COUNTY OF SAN MATEO

# 2021 Multijurisdictional Local Hazard Mitigation Plan

## Volume 2—Planning Partner Annexes

October | 2021

TETRA TECH

# 2021 Multijurisdictional Local Hazard Mitigation Plan

September 2021

## PREPARED FOR

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## Appendices

Appendix A. Planning Partner Expectations
Appendix B. Procedures for Linking to Hazard Mitigation Plan
Appendix C. Annex Instructions and Templates

# ACRONYMS

The following acronyms are used throughout the annexes in this volume:

- AB—Assembly Bill
- AFG—Assistance for Firefighter Grant
- ACWA—Association of California Water Agencies
- BART—Bay Area Rapid Transit
- BAWSCA—Bay Area Water Supply & Conservation Agency
- BCEGS— Building Code Effectiveness Grading Schedule
- BMP—best management practice
- BRIC—Building Resilient Infrastructure and Communities
- C/CAG— City/County Association of Governments of San Mateo County
- Cal OES—California Office of Emergency Services
- CAL FIRE—California Department of Forestry and Fire Protection
- CBC—city building code
- C&CB—Core Capacity and Capability Building funding under BRIC
- CCFD—Central County Fire Department
- CCR—California Code of Regulations
- CCWD—Coastside County Water District
- CDAA—California Disaster Assistance Act
- CDC—Center for Disease Control
- CDFA—California Department of Food and Agriculture
- CDD—Community Development Department
- CEQA— California Environmental Quality Act
- CERPP—Citizens' Emergency Response and Preparedness Program
- CERT—Community Emergency Response Team
- CFPD—Colma Fire Protection District
- CFR—Code of Federal Regulations
- CIP—capital improvement program
- CMAP—Climate Mitigation and Adaptation Plan
- COOP/COG—continuity of operations plan and continuity of government
- CPAW—Community Partners for Wildfire Assistance
- CSM—College of San Mateo
- CWPP—community wildfire protection plan
- CWSRF—EPA Clean Water State Revolving Fund
- DEM—San Mateo County Department of Emergency Management
- DWR—Department of Water Resources
- EAP—emergency action plan
- EIR—Environmental Impact Report
- EMID—Estero Municipal Improvement District
- EMPG—Emergency Management Performance Grant
- EOC—emergency operations center
- EOP—emergency operations plan
- EPA—Environmental Protection Agency
- FEMA—Federal Emergency Management Agency
- FMA—Flood Mitigation Assistance Grant Program
- FMAG—Fire Management Assistance Grants

- FPD—fire protection district
- FSLRRD—Flood & Sea Level Rise Resiliency District
- GHG—greenhouse gas
- GIS—geographic information system
- HMA—Hazard Mitigation Assistance
- HMB—Half Moon Bay
- HMGP—Hazard Mitigation Grant Program
- HMP—hazard mitigation plan
- HRD—Highlands Recreation District
- HSGP—Homeland Security Grant Program
- IBC—International Building Code
- ISO—Insurance Services Office (insurance underwriter)
- JPA—joint powers authority
- LCP— Local Coastal Program
- LHMP—local hazard mitigation plan
- LUP—land use plan
- MJLHMP—Multijurisdictional Local Hazard Mitigation Plan
- MPFPD—Menlo Park Fire Protection District
- MPWD—Mid-Peninsula Water District
- MRP— Municipal Regional Stormwater Permit
- MWSD—Montara Water and Sanitary District
- NCCWD— North Coast County Water District
- NEPA—National Environmental Policy Act
- NFIP—National Flood Insurance Program
- NIMS— National Incident Management System
- NOAA—National Oceanic and Atmospheric Administration
- NRCS—Natural Resources Conservation Service
- OPC—California Ocean Protection Council
- POC—point of contact
- RCD—resource conservation district
- RHNA—Regional Housing Needs Allocation
- RICAPS—Regionally Integrated Climate Action Planning Suite
- SAFER—Staffing for Adequate Fire and Emergency Response Grants
- SB—Senate Bill
- SCC—California State Coastal Conservancy
- SFHA—special flood hazard area
- SFO—San Francisco International Airport
- SFPUC—San Francisco Public Utilities Commission
- SLR—sea-level rise
- SMCCD—San Mateo Community College District
- SMCFire or SMCFD—San Mateo County Fire Department
- SMCO—San Mateo County
- SMRCD—San Mateo Resource Conservation District
- SSF—South San Francisco
- SSFFD—South San Francisco Fire Department
- SSMP—Sanitary Sewer Management Plan
- SWRCB—California State Water Resources Control Board
- TEP—Training and Exercise Program
- THIRA—Threat & Hazard Identification & Risk Assessment
- TMDL—total maximum daily load
- UASI—Urban Area Security Initiative
- USDA—U.S. Department of Agriculture

- UWMP—urban water management plan
- WFPD—Woodside Fire Protection District
- WUI—wildland urban interface
- WWD—Westborough Water District

# INTRODUCTION

## BACKGROUND

The Federal Emergency Management Agency (FEMA) encourages multi-jurisdictional planning for hazard mitigation. All participating jurisdictions must meet the requirements of Chapter 44 of the Code of Federal Regulations (44 CFR):

> "Multi-jurisdictional plans (e.g., watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process and has officially adopted the plan." (Section 201.6(a)(4)).

For the *San Mateo County 2021 Multi-Jurisdictional Local Hazard Mitigation Plan*, a planning partnership was formed to leverage resources and to meet requirements of the federal Disaster Mitigation Act for as many eligible local governments as possible. The Disaster Mitigation Act defines a local government as follows:

> "Any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity."

In addition, federally recognized tribes may participate in local/tribal multi-jurisdictional plans as long as the requirements of Section 201.7 of 44 CFR are met for tribal components of the plan.

Two types of planning partners participated in this process for the *2021 Multi-Jurisdictional Local Hazard Mitigation Plan*, with distinct needs and capabilities:

- Incorporated municipalities
- Special districts

Each participating planning partner prepared a jurisdiction-specific annex to this plan. These annexes, as well as information on the process by which they were created, are contained in this volume.

## THE PLANNING PARTNERSHIP

### Initial Solicitation and Letters of Intent

A planning team made up of San Mateo County and consultant staff solicited the participation of all eligible municipalities and special districts at the outset of this project. A kickoff meeting was held on January 5, 2021, to identify potential stakeholders and planning partners for this process. The purpose of the meeting was to introduce

the planning process to jurisdictions in the County that could have a stake in the outcome of the planning effort. All eligible local governments in the planning area were invited to attend. The goals of the meeting were as follows:

- Provide an overview of the Disaster Mitigation Act.
- Review the *2016 San Mateo County Hazard Mitigation Plan* and planning partnership
- Outline the work plan for this hazard mitigation plan.
- Describe the benefits of multi-jurisdictional planning.
- Outline planning partner expectations.
- Solicit planning partners.
- Solicit volunteers/recommendations for the steering committee.

Local governments wishing to join the planning effort were asked to provide the planning team with a "letter of intent to participate" that agreed to the planning partner expectations (see Appendix A) and designated lead and alternate points of contact for their jurisdiction. In all, the planning team received formal commitment from 37 planning partners in addition to the County. A map showing the location of participating special purpose districts is provided at the end of this introduction. Maps showing risk assessment results for participating cities are provided in the individual annexes for each city. Risk assessment maps for all planning areas countywide are provided in Volume 1 of this hazard mitigation plan.

## Planning Partner Expectations

The planning team developed the following list of planning partner expectations, which were provided and discussed at the kickoff meeting (see Appendix A for details):

- Complete a "letter of intent to participate."
- Designate lead and primary points of contact for this effort.
- Support and participate in the selection and function of the Steering Committee.
- Provide support required to implement the public involvement strategy.
- Participate in the process through opportunities such as:
  - Steering Committee meetings
  - Public meetings or open houses
  - Workshops and planning partner specific training sessions
  - Public review and comment periods prior to adoption.
- Attend the mandatory Phase 3 jurisdictional annex workshop.
- Complete the jurisdictional annex.
- Perform a "consistency review" of all technical studies, plans and ordinances specific to hazards.
- Review the risk assessment and identify hazards and vulnerabilities specific to the jurisdiction.
- Review and determine if the mitigation recommendations chosen in Volume 1 will meet the needs of the jurisdiction.

- Create an action plan that identifies each project, who will oversee the task, how it will be financed, and when it is estimated to occur.
- Formally adopt the hazard mitigation plan.

By adopting this plan, each planning partner also agrees to the plan implementation and maintenance protocol established in Volume 1. Failure to meet these criteria may result in a partner being dropped from the partnership by the Steering Committee, and thus losing eligibility under the scope of this plan.

## Final Coverage

Two jurisdictions that submitted letters of intent to participate withdrew from the planning process prior to its completion. The rest fully met the participation requirements for this update, completed an annex template, and will be covered by the updated hazard mitigation plan upon FEMA approval and adoption by their governing bodies. This final coverage will apply to the following jurisdictions:

- Cities/County
  - Town of Atherton
  - City of Belmont
  - City of Brisbane
  - City of Burlingame
  - Town of Colma
  - City of Daly City
  - City of East Palo Alto
  - City of Foster City
  - City of Half Moon Bay
  - Town of Hillsborough
  - City of Menlo Park
  - City of Millbrae
  - City of Pacifica
  - Town of Portola Valley
  - City of Redwood City
  - City of San Bruno
  - City of San Carlos
  - City of San Mateo
  - City of South San Francisco
  - Town of Woodside
  - San Mateo County
- Special Purpose Districts
  - Coastside County Water District
  - Colma Fire Protection District
  - Highlands Recreation District
  - Menlo Park Fire Protection District
  - Midpeninsula Regional Open Space District
  - Mid-Peninsula Water District
  - Montara Water & Sanitary District
  - North Coast County Water District
  - San Mateo Community College District
  - San Mateo County Flood & Sea Level Rise Resiliency District
  - San Mateo County Harbor District
  - San Mateo County Office of Education
  - San Mateo Resource Conservation District
  - Westborough Water District
  - Woodside Fire Protection District

## Linkage Procedures

Eligible local jurisdictions that did not participate in development of this multi-jurisdictional plan may comply with Disaster Mitigation Act requirements by linking to this plan following procedures outlined in Appendix B.

# PARTNER ANNEX DEVELOPMENT

## Capability Assessment

All participating jurisdictions compiled an inventory and analysis of existing authorities and capabilities called a "capability assessment." A capability assessment creates an inventory of a jurisdiction's mission, programs, and policies, and evaluates its capacity to carry them out. This assessment identifies potential gaps in the jurisdiction's capabilities. If the capability assessment identified an opportunity to add a missing core capability or expand an existing one, then doing so has been selected as an action in the jurisdiction's action plan. The sections below describe the specific capabilities evaluated under the assessment.

### Planning and Regulatory Capabilities

Jurisdictions can develop policies and programs and implement rules and regulations to protect and serve residents. Local policies are typically identified in planning documents, implemented via a local ordinance, and enforced by a governmental body. Because the planning and regulatory authority of municipal partners is generally broader than that of special-purpose districts, the assessment of these capabilities is more detailed for the municipal partners.

### Development and Permitting Capability

This set of capabilities is not applicable to special purpose districts and was assessed only for municipal partners (cities and the County). Municipal jurisdictions regulate land use through the adoption and enforcement of zoning, subdivision, and land development ordinances, building codes, building permit ordinances, floodplain, and stormwater management ordinances. When effectively prepared and administered, these regulations can lead to hazard mitigation.

### Fiscal Capabilities

Assessing a jurisdiction's fiscal capability provides an understanding of the ability to fulfill the financial needs associated with hazard mitigation projects. This assessment identifies both outside resources, such as grant-funding eligibility, and local jurisdictional authority to generate internal financial capability, such as through impact fees.

### Administrative and Technical Capabilities

Without appropriate personnel, the mitigation strategy may not be implemented. Administrative and technical capabilities focus on the availability of personnel resources responsible for implementing all the facets of hazard mitigation. These resources include technical experts, such as engineers and scientists, as well as personnel with capabilities that may be found in multiple departments, such as grant writers.

### Education and Outreach Capability

Regular engagement with the public on issues regarding hazard mitigation provides an opportunity to directly interface with community members. Assessing this outreach and education capability illustrates the connection between the government and community members, which opens a two-way dialogue that can result in a more resilient community based on education and public engagement.

### Compliance with National Flood Insurance Program Requirements

The National Flood Insurance Program (NFIP) is not available to special purpose districts, so this set of capabilities was assessed only for municipal partners (cities and the County). Flooding is the costliest natural hazard in the United States and homeowners face increasingly high flood insurance premiums. Community participation in the NFIP opens up opportunity for additional grant funding associated specifically with flooding issues. Assessment of a jurisdiction's current NFIP status and compliance provides a greater understanding of the local flood management program, opportunities for improvement, and available grant funding opportunities.

### Participation and Classification in Other Programs

Other programs, such as the Community Rating System, Storm/Tsunami Ready, and Firewise USA, can enhance a jurisdiction's ability to mitigate, prepare for, and respond to natural hazards. These programs indicate a jurisdiction's desire to go beyond minimum requirements set forth by local, state, and federal regulations in order to create a more resilient community. These programs complement each other by focusing on communication, mitigation, and community preparedness to save lives and minimize the impact of natural hazards on a community. The programs reviewed here are applicable to municipal partners only so they are not included in the capability assessments for special-purpose districts.

### Adaptive Capacity

An adaptive capacity assessment evaluates a jurisdiction's ability to anticipate impacts from future conditions. By looking at public support, technical adaptive capacity, and other factors, jurisdictions identify their core capability for resilience against issues such as sea level rise. The adaptive capacity assessment provides jurisdictions with an opportunity to identify areas for improvement by ranking their capacity high, medium, or low.

## Mitigation Action Plan Development

### Risk Ranking

In the risk-ranking exercise, each planning partner was asked to review the ranked risk specifically for its jurisdiction, based on the impact on its population and/or facilities. Municipalities based this ranking on probability of occurrence and the potential impact on people, property, and the economy. Special purpose districts based this ranking on probability of occurrence and the potential impact on their constituency, their vital facilities, and the facilities' functionality after an event. Additionally, to support the social equity lens for this plan update, a social vulnerability ranking factor and weighting was established to support planning partners wishing to apply an equity lens to their risk ranking and project identification and prioritization. The risk-ranking methodology for partner annexes was the same as that used for the countywide risk ranking, as described in Volume 1.

The objectives of this exercise were to familiarize the partnership with how to use the risk assessment as a tool to support other planning and hazard mitigation processes and to help prioritize types of mitigation actions that should be considered. Hazards that were ranked as "high" and "medium" for each jurisdiction as a result of this exercise were considered to be priorities for identifying mitigation actions, although jurisdictions also identified actions to mitigate "low" ranked hazards, as appropriate.

## Information Reviewed to Develop Action Plan

The tool kits were used during the workshops and in follow-up work conducted by the planning partners. A large portion of the workshop focused on how the tool kit should be used to develop the mitigation action plan. Planning partners were specifically asked to review the following to assist in the identification of actions:

- The Jurisdiction's Capability Assessment—Reviewed to identify capabilities that the jurisdiction does not currently have but should consider pursuing or capabilities that should be revisited and updated to include best available information; also reviewed to determine how existing capabilities can be leveraged to increase or improve hazard mitigation in the jurisdiction.
- The Jurisdiction's National Flood Insurance Program Compliance Table—Reviewed to identify opportunities to increase floodplain management capabilities.
- The Jurisdiction's Review of Its Adaptive Capacity for Climate Change—Reviewed to identify ways to leverage or continue to improve existing capacities and to improve understanding of other capacities.
- The Jurisdiction's Identified Opportunities for Future Integration—Reviewed to identify specific integration actions to be included in the mitigation strategy.
- Jurisdiction-Specific Vulnerabilities—Reviewed to identify actions that will help reduce known vulnerabilities.
- The Mitigation Best Practices Catalog—Reviewed to identify actions that the jurisdiction should consider including in its action plan.
- Public Input—Reviewed to identify potential actions and community priorities.

## 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 (with and without considerations of social equity)
- 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.

### *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.

### *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.

### *Social Equity Implementation Priority*

For planning partners that chose to apply an equity lens to their prioritization scheme, the following parameters were established:

- **High Priority**—The mitigation action is designed to reduce harm to multiple socially vulnerable groups in the County from one or more of the hazards identified in the hazard mitigation plan.
- **Medium Priority**— The mitigation action is designed to reduce harm to a single socially vulnerable population in the County from at least one hazard identified in the hazard mitigation plan.
- **Low Priority**— The mitigation action fails to advance social equity in any measurable way in the County

### *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.

## Classification of Actions

Each recommended action was classified based on the hazard it addresses and the type of mitigation it involves. Mitigation types used for this classification 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 Resiliency**—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.

# Annex-Preparation Process

## Templates

Templates were created to help the planning partners prepare their jurisdiction-specific annexes. Separate templates were created for the two types of jurisdictions participating in this plan. The templates were created so that all criteria of Section 201.6 of 44 CFR for local governments would be met based on the partners' capabilities and mode of operation. Separate templates were available for partners updating a previous hazard mitigation plan and those developing a first-time hazard mitigation plan. These templates were deployed in three phases during the course of this plan update process. These phases are described as follows:

- **Phase 1**—Profile, Trends, Previous Plan Status
  - Deployed: February 19, 2021
  - Due: March 19, 2021
- **Phase 2**—Capability Assessment and Information Sources
  - Deployed: April 2, 2021
  - Due: May 21, 2021
- **Phase 3**—Risk Ranking, Action Plan, and Information Sources
  - Deployed: June 11, 2021
  - Workshops: June 14 – 16, 2021
  - Due: July 23, 2021

The templates were set up to lead all partner through steps to generate Disaster Mitigation Act-required elements specific to their jurisdictions. The templates and their instructions are included in Appendix C of this volume.

## Tool Kit

Each planning partner was provided with a tool kit to assist in completing the annex template and developing an action plan. The tool kits contained the following:

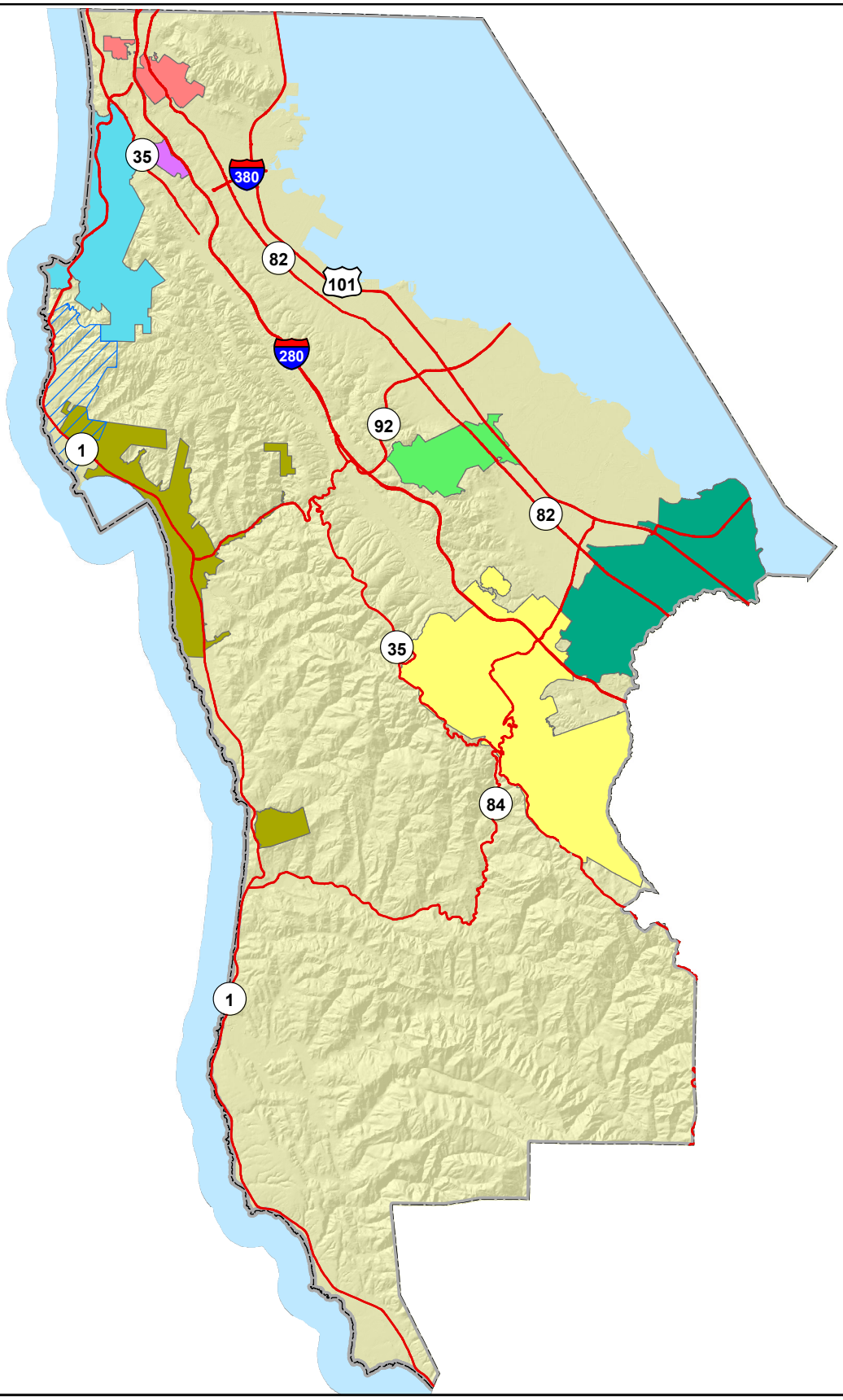
- The *2016 San Mateo County Hazard Mitigation Plan* annexes
- A catalog of mitigation best practices and adaptive capacity
- The guiding principle, goals and objectives developed for the update to the plan
- A list of jurisdiction-specific issues noted during the risk assessment
- Information on the FEMA Hazard Mitigation Assistance grant program
- Information on past hazard events that have impacted the planning area
- County-wide and jurisdiction-specific maps for hazards of concern
- Special district boundary maps showing the sphere of influence for each special purpose district partner
- The risk assessment results developed for this plan
- Information on climate change and expected impacts in the planning area

- Jurisdiction-specific annex templates, with instructions for completing them
- FEMA guidance on plan integration
- The results of a public survey conducted as part of the public involvement strategy
- A copy of the presentation that was given at the workshop sessions.

## Workshop

All partners were required to participate in a technical assistance workshop, where key elements of the template were discussed and the templates were subsequently completed by a designated point of contact for each partner and a member of the planning team. Multiple online workshops were held the week of June 14, 2021 and attended by at least one representative from each planning partner, addressed the following topics:

- The templates and the tool kit
- Natural events history
- Jurisdiction-specific issues
- Risk ranking
- Status of prior actions
- Developing your action plan
- Cost/benefit review
- Prioritization protocol
- Next steps.




## Special Purpose District Planning Partners, 1 of 2

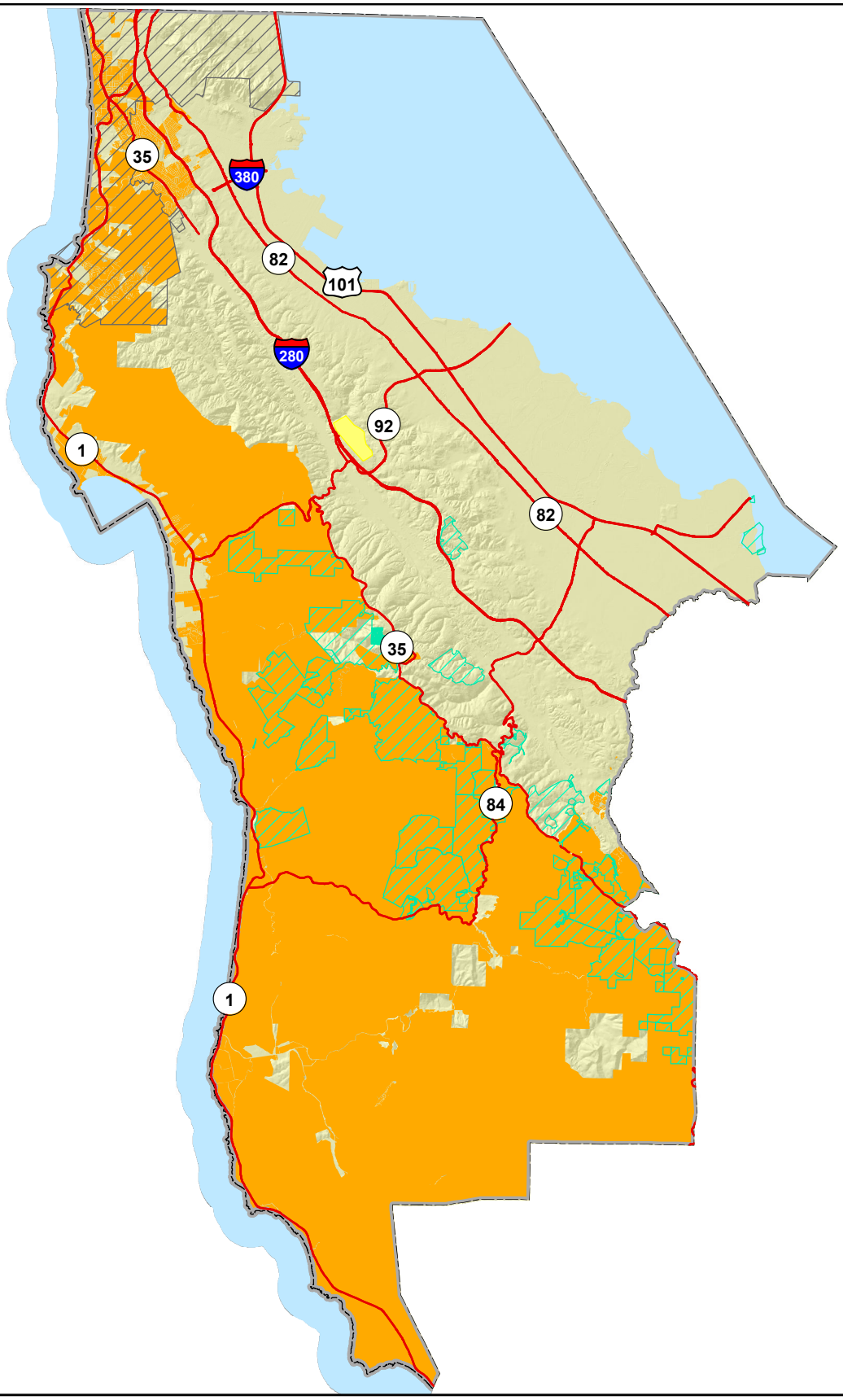
Highways
County Boundary
Colma FPD
Menlo Park FPD
Woodside FPD
Montara WSD
Coastside County WD
Mid-Peninsula WD
North Coast County WD
Westborough WD

N

0 2 4 Miles

Data Sources: San Mateo Co.

San Mateo County Community College District, San Mateo County Flood and Sea Level Rise Resiliency District, San Mateo County Harbor District, and San Mateo County Office of Education extend countywide.




## Special Purpose District Planning Partners, 2 of 2

- Highways
- County Boundary
- Jefferson Union High School District
- Highlands Recreation District
- Midpeninsula Regional Open Space District
- San_Mateo Resource Conservation District

N

0 2 4 Miles

Data Sources: San Mateo Co.

# 9. CITY OF FOSTER CITY

## 9.1 LOCAL HAZARD MITIGATION PLANNING TEAM

**Primary Point of Contact**
Kacey Treadway, Emergency Services Specialist
1900 O'Farrell St, Ste. 375
San Mateo, CA 94403
650-522-7962
ktreadway@smcfire.org

**Alternate Point of Contact**
Peter Pirnejad, City Manager
610 Foster City Boulevard
Foster City, CA 94404
650-286-3288
ppirnejad@fostercity.org

This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 9-1.

**Table 9-1.** Local Mitigation Planning Team Members

| Name | Title |
|---|---|
| **Leslie Carmichael** | Consulting Planner |
| **Sofia Mangalam** | Planning Manager |
| **Kai Ruess** | Associate Attorney |
| **David Liu** | Human Resources Analyst |
| **Yelena Capello** | Deputy City Clerk |
| **Jennifer Phan** | Principal Management Analyst |
| **Peter Pirnejad** | City Manager |
| **Fiti Rusli** | Assistant Finance Director |
| **Rob Lasky** | IT Manager |
| **Bill Sandri** | Police Lieutenant |
| **Martin Ticas** | Police Captain |
| **Frank Fanara** | Parks Manager |
| **Laura Galli** | Public Works Engineering Manager |
| **Marty Cooper** | Chief Building Official |
| **Robert Marshall** | Fire Marshal |
| **Kacey Treadway** | Emergency Services Specialist |
| **Pat Halleran** | Emergency Services Specialist |
| **Bill Euchner** | Battalion Chief |

# 9.2 JURISDICTION PROFILE

## 9.2.1 Location and Features

Foster City is located midway between San Francisco and San Jose on the western shoreline of the San Francisco Bay, east of U.S. 101. The City is bisected by State Route 92 (the J. Arthur Younger Freeway), which runs between Half Moon Bay to the west and to Hayward and Highway 880 to the east via the San Mateo-Hayward Bridge. The City encompasses 12,345 acres, of which 8,726 acres are part of the San Francisco Bay and Belmont Slough, and 2,619 acres are reclaimed marshland. This equates to approximately 4 square miles of land area.

Foster City enjoys a marine-like climate characterized by mild and moderately wet winters and dry, cool summers. The summer weather is dominated by a cool sea breeze. Low overcast often occurs for a few hours in the morning. Summer nights are comfortably cool, with minimum temperatures averaging in the fifties. The average minimum and maximum temperature range is 47.1 ºF to 71.1 ºF.

Historical records show that sea level in San Francisco Bay has risen about seven (7) inches over the past 100 years. Scientists agree that the rate of sea level rise is accelerating, but projections of future sea levels vary considerably. Present California coastline projections reported by the California Natural Resource Agency and the California Energy Commission predict 10 to 18 inches of sea level rise by 20250 (using 200 as the base line) and between 40 and 55 inches by 2100, depending upon the emission scenario used.

California in general should expect overall the hotter and drier conditions with a reduction in winter rain (and concurrent snow in the mountains), as well as increased average temperatures. There is a likelihood that extreme weather events, including heat waves, wildfires, droughts, and floods will be among the earliest climate impacts experienced. In San Mateo County, higher average sea levels means that storms will impact the Pacific Coast and Bay shore more severely with high storm surges, more extensive inland flooding, and increased erosion.

## 9.2.2 History

Foster City had its beginnings as reclaimed marshlands devoted to dairy farming and evaporation ponds. At the turn of the century, the approximately 2,600 acres of tidal marshlands now occupied by Foster City were owned by Frank Brewer, and the land was called Brewer Island. During the late 1950s, T. Jack Foster, in association with Bay Area developer Richard Grant, purchased an option to acquire Brewer Island for the development of a complete community. In 1960 the California Legislature created the Estero Municipal Improvement District (EMID or District), the state's first such public agency. EMID was granted most of the government powers associated with an incorporated municipality, except the powers to zone and approve development and certain police powers. T. Jack Foster prepared a master plan for the development of Brewer Island (Foster City) and submitted it to the County in 1961. The plan envisioned a self-contained community with a variety of housing types, waterfront lots and parks, an internal lagoon for public recreation, marinas, offices, stores, industry, and public services. The engineering firm of Wilsey Ham developed a plan to raise the surface level of the island four to five feet and to dig a central drainage basin area that would also serve as a runoff storage area. This drainage basin is the Foster City Lagoon. EMID issued bonds to finance the improvements, including the lagoon, water systems, sewer system, roads, bridges, and other necessary improvements. Foster City was incorporated in April 1971, with the newly elected City Council assuming the powers of the EMID Board. Foster City's Master Plan was amended and adopted as the City's General Plan.

### 9.2.3 Governing Body Format

The City of Foster City and the Estero Municipal Improvement District provide governmental services to the citizens of Foster City. The members of the City Council serve as the policy-making body for both governmental agencies. City voters elect Council members to staggered terms of four years each. The City uses the Council-Manager form of government, with the City Manager appointed by and responsible to the five-member City Council.

The City Council assumes responsibility for the adoption of this plan; the City Manager will oversee its implementation.

## 9.3 CURRENT TRENDS

### 9.3.1 Population

According to the California Department of Finance, the population of Foster City as of January 2020 was 33,033. Since 2015, the population has grown at an average annual rate of 0.39 percent.

### 9.3.2 Development

Identifying previous and future development trends is achieved through a comprehensive review of permitting since completion of the previous plan and in anticipation of future development. Tracking previous and future growth in potential hazard areas provides an overview of increased exposure to a hazard within a community. Table 9-2 summarizes development trends in the performance period since the preparation of the previous hazard mitigation plan, as well as expected future development trends.

**Table 9-2.** Recent and Expected Future Development Trends

| Criterion | Response | | | | | |
|---|---|---|---|---|---|---|
| **Has your jurisdiction annexed any land since the preparation of the previous hazard mitigation plan?** ***If yes, give the estimated area annexed and estimated number of parcels or structures.*** | No | | | | | |
| **Is your jurisdiction expected to annex any areas during the performance period of this plan?** ***If yes, describe land areas and dominant uses.*** ***If yes, who currently has permitting authority over these areas?*** | No | | | | | |
| **Are any areas targeted for development or major redevelopment in the next five years?** ***If yes, briefly describe, including whether any of the areas are in known hazard risk areas*** | Yes<br><br>Mariners Point Golf Center | | | | | |
| **How many permits for new construction were issued in your jurisdiction since the preparation of the previous hazard mitigation plan?** | | **2016** | **2017** | **2018** | **2019** | **2020** |
| | **Single Family** | 0 | 0 | 0 | 1 | 0 |
| | **Multi-Family** | 5 | 0 | 0 | 5 | 3 |
| | **Other (commercial, mixed use, etc.)** | 9 | 4 | 6 | 13 | 7 |
| | **Total** | **14** | **4** | **6** | **19** | **10** |

| Criterion | Response |
|---|---|
| **Provide the number of new-construction permits for each hazard area or provide a qualitative description of where development has occurred. – CDD (raising the levee – where are we designated right now)** | Special Flood Hazard Areas: 0<br>Landslide: 0<br>High Liquefaction Areas: 2<br>Tsunami Inundation Area: 0<br>Wildfire Risk Areas: 0 |
| **Describe the level of buildout in the jurisdiction, based on your jurisdiction's buildable lands inventory. If no such inventory exists, provide a qualitative description.** | We are fully built out within the City proper there is one area within the wetlands that might be developed in future. |

## 9.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the hazard mitigation plan describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan. The "Analysis of Mitigation Actions" table in this annex identifies these as community capacity building mitigation actions. The findings of the assessment are presented as follows:

- An assessment of planning and regulatory capabilities is presented in Table 9-3.
- Development and permitting capabilities are presented in Table 9-4.
- An assessment of fiscal capabilities is presented in Table 9-5.
- An assessment of administrative and technical capabilities is presented in Table 9-6.
- An assessment of education and outreach capabilities is presented in Table 9-7.
- Information on National Flood Insurance Program (NFIP) compliance is presented in Table 9-8.
- Classifications under various community mitigation programs are presented in Table 9-9.
- The community's adaptive capacity for the impacts of climate change is presented in Table 9-10.

**Table 9-3.** Planning and Regulatory Capability

| | Local Authority | Other Jurisdiction Authority | State Mandated | Integration Opportunity? |
|---|---|---|---|---|
| **Codes, Ordinances, & Requirements** | | | | |
| **Building Code** | Yes (ordinance 629) | Yes – SMCFD and Estero Municipal Improvement District (EMID) | Yes – changing state laws | Yes |
| **Zoning Code** | Yes – Title 17 | No | Yes – see above | Yes |
| **Subdivisions** | Yes<br>Chapter 16.28 | Yes – SMCFD and Estero (reviewing) | Yes –State Subdivision Map Act? | No |
| **Stormwater Management** | Yes<br>Chapter 13.12 | Yes –San Mateo Water Pollution Prevention Program | Yes - MRP & Regional Water Quality Control Board | Yes – pollution incident or fuel leak |

| | Local Authority | Other Jurisdiction Authority | State Mandated | Integration Opportunity? |
|---|---|---|---|---|
| **Post-Disaster Recovery** | Yes Chapters 2.40 and 17.82 | Yes - FEMA, mutual aid agreements, Cal OES | Yes – State Emergency Orders | Yes – have pieces of a plan but could be an opportunity for a project |
| **Real Estate Disclosure** | No | No | No | No |
| **Growth Management –** | No | No | No | No |
| **Site Plan Review —** | Yes – (Chapter 17.72) | Yes – SMCFD reviews and EMID | No | No |
| **Environmental Protection** | Yes – (CEQA Guidelines) | Yes | Yes | Yes |
| ***Comment:*** *Foster City has Environmental Review Guidelines adopted 10/1/2007. Actions must be consistent with California Environmental Quality Act (CEQA).* | | | | |
| **Flood Damage Prevention** | Yes (Chapter 15.36) | Yes – FEMA, neighboring agencies potentially | Yes – in FEMA costal flood hazard studies, NFIP | Yes |
| **Emergency Management** | Yes - (Chapter 2.4) | Yes – SMCFD, FEMA, Cal OES, mutual & automatic aid agreement | Yes – CA Emergency Services Act | Yes |
| **Climate Change** | Yes – Climate Action Plan | Yes - CA | No | Yes |
| ***Comment:*** *Climate Action Plan is being updated.* | | | | |
| **Planning Documents** | | | | |
| **General Plan** | Yes | No | Yes | Yes |
| ***Is the plan compliant with Assembly Bill 2140?*** *Yes* | | | | |
| **Capital Improvement Plan** | Yes – | No – unless driven by a regulation like FEMA | No – good budgetary practice | Yes |
| ***How often is the plan updated?*** updated annually, detailed 5 years, and projected for 10 | | | | |
| **Disaster Debris Management Plan** | Yes - language in franchise agreement with Recology | Yes – County, EPA, Cal OES | No | Yes |
| ***Comment:*** *Countywide Annex in development* | | | | |
| **Floodplain or Watershed Plan** | Yes – Lagoon Management Plan | No | Yes– Regional Quality Board | Yes |
| ***Comment:*** *Lagoon Management Plan* | | | | |
| **Stormwater Plan** | Yes – MRP | No | Yes – Regional Quality Board Permit | Yes |
| ***Comment:*** *This is technically our permit from MRP* | | | | |
| **Urban Water Management Plan** | Yes – updated every 5 years, 2020 is year of update and is currently being updated | Yes- PW to review SFPUC and BAWSCA allocations that inform the plan | Yes- 1983 Act – CA Water Code Section 10610-10657 and submit to Department of Water Resources – AB 2067 | Yes |
| **Habitat Conservation Plan** | No | No | No | No |
| **Economic Development Plan** | Yes – City Manager's Office to confirm year 2016/2017 | No | No | No |

| | Local Authority | Other Jurisdiction Authority | State Mandated | Integration Opportunity? |
|---|---|---|---|---|
| **Shoreline Management Plan** | No | Yes – San Mateo County Flood and Sea Level Rise Resiliency District (FSLRRD) | No | Yes |
| ***Comment:*** County led initiative flood and sea level rise agency – paying for startup cost year 3 of 3 - erosion and resiliency study has been started | | | | |
| **Community Wildfire Protection Plan** | No | Yes – CAL FIRE | No | No |
| **Forest Management Plan** | No | No | No | No |
| **Climate Action Plan** | Yes - CAP | No | No | Yes |
| **Emergency Operations Plan** | Yes – EOP 2007 | Yes - SMCFD | Yes –CA Emergency Services Act | Yes |
| **Threat & Hazard Identification & Risk Assessment (THIRA)** | Yes | No | No | Yes |
| ***Comment:*** *Bay Area UASI THIRA Plan* | | | | |
| **Post-Disaster Recovery Plan** | No | Yes SMCFD | No – OES to review | Yes |
| **Continuity of Operations Plan** | Yes | No – SMCFD assists with updates | No - recommend | Yes |
| **Public Health Plan** | No | Yes – County Health | No | No – County driven |
| **Other - America's Water Infrastructure Act – Emergency Response Plans and Risk Assessment – Plan being produced end of this fiscal year Dam Annexes such as Crystal Springs** | No - pending | No | Yes- EPA | Yes |

**Table 9-4.** Development and Permitting Capability

| Criterion | Response |
|---|---|
| **Does your jurisdiction issue development permits?** ***If no, who does? If yes, which department?*** | Yes<br>CDD (Community Development Department) |
| **Does your jurisdiction have the ability to track permits by hazard area?** | No |
| **Does your jurisdiction have a buildable lands inventory?** | Yes |

**Table 9-5.** Fiscal Capability

| Financial Resource | Accessible or Eligible to Use? |
|---|---|
| **Community Development Block Grants** | Yes |
| **Capital Improvements Project Funding** | Yes |
| **Authority to Levy Taxes for Specific Purposes** | Yes |
| **User Fees for Water, Sewer, Gas or Electric Service** | Yes – water and sewer in master fee services schedule |
| **Incur Debt through General Obligation Bonds** | Yes |
| **Incur Debt through Special Tax Bonds** | Yes |
| **Incur Debt through Private Activity Bonds** | No |
| **Withhold Public Expenditures in Hazard-Prone Areas** | Yes |

| Financial Resource | Accessible or Eligible to Use? |
|---|---|
| State-Sponsored Grant Programs | Yes |
| Development Impact Fees for Homebuyers or Developers | Yes |
| Other – Property Taxes, Transient Occupancy Tax, Business License Fees, Franchise Fees, Misc. State Fees | Yes |

**Table 9-6.** Administrative and Technical Capability

| Staff/Personnel Resource | Available? | Department/Agency/Position |
|---|---|---|
| Planners or engineers with knowledge of land development and land management practices | Yes | CDD & PW/Parks |
| Engineers or professionals trained in building or infrastructure construction practices | Yes | Chief Building Official and Senior Engineer |
| Planners or engineers with an understanding of natural hazards | Yes | CDD & PW/Parks |
| Staff with training in benefit/cost analysis | Yes | Finance |
| Surveyors | No | |
| Personnel skilled or trained in GIS applications | Yes | IT |
| Scientist familiar with natural hazards in local area | No | |
| Emergency manager | Yes | City Manager & Fire (Fire Chief) |
| Grant writers | Yes | Citywide |
| Other | No | |

**Table 9-7.** Education and Outreach Capability

| Criterion | Response |
|---|---|
| Do you have a public information officer or communications office? | Yes |
| Do you have personnel skilled or trained in website development? | Yes |
| Do you have hazard mitigation information available on your website?<br>*If yes, briefly describe.* | Yes<br>Hazard Mitigation Plan and Maps |
| Do you use social media for hazard mitigation education and outreach?<br>*If yes, briefly describe.* | Yes<br>Foster City's Facebook, Twitter, and City Newsletters |
| Do you have any citizen boards or commissions that address issues related to hazard mitigation?<br>*If yes, briefly describe.* | Yes<br>City Council Subcommittee |
| Do you have any other programs already in place that could be used to communicate hazard-related information?<br>*If yes, briefly describe.* | Yes<br>CERT, Parks and Recreation Classes & social media |
| Do you have any established warning systems for hazard events?<br>*If yes, briefly describe.* | Yes<br>SMC Alert & Nixle |

**Table 9-8.** National Flood Insurance Program Compliance

| Criterion | Response |
|---|---|
| **What local department is responsible for floodplain management?** | CDD |
| **Who is your floodplain administrator? (department/position)** | Community Development Director |
| **Are any certified floodplain managers on staff in your jurisdiction?** | No |
| **What is the date that your flood damage prevention ordinance was last amended?** | Ordinance 626 – 2019 Chapter 15.36 |
| **Does your floodplain management program meet or exceed minimum requirements?**<br>***If exceeds, in what ways?*** | Meets |
| **When was the most recent Community Assistance Visit or Community Assistance Contact?** | Unknown |
| **Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?**<br>***If so, state what they are.*** | No<br><br>In designated Zone X until levee is completed |
| **Are any RiskMAP projects currently underway in your jurisdiction?**<br>***If so, state what they are.*** | No |
| **Do your flood hazard maps adequately address the flood risk within your jurisdiction?**<br>***If no, state why.*** | No<br>In designated Zone X until levee is completed |
| **Does your floodplain management staff need any assistance or training to support its floodplain management program?**<br>***If so, what type of assistance/training is needed?*** | Yes<br><br>All |
| **Does your jurisdiction participate in the Community Rating System (CRS)?**<br>***If yes, is your jurisdiction interested in improving its CRS Classification?***<br>***If no, is your jurisdiction interested in joining the CRS program?*** | No<br>No<br>No |
| **How many flood insurance policies are in force in your jurisdiction?[a]**<br>***What is the insurance in force?***<br>***What is the premium in force?*** | 188<br>$63,075,000<br>$82,662 |
| **How many total loss claims have been filed in your jurisdiction?[a]**<br><br>***What were the total payments for losses?*** | 11<br><br>$103,099 |

a. According to FEMA statistics as of March 31, 2021

**Table 9-9.** Community Classifications

| | Participating? | Classification | Date Classified |
|---|---|---|---|
| **FIPS Code** | **Yes** | **0608125338** | **Unknown** |
| **DUNS#** | **Yes** | **091847145** | **Unknown** |
| **Community Rating System** | No | N/A | N/A |
| **Building Code Effectiveness Grading Schedule** | Yes | 2 | 2014 |
| **Public Protection (Fire)** | Yes | ISO Class 2 | 2012 |
| **Storm Ready** | No | N/A | N/A |
| **Firewise** | No | N/A | N/A |
| **Tsunami Ready** | No | N/A | N/A |

**Table 9-10.** Adaptive Capacity for Climate Change

| Criterion | Jurisdiction Ratings |
|---|---|
| **Technical Capacity** | |
| **Jurisdiction-level understanding of potential climate change impacts** | High |
| ***Comment:*** *The City is raising the levee in anticipation of sea level rise; understand reduced snowpack impacts on water supply;* | |
| **Jurisdiction-level monitoring of climate change impacts** | High |
| ***Comment:*** *The City has and continues to collaborate with the multiple regional groups (County of San Mateo, San Mateo County Flood and Sea Level Rise Resiliency District (FSLRRD), and the Bay Area Clean Water Agency) including sharing of any applicable monitoring information.* | |
| **Technical resources to assess proposed strategies for feasibility and externalities** | Medium |
| ***Comment:*** *The City utilizes technical experts as needed.* | |
| **Jurisdiction-level capacity for development of greenhouse gas emissions inventory** | Low |
| ***Comment:*** *The City utilizes technical experts as needed.* | |
| **Capital planning and land use decisions informed by potential climate impacts** | Medium |
| ***Comment:*** *As new information becomes available, it will be shared and factored into considerations for future land uses and the City's capital planning.* | |
| **Participation in regional groups addressing climate risks** | Medium |
| ***Comment:*** *The City continues to collaborate with multiple regional groups.* | |
| **Implementation Capacity** | |
| **Clear authority/mandate to consider climate change impacts during public decision-making processes** | Medium |
| ***Comment:*** *Per Climate Action Plan* | |
| **Identified strategies for greenhouse gas mitigation efforts** | High |
| ***Comment:*** *Per Climate Action Plan* | |
| **Identified strategies for adaptation to impacts** | High |
| ***Comment:*** *Per Climate Action Plan* | |
| **Champions for climate action in local government departments** | Medium |
| ***Comment:*** *Per Climate Action Plan* | |
| **Political support for implementing climate change adaptation strategies** | High |
| ***Comment:*** *Political support for updating Climate Action Plan and Levee Improvements* | |
| **Financial resources devoted to climate change adaptation** | High |
| ***Comment:*** *Resources allocated to update Climate Action Plan and Levee Improvements* | |
| **Local authority over sectors likely to be negative impacted** | Low |
| ***Comment:*** *Individual privately held properties that are likely to be negatively impacted due to their location may include a range of sectors from residential, commercial and utilities. The City may exert limited authority over privately held property through its development review process.* | |
| **Public Capacity** | |
| **Local residents' knowledge of and understanding of climate risk** | Medium |
| ***Comment:*** *The draft Local Hazard Mitigation Plan will include identification of climate risk factors such as urban fire zone, etc. The draft plan will be shared with the community to build knowledge and understanding of climate risk. The City will hold public meeting on the draft plan and consider community input prior to adoption.* | |
| **Local residents' support of adaptation efforts** | High |
| ***Comment:*** *Overwhelming support of levee bond measure.* | |
| **Local residents' capacity to adapt to climate impacts** | Unsure |
| ***Comment:*** *No information available.* | |

| Criterion | Jurisdiction Ratings |
|---|---|
| **Local economy current capacity to adapt to climate impacts** | Unsure |
| ***Comment:*** *No information available.* | |
| **Local ecosystems capacity to adapt to climate impacts** | Unsure |
| ***Comment:*** *No information available.* | |

a. High = Capacity exists and is in use; Medium = Capacity may exist but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure= Not enough information is known to assign a rating.

## 9.5 INTEGRATION REVIEW

For hazard mitigation planning, "integration" means that hazard mitigation information is used in other relevant planning mechanisms, such as general planning and capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place, and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the hazard mitigation plan will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

### 9.5.1 Existing Integration

Some level of integration has already been established between local hazard mitigation planning and the following other local plans and programs:

- **Capital Improvement Program Planning** – The City Council annually approves a detailed Capital Improvement Plan (CIP) for a five-year period and identifies and begins to fund upcoming infrastructure projects on a 10-year horizon. The Planning Commission reviews the CIP for consistency with the General Plan. The City Council annually appropriates funding for the current year phases of Capital Improvement Projects. Infrastructure projects identified in this document have been or will be included in the five-year Capital Improvement Project Plan for the years in which they are planned for implementation.
- **Annual Budget –** The City Council annually adopts a Fiscal Year Budget which authorizes the funding for all operations, services, and projects for the fiscal year planning. Priority projects identified in the Local Hazard Mitigation Plan/Safety Element that require an expenditure output will be included in the Annual Budget in the years in which they are planned for implementation. The Annual Budget includes the appropriation of funding for the Capital Improvement Program discussed above.
- **Five Year Financial Plan** – The City Council annually approves a Five-Year Financial Plan which includes revenue and expenditure expectations for the five-year period. Approved projects in the Capital Improvement Plan, including any related to the Local Hazard Mitigation Plan/Safety Element would be included in the five-year plan to ensure that appropriate funding is available for project completion.
- **Foster City Municipal Code** – The City Municipal Code includes several ordinances that would directly impact mitigation measures identified in the Local Hazard Mitigation Plan/Safety Element, for instance updates to the Code may be required in order to implement the post- disaster response measures and/or building code recommendations. Chapter 15.36 includes the City's Flood Plain Management Regulations related to the City's participation in the National Flood Insurance Program.
- **Estero Municipal District Code –** The District Code includes several ordinances that would directly impact mitigation measures identified in the Local Hazard Mitigation Plan/Safety Element, for instance

updates to the Code may be required in order to implement the post- disaster response measures and/or changes to the Water Distribution system or Wastewater Collection system.

- **Crime Prevention Programs –** Proactive crime prevention makes Foster City a place where residents and visitors are safe from crime. Foster City is frequently listed among the safest cities in the State of California because of the efforts that go into preventing crime before it happens.
- **CERT –** The Community Emergency Response Teams train regularly to be prepared for emergency response and recovery. Having these teams in place with training in triage, medical response and search and rescue will enhance responsiveness after a disaster and mitigate the impact that effects would have had on individuals and property if left unattended.
- **General Plan Annual Report** – This annual report assesses progress in implementation of programs included in the General Plan and in turn, helps shape the City Council's annual priorities for staff work efforts, the budget, and the capital improvement program.
- **Climate Action Plan** – The Climate Action Plan was adopted by the City Council in February 2016 and contains 40 measures that will be prioritized to improve the environmental sustainability of Foster City and the Bay Area region. Specific to the Local Hazard Mitigation Plan/Safety Element, the Climate Action Plan measures are intended to reduce the production of greenhouse gasses and mitigate the potential impact of sea level rise.

## 9.5.2 Opportunities for Future Integration

The capability assessment presented in this annex identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

Please see the following from the above tables of where LHMP could be integrated in the future.

- Building Code
- Zoning Code
- Stormwater Management
- Post-Disaster Recovery
- Environmental Protection
- Flood Damage Prevention
- Emergency Management
- Climate Change
- General Plan
- Capital Improvement Plan
- Disaster Debris Management Plan
- Lagoon Management Plan
- Stormwater Plan
- Urban Water Management Plan
- Shoreline Management Plan

- Climate Action Plan
- Comprehensive Emergency Management Plan
- Threat & Hazard Identification & Risk Assessment (THIRA)
- Post-Disaster Recovery Plan
- Continuity of Operations Plan
- America's Water Infrastructure Act: Emergency Response Plans and Risk Assessments—Plan being produced end of this fiscal year
- Dam Annexes—such as Crystal Springs
- Clean Water Program

## 9.6 RISK ASSESSMENT

### 9.6.1 Jurisdiction-Specific Natural Hazard Event History

Table 9-11 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction. Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this hazard mitigation plan.

**Table 9-11.** Past Natural Hazard Events

| Type of Event | FEMA Disaster # | Date | Damage Assessment (Description) |
|---|---|---|---|
| **Power Outages/ Disruption** | N/A | Fall 2019<br>Summer 2020<br>Fall 2020 | Pacific Gas & Electric's Public Safety Power Shutoff (PSPS) program and Rolling Blackouts done in response to Climate Change and Severe Weather Conditions to help prevent wildfires and prevent strain on the power grid (Secondary Hazard to Climate Change, Extreme Weather, Windstorms, Severe Storms and Wildfire Hazards)<br>Damage Assessment: Unknown |
| **Extreme Weather** | N/A | Winter 2018<br>Fall 2019<br>Winter 2019<br>Summer 2020 | Extreme temperatures including summer heat and winter cold linked to Climate Change. Foster City has activated cooling centers and shelters for citizens in response.<br>Damage Assessment: Unknown |
| **Windstorm** | N/A | 2021 | Strong winds and storms throughout the Bay Area. Damage to Foster City included down trees.<br>Damage Assessment: Unknown |
| **Severe Storm** | N/A | 2019 | Downed trees in this storm impacted Foster City and residents.<br>Damage Assessment: Unknown |
| **Drought** | N/A | 2014-2017<br>July 8, 2021 | In January 2014, the Governor proclaimed a State of Emergency and directed State officials to take all necessary actions to prepare for drought conditions. As of July 8, 2021, San Mateo County has been included in the Governor's emergency declaration.<br>Damage Assessment: Unknown |
| **Winter Storm** | N/A | 2014 | Winter Storm damage resulted in San Mateo County's Proclamation of State of Emergency on December 19, 2014, and the Governor's Proclamation of a State of Emergency on December 22, 2014. Foster City personnel worked overtime and provided sandbags to City residents.<br>Damage Assessment: Unknown |
| **Loma Prieta Earthquake** | DR-845 | October 17, 1989 | Minor damage to City owned facilities.<br>Damage Assessment: Unknown |

## 9.6.2 Hazard Risk Ranking

Table 9-12 presents a local ranking of all hazards of concern for which this hazard mitigation plan provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy. Mitigation actions target hazards with high and medium rankings.

**Table 9-12.** Hazard Risk Ranking (Social Equity Lens applied)

| Rank | Hazard | Risk Ranking Score | Risk Category |
|---|---|---|---|
| 1 | Sea Level Rise / Climate Change | 63 | High |
| 2 | Flood | 63 | High |
| 3 | Dam Failure | 42 | High |
| 4 | Earthquake | 42 | High |
| 5 | Severe weather | 24 | Medium |
| 6 | Drought | 9 | Low |
| 7 | Tsunami | 2 | Low |
| 8 | Landslide/Mass Movements | 0 | Low |
| 9 | Wildfire | 0 | Low |

## 9.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided at the end of this annex.

### Repetitive Loss Properties

Repetitive loss records are as follows:

- Number of FEMA-identified Repetitive-Loss Properties: 0
- Number of FEMA-identified Severe-Repetitive-Loss Properties: 0
- Number of Repetitive-Loss Properties or Severe-Repetitive-Loss Properties that have been mitigated: 0

### Other Noted Vulnerabilities

The following jurisdiction-specific issues have been identified based on a review of the results of the risk assessment, public involvement strategy, and other available resources:

- Evacuation – Due to Foster City's geographical nature and infrastructure, the egress and ingress routes are limited which would present issues when evacuation is needed in response to an emergency.

Mitigation actions addressing these issues were prioritized for consideration in the action plan for this annex.

## 9.7 STATUS OF PREVIOUS PLAN ACTIONS

Table 9-13 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

**Table 9-13.** Status of Previous Plan Actions

| Action Item | Completed | Removed; No longer Feasible | Carried Over to Plan Update: Check if Yes | Carried Over to Plan Update: Action # in Update |
|---|---|---|---|---|
| **S-A-1-a Protect City's Infrastructure and Facilities.** The City will protect the City's infrastructure and facilities from damage due to seismic and geologic hazards through proper design and retrofitting older facilities to current standards. | | | X | FOS-1 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-A-1-b Police Station Assessment.** Conduct an assessment of the Police Department facility and its use related to an earthquake to identify strategies that can improve the facility's resilience, including determining the feasibility of replacing the building. | | | X | FOS-1 |
| **Comment:** This item is not completed and should carry over to the next plan with language modifications. | | | | |
| **S-A-1-c Recreation Center Assessment.** Conduct an assessment of the Recreation Center facility (a potential emergency shelter location) and its use related to an earthquake to identify strategies that can improve the facility's resilience, including determining the feasibility of replacing the building. (High Priority) | | | X | FOS-1 |
| **Comment:** This item has been worked on such as the red cross partnerships for the sheltering aspect. This should be carried over to the next plan and was not completed because of budget allocation. | | | | |
| **S-A-1-d Emergency Power for Critical Infrastructure.** The City provides emergency power at critical City facilities such as major sewer lift stations and lagoon pumps. A new CIP will replace ten sewer lift station generators that are at the end of its useful life. | | | X | FOS-2 |
| **Comment:** This item is an ongoing action that should be carried over to the next 5-year plan because the need for emergency power and maintenance of emergency power is perpetual. In FY 2021-22 replacement of 10 of the generators located at 14 of the District's major wastewater lift stations is scheduled. | | | | |
| **S-A-1-e Monitoring of Water, Sewer and Lagoon Systems.** The City provides and maintains a Supervisory Control and Data Acquisition (SCADA) for the water distribution system, the wastewater collection system, and the lagoon system that is monitored 24 hours a day by Public Works staff or Police Department staff. | | | X | FOS-1 |
| **Comment:** Monitoring is an ongoing process that will carry over to the next 5-year plan since the need for monitoring is perpetual. SCADA measures the following: Wastewater System: effluent flow from LS 59 pump station to the WWTP, the pumps and water levels in the District's 48 lift stations and pump station 59; Water System: the flow in the 24-inch transmission main, the tank levels in tanks 1-4, the 4 engines in the water booster pump station; Lagoon System: The lagoon levels at 3 locations on the lagoon (rainbow bridge, pitcairn by intake, lagoon pump station by outfall) and the level of the bay. CIP 660, which is currently in Design will address repairs to the transmitters on two of the water tanks-Construction schedule for 2022. Staff is installing an analyzer on Tank 4 to measure chlorine residuals in 2021. A flow probe will be replaced on the 24-inch transmission main as a part of CIP 636- construction to be complete by early 2022. | | | | |
| **S-A-1-f Bridge Inspections.** Facilitate 2-year (above water) and 5-year (underwater) inspections by the California Department of Transportation (Caltrans) of City owned bridges (Bicentennial, Foster City Boulevard, Rainbow and Shell Boulevard) and there is an active CIP to address any deficiencies noted in the inspections. | | | X | FOS-3 |
| **Comment:** Bridge Inspections are perpetual and are required every 2-years for above-water elements and every 5-years for under-water elements of the bridges. In FY2022/23 to 2023/2024 a project will addresses the design and construction of improvements necessary based on the latest Caltrans inspection reports. | | | | |

| Action Item | Completed | Removed; No longer Feasible | Carried Over to Plan Update: Check if Yes | Carried Over to Plan Update: Action # in Update |
|---|---|---|---|---|
| **S-A-1-g Earthquake Resilient Pipelines.** The City utilizes flexible expansion joints to protect the City's pipelines from stresses produced by seismic activity or gradual soil subsidence. | | | X | FOS-4 |
| **Comment:** The District has installed flexible connections on each of the steel waterlines at bridge crossings. CIP 660 includes the installation of flexible expansion joints at the City's water tanks. | | | | |
| **S-A-2-a Levee Protection Planning and Improvements.** CIP 657 is an active project to raise the City's levees in order to retain FEMA accreditation and protect the City against sea level rise. (High Priority) The project is anticipated to be completed by January 2024. | | | X | FOS-5 |
| **Comment:** Project under construction. Keep as ongoing. | | | | |
| **S-A-2-b Maintain Levees and Lagoon for Flood Protection.** The City will maintain the City's levees and lagoon for flood protection pursuant to the "Operation and Maintenance Manual, Foster City Levees and Pump Station" and the "Lagoon Management Plan." | | | X | FOS-5 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-A-2-c Lagoon Pump Station Building Seismic Evaluation.** New CIP will provide recommendations for seismic improvements for this 60-year-old building to meet current code standards. (High Priority) | | | X | FOS-6 |
| **Comment:** Analysis to be completed in FY 2022/2023 and design and construction in subsequent years. Keep as ongoing. | | | | |
| **S-A-3-a Water Supply and Delivery for Fire-Fighting.** The City will maintain a water supply and delivery system that can meet potential firefighting demands through annual exercising of fire hydrants and periodic review of storage needs. | | | X | FOS-7 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-A-3-b Water Supply.** The District stores 20 MG of water, which is more than adequate to meet fire and domestic water demands of the City. City will be pursuing alternative water supplies in response to water cutbacks by SFPUC during periods of drought. The 2020 Urban Water Management Plan to be completed by June 30, 2021. | | | X | FOS-7 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-A-3-c Water Delivery System.** The City's Public Works Maintenance Division performs regular hydrant flushing, exercises water valves, and replaces failed parts as identified on a regular basis. | | | X | FOS-8 |
| **Comment:** Ongoing. | | | | |
| **S-A-3-d Water Booster Pump Station Seismic Retrofit.** CIP 660 incorporates a seismic vulnerability assessment, design, and construction to bring the pump station to meet seismic code. (High Priority) | | | X | FOS-8 |
| **Comment:** PW – Construction is anticipated to begin in Fall 2021 - This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-A-3-e Potable Water Tank Seismic Evaluation Retrofit.** CIP 660 incorporates a seismic vulnerability assessment, design, and construction to bring the City's water tanks to current seismic code. (High Priority) | | | X | FOS-8 |
| **Comment:** PW – Construction anticipated to begin in Fall 2021 - This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-A-3-f Water Transmission Main Evaluation.** Continue to evaluate the single 24-inch water supply transmission main on an ongoing basis. (High Priority) | | | X | FOS-8 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |

| Action Item | Completed | Removed; No longer Feasible | Carried Over to Plan Update: Check if Yes | Carried Over to Plan Update: Action # in Update |
|---|---|---|---|---|
| **S-A-3-g Water System Pressure Reducing Station Evaluation.** Continue to evaluate the water pressure reducing stations that reduce SFPUC' s supply pressure to EMID system pressure. (High Priority) | | | X | FOS-8 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-A-4-a Wastewater Treatment Plant Improvements.** The WWTP Improvements project (CIP 652) will replace the facility's aging infrastructure and meet regulatory requirements. (High Priority) | | | X | FOS-9 |
| **Comment:** Ongoing – Anticipated commissioning of the WWTP is FY 2023/24. | | | | |
| **S-A-4-b Lift Station #59 Improvements.** Maintain and improve the City's main wastewater lift station with replacement of components that provide adequate levels of redundancy. | | | X | FOS-10 |
| **Comment:** Assessment done next week to commence in 2022 - This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-A-4-c Evaluation/Replacement of Air Release Valves on Wastewater Line between Lift Station #59 and WWTP.** The air release valves are evaluated on a yearly basis and are replaced in-house and on an as-needed basis. (High Priority) | | | X | FOS-10 |
| **Comment:** Ongoing perpetually. | | | | |
| **S-A-4-d Wastewater Lift Stations Rehabilitation.** The City's Wastewater Master Plan incorporates the rehabilitation of the City's 49 sewer lift stations via a phased approach by performing preventative maintenance and upgrades to improve the reliability, durability, and sustainability of the lift stations. (High Priority) | | | X | FOS-10 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-B-1-a Emergency Response.** The City will prepare to respond to emergencies through use of established procedures, programs of ongoing training, periodic exercises of the City's Emergency Operations Plan, and mutual aid agreements. | | | X | FOS-11 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-B-1-b Emergency Plan.** The City will maintain the City's Emergency Operations Plan indicating responsibilities and procedures for responding to an emergency. | | | X | FOS-11 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. CDD will verify its status before submitting to final plan. | | | | |
| **S-B-1-c Mutual Aid.** Participate in general mutual-aid agreement and agreements with adjoining jurisdictions for cooperative response to fires, floods, earthquakes, and other disasters. | | | X | FOS-11 |
| **Comment:** Completed but ongoing – ratified agreements – check with city clerk. This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-B-1-d Police Services.** The City will provide adequate personnel, training, and equipment to support the provision of police services. | | | X | FOS-12 |
| **Comment:** This item needs addition language but is in accordance with other items include here so it should carry over to the next plan. | | | | |
| **S-B-2-a Emergency Operations Center.** Maintain the local government's emergency operations center in a full functional state of readiness. | | | X | FOS-13 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-B-2-b Back-up Emergency Operations Center.** As an infrastructure operator, designate a back-up Emergency Operations Center with redundant communications systems. | | | X | FOS-13 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |

| Action Item | Completed | Removed; No longer Feasible | Carried Over to Plan Update: Check if Yes | Carried Over to Plan Update: Action # in Update |
|---|---|---|---|---|
| **S-B-2-c Emergency Power for Critical Buildings.** Pre-position emergency power generation capacity (or have generation rental/lease agreement for these generators) in critical buildings to maintain continuity of government and services. | | | X | FOS-2 |
| **Comment:** PW to verify some generators available. his item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-B-2-d Critical Traffic Signalized Intersections.** All City signalized intersections either have an emergency generator or battery-back up power in case of loss of permanent power. Maintenance and replacement of battery back-ups and generators is allocated. | | | X | FOS-2 |
| **Comment:** Ongoing perpetually since need for maintenance of battery back-ups and emergency generators. | | | | |
| **S-B-2-e Post-Disaster Repair of Water and Wastewater Systems.** Public Works Maintenance Division maintains an inventory of spare parts for emergency use (e.g., valves, pumps, pipelines of critical size) at the City's Corporation Yard. | | | X | FOS-14 |
| **Comment:** PW - Ongoing perpetually. | | | | |
| **S-C-1-a Incorporate Sea Level Rise Consideration into Planning Process.** Incorporate consideration of sea level rise into the development review and infrastructure planning processes, including response strategies that increase resilience to mid-century sea level rise risks for both new and existing development. | | | X | FOS-15 |
| **Comment:** The levee project will increase the height and width of the levee to improve protection against storm/tide surges, meet sea level rise projections through 2050, and make the levee more resistant to earthquakes. The improvements will be implemented with either a concrete flood wall, earthen levee, or hybrid sheet pile wall. Construction started in September 2020 and is anticipated to be complete in January 2024. | | | | |
| **S-C-2-a Use of Uniform Codes.** The City will adopt and enforce the most current uniform codes with additional local requirements as necessary tailored to Foster City. | | | X | FOS-22 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-C-2-b Site Specific Geotechnical Analyses.** The City will require site specific geotechnical and engineering reports for new structures. | | | X | FOS-16 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-C-3-a Flood Plain Regulations.** The City will evaluate any proposed development within special flood hazard areas for conformance with the City's flood plain regulations as contained in Chapter 15.36 of the Foster City Municipal Code. | | | X | FOS-17 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-C-3-b FEMA's National Flood Insurance Program.** Participate in FEMA's National Flood Insurance Program for affected properties. | | | X | FOS-18 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-C-3-c Protect Flood Protection Qualities of Natural Areas.** The City will protect and preserve natural features such as wetlands that serve as natural mitigation against the impacts of flooding. | | | X | FOS-19 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-C-4-a Development Review for Fire Safety.** The City will review proposals for new and modified buildings to ensure that fire safety provisions are included as required by the most current uniform codes and local regulations. | | | X | FOS-20 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |

| Action Item | Completed | Removed; No longer Feasible | Carried Over to Plan Update: Check if Yes | Carried Over to Plan Update: Action # in Update |
|---|---|---|---|---|
| **S-C-4-b Annual Inspections for Fire Safety and Hazardous Materials.** The City will conduct annual inspections of businesses and multi-family dwellings in order to ensure compliance with fire safety and hazardous materials requirements. The City will continue to provide inspections of residential care facilities at the request of the Department of Social Services. | | | X | FOS-20 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-C-4-c Fire Sprinklers.** Require fire sprinklers in all new or substantially remodeled housing, regardless of distance from a fire station. | | | X | FOS-20 |
| **Comment:** Ongoing – R. Marshall | | | | |
| **S-C-5-a Hazardous Materials.** The City will continue to enforce applicable codes related to hazardous materials. | | | X | FOS-20 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-C-6-a Post-Disaster Services.** Consider and adopt regulations to guide City operations following a disaster, such as suspension of some types of government services. | | | X | FOS-11 |
| **Comment:** Some preliminary work has been done but due to prioritization, should carry over to next year cycle This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-D-1-a CERT Classes.** Continue to provide emergency preparedness classes and Community Emergency Response Team (CERT) training. | | | X | FOS-21 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-D-1-b Emergency Preparedness Education and Outreach.** Continue to utilize available means to educate the public, including schools, businesses, and community groups, about emergency preparedness, including but not limited to the City's website, media, classes, and special events. (High Priority) | | | X | FOS-21 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-D-2-a Geotechnical Reports Library.** The City will maintain a geotechnical report library. | | | X | FOS-16 |
| **Comment:** Currently in Docuphase. | | | | |
| **S-D-2-b Seismic Safety Education.** The City will include seismic safety education in the Fire Department's public education programs, such as Community Emergency Response Team (CERT) training and earthquake preparedness training. | | | X | FOS-21 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-D-2-c Non-Structural Hazards Assessment.** The City will include an assessment of non-structural seismic hazards as part of annual inspections of businesses as part of a public education program. | | | X | |
| **Comment:** This function is not supported by the fire code, this item should be removed. | | | | |
| **S-D-2-d Private Utility Lines at Bridges.** City performs general public outreach to homeowner associations to educate them about the need for earthquake- resistant flexible connections when pipes enter and exit the bridges. | | | X | FOS-21 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-D-3-a Fire Education/Prevention.** The City will provide a fire education/prevention program to the public, including schools, businesses and community groups through publications, training classes and other means. | | | X | FOS-20 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |

| Action Item | Completed | Removed; No longer Feasible | Carried Over to Plan Update: Check if Yes | Carried Over to Plan Update: Action # in Update |
|---|---|---|---|---|
| **S-D-4-a Crime Prevention/Education. The City will provide a variety of crime prevention programs to educate and involve the community, including but not limited to Neighborhood Watch, Apartment Watch, Business Watch, newsletter, security surveys, and programs with community groups and organizations.** | X | | | |
| **Comment:** Police representatives say this ongoing item is completed enough to remove. | | | | |
| **S-D-4-b Development Review for Crime Prevention.** The City will review proposals for new and modified buildings for compliance with crime prevention requirements. | X | | | |
| **Comment:** Police representatives say this ongoing item is completed enough to remove. | | | | |
| **S-E-1-a Community Events.** The City will actively promote community events in order to bring together individuals and groups within the community for a common purpose. | | | X | FOS-21 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-E-1-b Cross-Cultural Events.** The City will actively promote cross-cultural events in order to celebrate the diversity of the community as well as to bring together individuals and groups so that they become more inter-connected. | | | X | FOS-21 |
| **Comment:** This item has been worked on in the past 5 years but it is ongoing so it should carry over to the next plan. | | | | |
| **S-E-1-a Police Services. The City will provide adequate personnel, training, and equipment to support the provision of police services.** | X | | | |
| **Comment:** Police confirmed that this is completed and can be removed from future plans. | | | | |
| **S-E-2-a Crime Prevention.** The City will promote community-based crime prevention through Neighborhood Watch, Apartment Watch, Business Watch, newsletter, security surveys, and programs with community groups and organizations. | X | | | |
| **Comment:** Ongoing item but Police representatives say it is completed enough to remove from the plan. | | | | |

## 9.8 HAZARD MITIGATION ACTION PLAN

Table 9-14 lists the identified actions, which make up the hazard mitigation action plan for this jurisdiction. Table 9-15 identifies the priority for each action. Table 9-16 summarizes the mitigation actions by hazard of concern and mitigation type.

**Table 9-14.** Hazard Mitigation Action Plan Matrix

| Benefits New or Existing Assets | Objectives Met | Lead Agency | Support Agency | Estimated Cost | Sources of Funding | Timeline[a] |
|---|---|---|---|---|---|---|
| **Action FOS 1** - Protect and Assess City's Infrastructure and Facilities – Protect infrastructure and facilities from damage due to seismic and geologic hazards through proper design and retrofitting older facilities to current standards. Also, identify strategies that can improve the facility's resilience, including determining the feasibility of replacement where appropriate. This includes identified projects such as:<br>• S-A-1-a - Protect City's Infrastructure and Facilities<br>• S-A-1-b - Police Station Assessment<br>• S-A-1-c - Recreation Center Assessment<br>• S-A-1-e Monitoring of Water, Sewer and Lagoon Systems<br>*Hazards Mitigated:* Climate Change, Earthquake, Severe weather, Flood, Tsunami, Sea Level Rise | | | | | | |
| New & Existing | 1, 6, 7, 8, 9 | Foster City | N/A | Medium | Staff Time, General Fund, Grant Funding- FEMA HMA (BRIC, FMA and HMGP) | Long-Term |

| Benefits New or Existing Assets | Objectives Met | Lead Agency | Support Agency | Estimated Cost | Sources of Funding | Timeline[a] |
|---|---|---|---|---|---|---|
| **Action FOS 2** - Emergency Power for Critical Infrastructure & Facilities – Ensure adequate emergency power at critical City facilities including major sewer lift stations and lagoon pumps for continuity of government and services.<br>• S-A-1-d – Emergency Power for Critical Infrastructure<br>• S-B-2-c – Emergency Power for Critical Facilities<br>• S-B-2-d Critical Traffic Signalized Intersections<br>*Hazards Mitigated:* Climate Change, Earthquake, Severe weather, Flood, Drought, Tsunami, Sea Level Rise | | | | | | |
| New & Existing | 1, 5, 6, 7, 8 | Foster City | N/A | High | Staff Time, Grant Funding-FEMA HMA (BRIC, FMA and HMGP) | Short-Term |
| **Action FOS 3** – Bridge Inspections - Facilitate 2-year (above water) and 5-year (underwater) inspections by the California Department of Transportation (Caltrans) of City owned bridges (Bicentennial, Foster City Boulevard, Rainbow and Shell Boulevard) and there is an active CIP to address any deficiencies noted in the inspections (S-A-1-f).<br>*Hazards Mitigated:* Earthquake, Flood, Tsunami, Sea Level Rise | | | | | | |
| New & Existing | 1, 6, 7,8 | Foster City | N/A | Low | Staff Time, General Fund | Ongoing |
| **Action FOS 4** - Earthquake Resilient Pipelines - Utilize flexible expansion joints to protect the City's pipelines from stresses produced by seismic activity or gradual soil subsidence (S-A-1-g).<br>*Hazards Mitigated:* Earthquake | | | | | | |
| New & Existing | 1, 6, 7, 8 | Foster City | N/A | Low | Staff Time, General Fund | Ongoing |
| **Action FOS 5** - Levee Protection Planning and Improvements - CIP 657 is an active project to raise the City's levees in order to retain FEMA accreditation and protect the City against sea level rise. The project is anticipated to be completed by January 2024. Maintenance and communication for the project will be needed. This includes identified projects such as:<br>• S-A-2-a - Levee Protection Planning and Improvements<br>• S-A-2-b Maintain Levees and Lagoon for Flood Protection<br>*Hazards Mitigated:* Climate Change, Earthquake, Severe weather, Flood, Tsunami, Sea Level Rise | | | | | | |
| New & Existing | 1, 6, 7, 8 | Foster City | San Mateo County Flood and Sea Level Rise Resiliency District (FSLRRD) | Low | Staff Time, General Fund, Grant Funding-USACE-205 grants | Ongoing |
| **Action FOS 6** - Lagoon Pump Station Building Seismic Evaluation - New CIP will provide recommendations for seismic improvements for this 60-year-old building to meet current code standards (S-A-2-c).<br>*Hazards Mitigated:* Climate Change, Earthquake, Severe weather, Flood, Tsunami, Sea Level Rise | | | | | | |
| New & Existing | 1, 6, 7, 8 | Foster City | | Medium | Staff Time, General Fund, Grant Funding FEMA HMA (BRIC, FMA and HMGP) | Short-Term |
| **Action FOS 7** - The Estero Municipal Improvement District (EMID) stores 20 MG of water, which is more than adequate to meet fire and domestic water demands of the City. City will be pursuing alternative water supplies in response to water cutbacks by SFPUC during periods of drought. The 2020 Urban Water Management Plan to be completed by June 30, 2021. This includes identified projects such as:<br>• S-A-3-a Water Supply and Delivery for Firefighting<br>• S-A-3-b - Water Supply<br>*Hazards Mitigated:* Climate Change, Earthquake, Severe weather, Flood, Drought, Sea Level Rise | | | | | | |
| New & Existing | 1, 6, 7, 8 | Foster City | EMID | Medium | Staff Time, General Fund, Grant Funding FEMA HMA (BRIC, FMA and HMGP) | Long-Term |

| Benefits New or Existing Assets | Objectives Met | Lead Agency | Support Agency | Estimated Cost | Sources of Funding | Timeline[a] |
|---|---|---|---|---|---|---|
| **Action FOS 8** - Ensure that potable water supply system including but not limited to; water tanks, transmission mains and booster pump stations are assessed, designed, and constructed to meet current seismic codes (ref CIP 660). This includes identified projects such as:<br>• S-A-3-c Water Delivery System<br>• S-A-3-d Water Booster Pump Station Seismic Retrofit<br>• S-A-3-e Potable Water Tank Seismic Evaluation Retrofit<br>• S-A-3-f Water Transmission Main Evaluation<br>• S-A-3-g Water System Pressure Reducing Station Evaluation<br>*Hazards Mitigated:* Earthquake, Drought | | | | | | |
| New & Existing | 1, 5, 6, 7, 8 | Foster City | City of San Mateo | Medium | Staff Time, General Fund, Grant Funding FEMA HMA (BRIC, FMA and HMGP) | Short-Term |
| **Action FOS 9** - Wastewater Treatment Plant Improvements - The WWTP Improvements project (CIP 652) will replace the facility's aging infrastructure and meet regulatory requirements (S-A-4-a).<br>*Hazards Mitigated:* Earthquake | | | | | | |
| New & Existing | 1, 5, 6, 7, 8 | Foster City | | Low | Staff Time, General Fund | Short-Term |
| **Action FOS 10** - Maintain and improve the City's main wastewater system to ensure improved reliability, durability, redundancy and sustainability through preventative maintenance and upgrades. This includes identified projects such as:<br>• S-A-4-b Lift Station #59 Improvements<br>• S-A-4-c Evaluation/Replacement of Air Release Valves on Wastewater Line between Lift Station #59 and WWTP<br>• S-A-4-d Wastewater Lift Stations Rehabilitation<br>*Hazards Mitigated:* Earthquake, Flood, Drought | | | | | | |
| New & Existing | 1, 5, 6, 7, 8 | Foster City | | Medium | Staff Time, General Fund, Grant Funding FEMA HMA (BRIC, FMA and HMGP) | Short-Term |
| **Action FOS 11** - Maintain and update the City's Emergency Operations Plan including outlining of responsibilities and procedures for responding to emergencies through participation in general mutual-aid and other agreements with adjoining jurisdictions for cooperative response to fires, floods, earthquakes, and other disasters. Also, use established procedures and programs of ongoing training, and regular exercising of the City's Emergency Operations Plan, and mutual aid agreements. This includes identified projects such as:<br>• S-B-1-a Emergency Response<br>• S-B-1-b Emergency Plan<br>• S-B-1-c Mutual Aid<br>• S-C-6-a Post-Disaster Services.<br>*Hazards Mitigated:* Climate Change, Dam Failure, Earthquake, Severe weather, Flood, Drought, Tsunami, Sea Level Rise | | | | | | |
| New & Existing | 1, 3, 4, 5, 6, 7, 8, 9, 10 | Foster City | SMCFire | Medium | Staff Time, General Fund | Short-Term |
| **Action FOS 12** - Police Services - The City will provide adequate personnel, training, and equipment to support the provision of police services for continuity of operations (S-B-1-d).<br>*Hazards Mitigated:* Earthquake, Severe weather | | | | | | |
| New & Existing | 1, 3, 5, 6, 7, 8, 9,11 | Foster City | | Low | Staff Time, General Fund | Ongoing |
| **Action FOS 13**- Maintain the City's Emergency Operations Center in a full functional state of readiness and designate a back-up Emergency Operations Center with redundant communications systems. This includes identified projects such as:<br>• S-B-2-a Emergency Operations Center<br>• S-B-2-b Back-up Emergency Operations Center<br>• Develop and implement MAC policy and procedures with other SMCFire JPA cities<br>*Hazards Mitigated:* Climate Change, Dam Failure, Earthquake, Severe weather, Flood, Drought, Tsunami, Sea Level Rise | | | | | | |
| New & Existing | 1, 5, 6, 7, 8,10 | Foster City | SMCFire | Medium | Staff Time, General Fund, Grant Funding-EMPG and HSGP | Ongoing |

| Benefits New or Existing Assets | Objectives Met | Lead Agency | Support Agency | Estimated Cost | Sources of Funding | Timeline[a] |
|---|---|---|---|---|---|---|
| **Action FOS 14** – Maintain Inventory of Critical Parts for Water and Wastewater Systems – The City to prepare for emergencies will maintain an inventory of critical spare parts (e.g., valves, pumps, pipelines of critical size) at the City's facility/facilities (S-B-2-e). | | | | | | |
| *Hazards Mitigated:* Climate Change, Earthquake, Severe weather, Flood, Drought, Tsunami, Sea Level Rise | | | | | | |
| New & Existing | 1, 5, 6, 7, 8 | Foster City | City of San Mateo | Medium | Staff Time, General Fund, Grant Funding-EMPG and HSGP | Ongoing |
| **Action FOS 15**- Incorporate Sea Level Rise Consideration into Planning Process- Incorporate consideration of sea level rise into the development review and infrastructure planning processes, including response strategies that increase resilience to mid-century sea level rise risks for both new and existing development (S-C-1-a). | | | | | | |
| *Hazards Mitigated:* Climate Change, Flood, Sea Level Rise | | | | | | |
| New & Existing | 1, 3, 5, 6, 7, 8, 11 | Foster City | | Medium | Staff Time, General Fund | Short-Term |
| **Action FOS 16**- The City will require site specific geotechnical and engineering reports for new structures and maintain a geotechnical report library. This includes identified projects such as:<br>• S-C-2-b Site Specific Geotechnical Analyses<br>• S-D-2-a Geotechnical Reports Library | | | | | | |
| *Hazards Mitigated:* Earthquake | | | | | | |
| New & Existing | 1, 5, 6 | Foster City | | Medium | Staff Time, General Fund | Short-Term |
| **Action FOS 17** - Flood Plain Regulations. The City will evaluate any proposed development within special flood hazard areas for conformance with the City's flood plain regulations as contained in Chapter 15.36 of the Foster City Municipal Code (S-C-3-a) | | | | | | |
| *Hazards Mitigated:* Climate Change, Severe weather, Flood, Sea Level Rise | | | | | | |
| New & Existing | 1, 5, 6, 7, 8,9 | Foster City | FSLRRD | Medium | Staff Time, General Fund, Grant Funding-BRIC (C&CB) | Ongoing |
| **Action FOS 18** - Continue to maintain good standing and compliance under the NFIP through implementation of floodplain management programs that, at a minimum, meet the NFIP requirements (S-C-3-b):<br>• Enforce the flood damage prevention ordinance.<br>• Participate in floodplain identification and mapping updates.<br>• Provide public assistance/information on floodplain requirements and impacts. | | | | | | |
| *Hazards Mitigated:* Climate Change, Earthquake, Severe weather, Flood, Tsunami, Sea Level Rise | | | | | | |
| New & Existing | 1, 6, 7,8 | Foster City | FSLRRD | Low | Staff Time, General Fund, | Ongoing |
| **Action FOS 19** - Protect Flood Protection Qualities of Natural Areas. The City will protect and preserve natural features such as wetlands that serve as natural mitigation against the impacts of flooding (S-C-3-c). | | | | | | |
| *Hazards Mitigated:* Climate Change, Flood, Drought, Tsunami, Sea Level Rise | | | | | | |
| New & Existing | 1, 5, 6, 7, 8, 9, 14 | Foster City | | Medium | Staff Time, General Fund, Grant Funding FEMA HMA (BRIC, FMA and HMGP) | Ongoing |
| **Action FOS 20**–Through the City's Joint Powers Authority Fire/Rescue provider, the San Mateo Consolidated Fire Department, adopt the most current uniform codes and local regulations, conduct annual inspections of businesses and multi-family dwellings to ensure compliance with fire/life safety and hazardous materials requirements, with inspections of residential care facilities done as requested by of the Department of Social Services. This includes identified projects such as:<br>• S-C-4-a Development Review for Fire Safety<br>• S-C-4-b Annual Inspections for Fire Safety and Hazardous Materials<br>• S-C-4-c Fire Sprinklers<br>• S-C-5-a Hazardous Materials<br>• S-D-3-a Fire Education/Prevention | | | | | | |
| *Hazards Mitigated:* Earthquake | | | | | | |
| New & Existing | 1, 3, 5, 6, 7, 8, 9 | Foster City | SMCFire | Low | Staff Time, JPA Budget | Ongoing |

| Benefits New or Existing Assets | Objectives Met | Lead Agency | Support Agency | Estimated Cost | Sources of Funding | Timeline[a] |
|---|---|---|---|---|---|---|
| **Action FOS 21** - Utilize available means to educate the public, including schools, businesses, and community groups, about emergency preparedness, including but not limited to the City's website, media, classes, and special events. This includes identified projects such as:<br>• S-D-1-a CERT Classes<br>• S-D-1-b Emergency Preparedness Education and Outreach<br>• S-D-2-b Seismic Safety Education<br>• S-E-1-a Community Events.<br>• S-E-1-b Cross-Cultural Events<br>• S-D-2-d Private Utility Lines at Bridges. (Outreach to homeowner associations to educate them about the need for earthquake-resistant flexible connections when pipes enter and exit the bridges.)<br>*Hazards Mitigated:* Climate Change, Earthquake, Severe weather, Flood, Drought, Tsunami, Sea Level Rise | | | | | | |
| New & Existing | 1, 3, 5, 6, 7, 8, 9,11 | Foster City | SMCFire | High | Staff Time, General Fund, JPA Budget | Ongoing |
| **Action FOS 22**- Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including Foster City's General Plan.<br>*Hazards Mitigated:* Hazards Mitigated: Climate Change, Dam Failure, Earthquake, Severe weather, Flood, Drought, Tsunami, Sea Level Rise | | | | | | |
| New & Existing | 1, 3, 5, 6, 7, 8, 9, 10, 11 | Foster City | SMCFire | High | Staff Time, General Fund | Ongoing |
| **Action FOS 23** - Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.<br>*Hazards Mitigated:* Climate Change, Dam Failure, Earthquake, Severe weather, Flood, Drought, Tsunami, Sea Level Rise | | | | | | |
| New & Existing | 1, 5, 6, 7, 8, 10, 11 | Foster City | SMCFire | Low | Staff Time, General Fund | Ongoing |
| **Action FOS 24** - Identify and pursue strategies to increase adaptive capacity to climate change including but not limited to the following:<br>• Conduct Climate Action Plan (CAP) Assessment to reevaluate previous 2015 Climate Action Plan (CAP) to build off of and initiate update of CAP to reflect new State legislation, changing priorities, and environmental sustainability and greenhouse gas (GHG) reduction policies and goals<br>• Adopt modifications to existing plans and procedures to meet climate change issues and impacts.<br>*Hazards Mitigated:* Climate Change, Sea Level Rise | | | | | | |
| New & Existing | 1, 3, 5, 6, 7, 8, 9,14 | Foster City | | Low | Staff Time, General Fund | Short-Term |
| **Action FOS 25** – Evacuation Planning - Adopt current best practices for evacuation procedures and public education.<br>*Hazards Mitigated:* Earthquake | | | | | | |
| New | 1, 3, 5, 6, 7, 8, 11 | Foster City | SMCFire | Medium | Staff Time, General Fund | Short-Term/Ongoing |
| **Action FOS 26** - Community Engagement Platform – The City has identified a need for community engagement on various items of public interest to solicit feedback, including but not limited to projects for infrastructure to mitigate hazards. The platform would also help communicate and update stakeholders in these projects and development.<br>*Hazards Mitigated:* Climate Change, Earthquake, Severe weather, Flood, Drought, Tsunami | | | | | | |
| New | 1, 3, 5, 6, 7, 8, 9,11 | Foster City | | High | Staff Time, General Fund, Grant Funding FEMA HMA (BRIC, FMA and HMGP) | Short-Term |

a. Short-term = Completion within 5 years; Long-term = Completion within 10 years; Ongoing= Continuing new or existing program with no completion date

Acronyms used here are defined at the beginning of this volume.

**Table 9-15.** Mitigation Action Priority

| Action # | # of Objectives Met | Benefits | Costs | Do Benefits Equal or Exceed Cost? | Is Project Eligible for Outside Funding? | Can Project Be Funded Under Existing Programs/ Budgets? | Implementation Priority[a] | Outside Funding Source Pursuit Priority[a] | Social Equity Priority |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5 | High | Medium | Yes | Yes | No | Medium | High | High |
| 2 | 5 | High | High | Yes | Yes | No | Medium | High | Low |
| 3 | 4 | Medium | Low | Yes | No | Yes | Medium | Low | High |
| 4 | 4 | High | Low | Yes | No | Yes | Medium | Low | High |
| 5 | 4 | Medium | Low | Yes | Yes | Yes | High | Medium | High |
| 6 | 4 | Medium | Medium | Yes | Yes | Yes | Medium | Medium | High |
| 7 | 4 | High | Medium | Yes | Yes | Yes | Medium | Medium | High |
| 8 | 5 | High | Medium | Yes | Yes | Yes | Medium | Medium | High |
| 9 | 5 | High | Low | Yes | No | Yes | High | Low | High |
| 10 | 5 | High | Medium | Yes | Yes | Yes | Medium | Medium | High |
| 11 | 9 | Medium | Medium | Yes | Yes | Yes | High | Medium | High |
| 12 | 8 | Medium | Low | Yes | No | Yes | High | Low | High |
| 13 | 6 | Medium | Medium | Yes | Yes | Yes | Medium | Medium | Low |
| 14 | 5 | Medium | Medium | Yes | Yes | Yes | Medium | Medium | High |
| 15 | 7 | Medium | Medium | Yes | No | Yes | Medium | Low | High |
| 16 | 3 | Medium | Medium | Yes | No | Yes | High | Low | High |
| 17 | 6 | Medium | Medium | Yes | Yes | Yes | High | Medium | High |
| 18 | 4 | Medium | Medium | Yes | Yes | Yes | High | Medium | High |
| 19 | 7 | Medium | Medium | Yes | Yes | Yes | High | Medium | High |
| 20 | 7 | High | Low | Yes | No | Yes | Medium | Low | High |
| 21 | 8 | Medium | High | No | No | No | Medium | Medium | High |
| 22 | 9 | High | Low | Yes | No | Yes | Medium | Low | Low |
| 23 | 7 | Medium | Low | Yes | No | Yes | Medium | Low | Low |
| 24 | 8 | Medium | Low | Yes | No | Yes | Medium | Low | High |
| 25 | 7 | High | Medium | Yes | No | Yes | High | Low | High |
| 26 | 8 | High | High | Yes | Yes | No | Medium | High | High |

a. See the introduction to this volume for explanation of priorities.

**Table 9-16.** Analysis of Mitigation Actions

| Hazard Type | Action Addressing Hazard, by Mitigation Type[a] | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Prevention | Property Protection | Public Education & Awareness | Natural Resource Protection | Emergency Services | Structural Projects | Climate Resilience | Community Capacity Building |
| **High-Risk Hazards** | | | | | | | | |
| **Sea Level Rise / Climate Change** | 2, 7, 11, 15, 17, 18, 19, 22, 23 | 1, 2, 5, 6, ,13 , 14, 18, 19 | 26 | 5, 14, 17, 18, 19, 24 | 1, 2, ,7, 11, 13 | 2, 5, 6 | 1, 5, 15, 24 | 16, 21, 26 |
| **High-Risk Hazards** | | | | | | | | |
| **Dam Failure** | 11, 22, 23 | 13 | | | 11,13 | | | |
| **Earthquake** | 2, 7, 8, 11, 16, 18, 20, 22, 23 | 1, 2, 3, 4, 5, 6, 9, 10, 13, 14, 18, 20 | 20, 21, 25, 26 | 5, 14, 18 | 1, 2, 7, 8, 11, 12, 13, 25 | 2, 3, 4, 5, 6, 9,10 | 1, 5 | 21, 26 |
| **Flood** | 1, 2, 7, 11, 15, 16, 17, 18, 19, 22, 23 | 1, 2, 3, 5, 6, 10, 13, 14, 18, 19 | 21, 26 | 5, 14, 17, 18, 19 | 1, 2, ,7, 11, 13 | 2, 3, 5, 6, 10 | 1, 5, 15 | 15, 21, 26 |
| **Medium-Risk Hazards** | | | | | | | | |
| **Severe weather** | 2 ,7, 11, 17, 18, ,22,23 | 1, 2, 5, 6, 13, ,14,18 | 21, 26 | 5, 14, 17, 18 | 1, 2, 7, 11, 12, 13 | 2, 5, 6 | 1, 5 | 21,26 |
| **Low-Risk Hazards** | | | | | | | | |
| **Drought** | 7, 8, 11, 19, 22 | 10, 13, 14, 19 | 21,25 | 14,19 | 7, 8, 11, 13, 25 | 10 | | 21 |
| **Landslide/Mass Movement** | | | | | | | | |
| **Tsunami** | 2, ,11, 18, 19, 22, 23 | 1, 2, 3, 5, 6, 13, 14, 18, 19 | 21, 26 | 5, 14, 18, 19 | 1, 2, 11, 13 | 2, 3, 5,6 | 1, 5 | 21,26 |
| **Wildfire** | | | | | | | | |

a. See the introduction to this volume for explanation of mitigation types.

## 9.9 PUBLIC OUTREACH

Table 9-17 lists public outreach activities for this jurisdiction. Figure 9-1 shows example public outreach announcements.

**Table 9-17.** Local Public Outreach

| Local Outreach Activity | Date | Number of People Involved |
|---|---|---|
| **Distribution of Survey #1 Via City Newsletter and Social Media Platforms** | May 6, 2021 | 94 |
| **Distribution of CERT Survey Via Neon** | June 11, 2021 | 62 |

City of Foster City: Weekly Update - May 6, 2021

**Help San Mateo County Stay Prepared for Natural Hazards**

The County of San Mateo's Local Hazard Mitigation Plan (LHMP) is a detailed program that outlines County efforts to reduce the risks from natural and man-made disasters. Help keep the plan updated and relevant by taking the survey by 5/15, where you'll be able to provide valuable insight that could be life-changing!

CERT Announcement - Feedback Needed for Hazard Mitigation Survey

**Your Valuable Insights are Needed!**

The County, led by the Office of Emergency Services, is in the process of developing an updated Multijurisdictional Local Hazard Mitigation Plan (LHMP) and the public's input is needed!

Tell us via a short survey what actions the County of San Mateo and its partner agencies can take to help community members prepare for natural hazard events such as earthquake, fire, flooding, extreme heat, and landslide:

https://www.surveymonkey.com/r/NWT388K

More information here: https://cmo.smcgov.org/multijurisdictional-local-hazard-mi

**Figure 9-1.** Public Outreach Announcements

## 9.10 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex.

- **Foster City Municipal Code**—The municipal code was reviewed for the full capability assessment and for identifying opportunities for action plan integration. Flood damage prevention ordinance is included in Muni Code.
- **Flood Damage Prevention Ordinance**—The flood damage prevention ordinance was reviewed for compliance with the National Flood Insurance Program.
- **City Budget** – The budget was reviewed for funding of action items and assisted with prioritization setting.
- **City Mutual Aid Agreements** – Foster City Mutual Aid Agreements were used to assess capacity.
- **City's Emergency Operations Plan** – The City's EOP was used when doing the assessment of action items.
- **Previous City's LHMP** – The prior LHMP was reviewed when creating this document.
- **City's General Plan** – The City's General Plan was reviewed during this process for prioritization and mitigation action item building.
- **City's Climate Action Plan** – The City's CAP was used in the mitigation action building phase as well as to assess the City's climate action assessment (see Table 9-10).

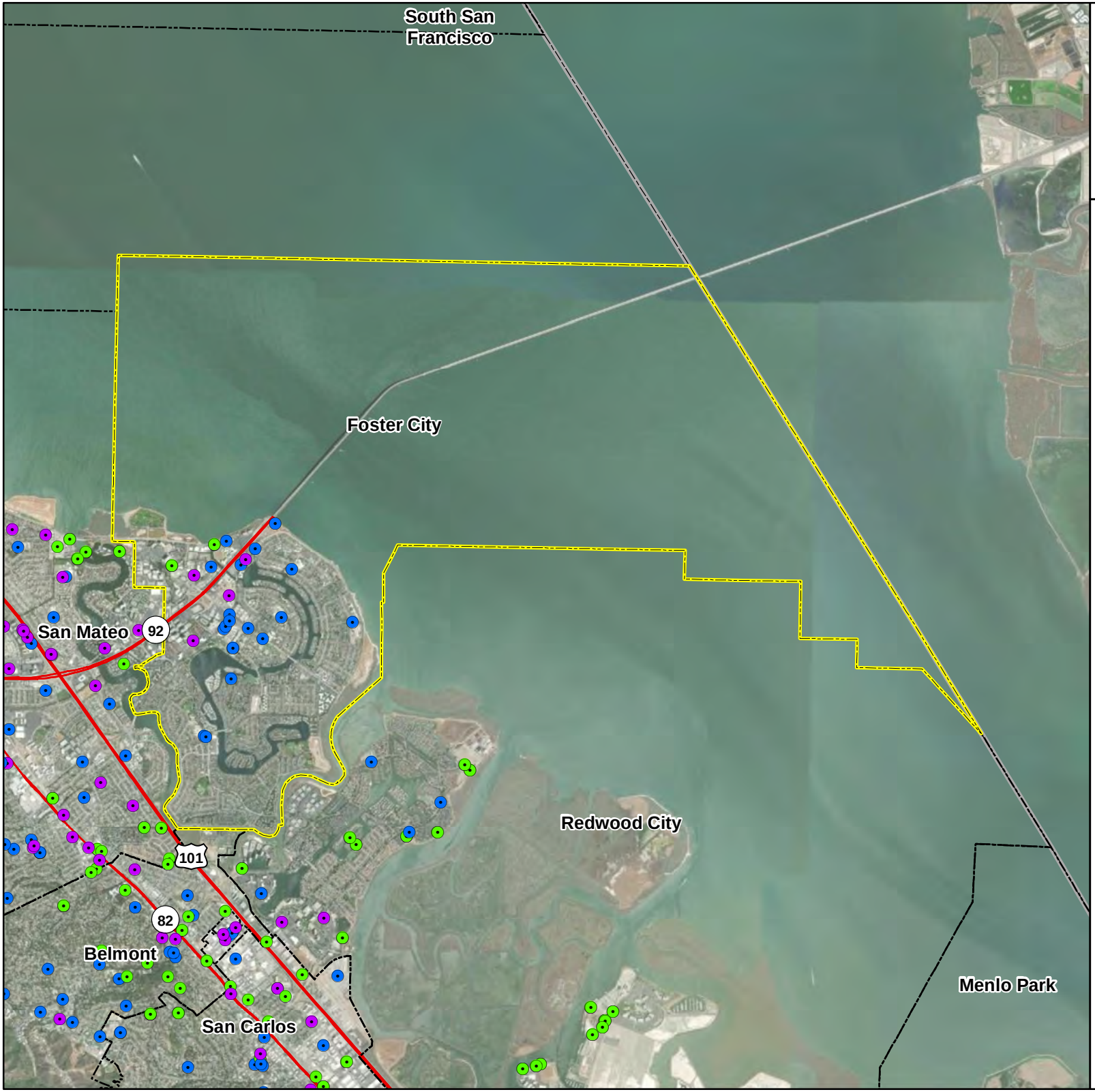
The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit**—The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.
- **Various San Mateo County Plans and Resources** – Resources provided from the County, including previous plans, data sources, etc. were used in analyzing and preparing this document.
- **California DWR Dam Inundation Map –** This resource was used to demonstrate to planning partners how dam inundation for the respective City appears.

## 9.11 FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

An analysis of risks including but not limited to flood and dam inundation need to be adjusted for local infrastructure (pumping abilities) for a more accurate risk assessment.

Foster City based on local knowledge does not have a previous history of flooding from prior storm events. There are systems with multiple redundancies in place for this risk.




# Foster City

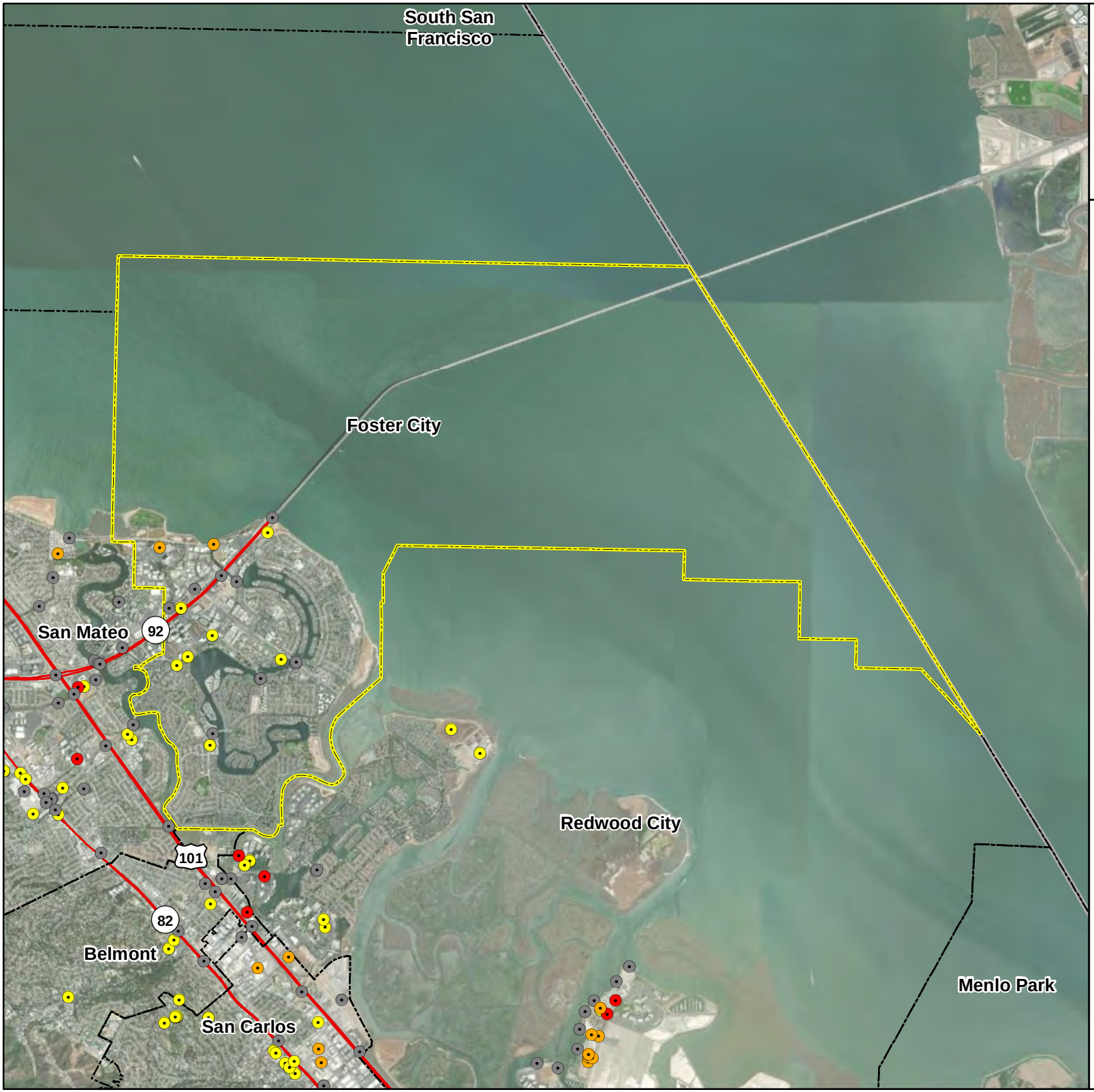
## Critical Facilities, 1 of 2

- Food, Water, Shelter
- Health and Medical
- Safety and Security
- Selected City
- Incorporated Cities
- County Boundary
- Highways

Data Sources: ESRI Basemap, San Mateo Co., DHS HIFLD

N

0 0.45 0.9 1.8 Miles




# Foster City

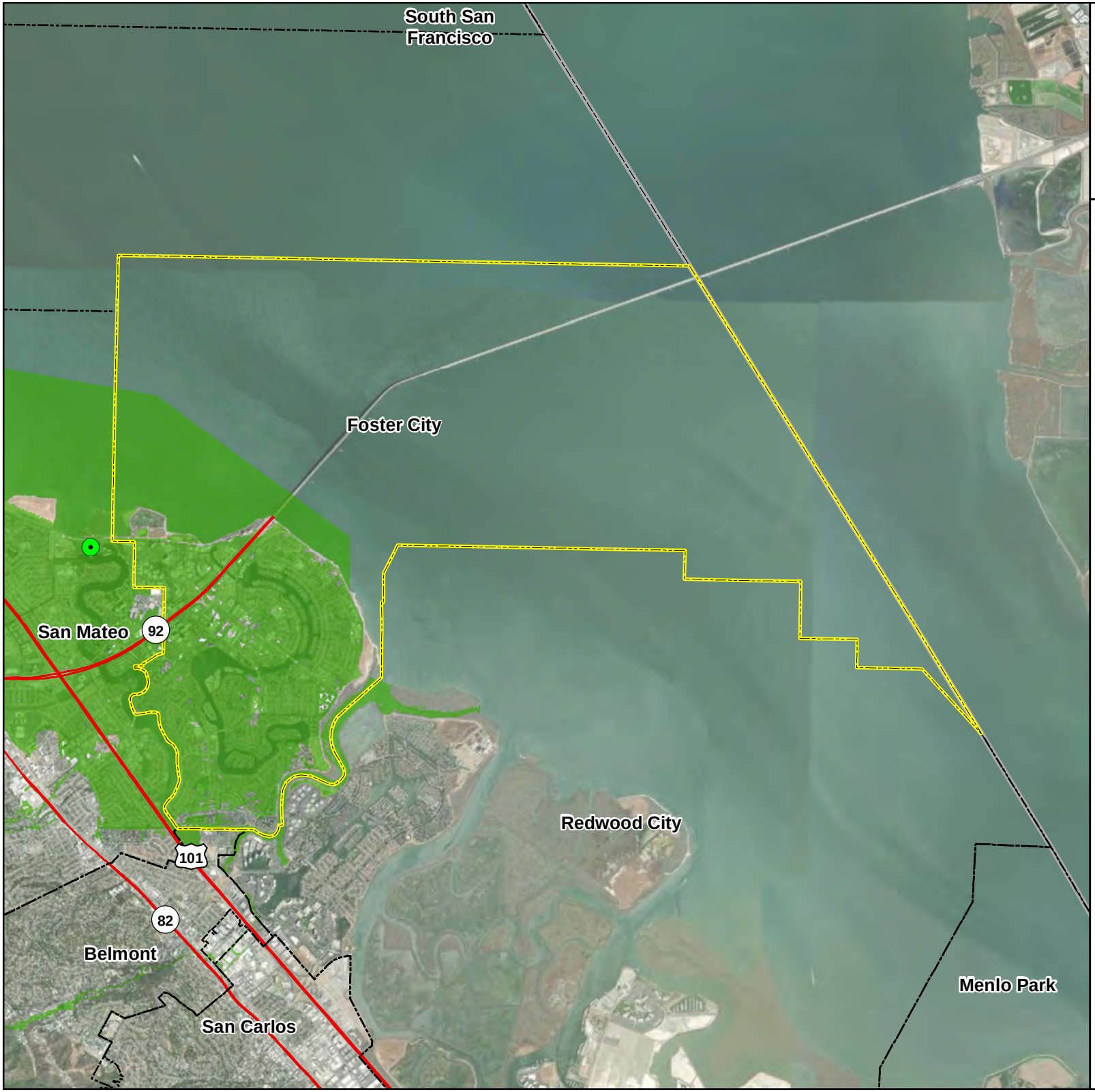
## Critical Facilities, 2 of 2

- Communications
- Energy
- Hazardous Materials
- Transportation
- Selected City
- Incorporated Cities
- County Boundary
- Highways

Data Sources: ESRI Basemap, San Mateo Co., DHS HIFLD

N

0 0.45 0.9 1.8 Miles




# Foster City

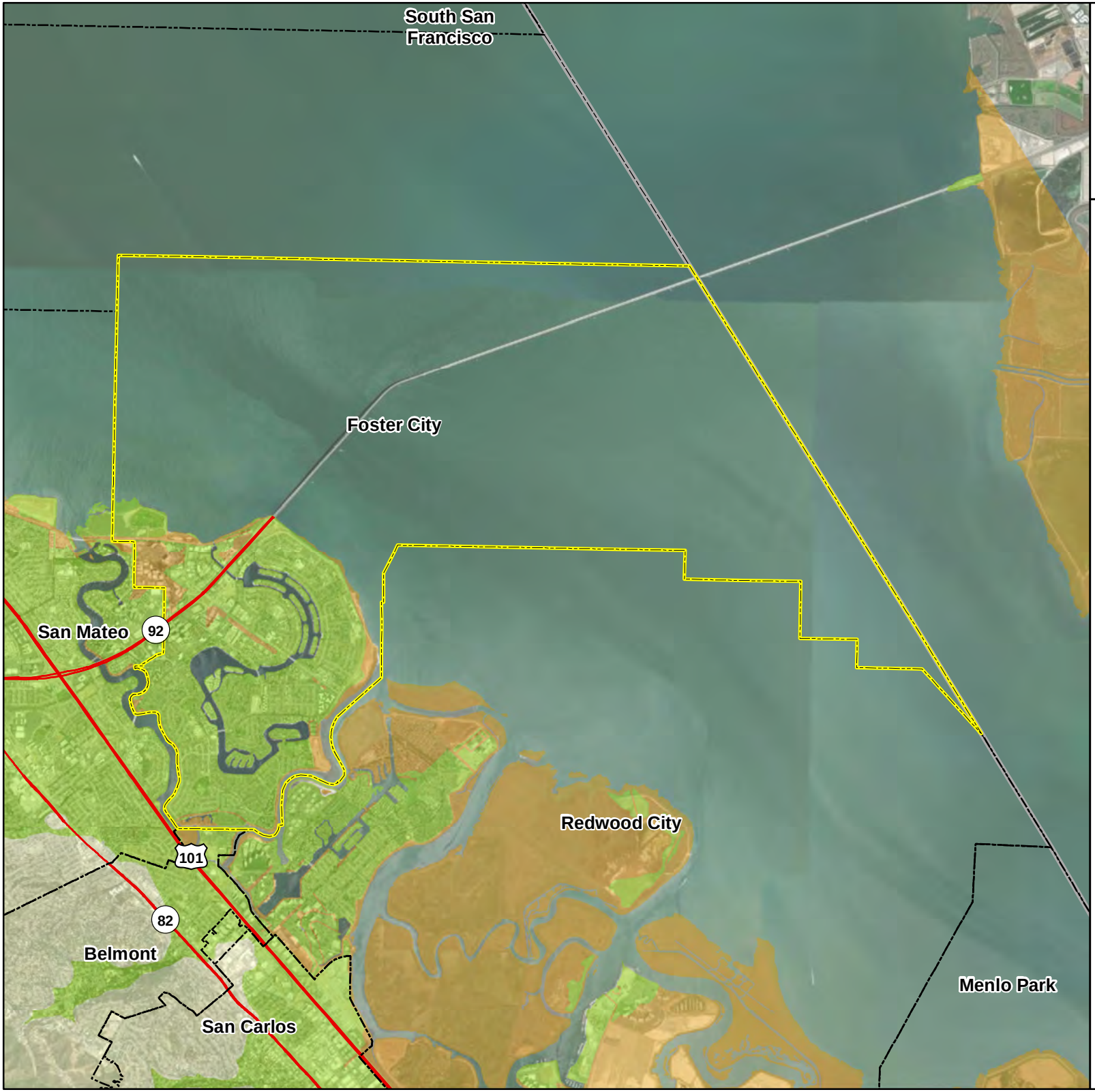
## Dam Failure Inundation Area Used for Risk Assessment

- Inundation Area
- Dam
- Selected City
- Incorporated Cities
- County Boundary
- Highways

Data Sources: ESRI Basemap, San Mateo Co., CA DWR

N

0 0.45 0.9 1.8 Miles




# Foster City

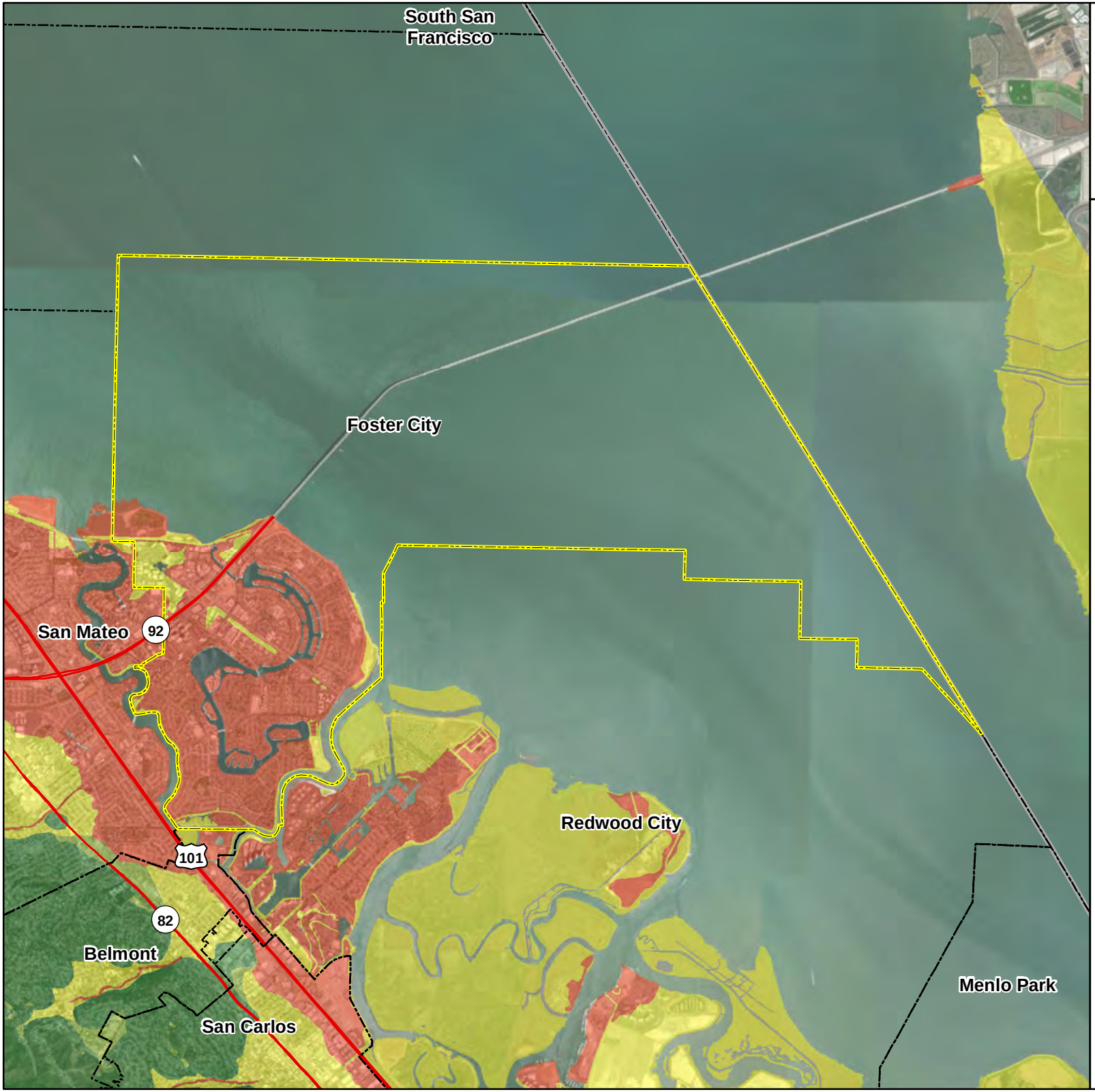
## NEHRP Soil Class

- C (Dense soil/soft rock)
- D (Stiff soil)
- E (Soft clay)
- Selected City
- Incorporated Cities
- County Boundary
- Highways

Data Sources: ESRI Basemap, San Mateo Co., CGS

N

0 0.45 0.9 1.8 Miles




# Foster City

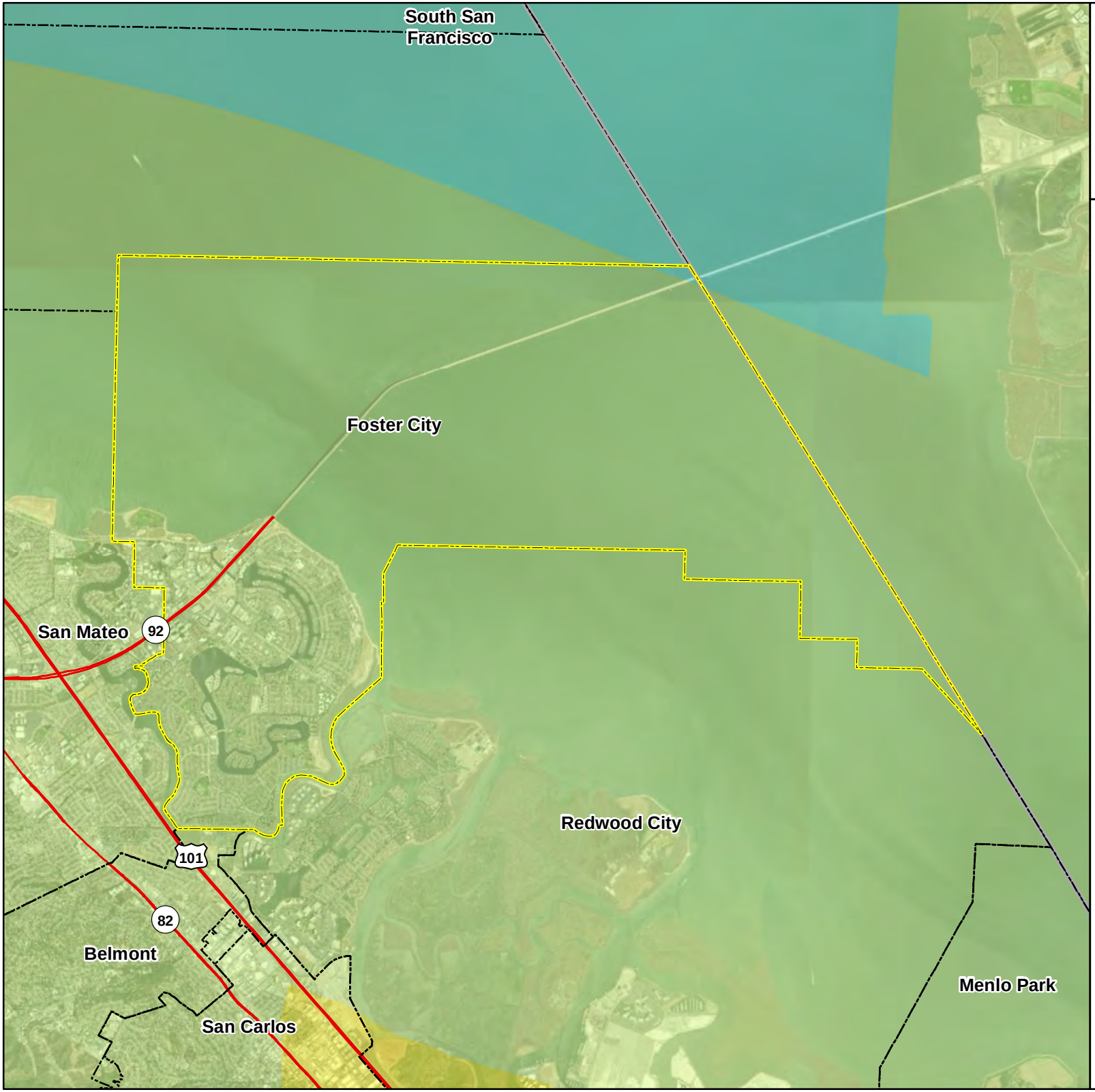
## Liquefaction Susceptibility

- Very Low
- Low
- Moderate
- High
- Very High
- Selected City
- Incorporated Cities
- County Boundary
- Highways

Data Sources: ESRI Basemap, San Mateo Co., ABAG (USGS)

N

0 0.45 0.9 1.8 Miles




# Foster City

## Butano M6.93 Earthquake Scenario

**Mercalli Intensity Scale**

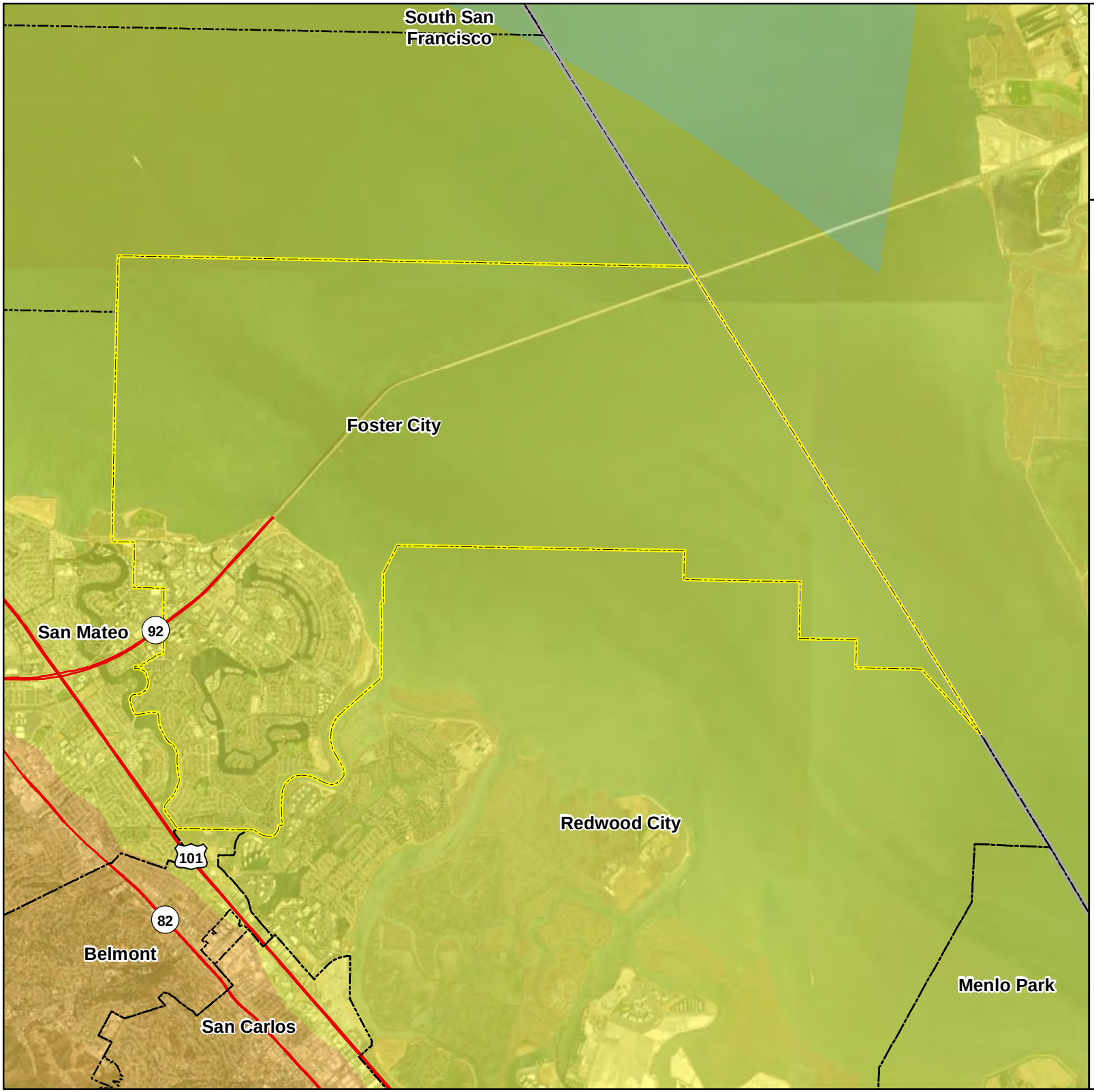
- V (Moderate/Very Light)
- VI (Strong/Light)
- VII (Very Strong/Moderate)
- Selected City
- Incorporated Cities
- County Boundary
- Highways

Intensity scale described as:
(perceived shaking / potential damage)

Data Sources: ESRI Basemap, San Mateo Co., USGS

N

0 0.45 0.9 1.8 Miles




# Foster City

## Monte Vista Shannon M7.14 Earthquake Scenario

**Mercalli Intensity Scale**

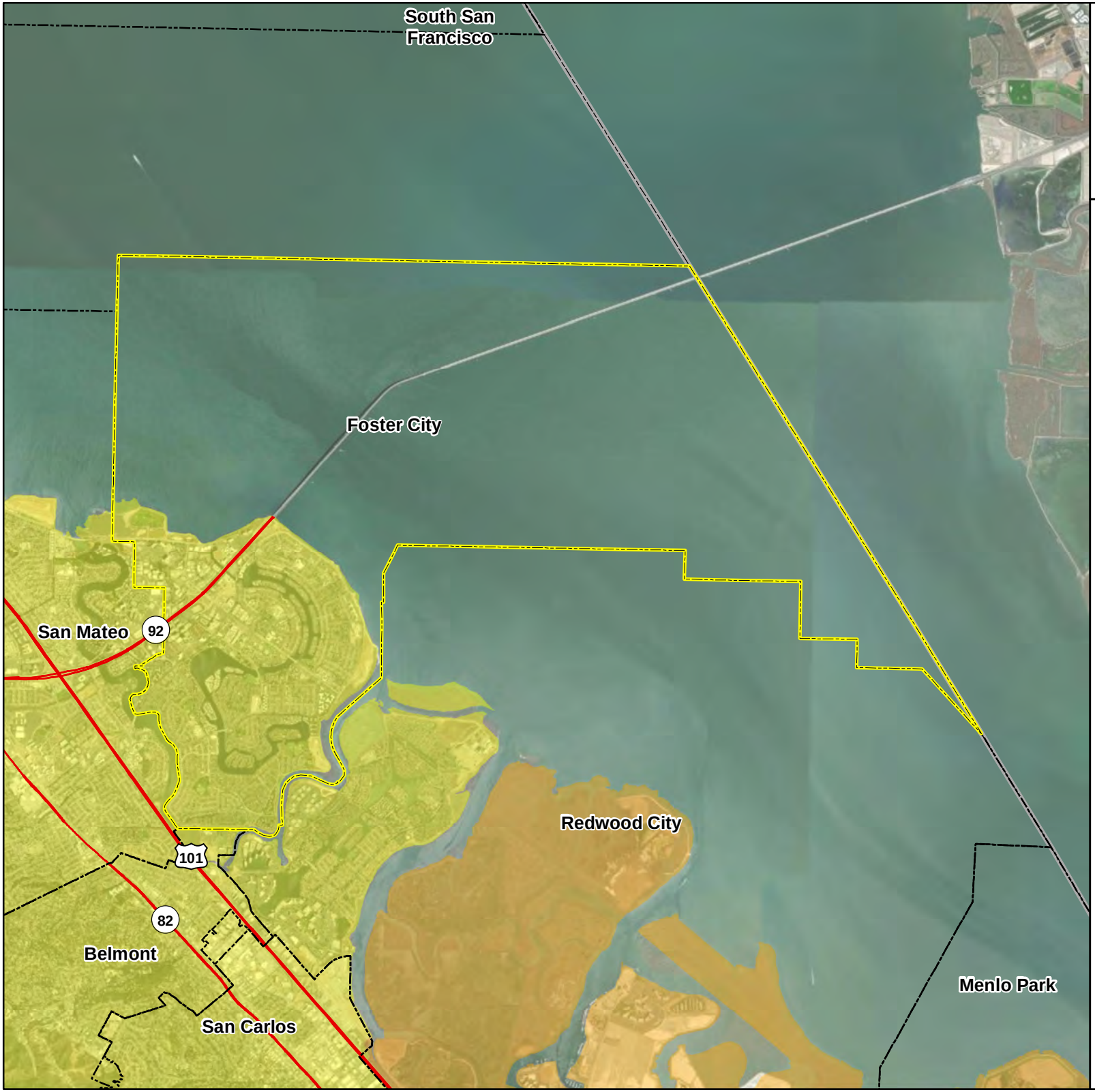
- VI (Strong/Light)
- VII (Very Strong/Moderate)
- VIII (Severe/Moderate-Heavy)
- Selected City
- Incorporated Cities
- County Boundary
- Highways

Intensity scale described as:
(perceived shaking / potential damage)

Data Sources: ESRI Basemap, San Mateo Co., USGS

N

0 0.45 0.9 1.8
Miles




# Foster City

## 100-Year Probabilistic Earthquake Scenario

**Mercalli Intensity Scale**

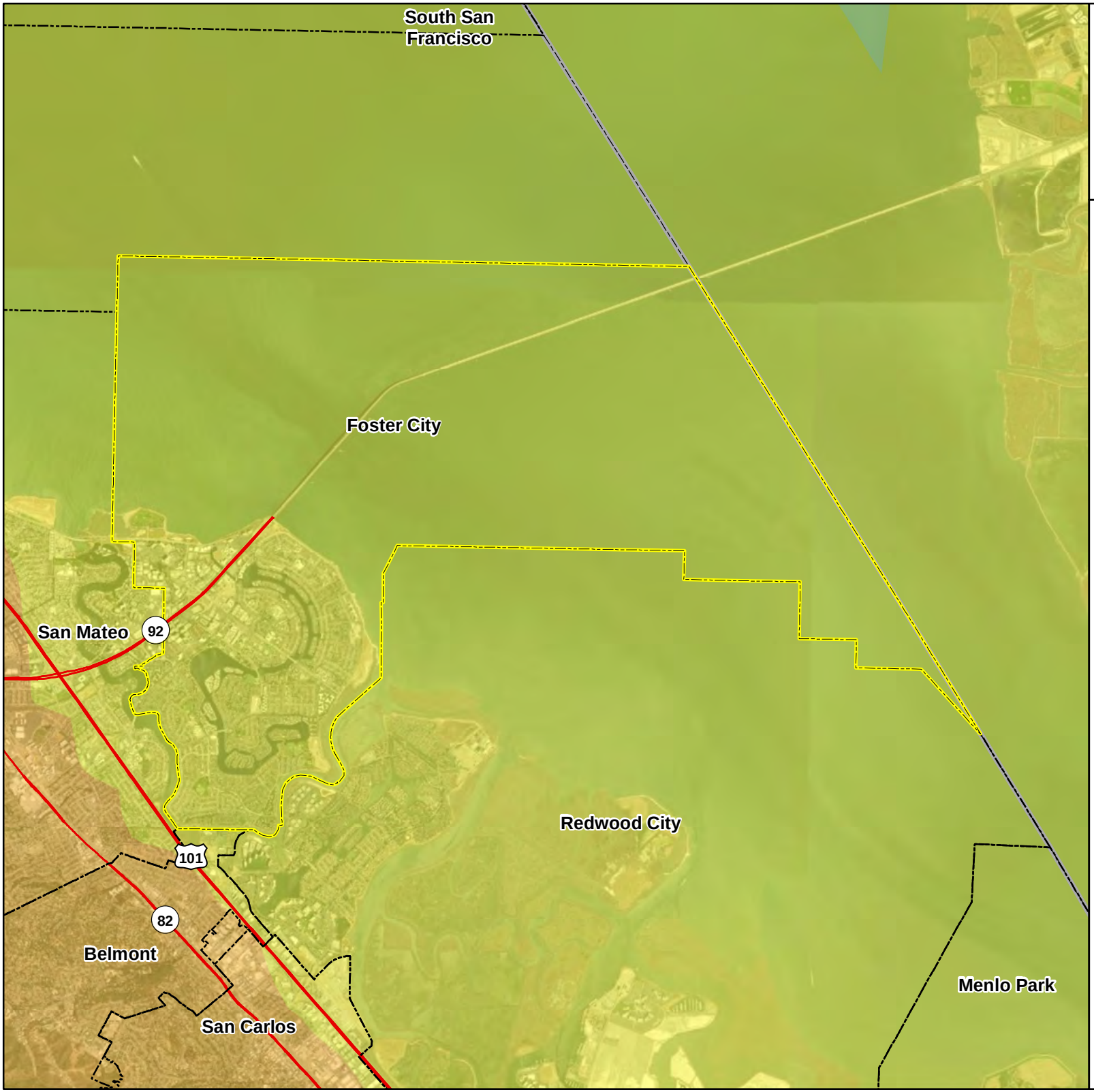
- VII (Very Strong/Moderate)
- VIII (Severe/Moderate-Heavy)
- Selected City
- Incorporated Cities
- County Boundary
- Highways

Intensity scale described as:
(perceived shaking / potential damage)

Data Sources: ESRI Basemap, San Mateo Co., USGS

N

0 0.45 0.9 1.8
Miles




# Foster City

## San Andreas Peninsula M7.38 Earthquake Scenario

**Mercalli Intensity Scale**

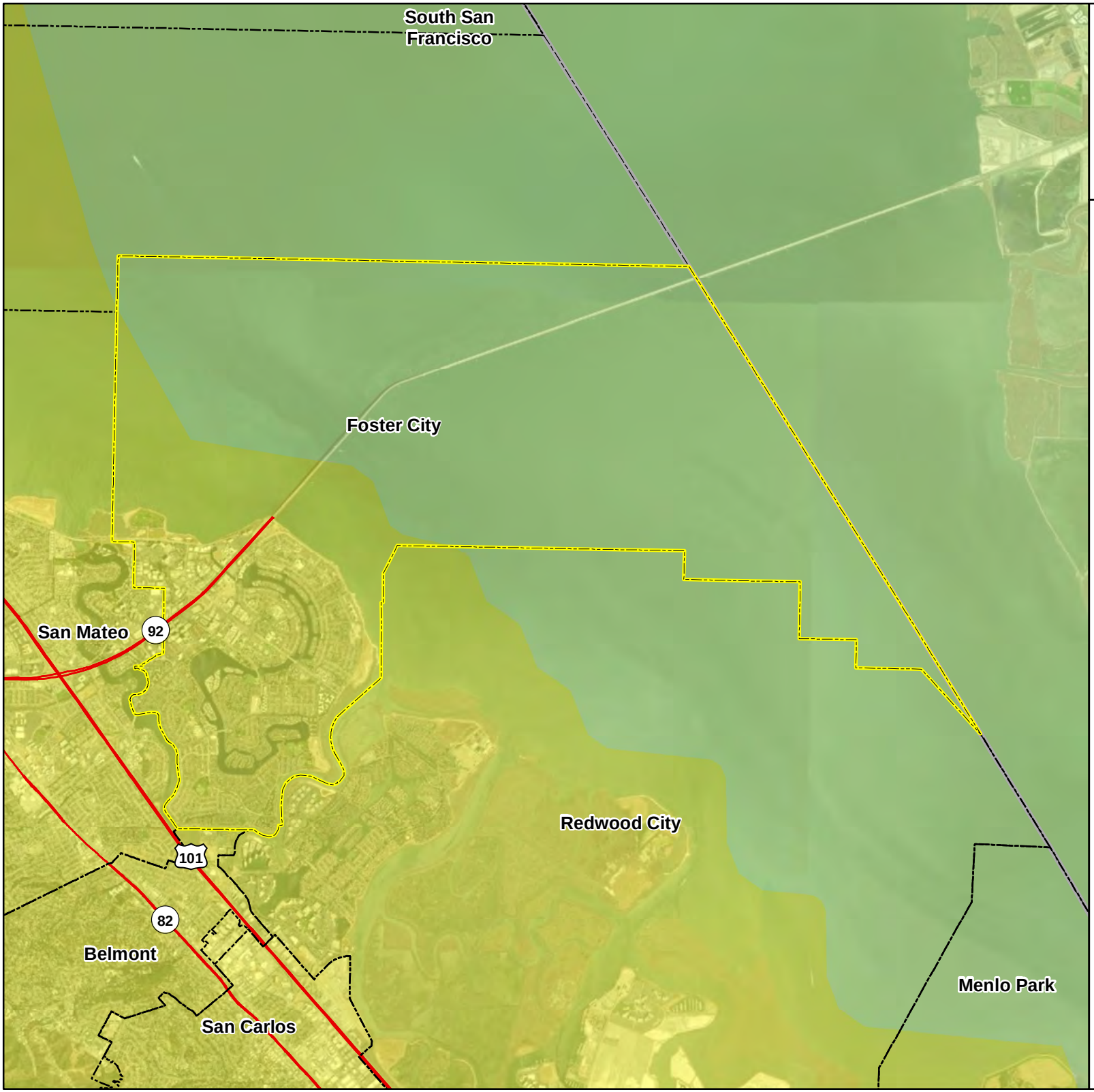
- VI (Strong/Light)
- VII (Very Strong/Moderate)
- VIII (Severe/Moderate-Heavy)
- Selected City
- Incorporated Cities
- County Boundary
- Highways

Intensity scale described as:
(perceived shaking / potential damage)

Data Sources: ESRI Basemap, San Mateo Co., USGS

N

0 0.45 0.9 1.8 Miles




# Foster City

## San Gregorio North M7.44 Earthquake Scenario

**Mercalli Intensity Scale**

- VI (Strong/Light)
- VII (Very Strong/Moderate)
- Selected City
- Incorporated Cities
- County Boundary
- Highways

Intensity scale described as:
(perceived shaking / potential damage)

Data Sources: ESRI Basemap, San Mateo Co., USGS

N

0 0.45 0.9 1.8 Miles

# Foster City

## FEMA Flood Hazard Areas

1% Annual Chance Flood (100-Year)

0.2% Annual Chance Flood (500-Year)

**Selected City**

**Incorporated Cities**

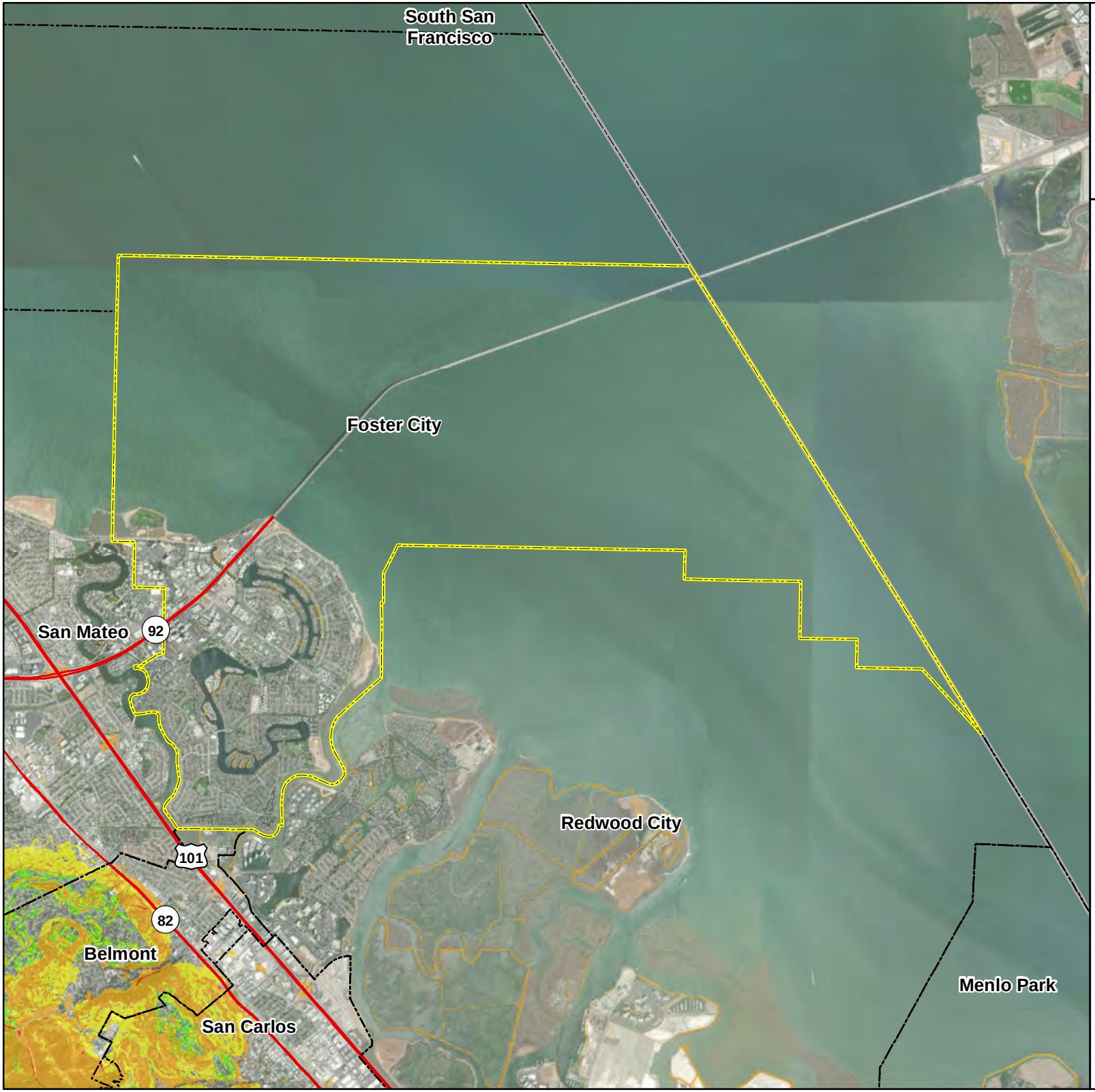
**County Boundary**

**Highways**

Data Sources: ESRI Basemap, San Mateo Co., FEMA

N

0 0.45 0.9 1.8 Miles




# Foster City

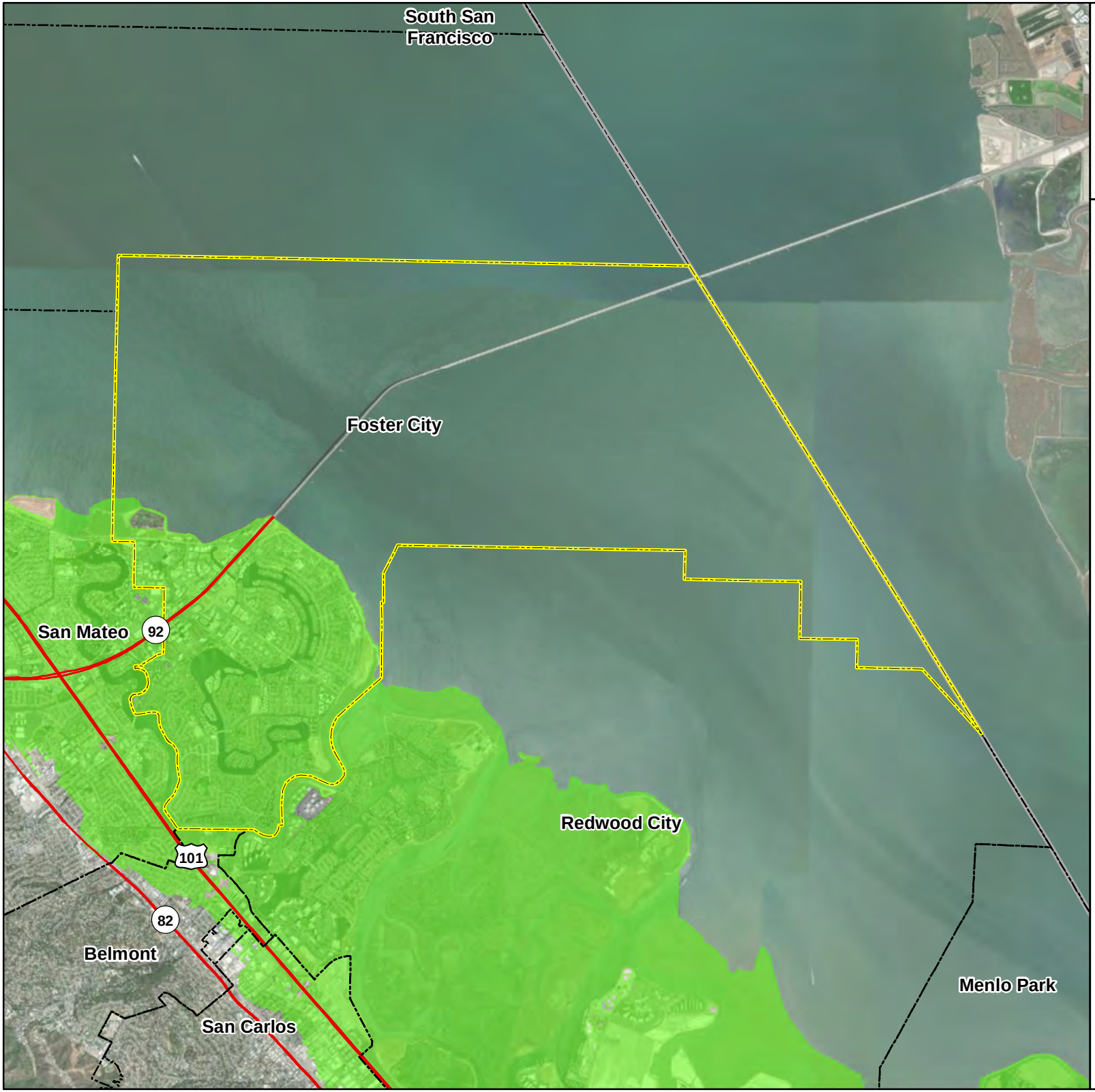
## Susceptibility to Deep-Seated Landslides

- Low
- Moderate
- High
- Very High
- Selected City
- Incorporated Cities
- County Boundary
- Highways

Data Sources: ESRI Basemap, San Mateo Co., CGS

N

0 0.45 0.9 1.8
Miles




# Foster City

## Sea Level Rise

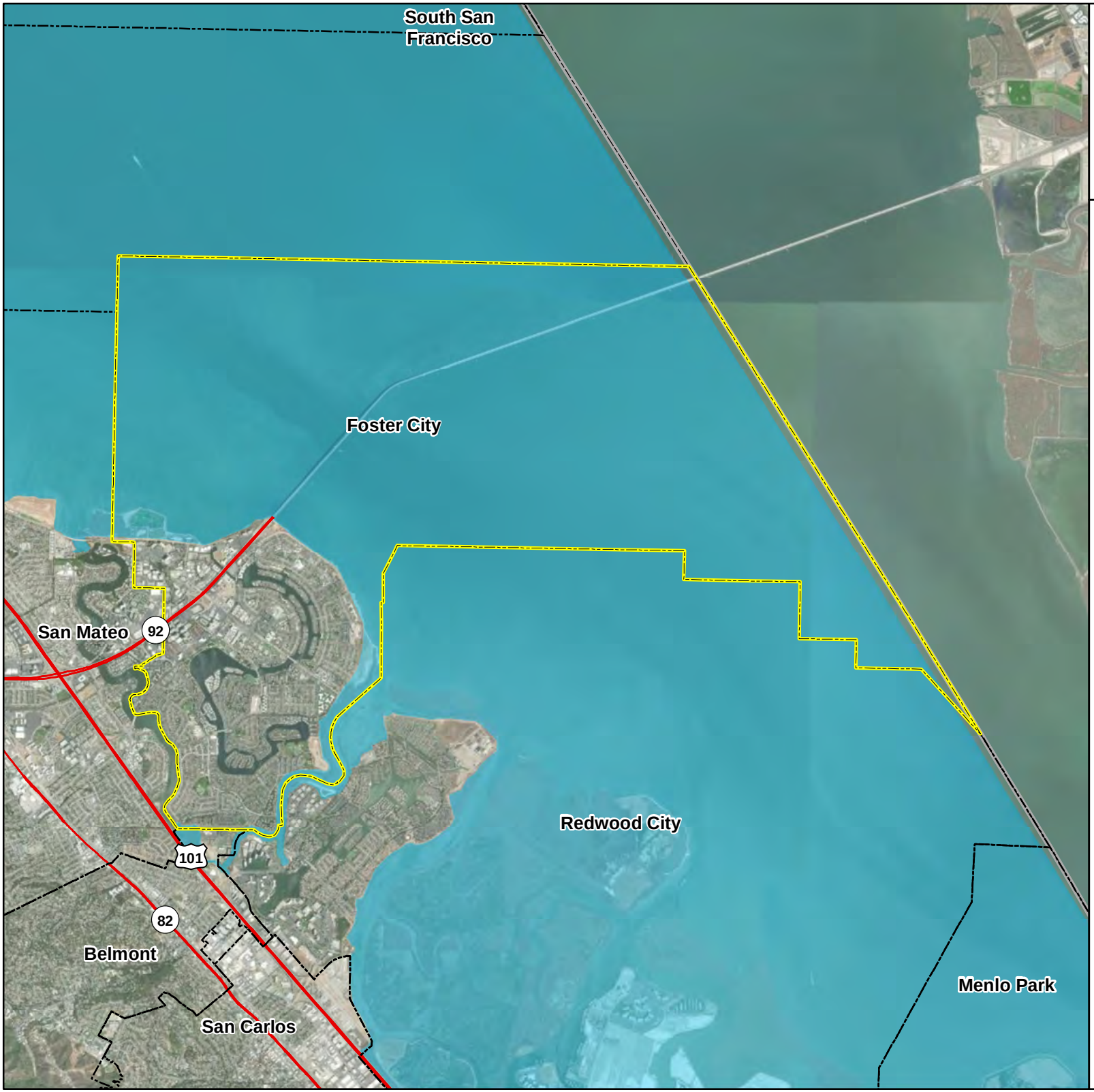
Inundation Area
Selected City
Incorporated Cities
County Boundary
Highways

Inundation areas are a combination of Our Coast Our Future 200cm (6.6 feet) of SLR with 100-year storm for the Pacific Ocean coastline, and Adapting to Rising Tides 108 inches (9 feet) of SLR for the San Francisco Bay coastline.

Data Sources: ESRI Basemap, San Mateo Co., ART, OCOF

N

0 0.45 0.9 1.8
Miles




# Foster City

## Tsunami Hazard Areas

Hazard Areas
Selected City
Incorporated Cities
County Boundary
Highways

Data Sources: ESRI Basemap, San Mateo Co., CGS

N

0 0.45 0.9 1.8
Miles

# Foster City

## Wildfire Hazard Severity Zones

- Moderate
- High
- Very High
- Selected City
- Incorporated Cities
- County Boundary
- Highways

Data Sources: ESRI Basemap, San Mateo Co., CAL FIRE

N

0 0.45 0.9 1.8 Miles

# Appendix A. Planning Partner Expectations

# A. PLANNING PARTNER EXPECTATIONS

The federal Disaster Mitigation Act (DMA) of 2000 (Public Law 106-390), commonly known as the 2000 Stafford Act amendments, was approved by Congress on October 10, 2000. This act required state and local governments to develop hazard mitigation plans as a condition for federal grant assistance. Among other things, this legislation reinforces the importance of pre-disaster infrastructure mitigation planning to reduce disaster losses nationwide. DMA 2000 is aimed primarily at the control and streamlining of the administration of federal disaster relief and programs to promote mitigation activities. Prior to 2000, federal legislation provided funding for disaster relief, recovery, and some hazard mitigation planning. The DMA improves upon the planning process by emphasizing the importance of communities planning for disasters before they occur.

The Disaster Mitigation Act defines a "local government" as:

> Any county, municipality, city, town, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity

Any local government wishing to pursue funding afforded under FEMA Hazard Mitigation Grant Programs must have an approved hazard mitigation plan in order to be eligible to apply for these funds.

One of the goals of the multi-jurisdictional approach to hazard mitigation planning is to achieve compliance with the Disaster Mitigation Act (DMA) for all participating members in the planning effort. DMA compliance must be certified for each member in order to maintain eligibility for the benefits under the DMA. Whether our planning process generates ten individual plans or one large plan that has a chapter for each partner jurisdiction, the following items must be addressed by each planning partner to achieve DMA compliance:

- Participate in the process. It must be documented in the plan that each planning partner "participated" in the process that generated the plan. There is flexibility in defining "participation." Participation can vary based on the type of planning partner (i.e.: City vs. a Special Purpose District). However, the level of participation must be defined and the extent for which this level of participation has been met for each partner must be contained in the plan context.
- Consistency Review. Review of existing documents pertinent to each jurisdiction to identify policies or recommendations that are not consistent with those documents reviewed in producing the "parent" plan or have policies and recommendations that complement the hazard mitigation initiatives selected (i.e.: comp plans, basin plans or hazard specific plans).
- Action Review. For plan updates, a review of the strategies from your prior action plan to determine those that have been accomplished and how they were accomplished; and why those that have not been accomplished were not completed.

- Update Localized Risk Assessment. Personalize the Risk Assessment for each jurisdiction by removing hazards not associated with the defined jurisdictional area or redefining vulnerability based on a hazard's impact to a jurisdiction. This phase will include:
  - A ranking of the risk
  - A description of the number and type of structures at risk
  - An estimate of the potential dollar losses to vulnerable structures
  - A general description of land uses and development trends within the community, so that mitigation options can be considered in future land use decisions.
- Capability assessment. Each planning partner must identify and review their individual regulatory, technical, and financial capabilities with regards to the implementation of hazard mitigation actions.
- Personalize mitigation recommendations. Identify and prioritize mitigation recommendations specific to each jurisdiction's defined area.
- Create an Action Plan.
- Incorporate Public Participation. Each jurisdiction must present the Plan to the public for comment at least once, within two weeks prior to adoption.
- Plan must be adopted by each jurisdiction.

One of the benefits to multi-jurisdictional planning is the ability to pool resources. This means more than monetary resources. Resources such as staff time, meeting locations, media resources, technical expertise will all need to be utilized to generate a successful plan. In addition, these resources can be pooled such that decisions can be made by a peer group applying to the whole and thus reducing the individual level of effort of each planning partner. This will be accomplished by the formation of a steering committee made up of planning partners and other "stakeholders" within the planning area. The size and makeup of this steering committee will be determined by the planning partnership. This body will assume the decision-making responsibilities on behalf of the entire partnership. This will streamline the planning process by reducing the number of meetings that will need to be attended by each planning partner. The assembled Steering Committee for this effort will meet monthly on an as needed basis as determined by the planning team, and will provide guidance and decision making during all phases of the plan's development.

With the above participation requirements in mind, each partner is expected to aid this process by being prepared to develop its section of the plan. To be an eligible planning partner in this effort, each planning partner shall provide the following:

A. A "Letter of Commitment" or resolution to participate to the Planning Team (see Exhibit A).

B. Designate a lead point of contact for this effort. This designee will be listed as the hazard mitigation point of contact for your jurisdiction in the plan.

C. Support and participate in the selection and function of the Steering Committee selected to oversee the development of this plan.

D. Provide support in the form of mailing list, possible meeting space, and public information materials, such as newsletters, newspapers, or direct mailed brochures, required to implement the public involvement strategy developed by the Steering Committee.

E. Participate in the process. There will be many opportunities as this plan evolves to participate. Opportunities such as:

   i) Steering Committee meetings

ii) Public meetings or open houses

iii) Workshops/ planning partner specific training sessions

iv) Public review and comment periods prior to adoption

At each and every one of these opportunities, attendance will be recorded. Attendance records will be used to document participation for each planning partner. No thresholds will be established as minimum levels of participation. However, each planning partner should attempt to attend all possible meetings and events.

F. There will be one mandatory workshop that all planning partners will be required to attend. This workshop will cover the proper completion of the jurisdictional annex template which is the basis for each partner's jurisdictional chapter in the plan. Failure to have a representative at this workshop will disqualify the planning partner from participation in this effort. The schedule for this workshop will be such that all committed planning partners will be able to attend.

G. After participation in the mandatory template workshop, each partner will be required to complete their template and provide it to the planning team in the time frame established by the Steering Committee. Failure to complete your template in the required time frame may lead to disqualification from the partnership.

H. Each partner will be expected to perform a "consistency review" of all technical studies, plans, ordinances specific to hazards to determine the existence of any not consistent with the same such documents reviewed in the preparation of the parent plan.

I. Each partner will be expected to review the Risk Assessment and identify hazards and vulnerabilities specific to its jurisdiction. Contract resources will provide the jurisdiction specific mapping and technical consultation to aid in this task, but the determination of risk and vulnerability will be up to each partner.

J. Each partner will be expected to review and determine if the mitigation recommendations chosen in the parent plan will meet the needs of its jurisdiction. Projects within each jurisdiction consistent with the parent plan recommendations will need to be identified and prioritized, and reviewed to determine their benefits vs. costs.

K. Each partner will be required to create its own action plan that identifies each project, who will oversee the task, how it will be financed and when it is estimated to occur.

L. Each partner will be required to formally adopt the plan.

Templates and instructions to aid in the compilation of this information will be provided to all committed planning partners. Each partner will be expected to complete their templates in a timely manner and according to the timeline specified by the Steering Committee.

**NOTE:** Once this plan is completed, and DMA compliance has been determined for each partner, maintaining that eligibility will be dependent upon each partner implementing the plan implementation-maintenance protocol identified in the plan. At a minimum, this means completing the ongoing plan maintenance protocol identified in the plan. Partners that do not participate in this plan maintenance strategy may be deemed ineligible by the partnership, and thus lose their DMA eligibility.

Eligible entities that do not wish to participate in the multi-jurisdictional planning process or fail to meet the requirements contained in this document may choose to link to the plan in pursuit of future adoption after the completion of the current effort.

**Exhibit A**
**Example Letter of Commitment**

Dan Belville, Director
San Mateo County Office of Emergency Services
501 Winslow St.
Redwood City, CA 94063

Re: Letter of Commitment as a Participating Jurisdiction in the San Mateo County Multijurisdictional Hazard Mitigation Plan Update Plan 2021

Dear Office of Emergency Services,

As the Federal Emergency Management Agency's (FEMA) local hazard mitigation plan requirements under 44 CFR §201.6 identify criteria for multi-jurisdictional mitigation plans including the participation and collaboration of regional planning and mitigation partners, this letter of commitment is submitted to confirm the participation of <insert agency name> as a Planning Partner in the *San Mateo County Multijurisdictional Hazard Mitigation Plan Update Plan 2021*.

As a condition of participation, <insert agency name> agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6, and to provide timely cooperation and participation to produce a FEMA-approved hazard mitigation plan with the County of San Mateo.

<insert agency name> understands that it must engage in the following planning processes, as detailed in FEMA's *Local Multi-Hazard Mitigation Planning Guidance* dated March 1, 2013. Planning processes include, but are not limited to the following:

- Review of existing 2016 San Mateo County Multijurisdictional Hazard Mitigation Plan
- Identification of local hazards, risk assessment, and vulnerability analysis
- Participation in the formulation of mitigation goals and actions
- Participation in community engagement and public outreach in the development of the plan
- Timely response to requests for information by the coordinating agency and consultants, and adherence to established deadlines
- Formal adoption of the hazard mitigation plan by the planning partner jurisdiction's governing body
- Tracking and monthly submission of personnel hours spent on the hazard mitigation planning effort

Sincerely,

Name _____

Title _____

## Exhibit B
## Planning Team Contact information

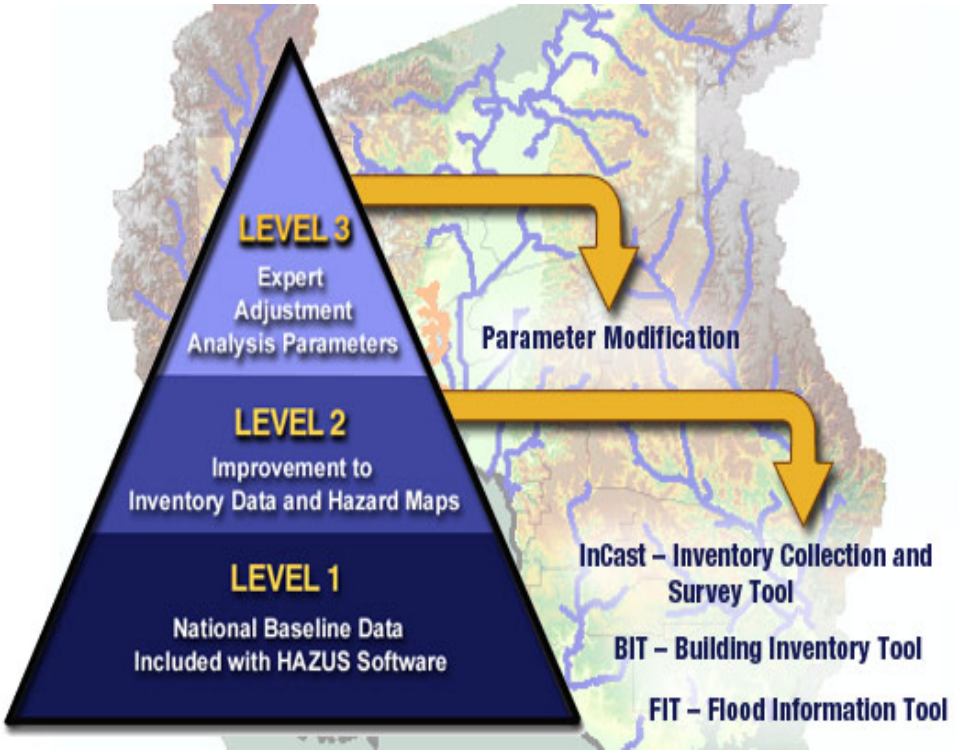
| Name | Representing | Address | e-mail |
|---|---|---|---|
| **Dan Belville** | Department of Emergency Management | 501 Winslow St., Redwood City, CA 94063 | dbelville@smcgov.org |
| **Rob Flaner** | Tetra Tech, Inc. | 90 S. Blackwood Ave<br>Eagle, ID 83616 | rob.flaner@tetratech.com |
| **Bart Spencer** | Tetra Tech, Inc. | 1999 Harrison St., Ste 500<br>Oakland, CA 946122 | bart.spencer@tetratech.com |
| **Melissa Ross** | SMC Building & Planning | 555 County Center<br>Redwood City, CA 94063 | mross@smcgov.org |
| **Rumika Chaundry** | SMC GIS/IT | 455 County Center<br>Redwood City, CA 94063 | rchaundry@smcgov.org |
| **Hillary Papendick** | Office of Sustainability | 400 County Center<br>Redwood City, CA 94063 | hpapendick@smcgov.org |
| **David Cosgrave** | Coastside Fire District | | david.cosgrave@fire.ca.gov |
| **Ann Ludwig** | Office of Emergency Services – contractor | 501 Winslow St.<br>Redwood City, CA 94063 | c_aludwig@smcgov.org |
| **Joe LaClair**[a] | SMC Planning Services | 455 County Center<br>Redwood City, CA 94063 | Joe.laclair@gmail.com |
| **Jena Wiser** | Tetra Tech, Inc. | | jeana.wiser@tetratech.com |
| **Carol Bauman** | Tetra Tech, Inc. | | carol.bauman@tetratech.com |
| **Des Alexander** | Tetra Tech, Inc. | | des.alexander@tetratech.com |

a. Retired towards the end of the planning process

**Exhibit C.**
**Overview of Hazus**

## Overview of Hazus (Multi-Hazard)

Hazus, is a nationally applicable standardized methodology and software program that contains models for estimating potential losses from earthquakes, floods, tsunamis, and hurricane winds. Hazus was developed by the Federal Emergency Management Agency (FEMA) under contract with the National Institute of Building Sciences (NIBS). NIBS maintains committees of wind, flood, earthquake and software experts to provide technical oversight and guidance to Hazus development. Loss estimates produced by Hazus are based on current scientific and engineering knowledge of the effects of hurricane winds, floods, and earthquakes. Estimating losses is essential to decision-making at all levels of government, providing a basis for developing mitigation plans and policies, emergency preparedness, and response and recovery planning.




Hazus uses state-of-the-art geographic information system (GIS) software to map and display hazard data and the results of damage and economic loss estimates for buildings and infrastructure. It also allows users to estimate the impacts of hurricane winds, floods, tsunamis, and earthquakes on populations. The latest release, Hazus 4.0, is an updated version of Hazus that incorporates many new features which improve both the speed and functionality of the models. For information on software and hardware requirements to run Hazus 4.0, see Hazus Hardware and Software Requirements.

## Hazus Analysis Levels

Hazus provides for three levels of analysis:

- A Level 1 analysis yields a rough estimate based on the nationwide database and is a great way to begin the risk assessment process and prioritize high-risk communities.

- A Level 2 analysis requires the input of additional or refined data and hazard maps that will produce more accurate risk and loss estimates. Assistance from local emergency management personnel, city planners, GIS professionals, and others may be necessary for this level of analysis.
- A Level 3 analysis yields the most accurate estimate of loss and typically requires the involvement of technical experts such as structural and geotechnical engineers who can modify loss parameters based on to the specific conditions of a community. This level analysis will allow users to supply their own techniques to study special conditions such as dam breaks and tsunamis. Engineering and other expertise is needed at this level.

Three data input tools have been developed to support data collection. The Comprehensive Data Management System helps users collect and manage local building data for more refined analyses than are possible with the national level data sets that come with Hazus. The system has expanded capabilities for multi-hazard data collection. Hazus includes an enhanced Building Inventory Tool allows users to import building data and is most useful when handling large datasets, such as tax assessor records. The Flood Information Tool helps users manipulate flood data into the format required by the Hazus flood model. All Three tools are included in the Hazus MR1 Application DVD.

**Hazus Models**

The Hazus Hurricane Wind Model gives users in the Atlantic and Gulf Coast regions and Hawaii the ability to estimate potential damage and loss to residential, commercial, and industrial buildings. It also allows users to estimate direct economic loss, post-storm shelter needs and building debris. In the future, the model will include the capability to estimate wind effects in island territories, storm surge, indirect economic losses, casualties, and impacts to utility and transportation lifelines and agriculture. Loss models for other severe wind hazards will be included in the future. Details about the Hurricane Wind Model.

The Hazus Flood Model is capable of assessing riverine and coastal flooding. It estimates potential damage to all classes of buildings, essential facilities, transportation and utility lifelines, vehicles, and agricultural crops. The model addresses building debris generation and shelter requirements. Direct losses are estimated based on physical damage to structures, contents, and building interiors. The effects of flood warning are taken into account, as are flow velocity effects. Details about the Flood Model.

The Hazus Earthquake Model, The Hazus earthquake model provides loss estimates of damage and loss to buildings, essential facilities, transportation and utility lifelines, and population based on scenario or probabilistic earthquakes. The model addresses debris generation, fire-following, casualties, and shelter requirements. Direct losses are estimated based on physical damage to structures, contents, inventory, and building interiors. The earthquake model also includes the Advanced Engineering Building Module for single- and group-building mitigation analysis. Details about the Earthquake Model.

The Hazus Tsunami Model represents the first new disaster module for the Hazus software in almost 15 years and is the culmination of work completed on the Hazus Tsunami Methodology Development (FEMA, 2013) by a team of tsunami experts, engineers, modelers, emergency planners, economists, social scientists, geographic information system (GIS) analysts, and software developers. A Tsunami Oversight Committee provided technical direction and review of the methodology development. New features with the model include:

- Territory Analysis: This release represents the first time that analysis will be available for U.S. territories (Guam, American Samoa, Commonwealth of Northern Mariana Islands and U.S. Virgin Islands).
- New Point Format: The Hazus General Building Stock for the Tsunami release will use a new National Structure Inventory point format (details in User Release Notes available with download).
- Case Studies: The Tsunami Module will require user-provided data, so the Hazus Team has provided five case study datasets for users, which will be available on the MSC download site.
- Two Types of Damage Analysis: Users will be able to run both near-source (Earthquake + Tsunami) and distant-source (Tsunami only) damage analysis.

Additionally, Hazus can perform multi-hazard analysis by providing access to the average annualized loss and probabilistic results from the hurricane wind, flood, and earthquake models and combining them to provide integrated multi-hazard reports and graphs. Hazus also contains a third-party model integration capability that provides access and operational capability to a wide range of natural, man-made, and technological hazard models (nuclear and conventional blast, radiological, chemical, and biological) that will supplement the natural hazard loss estimation capability (hurricane wind, flood, tsunami and earthquake) in Hazus.

# Appendix B. Procedures for Linking to Hazard Mitigation Plan

# B. Procedures for Linking to Hazard Mitigation Plan

Not all eligible local governments are included in the 2021 Multijurisdictional Local Hazard Mitigation Plan. Some or all of these non-participating local governments may choose to "link" to the Plan at some point to gain eligibility for programs under the federal Disaster Mitigation Act (DMA). The following "linkage" procedures define the requirements established by the planning team for dealing with an increase in the number of planning partners linked to this plan. No currently non-participating jurisdiction within the defined planning area is obligated to link to this plan. These jurisdictions can choose to do their own "complete" plan that addresses all required elements of Section 201.6 or Section 201.7 of Chapter 44 of the Code of Federal Regulations (44 CFR).

## INCREASING THE PARTNERSHIP THROUGH LINKAGE

### Eligibility

Eligible jurisdictions located in the planning area may link to this plan at any point during the plan's performance period (5 years after final approval). Eligibility will be determined by the following factors:

- The linking jurisdiction is a local or tribal government as defined by the Disaster Mitigation Act.
- The boundaries or service area of the linking jurisdiction is completely contained within the boundaries of the planning area established during the 2020-2021 hazard mitigation planning process.
- The linking jurisdiction's critical facilities were included in the critical facility and infrastructure risk assessment completed during the 2020 – 2021 plan development process..

### Requirements

It is expected that linking jurisdictions will complete the requirements outlined below and submit their completed template to the lead agency San Mateo County Department of Emergency Management for review within six months of beginning the linkage process:

- The eligible jurisdiction requests a "Linkage Package" by contacting the Point of Contact (POC) for the plan:

  Dan Belville
  San Mateo County Department of Emergency Management
  501 Winslow St.
  Redwood City, CA 94063
- The POC will provide a linkage procedure package that includes linkage information and a linkage tool-kit:

- Linkage Information
  - Procedures for linking to the multi-jurisdictional hazard mitigation plan
  - Planning partner's expectations for linking jurisdictions
  - A sample "letter of intent" to link to the multi-jurisdictional hazard mitigation plan
  - A copy of Section 201.6 and Section 201.7 of 44 CFR, which defines the federal requirements for a local and tribal hazard mitigation plans.
- Linkage Tool-Kit
  - Copy of Volume 1 and 2 of the plan
  - A special purpose district or tribe template and instructions
  - A catalog of hazard mitigation alternatives
  - A sample resolution for plan adoption

- The new jurisdiction will be required to review both volumes of the 2021 Multijurisdictional Local Hazard Mitigation Plan, which include the following key components for the planning area:
  - Goals and objectives
  - The planning area risk assessment
  - Comprehensive review of alternatives
  - Countywide actions
  - Plan implementation and maintenance procedures.

  Once this review is complete, the jurisdiction will complete its specific annex using the template and instructions provided by the POC.
- The development of the new jurisdiction's annex must not be completed by one individual in isolation. The jurisdiction must develop, implement and describe a public involvement strategy and a methodology to identify and vet jurisdiction-specific actions. The original partnership was covered under a uniform public involvement strategy and a process to identify actions that covered the planning area described in Volume 1 and Volume 2 of this plan. Since new partners were not addressed by these strategies, they will have to initiate new strategies and describe them in their annex. For consistency, new partners are encouraged to develop and implement strategies similar to those described in this plan.
- The public involvement strategy must ensure the public's ability to participate in the plan development process. At a minimum, the new jurisdiction must solicit public opinion on hazard mitigation at the onset of the linkage process and hold one or more public meetings to present the draft jurisdiction-specific annex for comment at least two weeks prior to adoption by the governing body. The POC will have resources available to aid in the public involvement strategy, including:
  - The questionnaire utilized in the plan development
  - Presentations from public meeting workshops and the public comment period
  - Press releases used throughout the planning process
  - The plan website.
- The methodology to identify actions should include a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard and a description of the process by which chosen actions were identified. As part of this process, linking jurisdictions should coordinate the selection of actions amongst the jurisdiction's various departments.
- Once their public involvement strategy and template are completed, the new jurisdiction will submit the completed package to the POC for a pre-adoption review to ensure conformance with the multi-jurisdictional plan format and linkage procedure requirements.
- The POC will review for the following:

  - Documentation of public involvement and action plan development strategies
  - Conformance of template entries with guidelines outlined in instructions
  - Chosen actions are consistent with goals, objectives, and mitigation catalog of the 2021 Multijurisdictional Local Hazard Mitigation Plan
  - A designated point of contact
  - A completed FEMA plan review crosswalk.
- Plans will be reviewed by the POC and submitted to California Governor's Office of Emergency Services (Cal OES) for review and approval.
- Cal OES will review plans for state compliance. Non-compliant plans are returned to the lead agency for correction. Compliant plans are forwarded to FEMA for review with annotation as to the adoption status.
- FEMA reviews the linking jurisdiction's plan in association with the approved plan to ensure DMA compliance. FEMA notifies the new jurisdiction of the results of review with copies to Cal OES and the approved plan lead agency.
- Linking jurisdiction corrects plan shortfalls (if necessary) and resubmits to Cal OES through the approved plan lead agency.
- For plans with no shortfalls from the FEMA review that have not been adopted, the new jurisdiction governing authority adopts the plan and forwards adoption resolution to FEMA with copies to lead agency and Cal OES.
- FEMA regional director notifies the new jurisdiction's governing authority of the plan's approval.

The new jurisdiction plan is then included with the multi-jurisdiction hazard mitigation plan and the linking jurisdiction is committed to participate in the ongoing plan maintenance strategy identified in Chapter 21, Volume 1 of the hazard mitigation plan.

## DECREASING THE PARTNERSHIP

The eligibility afforded under this process to the planning partnership can be rescinded in two ways. First, a participating planning partner can ask to be removed from the partnership. This may be done because the partner has decided to develop its own plan or has identified a different planning process for which it can gain eligibility. A partner that wishes to voluntarily leave the partnership shall inform the POC of this desire in writing. This notification can occur any time during the calendar year. A jurisdiction wishing to pursue this avenue is advised to make sure that it is eligible under the new planning effort, to avoid any period of being out of compliance with the Disaster Mitigation Act.

After receiving this notification, the POC shall immediately notify both Cal OES and FEMA in writing that the partner in question is no longer covered by the 2021 Multijurisdictional Local Hazard Mitigation Plan, and that the eligibility afforded that partner under this plan should be rescinded based on this notification.

The second way a partner can be removed from the partnership is by failure to meet the participation requirements specified in the "Planning Partner Expectations" package provided to each partner at the beginning of the process, or the plan maintenance and implementation procedures specified in Volume 1 of the plan. Each partner agreed to these terms by adopting the plan.

Eligibility status of the planning partnership will be monitored by the POC. The determination of whether a partner is meeting its participation requirements will be based on the following parameters:

- Are partners notifying the POC of changes in designated points of contact?
- Are the partners supporting the Steering Committee by attending designated meetings or responding to needs identified by the body?
- Are the partners continuing to be supportive as specified in the planning partners expectations package provided to them at the beginning of the process?

Participation in the plan does not end with plan approval. This partnership was formed on the premise that a group of planning partners would pool resources and work together to strive to reduce risk within the planning area. Failure to support this premise lessens the effectiveness of this effort. The following procedures will be followed to remove a partner due to the lack of participation:

- The POC will advise the Steering Committee of this pending action and provide evidence or justification for the action. Justification may include: failure to attend meetings determined to be mandatory by the Steering Committee, failure to act on the partner's action plan, or inability to reach designated point of contact after a minimum of five attempts.
- The Steering Committee will review information provided by POC, and determine action by a vote. The Steering Committee will invoke the voting process established in the ground rules established during the formation of this body.
- Once the Steering Committee has approved an action, the POC will notify the planning partner of the pending action in writing via certified mail. This notification will outline the grounds for the action, and ask the partner if it is their desire to remain as a partner. This notification shall also clearly identify the ramifications of removal from the partnership. The partner will be given 30 days to respond to the notification.
- Confirmation by the partner that they no longer wish to participate or failure to respond to the notification shall trigger the procedures for voluntary removal discussed above.
- Should the partner respond that they would like to continue participation in the partnership, they must clearly articulate an action plan to address the deficiencies identified by the POC. This action plan shall be reviewed by the Steering Committee to determine whether the actions are appropriate to rescind the action. Those partners that satisfy the Steering Committee's review will remain in the partnership, and no further action is required.
- Automatic removal from the partnership will be implemented for partners where these actions have to be initiated more than once in a 5-year planning cycle.

2021 Multijurisdictional Local Hazard Mitigation Plan

# Appendix C. Annex Instructions and Templates

# INSTRUCTIONS FOR COMPLETING CITY/COUNTY ANNEX TEMPLATE

Jurisdictional annex templates for the *2021 San Mateo Multijurisdictional Local Hazard Mitigation Plan* update will be completed in three phases. **This document provides instructions for completing all phases of the template for cities and counties.**

The target timeline for completion is as follows:

- Phase 1—Team, Profile, Trends, and Previous Plan Status
  - **Deployed:** February 19, 2021
  - **Due:** March 19, 2021 by close of business
- Phase 2—Capability Assessment, Integration Review, and Information Sources
  - **Deployed:** April 2, 2021
  - **Due:** May 21, 2021 by close of business, Pacific Time
- **Phase 3**—Risk Assessment, Action Plan, Information Sources, Future Needs, and Additional Comments
  - **Deployed:** June 11, 2021
  - **Mandatory Phase 3 Workshops**: Targeted for the week of June 14. We will schedule multiple workshops during that week to provide options for attendance
  - **Due**: July 23, 2021 by close of business, Pacific Time

Direct any questions about your Phase 3 template to:


**Bart Spencer**
**Tetra Tech**
**Phone: (650) 324-1810**
**E-mail:** *bart.spencer@tetratech.com*


Submit your completed Phase 3 template in electronic format to:


**Megan Brotherton**
**Tetra Tech**
**Phone: (808) 339-9119**
**E-mail:** *megan.brotherton@tetratech.com*


### A Note About Formatting

The template for the annex is a Microsoft Word document in a format that will be used in the final plan. Partners are asked to use this template so that a uniform product will be completed for each partner.

Content should be entered directly into the template rather than creating text in another document and pasting it into the template. Text from another source may alter the formatting of the document.

**DO NOT** convert this document to a PDF.

The section and table numbering in the document will be updated when completed annexes are combined into the final document. Please do not adjust any of the numbering.

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For planning partners who participated in the 2016 planning effort, relevant information has been brought over to the 2021 template. Fields that require attention have been highlighted using the following color coding:

- **Green:** Text has been brought over from 2016 Plan and should be reviewed and updated as needed.
- **Blue:** This is a new field that will require information that was not included in 2016.

***Un-highlight each field that you update so that reviewers will know an edit has been made.***

New planning partners will need to complete the template in its entirety.

# IMPORTANT! READ THIS FIRST

Phase 1 and Phase 2 templates were previously provided to your jurisdiction for completion.

If your jurisdiction returned the completed Phase 1 & 2 templates:

- The Phase 1 & 2 content you provided is already incorporated into your Phase 3 template.
- Review the template to see if we have inserted any comments requesting further work to be done on Phase 1 or 2
  - ***If any comments are included, address them.*** Then, begin your work on Phase 3 following the Phase 3 instructions beginning on page 12.
  - If no comments are included, then you **DO NOT** need to do any further work on the Phase 1 or Phase 2 content. ***Go directly to the instructions for Phase 3, beginning on page*** 12***.***

If your jurisdiction has **NOT** yet done any work on the Phase 1 or Phase 2 template:

- Follow the instructions beginning on page 3 for providing the Phase 1 and Phase 2 information.
- Then proceed with the Phase 3 instructions beginning on page 12.

If your jurisdiction started work on the Phase 1 or 2 template but never completed and submitted it, copy the work you had completed so far into the new template. Then complete Phases 1, 2, and 3 following the instructions provided here.

**PHASE 1 INSTRUCTIONS**

# CHAPTER TITLE

In the chapter title at the top of Page 1, type in the complete official name of your municipality (e.g., City of Pleasantville, West County). Do not change the chapter number. Revise only the jurisdiction name. If your jurisdiction's name has already been entered, verify that wording and spelling are correct; revise as needed.

# LOCAL HAZARD MITIGATION PLANNING TEAM

## Points of Contact

Provide the name, title, mailing address, telephone number, and e-mail address for the primary point of contact for your jurisdiction. This should be the person responsible for monitoring, evaluating and updating the annex for your jurisdiction. This person should also be the principle liaison between your jurisdiction and the Steering Committee overseeing development of this plan.

In addition, designate an alternate point of contact. This would be a person to contact should the primary point of contact be unavailable or no longer employed by the jurisdiction.

*Note: Both of these contacts should match the contacts that were designated in your jurisdiction's letter of intent to participate in this planning process. If you have changed the primary or secondary contact, let the planning team know by inserting a comment into the document.*

**Who Should Be on the Local Mitigation Planning Team**

The Local Hazard Mitigation Planning Team is responsible for developing your jurisdiction's annex to the hazard mitigation plan. Team membership should represent agencies with authority to regulate development and enforce local ordinances or regulatory standards, such as building/fire code enforcement, emergency management, emergency services, floodplain management, parks and recreation, planning/ community development, public information, public works/ engineering, stormwater management, transportation, or infrastructure.

## Participating Planning Team

Populate Table 1-1 with the names of staff from your jurisdiction who participated in preparing this annex or otherwise contributed to the planning process for this hazard mitigation plan.

# JURISDICTION PROFILE

Provide information specific to your jurisdiction as indicated, in a style similar to the examples provided below. This should be information that will not be provided in the overall mitigation plan document.

## Location and Features

Describe the community's location, size and prominent features, in a statement similar to the example below:

> **EXAMPLE:** The City of Jones is in the northwest portion of Smith County, along the Pacific Coast in northern California. It is almost 150 miles northeast of San Francisco. The city's total area is 4.2 square miles, with boundaries generally extending north-south from State Highway 111 to the

Johnson River and east-west from Coast Road to East Frank Avenue. The City of Allen is to the north, unincorporated county is to the west, the City of Bethany is to the south, and the Pacific Ocean is to the west.

Jones is home to the University of Arbor, Bickerson Manufacturing, and the western portion of Soosoo National Park. Significant geographic features include the Watery River, which flows southwest across the city, Lake Splash in the city's northwest corner, and the foothills of the Craggy Mountains on the east side.

## History

Describe the community's history, focusing on economy and development, and note its year of incorporation, in a statement similar to the example below:

**EXAMPLE:** The City of Jones was incorporated in 1858. The area was settled during the gold rush in the 1850s as a supply center for miners. As the gold rush died down, timber and fishing became the area's major economic resources. By 1913, the Jones Teachers College, a predecessor to today's University of Arbor, was founded. Recently, the presence of the college has come to shape Jones' population into a young and educated demographic. In 1981 the City developed the Jones Marsh and Wildlife Sanctuary, an environmentally friendly sewage treatment enhancement system.

With numerous annexations since its original incorporation, the city's area has almost doubled. Today it features a commercial core in the center of the city, with mostly residential areas to the north and south, the university to the west and the national park on the east.

## Governing Body Format

Describe the community's key governance elements and staffing, in a statement similar to the example below:

**EXAMPLE:** The City of Jones is governed by a five-member city council. The City consists of six departments: Finance, Environmental Services, Community Development, Public Works, Police, and the City Manager's Office. The City has 13 commissions and task forces, which report to the City Council. The City currently employs a total of 155 employees (full-time equivalent).

The City Council assumes responsibility for the adoption of this plan; the City Manager will oversee its implementation.

# CURRENT TRENDS

## Population

Provide the most current population estimate for your jurisdiction based on an official means of tracking (e.g., the U.S. Census or state agency that develops population estimates). Describe the current estimate and recent population trends in a statement similar to the example below.

**EXAMPLE:** According to California Department of Finance, the population of Jones as of July 2020 was 17,280. Since 2010, the population has grown at an average annual rate of 1.2 percent, though that rate is declining, with an annual average of only 0.8 percent since 2016.

## Development

In the highlighted text that says "Describe trends in general," provide a brief description of your jurisdiction's recent development trends in a statement similar to the example below:

> **EXAMPLE:** Anticipated future development for Jones is low to moderate, consisting primarily of residential growth. Recent development has been mostly infill. There has been a focus on affordable housing and a push for more secondary mother-in-law units. Future growth in the City will be managed as identified in the City's 2018 general plan. City actions, such as those relating to land use, annexations, zoning, subdivision and design review, redevelopment, and capital improvements, must be consistent with the plan.

Complete the table titled "Recent and Expected Future Development Trends." Note:

- The portion of the table requesting the number of permits by year is specifically looking for development permits for **new** construction. If your jurisdiction does not have the ability to differentiate between permit types, list the total number of permits and indicate "N/A" (not applicable) for the permit sub-types.
- If your jurisdiction does not have the ability to track permits by hazard area, delete the bullet list of hazard areas and insert a qualitative description of where development has occurred.

# STATUS OF PREVIOUS PLAN ACTIONS

***Note that this section only applies to jurisdictions that are conducting updates to previously approved hazard mitigation plans. If your jurisdiction has not previously participated in an approved plan, enter an "X" in the box at the beginning of this section and do not complete the section. We will remove this section from your final annex.***

***Also note that this section is further back in the annex than the rest of the Phase 1 content. Some Phase 2 sections are included before it.***

All action items identified in prior mitigation plans must be reconciled in this update. Action items must all be marked as **ONE** of the following; check the appropriate box (place an X) and provide information as follows:

- **Completed**—If an action has been completed since the prior plan was prepared, check the "Completed" box and **provide a date of completion in the comment section**. If an action has been initiated and is an ongoing program (e.g. annual outreach event), you may mark it as completed and **note that it is ongoing in the comments**. If an action addresses an ongoing program you would like to continue to include in your action plan, see the "Carried Over to Plan Update" bullet below.
- **Removed**—If action items are to be removed because they are no longer feasible, a reason must be given. Lack of funding does not mean that it is no longer feasible, unless the sole source of funding for an action is no longer available. **Place a comment in the comment section explaining why the action is no longer feasible or barriers that prevented the action from being implemented (e.g., "Action no longer considered feasible due to lack of political support.").** If the wording and/or intent of a previously identified action is unclear, this can be a reason for removal. A change in community priorities may also be a reason for removal and should be discussed in the comments.
- **Carried Over to Plan Update**—If an action is in progress, is ongoing, or has not been initiated and you would like to carry it over to the plan update, check the "Check if Yes" column under "Carried Over to Plan Update." Selecting this option indicates that the action will be included in the mitigation action

plan for this update. If you are carrying over an action to the update, **include a comment describing any action that has been taken or why the action was not taken** (specifically, any barriers or obstacles that prevented the action from moving forward or slowed progress). Leave the last column, "Action # in Update," blank at this point. This will be filled in after completing the updated action plan in Phase 3.

Ensure that you have provided **a status and a comment for each action.**

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, all action items from your jurisdiction's previous hazard mitigation plan that are marked as "Carried Over to Plan Update" will need to be included in the action plan.

THIS COMPLETES PHASE 1

**PHASE 2 INSTRUCTIONS**

# CAPABILITY ASSESSMENT

***Note that it is unlikely that one person will be able to complete all sections of the capability assessment alone. The primary preparer will likely need to reach out to other departments within the local government for information. It may be beneficial to provide these individuals with background information about this planning process, as input from them will be needed again during Phase 3 of the annex development.***

## Planning and Regulatory Capability

In the table titled "Planning and Regulatory Capability," indicate "Yes" or "No" for each listed code, ordinance, requirement or planning document in each of the following columns:

- Local Authority—Enter "Yes" if your jurisdiction has prepared or adopted the identified item; otherwise, enter "No." If yes, then enter the code, ordinance number, or plan name and its date of adoption in the comments column. ***Note: If you enter yes, be sure to provide a comment with the appropriate code, ordinance or plan and date of adoption.***
- Other Jurisdiction Authority—Enter "Yes" if another agency (e.g., a state agency or special purpose district) enforces or administers the identified item in a way that may impact your jurisdiction or if any state or federal regulations or laws would prohibit local implementation of the identified item; otherwise, enter "No." ***Note: If you enter yes, be sure to provide a comment indicating the other agency and its relevant authority.***
- State Mandated—Enter "Yes" if state laws or other requirements enable or require the listed item to be implemented at the local level; otherwise, enter "No." ***Note: If you enter yes, be sure to provide a comment describing the relevant state mandate.***
- Integration Opportunity—Enter "Yes" if there are obvious ways that the code, ordinance or plan can be coordinated with the hazard mitigation plan. Consider the following:
  - If you answered "Yes" in the Local Authority column for this item, then enter "Yes" for integration opportunity if any of the following are true:
    - The item already addresses hazards and their impacts and should be updated to reflect new information about risk from this hazard mitigation plan
    - The item does not address hazards and their impacts but is due for an update in the next 5 years and could be updated in a way that does address hazards and impacts
    - The item identifies projects for implementation and these could be reviewed to determine if they can be modified to help address hazard mitigation goals
    - The item identifies projects for implementation and some of these should be considered for inclusion in the hazard mitigation action plan for your jurisdiction
  - If you answered "No" in the Local Authority column for this item, then enter "Yes" for integration opportunity if your jurisdiction will develop the item over the next 5 years

    ***Note: Each capability with a "Yes" answer to Integration Opportunity will be discussed in more detail later in the annex. You may wish to keep notes when assessing the Integration Opportunity or review the "Integration with Other Planning Initiatives" section below.***
- Comments—Enter the code number and adoption date for any local code indicated as being in place; provide other comments as appropriate to describe capabilities for each entry. DO NOT OVERLOOK THIS STEP

For the categories "General Plan" and "Capital Improvement Plan," answer the specific questions shown, in addition to completing the four columns indicating level of capability.

## Development and Permit Capability

Complete the table titled "Development and Permitting Capabilities."

## Fiscal Capability

Complete the table titled "Fiscal Capability" by indicating whether each of the listed financial resources is accessible to your jurisdiction. Enter "Yes" if the resource is fully accessible to your jurisdiction. Enter "No" if there are limitations or prerequisites that may hinder your use of this resource.

## Administrative and Technical Capability

Complete the table titled "Administrative and Technical Capability" by indicating whether your jurisdiction has access to each of the listed personnel resources. Enter "Yes" or "No" in the column labeled "Available?". If yes, then enter the department and position title. If you have contract support with these capabilities, you can still answer "Yes." Indicate in the department row that this resource is provided through contract.

## Education and Outreach Capability

Complete the table titled "Education and Outreach."

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, review all the above capability assessment tables and consider including actions to provide a capability that your jurisdiction does not currently have, update a capability that your jurisdiction does have, or implement an action that is recommended in an existing plan or program.

## National Flood Insurance Program Compliance

Complete the table titled "National Flood Insurance Program Compliance."

## Community Classifications

Complete the table titled "Community Classifications" to indicate your jurisdiction's participation in various national programs related to natural hazard mitigation. For each program enter "Yes" or "No" in the second column to indicate whether your jurisdiction participates. If yes, then enter the classification that your jurisdiction has earned under the program in the third column and the date on which that classification was issued in the fourth column; enter "N/A" in the third and fourth columns if your jurisdiction is not participating. If you do not know your current classification, information is available at the following websites:

- Community Rating System— https://www.fema.gov/floodplain-management/community-rating-system

- **Building Code Effectiveness Grading Schedule**— https://www.isomitigation.com/bcegs/iso-s-building-code-effectiveness-grading-schedule-bcegs.html
- **Public Protection Classification**— https://www.isomitigation.com/ppc/
- **Storm Ready**— https://www.weather.gov/stormready/communities
- **Firewise**— http://www.firewise.org/usa-recognition-program/map-of-active-participants.aspx

## Adaptive Capacity for Climate Change

Consider climate change impact concerns such as the following:

- Reduced snowpack
- Increased wildfires
- Sea level rise
- Inland flooding
- Threats to sensitive species
- Loss in agricultural productivity
- Public health and safety.

With those impacts in mind, complete the table titled "Adaptive Capacity for Climate Change" by indicating your jurisdiction's capacity for each listed criterion as follows:

- **High**—The capacity exists and is in use.
- **Medium**—The capacity may exist, but is not used or could use some improvement.
- **Low**—The capacity does not exist or could use substantial improvement.
- **Unsure**—Not enough information is known to assign a rating.

This is a subjective assessment, but providing a few words of explanation is useful. It is highly recommended that you complete this table with an internal planning team after reviewing the results of the other capability assessment tables.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, review all the adaptive capacity criteria and consider including actions to improve the rating for those rated medium or low, to make use of the capacity for those rated high, or to acquire additional information for those rated unsure.

# INTEGRATION REVIEW

For hazard mitigation planning, "integration" means that hazard mitigation information is used in other relevant planning mechanisms, such as general planning and capital facilities planning, and that relevant information from those sources is used in hazard mitigation. FEMA recommends integration as follows:

- Integrate hazard mitigation plan goals with community objectives (e.g. incorporate the goals for risk reduction and safety into the policies of other plans).
- Use the risk assessment to inform plans and policies (e.g. incorporate risk assessment findings into land use plans, site plan review, emergency operations plans).
- Implement mitigation actions through existing mechanisms (e.g. include mitigation projects in the capital improvement plan).
- Think about mitigation before and after a disaster (e.g. build recovery planning on existing mitigation plans and goals).

After reviewing the plans, programs and ordinances identified in the capability assessment tables, identify all plans and programs that have already been integrated with the hazard mitigation plan, and those that offer opportunities for future integration. The simplest way to do this is to review the Planning and Regulatory Capabilities table to see which items were marked as "Yes" under the Integration Opportunity column.

## Existing Integration

In the highlighted bullet list, list items for which you entered "Yes" under the Integration Opportunity column of the "Planning and Regulatory Capability" table because the plan or ordinance already addresses potential impacts or includes specific projects that should be included as action items in the mitigation action plan. Consider listing items marked as Completed in the "Status of Previous Plan Actions" table if they were indicated as being ongoing actions. Provide a brief description of how the plan or ordinance is integrated. Examples are as follows:

- Capital Improvement Plan—The capital improvement plan includes projects that can help mitigate potential hazards. The City will act to ensure consistency between the hazard mitigation plan and the current and future capital improvement plans. The hazard mitigation plan may identify new possible funding sources for capital improvement projects and may result in modifications to proposed projects based on results of the risk assessment.
- Building Code and Fire Code—The City's adoption of the 2016 California building and fire codes incorporated local modifications to account for the climatic, topographic and geographic conditions that exist in the City.
- General Plan—The general plan includes a Safety Element to protect the community from unreasonable risk by establishing policies and actions to avoid or minimize the following hazards:
  - Geologic and seismic hazards
  - Fire hazards
  - Hazardous materials
  - Flood control
  - Impacts from climate change.
- Climate Action Plan—The City's Climate Action Plan includes projects for reducing greenhouse gas emissions and adapting to likely impacts of climate change. These projects were reviewed to identify cross-planning initiates that serve both adaptation and mitigation objectives.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, any plans that fall into the "Existing Integration" category should be reviewed and elements from them should be included in the action plan as appropriate.

## Opportunities for Future Integration

List any remaining items that say "Yes" in the Integration Opportunity column in the Planning and Regulatory Capabilities table and explain the process by which integration could occur. Examples follow:

- **Zoning Code**—The City is conducting a comprehensive update to its zoning code. Additional mitigation and abatement measures will be considered for incorporation into the code.
- **Capital Improvement Projects**—Capital improvement project proposals may take into consideration hazard mitigation potential as a means of evaluating project prioritization.
- **Post-Disaster Recovery Plan**—The City does not have a recovery plan and intends to develop one as a mitigation planning action during the next five years. The plan will build on the goals and objectives identified in the hazard mitigation plan.

After you have accounted for all items marked as "Yes" under the Integration Opportunity column, consider other programs you may have in place in your jurisdiction that include routine consideration and management of hazard risk. Examples of such programs may include: tree pruning programs, right-of-way mowing programs, erosion control or stream maintenance programs, etc. Add any such programs to the integration discussion and provide a brief description of how these programs manage (or could be adapted to manage) risk from hazards.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, an action to integrate any identified "Opportunities for Future Integration" should be considered for inclusion in the action plan.

# INFORMATION SOURCES USED FOR THIS ANNEX

***Note that this section will ultimately describe all information sources used to develop this annex, but that only the sources used for Phases 1 and 2 will be listed at this point. Additional sources will be added with the preparation of the Phase 3 annex.***

This section should describe what resources you used to complete the annex and how you used them. Several items are started for you, but be sure to update and enhance any descriptions. Providing this information is a requirement to pass the state and FEMA review process.

THIS COMPLETES PHASE 2

**PHASE 3 INSTRUCTIONS**

# RISK ASSESSMENT

## Jurisdiction-Specific Natural Hazard Event History

In the table titled "Past Natural Hazard Events," list in chronological order (most recent first) any natural hazard event that has caused damage to your jurisdiction. Include the date of the event and the estimated dollar amount of damage it caused. You are welcome to include any events, but special attention should be made to include major storms and federally declared disasters. Refer to the table below that lists hazard events in the planning area as recognized by the County, the state, and the federal government.

**Table 1.** Presidential Disaster Declarations for the Planning Area

| Dates | FEMA Disaster #/Event Name | County Emergency Op. Center Activated | Gubernatorial Declaration | Presidential Declaration |
|---|---|---|---|---|
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We recommend including most large-scale disasters, unless you know that there were no impacts on your jurisdiction. Specifically, we recommend that you include these events if you have damage estimate information or can provide a brief description of impacts that occurred within your community. In addition to these events, refer to the NOAA storm events database included in the toolkit. We recommend conducting a search for the name of your jurisdiction in order to identify events with known impacts. Other potential sources of damage information include the following

- Preliminary damage estimates your jurisdiction filed with the county or state
- Insurance claims data
- Newspaper archives
- Emergency management documents (general plan safety element, emergency response plan, etc.)
- Resident input.

If you do not have estimates for costs of damage caused, list "Not Available" in the "Damage Assessment" column or list a brief description of the damage rather than a dollar value (e.g., Main Street closed as a result of flooding, downed trees and residential damage). Note that tracking such damage is a valid and useful mitigation action if your jurisdiction does not currently track such information.

## Hazard Risk Ranking

Risk ranking identifies which hazards pose the greatest risk to the community, based on how likely it is for each hazard to occur (this is called the community's exposure) and how great an impact each hazard will have if it does occur (this is called the community's vulnerability). Every jurisdiction has differing degrees of risk exposure and vulnerability and therefore needs to rank risk for its own area. The risk ranking for each jurisdiction has been calculated in the "Loss Matrix" spreadsheet included in the annex preparation toolkit. The ranking is on the basis of risk ranking scores for each hazard that were calculated based on the hazard's probability of occurrence and its potential impact on people, property and the economy.

The results for your jurisdiction have already been entered into the "Hazard Risk Ranking" table in your Phase 3 annex template. The hazard with the highest risk rating is listed at the top of table and was given a rank of 1; the hazard with the second highest rating is listed second with a rank of 2; and so on. Two hazards with equal risk ranking scores were given the same rank. Hazards were assigned to "High," Medium," or "Low" risk categories based on the risk ranking score. If you wish to review the calculations in detail, the appendix at the end of these instructions describes the calculation methodology that the spreadsheet uses.

Review the hazard risk ranking information that is included in your annex. If these results differ from what you know based on substantiated data and documentation, you may alter the ranking and risk categories based on this knowledge. If you do so, indicate the reason for the change in your template. For example:

> "Drought was ranked as low; however, the jurisdiction's economy is heavily reliant on water-using industries, such as agriculture or manufacturing, so this hazard should be ranked as medium."

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, you will need to have at least one mitigation action for each hazard ranked as "high" or "medium."

# Jurisdiction-Specific Vulnerabilities

## Repetitive Loss Properties

A repetitive loss property is any property for which FEMA has paid two or more flood insurance claims in excess of $1,000 in any rolling 10-year period since 1978. In the space provided, the following information has been included in your annex based on data provided by FEMA:

- The number of any FEMA-identified repetitive-loss properties in your jurisdiction.
- The number of any FEMA-identified severe-repetitive-loss properties in your jurisdiction.
- The number (if any) of repetitive-loss or severe-repetitive-loss properties in your jurisdiction that have been mitigated. Mitigated for this exercise means that flood protection has been provided to the structure.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, if your jurisdiction has any repetitive loss properties, you should strongly consider including a mitigation action that addresses mitigating these properties.

## Other Noted Vulnerabilities

Review the results of the risk assessment included in the toolkit, your jurisdiction's natural events history, and any relevant public comments/input, then develop a few sentences that discuss specific hazard vulnerabilities. You do not need to develop a sentence for every hazard, but identify a few issues you would like to highlight. Also list any known hazard vulnerabilities in your jurisdiction that may not be apparent from the risk assessment and other information provided.

Spending some time thinking about the results of the risk assessment and other noted vulnerabilities will be a big help in the development of your hazard mitigation action plan. The following are examples of vulnerabilities you could identify through this exercise:

- About 45 percent of the population lives in the 0.2 percent annual chance flood hazard area, where flood insurance is generally not required.
- A magnitude 7.5 earthquake on the Smithburg Fault is estimated to produce nearly 1 million tons of structure debris.
- Over the past 10 years, the jurisdiction has experienced more than $6 million in damage from severe storm events.
- More than 50 buildings are located in areas that would be permanently inundated with 12 inches of sea level rise.
- The results of the public survey indicated that 40 percent of Smithburg residents would not be able to be self-sufficient for 5 days following a major event.
- An urban drainage issue at a specific location results in localized flooding every time it rains.
- One area of the community frequently loses power due to a lack of tree maintenance.

- A critical facility, such as a police station, is not equipped with a generator.
- A neighborhood has the potential to have ingress and egress cut off as the result of a flood or earthquake (e.g. a bridge is the only access).
- Substantial number of buildings in one area of the community are unreinforced masonry or soft-story construction.
- An area along the river is eroding and threatening public and/or private property.
- A large visitor population that may not be aware of tsunami risk.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, consider including actions to address the jurisdiction-specific vulnerabilities listed in this section.

# HAZARD MITIGATION ACTION PLAN

## Hazard Mitigation Action Plan Matrix

The hazard mitigation action plan is the heart of your jurisdictional annex. This is where you will identify the actions your jurisdiction would like to pursue with this plan.

### Select Recommended Actions

All of the work that you have done thus far should provide you with ideas for actions. Throughout these instructions, green boxes labeled "Hazard Mitigation Action Plan Input" have indicated information that needs to be considered in the selection of mitigation actions. The following sections describe how to consider these and other information sources to develop a list of potential actions.

Be sure to consider the following factors in your selection of actions:

- Select actions that are consistent with the overall purpose, goals, and objectives of the hazard mitigation plan.
- Identify actions where benefits exceed costs.
- Include any action that your jurisdiction has committed to pursuing, regardless of eligibility from outside funding sources (grants, non-profit funding, donations, etc.).
- Know what is and is not eligible for funding under various federal programs (see the fact sheet on FEMA hazard mitigation grant programs in the annex preparation toolkit and the table below).

**Table 2.** Federal Hazard Mitigation Grant Program Eligibility by Action Type

| Eligible Activities | Hazard Mitigation Grant Program (HMGP) | Pre-Disaster Mitigation (PDM) | Flood Mitigation Assistance (FMA) |
|---|---|---|---|
| **Mitigation Projects** | | | |
| Property Acquisition and Structure Demolition | √ | √ | √ |
| Property Acquisition and Structure Relocation | √ | √ | √ |
| Structure Elevation | √ | √ | √ |
| Mitigation Reconstruction | √ | √ | √ |
| Dry Floodproofing of Historic Residential Structures | √ | √ | √ |
| Dry Floodproofing of Non-residential Structures | √ | √ | √ |
| Generators | √ | √ | |
| Localized Flood Risk Reduction Projects | √ | √ | √ |
| Non-Localized Flood Risk Reduction Projects | √ | √ | |
| Structural Retrofitting of Existing Buildings | √ | √ | √ |
| Non-structural Retrofitting of Existing Buildings and Facilities | √ | √ | √ |
| Safe Room Construction | √ | √ | |
| Wind Retrofit for One- and Two-Family Residences | √ | √ | |
| Infrastructure Retrofit | √ | √ | √ |
| Soil Stabilization | √ | √ | √ |
| Wildland fire Mitigation | √ | √ | |
| Post-Disaster Code Enforcement | √ | | |
| Advance Assistance | √ | | |
| 5 Percent Initiative Projects* | √ | | |
| Aquifer and Storage Recovery** | √ | √ | √ |
| Flood Diversion and Storage** | √ | √ | √ |
| Floodplain and Stream Restoration** | √ | √ | √ |
| Green Infrastructure** | √ | √ | √ |
| Miscellaneous/Other** | √ | √ | √ |
| **Hazard Mitigation Planning** | √ | √ | √ |
| **Technical Assistance** | | | √ |
| **Management Costs** | √ | √ | √ |

* FEMA allows increasing the 5% initiative amount under the Hazard Mitigation Grant Program up to 10% for a presidential major disaster declaration. The additional 5% initiative funding can be used for activities that promote disaster-resistant codes for all hazards. As a condition of the award, either a disaster-resistant building code must be adopted or an improved Building Code Effectiveness Grading Schedule is required.

** Indicates that any proposed action will be evaluated on its own merit against program requirements. Eligible projects will be approved provided funding is available.

## *Material Previously Developed for This Annex*

Capability Assessment Section—Planning and Regulatory Capability Table, Fiscal Capability Table, Administrative and Technical Capability Table, Education and Outreach Table, and Community Classification Table

Review these tables and consider the following:

- For any capability that you do not currently have, consider whether your jurisdiction should have this capability. If so, consider including an action to develop/acquire the capability.
- For any capability that you do currently have, consider whether this capability can be leveraged to increase or improve hazard mitigation in the jurisdiction.
- If any capabilities listed in the Planning and Regulatory Capabilities table have not been updated in more than 10 years, consider an action to review and update the capability and, as appropriate, incorporate hazard mitigation principles or information obtained in the risk assessment.
- Consider including actions that are identified in other plans and programs (capital improvement plans, strategic plans, etc.) as actions in this plan.

Capability Assessment Section—National Flood Insurance Program Compliance table

Review the table and consider the following:

- If you have no certified floodplain managers and you have flood risk, consider adding an action to provide key staff members with training to obtain certification.
- If your flood damage prevention was last updated in or before 2004, you should identify an action to update your ordinance to ensure it is compliant with current NFIP requirements.
- If you have any outstanding NFIP compliance issues, be sure to add an action to address them.
- If flood hazard maps do not adequately address the flood risk within your jurisdiction, consider actions to request new mapping or conduct studies.
- If you wish to begin to participate in CRS or you already to participate and would like to improve your classification, consider this as an action.
- If the number of flood insurance polices in your jurisdiction is low relative to the number of structures in the floodplain, consider an action that will promote flood insurance in your jurisdiction.

Capability Assessment Section— Adaptive Capacity for Climate Change Table

Consider your responses to this section:

- For criteria that you listed as medium or low, think of ways you could improve this rating (see adaptive capacity portion of the mitigation best practices catalog).
- For criteria you listed as high, think about how you can leverage this capacity to improve or enhance mitigation or continue to improve this capacity.
- For criteria that you were unable to provide responses for, consider ways you could improve your understanding of this capacity (see mitigation best practices and adaptive capacity catalog).

### Integration Review Section

Review the items you identified in this section and consider an action that specifically says what the plan, code, ordinance etc. is and how it will be integrated. For items that address land use, include them in the prepopulated action in your template that reads as follows:

> "Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including _____."

### Risk Ranking Section

You must identify at least one mitigation action that is clearly defined and actionable (i.e. not a preparedness or response action) for every hazard that is categorized in the risk ranking as "high" or "medium" risk.

### Jurisdiction-Specific Vulnerabilities Section

Review the vulnerability issues that you identified in this section and consider actions to address them (see mitigation best practices catalog). Two examples are shown in the table below.

**Table 3.** Example Actions to Address Jurisdiction-Specific Vulnerabilities

| Noted Vulnerability | Example Mitigation Action |
|---|---|
| **About 45 percent of the population lives in the 0.2 percent annual chance flood hazard area where flood insurance is generally not required.** | Implement an annual public information initiative that targets residents in the 0.2 percent annual chance flood hazard area. Provide information on the availability of relatively low cost flood insurance policies. |
| **An urban drainage issue results in localized flooding every time it rains.** | Replace undersized culverts that are contributing to localized flooding. Priority areas include:<br>• The corner of Main Street and 1st Street<br>• Old Oak subdivision. |

### Status of Previous Plan Actions Section

If your jurisdiction participated in a previous hazard mitigation plan, be sure to include any actions that were identified as "carry over" actions.

## *Other Sources*

### Mitigation Best Practices Catalog

A catalog that includes best practices identified by FEMA and other agencies, as well as recommendations from the steering committee and other stakeholders, is included in your toolkit. Review the catalog and identify actions your jurisdiction should consider for its action plan.

### Public Input

Review input received during the process, specifically the public survey results included in your toolkit.

### Common Actions for All Partners

The following six actions have been prepopulated in your annex template; **these six actions should be included in every annex and should not be removed**:

- Where appropriate, support retro-fitting, purchase or relocation of structures located in high hazard areas, prioritizing those structures that have experienced repetitive losses and/or are located in high or medium ranked hazard.
- Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions within the community.
- Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.
- Continue to maintain good standing and compliance under the NFIP through implementation of floodplain management programs that, at a minimum, meet the NFIP requirements:
  - Enforce the flood damage prevention ordinance.
  - Participate in floodplain identification and mapping updates.
  - Provide public assistance/information on floodplain requirements and impacts.
- Identify and pursue strategies to increase adaptive capacity to climate change.
- Purchase generators for critical facilities and infrastructure that lack adequate back-up power.

In addition, the core planning team recommends that every planning partner strongly consider the following actions:

- Develop and implement a program to capture perishable data after significant events (e.g. high water marks, preliminary damage estimates, damage photos) to support future mitigation efforts including the implementation and maintenance of the hazard mitigation plan.
- Support the County-wide initiatives identified in Volume I of the hazard mitigation plan.
- Develop a post-disaster recovery plan and a debris management plan.
- Develop and/or update plans that support or enhance continuity of operations following disasters.

The specifics of all these common actions should be adjusted as needed for the particulars of each community.

## Complete the Table

Complete the table titled “Hazard Mitigation Action Plan Matrix” for all the actions you have identified and would like to include in the plan:

- Enter the action number (see box on next page) and description. **If the action is carried over from your previous hazard mitigation plan, return to the “Status of Previous Plan Actions” table you completed in Phase 1 and enter the new action number in the column labeled “Action # in Update.”**
- Indicate whether the action mitigates hazards for new and/or existing assets.
- Identify the specific hazards the action will mitigate (note: you must list each hazard by name; simply indicating “all hazards” is not deemed acceptable).
- Identify by number the mitigation plan objectives that the action addresses (see toolkit).
- Indicate who will be the lead in administering the action. This will most likely be a department within your jurisdiction (e.g. planning or public works). If you wish to indicate more than one department as responsible for the action, clearly identify one as the lead agency and list the others in the “supporting agency” column.

- Enter an estimated cost in dollars if known; otherwise, enter "High," "Medium," or "Low," as determined for the prioritization process described in the following section.
- Identify funding sources for the action. If it is a grant, include the grant-providing agency as well as funding sources for any required cost share. If it is another outside funding source such as a non-profit funding source or a donation, include the source and any requirements for receiving the funding. Refer to your fiscal capability assessment to identify possible sources of funding and refer to the table on page 16 of these instructions for project eligibility for FEMA's hazard mitigation assistance grant programs.
- Indicate the time line as "short-term" (1 to 5 years) or "long-term" (5 years or greater) or "ongoing" (a continual program)

**Action Numbering**

Actions are to be numbered using the three-letter code for your jurisdiction shown below, followed by a hyphen and the action's sequential number:

- San Mateo County—SMC-1, SMC-2…
- Atherton City—ATH-1, ATH-2…
- Belmont City—BEL-1, BEL-2…
- Brisbane City—BRS-1, BRS-2…
- Burlingame City—BRL-1, BRL-2…
- Colma City—CLM-1, CLM-2…
- Daly City—DLY-1, DLY-2…
- East Palo Alto City—EPA-1, EPA-2…
- Foster City—FOS-1, FOS-2…
- Half Moon Bay City—HMB-1, HMB-2…
- Hillsborough City—HLS-1, HLS-2…
- Menlo Park City—MPK-1, MPK-2…
- Millbrae City—MLB-1, MLB-2…
- Pacifica City—PAC-1, PAC-2…
- Portola Valley City—PTV-1, PTV-2…
- Redwood City—RDW-1, RDW-2…
- San Bruno City—SBR-1, SBR-2…
- San Carlos City—SCR-1, SCR-2…
- San Mateo City—SMT-1, SMT-2…
- South San Francisco City—SSF-1, SSF-2…
- Woodside City—WDS-1, WDS-2…
- Coastside Water —CSW-1, CSW-2…
- Colma Fire —CFD-1, CFD-2…
- Flood & Sea Level —FSL-1, FSL-2…
- Harbor District —HRB-1, HBR-2
- Highland Recreational —HLD-1, HLD-2…
- Jefferson Union HS —JEF-1, JEF-2…
- Menlo Park Fire —MPF-1, MPF-2…
- Mid-Pen Reg Open Space District —MPR-1, MPR-2…
- Mid-Peninsula Water —MPW-1, MPW-2…
- Montara Water & Sewer —MWS-1, MWS-2…
- North Coast Water —NCW-1, NCW-2…
- Office of Education —OED-1, OED-2…
- San Mateo Community College —SCC-1, SCC-2…
- San Mateo RCD —SRC-1, SRC-2…
- Westborough Water —WBW-1, WBW-2…
- Woodside Fire —WFD-1, WFD-2…

## Mitigation Action Priority

Complete the information in the table titled "Mitigation Action Priority" as follows:

- **Action #**—Indicate the action number from the Hazard Mitigation Action Plan Matrix table.
- **# of Objectives Met**—Enter the number of objectives the action will meet.
- **Benefits**—Enter "High," "Medium" or "Low" as follows:
  - 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.
- **Cost**—Enter "High," "Medium" or "Low" as follows:
  - High—Existing funding will not cover the cost of the action; implementation would require new revenue through an alternative source (for example, outside funding sources, 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.

- **Do Benefits Exceed the Cost?**—Enter "Yes" or "No." This is a qualitative assessment. Enter "Yes" if the benefit rating (high, medium or low) is the same as or higher than the cost rating (high benefit/high cost; high benefit/medium cost; medium benefit/low cost; etc.). Enter "No" if the benefit rating is lower than the cost rating (medium benefit/high cost, low benefit/medium cost; etc.)
- **Is the Action Eligible for Outside Funding Sources?**—Enter "Yes" or "No." For grant funding, refer to the fact sheet on FEMA hazard mitigation grant programs in the annex preparation toolkit and the table on page 16 of these instructions.
- **Can Action Be Funded Under Existing Program Budgets?**—Enter "Yes" or "No." In other words, is this action currently budgeted for, or would it require a new budget authorization or funding from another outside source such as grants, non-profit funding, or donations?
- **Implementation Priority**— Enter "High," "Medium" or "Low" 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 outside funding sources. Action can be completed in the long term (1 to 10 years). Low-priority actions may be eligible for outside funding from programs that have not yet been identified.

- **Outside Funding Source Pursuit Priority**— Enter "High," "Medium" or "Low" as follows:
  - High Priority—An action that meets identified outside funding source 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 to be funded by outside sources.
  - Medium Priority—An action that meets identified outside funding source 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 outside funding source eligibility requirements.

Actions identified as high-outside-funding-pursuit priority actions should be closely reviewed for consideration when outside funding source opportunities arise.

**Note:** If a jurisdiction wishes to identify an action as high priority that is outside of the prioritization scheme for high priorities, a note indicating so should be inserted and a rationale should be provided.

## Analysis of Mitigation Actions

In the table titled "Analysis of Mitigation Actions," for each combination of hazard type and mitigation type, enter the numbers of all recommended actions that address that hazard type and can be categorized as that mitigation type. The mitigation types 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 & 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.

This exercise demonstrates that the jurisdiction has selected a comprehensive range of actions. This table must show at least one action to address each "high" and "medium" ranked hazard. Planning partners should aim to identify at least one action for each mitigation type, but this is not required.

An example of a completed "Analysis of Mitigation Actions" table is provided below. Note that an action can be more than one mitigation type.

**Sample Completed Table – Analysis of Mitigation Actions**

| Hazard Type | Action Addressing Hazard, by Mitigation Type | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Prevention | Property Protection | Public Education & Awareness | Natural Resource Protection | Emergency Services | Structural Projects | Climate Resilience | Community Capacity Building |
| **High-Risk Hazards** | | | | | | | | |
| **Dam Failure** | EX-2, 3, 4, 5, 6 | EX-1, 6 | EX-4, 6 | | EX-8, 11 | | | EX-3, 4, 8, 9, 10 |

| Hazard Type | Action Addressing Hazard, by Mitigation Type | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Prevention | Property Protection | Public Education & Awareness | Natural Resource Protection | Emergency Services | Structural Projects | Climate Resilience | Community Capacity Building |
| **Drought** | EX-2 | EX-1 | EX-4 | | | | | EX-3, 4, 8, 9, 10 |
| **Medium-Risk Hazards** | | | | | | | | |
| **Earthquake** | EX-2, 3, 4, 5, 7 | EX-1, 7 | EX-4 | | EX-8, 11 | | | EX-3, 4, 8, 9 |
| **Flooding** | EX-2, 3, 4, 5, 6, 7 | EX-1, 6, 7 | EX-4, 6 | EX-9 | EX-8, 11 | EX-6 | | EX-3, 4, 8, 9, 10 |
| **Landslide** | EX-2, 3, 4, 5, 7 | EX-1, 7 | EX-4 | | EX-8, 11 | | | EX-3, 4, 8, 9, 10 |
| **Low-Risk Hazards** | | | | | | | | |
| **Severe Weather** | EX-2, 3, 4, 5, 7 | EX-1, 7, 9 | EX-4 | | EX-8, 9, 11 | | EX-8, 7 | EX-3, 4, 8, 9, 10 |
| **Wildfire** | EX-2, 3, 4, 5, 7 | EX-1, 7, 9 | EX-4, 9 | EX-9 | EX-8, 11 | | | EX-3, 4, 8, 9, 10 |

## PUBLIC OUTREACH

FEMA requirements for public outreach will be met by the County's engagement efforts and are included in the main part of the plan. These may include public meetings, a StoryMap, surveys, etc. If individual jurisdictions want to have a more robust outreach for their local community, the public outreach table in each annex may be used to memorialize those local efforts.

This table should record local public outreach efforts made by your jurisdiction to inform the community of the plan update process. Examples may include local surveys on hazard awareness/preparedness, social media blasts, press releases, and outreach to local groups (CERT, senior citizen organizations, etc.) **This section is optional.**

## INFORMATION SOURCES USED FOR THIS ANNEX

This section should describe what resources you used to complete the annex and how you used them. The sources used for Phases 1 and 2 should have been entered previously. List any additional sources used for the preparation of the Phase 3 annex. Review to ensure that all materials used in all three phases are identified. Providing this information is a requirement to pass the state and FEMA review process.

## FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

In this section, identify any future studies, analyses, reports, or surveys your jurisdiction needs to better understand its vulnerability to identified or currently unidentified risks. These could be needs based on federal or state agency mandates. **This section is optional.**

## ADDITIONAL COMMENTS

Use this section to add any additional information pertinent to hazard mitigation and your jurisdiction not covered in this template. **This section is optional.**

THIS COMPLETES PHASE 3

**APPENDIX— Risk Ranking Calculation Methodology**

The instructions below describe the methodology for how risk rankings were derived in the "Loss Matrix" spreadsheet provided with the annex preparation toolkit. The risk-ranking for each hazard assessed its probability of occurrence and its potential impact on people, property, and the economy. Refer to the Loss Matrix spreadsheet in order to follow along.

## Probability of Occurrence

A probability factor is assigned based on how often a hazard is likely to occur. The probability of occurrence of a hazard event is generally based on past hazard events in an area, although weight can be given to expected future probability of occurrence based on established return intervals and changing climate conditions. For example, if your jurisdiction has experienced two damaging floods in the last 25 years, the probability of occurrence is high for flooding and scores a 3 under this category. If your jurisdiction has experienced no damage from landslides in the last 100 years, your probability of occurrence for landslide is low, and scores a 1 under this category. Each hazard was assigned a probability factor as follows:

- High—Hazard event is likely to occur within 25 years (Probability Factor = 3)
- Medium—Hazard event is likely to occur within 100 years (Probability Factor = 2)
- Low—Hazard event is not likely to occur within 100 years (Probability Factor = 1)
- None—There is no exposure to the hazard and no probability of occurrence (Probability Factor = 0)

## Potential Impacts of Each Hazard

The impact of each hazard is divided into three categories: impacts on people, impacts on property, and impacts on the economy. These categories are also assigned weighted values. Impact on people was assigned a weighting factor of 3, impact on property was assigned a weighting factor of 2 and impact on the economy was assigned a weighting factor of 1.

Impact factors for each category (people, property, economy) are described below:

- **People**—Values are assigned based on the percentage of the total ***population exposed*** to the hazard event. The degree of impact on individuals will vary and is not measurable, so the calculation assumes for simplicity and consistency that all people exposed to a hazard because they live in a hazard zone will be equally impacted when a hazard event occurs. Impact factors were assigned as follows:
  - High—25 percent or more of the population is exposed to a hazard (Impact Factor = 3)
  - Medium—10 percent to 24 percent of the population is exposed to a hazard (Impact Factor = 2)
  - Low—9 percent or less of the population is exposed to the hazard (Impact Factor = 1)
  - No impact—None of the population is exposed to a hazard (Impact Factor = 0)
- **Property**—Values are assigned based on the percentage of the total ***property value exposed*** to the hazard event:
  - High—25 percent or more of the total replacement value is exposed to a hazard (Impact Factor = 3)
  - Medium—10 percent to 24 percent of the total replacement value is exposed to a hazard (Impact Factor = 2)
  - Low—9 percent or less of the total replacement value is exposed to the hazard (Impact Factor = 1)

  - No impact—None of the total replacement value is exposed to a hazard (Impact Factor = 0)

- **Economy**—Values were assigned based on the percentage of the total ***property value vulnerable*** to the hazard event. Values represent estimates of the loss from a major event of each hazard in comparison to the total replacement value of the property exposed to the hazard. For some hazards, such as wildland fire and landslide, vulnerability may be considered to be the same or a portion of exposure due to the lack of loss estimation tools specific to those hazards.
  - High—Estimated loss from the hazard is 10 percent or more of the total replacement value (Impact Factor = 3)
  - Medium—Estimated loss from the hazard is 5 percent to 9 percent of the total replacement value (Impact Factor = 2)
  - Low—Estimated loss from the hazard is 4 percent or less of the total replacement value (Impact Factor = 1)
  - No impact—No loss is estimated from the hazard (Impact Factor = 0).

### Impacts on People

The percent of the total population exposed to each hazard of concern with a defined extent and location (e.g. floodplain) can be found in the loss estimate matrix in the **green highlighted column.** For those hazards that do not have a defined extent and location the entire population or a portion of the population is considered to be exposed, depending on the hazard. For the drought hazard, it is common for jurisdictions to list "low" or "none," because all people in the planning area would be exposed to drought, but impacts to the health and safety of individuals are expected to be minimal.

### Impacts on Property

The percent of the total value exposed to each hazard of concern with a defined extent and location (e.g. floodplain) can be found in the loss estimate matrix in the **blue highlighted column.** For those hazards that do not have a defined extent and location (e.g. severe weather) the entire building stock is generally considered to be exposed. For the drought hazard, it is common for jurisdictions to list "low" or "none," because all structures in the planning area would be exposed to drought, but impacts to structures are expected to be minimal.

### Impacts on the Economy

The loss estimates for each hazard of concern that was modeled (i.e. dam failure, flood, earthquake) can be found in the loss estimate matrix in the **purple highlighted column.** For those hazards that have a defined extent and location, but do not have modelled loss results, loss estimates can be the same as exposure or a portion thereof. For example, a large percentage of the building stock may be exposed to landslide or wildland fire risk, but it would not be expected that one event that resulted in loss to all exposed structures would occur. For those hazards that do not have a defined extent and location, exposure is based on the hazard type.

## Risk Rating for Each Hazard

A risk rating for each hazard was determined by multiplying the assigned probability factor by the sum of the weighted impact factors for people, property and the economy:

Risk Rating = Probability Factor x Weighted Impact Factor {people + property + economy}

This is the number that is shown in the risk ranking table in your template. Generally, score of 30 or greater receive a “high” rating, score between 15 and 30 receive a “medium” rating, and score of less than 15 receives a “low” rating.

# INSTRUCTIONS FOR COMPLETING ANNEXES WITH EQUITY LENS FOR CITIES AND COUNTY

# INSTRUCTIONS FOR COMPLETING CITY/COUNTY ANNEX TEMPLATE/ WITH AN EQUITY LENS

*Note Regarding Equity Lensing*: The Core Planning Team and Steering Committee for the *2021 San Mateo County Multijurisdictional Local Hazard Mitigation Plan* update have decided to add another layer of resolution to the risk assessment and action planning portions of this plan update, applying an "equity lens". An equity lens is defined as a critical thinking approach to undoing institutional and structural biases, which evaluates burdens, benefits, and outcomes to underserved communities. Application of the equity lens to risk ranking and action plan prioritization was determined to be "optional" for all planning partners. These instructions have been enhanced to include the equity lens options for Risk Ranking and Action Plan prioritization.

Jurisdictional annex templates for the *2021 San Mateo Multijurisdictional Local Hazard Mitigation Plan* update will be completed in three phases. **This document provides instructions for completing all phases of the template for cities and counties.**

The target timeline for completion is as follows:

- Phase 1—Team, Profile, Trends, and Previous Plan Status
  - **Deployed:** February 19, 2021
  - **Due:** March 19, 2021 by close of business
- Phase 2—Capability Assessment, Integration Review, and Information Sources
  - **Deployed:** April 2, 2021
  - **Due:** May 21, 2021 by close of business, Pacific Time
- **Phase 3**—Risk Assessment, Action Plan, Information Sources, Future Needs, and Additional Comments
  - **Deployed:** June 11, 2021

**A Note About Formatting**

The template for the annex is a Microsoft Word document in a format that will be used in the final plan. Partners are asked to use this template so that a uniform product will be completed for each partner.

Content should be entered directly into the template rather than creating text in another document and pasting it into the template. Text from another source may alter the formatting of the document.

**DO NOT** convert this document to a PDF.

The section and table numbering in the document will be updated when completed annexes are combined into the final document. Please do not adjust any of the numbering.

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For planning partners who participated in the 2016 planning effort, relevant information has been brought over to the 2021 template. Fields that require attention have been highlighted using the following color coding:

- **Green:** Text has been brought over from 2016 Plan and should be reviewed and updated as needed.
- **Blue:** This is a new field that will require information that was not included in 2016.

***Un-highlight each field that you update so that reviewers will know an edit has been made.***

New planning partners will need to complete the template in its entirety.

- **Mandatory Phase 3 Workshops**: Targeted for the week of June 14. We will schedule multiple workshops during that week to provide options for attendance
- **Due**: July 23, 2021 by close of business, Pacific Time

Direct any questions about your Phase 3 template to:

**Bart Spencer**
**Tetra Tech**
**Phone: (650) 324-1810**
**E-mail:** *bart.spencer@tetratech.com*

Submit your completed Phase 3 template in electronic format to:

**Megan Brotherton**
**Tetra Tech**
**Phone: (808) 339-9119**
**E-mail:** *megan.brotherton@tetratech.com*

# IMPORTANT! READ THIS FIRST

Phase 1 and Phase 2 templates were previously provided to your jurisdiction for completion.

If your jurisdiction returned the completed Phase 1 & 2 templates:

- The Phase 1 & 2 content you provided is already incorporated into your Phase 3 template.
- Review the template to see if we have inserted any comments requesting further work to be done on Phase 1 or 2
  - ***If any comments are included, address them.*** Then, begin your work on Phase 3 following the Phase 3 instructions beginning on page 13.
  - If no comments are included, then you **DO NOT** need to do any further work on the Phase 1 or Phase 2 content. ***Go directly to the instructions for Phase 3, beginning on page*** 13***.***

If your jurisdiction has **NOT** yet done any work on the Phase 1 or Phase 2 template:

- Follow the instructions beginning on page 3 for providing the Phase 1 and Phase 2 information.
- Then proceed with the Phase 3 instructions beginning on page 13.

If your jurisdiction started work on the Phase 1 or 2 template but never completed and submitted it, copy the work you had completed so far into the new template. Then complete Phases 1, 2, and 3 following the instructions provided here.

**PHASE 1 INSTRUCTIONS**

# CHAPTER TITLE

In the chapter title at the top of Page 1, type in the complete official name of your municipality (e.g., City of Pleasantville, West County). Do not change the chapter number. Revise only the jurisdiction name. If your jurisdiction's name has already been entered, verify that wording and spelling are correct; revise as needed.

# LOCAL HAZARD MITIGATION PLANNING TEAM

## Points of Contact

Provide the name, title, mailing address, telephone number, and e-mail address for the primary point of contact for your jurisdiction. This should be the person responsible for monitoring, evaluating, and updating the annex for your jurisdiction. This person should also be the principle liaison between your jurisdiction and the Steering Committee overseeing development of this plan.

In addition, designate an alternate point of contact. This would be a person to contact should the primary point of contact be unavailable or no longer employed by the jurisdiction.

*Note: Both of these contacts should match the contacts that were designated in your jurisdiction's letter of intent to participate in this planning process. If you have changed the primary or secondary contact, let the planning team know by inserting a comment into the document.*

**Who Should Be on the Local Mitigation Planning Team**

The Local Hazard Mitigation Planning Team is responsible for developing your jurisdiction's annex to the hazard mitigation plan. Team membership should represent agencies with authority to regulate development and enforce local ordinances or regulatory standards, such as building/fire code enforcement, emergency management, emergency services, floodplain management, parks and recreation, planning/ community development, public information, public works/ engineering, stormwater management, transportation, or infrastructure.

## Participating Planning Team

Populate Table 1-1 with the names of staff from your jurisdiction who participated in preparing this annex or otherwise contributed to the planning process for this hazard mitigation plan.

# JURISDICTION PROFILE

Provide information specific to your jurisdiction as indicated, in a style similar to the examples provided below. This should be information that will not be provided in the overall mitigation plan document.

## Location and Features

Describe the community's location, size, and prominent features, in a statement similar to the example below:

> **EXAMPLE:** The City of Jones is in the northwest portion of Smith County, along the Pacific Coast in northern California. It is almost 150 miles northeast of San Francisco. The city's total area is 4.2 square miles, with boundaries generally extending north-south from State Highway 111 to the

Johnson River and east-west from Coast Road to East Frank Avenue. The City of Allen is to the north, unincorporated county is to the west, the City of Bethany is to the south, and the Pacific Ocean is to the west.

Jones is home to the University of Arbor, Bickerson Manufacturing, and the western portion of Soosoo National Park. Significant geographic features include the Watery River, which flows southwest across the city, Lake Splash in the city's northwest corner, and the foothills of the Craggy Mountains on the east side.

## History

Describe the community's history, focusing on economy and development, and note its year of incorporation, in a statement similar to the example below:

**EXAMPLE:** The City of Jones was incorporated in 1858. The area was settled during the gold rush in the 1850s as a supply center for miners. As the gold rush died down, timber and fishing became the area's major economic resources. By 1913, the Jones Teachers College, a predecessor to today's University of Arbor, was founded. Recently, the presence of the college has come to shape Jones' population into a young and educated demographic. In 1981 the City developed the Jones Marsh and Wildlife Sanctuary, an environmentally friendly sewage treatment enhancement system.

With numerous annexations since its original incorporation, the city's area has almost doubled. Today it features a commercial core in the center of the city, with mostly residential areas to the north and south, the university to the west and the national park on the east.

## Governing Body Format

Describe the community's key governance elements and staffing, in a statement similar to the example below:

**EXAMPLE:** The City of Jones is governed by a five-member city council. The City consists of six departments: Finance, Environmental Services, Community Development, Public Works, Police, and the City Manager's Office. The City has 13 commissions and task forces, which report to the City Council. The City currently employs a total of 155 employees (full-time equivalent).

The City Council assumes responsibility for the adoption of this plan; the City Manager will oversee its implementation.

# CURRENT TRENDS

## Population

Provide the most current population estimate for your jurisdiction based on an official means of tracking (e.g., the U.S. Census or state agency that develops population estimates). Describe the current estimate and recent population trends in a statement similar to the example below.

**EXAMPLE:** According to California Department of Finance, the population of Jones as of July 2020 was 17,280. Since 2010, the population has grown at an average annual rate of 1.2 percent, though that rate is declining, with an annual average of only 0.8 percent since 2016.

## Development

In the highlighted text that says, "Describe trends in general," provide a brief description of your jurisdiction's recent development trends in a statement similar to the example below:

> **EXAMPLE:** Anticipated future development for Jones is low to moderate, consisting primarily of residential growth. Recent development has been mostly infill. There has been a focus on affordable housing and a push for more secondary mother-in-law units. Future growth in the City will be managed as identified in the City's 2018 general plan. City actions, such as those relating to land use, annexations, zoning, subdivision and design review, redevelopment, and capital improvements, must be consistent with the plan.

Complete the table titled "Recent and Expected Future Development Trends." Note:

- The portion of the table requesting the number of permits by year is specifically looking for development permits for **new** construction. If your jurisdiction does not have the ability to differentiate between permit types, list the total number of permits and indicate "N/A" (not applicable) for the permit sub-types.
- If your jurisdiction does not have the ability to track permits by hazard area, delete the bullet list of hazard areas and insert a qualitative description of where development has occurred.

# STATUS OF PREVIOUS PLAN ACTIONS

***Note that this section only applies to jurisdictions that are conducting updates to previously approved hazard mitigation plans. If your jurisdiction has not previously participated in an approved plan, enter an "X" in the box at the beginning of this section and do not complete the section. We will remove this section from your final annex.***

***Also note that this section is further back in the annex than the rest of the Phase 1 content. Some Phase 2 sections are included before it.***

All action items identified in prior mitigation plans must be reconciled in this update. Action items must all be marked as **ONE** of the following: check the appropriate box (place an X) and provide information as follows:

- **Completed**—If an action has been completed since the prior plan was prepared, check the "Completed" box and **provide a date of completion in the comment section**. If an action has been initiated and is an ongoing program (e.g. annual outreach event), you may mark it as completed and **note that it is ongoing in the comments**. If an action addresses an ongoing program you would like to continue to include in your action plan, see the "Carried Over to Plan Update" bullet below.
- **Removed**—If action items are to be removed because they are no longer feasible, a reason must be given. Lack of funding does not mean that it is no longer feasible, unless the sole source of funding for an action is no longer available. **Place a comment in the comment section explaining why the action is no longer feasible or barriers that prevented the action from being implemented (e.g., "Action no longer considered feasible due to lack of political support.").** If the wording and/or intent of a previously identified action is unclear, this can be a reason for removal. A change in community priorities may also be a reason for removal and should be discussed in the comments.
- **Carried Over to Plan Update**—If an action is in progress, is ongoing, or has not been initiated and you would like to carry it over to the plan update, check the "Check if Yes" column under "Carried Over to Plan Update." Selecting this option indicates that the action will be included in the mitigation action

plan for this update. If you are carrying over an action to the update, **include a comment describing any action that has been taken or why the action was not taken** (specifically, any barriers or obstacles that prevented the action from moving forward or slowed progress). Leave the last column, "Action # in Update," blank at this point. This will be filled in after completing the updated action plan in Phase 3.

Ensure that you have provided **a status and a comment for each action.**

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, all action items from your jurisdiction's previous hazard mitigation plan that are marked as "Carried Over to Plan Update" will need to be included in the action plan.

THIS COMPLETES PHASE 1

**PHASE 2 INSTRUCTIONS**

# CAPABILITY ASSESSMENT

***Note that it is unlikely that one person will be able to complete all sections of the capability assessment alone. The primary preparer will likely need to reach out to other departments within the local government for information. It may be beneficial to provide these individuals with background information about this planning process, as input from them will be needed again during Phase 3 of the annex development.***

## Planning and Regulatory Capability

In the table titled "Planning and Regulatory Capability," indicate "Yes" or "No" for each listed code, ordinance, requirement, or planning document in each of the following columns:

- Local Authority—Enter "Yes" if your jurisdiction has prepared or adopted the identified item; otherwise, enter "No." If yes, then enter the code, ordinance number, or plan name and its date of adoption in the comment's column. ***Note: If you enter yes, be sure to provide a comment with the appropriate code, ordinance or plan and date of adoption.***
- Other Jurisdiction Authority—Enter "Yes" if another agency (e.g., a state agency or special purpose district) enforces or administers the identified item in a way that may impact your jurisdiction or if any state or federal regulations or laws would prohibit local implementation of the identified item; otherwise, enter "No." ***Note: If you enter yes, be sure to provide a comment indicating the other agency and its relevant authority.***
- State Mandated—Enter "Yes" if state laws or other requirements enable or require the listed item to be implemented at the local level; otherwise, enter "No." ***Note: If you enter yes, be sure to provide a comment describing the relevant state mandate.***
- Integration Opportunity—Enter "Yes" if there are obvious ways that the code, ordinance, or plan can be coordinated with the hazard mitigation plan. Consider the following:
  - If you answered "Yes" in the Local Authority column for this item, then enter "Yes" for integration opportunity if any of the following are true:
    - The item already addresses hazards and their impacts and should be updated to reflect new information about risk from this hazard mitigation plan
    - The item does not address hazards and their impacts but is due for an update in the next 5 years and could be updated in a way that does address hazards and impacts
    - The item identifies projects for implementation, and these could be reviewed to determine if they can be modified to help address hazard mitigation goals
    - The item identifies projects for implementation and some of these should be considered for inclusion in the hazard mitigation action plan for your jurisdiction
  - If you answered "No" in the Local Authority column for this item, then enter "Yes" for integration opportunity if your jurisdiction will develop the item over the next 5 years

    ***Note: Each capability with a "Yes" answer to Integration Opportunity will be discussed in more detail later in the annex. You may wish to keep notes when assessing the Integration Opportunity or review the "Integration with Other Planning Initiatives" section below.***
- Comments—Enter the code number and adoption date for any local code indicated as being in place; provide other comments as appropriate to describe capabilities for each entry. DO NOT OVERLOOK THIS STEP

For the categories "General Plan" and "Capital Improvement Plan," answer the specific questions shown, in addition to completing the four columns indicating level of capability.

## Development and Permit Capability

Complete the table titled "Development and Permitting Capabilities."

## Fiscal Capability

Complete the table titled "Fiscal Capability" by indicating whether each of the listed financial resources is accessible to your jurisdiction. Enter "Yes" if the resource is fully accessible to your jurisdiction. Enter "No" if there are limitations or prerequisites that may hinder your use of this resource.

## Administrative and Technical Capability

Complete the table titled "Administrative and Technical Capability" by indicating whether your jurisdiction has access to each of the listed personnel resources. Enter "Yes" or "No" in the column labeled "Available?". If yes, then enter the department and position title. If you have contract support with these capabilities, you can still answer "Yes." Indicate in the department row that this resource is provided through contract.

## Education and Outreach Capability

Complete the table titled "Education and Outreach."

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, review all the above capability assessment tables and consider including actions to provide a capability that your jurisdiction does not currently have, update a capability that your jurisdiction does have, or implement an action that is recommended in an existing plan or program.

## National Flood Insurance Program Compliance

Complete the table titled "National Flood Insurance Program Compliance."

## Community Classifications

Complete the table titled "Community Classifications" to indicate your jurisdiction's participation in various national programs related to natural hazard mitigation. For each program enter "Yes" or "No" in the second column to indicate whether your jurisdiction participates. If yes, then enter the classification that your jurisdiction has earned under the program in the third column and the date on which that classification was issued in the fourth column; enter "N/A" in the third and fourth columns if your jurisdiction is not participating. If you do not know your current classification, information is available at the following websites:

- Community Rating System— https://www.fema.gov/floodplain-management/community-rating-system

- **Building Code Effectiveness Grading Schedule**— https://www.isomitigation.com/bcegs/iso-s-building-code-effectiveness-grading-schedule-bcegs.html
- **Public Protection Classification**— https://www.isomitigation.com/ppc/
- **Storm Ready**— https://www.weather.gov/stormready/communities
- **Firewise**— http://www.firewise.org/usa-recognition-program/map-of-active-participants.aspx

## Adaptive Capacity for Climate Change

Consider climate change impact concerns such as the following:

- Reduced snowpack
- Increased wildfires
- Sea level rise
- Inland flooding
- Threats to sensitive species
- Loss in agricultural productivity
- Public health and safety.

With those impacts in mind, complete the table titled "Adaptive Capacity for Climate Change" by indicating your jurisdiction's capacity for each listed criterion as follows:

- **High**—The capacity exists and is in use.
- **Medium**—The capacity may exist but is not used or could use some improvement.
- **Low**—The capacity does not exist or could use substantial improvement.
- **Unsure**—Not enough information is known to assign a rating.

This is a subjective assessment but providing a few words of explanation is useful. It is highly recommended that you complete this table with an internal planning team after reviewing the results of the other capability assessment tables.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, review all the adaptive capacity criteria and consider including actions to improve the rating for those rated medium or low, to make use of the capacity for those rated high, or to acquire additional information for those rated unsure.

# INTEGRATION REVIEW

For hazard mitigation planning, "integration" means that hazard mitigation information is used in other relevant planning mechanisms, such as general planning and capital facilities planning, and that relevant information from those sources is used in hazard mitigation. FEMA recommends integration as follows:

- Integrate hazard mitigation plan goals with community objectives (e.g. incorporate the goals for risk reduction and safety into the policies of other plans).
- Use the risk assessment to inform plans and policies (e.g. incorporate risk assessment findings into land use plans, site plan review, emergency operations plan).
- Implement mitigation actions through existing mechanisms (e.g. include mitigation projects in the capital improvement plan).
- Think about mitigation before and after a disaster (e.g. build recovery planning on existing mitigation plans and goals).

After reviewing the plans, programs and ordinances identified in the capability assessment tables, identify all plans and programs that have already been integrated with the hazard mitigation plan, and those that offer opportunities for future integration. The simplest way to do this is to review the Planning and Regulatory Capabilities table to see which items were marked as "Yes" under the Integration Opportunity column.

## Existing Integration

In the highlighted bullet list, list items for which you entered "Yes" under the Integration Opportunity column of the "Planning and Regulatory Capability" table because the plan or ordinance already addresses potential impacts or includes specific projects that should be included as action items in the mitigation action plan. Consider listing items marked as Completed in the "Status of Previous Plan Actions" table if they were indicated as being ongoing actions. Provide a brief description of how the plan or ordinance is integrated. Examples are as follows:

- Capital Improvement Plan—The capital improvement plan includes projects that can help mitigate potential hazards. The City will act to ensure consistency between the hazard mitigation plan and the current and future capital improvement plans. The hazard mitigation plan may identify new possible funding sources for capital improvement projects and may result in modifications to proposed projects based on results of the risk assessment.
- Building Code and Fire Code—The City's adoption of the 2016 California building, and fire codes incorporated local modifications to account for the climatic, topographic, and geographic conditions that exist in the City.
- General Plan—The general plan includes a Safety Element to protect the community from unreasonable risk by establishing policies and actions to avoid or minimize the following hazards:
  - Geologic and seismic hazards
  - Fire hazards
  - Hazardous materials
  - Flood control
  - Impacts from climate change.
- Climate Action Plan—The City's Climate Action Plan includes projects for reducing greenhouse gas emissions and adapting to likely impacts of climate change. These projects were reviewed to identify cross-planning initiates that serve both adaptation and mitigation objectives.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, any plans that fall into the "Existing Integration" category should be reviewed and elements from them should be included in the action plan as appropriate.

## Opportunities for Future Integration

List any remaining items that say "Yes" in the Integration Opportunity column in the Planning and Regulatory Capabilities table and explain the process by which integration could occur. Examples follow:

- **Zoning Code**—The City is conducting a comprehensive update to its zoning code. Additional mitigation and abatement measures will be considered for incorporation into the code.
- **Capital Improvement Projects**—Capital improvement project proposals may take into consideration hazard mitigation potential as a means of evaluating project prioritization.
- **Post-Disaster Recovery Plan**—The City does not have a recovery plan and intends to develop one as a mitigation planning action during the next five years. The plan will build on the goals and objectives identified in the hazard mitigation plan.

After you have accounted for all items marked as "Yes" under the Integration Opportunity column, consider other programs you may have in place in your jurisdiction that include routine consideration and management of hazard risk. Examples of such programs may include tree pruning programs, right-of-way mowing programs, erosion control or stream maintenance programs, etc. Add any such programs to the integration discussion and provide a brief description of how these programs manage (or could be adapted to manage) risk from hazards.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, an action to integrate any identified "Opportunities for Future Integration" should be considered for inclusion in the action plan.

# INFORMATION SOURCES USED FOR THIS ANNEX

***Note that this section will ultimately describe all information sources used to develop this annex, but that only the sources used for Phases 1 and 2 will be listed at this point. Additional sources will be added with the preparation of the Phase 3 annex.***

This section should describe what resources you used to complete the annex and how you used them. Several items are started for you but be sure to update and enhance any descriptions. Providing this information is a requirement to pass the state and FEMA review process.

THIS COMPLETES PHASE 2

**PHASE 3 INSTRUCTIONS**

# RISK ASSESSMENT

## Jurisdiction-Specific Natural Hazard Event History

In the table titled "Past Natural Hazard Events," list in chronological order (most recent first) any natural hazard event that has caused damage to your jurisdiction. Include the date of the event and the estimated dollar amount of damage it caused. You are welcome to include any events, but special attention should be made to include major storms and federally declared disasters. Refer to the table below that lists hazard events in the planning area as recognized by the County, the state, and the federal government.

**Table 1.** Presidential Disaster Declarations for the Planning Area

| Dates | FEMA Disaster #/Event Name | County Emergency Op. Center Activated | Gubernatorial Declaration | Presidential Declaration |
|---|---|---|---|---|
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We recommend including most large-scale disasters, unless you know that there were no impacts on your jurisdiction. Specifically, we recommend that you include these events if you have damage estimate information or can provide a brief description of impacts that occurred within your community. In addition to these events, refer to the NOAA storm events database included in the toolkit. We recommend conducting a search for the name of your jurisdiction in order to identify events with known impacts. Other potential sources of damage information include the following

- Preliminary damage estimates your jurisdiction filed with the county or state
- Insurance claims data
- Newspaper archives
- Emergency management documents (general plan safety element, emergency response plan, etc.)
- Resident input.

If you do not have estimates for costs of damage caused, list "Not Available" in the "Damage Assessment" column or list a brief description of the damage rather than a dollar value (e.g., Main Street closed as a result of flooding, downed trees and residential damage). Note that tracking such damage is a valid and useful mitigation action if your jurisdiction does not currently track such information.

## Hazard Risk Ranking

Risk ranking identifies which hazards pose the greatest risk to the community, based on how likely it is for each hazard to occur (this is called the community's exposure) and how great an impact each hazard will have if it does occur (this is called the community's vulnerability). Every jurisdiction has differing degrees of risk exposure and vulnerability and therefore needs to rank risk for its own area. The risk ranking for each jurisdiction has been calculated in the "Loss Matrix" spreadsheet included in the annex preparation toolkit. Two sets of ranking are provided. One ranking is the base ranking that utilizes the raw percentage of population exposed to each hazard to rank the impacts to population. The second ranking uses the social vulnerability metrics established by FEMA's National Risk Index (NRI) to add an equity lens to the impact on population factor for the risk ranking application. Those planning partners applying the equity lens option should utilize the "Social Equity Version" for risk ranking provided in the loss matrix. The ranking is on the basis of risk ranking scores for each hazard that were calculated based on the hazard's probability of occurrence and its potential impact on people, property and the economy.

The results for your jurisdiction have already been entered into the "Hazard Risk Ranking" table in your Phase 3 annex template. The hazard with the highest risk rating is listed at the top of table and was given a rank of 1; the hazard with the second highest rating is listed second with a rank of 2; and so on. Two hazards with equal risk ranking scores were given the same rank. Hazards were assigned to "High," Medium," or "Low" risk categories based on the risk ranking score. If you wish to review the calculations in detail, the appendix at the end of these instructions describes the calculation methodology that the spreadsheet uses.

Review the hazard risk ranking information that is included in your annex. If these results differ from what you know based on substantiated data and documentation, you may alter the ranking and risk categories based on this knowledge. If you do so, indicate the reason for the change in your template. For example:

> "Drought was ranked as low; however, the jurisdiction's economy is heavily reliant on water-using industries, such as agriculture or manufacturing, so this hazard should be ranked as medium."

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, you will need to have at least one mitigation action for each hazard ranked as "high" or "medium."

# Jurisdiction-Specific Vulnerabilities

## Repetitive Loss Properties

A repetitive loss property is any property for which FEMA has paid two or more flood insurance claims in excess of $1,000 in any rolling 10-year period since 1978. In the space provided, the following information has been included in your annex based on data provided by FEMA:

- The number of any FEMA-identified repetitive-loss properties in your jurisdiction.
- The number of any FEMA-identified severe-repetitive-loss properties in your jurisdiction.
- The number (if any) of repetitive-loss or severe-repetitive-loss properties in your jurisdiction that have been mitigated. Mitigated for this exercise means that flood protection has been provided to the structure.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, if your jurisdiction has any repetitive loss properties, you should strongly consider including a mitigation action that addresses mitigating these properties.

## Other Noted Vulnerabilities

Review the results of the risk assessment included in the toolkit, your jurisdiction's natural events history, and any relevant public comments/input, then develop a few sentences that discuss specific hazard vulnerabilities. You do not need to develop a sentence for every hazard but identify a few issues you would like to highlight. Also list any known hazard vulnerabilities in your jurisdiction that may not be apparent from the risk assessment and other information provided.

Spending some time thinking about the results of the risk assessment and other noted vulnerabilities will be a big help in the development of your hazard mitigation action plan. The following are examples of vulnerabilities you could identify through this exercise:

- About 45 percent of the population lives in the 0.2 percent annual chance flood hazard area, where flood insurance is generally not required.
- A magnitude 7.5 earthquake on the Smithburg Fault is estimated to produce nearly 1 million tons of structure debris.
- Over the past 10 years, the jurisdiction has experienced more than $6 million in damage from severe storm events.

- More than 50 buildings are located in areas that would be permanently inundated with 12 inches of sea level rise.
- The results of the public survey indicated that 40 percent of Smithburg residents would not be able to be self-sufficient for 5 days following a major event.
- An urban drainage issue at a specific location results in localized flooding every time it rains.
- One area of the community frequently loses power due to a lack of tree maintenance.
- A critical facility, such as a police station, is not equipped with a generator.
- A neighborhood has the potential to have ingress and egress cut off as the result of a flood or earthquake (e.g. a bridge is the only access).
- Substantial number of buildings in one area of the community are unreinforced masonry or soft-story construction.
- An area along the river is eroding and threatening public and/or private property.
- A large visitor population that may not be aware of tsunami risk.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, consider including actions to address the jurisdiction-specific vulnerabilities listed in this section.

# HAZARD MITIGATION ACTION PLAN

## Hazard Mitigation Action Plan Matrix

The hazard mitigation action plan is the heart of your jurisdictional annex. This is where you will identify the actions your jurisdiction would like to pursue with this plan.

### Select Recommended Actions

All of the work that you have done thus far should provide you with ideas for actions. Throughout these instructions, green boxes labeled “Hazard Mitigation Action Plan Input” have indicated information that needs to be considered in the selection of mitigation actions. The following sections describe how to consider these and other information sources to develop a list of potential actions.

Be sure to consider the following factors in your selection of actions:

- Select actions that are consistent with the overall purpose, goals, and objectives of the hazard mitigation plan.
- Identify actions where benefits exceed costs.
- Include any action that your jurisdiction has committed to pursuing, regardless of eligibility from outside funding sources (grants, non-profit funding, donations, etc.).
- Know what is and is not eligible for funding under various federal programs (see the fact sheet on FEMA hazard mitigation grant programs in the annex preparation toolkit and the table below).

**Table 2.** Federal Hazard Mitigation Grant Program Eligibility by Action Type

| Eligible Activities | Hazard Mitigation Grant Program (HMGP) | Pre-Disaster Mitigation (PDM) | Flood Mitigation Assistance (FMA) |
|---|---|---|---|
| **Mitigation Projects** | | | |
| Property Acquisition and Structure Demolition | √ | √ | √ |
| Property Acquisition and Structure Relocation | √ | √ | √ |
| Structure Elevation | √ | √ | √ |
| Mitigation Reconstruction | √ | √ | √ |
| Dry Floodproofing of Historic Residential Structures | √ | √ | √ |
| Dry Floodproofing of Non-residential Structures | √ | √ | √ |
| Generators | √ | √ | |
| Localized Flood Risk Reduction Projects | √ | √ | √ |
| Non-Localized Flood Risk Reduction Projects | √ | √ | |
| Structural Retrofitting of Existing Buildings | √ | √ | √ |
| Non-structural Retrofitting of Existing Buildings and Facilities | √ | √ | √ |
| Safe Room Construction | √ | √ | |
| Wind Retrofit for One- and Two-Family Residences | √ | √ | |
| Infrastructure Retrofit | √ | √ | √ |
| Soil Stabilization | √ | √ | √ |
| Wildland fire Mitigation | √ | √ | |
| Post-Disaster Code Enforcement | √ | | |
| Advance Assistance | √ | | |
| 5 Percent Initiative Projects* | √ | | |
| Aquifer and Storage Recovery** | √ | √ | √ |
| Flood Diversion and Storage** | √ | √ | √ |
| Floodplain and Stream Restoration** | √ | √ | √ |
| Green Infrastructure** | √ | √ | √ |
| Miscellaneous/Other** | √ | √ | √ |
| **Hazard Mitigation Planning** | √ | √ | √ |
| **Technical Assistance** | | | √ |
| **Management Costs** | √ | √ | √ |

* FEMA allows increasing the 5% initiative amount under the Hazard Mitigation Grant Program up to 10% for a presidential major disaster declaration. The additional 5% initiative funding can be used for activities that promote disaster-resistant codes for all hazards. As a condition of the award, either a disaster-resistant building code must be adopted, or an improved Building Code Effectiveness Grading Schedule is required.

** Indicates that any proposed action will be evaluated on its own merit against program requirements. Eligible projects will be approved provided funding is available.

## *Material Previously Developed for This Annex*

Capability Assessment Section—Planning and Regulatory Capability Table, Fiscal Capability Table, Administrative and Technical Capability Table, Education and Outreach Table, and Community Classification Table

Review these tables and consider the following:

- For any capability that you do not currently have, consider whether your jurisdiction should have this capability. If so, consider including an action to develop/acquire the capability.
- For any capability that you do currently have, consider whether this capability can be leveraged to increase or improve hazard mitigation in the jurisdiction.
- If any capabilities listed in the Planning and Regulatory Capabilities table have not been updated in more than 10 years, consider an action to review and update the capability and, as appropriate, incorporate hazard mitigation principles or information obtained in the risk assessment.
- Consider including actions that are identified in other plans and programs (capital improvement plans, strategic plans, etc.) as actions in this plan.

Capability Assessment Section—National Flood Insurance Program Compliance table

Review the table and consider the following:

- If you have no certified floodplain managers and you have flood risk, consider adding an action to provide key staff members with training to obtain certification.
- If your flood damage prevention was last updated in or before 2004, you should identify an action to update your ordinance to ensure it is compliant with current NFIP requirements.
- If you have any outstanding NFIP compliance issues, be sure to add an action to address them.
- If flood hazard maps do not adequately address the flood risk within your jurisdiction, consider actions to request new mapping or conduct studies.
- If you wish to begin to participate in CRS or you already to participate and would like to improve your classification, consider this as an action.
- If the number of flood insurance policies in your jurisdiction is low relative to the number of structures in the floodplain, consider an action that will promote flood insurance in your jurisdiction.

Capability Assessment Section— Adaptive Capacity for Climate Change Table

Consider your responses to this section:

- For criteria that you listed as medium or low, think of ways you could improve this rating (see adaptive capacity portion of the mitigation best practices catalog).
- For criteria you listed as high, think about how you can leverage this capacity to improve or enhance mitigation or continue to improve this capacity.
- For criteria that you were unable to provide responses for, consider ways you could improve your understanding of this capacity (see mitigation best practices and adaptive capacity catalog).

### Integration Review Section

Review the items you identified in this section and consider an action that specifically says what the plan, code, ordinance etc. is and how it will be integrated. For items that address land use, include them in the prepopulated action in your template that reads as follows:

> "Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including _____."

### Risk Ranking Section

You must identify at least one mitigation action that is clearly defined and actionable (i.e. not a preparedness or response action) for every hazard that is categorized in the risk ranking as "high" or "medium" risk.

### Jurisdiction-Specific Vulnerabilities Section

Review the vulnerability issues that you identified in this section and consider actions to address them (see mitigation best practices catalog). Two examples are shown in the table below.

**Table 3.** Example Actions to Address Jurisdiction-Specific Vulnerabilities

| Noted Vulnerability | Example Mitigation Action |
|---|---|
| **About 45 percent of the population lives in the 0.2 percent annual chance flood hazard area where flood insurance is generally not required.** | Implement an annual public information initiative that targets residents in the 0.2 percent annual chance flood hazard area. Provide information on the availability of relatively low-cost flood insurance policies. |
| **An urban drainage issue results in localized flooding every time it rains.** | Replace undersized culverts that are contributing to localized flooding. Priority areas include:<br>• The corner of Main Street and 1st Street<br>• Old Oak subdivision. |

### Status of Previous Plan Actions Section

If your jurisdiction participated in a previous hazard mitigation plan, be sure to include any actions that were identified as "carry over" actions.

## *Other Sources*

### Mitigation Best Practices Catalog

A catalog that includes best practices identified by FEMA and other agencies, as well as recommendations from the steering committee and other stakeholders, is included in your toolkit. Review the catalog and identify actions your jurisdiction should consider for its action plan.

### Public Input

Review input received during the process, specifically the public survey results included in your toolkit.

### Common Actions for All Partners

The following six actions have been prepopulated in your annex template; **these six actions should be included in every annex and should not be removed**:

- Where appropriate, support retrofitting, purchase or relocation of structures located in high hazard areas, prioritizing those structures that have experienced repetitive losses and/or are located in high or medium ranked hazard.
- Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions within the community.
- Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.
- Continue to maintain good standing and compliance under the NFIP through implementation of floodplain management programs that, at a minimum, meet the NFIP requirements:
  - Enforce the flood damage prevention ordinance.
  - Participate in floodplain identification and mapping updates.
  - Provide public assistance/information on floodplain requirements and impacts.
- Identify and pursue strategies to increase adaptive capacity to climate change.
- Purchase generators for critical facilities and infrastructure that lack adequate back-up power.

In addition, the core planning team recommends that every planning partner strongly consider the following actions:

- Develop and implement a program to capture perishable data after significant events (e.g. high-water marks, preliminary damage estimates, damage photos) to support future mitigation efforts including the implementation and maintenance of the hazard mitigation plan.
- Support the County-wide initiatives identified in Volume I of the hazard mitigation plan.
- Develop a post-disaster recovery plan and a debris management plan.
- Develop and/or update plans that support or enhance continuity of operations following disasters.

The specifics of all these common actions should be adjusted as needed for the particulars of each community.

## Complete the Table

Complete the table titled “Hazard Mitigation Action Plan Matrix” for all the actions you have identified and would like to include in the plan:

- Enter the action number (see box on next page) and description. **If the action is carried over from your previous hazard mitigation plan, return to the “Status of Previous Plan Actions” table you completed in Phase 1 and enter the new action number in the column labeled “Action # in Update.”**
- Indicate whether the action mitigates hazards for new and/or existing assets.
- Identify the specific hazards the action will mitigate (note: you must list each hazard by name; simply indicating “all hazards” is not deemed acceptable).
- Identify by number the mitigation plan objectives that the action addresses (see toolkit).
- Indicate who will be the lead in administering the action. This will most likely be a department within your jurisdiction (e.g. planning or public works). If you wish to indicate more than one department as responsible for the action, clearly identify one as the lead agency and list the others in the “supporting agency” column.

- Enter an estimated cost in dollars if known; otherwise, enter "High," "Medium," or "Low," as determined for the prioritization process described in the following section.
- Identify funding sources for the action. If it is a grant, include the grant-providing agency as well as funding sources for any required cost share. If it is another outside funding source such as a non-profit funding source or a donation, include the source and any requirements for receiving the funding. Refer to your fiscal capability assessment to identify possible sources of funding and refer to the table on page 17 of these instructions for project eligibility for FEMA's hazard mitigation assistance grant programs.
- Indicate the timeline as "short-term" (1 to 5 years) or "long-term" (5 years or greater) or "ongoing" (a continual program)

**Action Numbering**

Actions are to be numbered using the three-letter code for your jurisdiction shown below, followed by a hyphen and the action's sequential number:

- San Mateo County—SMC-1, SMC-2…
- Atherton City—ATH-1, ATH-2…
- Belmont City—BEL-1, BEL-2…
- Brisbane City—BRS-1, BRS-2…
- Burlingame City—BRL-1, BRL-2…
- Colma City—CLM-1, CLM-2…
- Daly City—DLY-1, DLY-2…
- East Palo Alto City—EPA-1, EPA-2…
- Foster City—FOS-1, FOS-2…
- Half Moon Bay City—HMB-1, HMB-2…
- Hillsborough City—HLS-1, HLS-2…
- Menlo Park City—MPK-1, MPK-2…
- Millbrae City—MLB-1, MLB-2…
- Pacifica City—PAC-1, PAC-2…
- Portola Valley City—PTV-1, PTV-2…
- Redwood City—RDW-1, RDW-2…
- San Bruno City—SBR-1, SBR-2…
- San Carlos City—SCR-1, SCR-2…
- San Mateo City—SMT-1, SMT-2…
- South San Francisco City—SSF-1, SSF-2…
- Woodside City—WDS-1, WDS-2…
- Coastside Water —CSW-1, CSW-2…
- Colma Fire —CFD-1, CFD-2…
- Flood & Sea Level —FSL-1, FSL-2…
- Harbor District —HRB-1, HBR-2
- Highland Recreational —HLD-1, HLD-2…
- Jefferson Union HS —JEF-1, JEF-2…
- Menlo Park Fire —MPF-1, MPF-2…
- Mid-Pen Reg Open Space District —MPR-1, MPR-2…
- Mid-Peninsula Water —MPW-1, MPW-2…
- Montara Water & Sewer —MWS-1, MWS-2…
- North Coast Water —NCW-1, NCW-2…
- Office of Education —OED-1, OED-2…
- San Mateo Community College —SCC-1, SCC-2…
- San Mateo RCD —SRC-1, SRC-2…
- Westborough Water —WBW-1, WBW-2…
- Woodside Fire —WFD-1, WFD-2…

## Mitigation Action Priority

Complete the information in the table titled "Mitigation Action Priority" as follows:

- **Action #**—Indicate the action number from the Hazard Mitigation Action Plan Matrix table.
- **# of Objectives Met**—Enter the number of objectives the action will meet.
- **Benefits**—Enter "High," "Medium" or "Low" as follows:
  - 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.
- **Cost**—Enter "High," "Medium" or "Low" as follows:
  - High—Existing funding will not cover the cost of the action; implementation would require new revenue through an alternative source (for example, outside funding sources, 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.

- **Do Benefits Exceed the Cost?**—Enter "Yes" or "No." This is a qualitative assessment. Enter "Yes" if the benefit rating (high, medium, or low) is the same as or higher than the cost rating (high benefit/high cost; high benefit/medium cost; medium benefit/low cost; etc.). Enter "No" if the benefit rating is lower than the cost rating (medium benefit/high cost, low benefit/medium cost; etc.)
- **Is the Action Eligible for Outside Funding Sources?**—Enter "Yes" or "No." For grant funding, refer to the fact sheet on FEMA hazard mitigation grant programs in the annex preparation toolkit and the table on page 17 of these instructions.
- **Can Action Be Funded Under Existing Program Budgets?**—Enter "Yes" or "No." In other words, is this action currently budgeted for, or would it require a new budget authorization or funding from another outside source such as grants, non-profit funding, or donations?
- **Implementation Priority**— Enter "High," "Medium" or "Low" 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 outside funding sources. Action can be completed in the long term (1 to 10 years). Low-priority actions may be eligible for outside funding from programs that have not yet been identified.

- **Outside Funding Source Pursuit Priority**— Enter "High," "Medium" or "Low" as follows:
  - High Priority—An action that meets identified outside funding source 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 to be funded by outside sources.
  - Medium Priority—An action that meets identified outside funding source 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 outside funding source eligibility requirements.

Actions identified as high-outside-funding-pursuit priority actions should be closely reviewed for consideration when outside funding source opportunities arise.

- **Equity Lens Priority**- Enter "High," "Medium" or "Low" as follows:
  - High Priority—The mitigation action is designed to reduce harm to multiple socially vulnerable groups in the County from one or more of the hazards identified in the LHMP.
  - Medium Priority— The mitigation action is designed to reduce harm to a single socially vulnerable population in the County from at least one hazard identified in the LHMP.

- Low Priority—The mitigation action fails to advance social equity in any measurable way in the County

An equity screening tool has been provided in **Appendix B** to these instructions that can be utilized to screen each action to help prioritize each action to the above criteria. The screening of each action using this tool is considered to be optional and not required for jurisdictions applying the equity lens to their action plan prioritization scheme.

**Note:** If a jurisdiction wishes to identify an action as high priority that is outside of the prioritization scheme for high priorities, a note indicating so should be inserted and a rationale should be provided.

## Analysis of Mitigation Actions

In the table titled "Analysis of Mitigation Actions," for each combination of hazard type and mitigation type, enter the numbers of all recommended actions that address that hazard type and can be categorized as that mitigation type. The mitigation types 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 & 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.

This exercise demonstrates that the jurisdiction has selected a comprehensive range of actions. This table must show at least one action to address each "high" and "medium" ranked hazard. Planning partners should aim to identify at least one action for each mitigation type, but this is not required.

An example of a completed "Analysis of Mitigation Actions" table is provided below. Note that an action can be more than one mitigation type.

**Sample Completed Table – Analysis of Mitigation Actions**

| Hazard Type | Action Addressing Hazard, by Mitigation Type | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Prevention | Property Protection | Public Education & Awareness | Natural Resource Protection | Emergency Services | Structural Projects | Climate Resilience | Community Capacity Building |
| **High-Risk Hazards** | | | | | | | | |
| **Dam Failure** | EX-2, 3, 4, 5, 6 | EX-1, 6 | EX-4, 6 | | EX-8, 11 | | | EX-3, 4, 8, 9, 10 |
| **Drought** | EX-2 | EX-1 | EX-4 | | | | | EX-3, 4, 8, 9, 10 |
| **Medium-Risk Hazards** | | | | | | | | |
| **Earthquake** | EX-2, 3, 4, 5, 7 | EX-1, 7 | EX-4 | | EX-8, 11 | | | EX-3, 4, 8, 9 |
| **Flooding** | EX-2, 3, 4, 5, 6, 7 | EX-1, 6, 7 | EX-4, 6 | EX-9 | EX-8, 11 | EX-6 | | EX-3, 4, 8, 9, 10 |
| **Landslide** | EX-2, 3, 4, 5, 7 | EX-1, 7 | EX-4 | | EX-8, 11 | | | EX-3, 4, 8, 9, 10 |
| **Low-Risk Hazards** | | | | | | | | |
| **Severe Weather** | EX-2, 3, 4, 5, 7 | EX-1, 7, 9 | EX-4 | | EX-8, 9, 11 | | EX-8, 7 | EX-3, 4, 8, 9, 10 |
| **Wildfire** | EX-2, 3, 4, 5, 7 | EX-1, 7, 9 | EX-4, 9 | EX-9 | EX-8, 11 | | | EX-3, 4, 8, 9, 10 |

## PUBLIC OUTREACH

FEMA requirements for public outreach will be met by the County's engagement efforts and are included in the main part of the plan. These may include public meetings, a StoryMap, surveys, etc. If individual jurisdictions want to have a more robust outreach for their local community, the public outreach table in each annex may be used to memorialize those local efforts.

This table should record local public outreach efforts made by your jurisdiction to inform the community of the plan update process. Examples may include local surveys on hazard awareness/preparedness, social media blasts, press releases, and outreach to local groups (CERT, senior citizen organizations, etc.) **This section is optional.**

## INFORMATION SOURCES USED FOR THIS ANNEX

This section should describe what resources you used to complete the annex and how you used them. The sources used for Phases 1 and 2 should have been entered previously. List any additional sources used for the preparation of the Phase 3 annex. Review to ensure that all materials used in all three phases are identified. Providing this information is a requirement to pass the state and FEMA review process.

## FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

In this section, identify any future studies, analyses, reports, or surveys your jurisdiction needs to better understand its vulnerability to identified or currently unidentified risks. These could be needs based on federal or state agency mandates. **This section is optional.**

## ADDITIONAL COMMENTS

Use this section to add any additional information pertinent to hazard mitigation and your jurisdiction not covered in this template. **This section is optional.**

THIS COMPLETES PHASE 3

**APPENDIX A— Risk Ranking Calculation Methodology**

The instructions below describe the methodology for how risk rankings were derived in the "Loss Matrix" spreadsheet provided with the annex preparation toolkit. The risk-ranking for each hazard assessed its probability of occurrence and its potential impact on people, property, and the economy. Refer to the Loss Matrix spreadsheet in order to follow along.

## Probability of Occurrence

A probability factor is assigned based on how often a hazard is likely to occur. The probability of occurrence of a hazard event is generally based on past hazard events in an area, although weight can be given to expected future probability of occurrence based on established return intervals and changing climate conditions. For example, if your jurisdiction has experienced two damaging floods in the last 25 years, the probability of occurrence is high for flooding and scores a 3 under this category. If your jurisdiction has experienced no damage from landslides in the last 100 years, your probability of occurrence for landslide is low, and scores a 1 under this category. Each hazard was assigned a probability factor as follows:

- High—Hazard event is likely to occur within 25 years (Probability Factor = 3)
- Medium—Hazard event is likely to occur within 100 years (Probability Factor = 2)
- Low—Hazard event is not likely to occur within 100 years (Probability Factor = 1)
- None—There is no exposure to the hazard and no probability of occurrence (Probability Factor = 0)

## Potential Impacts of Each Hazard

The impact of each hazard is divided into three categories: impacts on people, impacts on property, and impacts on the economy. These categories are also assigned weighted values. Impact on people was assigned a weighting factor of 3, impact on property was assigned a weighting factor of 2 and impact on the economy was assigned a weighting factor of 1.

Impact factors for each category (people, property, economy) are described below:

- People—Values for the impact on people is based on the percentage of the population in each of the five (5) classifications for social vulnerability from the National Risk Index (NRI). Values are assigned based on the percentage of the total ***population exposed*** to the hazard event. The degree of impact on individuals will vary and is not measurable, so the calculation assumes for simplicity and consistency that all people exposed to a hazard because they live in a hazard zone will be equally impacted when a hazard event occurs. Impact factors were assigned as follows:
  - Very High—15 percent or more of the population is exposed to a hazard (Impact Factor = 5), less than 15% of the population exposed to a hazard (impact factor =4)
  - Relatively High—25 percent of more of the population is exposed to a hazard (Impact Factor = 4), less than 25 percent of the population exposed to a hazard (Impact Factor = 3).
  - Relatively Moderate—35 percent or more of the population is exposed to the hazard (Impact Factor = 3), less than 35 percent of the population exposed (Impact Factor =2).
  - Relatively Low—50 percent of more of the population is exposed to a hazard (Impact Factor = 2), less than 50 percent of the population exposed to a hazard (Impact Factor =1)
  - Very Low—75 percent of more of the population exposed to a hazard (Impact Factor =1), less than 75 percent of the population exposed (Impact Factor = 0).
  - No impact— No population exposed to the hazard.

The impact factors are additive. There could be multiple levels of exposure for each hazard under the five NRI social vulnerability indices. Please not that if 0 to 74 percent of the population is exposed to the "very low" classification, the risk ranking score will default to the base-line risk ranking score (Ranking result for the without equity lens option in the loss matrix).

- **Property**—Values are assigned based on the percentage of the total ***property value exposed*** to the hazard event:
  - High—25 percent or more of the total replacement value is exposed to a hazard (Impact Factor = 3)
  - Medium—10 percent to 24 percent of the total replacement value is exposed to a hazard (Impact Factor = 2)
  - Low—9 percent or less of the total replacement value is exposed to the hazard (Impact Factor = 1)
  - No impact—None of the total replacement value is exposed to a hazard (Impact Factor = 0)
- **Economy**—Values were assigned based on the percentage of the total ***property value vulnerable*** to the hazard event. Values represent estimates of the loss from a major event of each hazard in comparison to the total replacement value of the property exposed to the hazard. For some hazards, such as wildland fire and landslide, vulnerability may be considered to be the same or a portion of exposure due to the lack of loss estimation tools specific to those hazards.
  - High—Estimated loss from the hazard is 10 percent or more of the total replacement value (Impact Factor = 3)
  - Medium—Estimated loss from the hazard is 5 percent to 9 percent of the total replacement value (Impact Factor = 2)
  - Low—Estimated loss from the hazard is 4 percent or less of the total replacement value (Impact Factor = 1)
  - No impact—No loss is estimated from the hazard (Impact Factor = 0).

## Impacts on People

The percent of the total population exposed to each hazard of concern with a defined extent and location (e.g. floodplain) can be found in the loss estimate matrix in the **green highlighted column.** For those hazards that do not have a defined extent and location the entire population or a portion of the population is considered to be exposed, depending on the hazard. For the drought hazard, it is common for jurisdictions to list "low" or "none," because all people in the planning area would be exposed to drought, but impacts to the health and safety of individuals are expected to be minimal.

## Impacts on Property

The percent of the total value exposed to each hazard of concern with a defined extent and location (e.g. floodplain) can be found in the loss estimate matrix in the **blue highlighted column.** For those hazards that do not have a defined extent and location (e.g. severe weather) the entire building stock is generally considered to be exposed. For the drought hazard, it is common for jurisdictions to list "low" or "none," because all structures in the planning area would be exposed to drought but impacts to structures are expected to be minimal.

### Impacts on the Economy

The loss estimates for each hazard of concern that was modeled (i.e. dam failure, flood, earthquake) can be found in the loss estimate matrix in the **orange highlighted column.** For those hazards that have a defined extent and location, but do not have modelled loss results, loss estimates can be the same as exposure or a portion thereof. For example, a large percentage of the building stock may be exposed to landslide or wildland fire risk, but it would not be expected that one event that resulted in loss to all exposed structures would occur. For those hazards that do not have a defined extent and location, exposure is based on the hazard type.

## Risk Rating for Each Hazard

A risk rating for each hazard was determined by multiplying the assigned probability factor by the sum of the weighted impact factors for people, property, and the economy:

Risk Rating = Probability Factor x Weighted Impact Factor {people + property + economy}

This is the number that is shown in the risk ranking table in your template. Generally, score of 30 or greater receive a “high” rating, score between 15 and 30 receive a “medium” rating, and score of less than 15 receives a “low” rating.

| APPENDIX B— Equity Lens Screening Tool | | | |
|---|---|---|---|
| | Procedural | Distributive | Structural |
| **Programs/ Services** | How was the target audience included in the design of the program?<br>What actions will be taken to ensure that services and programs are physically and programmatically accessible and inclusive?<br>What are the criteria for participation or receipt of benefits? | Is the program or service designed to meet the needs of underserved and underrepresented communities? If not, what would need to be changed to ensure their equitable participation?<br>How will program dollars be allocated to ensure inclusive and accessible service delivery?<br>Does the cost structure of the program result in disparate use? /Does the fee structure of the service result in increased burdens for low-income communities? | Does this program/service create unintended consequences for communities that are underserved and underrepresented? How will they be mitigated?<br>Is there an opportunity to extend additional benefits through this program/service that can help support the healing of past harms to communities?<br>Does the program empower and build capacity of a community? |
| **Capital Investments** | What are the criteria for prioritizing projects and investments?<br>Does the data and information used consider the demographic, geographic and real-world experience of residents and businesses in the area?<br>If data gaps exist, what are you using to guide decisions?<br>What process will be used to get input from the community?<br>How will you reach underserved populations? | Will the investment provide improved safety, health, access, or opportunity for the communities who need it most?<br>How will the underserved people who currently live and work in the area benefit from the investment? | What measures will be taken to mitigate the potential impacts of involuntary displacement in the project?<br>How will business or employment opportunity created through the project be extended to communities of color, people with disabilities, and low-income people?<br>How will community benefits be negotiated? |
| **Regulation** | Has analysis been done on the impacts to communities of color, people with disabilities, low-income populations, seniors, children, renters, and other historically underserved or excluded groups?<br>How will impacted communities be able to learn about and understand changes with the regulation?<br>How will the regulation be enforced? | Will the regulation provide improved safety, health, access, or opportunity for the communities who need it most?<br>How will the regulation alleviate any cost-burden for those who are already in a position where it is difficult to pay? | Does the regulation create or inhibit opportunity for communities of color, people with disabilities, and low-income populations?<br>Will enforcement disproportionately negatively affect low-income communities or communities of color? How will this be mitigated? |
| **Planning** | How will impacted communities be involved in the planning process?<br>What measures will be taken to ensure the process is fair and inclusive? | How does the plan prioritize and address the needs of the most impacted or vulnerable in the community?<br>Does the plan improve safety, health, access, or opportunity for the communities who need it most?<br>How will resources shift to ensure equitable implementation of the plan? | What measures will be taken to mitigate the potential impacts of involuntary displacement?<br>How will policies support community development?<br>What support is needed to build the community's ownership and self-determination with the plan? |

a. Procedural equity—ensuring that processes are fair and inclusive in the development and implementation of any program or policy
b. Distributive equity—ensuring that resources or benefits and burdens of a policy or program are distributed fairly, prioritizing those with highest need first.
**c.** Structural equity—a commitment and action to correct past harms and prevent future negative consequences by institutionalizing accountability and decision-making structures that aim to sustain positive outcomes

**Table 2.0.** Equity Screening Question Matrix

| Evaluation Question | Response |
|---|---|
| 1. What issue/problem/risk is the action designed to address? And what are the expected benefits? | Issue:<br>Benefits: |
| 2. Who is the target audience/beneficiary for this action? Who is affected if no action is taken? | |
| 3. How would you classify the mitigation action? (Programs/Service; Capital Investment; Regulation; Planning). *Refer to questions in table above based on your answer to this question.* | |
| 4. Will any community groups be involved in the design/implementation of this action? (i.e. potential partners) | |
| 5. Will this action reduce risk from natural hazards for the following groups? How? | |
| Communities of color | |
| Persons with disabilities and/or access and functional needs | |
| Households with limited English Proficiency | |
| Renters | |
| Economically disadvantaged families | |
| Seniors (age 65 or older) | |
| Children (under 15 years of age) | |
| 6. How could this action benefit the following groups? Or How could this action be modified so that there are benefits? | |
| Communities of color | |
| Persons with disabilities and/or access and functional needs | |
| Households with limited English Proficiency | |
| Renters | |
| Economically disadvantaged families | |
| Seniors (age 65 or older) | |
| Children (under 15 years of age) | |
| 7. How could this action burden/negatively impact/leave out the following groups, for example through communication, transportation, physical or programmatic barriers? | |
| Communities of color | |
| Persons with disabilities and/or access and functional needs | |
| Households with limited English Proficiency | |
| Renters | |
| Economically disadvantaged families | |
| Seniors (age 65 or older) | |
| Children (under 15 years of age) | |
| 8. If you have identified burdens, barriers, or negative impacts, or opportunities for benefits please revisit the action to identify strategies to reduce or eliminate burdens or negative impacts; remove communication, transportation, physical or programmatic barriers; or enhance potential benefits. | |
| 9. Have you identified a performance metric for evaluating progress on this action? How will you know when this action is complete? (please provide) Have you considered outcomes for communities of color, people with disabilities, low-income families, people with limited English proficiency, renters, seniors, and children? | |

# ANNEX TEMPLATE FOR CITIES AND COUNTY

# 1. JURISDICTION NAME

## 1.1 LOCAL HAZARD MITIGATION PLANNING TEAM


**Primary Point of Contact**
Name, Title
Street Address
City, State ZIP
Telephone: xxx-xxx-xxxx
e-mail Address: xxx@xxx.xxx

**Alternate Point of Contact**
Name, Title
Street Address
City, State ZIP
Telephone: xxx-xxx-xxxx
e-mail Address: xxx@xxx.xxx


This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 1-1.

**Table 1-1.** Local Hazard Mitigation Planning Team Members

| Name | Title |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

## 1.2 JURISDICTION PROFILE

### 1.2.1 Location and Features

___[jurisdiction name]___ is in ___[general location description]___

The current boundaries generally extend from ___[describe]___, encompassing an area of ___[area in square miles]___.

___[general description of key features]___

### 1.2.2 History

___[jurisdiction name]___ was incorporated in ___[date]___. ___[brief historical summary]___

### 1.2.3 Governing Body Format

___[general description]___.

The __[name of adopting body]___ assumes responsibility for the adoption of this plan; __[name of oversight agency]__ will oversee its implementation.

## 1.3 CURRENT TRENDS

### 1.3.1 Population

According to ___[identify data source]___, the population of ___[jurisdiction name]___ as of ___[month year]___ was ___[population]___ Since ___[year]___, the population has grown at an average annual rate of ___[number]___ percent.

### 1.3.2 Development

_DESCRIBE TRENDS IN GENERAL__.

Identifying previous and future development trends is achieved through a comprehensive review of permitting since completion of the previous plan and in anticipation of future development. Tracking previous and future growth in potential hazard areas provides an overview of increased exposure to a hazard within a community. Table 1-2 summarizes development trends in the performance period since the preparation of the previous hazard mitigation plan, as well as expected future development trends.

**Table 1-2.** Recent and Expected Future Development Trends

| Criterion | Response | | | | | |
|---|---|---|---|---|---|---|
| **Has your jurisdiction annexed any land since the preparation of the previous hazard mitigation plan?**<br>***If yes, give the estimated area annexed and estimated number of parcels or structures.*** | Yes/No<br>_____ | | | | | |
| **Is your jurisdiction expected to annex any areas during the performance period of this plan?**<br>***If yes, describe land areas and dominant uses.***<br>***If yes, who currently has permitting authority over these areas?*** | Yes/No<br>_____<br>_____ | | | | | |
| **Are any areas targeted for development or major redevelopment in the next five years?**<br>***If yes, briefly describe, including whether any of the areas are in known hazard risk areas*** | Yes/No<br>_____ | | | | | |
| **How many permits for new construction were issued in your jurisdiction since the preparation of the previous hazard mitigation plan?** | | **2016** | **2017** | **2018** | **2019** | **2020** |
| | **Single Family** | __ | __ | __ | __ | __ |
| | **Multi-Family** | __ | __ | __ | __ | __ |
| | **Other** | __ | __ | __ | __ | __ |
| | **Total** | __ | __ | __ | __ | __ |
| **Provide the number of new-construction permits for each hazard area or provide a qualitative description of where development has occurred.** | • Special Flood Hazard Areas: #<br>• Landslide: #<br>• High Liquefaction Areas: #<br>• Tsunami Inundation Area: #<br>• Wildfire Risk Areas: # | | | | | |

| Criterion | Response |
|---|---|
| **Describe the level of buildout in the jurisdiction, based on your jurisdiction's buildable lands inventory. If no such inventory exists, provide a qualitative description.** | |

## 1.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the hazard mitigation plan describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan. The "Analysis of Mitigation Actions" table in this annex identifies these as community capacity building mitigation actions. The findings of the assessment are presented as follows:

- An assessment of planning and regulatory capabilities is presented in Table 1-3.
- Development and permitting capabilities are presented in Table 1-4.
- An assessment of fiscal capabilities is presented in Table 1-5.
- An assessment of administrative and technical capabilities is presented in Table 1-6.
- An assessment of education and outreach capabilities is presented in Table 1-7.
- Information on National Flood Insurance Program (NFIP) compliance is presented in Table 1-8.
- Classifications under various community mitigation programs are presented in Table 1-9.
- The community's adaptive capacity for the impacts of climate change is presented in Table 1-10.

**Table 1-3.** Planning and Regulatory Capability

| | Local Authority | Other Jurisdiction Authority | State Mandated | Integration Opportunity? |
|---|---|---|---|---|
| **Codes, Ordinances, & Requirements** | | | | |
| Building Code<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Zoning Code<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Subdivisions<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Stormwater Management<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Post-Disaster Recovery<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Real Estate Disclosure<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Growth Management<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Site Plan Review<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Environmental Protection<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Flood Damage Prevention<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Emergency Management<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Climate Change<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Other<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| **Planning Documents** | | | | |
| General Plan<br>*Is the plan compliant with Assembly Bill 2140?* *Yes/No*<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Capital Improvement Plan<br>*How often is the plan updated?* _____<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Disaster Debris Management Plan<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Floodplain or Watershed Plan<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Stormwater Plan<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| Urban Water Management Plan<br>*Comment:* *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |

| | Local Authority | Other Jurisdiction Authority | State Mandated | Integration Opportunity? |
|---|---|---|---|---|
| **Habitat Conservation Plan**<br>***Comment:*** *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| **Economic Development Plan**<br>***Comment:*** *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| **Shoreline Management Plan**<br>***Comment:*** *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| **Community Wildfire Protection Plan**<br>***Comment:*** *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| **Forest Management Plan**<br>***Comment:*** *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| **Climate Action Plan**<br>***Comment:*** *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| **Comprehensive Emergency Management Plan**<br>***Comment:*** *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| **Threat & Hazard Identification & Risk Assessment (THIRA)**<br>***Comment:*** *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| **Post-Disaster Recovery Plan**<br>***Comment:*** *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| **Continuity of Operations Plan**<br>***Comment:*** *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| **Public Health Plan**<br>***Comment:*** *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |
| **Other**<br>***Comment:*** *Enter Comment* | Yes/No | Yes/No | Yes/No | Yes/No |

**Table 1-4.** Development and Permitting Capability

| Criterion | Response |
|---|---|
| **Does your jurisdiction issue development permits?**<br>***If no, who does? If yes, which department?*** Enter Response | Yes/No |
| **Does your jurisdiction have the ability to track permits by hazard area?** | Yes/No |
| **Does your jurisdiction have a buildable lands inventory?** | Yes/No |

**Table 1-5.** Fiscal Capability

| Financial Resource | Accessible or Eligible to Use? |
|---|---|
| Community Development Block Grants | Yes/No |
| Capital Improvements Project Funding | Yes/No |
| Authority to Levy Taxes for Specific Purposes | Yes/No |
| User Fees for Water, Sewer, Gas or Electric Service<br>*If yes, specify:* Enter Response | Yes/No |
| Incur Debt through General Obligation Bonds | Yes/No |
| Incur Debt through Special Tax Bonds | Yes/No |
| Incur Debt through Private Activity Bonds | Yes/No |
| Withhold Public Expenditures in Hazard-Prone Areas | Yes/No |
| State-Sponsored Grant Programs | Yes/No |
| Development Impact Fees for Homebuyers or Developers | Yes/No |
| Other<br>*If yes, specify:* Enter Response | Yes/No |

**Table 1-6.** Administrative and Technical Capability

| Staff/Personnel Resource | Available? |
|---|---|
| Planners or engineers with knowledge of land development and land management practices<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Engineers or professionals trained in building or infrastructure construction practices<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Planners or engineers with an understanding of natural hazards<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Staff with training in benefit/cost analysis<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Surveyors<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Personnel skilled or trained in GIS applications<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Scientist familiar with natural hazards in local area<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Emergency manager<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Grant writers<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Other<br>*If Yes, Department /Position:* Enter Response | Yes/No |

**Table 1-7.** Education and Outreach Capability

| Criterion | Response |
|---|---|
| Do you have a public information officer or communications office? | Yes/No |
| Do you have personnel skilled or trained in website development? | Yes/No |
| Do you have hazard mitigation information available on your website?<br>*If yes, briefly describe:* Enter Response | Yes/No |
| Do you use social media for hazard mitigation education and outreach?<br>*If yes, briefly describe:* Enter Response | Yes/No |
| Do you have any citizen boards or commissions that address issues related to hazard mitigation?<br>*If yes, briefly describe:* Enter Response | Yes/No |
| Do you have any other programs in place that could be used to communicate hazard-related information?<br>*If yes, briefly describe:* Enter Response | Yes/No |
| Do you have any established warning systems for hazard events?<br>*If yes, briefly describe:* Enter Response | Yes/No |

**Table 1-8.** National Flood Insurance Program Compliance

| Criterion | Response |
|---|---|
| What local department is responsible for floodplain management? | Enter Response |
| Who is your floodplain administrator? (department/position) | Enter Response |
| Are any certified floodplain managers on staff in your jurisdiction? | Yes/No |
| What is the date that your flood damage prevention ordinance was last amended? | Enter Response |
| Does your floodplain management program meet or exceed minimum requirements?<br>*If exceeds, in what ways?* Enter Response | Meets/Exceeds |
| When was the most recent Community Assistance Visit or Community Assistance Contact? | Enter Response |
| Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?<br>*If so, state what they are.* Enter Response | Yes/No |
| Are any RiskMAP projects currently underway in your jurisdiction?<br>*If so, state what they are.* Enter Response | Yes/No |
| Do your flood hazard maps adequately address the flood risk within your jurisdiction?<br>*If no, state why.* Enter Response | Yes/No |
| Does your floodplain management staff need any assistance or training to support its floodplain management program?<br>*If so, what type of assistance/training is needed?* Enter Response | Yes/No |
| Does your jurisdiction participate in the Community Rating System (CRS)?<br>*If yes, is your jurisdiction interested in improving its CRS Classification?* Yes/No<br>*If no, is your jurisdiction interested in joining the CRS program?* Yes/No | Yes/No |
| How many flood insurance policies are in force in your jurisdiction?[a]<br>*What is the insurance in force?* $_____<br>*What is the premium in force?* $_____ | Enter Response |

| Criterion | Response |
|---|---|
| **How many total loss claims have been filed in your jurisdiction?[a]**<br>***How many claims are still open or were closed without payment?*** Enter Response<br>***What were the total payments for losses?*** $_____ | Enter Response |

a. According to FEMA statistics as of MONTH XX, 20XX

**Table 1-9.** Community Classifications

| | Participating? | Classification | Date Classified |
|---|---|---|---|
| **FIPS Code** | Yes/No | _____ | Date |
| **DUNS #** | Yes/No | _____ | Date |
| **Community Rating System** | Yes/No | _____ | Date |
| **Building Code Effectiveness Grading Schedule** | Yes/No | _____ | Date |
| **Public Protection** | Yes/No | _____ | Date |
| **Storm Ready** | Yes/No | _____ | Date |
| **Firewise** | Yes/No | _____ | Date |
| **Tsunami Ready** | Yes/No | _____ | Date |

**Table 1-10.** Adaptive Capacity for Climate Change

| Criterion | Jurisdiction Rating[a] |
|---|---|
| **Technical Capacity** | |
| **Jurisdiction-level understanding of potential climate change impacts**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Jurisdiction-level monitoring of climate change impacts**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Technical resources to assess proposed strategies for feasibility and externalities**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Jurisdiction-level capacity for development of greenhouse gas emissions inventory**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Capital planning and land use decisions informed by potential climate impacts**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Participation in regional groups addressing climate risks**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Implementation Capacity** | |
| **Clear authority/mandate to consider climate change impacts during public decision-making processes**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Identified strategies for greenhouse gas mitigation efforts**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Identified strategies for adaptation to impacts**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Champions for climate action in local government departments**<br>***Comment:*** *Enter Comment* | High/Medium/Low |

| Criterion | Jurisdiction Rating[a] |
|---|---|
| **Political support for implementing climate change adaptation strategies**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Financial resources devoted to climate change adaptation**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Local authority over sectors likely to be negative impacted**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Public Capacity** | |
| **Local residents knowledge of and understanding of climate risk**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Local residents support of adaptation efforts**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Local residents' capacity to adapt to climate impacts**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Local economy current capacity to adapt to climate impacts**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Local ecosystems capacity to adapt to climate impacts**<br>***Comment:*** *Enter Comment* | High/Medium/Low |

a. High = Capacity exists and is in use; Medium = Capacity may exist, but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure= Not enough information is known to assign a rating.

## 1.5 INTEGRATION REVIEW

For hazard mitigation planning, "integration" means that hazard mitigation information is used in other relevant planning mechanisms, such as general planning and capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place, and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the hazard mitigation plan will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

### 1.5.1 Existing Integration

Some level of integration has already been established between local hazard mitigation planning and the following other local plans and programs:

- **Plan or Program Name**—Description
- **Plan or Program Name**—Description
- **Plan or Program Name**—Description
- **Plan or Program Name**—Description
- **Plan or Program Name**—Description

### 1.5.2 Opportunities for Future Integration

The capability assessment presented in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration opportunities if they can support or enhance the actions identified in this plan or be supported or enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- **Plan or Program Name**—Description
- **Plan or Program Name**—Description
- **Plan or Program Name**—Description
- **Plan or Program Name**—Description
- **Plan or Program Name**—Description

Taking action to integrate each of these programs with the hazard mitigation plan was considered as a mitigation action to include in the action plan presented in this annex.

## 1.6 RISK ASSESSMENT

### 1.6.1 Jurisdiction-Specific Natural Hazard Event History

Table 1-11 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this hazard mitigation plan.

**Table 1-11.** Past Natural Hazard Events

| Type of Event | FEMA Disaster # | Date | Damage Assessment |
|---|---|---|---|
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |

## 1.6.2 Hazard Risk Ranking

Table 1-12 presents a local ranking of all hazards of concern for which this hazard mitigation plan provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property and the economy. Mitigation actions target hazards with high and medium rankings.

**Table 1-12.** Hazard Risk Ranking

| Rank | Hazard | Risk Ranking Score | Risk Category |
|---|---|---|---|
| 1 | | | High/Medium/Low |
| 2 | | | High/Medium/Low |
| 3 | | | High/Medium/Low |
| 4 | | | High/Medium/Low |
| 5 | | | High/Medium/Low |
| 6 | | | High/Medium/Low |
| 7 | | | High/Medium/Low |
| 8 | | | High/Medium/Low |
| 9 | | | High/Medium/Low |

## 1.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided at the end of this annex.

### *Repetitive Loss Properties*

Repetitive loss records are as follows:

- Number of FEMA-identified Repetitive-Loss Properties: XX
- Number of FEMA-identified Severe-Repetitive-Loss Properties: XX
- Number of Repetitive-Loss Properties or Severe-Repetitive-Loss Properties that have been mitigated: XX

### *Other Noted Vulnerabilities*

The following jurisdiction-specific issues have been identified based on a review of the results of the risk assessment, public involvement strategy, and other available resources:

- Insert as appropriate.
- Insert as appropriate.
- Insert as appropriate.

Mitigation actions addressing these issues were prioritized for consideration in the action plan presented in this annex.

## 1.7 STATUS OF PREVIOUS PLAN ACTIONS

If your jurisdiction has no previous hazard mitigation plan, please enter an "X" in the box at right and do not complete this section.

Table 1-13 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

**Table 1-13.** Status of Previous Plan Actions

| Action Item from Previous Plan | Completed | Removed; No Longer Feasible | Carried Over to Plan Update: Check if Yes | Carried Over to Plan Update: Action # in Update |
|---|---|---|---|---|
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |

## 1.8 HAZARD MITIGATION ACTION PLAN

Table 1-14 lists the identified actions, which make up the hazard mitigation action plan for this jurisdiction. Table 1-15 identifies the priority for each action. Table 1-16 summarizes the mitigation actions by hazard of concern and mitigation type.

**Table 1-14.** Hazard Mitigation Action Plan Matrix

| Benefits New or Existing Assets | Objectives Met | Lead Agency | Support Agency | Estimated Cost | Sources of Funding | Timeline[a] |
|---|---|---|---|---|---|---|
| **Action xxx-1**—Where appropriate, support retrofitting, purchase or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are located in high- or medium-risk hazard areas. | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| Existing | Enter Response | Enter Response | Enter Response | High | HMGP, PDM, FMA | Short-term |
| **Action xxx-2**— Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including _____ | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| New & Existing | Enter Response | Enter Response | Enter Response | Low | Staff Time, General Funds | Ongoing |
| **Action xxx-3**—Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan. | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| New & Existing | Enter Response | Enter Response | Enter Response | Low | Staff Time, General Funds | Short-term |
| **Action xxx-4**—Continue to maintain good standing and compliance under the NFIP through implementation of floodplain management programs that, at a minimum, meet the NFIP requirements:<br>• Enforce the flood damage prevention ordinance.<br>• Participate in floodplain identification and mapping updates.<br>• Provide public assistance/information on floodplain requirements and impacts. | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| New & Existing | Enter Response | Enter Response | Enter Response | Low | Staff Time, General Funds | Ongoing |
| **Action xxx-5**—Identify and pursue strategies to increase adaptive capacity to climate change including but not limited to the following:<br>• _____. | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| New & Existing | Enter Response | Enter Response | Enter Response | Low | Staff Time, General Funds | Short-term |
| **Action xxx-6**— Purchase generators for critical facilities and infrastructure that lack adequate backup power, including _____. | | | | | | |
| *Hazards Mitigated:* Dam failure, earthquake, flooding, landslide, severe weather, tsunami, wildfire | | | | | | |
| Existing | Enter Response | Enter Response | Enter Response | | | |
| **Action xxx**-7—Description | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response |
| **Action xxx**-8—Description | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response |

| Benefits New or Existing Assets | Objectives Met | Lead Agency | Support Agency | Estimated Cost | Sources of Funding | Timeline[a] |
|---|---|---|---|---|---|---|
| **Action xxx-9—Description** | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response |
| **Action xxx-10—Description** | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response |
| **Action xxx-11—Description** | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response |

a. Short-term = Completion within 5 years; Long-term = Completion within 10 years; Ongoing= Continuing new or existing program with no completion date

Acronyms used here are defined at the beginning of this volume.

**Table 1-15.** Mitigation Action Priority

| Action # | # of Objectives Met | Benefits | Costs | Do Benefits Equal or Exceed Cost? | Is Project Grant-Eligible? | Can Project Be Funded Under Existing Programs/ Budgets? | Implementation Priority[a] | Grant Pursuit Priority[a] |
|---|---|---|---|---|---|---|---|---|
| 1 | 3 | High | High | Yes | Yes | No | Medium | High |
| 2 | 7 | Medium | Low | Yes | No | Yes | High | Low |
| 3 | 3 | Low | Low | Yes | No | Yes | High | Low |
| 4 | 6 | Medium | Low | Yes | No | Yes | High | Low |
| 5 | 7 | Medium | Low | Yes | No | Yes | High | Medium |
| 6 | 3 | High | Medium | Yes | Yes | No | Medium | High |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |

a. See the introduction to this volume for explanation of priorities.

**Table 1-16.** Analysis of Mitigation Actions

| Hazard Type | Action Addressing Hazard, by Mitigation Type[a] | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Prevention | Property Protection | Public Education & Awareness | Natural Resource Protection | Emergency Services | Structural Projects | Climate Resilience | Community Capacity Building |
| **High-Risk Hazards** | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| Hazard Type | Action Addressing Hazard, by Mitigation Type[a] | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Prevention | Property Protection | Public Education & Awareness | Natural Resource Protection | Emergency Services | Structural Projects | Climate Resilience | Community Capacity Building |
| | | | | | | | | |
| **Medium-Risk Hazards** | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Low-Risk Hazards** | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

a. See the introduction to this volume for explanation of mitigation types.

## 1.9 PUBLIC OUTREACH

Table 1-17 lists public outreach activities for this jurisdiction.

**Table 1-17.** Local Public Outreach

| Local Outreach Activity | Date | Number of People Involved |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

## 1.10 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex.

- **___[jurisdiction name]___ Municipal Code**—The municipal code was reviewed for the full capability assessment and for identifying opportunities for action plan integration.
- **___[jurisdiction name]___ Flood Damage Prevention Ordinance**—The flood damage prevention ordinance was reviewed for compliance with the National Flood Insurance Program.
- <INSERT PLAN/PROGRAM AND DESCRIPTION OF HOW IT WAS USED>
- <INSERT PLAN/PROGRAM AND DESCRIPTION OF HOW IT WAS USED>
- <INSERT PLAN/PROGRAM AND DESCRIPTION OF HOW IT WAS USED>
- <INSERT PLAN/PROGRAM AND DESCRIPTION OF HOW IT WAS USED>

The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit**—The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.
- <INSERT DOCUMENT AND DESCRIPTION OF HOW IT WAS USED>

## 1.11 FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

Insert text, if any; otherwise, delete section

## 1.12 ADDITIONAL COMMENTS

Insert text, if any; otherwise, delete section

# INSTRUCTIONS FOR COMPLETING ANNEXES FOR SPECIAL-PURPOSE DISTRICTS

# INSTRUCTIONS FOR COMPLETING SPECIAL-PURPOSE DISTRICT ANNEX TEMPLATE

Jurisdictional annex templates for the *2021 San Mateo Multijurisdictional Local Hazard Mitigation Plan* update will be completed in three phases. **This document provides instructions for completing all phases of the template for special-purpose districts.**

The target timeline for completion is as follows:

- Phase 1—Team, Profile, Trends, and Previous Plan Status
  - **Deployed:** February 19, 2021
  - **Due:** March 19, 2021 by close of business
- Phase 2—Capability Assessment, Integration Review, and Information Sources
  - **Deployed:** April 2, 2021
  - **Due:** May 21, 2021 by close of business
- **Phase 3**—Risk Assessment, Action Plan, Information Sources, Future Needs, and Additional Comments
  - **Deployed:** June 11, 2021
  - **Mandatory Phase 3 Workshops**: Targeted for the week of June 14. We will schedule multiple workshops during that week to provide options for attendance
  - **Due**: July 23, 2021 by close of business, Pacific Time

Direct any questions about your Phase 3 template to:


**Bart Spencer**
**Tetra Tech**
**Phone: (650) 324-1810**
**E-mail:** *bart.spencer@tetratech.com*


Submit your completed Phase 3 template in electronic format to:


**Megan Brotherton**
**Tetra Tech**
**Phone: (808) 339-9119**
**E-mail:** *megan.brotherton@tetratech.com*


### A Note About Formatting

The template for the annex is a Microsoft Word document in a format that will be used in the final plan. Partners are asked to use this template so that a uniform product will be completed for each partner.

Content should be entered directly into the template rather than creating text in another document and pasting it into the template. Text from another source may alter the formatting of the document.

**DO NOT** covert this document to a PDF.

The section and table numbering in the document will be updated when completed annexes are combined into the final document. Please do not adjust any of the numbering.

---

For planning partners who participated in the 2016 planning effort, relevant information has been brought over to the 2021 template. Fields that require attention have been highlighted using the following color coding:

- **Green:** Text has been brought over from 2016 Plan and should be reviewed and updated as needed.
- **Blue:** This is a new field that will require information that was not included in 2016.

***Please un-highlight each field that you update so that reviewers will know an edit has been made.***

New planning partners will need to complete the template in its entirety.

# IMPORTANT! READ THIS FIRST

Phase 1 and Phase 2 templates were previously provided to your jurisdiction for completion.

If your jurisdiction returned the completed Phase 1 & 2 templates:

- The Phase 1 & 2 content you provided is already incorporated into your Phase 3 template.
- Review the template to see if we have inserted any comments requesting further work to be done on Phase 1 or 2
  - ***If any comments are included, address them.*** Then, begin your work on Phase 3 following the Phase 3 instructions beginning on page 12.
  - If no comments are included, then you **DO NOT** need to do any further work on the Phase 1 or Phase 2 content. ***Go directly to the instructions for Phase 3, beginning on page*** 12***.***

If your jurisdiction has **NOT** yet done any work on the Phase 1 or Phase 2 template:

- Follow the instructions beginning on page 3 for providing the Phase 1 and Phase 2 information.
- Then proceed with the Phase 3 instructions beginning on page 12.

If your jurisdiction started work on the Phase 1 or 2 template but never completed and submitted it, copy the work you had completed so far into the new template. Then complete Phases 1, 2, and 3 following the instructions provided here.

**PHASE 1 INSTRUCTIONS**

# CHAPTER TITLE

In the chapter title at the top of Page 1, type in the complete official name of your district (e.g. West County Fire Protection District #1, Johnsonville Flood Protection District). Do not change the chapter number. Revise only the jurisdiction name. If your jurisdiction's name has already been entered, verify that wording and spelling are correct; revise as needed.

# LOCAL HAZARD MITIGATION PLANNING TEAM

## Points of Contact

Provide the name, title, mailing address, telephone number, and e-mail address for the primary point of contact for your jurisdiction. This should be the person responsible for monitoring, evaluating, and updating the annex for your jurisdiction. This person should also be the principle liaison between your jurisdiction and the Steering Committee overseeing development of this plan.

In addition, designate an alternate point of contact. This would be a person to contact should the primary point of contact be unavailable or no longer employed by the jurisdiction.

*Note: Both of these contacts should match the contacts that were designated in your jurisdiction's letter of intent to participate in this planning process. If you have changed the primary or secondary contact, let the planning team know by inserting a comment into the document.*

## Participating Planning Team

Populate Table 1-1 with the names of staff from your jurisdiction who participated in preparing this annex or otherwise contributed to the planning process for this hazard mitigation plan.

# JURISDICTION PROFILE

## Overview

Provide a brief summary description of the following:

- The purpose of the jurisdiction
- The date of inception
- The type of organization
- The number of employees
- Funding sources
- The type of governing body, and who has adoptive authority.

This should be information that is specific to your jurisdiction and will not be provided in the overall, planning area-wide mitigation plan document. Provide a statement similar to the example below:

> **EXAMPLE:** *The Johnsonville Community Services District is a special district created in 1952 to provide water and sewer service. A five-member elected Board of Directors governs the District. The Board assumes responsibility for the adoption of this plan; the General Manager will oversee its implementation. The District currently employs a staff of 21. Funding comes primarily through rates and revenue bonds.*

## Service Area

Provide a brief description of the following:

- Who the District's customers are and an approximation of how many are currently served
- The area served, in square miles
- The geographic extent of the service area

This should be information that is specific to your jurisdiction and will not be provided in the overall, planning area-wide mitigation plan document. Provide a statement similar to the example below:

> **EXAMPLE:** *The Johnsonville Community Services District serves unincorporated areas of Jones County east of the City of Smithburg, including the communities of Johnsonville, Creeks Corner, Jones Hill, Fields Landing, King Salmon, and Freshwater. The current total service area is 3.3 square miles. As of April 30, 2020, the District serves 7,305 water connections and 6,108 sewer connections.*

## Assets

List District-owned assets in the categories shown on the table (and described in the sections below). Include an approximate value for each asset and a subtotal value for identified assets in each category.

### Property

Provide an approximate value for any land owned by the District.

### Equipment

List equipment owned by the District that is used in times of emergency or that, if incapacitated, could severely impact the service area (vehicles, generators, pumps, etc.). Provide an approximate replacement value for each item. Equipment of similar type may be listed as a single category (e.g., "3 diesel-powered generators"). For water and sewer districts, include mileage of pipeline under this category.

### Critical Facilities

List District-owned facilities that are vital to maintain services to the service area. Include the address of each facility. Provide an approximate replacement value for each line. Critical facilities are generally defined as facilities owned by the District that are critical to District operations and to public health or safety and that are especially important following hazard events, including but not limited to the following:

- Structures or facilities that produce, use, or store hazardous materials (highly volatile, flammable, explosive, toxic and/or water-reactive materials)

- Hospitals, nursing homes, and housing facilities likely to contain occupants who may not be sufficiently mobile to avoid death or injury during a natural hazard event
- Mass gathering facilities that may be used as evacuation shelters (such as schools or community centers)
- Transportation infrastructure such as roads, bridges and airports that provide sources for evacuation before, during and after natural hazard events
- Police stations, fire stations, government facilities, vehicle equipment and storage facilities, and emergency operation centers that are needed for response activities before, during and after a natural hazard event
- Public utility facilities such as drinking water, stormwater, and wastewater systems that are vital to providing normal services to damaged areas before, during and after natural hazard events.

The table below shows an example of assets to be listed in this section.

**Sample Completed Table – Special District Assets**

| Asset | Value |
|---|---|
| **Property** | |
| 11.5 Acres | $5,750,000 |
| **Equipment** | |
| Total length of pipe 40 miles ( $1.32 million per mile X 40 miles) | $52,800,000 |
| 4 Emergency Generators | $250,000 |
| ***Total:*** | ***$53,050,000*** |
| **Critical Facilities** | |
| Administrative Buildings – 357 S. Jones Street | $2,750,000 |
| Philips Pump Station – 111 Fifth Avenue N. | $377,000 |
| ***Total:*** | ***$3,127,000*** |

**NOTE:** Placeholders in the table of assets request **ADDRESSES** for critical facilities. These addresses will not be included in the final published annex, but are needed in order to perform risk mapping and risk analysis for the hazard mitigation plan. Include the addresses in the table if convenient. If not, then provide a separate document listing all critical facilities and addresses for use in development of the hazard mitigation plan.

## CURRENT TRENDS

Provide a brief description of previous growth trends in the service area and anticipated future increase or decrease in services (if applicable). This should be information that is specific to your jurisdiction and will not be provided in the overall, planning area-wide mitigation plan document. Provide a statement similar to the example below:

> **EXAMPLE:** *The Johnsonville Community Services District originally was formed to serve only the Johnsonville area. The District's service area expanded throughout the years to include the full area served today. Total customers have increased by 3 percent since 2010. Population in the service area is not projected to change significantly over the next 10 years, and the District has no plans to expand its service area.*

## STATUS OF PREVIOUS PLAN ACTIONS

*Note that this section applies only to jurisdictions that are conducting updates to previously approved hazard mitigation plans. If your jurisdiction has not previously participated in an approved plan, enter an "X" in the box at the beginning of this section and do not complete the section. We will remove this section from your final annex.*

*Also note that this section is further back in the annex than the rest of the Phase 1 content. Some Phase 2 sections are included before it.*

The hazard mitigation plan update must describe the status of all action items from each jurisdiction's previous hazard mitigation plan. Each action item must be marked as ONE of the options below by checking the appropriate box (place an X) and providing the following information:

- **Completed**—If an action has been completed since the prior plan was prepared, check the "Completed" box and provide a date of completion in the comment section. If an action has been initiated and is an ongoing program (e.g. annual outreach event), you may mark it as completed and note that it is ongoing in the comments. If an action addresses an ongoing program you would like to continue to include in your action plan, see the "Carried Over to Plan Update" bullet below.
- **Removed**—If action items are to be removed because they are no longer feasible, a reason must be given. Lack of funding does not mean that it is no longer feasible, unless the sole source of funding for an action is no longer available. Place a comment in the comment section explaining why the action is no longer feasible or barriers that prevented the action from being implemented (e.g., "Action no longer considered feasible due to lack of political support."). If the wording and/or intent of a previously identified action is unclear, this can be a reason for removal. A change in community priorities may also be a reason for removal and should be discussed in the comments.
- **Carried Over to Plan Update**—If an action is in progress, is ongoing, or has not been initiated and you would like to carry it over to the plan update, check the "Check if Yes" column under "Carried Over to Plan Update." Selecting this option indicates that the action will be included in the mitigation action plan for this update. If you are carrying over an action to the update, include a comment describing any action that has been taken or why the action was not taken (specifically, any barriers or obstacles that prevented the action from moving forward or slowed progress). Leave the last column, "Action # in Update," blank at this point. This will be filled in after completing the updated action plan in Phase 3.

Ensure that you have provided a status and a comment for each action.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, all action items from your jurisdiction's previous hazard mitigation plan that are marked as "Carried Over to Plan Update" will need to be included in the action plan.

THIS COMPLETES PHASE 1

**PHASE 2 INSTRUCTIONS**

# CAPABILITY ASSESSMENT

*Note that it is unlikely that one person will be able to complete all sections of the capability assessment alone. The primary preparer will likely need to reach out to other departments within the local government for information. It may be beneficial to provide these individuals with background information about this planning process, as input from them will be needed again during Phase 3 of the annex development.*

## Planning and Regulatory Capability

List any federal, state, local or district ordinances, plans, or policies that apply to your jurisdiction and relate to hazard mitigation. Provide the date of last update and any comments as appropriate. The table below shows an example of items to be listed in this section.

**Sample Completed Table – Planning and Regulatory Capability**

| Plan, Study or Program | Date of Most Recent Update | Comment |
|---|---|---|
| **District Design Standards** | 2010 | |
| **Capital Improvement Program** | Updated annually | covers 5 year timeframe |
| **Emergency Operations Plan** | 2000 | |
| **Facility Maintenance Manual** | 1990 | |
| **State Building Code** | 2016 | |
| **Division of State Architects** | | Review of all building and site design features is required prior to construction |

## Fiscal Capability

Complete the table titled "Fiscal Capability" by indicating whether each of the listed financial resources is accessible to your jurisdiction. Enter "Yes" if the resource is fully accessible to your jurisdiction. Enter "No" if there are limitations or prerequisites that may hinder your use of this resource.

## Administrative and Technical Capability

Complete the table titled "Administrative and Technical Capability" by indicating whether your jurisdiction has access to each of the listed personnel resources. Enter "Yes" or "No" in the column labeled "Available?". If yes, then enter the department and position title. If you have contract support with these capabilities, you can still answer "Yes." Indicate in the department row that this resource is provided through contract.

## Education and Outreach Capability

Complete the table titled "Education and Outreach."

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, review all the above capability assessment tables and consider including actions to provide a capability that your jurisdiction does not currently have, update a capability that your jurisdiction does have, or implement an action that is recommended in an existing plan or program.

## Community Classifications

Complete the table titled "Community Classifications" to indicate your jurisdiction's participation in various national programs related to natural hazard mitigation. For each program enter "Yes" or "No" in the second column to indicate whether your jurisdiction participates. If yes, then enter the classification that your jurisdiction has earned under the program in the third column and the date on which that classification was issued in the fourth column; enter "N/A" in the third and fourth columns if your jurisdiction is not participating. If you do not know your current classification, information is available at the following websites:

- **FIPS Code**— https://www.census.gov/geographies/reference-files/2018/demo/popest/2018-fips.html
- **DUNS #**— https://www.dnb.com/duns-number.html
- **Community Rating System**— https://www.fema.gov/floodplain-management/community-rating-system
- **Building Code Effectiveness Grading Schedule**— https://www.isomitigation.com/bcegs/iso-s-building-code-effectiveness-grading-schedule-bcegs.html
- **Public Protection Classification**— https://www.isomitigation.com/ppc/
- **Storm Ready**— https://www.weather.gov/stormready/communities
- **Firewise**— http://www.firewise.org/usa-recognition-program/map-of-active-participants.aspx
- **Tsunami Ready**— https://www.weather.gov/tsunamiready/communities

## Adaptive Capacity for Climate Change

Consider climate change impact concerns such as the following:

- Reduced snowpack
- Increased wildfires
- Sea level rise
- Inland flooding
- Threats to sensitive species
- Loss in agricultural productivity
- Public health and safety.

With those impacts in mind, complete the table titled "Adaptive Capacity for Climate Change" by indicating your jurisdiction's capacity for each listed criterion as follows:

- **High**—The capacity exists and is in use.
- **Medium**—The capacity may exist, but is not used or could use some improvement.
- **Low**—The capacity does not exist or could use substantial improvement.
- **Unsure**—Not enough information is known to assign a rating.

This is a subjective assessment, but providing a few words of explanation is useful. It is highly recommended that you complete this table with an internal planning team after reviewing the results of the other capability assessment tables.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, review all the adaptive capacity criteria and consider including actions to improve the rating for those rated medium or low, to make use of the capacity for those rated high, or to acquire additional information for those rated unsure.

# INTEGRATION REVIEW

For hazard mitigation planning, "integration" means that hazard mitigation information is used in other relevant planning mechanisms, such as capital facilities planning, and that relevant information from those sources is used in hazard mitigation. FEMA recommends integration as follows:

- Integrate hazard mitigation plan goals with community objectives (e.g. incorporate the goals for risk reduction and safety into the policies of other plans).
- Use the risk assessment to inform plans and policies (e.g. incorporate risk assessment findings into emergency operations plans).
- Implement mitigation actions through existing mechanisms (e.g. include mitigation projects in the capital improvement plan).
- Think about mitigation before and after a disaster (e.g. build recovery planning on existing mitigation plans and goals).

After reviewing the plans, programs and ordinances identified in the capability assessment tables, identify all plans and programs that have already been integrated with the hazard mitigation plan, and those that offer opportunities for future integration.

## Existing Integration

In the highlighted bullet list, provide a brief description of integrated plans or ordinances and how each is integrated. Consider listing items marked as Completed in the "Status of Previous Plan Actions" table if they were indicated as being ongoing actions. Examples are as follows:

- Capital Improvement Plan—The capital improvement plan includes projects that can help mitigate potential hazards. The District will act to ensure consistency between the hazard mitigation plan and the current and future capital improvement plans. The hazard mitigation plan may identify new possible funding sources for capital improvement projects and may result in modifications to proposed projects based on results of the risk assessment.
- Emergency Operations Plan—The results of the risk assessment were used in the development of the emergency operations plan.

- **Facilities Plan**—The results of the risk assessment and mapped hazard areas are used in facility planning for the District. Potential sites are reviewed for hazard risks, and appropriate mitigation measures are considered in building and site design.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, any plans that fall into the "Existing Integration" category should be reviewed and elements from them should be included in the action plan as appropriate.

## Opportunities for Future Integration

List any plans or programs that offer the potential for future integration and describe the process by which integration will occur. Examples follow:

- **Capital Improvement Projects**—Capital improvement project proposals may take into consideration hazard mitigation potential as a means of evaluating project prioritization.
- **Post-Disaster Recovery Plan**—The District does not have a recovery plan and intends to develop one as a mitigation planning action during the next five years. The plan will build on the mitigation goals and objectives identified in the mitigation plan.

Consider other programs you may have in place in your jurisdiction that include routine consideration and management of hazard risk. Examples of such programs may include: tree pruning programs, right-of-way mowing programs, erosion control or stream maintenance programs, etc. Add any such programs to the integration discussion and provide a brief description of how these program manage (or could be adapted to manage) risk from hazards.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, an action to integrate any identified "Opportunities for Future Integration" should be considered for inclusion in the action plan.

# INFORMATION SOURCES USED FOR THIS ANNEX

***Note that this section will ultimately describe all information sources used to develop this annex, but that only the sources used for Phases 1 and 2 will be listed at this point. Additional sources will be added with the preparation of the Phase 3 annex.***

This section should describe what resources you used to complete the annex and how you used them. Several items are started for you, but be sure to update and enhance any descriptions. Providing this information is a requirement to pass the state and FEMA review process.

THIS COMPLETES PHASE 2

**PHASE 3 INSTRUCTIONS**

# RISK ASSESSMENT

## Jurisdiction-Specific Natural Hazard Event History

In the table titled "Past Natural Hazard Events," list in chronological order (most recent first) any natural hazard event that has caused damage to your jurisdiction. Include the date of the event and the estimated dollar amount of damage it caused. You are welcome to include any events, but special attention should be made to include major storms and federally declared disasters. Refer to the table below that lists hazard events in the planning area as recognized by the County, the state, and the federal government.

**Table 1.** Presidential Disaster Declarations for the Planning Area

| Dates | FEMA Disaster #/Event Name | County Emergency Op. Center Activated | Gubernatorial Declaration | Presidential Declaration |
|---|---|---|---|---|
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We recommend including most large-scale disasters, unless you know that there were no impacts on your jurisdiction. Specifically, we recommend that you include these events if you have damage estimate information or can provide a brief description of impacts that occurred within your community. In addition to these events, refer to the NOAA storm events database included in the toolkit. We recommend conducting a search for the name of your jurisdiction in order to identify events with known impacts. Other potential sources of damage information include the following

- Preliminary damage estimates your jurisdiction filed with the county or state
- Insurance claims data
- Newspaper archives
- Emergency management documents (general plan safety element, emergency response plan, etc.)
- Resident input.

If you do not have estimates for costs of damage caused, list "Not Available" in the "Damage Assessment" column or list a brief description of the damage rather than a dollar value (e.g., Main Street closed as a result of flooding, downed trees and residential damage). Note that tracking such damage is a valid and useful mitigation action if your jurisdiction does not currently track such information.

## Hazard Risk Ranking

Risk ranking identifies which hazards pose the greatest risk to the community, based on how likely it is for each hazard to occur (this is called the community's exposure) and how great an impact each hazard will have if it does occur (this is called the community's vulnerability). Every jurisdiction has differing degrees of risk exposure and vulnerability and therefore needs to rank risk for its own area. Risk rankings for cities and the county have been calculated in the "Loss Matrix" spreadsheet included in the annex preparation toolkit. These rankings are on the basis of risk ranking scores for each hazard that were calculated based on the hazard's probability of occurrence and its potential impact on people, property and the economy.

The risk ranking methodology used for cities and counties is not usable for special-purpose districts because the risk-related mapping generally does not align with the boundaries of districts. To rank risk for your District, use the following procedure:

- Find the risk ranking scores in the Loss Matrix spreadsheet (on the "Risk Ranking Summary" tab) for the county overall and for any cities whose area overlaps that of your District.
- For each hazard, generate a risk ranking score for your District by calculating the average of the scores for those other jurisdictions.
- Rank the hazards based on those average scores:
  - Assign the rank of 1 to the hazard with the highest risk ranking score, the rank of 2 to the hazard with the second highest ranking score; and so on.
  - Assign the same rank to any two hazards with equal risk ranking scores
- If the resulting ranking differs from what you know based on substantiated data and documentation, alter the scores and ranking as needed based on this knowledge.

- Assign each hazard to the risk category of "High," Medium," or "Low" based on the risk rating score:
  - Low for scores of 0 to 15
  - Medium for scores of 16 to 30
  - High for scores greater than 30

Enter the results of this analysis in the "Hazard Risk Ranking" table in the template; enter the hazards in order of ranking, with 1 at the top of the table.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, you will need to have at least one mitigation action for each hazard ranked as "high" or "medium."

## Jurisdiction-Specific Vulnerabilities

Review the results of the risk assessment included in the toolkit, your jurisdiction's natural events history, and any relevant public comments/input, then develop a few sentences that discuss specific hazard vulnerabilities. You do not need to develop a sentence for every hazard, but identify a few issues you would like to highlight. Also list any known hazard vulnerabilities in your jurisdiction that may not be apparent from the risk assessment and other information provided.

Spending some time thinking about the results of the risk assessment and other noted vulnerabilities will be a big help in the development of your hazard mitigation action plan. The following are examples of vulnerabilities you could identify through this exercise:

- Over the past 10 years, the jurisdiction has experienced more than $1 million in damage to critical assets from severe storm events.
- 17 critical assets are in areas that would be permanently inundated with 12 inches of sea level rise.
- One significant District asset is not equipped with a generator and four District buildings are unreinforced masonry or soft-story construction.
- An area along the river is eroding and threatening a District-owned treatment facility.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, consider including actions to address the jurisdiction-specific vulnerabilities listed in this section.

# HAZARD MITIGATION ACTION PLAN

## Hazard Mitigation Action Plan Matrix

The hazard mitigation action plan is the heart of your jurisdictional annex. This is where you will identify the actions your jurisdiction would like to pursue with this plan.

## Select Recommended Actions

All of the work that you have done thus far should provide you with ideas for actions. Throughout these instructions, green boxes labeled "Hazard Mitigation Action Plan Input" have indicated information that needs to be considered in the selection of mitigation actions. The following sections describe how to consider these and other information sources to develop a list of potential actions.

Be sure to consider the following factors in your selection of actions:

- Select actions that are consistent with the overall purpose, goals, and objectives of the hazard mitigation plan.
- Identify actions where benefits exceed costs.
- Include any action that your jurisdiction has committed to pursuing, regardless of eligibility from outside funding sources (grants, non-profit funding, donations, etc.).
- Know what is and is not eligible for funding under various federal programs (see the fact sheet on FEMA hazard mitigation grant programs in the toolkit and the table on the next page).

### *Material Previously Developed for This Annex*

Capability Assessment Section—Planning and Regulatory Capability Table, Fiscal Capability Table, Administrative and Technical Capability Table, and Education and Outreach Table

Review these tables and consider the following:

- For any capability that you do not currently have, consider whether your jurisdiction should have this capability. If so, consider including an action to develop/acquire the capability.
- For any capability that you do currently have, consider whether this capability can be leveraged to increase or improve hazard mitigation in the jurisdiction.
- If any items listed in the Planning and Regulatory Capabilities table have not been updated in more than 10 years, consider an action to review and update the capability and, as appropriate, incorporate hazard mitigation principles or information obtained in the risk assessment.
- Consider including actions that are identified in other plans and programs (capital improvement plans, strategic plans, etc.) as actions in this plan.

Capability Assessment Section— Adaptive Capacity for Climate Change Table

Consider your responses to this section:

- For criteria that you listed as medium or low, think of ways you could improve this rating (see adaptive capacity portion of the mitigation best practices catalog).
- For criteria you listed as high, think about how you can leverage this capacity to improve or enhance mitigation or continue to improve this capacity.
- For criteria that you were unable to provide responses for, consider ways you could improve your understanding of this capacity (see mitigation best practices and adaptive capacity catalog).

**Table 2.** Federal Hazard Mitigation Grant Program Eligibility by Action Type

| Eligible Activities | Hazard Mitigation Grant Program | Pre-Disaster Mitigation | Flood Mitigation Assistance |
|---|---|---|---|
| **Mitigation Projects** | | | |
| Property Acquisition and Structure Demolition | √ | √ | √ |
| Property Acquisition and Structure Relocation | √ | √ | √ |
| Structure Elevation | √ | √ | √ |
| Mitigation Reconstruction | √ | √ | √ |
| Dry Floodproofing of Non-residential Structures | √ | √ | √ |
| Generators | √ | √ | |
| Localized Flood Risk Reduction Projects | √ | √ | √ |
| Non-Localized Flood Risk Reduction Projects | √ | √ | |
| Structural Retrofitting of Existing Buildings | √ | √ | √ |
| Non-structural Retrofitting of Existing Buildings and Facilities | √ | √ | √ |
| Safe Room Construction | √ | √ | |
| Infrastructure Retrofit | √ | √ | √ |
| Soil Stabilization | √ | √ | √ |
| Wildfire Mitigation | √ | √ | |
| Post-Disaster Code Enforcement | √ | | |
| Advance Assistance | √ | | |
| 5 Percent Initiative Projects* | √ | | |
| Aquifer and Storage Recovery** | √ | √ | √ |
| Flood Diversion and Storage** | √ | √ | √ |
| Floodplain and Stream Restoration** | √ | √ | √ |
| Green Infrastructure** | √ | √ | √ |
| Miscellaneous/Other** | √ | √ | √ |
| **Hazard Mitigation Planning** | √ | √ | √ |
| **Technical Assistance** | | | √ |
| **Management Costs** | √ | √ | √ |

* FEMA allows increasing the 5% initiative amount under the Hazard Mitigation Grant Program up to 10% for a presidential major disaster declaration. The additional 5% initiative funding can be used for activities that promote disaster-resistant codes for all hazards. As a condition of the award, either a disaster-resistant building code must be adopted or an improved Building Code Effectiveness Grading Schedule is required.

** Indicates that any proposed action will be evaluated on its own merit against program requirements. Eligible projects will be approved provided funding is available.

## Integration Review Section

Review the items you identified in this section and consider an action that specifically says what the plan, code, ordinance etc. is and how it will be integrated.

## Risk Ranking Section

You must identify at least one mitigation action that is clearly defined and actionable (i.e. not a preparedness or response action) for every hazard that is categorized in the risk ranking as “high” or “medium” risk.

### Jurisdiction-Specific Vulnerabilities Section

Review the vulnerability issues that you identified in this section and consider actions to address them (see mitigation best practices catalog).

### Status of Previous Plan Actions Section

If your jurisdiction participated in a previous hazard mitigation plan, be sure to include any actions that were identified as "carry over" actions.

## *Other Sources*

### Mitigation Best Practices Catalog

A catalog that includes best practices identified by FEMA and other agencies, as well as recommendations from the steering committee and other stakeholders, is included in your toolkit. Review the catalog and identify actions your jurisdiction should consider for its action plan.

### Public Input

Review input received during the process, specifically the public survey results included in your toolkit.

### Common Actions for All Partners

The following three actions have been prepopulated in your annex template; **these three actions should be included in every annex and should not be removed**:

- Where appropriate, support retro-fitting, purchase or relocation of structures located in high hazard areas, prioritizing those structures that have experienced repetitive losses and/or are located in high or medium ranked hazard.
- Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.
- Purchase generators for critical facilities and infrastructure that lack adequate back-up power.

In addition, the core planning team recommends that every planning partner strongly consider the following actions:

- Identify and pursue strategies to increase adaptive capacity to climate change.
- Develop and implement a program to capture perishable data after significant events (e.g. high water marks, preliminary damage estimates, damage photos) to support future mitigation efforts including the implementation and maintenance of the hazard mitigation plan.
- Support the County-wide initiatives identified in Volume I of the hazard mitigation plan.
- Develop a post-disaster recovery plan and a debris management plan.
- Develop and/or update plans that support or enhance continuity of operations following disasters.

The specifics of all these common actions should be adjusted as needed for the particulars of each community.

## Complete the Table

Complete the table titled "Hazard Mitigation Action Plan Matrix" for all the actions you have identified and would like to include in the plan:

- Enter the action number (see box at right) and description. **If the action is carried over from your previous hazard mitigation plan, return to the "Status of Previous Plan Actions" table you completed in Phase 1 and enter the new action number in the column labeled "Action # in Update."**
- Indicate whether the action mitigates hazards for new and/or existing assets.
- Identify the specific hazards the action will mitigate (note: you must list each hazard by name; simply indicating "all hazards" is not deemed acceptable).
- Identify by number the mitigation plan objectives that the action addresses (see toolkit).
- Indicate who will be the lead in administering the action. This will most likely be a department within your jurisdiction (e.g. planning or public works). If you wish to indicate more than one department as responsible for the action, clearly identify one as the lead agency and list the others in the "supporting agency" column.
- Enter an estimated cost in dollars if known; otherwise, enter "High," "Medium," or "Low," as determined for the prioritization process described in the following section.
- Identify funding sources for the action. If it is a grant, include the grant-providing agency as well as funding sources for any required cost share. If it is another outside funding source such as a non-profit funding source or a donation, include the source and any requirements for receiving the funding. Refer to your fiscal capability assessment to identify possible sources of funding and refer to the table on page 15 of these instructions for project eligibility for FEMA's hazard mitigation assistance grant programs.
- Indicate the time line as "short-term" (1 to 5 years) or "long-term" (5 years or greater) or "ongoing" (a continual program)

**Action Numbering**

Actions are to be numbered using the three-letter code for your jurisdiction shown below, followed by a hyphen and the action's sequential number:

- San Mateo County—SMC-1, SMC-2…
- Atherton City—ATH-1, ATH-2…
- Belmont City—BEL-1, BEL-2…
- Brisbane City—BRS-1, BRS-2…
- Burlingame City—BRL-1, BRL-2…
- Colma City—CLM-1, CLM-2…
- Daly City—DLY-1, DLY-2…
- East Palo Alto City—EPA-1, EPA-2…
- Foster City—FOS-1, FOS-2…
- Half Moon Bay City—HMB-1, HMB-2…
- Hillsborough City—HLS-1, HLS-2…
- Menlo Park City—MPK-1, MPK-2…
- Millbrae City—MLB-1, MLB-2…
- Pacifica City—PAC-1, PAC-2…
- Portola Valley City—PTV-1, PTV-2…
- Redwood City—RDW-1, RDW-2…
- San Bruno City—SBR-1, SBR-2…
- San Carlos City—SCR-1, SCR-2…
- San Mateo City—SMT-1, SMT-2…
- South San Francisco City—SSF-1, SSF-2…
- Woodside City—WDS-1, WDS-2…
- Coastside Water —CSW-1, CSW-2…
- Colma Fire —CFD-1, CFD-2…
- Flood & Sea Level —FSL-1, FSL-2…
- Harbor District —HRB-1, HBR-2
- Highland Recreational —HLD-1, HLD-2…
- Jefferson Union HS —JEF-1, JEF-2…
- Menlo Park Fire —MPF-1, MPF-2…
- Mid-Pen Reg Open Space District —MPR-1, MPR-2…
- Mid-Peninsula Water —MPW-1, MPW-2…
- Montara Water & Sewer —MWS-1, MWS-2…
- North Coast Water —NCW-1, NCW-2…
- Office of Education —OED-1, OED-2…
- San Mateo Community College —SCC-1, SCC-2…
- San Mateo RCD —SRC-1, SRC-2…
- Westborough Water —WBW-1, WBW-2…
- Woodside Fire —WFD-1, WFD-2…

## Mitigation Action Priority

Complete the information in the table titled "Mitigation Action Priority" as follows:

- Action #—Indicate the action number from the Hazard Mitigation Action Plan Matrix table.
- # of Objectives Met—Enter the number of objectives the action will meet.
- Benefits—Enter "High," "Medium" or "Low" as follows:
  - 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.
- Cost—Enter "High," "Medium" or "Low" as follows:
  - High—Existing funding will not cover the cost of the action; implementation would require new revenue through an alternative source (for example, outside funding sources, 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.
- Do Benefits Exceed the Cost?—Enter "Yes" or "No." This is a qualitative assessment. Enter "Yes" if the benefit rating (high, medium or low) is the same as or higher than the cost rating (high benefit/high cost; high benefit/medium cost; medium benefit/low cost; etc.). Enter "No" if the benefit rating is lower than the cost rating (medium benefit/high cost, low benefit/medium cost; etc.)
- Is the Action Eligible for Outside Funding Sources?—Enter "Yes" or "No." For grant funding, refer to the fact sheet on FEMA hazard mitigation grant programs in the annex preparation toolkit and the table on page 15 of these instructions.
- Can Action Be Funded Under Existing Program Budgets?—Enter "Yes" or "No." In other words, is this action currently budgeted for, or would it require a new budget authorization or funding from another source such as grants, non-profit funding, or donations?
- Implementation Priority— Enter "High," "Medium" or "Low" 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 outside funding sources. Action can be completed in the long term (1 to 10 years). Low-priority actions may be eligible for outside funding from programs that have not yet been identified.
- Outside Funding Source Pursuit Priority— Enter "High," "Medium" or "Low" as follows:

- High Priority—An action that meets identified outside funding source 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 to be funded by outside sources.
- Medium Priority—An action that meets identified outside funding source 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 outside funding source eligibility requirements.

Actions identified as high-outside-funding-pursuit priority actions should be closely reviewed for consideration when outside funding source opportunities arise.

**Note:** If a jurisdiction wishes to identify an action as high priority that is outside of the prioritization scheme for high priorities, a note indicating so should be inserted and a rationale should be provided.

## Analysis of Mitigation Actions

In the table titled "Analysis of Mitigation Actions," for each combination of hazard type and mitigation type, enter the numbers of all recommended actions that address that hazard type and can be categorized as that mitigation type. The mitigation types 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 & 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.

This exercise demonstrates that the jurisdiction has selected a comprehensive range of actions. This table must show at least one action to address each "high" and "medium" ranked hazard. Planning partners should aim to identify at least one action for each mitigation type, but this is not required.

An example of a completed "Analysis of Mitigation Actions" table is provided below. Note that an action can be more than one mitigation type.

**Sample Completed Table – Analysis of Mitigation Actions**

| Hazard Type | Action Addressing Hazard, by Mitigation Type | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Prevention | Property Protection | Public Education & Awareness | Natural Resource Protection | Emergency Services | Structural Projects | Climate Resilience | Community Capacity Building |
| **High-Risk Hazards** | | | | | | | | |
| **Dam Failure** | EX-2, 3, 4, 5, 6 | EX-1, 6 | EX-4, 6 | | EX-8, 11 | | | EX-3, 4, 8, 9, 10 |
| **Drought** | EX-2 | EX-1 | EX-4 | | | | | EX-3, 4, 8, 9, 10 |
| **Medium-Risk Hazards** | | | | | | | | |
| **Earthquake** | EX-2, 3, 4, 5, 7 | EX-1, 7 | EX-4 | | EX-8, 11 | | | EX-3, 4, 8, 9 |
| **Flooding** | EX-2, 3, 4, 5, 6, 7 | EX-1, 6, 7 | EX-4, 6 | EX-9 | EX-8, 11 | EX-6 | | EX-3, 4, 8, 9, 10 |
| **Landslide** | EX-2, 3, 4, 5, 7 | EX-1, 7 | EX-4 | | EX-8, 11 | | | EX-3, 4, 8, 9, 10 |
| **Low-Risk Hazards** | | | | | | | | |
| **Severe Weather** | EX-2, 3, 4, 5, 7 | EX-1, 7, 9 | EX-4 | | EX-8, 9, 11 | | EX-8, 7 | EX-3, 4, 8, 9, 10 |
| **Wildfire** | EX-2, 3, 4, 5, 7 | EX-1, 7, 9 | EX-4, 9 | EX-9 | EX-8, 11 | | | EX-3, 4, 8, 9, 10 |

## PUBLIC OUTREACH

FEMA requirements for public outreach will be met by the County's engagement efforts and are included in the main part of the plan. These may include public meetings, a StoryMap, surveys, etc. If individual jurisdictions want to have a more robust outreach for their local community, the public outreach table in each annex may be used to memorialize those local efforts.

This table should record local public outreach efforts made by your jurisdiction to inform the community of the plan update process. Examples may include local surveys on hazard awareness/preparedness, social media blasts, press releases, and outreach to local groups (CERT, senior citizen organizations, etc.) **This section is optional.**

## INFORMATION SOURCES USED FOR THIS ANNEX

This section should describe what resources you used to complete the annex and how you used them. The sources used for Phases 1 and 2 should have been entered previously. List any additional sources used for the preparation of the Phase 3 annex. Review to ensure that all materials used in all three phases are identified. Providing this information is a requirement to pass the state and FEMA review process.

## FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

In this section, identify any future studies, analyses, reports, or surveys your jurisdiction needs to better understand its vulnerability to identified or currently unidentified risks. These could be needs based on federal or state agency mandates. **This section is optional.**

## ADDITIONAL COMMENTS

Use this section to add any additional information pertinent to hazard mitigation and your jurisdiction not covered in this template. **This section is optional.**

THIS COMPLETES PHASE 3

# INSTRUCTIONS FOR COMPLETING ANNEXES WITH EQUITY LENS FOR SPECIAL-PURPOSE DISTRICTS

# INSTRUCTIONS FOR COMPLETING SPECIAL-PURPOSE DISTRICT ANNEX TEMPLATE WITH EQUITY LENS

*Note Regarding Equity Lensing*: The Core Planning Team and Steering Committee for the *2021 San Mateo County Multijurisdictional Local Hazard Mitigation Plan* update have decided to add another layer of resolution to the risk assessment and action planning portions of this plan update, applying an "equity lens". An equity lens is defined as a critical thinking approach to undoing institutional and structural biases, which evaluates burdens, benefits, and outcomes to underserved communities. Application of the equity lens to risk ranking and action plan prioritization was determined to be "optional" for all planning partners. These instructions have been enhanced to include the equity lens options for Risk Ranking and Action Plan prioritization.

Jurisdictional annex templates for the *2021 San Mateo Multijurisdictional Local Hazard Mitigation Plan* update will be completed in three phases. **This document provides instructions for completing all phases of the template for special-purpose districts.**

The target timeline for completion is as follows:

- Phase 1—Team, Profile, Trends, and Previous Plan Status
  - **Deployed:** February 19, 2021
  - **Due:** March 19, 2021 by close of business
- Phase 2—Capability Assessment, Integration Review, and Information Sources
  - **Deployed:** April 2, 2021
  - **Due:** May 21, 2021 by close of business
- Phase 3—Risk Assessment, Action Plan, Information Sources, Future Needs, and Additional Comments
  - **Deployed:** June 11, 2021

**A Note About Formatting**

The template for the annex is a Microsoft Word document in a format that will be used in the final plan. Partners are asked to use this template so that a uniform product will be completed for each partner.

Content should be entered directly into the template rather than creating text in another document and pasting it into the template. Text from another source may alter the formatting of the document.

**DO NOT** covert this document to a PDF.

The section and table numbering in the document will be updated when completed annexes are combined into the final document. Please do not adjust any of the numbering.

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For planning partners who participated in the 2016 planning effort, relevant information has been brought over to the 2021 template. Fields that require attention have been highlighted using the following color coding:

- **Green:** Text has been brought over from 2016 Plan and should be reviewed and updated as needed.
- **Blue:** This is a new field that will require information that was not included in 2016.

***Please un-highlight each field that you update so that reviewers will know an edit has been made.***

New planning partners will need to complete the template in its entirety.

- **Mandatory Phase 3 Workshops**: Targeted for the week of June 14. We will schedule multiple workshops during that week to provide options for attendance
- **Due**: July 23, 2021 by close of business, Pacific Time

Direct any questions about your Phase 3 template to:

Bart Spencer
Tetra Tech
Phone: (650) 324-1810
E-mail: *bart.spencer@tetratech.com*

Submit your completed Phase 3 template in electronic format to:

Megan Brotherton
Tetra Tech
Phone: (808) 339-9119
E-mail: *megan.brotherton@tetratech.com*

# IMPORTANT! READ THIS FIRST

Phase 1 and Phase 2 templates were previously provided to your jurisdiction for completion.

If your jurisdiction returned the completed Phase 1 & 2 templates:

- The Phase 1 & 2 content you provided is already incorporated into your Phase 3 template.
- Review the template to see if we have inserted any comments requesting further work to be done on Phase 1 or 2
  - ***If any comments are included, address them.*** Then, begin your work on Phase 3 following the Phase 3 instructions beginning on page 12.
  - If no comments are included, then you **DO NOT** need to do any further work on the Phase 1 or Phase 2 content. ***Go directly to the instructions for Phase 3, beginning on page*** 12***.***

If your jurisdiction has **NOT** yet done any work on the Phase 1 or Phase 2 template:

- Follow the instructions beginning on page 3 for providing the Phase 1 and Phase 2 information.
- Then proceed with the Phase 3 instructions beginning on page 12.

If your jurisdiction started work on the Phase 1 or 2 template but never completed and submitted it, copy the work you had completed so far into the new template. Then complete Phases 1, 2, and 3 following the instructions provided here.

**PHASE 1 INSTRUCTIONS**

# CHAPTER TITLE

In the chapter title at the top of Page 1, type in the complete official name of your district (e.g. West County Fire Protection District #1, Johnsonville Flood Protection District). Do not change the chapter number. Revise only the jurisdiction name. If your jurisdiction's name has already been entered, verify that wording and spelling are correct; revise as needed.

# LOCAL HAZARD MITIGATION PLANNING TEAM

## Points of Contact

Provide the name, title, mailing address, telephone number, and e-mail address for the primary point of contact for your jurisdiction. This should be the person responsible for monitoring, evaluating, and updating the annex for your jurisdiction. This person should also be the principle liaison between your jurisdiction and the Steering Committee overseeing development of this plan.

In addition, designate an alternate point of contact. This would be a person to contact should the primary point of contact be unavailable or no longer employed by the jurisdiction.

*Note: Both of these contacts should match the contacts that were designated in your jurisdiction's letter of intent to participate in this planning process. If you have changed the primary or secondary contact, let the planning team know by inserting a comment into the document.*

## Participating Planning Team

Populate Table 1-1 with the names of staff from your jurisdiction who participated in preparing this annex or otherwise contributed to the planning process for this hazard mitigation plan.

# JURISDICTION PROFILE

## Overview

Provide a brief summary description of the following:

- The purpose of the jurisdiction
- The date of inception
- The type of organization
- The number of employees
- Funding sources
- The type of governing body, and who has adoptive authority.

This should be information that is specific to your jurisdiction and will not be provided in the overall, planning area-wide mitigation plan document. Provide a statement similar to the example below:

> **EXAMPLE:** *The Johnsonville Community Services District is a special district created in 1952 to provide water and sewer service. A five-member elected Board of Directors governs the District. The Board assumes responsibility for the adoption of this plan; the General Manager will oversee its implementation. The District currently employs a staff of 21. Funding comes primarily through rates and revenue bonds.*

## Service Area

Provide a brief description of the following:

- Who the District's customers are and an approximation of how many are currently served
- The area served, in square miles
- The geographic extent of the service area

This should be information that is specific to your jurisdiction and will not be provided in the overall, planning area-wide mitigation plan document. Provide a statement similar to the example below:

> **EXAMPLE:** *The Johnsonville Community Services District serves unincorporated areas of Jones County east of the City of Smithburg, including the communities of Johnsonville, Creeks Corner, Jones Hill, Fields Landing, King Salmon, and Freshwater. The current total service area is 3.3 square miles. As of April 30, 2020, the District serves 7,305 water connections and 6,108 sewer connections.*

## Assets

List District-owned assets in the categories shown on the table (and described in the sections below). Include an approximate value for each asset and a subtotal value for identified assets in each category.

### Property

Provide an approximate value for any land owned by the District.

### Equipment

List equipment owned by the District that is used in times of emergency or that, if incapacitated, could severely impact the service area (vehicles, generators, pumps, etc.). Provide an approximate replacement value for each item. Equipment of similar type may be listed as a single category (e.g., "3 diesel-powered generators"). For water and sewer districts, include mileage of pipeline under this category.

### Critical Facilities

List District-owned facilities that are vital to maintain services to the service area. Include the address of each facility. Provide an approximate replacement value for each line. Critical facilities are generally defined as facilities owned by the District that are critical to District operations and to public health or safety and that are especially important following hazard events, including but not limited to the following:

- Structures or facilities that produce, use, or store hazardous materials (highly volatile, flammable, explosive, toxic and/or water-reactive materials)

- Hospitals, nursing homes, and housing facilities likely to contain occupants who may not be sufficiently mobile to avoid death or injury during a natural hazard event
- Mass gathering facilities that may be used as evacuation shelters (such as schools or community centers)
- Transportation infrastructure such as roads, bridges and airports that provide sources for evacuation before, during and after natural hazard events
- Police stations, fire stations, government facilities, vehicle equipment and storage facilities, and emergency operation centers that are needed for response activities before, during and after a natural hazard event
- Public utility facilities such as drinking water, stormwater, and wastewater systems that are vital to providing normal services to damaged areas before, during and after natural hazard events.

The table below shows an example of assets to be listed in this section.

**Sample Completed Table – Special District Assets**

| Asset | Value |
|---|---|
| **Property** | |
| 11.5 Acres | $5,750,000 |
| **Equipment** | |
| Total length of pipe 40 miles ( $1.32 million per mile X 40 miles) | $52,800,000 |
| 4 Emergency Generators | $250,000 |
| ***Total:*** | ***$53,050,000*** |
| **Critical Facilities** | |
| Administrative Buildings – 357 S. Jones Street | $2,750,000 |
| Philips Pump Station – 111 Fifth Avenue N. | $377,000 |
| ***Total:*** | ***$3,127,000*** |

**NOTE:** Placeholders in the table of assets request **ADDRESSES** for critical facilities. These addresses will not be included in the final published annex, but are needed in order to perform risk mapping and risk analysis for the hazard mitigation plan. Include the addresses in the table if convenient. If not, then provide a separate document listing all critical facilities and addresses for use in development of the hazard mitigation plan.

## CURRENT TRENDS

Provide a brief description of previous growth trends in the service area and anticipated future increase or decrease in services (if applicable). This should be information that is specific to your jurisdiction and will not be provided in the overall, planning area-wide mitigation plan document. Provide a statement similar to the example below:

> **EXAMPLE:** *The Johnsonville Community Services District originally was formed to serve only the Johnsonville area. The District's service area expanded throughout the years to include the full area served today. Total customers have increased by 3 percent since 2010. Population in the service area is not projected to change significantly over the next 10 years, and the District has no plans to expand its service area.*

# STATUS OF PREVIOUS PLAN ACTIONS

*Note that this section applies only to jurisdictions that are conducting updates to previously approved hazard mitigation plans. If your jurisdiction has not previously participated in an approved plan, enter an "X" in the box at the beginning of this section and do not complete the section. We will remove this section from your final annex.*

*Also note that this section is further back in the annex than the rest of the Phase 1 content. Some Phase 2 sections are included before it.*

The hazard mitigation plan update must describe the status of all action items from each jurisdiction's previous hazard mitigation plan. Each action item must be marked as ONE of the options below by checking the appropriate box (place an X) and providing the following information:

- **Completed**—If an action has been completed since the prior plan was prepared, check the "Completed" box and provide a date of completion in the comment section. If an action has been initiated and is an ongoing program (e.g. annual outreach event), you may mark it as completed and note that it is ongoing in the comments. If an action addresses an ongoing program you would like to continue to include in your action plan, see the "Carried Over to Plan Update" bullet below.
- **Removed**—If action items are to be removed because they are no longer feasible, a reason must be given. Lack of funding does not mean that it is no longer feasible, unless the sole source of funding for an action is no longer available. Place a comment in the comment section explaining why the action is no longer feasible or barriers that prevented the action from being implemented (e.g., "Action no longer considered feasible due to lack of political support."). If the wording and/or intent of a previously identified action is unclear, this can be a reason for removal. A change in community priorities may also be a reason for removal and should be discussed in the comments.
- **Carried Over to Plan Update**—If an action is in progress, is ongoing, or has not been initiated and you would like to carry it over to the plan update, check the "Check if Yes" column under "Carried Over to Plan Update." Selecting this option indicates that the action will be included in the mitigation action plan for this update. If you are carrying over an action to the update, include a comment describing any action that has been taken or why the action was not taken (specifically, any barriers or obstacles that prevented the action from moving forward or slowed progress). Leave the last column, "Action # in Update," blank at this point. This will be filled in after completing the updated action plan in Phase 3.

Ensure that you have provided a status and a comment for each action.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, all action items from your jurisdiction's previous hazard mitigation plan that are marked as "Carried Over to Plan Update" will need to be included in the action plan.

THIS COMPLETES PHASE 1

**PHASE 2 INSTRUCTIONS**

# CAPABILITY ASSESSMENT

*Note that it is unlikely that one person will be able to complete all sections of the capability assessment alone. The primary preparer will likely need to reach out to other departments within the local government for information. It may be beneficial to provide these individuals with background information about this planning process, as input from them will be needed again during Phase 3 of the annex development.*

## Planning and Regulatory Capability

List any federal, state, local or district ordinances, plans, or policies that apply to your jurisdiction and relate to hazard mitigation. Provide the date of last update and any comments as appropriate. The table below shows an example of items to be listed in this section.

**Sample Completed Table – Planning and Regulatory Capability**

| Plan, Study or Program | Date of Most Recent Update | Comment |
|---|---|---|
| **District Design Standards** | 2010 | |
| **Capital Improvement Program** | Updated annually | covers 5 year timeframe |
| **Emergency Operations Plan** | 2000 | |
| **Facility Maintenance Manual** | 1990 | |
| **State Building Code** | 2016 | |
| **Division of State Architects** | | Review of all building and site design features is required prior to construction |

## Fiscal Capability

Complete the table titled "Fiscal Capability" by indicating whether each of the listed financial resources is accessible to your jurisdiction. Enter "Yes" if the resource is fully accessible to your jurisdiction. Enter "No" if there are limitations or prerequisites that may hinder your use of this resource.

## Administrative and Technical Capability

Complete the table titled "Administrative and Technical Capability" by indicating whether your jurisdiction has access to each of the listed personnel resources. Enter "Yes" or "No" in the column labeled "Available?". If yes, then enter the department and position title. If you have contract support with these capabilities, you can still answer "Yes." Indicate in the department row that this resource is provided through contract.

## Education and Outreach Capability

Complete the table titled "Education and Outreach."

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, review all the above capability assessment tables and consider including actions to provide a capability that your jurisdiction does not currently have, update a capability that your jurisdiction does have, or implement an action that is recommended in an existing plan or program.

## Community Classifications

Complete the table titled "Community Classifications" to indicate your jurisdiction's participation in various national programs related to natural hazard mitigation. For each program enter "Yes" or "No" in the second column to indicate whether your jurisdiction participates. If yes, then enter the classification that your jurisdiction has earned under the program in the third column and the date on which that classification was issued in the fourth column; enter "N/A" in the third and fourth columns if your jurisdiction is not participating. If you do not know your current classification, information is available at the following websites:

- **FIPS Code**— https://www.census.gov/geographies/reference-files/2018/demo/popest/2018-fips.html
- **DUNS #**— https://www.dnb.com/duns-number.html
- **Community Rating System**— https://www.fema.gov/floodplain-management/community-rating-system
- **Building Code Effectiveness Grading Schedule**— https://www.isomitigation.com/bcegs/iso-s-building-code-effectiveness-grading-schedule-bcegs.html
- **Public Protection Classification**— https://www.isomitigation.com/ppc/
- **Storm Ready**— https://www.weather.gov/stormready/communities
- **Firewise**— http://www.firewise.org/usa-recognition-program/map-of-active-participants.aspx
- **Tsunami Ready**— https://www.weather.gov/tsunamiready/communities

## Adaptive Capacity for Climate Change

Consider climate change impact concerns such as the following:

- Reduced snowpack
- Increased wildfires
- Sea level rise
- Inland flooding
- Threats to sensitive species
- Loss in agricultural productivity
- Public health and safety.

With those impacts in mind, complete the table titled "Adaptive Capacity for Climate Change" by indicating your jurisdiction's capacity for each listed criterion as follows:

- **High**—The capacity exists and is in use.
- **Medium**—The capacity may exist, but is not used or could use some improvement.
- **Low**—The capacity does not exist or could use substantial improvement.
- **Unsure**—Not enough information is known to assign a rating.

This is a subjective assessment, but providing a few words of explanation is useful. It is highly recommended that you complete this table with an internal planning team after reviewing the results of the other capability assessment tables.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, review all the adaptive capacity criteria and consider including actions to improve the rating for those rated medium or low, to make use of the capacity for those rated high, or to acquire additional information for those rated unsure.

## INTEGRATION REVIEW

For hazard mitigation planning, "integration" means that hazard mitigation information is used in other relevant planning mechanisms, such as capital facilities planning, and that relevant information from those sources is used in hazard mitigation. FEMA recommends integration as follows:

- Integrate hazard mitigation plan goals with community objectives (e.g. incorporate the goals for risk reduction and safety into the policies of other plans).
- Use the risk assessment to inform plans and policies (e.g. incorporate risk assessment findings into emergency operations plans).
- Implement mitigation actions through existing mechanisms (e.g. include mitigation projects in the capital improvement plan).
- Think about mitigation before and after a disaster (e.g. build recovery planning on existing mitigation plans and goals).

After reviewing the plans, programs and ordinances identified in the capability assessment tables, identify all plans and programs that have already been integrated with the hazard mitigation plan, and those that offer opportunities for future integration.

### Existing Integration

In the highlighted bullet list, provide a brief description of integrated plans or ordinances and how each is integrated. Consider listing items marked as Completed in the "Status of Previous Plan Actions" table if they were indicated as being ongoing actions. Examples are as follows:

- Capital Improvement Plan—The capital improvement plan includes projects that can help mitigate potential hazards. The District will act to ensure consistency between the hazard mitigation plan and the current and future capital improvement plans. The hazard mitigation plan may identify new possible funding sources for capital improvement projects and may result in modifications to proposed projects based on results of the risk assessment.
- Emergency Operations Plan—The results of the risk assessment were used in the development of the emergency operations plan.

- **Facilities Plan**—The results of the risk assessment and mapped hazard areas are used in facility planning for the District. Potential sites are reviewed for hazard risks, and appropriate mitigation measures are considered in building and site design.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, any plans that fall into the "Existing Integration" category should be reviewed and elements from them should be included in the action plan as appropriate.

## Opportunities for Future Integration

List any plans or programs that offer the potential for future integration and describe the process by which integration will occur. Examples follow:

- **Capital Improvement Projects**—Capital improvement project proposals may take into consideration hazard mitigation potential as a means of evaluating project prioritization.
- **Post-Disaster Recovery Plan**—The District does not have a recovery plan and intends to develop one as a mitigation planning action during the next five years. The plan will build on the mitigation goals and objectives identified in the mitigation plan.

Consider other programs you may have in place in your jurisdiction that include routine consideration and management of hazard risk. Examples of such programs may include: tree pruning programs, right-of-way mowing programs, erosion control or stream maintenance programs, etc. Add any such programs to the integration discussion and provide a brief description of how these program manage (or could be adapted to manage) risk from hazards.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, an action to integrate any identified "Opportunities for Future Integration" should be considered for inclusion in the action plan.

# INFORMATION SOURCES USED FOR THIS ANNEX

***Note that this section will ultimately describe all information sources used to develop this annex, but that only the sources used for Phases 1 and 2 will be listed at this point. Additional sources will be added with the preparation of the Phase 3 annex.***

This section should describe what resources you used to complete the annex and how you used them. Several items are started for you, but be sure to update and enhance any descriptions. Providing this information is a requirement to pass the state and FEMA review process.

THIS COMPLETES PHASE 2

**PHASE 3 INSTRUCTIONS**

# RISK ASSESSMENT

## Jurisdiction-Specific Natural Hazard Event History

In the table titled "Past Natural Hazard Events," list in chronological order (most recent first) any natural hazard event that has caused damage to your jurisdiction. Include the date of the event and the estimated dollar amount of damage it caused. You are welcome to include any events, but special attention should be made to include major storms and federally declared disasters. Refer to the table below that lists hazard events in the planning area as recognized by the County, the state, and the federal government.

**Table 1.** Presidential Disaster Declarations for the Planning Area

| Dates | FEMA Disaster #/Event Name | County Emergency Op. Center Activated | Gubernatorial Declaration | Presidential Declaration |
|---|---|---|---|---|
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We recommend including most large-scale disasters, unless you know that there were no impacts on your jurisdiction. Specifically, we recommend that you include these events if you have damage estimate information or can provide a brief description of impacts that occurred within your community. In addition to these events, refer to the NOAA storm events database included in the toolkit. We recommend conducting a search for the name of your jurisdiction in order to identify events with known impacts. Other potential sources of damage information include the following

- Preliminary damage estimates your jurisdiction filed with the county or state
- Insurance claims data
- Newspaper archives
- Emergency management documents (general plan safety element, emergency response plan, etc.)
- Resident input.

If you do not have estimates for costs of damage caused, list "Not Available" in the "Damage Assessment" column or list a brief description of the damage rather than a dollar value (e.g., Main Street closed as a result of flooding, downed trees and residential damage). Note that tracking such damage is a valid and useful mitigation action if your jurisdiction does not currently track such information.

## Hazard Risk Ranking

Risk ranking identifies which hazards pose the greatest risk to the community, based on how likely it is for each hazard to occur (this is called the community's exposure) and how great an impact each hazard will have if it does occur (this is called the community's vulnerability). Every jurisdiction has differing degrees of risk exposure and vulnerability and therefore needs to rank risk for its own area. The risk ranking for each jurisdiction has been calculated in the "Loss Matrix" spreadsheet included in the annex preparation toolkit. Two sets of ranking are provided. One ranking is the base ranking that utilizes the raw percentage of population exposed to each hazard to rank the impacts to population. The second ranking uses the social vulnerability metrics established by FEMA's National Risk Index (NRI) to add an equity lens to the impact on population factor for the risk ranking application. Those planning partners applying the equity lens option should utilize the "Social Equity Version" for risk ranking provided in the loss matrix. The ranking is on the basis of risk ranking scores for each hazard that were calculated based on the hazard's probability of occurrence and its potential impact on people, property and the economy.

The risk ranking methodology used for cities and counties is not usable for special-purpose districts because the risk-related mapping generally does not align with the boundaries of districts. To rank risk for your District, use the following procedure:

- Find the risk ranking scores in the Loss Matrix spreadsheet (on the "Risk Ranking Summary" tab) for the county overall and for any cities whose area overlaps that of your District.
- For each hazard, generate a risk ranking score for your District by calculating the average of the scores for those other jurisdictions.
- Rank the hazards based on those average scores:
  - Assign the rank of 1 to the hazard with the highest risk ranking score, the rank of 2 to the hazard with the second highest ranking score; and so on.
  - Assign the same rank to any two hazards with equal risk ranking scores

- If the resulting ranking differs from what you know based on substantiated data and documentation, alter the scores and ranking as needed based on this knowledge.
- Assign each hazard to the risk category of "High," Medium," or "Low" based on the risk rating score:
  - Low for scores of 0 to 15
  - Medium for scores of 16 to 32
  - High for scores greater than 33

Enter the results of this analysis in the "Hazard Risk Ranking" table in the template; enter the hazards in order of ranking, with 1 at the top of the table.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, you will need to have at least one mitigation action for each hazard ranked as "high" or "medium."

## Jurisdiction-Specific Vulnerabilities

Review the results of the risk assessment included in the toolkit, your jurisdiction's natural events history, and any relevant public comments/input, then develop a few sentences that discuss specific hazard vulnerabilities. You do not need to develop a sentence for every hazard, but identify a few issues you would like to highlight. Also list any known hazard vulnerabilities in your jurisdiction that may not be apparent from the risk assessment and other information provided.

Spending some time thinking about the results of the risk assessment and other noted vulnerabilities will be a big help in the development of your hazard mitigation action plan. The following are examples of vulnerabilities you could identify through this exercise:

- Over the past 10 years, the jurisdiction has experienced more than $1 million in damage to critical assets from severe storm events.
- 17 critical assets are in areas that would be permanently inundated with 12 inches of sea level rise.
- One significant District asset is not equipped with a generator and four District buildings are unreinforced masonry or soft-story construction.
- An area along the river is eroding and threatening a District-owned treatment facility.

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, consider including actions to address the jurisdiction-specific vulnerabilities listed in this section.

# HAZARD MITIGATION ACTION PLAN

## Hazard Mitigation Action Plan Matrix

The hazard mitigation action plan is the heart of your jurisdictional annex. This is where you will identify the actions your jurisdiction would like to pursue with this plan.

## Select Recommended Actions

All of the work that you have done thus far should provide you with ideas for actions. Throughout these instructions, green boxes labeled "Hazard Mitigation Action Plan Input" have indicated information that needs to be considered in the selection of mitigation actions. The following sections describe how to consider these and other information sources to develop a list of potential actions.

Be sure to consider the following factors in your selection of actions:

- Select actions that are consistent with the overall purpose, goals, and objectives of the hazard mitigation plan.
- Identify actions where benefits exceed costs.
- Include any action that your jurisdiction has committed to pursuing, regardless of eligibility from outside funding sources (grants, non-profit funding, donations, etc.).
- Know what is and is not eligible for funding under various federal programs (see the fact sheet on FEMA hazard mitigation grant programs in the toolkit and the table on the next page).

### *Material Previously Developed for This Annex*

Capability Assessment Section—Planning and Regulatory Capability Table, Fiscal Capability Table, Administrative and Technical Capability Table, and Education and Outreach Table

Review these tables and consider the following:

- For any capability that you do not currently have, consider whether your jurisdiction should have this capability. If so, consider including an action to develop/acquire the capability.
- For any capability that you do currently have, consider whether this capability can be leveraged to increase or improve hazard mitigation in the jurisdiction.
- If any items listed in the Planning and Regulatory Capabilities table have not been updated in more than 10 years, consider an action to review and update the capability and, as appropriate, incorporate hazard mitigation principles or information obtained in the risk assessment.
- Consider including actions that are identified in other plans and programs (capital improvement plans, strategic plans, etc.) as actions in this plan.

Capability Assessment Section— Adaptive Capacity for Climate Change Table

Consider your responses to this section:

- For criteria that you listed as medium or low, think of ways you could improve this rating (see adaptive capacity portion of the mitigation best practices catalog).
- For criteria you listed as high, think about how you can leverage this capacity to improve or enhance mitigation or continue to improve this capacity.
- For criteria that you were unable to provide responses for, consider ways you could improve your understanding of this capacity (see mitigation best practices and adaptive capacity catalog).

**Table 2.** Federal Hazard Mitigation Grant Program Eligibility by Action Type

| Eligible Activities | Hazard Mitigation Grant Program | Pre-Disaster Mitigation | Flood Mitigation Assistance |
|---|---|---|---|
| **Mitigation Projects** | | | |
| Property Acquisition and Structure Demolition | √ | √ | √ |
| Property Acquisition and Structure Relocation | √ | √ | √ |
| Structure Elevation | √ | √ | √ |
| Mitigation Reconstruction | √ | √ | √ |
| Dry Floodproofing of Non-residential Structures | √ | √ | √ |
| Generators | √ | √ | |
| Localized Flood Risk Reduction Projects | √ | √ | √ |
| Non-Localized Flood Risk Reduction Projects | √ | √ | |
| Structural Retrofitting of Existing Buildings | √ | √ | √ |
| Non-structural Retrofitting of Existing Buildings and Facilities | √ | √ | √ |
| Safe Room Construction | √ | √ | |
| Infrastructure Retrofit | √ | √ | √ |
| Soil Stabilization | √ | √ | √ |
| Wildfire Mitigation | √ | √ | |
| Post-Disaster Code Enforcement | √ | | |
| Advance Assistance | √ | | |
| 5 Percent Initiative Projects* | √ | | |
| Aquifer and Storage Recovery** | √ | √ | √ |
| Flood Diversion and Storage** | √ | √ | √ |
| Floodplain and Stream Restoration** | √ | √ | √ |
| Green Infrastructure** | √ | √ | √ |
| Miscellaneous/Other** | √ | √ | √ |
| **Hazard Mitigation Planning** | √ | √ | √ |
| **Technical Assistance** | | | √ |
| **Management Costs** | √ | √ | √ |

* FEMA allows increasing the 5% initiative amount under the Hazard Mitigation Grant Program up to 10% for a presidential major disaster declaration. The additional 5% initiative funding can be used for activities that promote disaster-resistant codes for all hazards. As a condition of the award, either a disaster-resistant building code must be adopted or an improved Building Code Effectiveness Grading Schedule is required.

** Indicates that any proposed action will be evaluated on its own merit against program requirements. Eligible projects will be approved provided funding is available.

## Integration Review Section

Review the items you identified in this section and consider an action that specifically says what the plan, code, ordinance etc. is and how it will be integrated.

## Risk Ranking Section

You must identify at least one mitigation action that is clearly defined and actionable (i.e. not a preparedness or response action) for every hazard that is categorized in the risk ranking as “high” or “medium” risk.

### Jurisdiction-Specific Vulnerabilities Section

Review the vulnerability issues that you identified in this section and consider actions to address them (see mitigation best practices catalog).

### Status of Previous Plan Actions Section

If your jurisdiction participated in a previous hazard mitigation plan, be sure to include any actions that were identified as "carry over" actions.

## *Other Sources*

### Mitigation Best Practices Catalog

A catalog that includes best practices identified by FEMA and other agencies, as well as recommendations from the steering committee and other stakeholders, is included in your toolkit. Review the catalog and identify actions your jurisdiction should consider for its action plan.

### Public Input

Review input received during the process, specifically the public survey results included in your toolkit.

### Common Actions for All Partners

The following three actions have been prepopulated in your annex template; **these three actions should be included in every annex and should not be removed**:

- Where appropriate, support retro-fitting, purchase or relocation of structures located in high hazard areas, prioritizing those structures that have experienced repetitive losses and/or are located in high or medium ranked hazard.
- Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.
- Purchase generators for critical facilities and infrastructure that lack adequate back-up power.

In addition, the core planning team recommends that every planning partner strongly consider the following actions:

- Identify and pursue strategies to increase adaptive capacity to climate change.
- Develop and implement a program to capture perishable data after significant events (e.g. high water marks, preliminary damage estimates, damage photos) to support future mitigation efforts including the implementation and maintenance of the hazard mitigation plan.
- Support the County-wide initiatives identified in Volume I of the hazard mitigation plan.
- Develop a post-disaster recovery plan and a debris management plan.
- Develop and/or update plans that support or enhance continuity of operations following disasters.

The specifics of all these common actions should be adjusted as needed for the particulars of each community.

## Complete the Table

Complete the table titled "Hazard Mitigation Action Plan Matrix" for all the actions you have identified and would like to include in the plan:

- Enter the action number (see box at right) and description. **If the action is carried over from your previous hazard mitigation plan, return to the "Status of Previous Plan Actions" table you completed in Phase 1 and enter the new action number in the column labeled "Action # in Update."**
- Indicate whether the action mitigates hazards for new and/or existing assets.
- Identify the specific hazards the action will mitigate (note: you must list each hazard by name; simply indicating "all hazards" is not deemed acceptable).
- Identify by number the mitigation plan objectives that the action addresses (see toolkit).
- Indicate who will be the lead in administering the action. This will most likely be a department within your jurisdiction (e.g. planning or public works). If you wish to indicate more than one department as responsible for the action, clearly identify one as the lead agency and list the others in the "supporting agency" column.
- Enter an estimated cost in dollars if known; otherwise, enter "High," "Medium," or "Low," as determined for the prioritization process described in the following section.
- Identify funding sources for the action. If it is a grant, include the grant-providing agency as well as funding sources for any required cost share. If it is another outside funding source such as a non-profit funding source or a donation, include the source and any requirements for receiving the funding. Refer to your fiscal capability assessment to identify possible sources of funding and refer to the table on page 16 of these instructions for project eligibility for FEMA's hazard mitigation assistance grant programs.
- Indicate the time line as "short-term" (1 to 5 years) or "long-term" (5 years or greater) or "ongoing" (a continual program)

**Action Numbering**

Actions are to be numbered using the three-letter code for your jurisdiction shown below, followed by a hyphen and the action's sequential number:

- San Mateo County—SMC-1, SMC-2…
- Atherton City—ATH-1, ATH-2…
- Belmont City—BEL-1, BEL-2…
- Brisbane City—BRS-1, BRS-2…
- Burlingame City—BRL-1, BRL-2…
- Colma City—CLM-1, CLM-2…
- Daly City—DLY-1, DLY-2…
- East Palo Alto City—EPA-1, EPA-2…
- Foster City—FOS-1, FOS-2…
- Half Moon Bay City—HMB-1, HMB-2…
- Hillsborough City—HLS-1, HLS-2…
- Menlo Park City—MPK-1, MPK-2…
- Millbrae City—MLB-1, MLB-2…
- Pacifica City—PAC-1, PAC-2…
- Portola Valley City—PTV-1, PTV-2…
- Redwood City—RDW-1, RDW-2…
- San Bruno City—SBR-1, SBR-2…
- San Carlos City—SCR-1, SCR-2…
- San Mateo City—SMT-1, SMT-2…
- South San Francisco City—SSF-1, SSF-2…
- Woodside City—WDS-1, WDS-2…
- Coastside Water —CSW-1, CSW-2…
- Colma Fire —CFD-1, CFD-2…
- Flood & Sea Level —FSL-1, FSL-2…
- Harbor District —HRB-1, HBR-2
- Highland Recreational —HLD-1, HLD-2…
- Jefferson Union HS —JEF-1, JEF-2…
- Menlo Park Fire —MPF-1, MPF-2…
- Mid-Pen Reg Open Space District —MPR-1, MPR-2…
- Mid-Peninsula Water —MPW-1, MPW-2…
- Montara Water & Sewer —MWS-1, MWS-2…
- North Coast Water —NCW-1, NCW-2…
- Office of Education —OED-1, OED-2…
- San Mateo Community College —SCC-1, SCC-2…
- San Mateo RCD —SRC-1, SRC-2…
- Westborough Water —WBW-1, WBW-2…
- Woodside Fire —WFD-1, WFD-2…

## Mitigation Action Priority

Complete the information in the table titled "Mitigation Action Priority" as follows:

- Action #—Indicate the action number from the Hazard Mitigation Action Plan Matrix table.
- # of Objectives Met—Enter the number of objectives the action will meet.
- Benefits—Enter "High," "Medium" or "Low" as follows:
  - 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.
- Cost—Enter "High," "Medium" or "Low" as follows:
  - High—Existing funding will not cover the cost of the action; implementation would require new revenue through an alternative source (for example, outside funding sources, 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.
- Do Benefits Exceed the Cost?—Enter "Yes" or "No." This is a qualitative assessment. Enter "Yes" if the benefit rating (high, medium or low) is the same as or higher than the cost rating (high benefit/high cost; high benefit/medium cost; medium benefit/low cost; etc.). Enter "No" if the benefit rating is lower than the cost rating (medium benefit/high cost, low benefit/medium cost; etc.)
- Is the Action Eligible for Outside Funding Sources?—Enter "Yes" or "No." For grant funding, refer to the fact sheet on FEMA hazard mitigation grant programs in the annex preparation toolkit and the table on page 16 of these instructions.
- Can Action Be Funded Under Existing Program Budgets?—Enter "Yes" or "No." In other words, is this action currently budgeted for, or would it require a new budget authorization or funding from another source such as grants, non-profit funding, or donations?
- Implementation Priority— Enter "High," "Medium" or "Low" 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 outside funding sources. Action can be completed in the long term (1 to 10 years). Low-priority actions may be eligible for outside funding from programs that have not yet been identified.
- Outside Funding Source Pursuit Priority— Enter "High," "Medium" or "Low" as follows:

  - High Priority—An action that meets identified outside funding source 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 to be funded by outside sources.
  - Medium Priority—An action that meets identified outside funding source 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 outside funding source eligibility requirements.

Actions identified as high-outside-funding-pursuit priority actions should be closely reviewed for consideration when outside funding source opportunities arise.

- **Equity Lens Priority**- Enter "High," "Medium" or "Low" as follows:
  - High Priority—The mitigation action is designed to reduce harm to multiple socially vulnerable groups in the County from one or more of the hazards identified in the LHMP.
  - Medium Priority— The mitigation action is designed to reduce harm to a single socially vulnerable population in the County from at least one hazard identified in the LHMP.
  - Low Priority—The mitigation action fails to advance social equity in any measurable way in the County

An equity screening tool has been provided in **Appendix B** to these instructions that can be utilized to screen each action to help prioritize each action to the above criteria. The screening of each action using this tool is considered to be optional and not required for jurisdictions applying the equity lens to their action plan prioritization scheme.

**Note:** If a jurisdiction wishes to identify an action as high priority that is outside of the prioritization scheme for high priorities, a note indicating so should be inserted and a rationale should be provided.

## Analysis of Mitigation Actions

In the table titled "Analysis of Mitigation Actions," for each combination of hazard type and mitigation type, enter the numbers of all recommended actions that address that hazard type and can be categorized as that mitigation type. The mitigation types 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 & 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.

This exercise demonstrates that the jurisdiction has selected a comprehensive range of actions. This table must show at least one action to address each "high" and "medium" ranked hazard. Planning partners should aim to identify at least one action for each mitigation type, but this is not required.

An example of a completed "Analysis of Mitigation Actions" table is provided below. Note that an action can be more than one mitigation type.

**Sample Completed Table – Analysis of Mitigation Actions**

| Hazard Type | Action Addressing Hazard, by Mitigation Type | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Prevention | Property Protection | Public Education & Awareness | Natural Resource Protection | Emergency Services | Structural Projects | Climate Resilience | Community Capacity Building |
| **High-Risk Hazards** | | | | | | | | |
| **Dam Failure** | EX-2, 3, 4, 5, 6 | EX-1, 6 | EX-4, 6 | | EX-8, 11 | | | EX-3, 4, 8, 9, 10 |
| **Drought** | EX-2 | EX-1 | EX-4 | | | | | EX-3, 4, 8, 9, 10 |
| **Medium-Risk Hazards** | | | | | | | | |
| **Earthquake** | EX-2, 3, 4, 5, 7 | EX-1, 7 | EX-4 | | EX-8, 11 | | | EX-3, 4, 8, 9 |
| **Flooding** | EX-2, 3, 4, 5, 6, 7 | EX-1, 6, 7 | EX-4, 6 | EX-9 | EX-8, 11 | EX-6 | | EX-3, 4, 8, 9, 10 |
| **Landslide** | EX-2, 3, 4, 5, 7 | EX-1, 7 | EX-4 | | EX-8, 11 | | | EX-3, 4, 8, 9, 10 |
| **Low-Risk Hazards** | | | | | | | | |
| **Severe Weather** | EX-2, 3, 4, 5, 7 | EX-1, 7, 9 | EX-4 | | EX-8, 9, 11 | | EX-8, 7 | EX-3, 4, 8, 9, 10 |
| **Wildfire** | EX-2, 3, 4, 5, 7 | EX-1, 7, 9 | EX-4, 9 | EX-9 | EX-8, 11 | | | EX-3, 4, 8, 9, 10 |

## PUBLIC OUTREACH

FEMA requirements for public outreach will be met by the County's engagement efforts and are included in the main part of the plan. These may include public meetings, a StoryMap, surveys, etc. If individual jurisdictions want to have a more robust outreach for their local community, the public outreach table in each annex may be used to memorialize those local efforts.

This table should record local public outreach efforts made by your jurisdiction to inform the community of the plan update process. Examples may include local surveys on hazard awareness/preparedness, social media blasts, press releases, and outreach to local groups (CERT, senior citizen organizations, etc.) **This section is optional.**

## INFORMATION SOURCES USED FOR THIS ANNEX

This section should describe what resources you used to complete the annex and how you used them. The sources used for Phases 1 and 2 should have been entered previously. List any additional sources used for the preparation of the Phase 3 annex. Review to ensure that all materials used in all three phases are identified. Providing this information is a requirement to pass the state and FEMA review process.

## FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

In this section, identify any future studies, analyses, reports, or surveys your jurisdiction needs to better understand its vulnerability to identified or currently unidentified risks. These could be needs based on federal or state agency mandates. **This section is optional.**

## ADDITIONAL COMMENTS

Use this section to add any additional information pertinent to hazard mitigation and your jurisdiction not covered in this template. **This section is optional.**

THIS COMPLETES PHASE 3

**APPENDIX A— Risk Ranking Calculation Methodology**

The instructions below describe the methodology for how risk rankings were derived in the "Loss Matrix" spreadsheet provided with the annex preparation toolkit. The risk-ranking for each hazard assessed its probability of occurrence and its potential impact on people, property, and the economy. Refer to the Loss Matrix spreadsheet in order to follow along.

## Probability of Occurrence

A probability factor is assigned based on how often a hazard is likely to occur. The probability of occurrence of a hazard event is generally based on past hazard events in an area, although weight can be given to expected future probability of occurrence based on established return intervals and changing climate conditions. For example, if your jurisdiction has experienced two damaging floods in the last 25 years, the probability of occurrence is high for flooding and scores a 3 under this category. If your jurisdiction has experienced no damage from landslides in the last 100 years, your probability of occurrence for landslide is low, and scores a 1 under this category. Each hazard was assigned a probability factor as follows:

- High—Hazard event is likely to occur within 25 years (Probability Factor = 3)
- Medium—Hazard event is likely to occur within 100 years (Probability Factor = 2)
- Low—Hazard event is not likely to occur within 100 years (Probability Factor = 1)
- None—There is no exposure to the hazard and no probability of occurrence (Probability Factor = 0)

## Potential Impacts of Each Hazard

The impact of each hazard is divided into three categories: impacts on people, impacts on property, and impacts on the economy. These categories are also assigned weighted values. Impact on people was assigned a weighting factor of 3, impact on property was assigned a weighting factor of 2 and impact on the economy was assigned a weighting factor of 1.

Impact factors for each category (people, property, economy) are described below:

- People—Values for the impact on people is based on the percentage of the population in each of the five (5) classifications for social vulnerability from the National Risk Index (NRI). Values are assigned based on the percentage of the total ***population exposed*** to the hazard event. The degree of impact on individuals will vary and is not measurable, so the calculation assumes for simplicity and consistency that all people exposed to a hazard because they live in a hazard zone will be equally impacted when a hazard event occurs. Impact factors were assigned as follows:
  - Very High—15 percent or more of the population is exposed to a hazard (Impact Factor = 5), less than 15% of the population exposed to a hazard (impact factor =4)
  - Relatively High—25 percent of more of the population is exposed to a hazard (Impact Factor = 4), less than 25 percent of the population exposed to a hazard (Impact Factor = 3).
  - Relatively Moderate—35 percent or more of the population is exposed to the hazard (Impact Factor = 3), less than 35 percent of the population exposed (Impact Factor =2).

  a) Relatively Low—50 percent of more of the population is exposed to a hazard (Impact Factor = 2), less than 50 percent of the population exposed to a hazard (Impact Factor =1)
  - Very Low—75 percent of more of the population exposed to a hazard (Impact Factor =1), less than 75 percent of the population exposed (Impact Factor = 0).
  - No impact— No population exposed to the hazard.

  The impact factors are additive. There could be multiple levels of exposure for each hazard under the five NRI social vulnerability indices. Please not that if 0 to 74 percent of the population is exposed to

the "very low" classification, the risk ranking score will default to the base-line risk ranking score (Ranking result for the without equity lens option in the loss matrix).

- **Property**—Values are assigned based on the percentage of the total ***District Assets exposed*** to the hazard event:
  - High—25 percent or more of the total replacement value of the District's assets are exposed to a hazard (Impact Factor = 3)
  - Medium—10 percent to 24 percent of the total replacement value of the District's assets are exposed to a hazard (Impact Factor = 2)
  - Low—9 percent or less of the total replacement value of the District's assets are exposed to the hazard (Impact Factor = 1)
  - No impact—None of the total replacement value of the Districts are exposed to a hazard (Impact Factor = 0)
- **Economy**— How long it will take your District to become 100-percent operable after a hazard event? This is a subjective assessment based on the loss estimation you observe for your service area in the Los Matric.
  - High—Functional downtime of 365 days or more (Impact Factor = 3)
  - Medium—Functional downtime of 180 to 364 days (Impact Factor = 2)
  - Low—Functional downtime of 180 days or less (Impact Factor = 1)
  - No impact—No functional downtime is estimated from the hazard (Impact Factor = 0).

## Impacts on People

The percent of the total population exposed to each hazard of concern with a defined extent and location (e.g. floodplain) can be found in the loss estimate matrix in the **green highlighted column.** For those hazards that do not have a defined extent and location the entire population or a portion of the population is considered to be exposed, depending on the hazard. For the drought hazard, it is common for jurisdictions to list "low" or "none," because all people in the planning area would be exposed to drought, but impacts to the health and safety of individuals are expected to be minimal.

## Impacts on Property

The percent of the total value exposed to each hazard of concern with a defined extent and location (e.g. floodplain) can be found in the loss estimate matrix in the **blue highlighted column.** For those hazards that do not have a defined extent and location (e.g. severe weather) the entire building stock is generally considered to be exposed. For the drought hazard, it is common for jurisdictions to list "low" or "none," because all structures in the planning area would be exposed to drought but impacts to structures are expected to be minimal.

## Impacts on the Economy

The loss estimates for each hazard of concern that was modeled (i.e. dam failure, flood, earthquake) can be found in the loss estimate matrix in the **orange highlighted column.** For those hazards that have a defined extent and location, but do not have modelled loss results, loss estimates can be the same as exposure or a portion thereof. For example, a large percentage of the building stock may be exposed to landslide or wildland fire risk, but it would not be expected that one event that resulted in loss to all exposed structures would occur. For those hazards that do not have a defined extent and location, exposure is based on the hazard type.

## Risk Rating for Each Hazard

A risk rating for each hazard was determined by multiplying the assigned probability factor by the sum of the weighted impact factors for people, property, and the economy:

Risk Rating = Probability Factor x Weighted Impact Factor {people + property + economy}

This is the number that is shown in the risk ranking table in your template. Generally, score of 30 or greater receive a “high” rating, score between 15 and 30 receive a “medium” rating, and score of less than 15 receives a “low” rating.

| APPENDIX B— Equity Lens Screening Tool | | | |
|---|---|---|---|
| | Procedural | Distributive | Structural |
| **Programs/ Services** | How was the target audience included in the design of the program?<br>What actions will be taken to ensure that services and programs are physically and programmatically accessible and inclusive?<br>What are the criteria for participation or receipt of benefits? | Is the program or service designed to meet the needs of underserved and underrepresented communities? If not, what would need to be changed to ensure their equitable participation?<br>How will program dollars be allocated to ensure inclusive and accessible service delivery?<br>Does the cost structure of the program result in disparate use? /Does the fee structure of the service result in increased burdens for low-income communities? | Does this program/service create unintended consequences for communities that are underserved and underrepresented? How will they be mitigated?<br>Is there an opportunity to extend additional benefits through this program/service that can help support the healing of past harms to communities?<br>Does the program empower and build capacity of a community? |
| **Capital Investments** | What are the criteria for prioritizing projects and investments?<br>Does the data and information used consider the demographic, geographic and real-world experience of residents and businesses in the area?<br>If data gaps exist, what are you using to guide decisions?<br>What process will be used to get input from the community?<br>How will you reach underserved populations? | Will the investment provide improved safety, health, access, or opportunity for the communities who need it most?<br>How will the underserved people who currently live and work in the area benefit from the investment? | What measures will be taken to mitigate the potential impacts of involuntary displacement in the project?<br>How will business or employment opportunity created through the project be extended to communities of color, people with disabilities, and low-income people?<br>How will community benefits be negotiated? |
| **Regulation** | Has analysis been done on the impacts to communities of color, people with disabilities, low-income populations, seniors, children, renters, and other historically underserved or excluded groups?<br>How will impacted communities be able to learn about and understand changes with the regulation?<br>How will the regulation be enforced? | Will the regulation provide improved safety, health, access, or opportunity for the communities who need it most?<br>How will the regulation alleviate any cost-burden for those who are already in a position where it is difficult to pay? | Does the regulation create or inhibit opportunity for communities of color, people with disabilities, and low-income populations?<br>Will enforcement disproportionately negatively affect low-income communities or communities of color? How will this be mitigated? |
| **Planning** | How will impacted communities be involved in the planning process?<br>What measures will be taken to ensure the process is fair and inclusive? | How does the plan prioritize and address the needs of the most impacted or vulnerable in the community?<br>Does the plan improve safety, health, access, or opportunity for the communities who need it most?<br>How will resources shift to ensure equitable implementation of the plan? | What measures will be taken to mitigate the potential impacts of involuntary displacement?<br>How will policies support community development?<br>What support is needed to build the community's ownership and self-determination with the plan? |

a. Procedural equity—ensuring that processes are fair and inclusive in the development and implementation of any program or policy
b. Distributive equity—ensuring that resources or benefits and burdens of a policy or program are distributed fairly, prioritizing those with highest need first.
**c.** Structural equity—a commitment and action to correct past harms and prevent future negative consequences by institutionalizing accountability and decision-making structures that aim to sustain positive outcomes

**Table 2.0.** Equity Screening Question Matrix

| Evaluation Question | Response |
|---|---|
| 1. What issue/problem/risk is the action designed to address? And what are the expected benefits? | Issue:<br>Benefits: |
| 2. Who is the target audience/beneficiary for this action? Who is affected if no action is taken? | |
| 3. How would you classify the mitigation action? (Programs/Service; Capital Investment; Regulation; Planning). *Refer to questions in table above based on your answer to this question.* | |
| 4. Will any community groups be involved in the design/implementation of this action? (i.e. potential partners) | |
| 5. Will this action reduce risk from natural hazards for the following groups? How? | |
| Communities of color | |
| Persons with disabilities and/or access and functional needs | |
| Households with limited English Proficiency | |
| Renters | |
| Economically disadvantaged families | |
| Seniors (age 65 or older) | |
| Children (under 15 years of age) | |
| 6. How could this action benefit the following groups? Or How could this action be modified so that there are benefits? | |
| Communities of color | |
| Persons with disabilities and/or access and functional needs | |
| Households with limited English Proficiency | |
| Renters | |
| Economically disadvantaged families | |
| Seniors (age 65 or older) | |
| Children (under 15 years of age) | |
| 7. How could this action burden/negatively impact/leave out the following groups, for example through communication, transportation, physical or programmatic barriers? | |
| Communities of color | |
| Persons with disabilities and/or access and functional needs | |
| Households with limited English Proficiency | |
| Renters | |
| Economically disadvantaged families | |
| Seniors (age 65 or older) | |
| Children (under 15 years of age) | |
| 8. If you have identified burdens, barriers, or negative impacts, or opportunities for benefits please revisit the action to identify strategies to reduce or eliminate burdens or negative impacts; remove communication, transportation, physical or programmatic barriers; or enhance potential benefits. | |
| 9. Have you identified a performance metric for evaluating progress on this action? How will you know when this action is complete? (please provide) Have you considered outcomes for communities of color, people with disabilities, low-income families, people with limited English proficiency, renters, seniors, and children? | |

# ANNEX TEMPLATE FOR SPECIAL-PURPOSE DISTRICTS

# 1. DISTRICT NAME

## 1.1 LOCAL HAZARD MITIGATION PLANNING TEAM

**Primary Point of Contact**
Name, Title
Street Address
City, State ZIP
Telephone: xxx-xxx-xxxx
e-mail Address: xxx@xxx.xxx

**Alternate Point of Contact**
Name, Title
Street Address
City, State ZIP
Telephone: xxx-xxx-xxxx
e-mail Address: xxx@xxx.xxx

This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 1-1.

**Table 1-1.** Local Hazard Mitigation Planning Team Members

| Name | Title |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |

## 1.2 JURISDICTION PROFILE

### 1.2.1 Overview

Insert Narrative Profile Information, per Instructions.

The __[name of adopting body]___ assumes responsibility for the adoption of this plan; __[name of oversight agency]__ will oversee its implementation.

All fire districts should include the following sentence (non-fire special purpose districts should delete the sentence):

The District participates/does not participate in the Public Protection Class Rating System and currently has a rating of #.

### 1.2.2 Service Area

The District service area covers ___[area in square miles]___, serving a population of _ population _.

### 1.2.3 Assets

Table 1-2 summarizes the assets of the District and their value.

**Table 1-2.** Special Purpose District Assets

| Asset | Value |
|---|---|
| **Property** | |
| _number_ acres of land | $_value_ |
| **Equipment** | |
| _description_ | $_value_ |
| _description_ | $_value_ |
| _description_ | $_value_ |
| _description_ | $_value_ |
| _description_ | $_value_ |
| ***Total:*** | ***$_value_*** |
| **Critical Facilities** | |
| _description – Include Address_ | $_value_ |
| _description – Include Address_ | $_value_ |
| _description – Include Address_ | $_value_ |
| _description – Include Address_ | $_value_ |
| ***Total:*** | ***$_value_*** |

## 1.3 CURRENT TRENDS

Insert summary description of service trends.

## 1.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the hazard mitigation plan describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan. The "Analysis of Mitigation Actions" table in this annex identifies these as community capacity building mitigation actions. The findings of the assessment are presented as follows:

- An assessment of planning and regulatory capabilities is presented in Table 1-3.
- An assessment of fiscal capabilities is presented in Table 1-4.
- An assessment of administrative and technical capabilities is presented in Table 1-5.
- An assessment of education and outreach capabilities is presented in Table 1-6.

- Classifications under various community mitigation programs are presented in Table 1-7.
- The community's adaptive capacity for the impacts of climate change is presented in Table 1-8.

**Table 1-3.** Planning and Regulatory Capability

| Plan, Study or Program | Date of Most Recent Update | Comment |
|---|---|---|
| Name of code, ordinance, policy, program or plan | | |
| Name of code, ordinance, policy, program or plan | | |
| Name of code, ordinance, policy, program or plan | | |
| Name of code, ordinance, policy, program or plan | | |
| Name of code, ordinance, policy, program or plan | | |

**Table 1-4.** Fiscal Capability

| Financial Resource | Accessible or Eligible to Use? |
|---|---|
| Community Development Block Grants | Yes/No |
| Capital Improvements Project Funding | Yes/No |
| Authority to Levy Taxes for Specific Purposes | Yes/No |
| User Fees for Water, Sewer, Gas or Electric Service | Yes/No |
| *If yes, specify:* Enter Response | |
| Incur Debt through General Obligation Bonds | Yes/No |
| Incur Debt through Special Tax Bonds | Yes/No |
| Incur Debt through Private Activity Bonds | Yes/No |
| Withhold Public Expenditures in Hazard-Prone Areas | Yes/No |
| State-Sponsored Grant Programs | Yes/No |
| Development Impact Fees for Homebuyers or Developers | Yes/No |
| Other | Yes/No |
| *If yes, specify:* Enter Response | |

**Table 1-5.** Administrative and Technical Capability

| Staff/Personnel Resource | Available? |
|---|---|
| Planners or engineers with knowledge of land development and land management practices<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Engineers or professionals trained in building or infrastructure construction practices<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Planners or engineers with an understanding of natural hazards<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Staff with training in benefit/cost analysis<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Surveyors<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Personnel skilled or trained in GIS applications<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Scientist familiar with natural hazards in local area<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Emergency manager<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Grant writers<br>*If Yes, Department /Position:* Enter Response | Yes/No |
| Other<br>*If Yes, Department /Position:* Enter Response | Yes/No |

**Table 1-6.** Education and Outreach Capability

| Criterion | Response |
|---|---|
| Do you have a public information officer or communications office? | Yes/No |
| Do you have personnel skilled or trained in website development? | Yes/No |
| Do you have hazard mitigation information available on your website?<br>*If yes, briefly describe:* Enter Response | Yes/No |
| Do you use social media for hazard mitigation education and outreach?<br>*If yes, briefly describe:* Enter Response | Yes/No |
| Do you have any citizen boards or commissions that address issues related to hazard mitigation?<br>*If yes, briefly describe:* Enter Response | Yes/No |
| Do you have any other programs in place that could be used to communicate hazard-related information?<br>*If yes, briefly describe:* Enter Response | Yes/No |
| Do you have any established warning systems for hazard events?<br>*If yes, briefly describe:* Enter Response | Yes/No |

**Table 1-7.** Community Classifications

| | Participating? | Classification | Date Classified |
|---|---|---|---|
| FIPS Code | Yes/No | _____ | Date |
| DUNS# | Yes/No | _____ | Date |
| Community Rating System | Yes/No | _____ | Date |
| Building Code Effectiveness Grading Schedule | Yes/No | _____ | Date |
| Public Protection | Yes/No | _____ | Date |
| Storm Ready | Yes/No | _____ | Date |
| Firewise | Yes/No | _____ | Date |
| Tsunami Ready | Yes/No | _____ | Date |

**Table 1-8.** Adaptive Capacity for Climate Change

| Criterion | Jurisdiction Rating[a] |
|---|---|
| **Technical Capacity** | |
| Jurisdiction-level understanding of potential climate change impacts | High/Medium/Low |
| *Comment:* *Enter Comment* | |
| Jurisdiction-level monitoring of climate change impacts | High/Medium/Low |
| *Comment:* *Enter Comment* | |
| Technical resources to assess proposed strategies for feasibility and externalities | High/Medium/Low |
| *Comment:* *Enter Comment* | |
| Jurisdiction-level capacity for development of greenhouse gas emissions inventory | High/Medium/Low |
| *Comment:* *Enter Comment* | |
| Capital planning and land use decisions informed by potential climate impacts | High/Medium/Low |
| *Comment:* *Enter Comment* | |
| Participation in regional groups addressing climate risks | High/Medium/Low |
| *Comment:* *Enter Comment* | |
| **Implementation Capacity** | |
| Clear authority/mandate to consider climate change impacts during public decision-making processes | High/Medium/Low |
| *Comment:* *Enter Comment* | |
| Identified strategies for greenhouse gas mitigation efforts | High/Medium/Low |
| *Comment:* *Enter Comment* | |
| Identified strategies for adaptation to impacts | High/Medium/Low |
| *Comment:* *Enter Comment* | |
| Champions for climate action in local government departments | High/Medium/Low |
| *Comment:* *Enter Comment* | |
| Political support for implementing climate change adaptation strategies | High/Medium/Low |
| *Comment:* *Enter Comment* | |
| Financial resources devoted to climate change adaptation | High/Medium/Low |
| *Comment:* *Enter Comment* | |
| Local authority over sectors likely to be negative impacted | High/Medium/Low |
| *Comment:* *Enter Comment* | |

| Criterion | Jurisdiction Rating[a] |
|---|---|
| **Public Capacity** | |
| **Local residents knowledge of and understanding of climate risk**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Local residents support of adaptation efforts**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Local residents' capacity to adapt to climate impacts**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Local economy current capacity to adapt to climate impacts**<br>***Comment:*** *Enter Comment* | High/Medium/Low |
| **Local ecosystems capacity to adapt to climate impacts**<br>***Comment:*** *Enter Comment* | High/Medium/Low |

a. High = Capacity exists and is in use; Medium = Capacity may exist, but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure= Not enough information is known to assign a rating.

## 1.5 INTEGRATION REVIEW

For hazard mitigation planning, "integration" means that hazard mitigation information is used in other relevant planning mechanisms, such as capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place, and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the hazard mitigation plan will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

### 1.5.1 Existing Integration

Some level of integration has already been established between local hazard mitigation planning and the following other local plans and programs:

- **Plan or Program Name**—Description
- **Plan or Program Name**—Description
- **Plan or Program Name**—Description
- **Plan or Program Name**—Description
- **Plan or Program Name**—Description

### 1.5.2 Opportunities for Future Integration

The capability assessment presented in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration opportunities if they can support or enhance the actions identified in this plan or be supported or enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- **Plan or Program Name**—Description
- **Plan or Program Name**—Description
- **Plan or Program Name**—Description
- **Plan or Program Name**—Description
- **Plan or Program Name**—Description

Taking action to integrate each of these programs with the hazard mitigation plan was considered as a mitigation action to include in the action plan presented in this annex.

## 1.6 RISK ASSESSMENT

### 1.6.1 Jurisdiction-Specific Natural Hazard Event History

Table 1-8 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this hazard mitigation plan.

**Table 1-8.** Past Natural Hazard Events

| Type of Event | FEMA Disaster # | Date | Damage Assessment |
|---|---|---|---|
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |
| Insert event type | _____ | Date | $_____ |

### 1.6.2 Hazard Risk Ranking

Table 1-9 presents a local ranking of all hazards of concern for which this hazard mitigation plan provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property and district operations. Mitigation actions target hazards with high and medium rankings.

**Table 1-9.** Hazard Risk Ranking

| Rank | Hazard | Risk Ranking Score | Risk Category |
|---|---|---|---|
| 1 | | | High/Medium/Low |
| 2 | | | High/Medium/Low |
| 3 | | | High/Medium/Low |
| 4 | | | High/Medium/Low |
| 5 | | | High/Medium/Low |
| 6 | | | High/Medium/Low |
| 7 | | | High/Medium/Low |
| 8 | | | High/Medium/Low |
| 9 | | | High/Medium/Low |

### 1.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan provides complete risk assessments for each identified hazard of concern. The following jurisdiction-specific issues have been identified based on a review of the results of the risk assessment, public involvement strategy, and other available resources:

- Insert as appropriate.
- Insert as appropriate.
- Insert as appropriate.

Mitigation actions addressing these issues were prioritized for consideration in the action plan presented in this annex.

## 1.7 STATUS OF PREVIOUS PLAN ACTIONS

If your jurisdiction has no previous hazard mitigation plan, please enter an "X" in the box at right and do not complete this section.

Table 1-10 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

**Table 1-10.** Status of Previous Plan Actions

| Action Item from Previous Plan | Completed | Removed; No Longer Feasible | Carried Over to Plan Update: Check if Yes | Carried Over to Plan Update: Action # in Update |
|---|---|---|---|---|
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |

| Action Item from Previous Plan | Completed | Removed; No Longer Feasible | Carried Over to Plan Update: Check if Yes | Carried Over to Plan Update: Action # in Update |
|---|---|---|---|---|
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |
| **Insert Action Number & Text**<br>***Comment:*** *Enter Comment* | | | | |

## 1.8 HAZARD MITIGATION ACTION PLAN

Table 1-11 lists the actions that make up the hazard mitigation action plan for this jurisdiction. Table 1-12 identifies the priority for each action. Table 1-13 summarizes the mitigation actions by hazard of concern and mitigation type.

**Table 1-11.** Hazard Mitigation Action Plan Matrix

| Benefits New or Existing Assets | Objectives Met | Lead Agency | Support Agency | Estimated Cost | Sources of Funding | Timeline[a] |
|---|---|---|---|---|---|---|
| **Action xxx-1**—Where appropriate, support retrofitting, purchase or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are located in high- or medium-risk hazard areas. | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| Existing | Enter Response | Enter Response | Enter Response | High | HMGP, PDM, FMA | Short-term |

| Benefits New or Existing Assets | Objectives Met | Lead Agency | Support Agency | Estimated Cost | Sources of Funding | Timeline[a] |
|---|---|---|---|---|---|---|
| **Action xxx-2**—Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan. | | | | | | |
| *Hazards Mitigated:* All hazards | | | | | | |
| New & Existing | Enter Response | Enter Response | Enter Response | Low | Staff Time, General Funds | Short-term |
| **Action xxx-3**— Purchase generators for critical facilities and infrastructure that lack adequate backup power, including _____. | | | | | | |
| *Hazards Mitigated:* Dam failure, earthquake, flooding, landslide, severe weather, tsunami, wildfire | | | | | | |
| Existing | Enter Response | Enter Response | Enter Response | | | |
| **Action xxx**-4—Description | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response |
| **Action xxx**-5—Description | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response |
| **Action xxx**-6—Description | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response |
| **Action xxx**-7—Description | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response |
| **Action xxx**-8—Description | | | | | | |
| *Hazards Mitigated:* Enter Response | | | | | | |
| Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response | Enter Response |

a. Short-term = Completion within 5 years; Long-term = Completion within 10 years; Ongoing= Continuing new or existing program with no completion date

Acronyms used here are defined at the beginning of this volume.

**Table 1-12.** Mitigation Action Priority

| Action # | # of Objectives Met | Benefits | Costs | Do Benefits Equal or Exceed Cost? | Is Project Grant-Eligible? | Can Project Be Funded Under Existing Programs/ Budgets? | Implementation Priority[a] | Grant Pursuit Priority[a] |
|---|---|---|---|---|---|---|---|---|
| 1 | 3 | High | High | Yes | Yes | No | Medium | High |
| 2 | 3 | Low | Low | Yes | No | Yes | High | Low |
| 3 | 3 | High | Medium | Yes | Yes | No | Medium | High |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |

a. See the introduction to this volume for explanation of priorities.

**Table 1-13.** Analysis of Mitigation Actions

| Hazard Type | Action Addressing Hazard, by Mitigation Type[a] | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Prevention | Property Protection | Public Education & Awareness | Natural Resource Protection | Emergency Services | Structural Projects | Climate Resilient | Community Capacity Building |
| **High-Risk Hazards** | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Medium-Risk Hazards** | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Low-Risk Hazards** | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

a. See the introduction to this volume for explanation of mitigation types.

## 1.9 PUBLIC OUTREACH

Table 1-14 lists public outreach activities for this jurisdiction.

**Table 1-14.** Local Public Outreach

| Local Outreach Activity | Date | Number of People Involved |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

## 1.10 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex.

- <INSERT PLAN/PROGRAM AND DESCRIPTION OF HOW IT WAS USED>
- <INSERT PLAN/PROGRAM AND DESCRIPTION OF HOW IT WAS USED>
- <INSERT PLAN/PROGRAM AND DESCRIPTION OF HOW IT WAS USED>

The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit**—The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.
- <INSERT DOCUMENT AND DESCRIPTION OF HOW IT WAS USED>

## 1.11 FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

Insert text, if any; otherwise, delete section

## 1.12 ADDITIONAL COMMENTS

Insert text, if any; otherwise, delete section