dams with hardened structures • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Flood-proof facilities within dam failure inundation areas • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Educate employees on the probable impacts of a dam failure ❖ Develop a continuity of operations plan 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ Remove dams ❖ Harden dams • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Replace earthen dams with hardened structures ❖ Relocate critical facilities out of dam failure inundation areas ❖ Consider open space land use in designated dam failure inundation areas • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Adopt higher floodplain standards in mapped dam failure inundation areas ❖ Retrofit critical facilities within dam failure inundation areas • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Map dam failure inundation areas ❖ Enhance emergency operations plan to include a dam failure component <ul style="list-style-type: none"> ❖ Institute monthly communications checks with dam operators ❖ Inform the public on risk reduction techniques ❖ Adopt real-estate disclosure requirements for the re-sale of property located within dam failure inundation areas ❖ Consider the probable impacts of climate change in assessing the risk associated with the dam failure hazard ❖ Establish early warning capability downstream of listed high hazard dams ❖ Consider the residual risk associated with protection provided by dams in future land use decisions

Table-20-2. Alternatives to Mitigate the Drought Hazard

Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ None • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ None • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Drought-resistant landscapes ❖ Reduce water system losses ❖ Modify plumbing systems (through water saving kits) ❖ For homes with on-site water systems: increase storage, utilize rainwater catchment • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Practice active water conservation 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ None • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ None • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Drought-resistant landscapes ❖ Reduce private water system losses ❖ Support alternative irrigation techniques to reduce water use and encourage use of climate-sensitive water supplies ❖ For businesses with on-site water systems: increase storage, utilize rainwater catchment • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Practice active water conservation 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ Groundwater recharge through stormwater management <ul style="list-style-type: none"> ❖ Develop a water recycling program ❖ Increase “above-the-dam” regional natural water storage systems <ul style="list-style-type: none"> • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Identify and create groundwater backup sources • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Water use conflict regulations ❖ Reduce water system losses ❖ Distribute water saving kits ❖ increase conventional storage that is filled during high-flow periods • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Public education on drought resistance ❖ Identify alternative water supplies for times of drought; mutual aid agreements with alternative suppliers <ul style="list-style-type: none"> ❖ Develop drought contingency plan ❖ Develop criteria “triggers” for drought-related actions ❖ Improve accuracy of water supply forecasts ❖ Modify rate structure to influence active water conservation techniques ❖ Consider the probable impacts of climate change on the risk associated with the drought hazard

Table-20-3. Alternatives to Mitigate the Earthquake Hazard

Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ None • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Locate outside of hazard area (off soft soils) • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Retrofit structure (anchor house structure to foundation) ❖ Secure household items that can cause injury or damage (such as water heaters, bookcases, and other appliances) <ul style="list-style-type: none"> ❖ Build to higher design • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Practice “drop, cover, and hold” ❖ Develop household mitigation plan, such as creating a retrofit savings account, communication capability with outside, 72-hour self-sufficiency during an event <ul style="list-style-type: none"> ❖ Keep cash reserves for reconstruction ❖ Become informed on the hazard and risk reduction alternatives available. ❖ Develop a post-disaster action plan for your household 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ None • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Locate or relocate mission-critical functions outside hazard area where possible • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Build redundancy for critical functions and facilities ❖ Retrofit critical buildings and areas housing mission-critical functions • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Adopt higher standard for new construction; consider “performance-based design” when building new structures ❖ Keep cash reserves for reconstruction ❖ Inform your employees on the possible impacts of earthquake and how to deal with them at your work facility. ❖ Develop a continuity of operations plan 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ None • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Locate critical facilities or functions outside hazard area where possible • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Harden infrastructure ❖ Provide redundancy for critical functions ❖ Adopt higher regulatory standards • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Provide better hazard maps ❖ Provide technical information and guidance ❖ Enact tools to help manage development in hazard areas (e.g., tax incentives, information) <ul style="list-style-type: none"> ❖ Include retrofitting and replacement of critical system elements in capital improvement plan ❖ Develop strategy to take advantage of post-disaster opportunities ❖ Warehouse critical infrastructure components such as pipe, power line, and road repair materials ❖ Develop and adopt a continuity of operations plan <ul style="list-style-type: none"> ❖ Initiate triggers guiding improvements (such as <50% substantial damage or improvements) ❖ Further enhance seismic risk assessment to target high hazard buildings for mitigation opportunities. ❖ Develop a post-disaster action plan that includes grant funding and debris removal components.

Table-20-4. Alternatives to Mitigate the Flooding Hazard

Personal Scale	Corporate Scale	Government Scale	
<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ Clear storm drains and culverts ❖ Use low-impact development techniques • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Locate outside of hazard area ❖ Elevate utilities above base flood elevation ❖ Use low-impact development techniques • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Raise structures above base flood elevation ❖ Elevate items within house above base flood elevation ❖ Build new homes above base flood elevation ❖ Flood-proof structures • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Buy flood insurance ❖ Develop household plan, such as retrofit savings, communication with outside, 72-hour self-sufficiency during and after an event 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ Clear storm drains and culverts ❖ Use low-impact development techniques • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Locate critical facilities or functions outside hazard area ❖ Use low-impact development techniques • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Build redundancy for critical functions or retrofit critical buildings ❖ Provide flood-proofing when new critical infrastructure must be located in floodplains • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Keep cash reserves for reconstruction ❖ Support and implement hazard disclosure for sale of property in risk zones. ❖ Solicit cost-sharing through partnerships with others on projects with multiple benefits. 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ Maintain drainage system ❖ Institute low-impact development techniques on property ❖ Dredging, levee construction, and providing regional retention areas ❖ Structural flood control, levees, channelization, or revetments. ❖ Stormwater management regulations and master planning ❖ Acquire vacant land or promote open space uses in developing watersheds to control increases in runoff • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Locate or relocate critical facilities outside of hazard area ❖ Acquire or relocate identified repetitive loss properties ❖ Promote open space uses in identified high hazard areas via techniques such as: planned unit developments, easements, setbacks, greenways, sensitive area tracks. ❖ Adopt land development criteria such as planned unit developments, density transfers, clustering ❖ Institute low impact development techniques on property ❖ Acquire vacant land or promote open space uses in developing watersheds to control increases in runoff ❖ Preserve undeveloped vulnerable shoreline ❖ Restore existing flood control and riparian corridors • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Harden infrastructure, bridge replacement program ❖ Raise structures above base flood level ❖ Provide redundancy for critical functions and infrastructure ❖ Adopt regulatory standards such as freeboard standards, cumulative substantial improvement or damage, lower substantial damage threshold; compensatory storage, non-conversion deed restrictions. ❖ Stormwater management regulations and master planning. ❖ Adopt “no-adverse impact” floodplain management policies that strive to not increase the flood risk on downstream communities 	<ul style="list-style-type: none"> ❖ Facilitate managed retreat from, or upgrade of, the most at-risk areas ❖ Require accounting of sea level rise in all applications for new development in shoreline areas ❖ Implement Assembly Bill 162 (2007) requiring flood hazard information in local general plans • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Produce better hazard maps ❖ Provide technical information and guidance ❖ Enact tools to help manage development in hazard areas (stronger controls, tax incentives, and information) ❖ Incorporate retrofitting or replacement of critical system elements in capital improvement plan ❖ Develop strategy to take advantage of post-disaster opportunities ❖ Warehouse critical infrastructure components ❖ Develop and adopt a continuity of operations plan ❖ Consider participation in the Community Rating System ❖ Maintain and collect data to define risks and vulnerability ❖ Train emergency responders ❖ Create an elevation inventory of structures in the floodplain ❖ Develop and implement a public information strategy ❖ Charge a hazard mitigation fee ❖ Integrate floodplain management policies into other planning mechanisms within the planning area. ❖ Consider the probable impacts of climate change on the risk associated with the flood hazard ❖ Consider the residual risk associated with structural flood control in future land use decisions ❖ Enforce National Flood Insurance Program requirements ❖ Adopt a Stormwater Management Master Plan ❖ Develop an adaptive management plan to address the long-term impacts of sea level rise

Table-20-5. Alternatives to Mitigate the Landslide/Mass Movement Hazard

Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ Stabilize slope (dewater, armor toe) ❖ Reduce weight on top of slope ❖ Minimize vegetation removal and the addition of impervious surfaces. • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Locate structures outside of hazard area (off unstable land and away from slide-run out area) • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Retrofit home • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Institute warning system, and develop evacuation plan ❖ Keep cash reserves for reconstruction ❖ Educate yourself on risk reduction techniques for landslide hazards 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ Stabilize slope (dewater, armor toe) ❖ Reduce weight on top of slope • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Locate structures outside of hazard area (off unstable land and away from slide-run out area) • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Retrofit at-risk facilities • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Institute warning system, and develop evacuation plan ❖ Keep cash reserves for reconstruction ❖ Develop a continuity of operations plan ❖ Educate employees on the potential exposure to landslide hazards and emergency response protocol. 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ Stabilize slope (dewater, armor toe) ❖ Reduce weight on top of slope • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Acquire properties in high-risk landslide areas. ❖ Adopt land use policies that prohibit the placement of habitable structures in high-risk landslide areas. • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Adopt higher regulatory standards for new development within unstable slope areas. ❖ Armor/retrofit critical infrastructure against the impact of landslides. • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Produce better hazard maps ❖ Provide technical information and guidance ❖ Enact tools to help manage development in hazard areas: better land controls, tax incentives, information ❖ Develop strategy to take advantage of post-disaster opportunities <ul style="list-style-type: none"> ❖ Warehouse critical infrastructure components ❖ Develop and adopt a continuity of operations plan ❖ Educate the public on the landslide hazard and appropriate risk reduction alternatives. ❖ Consider the probable impacts of climate change on the risk associated with the landslide hazard

Table-20-6. Alternatives to Mitigate the Severe Weather Hazard

Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ None • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ None • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Insulate house ❖ Provide redundant heat and power ❖ Insulate structure ❖ Plant appropriate trees near home and power lines (“Right tree, right place” National Arbor Day Foundation Program) • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Trim or remove trees that could affect power lines ❖ Promote 72-hour self-sufficiency ❖ Obtain a NOAA weather radio. ❖ Obtain an emergency generator. 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ None • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Relocate critical infrastructure (such as power lines) underground ❖ Reinforce or relocate critical infrastructure such as power lines to meet performance expectations ❖ Install tree wire • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Trim or remove trees that could affect power lines ❖ Create redundancy ❖ Equip facilities with a NOAA weather radio ❖ Equip vital facilities with emergency power sources. 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ None • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Develop an urban heat island reduction program that includes an urban forest program or plan • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Harden infrastructure such as locating utilities underground ❖ Trim trees back from power lines ❖ Designate snow routes and strengthen critical road sections and bridges • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Support programs such as “Tree Watch” that proactively manage problem areas through use of selective removal of hazardous trees, tree replacement, etc. ❖ Establish and enforce building codes that require all roofs to withstand snow loads <ul style="list-style-type: none"> ❖ Increase communication alternatives ❖ Modify land use and environmental regulations to support vegetation management activities that improve reliability in utility corridors. <ul style="list-style-type: none"> ❖ Modify landscape and other ordinances to encourage appropriate planting near overhead power, cable, and phone lines ❖ Provide NOAA weather radios to the public ❖ Consider the probable impacts of climate change on the risk associated with the severe weather hazard ❖ Review and update heat response plan in light of climate change (heat events) projections

Table 20-7. Alternatives to Mitigate the Tsunami Hazard

Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ None • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Locate outside of hazard area • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Apply personal property mitigation techniques to your home such as anchoring your foundation and foundation openings to allow flow through. • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Develop and practice a household evacuation plan ❖ Educate yourself on the risk exposure from the tsunami hazard and ways to minimize that risk ❖ Understand tsunami warning signs and signals 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ None • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Locate structure or mission critical functions outside of hazard area whenever possible • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Mitigate personal property for the impacts of tsunami • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Develop and practice a corporate evacuation plan ❖ Educate employees on the risk exposure from the tsunami hazard and ways to minimize that risk 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ Build wave abatement structures (e.g. the “Jacks” looking structure designed by the Japanese) • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Locate structure or functions outside of hazard area whenever possible <ul style="list-style-type: none"> ❖ Harden infrastructure for tsunami impacts ❖ Relocate identified critical facilities located in tsunami high hazard areas • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Adopt higher regulatory standards that will provide higher levels of protection to structures built in a tsunami inundation area ❖ Utilize tsunami mapping to guide development away from high risk areas through land use planning • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Use probabilistic tsunami mapping and land use guidance from the state when published ❖ Provide incentives to guide development away from hazard areas <ul style="list-style-type: none"> ❖ Improve the tsunami warning and response system ❖ Provide residents with tsunami inundation maps <ul style="list-style-type: none"> ❖ Join NOAA’s Tsunami Ready program ❖ Develop and communicate evacuation routes ❖ Enhance the public information program to include risk reduction options for the tsunami hazard

Table-20-8. Alternatives to Mitigate the Wildfire Hazard

Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ Clear potential fuels on property such as dry overgrown underbrush and diseased trees • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Create and maintain defensible space around structures ❖ Locate outside of hazard area <ul style="list-style-type: none"> ❖ Mow regularly • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Create and maintain defensible space around structures and provide water on site ❖ Use fire-resistant building materials ❖ Create defensible spaces around home • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Employ techniques from the National Fire Protection Association's Firewise USA program to safeguard home ❖ Identify alternative water supplies for fire fighting ❖ Install/replace roofing material with non-combustible roofing materials and implement other strategies to harden homes from embers and flame impingement 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ Clear potential fuels on property such as dry underbrush and diseased trees • Reduce exposure to the hazard: <ul style="list-style-type: none"> ❖ Create and maintain defensible space around structures and infrastructure ❖ Locate outside of hazard area • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Create and maintain defensible space around structures and infrastructure and provide water on site ❖ Use fire-resistant building materials ❖ Use fire-resistant plantings in buffer areas of high wildfire threat. • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ Support Firewise USA community initiatives. ❖ Create /establish stored water supplies to be utilized for firefighting. 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ❖ Clear potential fuels on property such as dry underbrush and diseased trees ❖ Implement best management practices on public lands <ul style="list-style-type: none"> • Reduce exposure to the hazard: ❖ Create and maintain defensible space around structures and infrastructure <ul style="list-style-type: none"> ❖ Locate outside of hazard area ❖ Enhance building code to include use of fire resistant materials in high hazard area. <ul style="list-style-type: none"> • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ❖ Create and maintain defensible space around structures and infrastructure <ul style="list-style-type: none"> ❖ Use fire-resistant building materials ❖ Use fire-resistant plantings in buffer areas of high wildfire threat. ❖ Consider higher regulatory standards (such as Class A roofing) <ul style="list-style-type: none"> ❖ Establish biomass reclamation initiatives ❖ Reintroduce fire (controlled or prescribed burns) to fire-prone ecosystems <ul style="list-style-type: none"> ❖ Manage fuel load through thinning and brush removal ❖ Establish integrated performance standards for new development to harden homes. • Build local capacity to respond to or prepare for the hazard: <ul style="list-style-type: none"> ❖ More public outreach and education efforts, including an active Firewise USA program ❖ Possible weapons of mass destruction funds available to enhance fire capability in high-risk areas ❖ Identify fire response and alternative evacuation routes and establish where needed <ul style="list-style-type: none"> ❖ Seek alternative water supplies ❖ Become a Firewise USA community ❖ Use academia to study impacts/solutions to wildfire risk ❖ Establish/maintain mutual aid agreements between fire service agencies ❖ Develop, adopt, and implement integrated plans for mitigating wildfire impacts in wildland areas bordering on development <ul style="list-style-type: none"> ❖ Consider the probable impacts of climate change on the risk associated with the wildfire hazard in future land use decisions ❖ Establish a management program to track forest and rangeland health ❖ Provide incentives to for existing structures to be hardened against wildfire.

20.2 ADAPTIVE CAPACITY

Adaptive capacity is defined as the ability to adjust to potential damage, take advantage of opportunities, or respond to consequences (IPCC, 2014). This term is typically used while discussing climate change adaptation; however, it is similar to the alternatives presented in the tables for building local capacity. In addition to hazard-specific capacity building, the following list provides general alternatives that planning partners considered to build capacity for adapting to both current and future risks (Cal EMA, et al., 2012):

- Incorporate climate change adaptation into relevant local and regional plans and projects.
- Establish a climate change adaptation and hazard mitigation public outreach and education program.
- Build collaborative relationships between regional entities and neighboring communities to promote complementary adaptation and mitigation strategy development and regional approaches.
- Establish an ongoing monitoring program to track local and regional climate impacts and adaptation strategy effectiveness.
- Increase participation of low-income, immigrant, non-English-speaking, racially and ethnically diverse, and special-needs residents in planning and implementation.
- Ask local employers and business associations to participate in local efforts to address climate change and natural hazard risk reduction.
- Conduct a communitywide assessment and develop a program to address health, socioeconomic, and equity vulnerabilities.
- Focus planning and intervention programs on neighborhoods that currently experience social or environmental injustice or bear a disproportionate burden of potential public health impacts.
- Use performance metrics and data to evaluate and monitor the impacts of climate change and natural hazard risk reduction strategies on public health and social equity.
- Develop coordinated plans for mitigating future flood, landslide/mass movement, and related impacts through concurrent adoption of updated general plan safety elements and local hazard mitigation plans.
- Update safety elements to reflect existing hazards and projected climate change impacts on hazards.
- Implement general plan safety elements through zoning and subdivision practices that restrict development in floodplains, landslide/mass movement, and other natural hazard areas.
- Identify and protect locations where native species may shift or lose habitat due to climate change impacts (sea level rise, loss of wetlands, warmer temperatures, drought).
- Collaborate with agencies managing public lands to identify, develop, or maintain corridors and linkages between undeveloped areas.
- Promote economic diversity.
- Incorporate consideration of climate change impacts as part of infrastructure planning and operations.
- Conduct a climate impact assessment on community infrastructure.
- Identify gaps in legal and regulatory capabilities and develop ordinances or guidelines to address them.
- Identify and pursue new sources of funding for mitigation and adaptation activities.
- Hire new staff or provide training to current staff to ensure an adequate level of administrative and technical capability to pursue mitigation and adaptation activities.

21. AREA-WIDE ACTION PLAN

21.1 RECOMMENDED MITIGATION ACTIONS

The Steering Committee reviewed the catalogs of hazard mitigation alternatives and selected area-wide actions to be included in a hazard mitigation action plan. The selection of area-wide actions was based on the risk assessment of identified hazards of concern and the defined hazard mitigation goals and objectives. Table-21-1 lists the recommended hazard mitigation actions that make up the action plan. The timeframe indicated in the table is defined as follows:

- Short Term = to be completed in 1 to 5 years
- Long Term = to be completed in greater than 5 years
- Ongoing = currently being funded and implemented under existing programs.

21.2 ACTION PLAN PRIORITIZATION

The actions recommended in the action plan were prioritized based on the following factors:

- Cost and availability of funding
- Benefit, based on likely risk reduction to be achieved
- Number of plan objectives achieved
- Timeframe for project implementation
- Eligibility for grand funding programs

Two priorities were assigned for each action:

- A high, medium or low priority for implementing the action
- A high, medium or low priority for pursuing grant funding for the action.

The sections below describe the analysis of benefits and costs and the assignment of the two priority ratings.

Table-21-1. Action Plan—Countywide Mitigation Initiatives

Hazards Addressed	Lead Agency	Possible Funding Sources or Resources	Cost	Time Line	Objectives
CW-1—The County will pursue an “Information Sharing Access Agreement” with FEMA allowing the County to readily access FEMA repetitive loss data for the entire county as needed at a level of detail to study and analyze repetitive flood loss problems in the county					
Flood	Permit Sonoma	County General Fund	Low	Short-term	2, 7, 8, 10
CW-2—Continue to maintain a county-wide hazard mitigation website and the associated Story-Map that will store the hazard mitigation plan and provide the public an opportunity to monitor plan implementation progress. Each planning partner can support this initiative by					
All Hazards	Permit Sonoma with support from County DEM	County General Fund	Low	Ongoing	2, 8, 12
CW-3—Leverage public outreach partnering capabilities in the planning area (such as CERT) to promote a uniform and consistent					
All Hazards	County DEM	County General Fund	Low	Ongoing	2, 8, 12
CW-4—Continue to update hazard mapping with best available data and science as it evolves, within the capabilities of the planning partnership. Support FEMA’s RiskMAP initiative.					
All Hazards	Permit Sonoma with support from all planning partners and FEMA Region IX	FEMA mitigation grant funding, FEMA’s Cooperating Technical Partners program, County capital improvement program funding	Medium	Long-term, depending upon funding	2, 7, 8, 10
CW-5—Retain a steering committee as a working body over time to monitor progress of the hazard mitigation plan, provide technical assistance to planning partners, manage data, and oversee the update of the plan according to schedule. This body will continue to operate under the ground rules established at its inception.					
All Hazards	Permit Sonoma with support from County DEM	County General Fund	Low	Ongoing	2, 8, 12
CW-6—Strive to capture time-sensitive, perishable data—such as high-water marks, extent and location of hazard, and loss information—following hazard events to support future updates to the risk assessment as well as other plans and programs that utilize hazard extent and location data					
All Hazards	County DEM	County General Fund and FEMA Public Assistance following declared disaster events	Low	Ongoing	2, 8, 12
CW-7—Utilize viable and relevant information, data and tools (Hazus models) developed as part of the update to the risk assessment of this plan update to support training and exercise of the County’s preparedness, response and recovery programs					
All Hazards	County DEM	County General Fund, Emergency Management Program Development, Homeland Security Grant Program	Low	Ongoing	2, 5, 8, 10, 12

21.2.1 Benefit/Cost Review

The action plan must be prioritized according to a benefit/cost analysis of the proposed actions (44 CFR, Section 201.6(c)(3)(iii)). For this hazard mitigation plan, a qualitative benefit-cost review was performed for each action by assigning ratings for benefit and cost as follows:

- Cost:
 - **High**—Existing funding will not cover the cost of the action; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).
 - **Medium**—The action could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the action would have to be spread over multiple years.
 - **Low**—The action could be funded under the existing budget. The action is part of or can be part of an ongoing existing program.
- Benefit:

- **High**—Action will provide an immediate reduction of risk exposure for life and property.
- **Medium**—Action will have a long-term impact on the reduction of risk exposure for life and property, or action will provide an immediate reduction in the risk exposure for property.
- **Low**—Long-term benefits of the action are difficult to quantify in the short term.

To assign priorities, each action with a benefit rating equal to or higher than its cost rating (such as high benefit/medium cost, medium benefit/medium cost, medium benefit/low cost, etc.) was considered to be cost-beneficial. This is not the detailed level of benefit/cost analysis required for some FEMA hazard-related grant programs. Such analysis would be performed at the time a given action is being submitted for grant funding.

21.2.2 Implementation Priority

Implementation priority ratings were assigned as follows:

- **High Priority**—An action that meets multiple objectives, has benefits that exceed costs, and has a secured source of funding. Action can be completed in the short term (1 to 5 years).
- **Medium Priority**—An action that meets multiple objectives, has benefits that exceed costs, and is eligible for funding though no funding has yet been secured for it. Action can be completed in the short term (1 to 5 years), once funding is secured. Medium-priority actions become high-priority actions once funding is secured.
- **Low Priority**—An action that will mitigate the risk of a hazard, has benefits that do not exceed the costs or are difficult to quantify, has no secured source of funding, and is not eligible for any known grant funding. Action can be completed in the long term (1 to 10 years). Low-priority actions may be eligible for grant funding from programs that have not yet been identified.

21.2.3 Grant Pursuit Priority

Grant pursuit priority ratings were assigned as follows:

- **High Priority**—An action that meets identified grant eligibility requirements, has high benefits, and is listed as high or medium implementation priority; local funding options are unavailable or available local funds could be used instead for actions that are not eligible for grant funding.
- **Medium Priority**—An action that meets identified grant eligibility requirements, has medium or low benefits, and is listed as medium or low implementation priority; local funding options are unavailable.
- **Low Priority**—An action that has not been identified as meeting any grant eligibility requirements.

21.2.4 Prioritization Summary for Mitigation Actions

Table 21-2 lists the priority of each area-wide action.

Table 21-2. Prioritization of Area-Wide Mitigation Actions

Action #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Action Grant Eligible?	Can Action be Funded under Existing Programs/ Budgets?	Implementation Priority	Grant Pursuit Priority
CW-1	4	Medium	Low	Yes	No	Yes	High	N/A
CW-2	3	Medium	Low	Yes	No	Yes	High	N/A
CW-3	3	Medium	Low	Yes	No	Yes	High	N/A

Action #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Action Grant Eligible?	Can Action be Funded under Existing Programs/ Budgets?	Implementation Priority	Grant Pursuit Priority
CW-4	4	Medium	Medium	Yes	Yes	Yes	High	Medium
CW-5	3	Medium	Low	Yes	No	Yes	High	N/A
CW-6	3	Medium	Low	Yes	No	Yes	High	N/A
CW-7	5	Medium	Low	Yes	No	Yes	High	N/A

21.3 CLASSIFICATION OF MITIGATION ACTIONS

Each recommended action was classified based on the hazard it addresses and the type of mitigation it involves. Mitigation types used for this categorization are as follows:

- **Prevention**—Government, administrative or regulatory actions that influence the way land and buildings are developed to reduce hazard losses. Includes planning and zoning, floodplain laws, capital improvement programs, open space preservation, and stormwater management regulations.
- **Property Protection**—Modification of buildings or structures to protect them from a hazard or removal of structures from a hazard area. Includes acquisition, elevation, relocation, structural retrofit, storm shutters, and shatter-resistant glass.
- **Public Education and Awareness**—Actions to inform residents and elected officials about hazards and ways to mitigate them. Includes outreach projects, real estate disclosure, hazard information centers, and school-age and adult education.
- **Natural Resource Protection**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. Includes sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, wetland restoration and preservation, and green infrastructure.
- **Emergency Services**—Actions that protect people and property during and immediately after a hazard event. Includes warning systems, emergency response services, and the protection of essential facilities.
- **Structural Projects**—Actions that involve the construction of structures to reduce the impact of a hazard. Includes dams, setback levees, floodwalls, retaining walls, and safe rooms.
- **Climate Resilience**—Actions that incorporate methods to mitigate and/or adapt to the impacts of climate change. Includes aquifer storage and recovery activities, incorporating future conditions projections in project design or planning, or actions that specifically address jurisdiction-specific climate change risks, such as sea level rise or urban heat island effect.
- **Community Capacity Building**—Actions that increase or enhance local capabilities to adjust to potential damage, to take advantage of opportunities, or to respond to consequences. Includes staff training, memorandums of understanding, development of plans and studies, and monitoring programs.

Table 21-3 shows the classification based on this analysis.

Table 21-3. Analysis of Mitigation Actions

Hazard	Actions That Address the Hazard, by Mitigation Type							
	Prevention	Property Protection	Public Education & Awareness	Natural Resource Protection	Emergency Services	Structural Projects	Climate Resilience	Community Capacity Building
Dam Failure	CW-4, CW-6		CW-2, CW-3		CW-3, CW-7			CW-2, CW-3, CW-5

Hazard	Actions That Address the Hazard, by Mitigation Type							
	Prevention	Property Protection	Public Education & Awareness	Natural Resource Protection	Emergency Services	Structural Projects	Climate Resilience	Community Capacity Building
Drought	CW-4, CW-6		CW-2, CW-3		CW-3, CW-7			CW-2, CW-3, CW-5
Earthquake	CW-4, CW-6		CW-2, CW-3		CW-3, CW-7			CW-2, CW-3, CW-5
Flooding	CW-1, CW-4, CW-6	CW-1	CW-1, CW-2		CW-3, CW-7	CW-1		CW-1, CW-2, CW-3, CW-5
Landslide/ Mass Movement	CW-4, CW-6		CW-2, CW-3		CW-3, CW-7			CW-2, CW-3, CW-5
Sea-Level Rise	CW-4, CW-6		CW-2, CW-3		CW-3, CW-7			CW-2, CW-3, CW-5
Severe Weather	CW-4, CW-6		CW-2, CW-3		CW-3, CW-7			CW-2, CW-3, CW-5
Tsunami	CW-4, CW-6		CW-2, CW-3		CW-3, CW-7			CW-2, CW-3, CW-5
Wildfire	CW-4, CW-6		CW-2, CW-3		CW-3, CW-7			CW-2, CW-3, CW-5

22. PLAN ADOPTION AND MAINTENANCE

22.1 PLAN ADOPTION

A hazard mitigation plan must document that it has been formally adopted by the governing bodies of the jurisdictions requesting federal approval of the plan (44 CFR Section 201.6(c)(5)). For multi-jurisdictional plans, each jurisdiction requesting approval must document that it has been formally adopted. This plan will be submitted for a pre-adoption review to Cal OES and FEMA Region IX prior to adoption. Once pre-adoption approval has been provided, all planning partners will formally adopt the plan. DMA compliance and its benefits cannot be achieved until the plan is adopted. Copies of the resolutions adopting this plan for all planning partners can be found in Appendix F of this volume.

22.2 ACTION PLAN IMPLEMENTATION

The area-wide action plan in Chapter 21 and jurisdiction-specific action plans in Volume 2 present a range of action items for reducing loss from hazard events. The planning partners have prioritized actions and can begin to implement the highest-priority actions over the next five years. The effectiveness of the hazard mitigation plan depends on its effective implementation and incorporation of the outlined action items into all partners' existing plans, policies, and programs. Some action items do not need to be implemented through regulation but can be implemented through the creation of new educational programs, continued interagency coordination, or improved public participation. Sonoma County will have lead responsibility for overseeing the plan implementation. Plan implementation will be a shared responsibility among all planning partners and agencies identified as lead agencies in the action plans.

22.3 PLAN MAINTENANCE STRATEGY

Plan maintenance is the formal process for achieving the following:

- Ensuring that the hazard mitigation plan remains an active and relevant document and that the planning partnership maintains its eligibility for applicable funding sources
- Monitoring and evaluating the plan annually and producing an updated plan every five years
- Continuing public participation throughout the plan maintenance and implementation process
- Incorporating the mitigation strategies outlined in this plan into existing planning mechanisms and programs, such as any relevant comprehensive land-use planning process, capital improvement planning process, and building code enforcement and implementation.

A steering committee will be maintained to participate in the plan maintenance strategy, which is summarized in Table 22-1. The sections below further describe each element.

Table 22-1. Plan Maintenance Matrix

Approach	Timeline	Lead Responsibility ^a
Plan Monitoring		
Track the implementation of actions over the performance period of the plan	Continuous over the 5-year performance period of the plan	Permit Sonoma will be the lead agency responsible for the plan monitoring. All planning partners will monitor themselves and report to Permit Sonoma. Monitoring contacts will be the primary point of contacts listed in the jurisdictional annexes.
Progress Reporting		
Track actions over the performance period of the plan; assemble an annual report outlining the status of planning partners' projects	Continuous during the 5-year performance period of the plan	Permit Sonoma will be responsible for progress reporting. Participating planning partners are responsible for maintaining the status of and reporting on their respective projects in accordance with the identified timeline. Permit Sonoma will then assemble and maintain the annual report.
Plan Evaluation		
Review the status of previous actions; assess changes in risk; evaluate success of integration	Upon initiation of hazard mitigation plan update, comprehensive general plan update, or major disaster	All planning partners
Incorporation into Other Planning Mechanisms		
Create a linkage between the hazard mitigation plan and individual jurisdictions' general plans or similar plans identified in the core capability assessments	Ongoing during the performance period of this plan as opportunities for integration become available, or according to timelines identified in the action plans for each planning partner	All planning partners
Grant Monitoring and Coordination		
As grant opportunities present themselves, consider options to pursue grants to fund actions identified in this plan	As grants become available	Permit Sonoma and Sonoma County DEM provide notification to planning partners and convene grant funding meeting as needed.
Plan Update		
The planning partnership will reconvene, at a minimum, every 5 years to guide a comprehensive update of the plan.	Funding and organizing to begin in FY 2024/2025 or upon comprehensive update to General Plan or major disaster	All planning partners
Continuing Public Participation		
Maintain the website, bring the plan to the Board of Supervisors meeting for annual review, and receive comments through the website.	Continuous over the 5-year performance period of the plan	Permit Sonoma will be the lead agency responsible. Planning partner points of contact identified in Volume 2 annexes will help support.

a. Responsible lead party may designate an alternate. Jurisdictional points of contact identified in Volume 2 have support responsibility.

22.3.1 Plan Monitoring

Sonoma County Permit and Resource Department (Permit Sonoma) will be the lead agency with Sonoma County Department of Emergency Management (DEM) as the alternate agency responsible for monitoring the plan, and each partner will have monitor plan implementation by tracking the status of all recommended mitigation actions in its action plan. Staff or departments with primary responsibility are identified in each jurisdictional annex (see Volume 2) and summarized in Table 22-1.

22.3.2 Progress Reporting

The steering committee will convene an annual meeting to evaluate the progress on the action plan during a 12-month performance period. This review will include such items as the following:

- Summary of any hazard events that occurred during the performance period and impact of these events on the planning area
- Review of mitigation success stories
- Review of continued public involvement
- Brief discussions about why targeted strategies were not completed
- Reevaluation of the action plan to establish if the timeline for projects needs identified to be amended
- Recommendations for new projects
- Changes in or potential for new funding options
- The impact of any other planning programs or initiatives that involves hazard mitigations

Based on the review, participating partners will complete a progress report template (see Appendix G) and forward it Permit Sonoma to prepare a formal annual report on plan progress. This report will be retained by the County, with copies forwarded to planning partners and Cal OES. This report should be used as follows:

- The reporting period will cover a 12-month period starting from the date of plan approval by FEMA Region IX
- Permit Sonoma will send out reminder emails to all planning partners no later than three months before the due date
- Planning partners will submit status updates and sections of the annual report no later than two weeks prior to the due date
- Permit Sonoma will prepare the annual report including planning partner information no later than one month following the progress reporting due date
- Permit Sonoma will be responsible for ensuring the report is posted to the County's website that is dedicated to hazard mitigation
- The report will also contain public outreach and engagement made during the reporting period
- The steering committee will use the information in the annual report to identify projects of interest for the following year and to apply for respective mitigation and/or resiliency grants
- All partners will present the report findings to their governing bodies to inform them of the progress of mitigation and resiliency efforts implemented during the reporting period

An annual progress is not a requirement under 44 CFR, but it is recommended since it may enhance the planning partnership's opportunity for grand funding. Failure to prepare annual progress reporting will not jeopardize a planning partner's compliance under the DMA; it may jeopardize its opportunity to leverage funding opportunities with other planning partners. Permit Sonoma will follow up with planning partners that do not participate in the annual reporting as deemed necessary.

22.3.3 Plan Evaluation

The plan will be evaluated by how successfully the implementation of identified actions has helped to achieve the goals and objectives identified in this plan. This will be assessed by a review of the changes in risk that occur over the performance period and by the degree to which mitigation goals and objectives are incorporated into existing plans, policies and programs. Plan evaluation will be a shared responsibility among all planning partnership members and agencies identified as lead agencies in the area-wide and jurisdiction-specific action plans.

22.3.4 Incorporation into Other Planning Mechanisms

The information on hazard, risk, vulnerability, and mitigation contained in this plan is based on the best science and technology available at the time this plan was prepared. The general plans of the planning partners are considered to be integral parts of this plan. The planning partners, through adoption of general plans and zoning ordinances, have planned for the impact of natural hazards. The hazard mitigation plan development process provided them with an opportunity to review and expand on policies contained within these planning mechanisms. The planning partners used their general plans and the hazard mitigation plan as complementary documents that work together to achieve the goal of reducing risk exposure to the citizens of the planning area. An update to a general plan may trigger an update to the hazard mitigation plan.

All municipal planning partners are committed to creating a linkage between the hazard mitigation plan and their individual general plans by identifying a mitigation action to do so and giving that action a high priority. Other planning processes and programs to be coordinated with the recommendations of the hazard mitigation plan include the following:

- Emergency response plans
- Training and exercise of emergency response plans
- Debris management plans
- Recovery plans
- Capital improvement programs
- Municipal codes
- Community design guidelines
- Water-efficient landscape design guidelines
- Stormwater management programs
- Water system vulnerability assessments
- Community wildfire protection plans
- Comprehensive flood hazard management plans
- Resiliency plans
- Community Development Block Grant-Disaster Recovery action plans
- Public information/education plans.

Some action items do not need to be implemented through regulation. Instead, these items can be implemented through the creation of new educational programs, continued interagency coordination, or improved public

participation. As information becomes available from other planning mechanisms that can enhance this plan, that information will be incorporated via the update process.

For the special purpose district planning partners to this plan, identified planning capabilities include capital facility plans, emergency operations plan, continuity of operations plans and community wildfire protection plans. Special purpose districts do not have land use authority, so integration with land use plans is not a capability for districts. However, for the planning capabilities that the districts do possess, they will integrate where appropriate relevant sections of this plan when those plans are scheduled for updates. This has already occurred for most of the district planning partners as indicated in Volume 2 of this plan.

22.3.5 Grant Monitoring and Coordination

Permit Sonoma and Sonoma County DEM will identify grant funding opportunities and send notifications to participating partner jurisdictions. Once these opportunities are identified, planning partners interested in pursuing a grant opportunity will convene in a short meeting to review the hazard mitigation plan and pursue a strategy to capture that grant funding. Permit Sonoma will assume lead responsibility for planning and facilitating grant opportunity meetings. Review of the hazard mitigation plan at these meetings can include the following:

- Discussion of any hazard events that occurred during the prior year and their impact on the planning area
- Impact of potential grant opportunities on the implementation of mitigation actions
- Re-evaluation of the action plans to determine if the timeline for identified actions need to be amended (such as changing a long-term action to a short-term action because of funding availability)
- Recommendations for new actions
- Impact of any other planning programs or initiatives that involve hazard mitigation.

If multiple planning partners decide to pursue the same grant funding opportunity, partnerships can be formed to utilize the hazard mitigation plan in the grant application.

22.3.6 Plan Update

Federal regulations require that local hazard mitigation plans be reviewed, revised if appropriate, and resubmitted for approval in order to remain eligible for benefits awarded under the Disaster Mitigation Act (44 CFR Section 201.6.d(3)). This plan's format allows the planning partnership to review and update sections when new data become available. New data can be easily incorporated, resulting in a plan that will remain current and relevant. The planning partnership intends to update the plan on a five-year cycle from the date of plan approval. This cycle may be accelerated to less than 5 years based on the following triggers:

- A presidential disaster declaration that impacts the planning area
- A hazard event that causes loss of life
- A 20-year plan update of a participating jurisdiction's general plan

It will not be the intent of the update process to develop a complete new hazard mitigation plan. Based on needs identified by the planning team, the update will, at a minimum, include the following elements:

- The update process will be convened through a new steering committee.

- The hazard risk assessment will be reviewed and, if necessary, updated using best available information and technologies.
- Action plans will be reviewed and revised to account for any actions completed, dropped, or changed and to account for changes in the risk assessment or planning partnership policies identified under other planning mechanisms (such as the general plan).
- The draft update will be sent to appropriate agencies and organizations for comment.
- The public will be given an opportunity to comment on the update prior to adoption.
- Partners' governing bodies will adopt their respective portions of the updated plan.

Because plan updates can require a year or more to complete, Permit Sonoma will initiate efforts to update the plan before it expires. Permit Sonoma will consider applying for funding to update the plan in Fiscal Year 2024/2025 grant cycle or will identify an alternate source of funding for the plan update in order to begin the update process in the spring of 2025.

22.3.7 Continuing Public Participation

The public outreach strategy used during development of the current update will provide a framework for public engagement through the plan maintenance process. It can be adapted for ongoing public outreach as determined to be feasible by the planning partnership. A steering committee similar to the one involved in developing this hazard mitigation plan update will be put in place to provide stakeholder input on plan maintenance activities.

The public will continue to be apprised of hazard mitigation activities through the website and reports on successful hazard mitigation actions provided to the media. Permit Sonoma will keep the website maintained, including monitoring the email address where members of the public can submit comments to the steering committee. This site will house the final plan and will be a one-stop shop for information regarding the plan, the partnership and plan implementation. Copies of the plan also will be distributed to the Sonoma County library system.

Once a year, Permit Sonoma will bring the plan to a Board of Supervisors meeting for review. These meetings are also televised and on public notices in community newspaper.

Upon initiation of the next plan update process, a new public involvement strategy will be initiated, with guidance from the new steering committee. This strategy will be based on the needs and capabilities of the planning partnership at the time of the update. At a minimum, it will include the use of local media outlets.