Agenda Item 04g

KENSINGTON FIRE PROTECTION DISTRICT

DATE: February 19, 2025

TO: Board of Directors

RE: Approve Resolution 2025-02 adopting the Local Hazard Mitigation Plan (LHMP) update prepared by Contra Costa County

SUBMITTED BY: Mary A. Morris-Mayorga, General Manager

Recommended Action
Staff recommends the Board approve Resolution 2025-02 adopting the Local Hazard Mitigation Plan update prepared by Contra Costa County.

Background
During 2023 and 2024, the District participated in the County's LHMP update. The County has now notified all agencies with an Annex included in the plan that CalOES and FEMA have approved the LHMP update pending local agency adoptions of the plan.

The attached resolution is in the form prescribed by the County with the LHMP Update KFPD Annex attached as well.

Fiscal Impact
There is no direct fiscal impact from adopting the Local Hazard Mitigation Plan; however, it will allow the District to seek federal grant funding in the future.

Attachments: 2024 Hazard Mitigation Plan – Kensington Fire Protection District Annex

RESOLUTION 2025-02

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE KENSINGTON FIRE PROTECTION DISTRICT ADOPTING THE LOCAL HAZARD MITIGATON PLAN UPDATE PREPARED BY CONTRA COSTA COUNTY

WHEREAS, the Kensington Fire Protection District ("District") recognizes the threat that natural hazards pose to people, economy, and property within the community; and

WHEREAS, disasters start and end at the local level, it is the inherent responsibility of local government to lead hazard mitigation and the reduction of risk and vulnerability to hazards; and

WHEREAS, the federal Disaster Mitigation Act requires proactive pre-disaster planning as a condition of receiving certain financial assistance under the Robert T**.** Stafford Act; and

WHEREAS, the Contra Costa County, in accordance with the federal Disaster Mitigation Act, has prepared a Local Hazard Mitigation Plan (LHMP); and

WHEREAS, the LHMP includes a plan for monitoring, evaluating, and future updates; and

WHEREAS, the LHMP was developed through engaging the partners in the process and soliciting input on the existing risks in each community; and

WHEREAS, the LHMP is a way to reduce or alleviate the loss of life, personal injury, and property damage that can result from a disaster through long- and short-term strategies; and

WHEREAS, the LHMP prepared by the Contra Costa County will be reviewed and approved by the California Governor's Office of Emergency Services and Federal Emergency Management Agency.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Kensington Fire Protection District hereby:

1. Adopts the LHMP prepared by the Contra Costa County;
2. Will use the adopted and approved portions of the LHMP to guide pre- and post-disaster mitigation of the hazards identified.
3. Will coordinate the strategies identified in the LHMP with other planning programs and mechanisms under its jurisdictional authority.
4. Will continue with its support of the Steering Committee and continue to participate in the Planning Partnership as described by the LHMP.
5. Will help to promote and support the mitigation successes of all LHMP Planning Partners.

****

The foregoing resolution was duly adopted at a regular meeting of the Kensington Fire Protection District on the 19th day of February 2025 by the following vote of the Board.

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Daniel Levine, President

_____
Dean Richard Artis, Secretary

2024 Hazard Mitigation Plan

Contra Costa County, California

Kensington Fire Protection District Annex

TABLE OF CONTENTS

1. INTRODUCTION

This Annex details the hazard mitigation elements specific to Kensington Fire Protection District, a participating jurisdiction to the 2024 Contra Costa County Hazard Mitigation Plan update. This Annex is not intended to be a standalone document but supplements the information contained in **Volume 1 (Planning Area-wide Elements)**. Therefore, all sections of **Volume 1 (Planning Area-wide Elements)** including the planning process, mitigation goals and objectives, hazard identification and risk assessment, mitigation strategy, and plan maintenance apply to and were met by the District. This Annex provides additional information specific to the District, with a focus on providing additional details on the hazard risk assessment and mitigation strategy (i.e., mitigation actions) for this community.

2. LOCAL PLANNING TEAM

The Kensington Fire Protection District Local Planning Team was comprised of the members listed on **Table 1**.

Table 1. Kensington Fire Protection District Local Planning Team Members

Name	Title	Department
Mary Morris-Mayorga	General Manager	Kensington Fire Protection District
David Ciappara	Fire Captain	El Cerrito-Kensington Fire Department

3. JURISDICTION PROFILE

Kensington Fire Protection District is a relatively small fire district that serves the small unincorporated community of Kensington, located in western Contra Costa County. The community is neighbored by the City of El Cerrito to the west and north, the City of Berkeley to the south, and the East Bay Regional Parks open area to the east. The District serves approximately 1.1 square miles with about 2,300 homes and businesses and has an assessed value of over $1.65 Trillion.

In 2001, the District initiated paramedic services and began offering the first engine-based Advanced Life Support service in western Contra Costa County. This allows the District to deliver medications and equipment to residents in an average of less than five (5) minutes. Furthermore, the District is able to provide a timely and appropriate level of response by actively participating with other western Contra Costa County fire agencies in automatic response agreements that use the combined resources of all agencies to serve the area regardless of jurisdictional lines.

The District implemented and manages the Community Emergency Response Team (CERT) training program to help ensure the community's safety. This Program has been offered to the community since 1995 and has trained hundreds of community members to be prepared and self-sustaining for several days after a major disaster. The District participates in the Public Protection Class Rating System and currently has a rating of three (3).

3.1. Population

The Kensington Fire Protection District provides services to 5,428 residents as of April 1, 2020.[1]

[1] United States Census Bureau. (2022). Quick Facts: Kensington. Retrieved from https://www.census.gov/quickfacts/fact/table/kensingtoncdpcalifornia/.

3.1.1. Underserved Population

The 2023 California State Hazard Mitigation Plan identifies the Centers for Disease Control and Prevention (CDC) Social Vulnerability Index (SVI) as the most appropriate and authoritative dataset to identify areas where efforts can be prioritized to ensure equitable outcomes from mitigation planning and actions.

CDC's SVI combines 16 social factors, within four (4) themes (i.e., socioeconomic status, household characteristics, racial and ethnic minority status, and housing type and transportation), to identify areas of social vulnerability. **Table 2** outlines the SVI information for the District's planning area boundary.

Note: *ArcGIS mapping analysis was performed utilizing Census Tract data by overlaying Census Tracts with the District's planning area boundary. The information outlined in this section includes data from the Census Tracts that intersect the jurisdiction.*

Table 2. Social Vulnerability Index (2020)

Theme	Social Factors	Percent
Socioeconomic Status	People below 150% poverty estimate	9.7%
	Unemployed *(Civilian 16 years old and older)*	2.9%
	Housing Cost Burden	6.9%
	No High School Diploma	1.2%
	No Health Insurance	1.7%
Household Characteristics	65 years old and older	37.3%
	17 years and younger	29.3%
	Civilian with a Disability	16.9%
	Single-Parent Household	2.6%
	English Language Proficiency	2.2%
Racial and Ethnic Minority Status	• Hispanic or Latino (of any race) • Black or African American • Asian • American Indian or Alaska Native • Native Hawaiian or Pacific Islander • Two or More Races • Other Races	53.8%
Housing Type and Transportation	Multi-Unit Structures	0.3%
	Mobile Homes	0.0%
	Crowding	0.7%
	No Vehicle	0.4%
	Group Quarters	0.3%

3.2. Brief History

The unincorporated town of Kensington began a volunteer fire department in 1928. In 1937, 24 years later, the Kensington Fire Protection District hired a staff of professional firefighters under the supervision of a Fire Chief. In 1995, the District entered into a contract with the City of El Cerrito where El Cerrito would provide all fire prevention, fire suppression, and emergency services within Kensington for an annual fee.

3.3. Governing Body Format

Residents of Kensington elect five (5) members to serve as the Board of Directors, the governing body of the District. The Board members are volunteers and elected for staggered four (4) year terms. The Kensington Fire Protection District Board of Directors assumes responsibility for the adoption of this Plan and the Kensington Fire Protection District General Manager (or Interim), in coordination with the Fire Chief, oversees its implementation.

The District is funded through property tax revenues and a special tax approved by the voters in 1980. Currently, the Kensington Fire Protection District has one (1) employee who serves as the District's Administrator.

4. DEVELOPMENT TRENDS

The Kensington Fire Protection District did not have major changes in development in hazard prone areas over the past five (5) years. Kensington has been a desirable neighborhood for academics, students, urban professionals, and families for decades. Residents enjoy the community's panoramic views, mature trees, hillsides, walkable scale, and easy access to transit and regional parks. Although there is very limited potential for growth, many of the homes date from the 1930s and 1940s and there is significant construction activity to upgrade and expand those homes.

In the next five (5) years, the community is planned for continued residential use at a density consistent with existing development, with small pockets of mixed use, commercial and office uses, public/institutional uses, and abundant parks and recreation land. Kensington's two (2) small commercial areas will continue to serve as the primary centers of local business for residents. The commercial areas along Colusa Avenue and Arlington Avenue are intended to maintain the community-serving uses already in place while accommodating mixed-use development on vacant and underutilized parcels. Kensington's proximity to Tilden and Wildcat Canyon Regional parks provides premier outdoor recreational opportunities. As such, wide swaths of land beyond the developed area continue to be designated for public/semi-public and park and recreation uses.

4.1. Changes in Priority

The overall hazard mitigation priorities have not significantly changed for the Kensington Fire Protection District since the last Plan update. However, mitigation actions from the previous Plan were updated, and a more concerted effort on achieving equitable outcomes for all communities, including underserved communities and socially vulnerable populations, has been implemented.

5. CAPABILITY ASSESSMENT

Federal regulations require hazard mitigation plans to identify goals for reducing long-term vulnerabilities to the identified hazards in the planning area (Section 201.6(c)(3)(i)). A critical step in the development of specific hazard mitigation actions and projects is assessing existing authorities, policies, programs,

and resources and capabilities to use or modify local tools to reduce losses and vulnerability from profiled hazards.

A capability assessment was conducted for the Kensington Fire Protection District and participating jurisdictions' authorities, policies, programs, and resources. Goals and mitigation actions were developed using input from this assessment.

The Local Planning Team assessed the District's capabilities that can contribute to the reduction of long-term vulnerabilities to hazards. The capabilities include the following categories:

- Planning and Regulatory Capabilities
- Administrative and Technical Capabilities
- Financial Capabilities
- Education and Outreach Capabilities

Additionally, ways to expand on and improve these existing policies and programs to integrate hazard mitigation into the day-to-day activities and programs of the District were considered.

5.1. Planning and Regulatory Capabilities

These include local ordinances, policies, and laws to manage growth and development (e.g., land use plans, capital improvement plans, transportation plans, emergency preparedness and response plans, building codes, and zoning ordinances). The Kensington Fire Protection District relies on Contra Costa County to maintain a strong framework of codes, ordinances, and requirements to help mitigate the impacts of the hazards identified in this Plan. The description section of each Planning and Regulatory Capability includes a paragraph on expansion, implementation, and improvement. **Table 3** contains a list of legal and regulatory capabilities. The description section of each Planning and Regulatory Capability includes a paragraph on expansion, implementation, and improvement.

Table 3. Planning and Regulatory Capabilities

<table>
<tr><th colspan="4">County Ordinance Code Title 7 – Building Regulations
Includes: Building Code, Electrical Code, Plumbing Code, Mechanical Code, Housing Code, House Moving, Grading, Community Preservation, Fire Code</th></tr>
<tr><td colspan="4">Building Regulations (incorporated by reference and is based upon the 2022 California Building Code, 2022 California Residential Code, 2022 California Green Building Standards Code, and 2022 California Existing Building Code [all codified in California Code of Regulations, Title 24]); adopted November 17, 2022.

Expansion, Implementation, and Improvement: Building and Fire codes will be reviewed based on developing trends in identified hazards and mitigation measures that can make them more effective at preventing losses. They will be updated to comply with the latest International and State building codes.</td></tr>
<tr><td>Lead Department</td><td>Contra Costa County Department of Conservation and Development</td><td>Hazards Addressed</td><td>Climate Change, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire</td></tr>
</table>

County Ordinance Code Title 8 – Zoning			
The Zoning Code addresses land use in precise detail. It sets standards for building and construction types and usage for all parcels in the County. **Expansion, Implementation, and Improvement:** Zoning Code must be modified and updated to reflect changes in development. Zoning Code may be used to address land use regulations that support mitigation actions such as development.			
Lead Department	Contra Costa County Department of Conservation and Development	**Hazards Addressed**	Climate Change, Dam/Levee Failure, Drought, Earthquake, Flooding, Severe Weather, Wildfire
County Ordinance Code Title 9 – Subdivisions			
The Subdivision Code addresses the development of groups of residences and commercial property. It describes requirements for transportation, water, and wastewater services. It sets limits on residential property density. **Expansion, Implementation, and Improvement:** Subdivision Code should be modified and updated to support changes in land use development. Additionally, it should be implemented to require adequate infrastructure to support residential area populations.			
Lead Department	Contra Costa County Department of Conservation and Development	**Hazards Addressed**	Climate Change, Dam/Levee Failure, Drought, Earthquake, Flooding, Severe Weather, Wildfire
The Fire Protection District Law (Health & Safety Code §13800, et seq.)			
The law is the source of statutory authority for more than 380 fire protection districts and serves as a guiding document for governance and allows the district to be formed to plan, mitigate, and provide emergency services to protect its citizens and reduce the impacts of disasters. **Expansion, Implementation, and Improvement:** The law will continually be evaluated to address emerging needs to ensure the safety and protection of its residents.			
Updated	1987	**Hazards Addressed**	Climate Change, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire
Emergency Operations Plan			
The Emergency Operations Plan (EOP) describes strategies, resources, plans, and procedures utilities can use to prepare for and respond to an incident, natural or human-made, that threatens life, property, or the environment. Incidents can range from small main breaks or localized flooding, earthquakes, or system contamination, among other examples. The American Water Infrastructure Act (AWIA) requires community (drinking) water systems serving more than 3,300 people to develop or update Risk and Resilience Assessments (RRAs) and EOPs. **Expansion, Implementation, and Improvement:** This Hazard Mitigation Plan will be used as an essential tool to update the District's EOP. California Office of Emergency Services (Cal OES) requires that EOPs describe applicable hazards as part of the Plan. The latest Hazard Mitigation Plan hazard descriptions will be included. Mitigation actions that are preparedness and response in nature will be analyzed for applicability for inclusion in the description of EOP processes and procedures			
Updated	2022	**Hazards Addressed**	Climate Change, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire

California Building Codes

Building Regulations (incorporates by reference and is based upon the 2022 California Building Code, 2022 California Residential Code, 2022 California Green Building Standards Code, and 2022 California Existing Building Code [all codified in California Code of Regulations, Title 24]); adopted November 17, 2022.

The Kensington Fire Protection District is subject to these codes and falls within the Very High Fire Severity Zone. All new buildings are subject to the California Wildland Urban Interface Codes.

Expansion, Implementation, and Improvement: The Building Code will be reviewed based on developing trends in identified hazards and mitigation measures that can make them more effective at preventing losses. They will be updated to comply with the latest International and State building codes.

Updated	2022	**Hazards Addressed**	Climate Change, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire

California Fire Code and Local Amendments

The District adopted the 2022 California Fire Code (California Code of Regulations, Title 24, Part, 9 [based on the 2021 International Fire Code published by the International Code Council] The California Fire Code (CFC) contains regulations consistent with nationally recognized and accepted practices for safeguarding life and property from fire and explosion, dangerous conditions arising from the storage, handling, and use of hazardous materials and devices, and hazardous conditions in the use or occupancy of buildings or premises.

To ensure new construction and tenant improvements meet or exceed local standards to secure life safety related to building construction features and systems used to prevent ignition and fire spread as well as facilitate occupant escape.

Expansion, Implementation, and Improvement: The Fire Code will be reviewed based on developing trends in identified hazards and mitigation measures that can make them more effective at preventing losses. They will be updated to comply with the latest International and State building codes

Updated	2022	**Hazards Addressed**	Climate Change, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire

Vegetation Management Standards

The Vegetation Management Program (VMP) is a cost-sharing program that focuses on the use of prescribed fire, and some mechanical means, for addressing wildland fire fuel hazards and other resource management issues on State Responsibility Area (SRA) lands. The use of prescribed fire mimics natural processes, restores fire to its historic role in wildland ecosystems, and provides significant fire hazard reduction benefits that enhance public and firefighter safety.

Expansion, Implementation, and Improvement: This Hazard Mitigation Plan will support mitigation measures that are aligned with the VMP to reduce wildfire incidents.

Updated	1982	**Hazards Addressed**	Wildfire

Contra Costa County Community Wildfire Protection Plan			
The Contra Costa County Wildfire Protection Plan (CWPP), updated in 2019, provides an analysis of wildfire hazards and risk in the wildland urban interface (WUI) in Contra Costa County. The Plan follows the standards for CWPPs established by the Federal Healthy Forest Restoration Act. The lead department is Contra Costa County Fire Protection District, in collaboration with Kensington Fire Protection District. **Expansion, Implementation, and Improvement:** This Hazard Mitigation Plan and County Community Wildfire Protection Plan should be aligned where mitigation actions support the goals of the CWPP. The wildfire analysis in this Hazard Mitigation Plan can inform updates and revisions to the CWPP.			
Updated	2019	**Hazards Addressed**	Wildfire

5.2. Administrative and Technical Capabilities

The administrative and technical capabilities include community (i.e., public and private) staff and their skills and tools, which can be used for mitigation planning and implementation. This capability includes engineers, planners, emergency managers, GIS analysts, building inspectors, grant writers, and floodplain managers. Small communities may rely on other government entities, such as counties or special districts, for resources. These capabilities may be used to support mitigation activities. **Table 4** lists administrative and technical capabilities.

Table 4. Administrative and Technical Capabilities

Information Technology and Geographic Information System	
Information technology (IT) and Geographic Information Systems (GIS) provide the technical resources and support necessary to operate all of the applications relating to the District's information resources; respond to the service needs to all departments based on Districtwide priorities as established by the Fire Chief; responsible for the training and effective use of all District technology computer hardware, software, and peripherals; provide internal coordination of technology efforts Districtwide including substantial interface with all technology vendors to assure cost-effective, secure, and reliable technologies compatible with the long-range needs of the District; provide high-quality spatial data. **Expansion and Improvement:** Acquire and conduct training for GIS technicians on the latest versions of ArcGIS.	
Department	El Cerrito – Kensington Fire Department
Emergency Manager	
It provides for the coordinated response and recovery from major emergencies and disasters; develop, administer and coordinate the emergency planning preparedness program in conformity with local, State, and Federal requirements; develop emergency management and hazard mitigation plans; provide training to District staff in emergency planning and preparedness; develop, maintain, and coordinate the District Emergency Operations Center (EOC); provide businesses and residents with emergency planning and preparedness material to help reduce the loss of life and property resulting from a disaster; coordinate with City, County, State, and Federal counterparts; prepare emergency management grants; coordinate the efforts of volunteer organizations. **Expansion and Improvement:** Provide training to EOC staff, and other key personnel to better prepare for potential hazards and take action to report them	
Department	Kensington Fire Protection District (Fire Chief)

Grant Writers	
The District has a private contractor that provides grant research, writing, legislative advocacy, and post award management for the District. **Expansion and Improvement:** Provide opportunities for continued education to staff to maintain state of the art knowledge of all grant programs and opportunities.	
Department	Private Contractor, Kensington Fire Protection District
Planners, Engineers	
The planners and engineers are capable of implementing or working with engineering professionals to implement projects identified in the Hazard Mitigation Plan. **Expansion and Improvement:** Provide opportunities for continued education to engineers and planners to maintain state of the art knowledge of new code and regulatory requirements.	
Department	Private Contractor, Kensington Fire Protection District

5.3. Financial Resources

Table 5 contains a list of financial capabilities available to the District. These financial resources may be used to support mitigation activities based on procedures for each resource.

Table 5. Financial Resources

General Fund	
The General Fund consists of fees, property tax, sales tax, transient occupancy tax, and franchise tax, as applicable, that can be used for general purposes. **Expansion and Improvement:** Hazard mitigation projects may be considered during the annual budgeting process for funding from the Special Assessment and Measure H.	
Administrator	Kensington Fire Protection District (General Manager)
Special Revenue Funds	
The Kensington Fire Protection District operates one (1) Special Revenue Fund. Special Revenue Funds are used to account for revenue derived from specific taxes or other revenue sources that are restricted by law or administrative action to be expended for specified purposes. **Expansion and Improvement:** Focus Administered Special Funds on projects that provide mitigation to natural hazards.	
Administrator	Kensington Fire Protection District (General Manager)
Capital Improvement Funds	
The capital improvement fund is used for capital rehabilitation, renovation, improvement, and/or maintenance of assets at the discretion of the District's Board of Directors. **Expansion and Improvement:** Focus capital improvement funds on projects that provide mitigation to natural hazards.	
Administrator	Kensington Fire Protection District (General Manager)

Community Development Block Grant	
The Community Development Block Grant (CDBG) Program provides funding for eligible senior activities such as in-home care, art classes, counseling, and home-delivered meals. The United States Department of Housing and Urban Development (HUD) also provides Disaster Recovery Assistance in the form of flexible grants to help cities, counties, and states recover from Presidentially Declared Disasters, especially in low income areas, subject to the availability of supplemental appropriations. **Expansion and Improvement:** Where applicable, CDBG should be used to fund mitigation projects that enhance the resiliency of low income and underserved communities.	
Administrator	United States Department of Housing and Urban Development, Kensington Fire Protection District (General Manager)
Hazard Mitigation Grant Program	
The Hazard Mitigation Grant Program (HMPG) provides support for post-disaster mitigation plans and projects. **Expansion and Improvement:** Train staff on notice of intent (NOI) procedures and track opportunities on the Cal OES mitigation website to initiate applications for grant funding.	
Administrator	Federal Emergency Management Agency, Kensington Fire Protection District (General Manager)
Building Resilient Infrastructure and Communities	
Building Resilient Infrastructure and Communities (BRIC) provides support for pre-disaster mitigation plans and projects. **Expansion and Improvement:** Train staff on notice of intent (NOI) procedures and track opportunities on the Cal OES mitigation website to initiate applications for grant funding.	
Administrator	Federal Emergency Management Agency, Kensington Fire Protection District (General Manager)
Flood Mitigation Assistance Grant Program	
The Flood Mitigation Assistance (FMA) Grant Program mitigates structures and infrastructure with repetitive losses. **Expansion and Improvement:** Train staff on notice of intent (NOI) procedures and track opportunities on the California OES mitigation website to initiate applications for grant funding.	
Administrator	Federal Emergency Management Agency, Kensington Fire Protection District (General Manager)

5.4. Education and Outreach Capabilities

Table 6 lists the District's education and public outreach capabilities. These capabilities include fire safety programs, hazard awareness campaigns, public information, and communications offices. Education and outreach capabilities can be used to inform the public about current and potential mitigation activities.

Table 6. Education and Outreach Resources

District Emergency/Disaster Readiness Website *https://www.kensingtonfire.org/prepare/*	
The Kensington Fire Protection District has educational material on making an emergency plan, stocking supplies, staying informed and getting involved. Information on wildfire preparedness, fire prevention, evacuation, Contra Costa County Community Alerting, Nixle alerts, and others. **Expansion and Improvement:** Develop a comprehensive program to utilize the District's website to reach out to communities in the District to provide information on mitigation activities. Conduct an annual survey to solicit input. Provide information and conduct the survey in English and Spanish.	
Lead Organization	Kensington Fire Protection District
District Social Media Accounts ***Facebook:*** *https://www.facebook.com/kensingtonfpd/* ***Instagram:*** *https://www.instagram.com/kensingtonfpd/*	
The District uses its social media accounts to post information to collect input on updating this Hazard Mitigation Plan. These social media accounts can have links to other District webpages that provide details on mitigation projects and activities. They can also provide information and links to County, State and Federal emergency preparedness sites that provide information on individual and family preparedness. **Expansion and Improvement:** Develop a comprehensive program to utilize social media to reach out to communities in the District to provide information on emergency preparedness and response, and mitigation activities.	
Lead Organization	Kensington Fire Protection District
County Community Emergency Response Team Coalition	
The Community Emergency Response Team (CERT) Program is a 20-hour all risk, all hazard training offered by the County's Fire Department. This valuable course is designed to help you protect yourself, your family, your neighbors, and your neighborhood before, during, and after an emergency. **Expansion and Improvement:** Support Community Emergency Response Team (CERT) development by providing training, support, and equipment. A trained CERT will improve resilience from and disaster preparedness for the hazards that may impact the District and region.	
Lead Organization	Contra Costa County Cities Citizen Corps
Community Warning System	
The Community Warning System (CWS) can alert residents and businesses within Contra Costa County that are impacted by or are in danger of being impacted by an emergency. The CWS message will include basic information about the incident and what specific protective actions (e.g., shelter in place, lockdown, evacuate, avoid the area) are necessary for life safety and health. **Expansion and Improvement:** Coordinate community evacuation drills using the CWS to implement the exercise. Conduct post exercise information fairs at evacuation collection points.	
Lead Organization	Contra Costa County Office of the Sheriff

6. HAZARD MITIGATION PLAN INTEGRATION

The information on hazards, risk, vulnerability, and mitigation contained in this Hazard Mitigation Plan is based on the best available data at the time of the Plan update. Plan integration consists of the incorporation of hazard mitigation into other relevant planning mechanisms (e.g., general planning and capital improvement planning). It includes the integration of natural hazard information and mitigation

policies, principles, and actions into local planning mechanisms and vice versa. Additionally, plan integration is achieved though the involvement of key staff and community officials in collaborative hazard mitigation planning. This section describes the District's process for integrating information from this Hazard Mitigation Plan into other planning mechanisms.

6.1. Past Plan Integration

In the performance period since the adoption of the previous Hazard Mitigation Plan, the District made progress on integrating components of the hazard mitigation strategy (e.g., goals, objectives, and actions) into the planning initiatives listed in **Table 7**.

Table 7. Past Plan Integration

Planning Initiative	Description
Community Wildfire Protection Plan	The Community Wildfire Protection Plan (CWPP) includes information on risk and potential mitigation strategies to wildfire. Information has been incorporated from the CWPP into this Hazard Mitigation Plan, as appropriate, and vice versa.

6.2. Potential Future Integration

As the Hazard Mitigation Plan is implemented, the District will use information from the Plan as the best available science and data on hazards. The capability assessment presented in Section 5 of this Annex identifies codes, plans, and programs that provide opportunities for integration. The countywide and local action plans developed for this Hazard Mitigation Plan are related to plan integration. The capability assessment identified plans and programs, listed in **Table 8**, that do not currently integrate goals and recommendations of this Plan but provide opportunities to do so in the future.

Table 8. Potential Future Integration

Planning Initiative	Description
Emergency Operations Plan	At the time of its next update, information from this Hazard Mitigation Plan will be incorporated into the District's Emergency Operations Plan (EOP), as appropriate.
Local Amendments to the California Fire Code	Information from the Hazard Mitigation Plan risk assessment will be used to inform local amendments to the California Fire Code, as appropriate.

The District's Local Planning Team will identify all relevant planning initiatives that are scheduled to be updated in the next year and during the annual update process of the Hazard Mitigation Plan. Additionally, opportunities to integrate key elements of the Hazard Mitigation Plan, specifically any relevant strategies, into the planning initiatives will be identified by the Local Planning Team. Mitigation actions were identified to promote plan integration in future revisions of this Plan.

7. SIGNIFICANT HAZARD PAST EVENTS

A complete risk assessment, including past incidents, for each identified hazard of concern can be found in **Volume 1 (Planning Area-wide Elements)** of this Plan.

8. NATIONAL FLOOD INSURANCE PROGRAM

As a special district, Kensington Fire Protection District is not eligible to participate in FEMA's National Flood Insurance Program (NFIP). Further information on Contra Costa County's NFIP and Community

Rating System (CRS) participation is available on **Volume 1 (Planning Area-wide Elements)** of this Plan.

9. HAZARD VULNERABILITY AND IMPACT ASSESSMENT

Exposure and vulnerability to certain hazards affect the entire County and others are geographically defined. Although the entire County may be vulnerable to these hazards, their impacts may vary based on existing community conditions (e.g., underserved, or functional access needs populations may be more susceptible based on certain conditions, vulnerabilities, or needs).

The Local Planning Team identified ***unique vulnerabilities and impacts*** to the following natural hazards, based on the hazards profiled in **Volume 1 (Planning Area-wide Elements)**.

- Climate Change
- Drought
- Earthquake
- Landslide
- Severe Weather *(heavy rainfall, severe thunderstorms, strong winds/damaging winds, heat wave/extreme heat, tornado)*
- Wildfire

It was determined that the planning area did not have unique vulnerabilities and impacts to the following natural hazards; rather, its vulnerability and impacts are consistent with those experienced throughout the County.

- Dam and Levee Failure
- Flood *(riverine/creek, urban/flash flood)*
- Sea Level Rise
- Tsunami

Note: Severe weather and flooding are profiled as the two (2) hazards. However, in an effort to have a more thorough risk assessment, the sub hazards (i.e., heavy rainfall, severe thunderstorms, strong winds/damaging winds, heat wave/extreme heat, tornado, riverine/creek flooding, and urban/flash flooding) were ranked individually. The hazard risk assessment methodology can be found in **Appendix C** of this Annex.

Table 9 provides information on several key vulnerabilities and impacts for the District and only addresses the hazards that are relevant and unique to the jurisdiction. A complete risk assessment for each identified hazard of concern is in **Volume 1 (Planning Area-wide Elements)** of this Plan. Hazard mapping can be found in **Appendix A** of this Annex.

Table 9. Hazard Vulnerability and Impact Assessment

Hazards	Vulnerability and Impact
Climate Change	All of Kensington lies within a Very High Fire Hazard Severity Zone. Therefore, drought events that result from climate change have an adverse effect on the large wildland areas bordering Kensington (i.e., Wildcat Canyon and Tilden Park). This increases the probability of large scale wildfires within the District. The community has many narrow roadways within steep terrain that if damaged or impacted by flooding, landslides, or wildfires could negatively impact evacuation. Approximately, 34% of Kensington's population are seniors (i.e., 60 years old and over) and navigating evacuation could be challenging.
Dam and Levee Failure	The Local Planning Team determined that the District does not have unique vulnerabilities and impacts to dam and levee failures; rather, the District's vulnerability and impacts are consistent with those experienced throughout the County.
Drought	All of Kensington lies within a Very High Fire Hazard Severity Zone. Therefore, extended periods of drought increase the probability of large-scale wildfires, especially in areas bordering Kensington (i.e., Wildcat Canyon and Tilden Park). Individuals with chronic illnesses are most vulnerable to the health impacts during drought events. These include those with long term or permanent health conditions that can be exacerbated by drought conditions (e.g., cardiovascular disease, respiratory conditions). Air quality can decrease during drought events which can irritate the lungs and bronchial passages exacerbating chronic respiratory conditions. Additionally, the elderly population, children, and outdoor workers are uniquely vulnerable to the extreme temperatures that accompany drought conditions.
Earthquake	The Hayward Fault runs through a significant portion of the District. The current public safety building sits in very close proximity to the fault and has recently been renovated for seismic conditions, while the temporary fire station is merely a portable/unreinforced building; however, will soon no longer be used. The Kensington Community Center and Recreation Center would be prone to collapse in the event of a major earthquake. The narrow roadways and steep terrain could negatively impact evacuation in the event of an earthquake. Although the entire population is vulnerable to earthquakes, those with access and functional needs, and the elderly may encounter unique challenges when evacuating or travelling to a shelter without assistance.
Flood *(urban/flash flood, riverine/creek)*	The Local Planning Team determined that the District does not have unique vulnerabilities and impacts to flooding; rather, the District's vulnerability and impacts are consistent with those experienced throughout the County.
Landslides	Several mapped landslide areas are within the District response area. These include the Public Safety Building, temporary fire station, and buildings utilized by the community for shelter. The narrow roadways and steep terrain could negatively impact evacuation in the event of a landslide. Approximately, 34% of Kensington's population are seniors (i.e., 60 years old and over). The elderly, especially those with access and functional needs, may have physical limitations that make it harder to evacuate in the event of an emergency. Furthermore, this population may lack access to social connections and community support that could assist in preparing for and responding to emergency events, evacuating, improving home resiliency, managing medical needs, and locating support services.

Hazards	Vulnerability and Impact
Sea Level Rise	The Local Planning Team determined that the District does not have unique vulnerabilities and impacts to sea level rise; rather, the District's vulnerability and impacts are consistent with those experienced throughout the County.
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds/damaging winds, heat wave/extreme heat, tornado)*	Due to severe weather, there is significant potential for falling trees. The narrow streets and above ground electrical utilities would be greatly impacted, thus presenting challenges for evacuation and access, and daily living needs for the large elderly population in Kensington. For example, power outages during severe weather can occur due to extreme heat or if trees fall over electrical utilities. Power outages can impact individuals that are electrically dependent and the elderly due to potentially having no access to air conditioning. In the event of an evacuation, the elderly population (i.e., 60 years old and over) may have physical limitations that make it harder to evacuate. Furthermore, the elderly, children, and outdoor workers are especially vulnerable to the health effects associated with heat wave/extreme heat events.
Tsunami	The Local Planning Team determined that the District does not have unique vulnerabilities and impacts to tsunamis; rather, the District's vulnerability and impacts are consistent with those experienced throughout the County.
Wildfire	All of Kensington is located in a Very High Fire Hazard Severity Zone. It is bordered on the east by both Wildcat Canyon and Tilden Park. Should a large-scale fire driven by the Diablo winds occur, the effects would be a devastating loss of life and property. The narrow roadways and steep terrain could negatively impact evacuation in the event of a wildfire. In the event of an evacuation, the elderly population (i.e., 60 years old and over) may have physical limitations that make it harder to evacuate. Furthermore, the elderly may lack access to social connections and community support that could assist in preparing for and responding to emergency events, evacuating, improving home resiliency, managing medical needs, and locating support services.
Active Shooter Incidents	The Local Planning Team determined that the District does not have unique vulnerabilities and impacts to active shooter incidents; rather, the District's vulnerability and impacts are consistent with those experienced throughout the County.
Cybersecurity Threats	The Local Planning Team determined that the District does not have unique vulnerabilities and impacts to cybersecurity threats; rather, the District's vulnerability and impacts are consistent with those experienced throughout the County.
Hazardous Materials Incidents	The Local Planning Team determined that the District does not have unique vulnerabilities and impacts to hazardous materials incidents; rather, the District's vulnerability and impacts are consistent with those experienced throughout the County.
Terrorism (Weapons of Mass Destruction)	The Local Planning Team determined that the District does not have unique vulnerabilities and impacts to terrorism; rather, the District's vulnerability and impacts are consistent with those experienced throughout the County.
Utility Interruptions	All electrical utilities are currently above ground (both transmission and individual occupancy service). Due to the area's proximity to the Hayward Fault, any moderate movement of the fault would likely impact utilities and result in loss of power.

The District evaluated whether vulnerability and impact in hazard prone areas had increased, decreased, or remained the same for each natural hazard identified in this Hazard Mitigation Plan. Climate change, changes in population, infrastructure expansion, and economic shifts that can affect vulnerability were considered. For example, if planned development is in an identified hazard areas or is not built to the updated building codes, it may increase the community's vulnerability to future hazards and disasters.

On the other hand, if development occurred with mitigation practices in place, the vulnerability may have remained the same or decreased. Additionally, shifting demographics (e.g., underserved population) were taken into consideration.

Table 10 outlines if climate change has increased or decreased the District's vulnerability (i.e., exposure) and impact to each natural hazard over the past five (5) years, and the effect of climate change in the future probability of occurrence and impacts from each natural hazard.

Table 10. Climate Change Current and Future Vulnerability and Impact

Hazard	Vulnerability and Impact
Current Vulnerability and Impact	
Climate Change	Increased
Dam and Levee Failure	Increased
Drought	Increased
Earthquake	Remained the Same
Flood *(urban/flash flood, riverine/creek)*	Increased
Landslide	Increased
Sea Level Rise	Increased
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds/damaging winds, heat wave/extreme heat, tornado)*	Increased
Tsunami	Increased
Wildfire	Increased
Future Vulnerability and Impact	
Climate Change	Increase
Dam and Levee Failure	Increase
Drought	Increase
Earthquake	No Change is Anticipated
Flood *(urban/flash flood, riverine/creek)*	Increase
Landslide	Increase
Sea Level Rise	Increase
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds/damaging winds, heat wave/extreme heat, tornado)*	Increase
Tsunami	Increase
Wildfire	Increase

Table 11 outlines if changes in population within the District over the past five (5) years have increased or decreased the vulnerability (i.e., exposure) and impact to these natural hazards, and the anticipated effects changes in population may have on the future probability of occurrence and impacts from these natural hazards.

Table 11. Changes in Population Current and Future Vulnerability and Impact

Hazard	Vulnerability and Impact
Current Vulnerability and Impact	
Climate Change	Increased
Dam and Levee Failure	Increased
Drought	Increased
Earthquake	Increased
Flood *(urban/flash flood, riverine/creek)*	Increased
Landslide	Increased
Sea Level Rise	Increased
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds/damaging winds, heat wave/extreme heat, tornado)*	Increased
Tsunami	Increased
Wildfire	Increased
Future Vulnerability and Impact	
Climate Change	Increase
Dam and Levee Failure	Increase
Drought	Increase
Earthquake	Increase
Flood *(urban/flash flood, riverine/creek)*	Increase
Landslide	Increase
Sea Level Rise	Increase
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds/damaging winds, heat wave/extreme heat, tornado)*	Increase
Tsunami	Increase
Wildfire	Increase

Table 12 outlines if development over the past five (5) years has increased or decreased the jurisdiction's vulnerability/exposure to these natural hazards, and the anticipated effects changes in development may have on the future probability of occurrence and impacts from these natural hazards.

Table 12. Changes in Development Current and Future Vulnerability and Impact

Hazard	Vulnerability and Impact
Current Vulnerability and Impact	
Climate Change	Remained the Same
Dam and Levee Failure	Remained the Same
Drought	Remained the Same
Earthquake	Remained the Same

Hazard	Vulnerability and Impact
Flood *(urban/flash flood, riverine/creek)*	Remained the Same
Landslide	Remained the Same
Sea Level Rise	Remained the Same
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds/damaging winds, heat wave/extreme heat, tornado)*	Remained the Same
Tsunami	Remained the Same
Wildfire	Remained the Same
Future Vulnerability and Impact	
Climate Change	Increase
Dam and Levee Failure	Increase
Drought	Increase
Earthquake	Increase
Flood *(urban/flash flood, riverine/creek)*	Increase
Landslide	Increase
Sea Level Rise	Increase
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds/damaging winds, heat wave/extreme heat, tornado)*	Increase
Tsunami	Increase
Wildfire	Increase

See Section 4 of this Annex for anticipated future major assets that may be exposed or vulnerable to any of the natural hazards identified in this Hazard Mitigation Plan. Any new assets (e.g., new construction in hazard prone areas) will be constructed to adhere to the latest building codes and standards, and mitigation to protect them from identified and anticipated hazards, especially those that are expected to increase due to climate change.

Refer to **Appendix C** and **Appendix D** of this Annex for the hazard risk assessment methodology and jurisdiction specific details, which includes the vulnerability and impacts to population and life safety, underserved/equity, property damage, future development, and climate change.

9.1. FEMA National Risk Index

In the National Risk Index (NRI), risk is defined as the potential for negative impacts as a result of a natural hazard. The Risk Index is based on three (3) components – a natural hazards component (Expected Annual Loss), a consequence enhancing component (Social Vulnerability), and a consequence reduction component (Community Resilience). Using these components, the composite and hazard type Risk Index values are calculated for each community (county and Census Tract). Risk Index values form an absolute basis for measuring Risk within the NRI and are used to generate Risk Index percentiles and ratings across communities.[2] **Table 13** illustrates the Risk Index rating and score for the District's planning area boundary.

[2] Federal Emergency Management Agency. (2023). Determining Risk. Retrieved from https://hazards.fema.gov/nri/determining-risk.

Note: *ArcGIS mapping analysis was performed utilizing Census Tract data by overlaying Census Tracts with the District's planning area boundary. The information outlined in this section includes data from the Census Tracts that intersect the jurisdiction.*

Table 13. Risk Index Score (FEMA National Risk Index)

Jurisdiction	Rating	Score
Kensington Fire Protection District	Relatively High	75.7
Risk Index scores are calculated using an equation that combines scores for Expected Annual Loss due to natural hazards, Social Vulnerability and Community Resilience (Expected Annual Loss x Social Vulnerability / Community Resilience = Risk Index).		

9.1.1. Expected Annual Loss

The FEMA NRI Expected Annual Loss (EAL), the natural hazards component of the NRI, represents the average economic loss in dollars resulting from natural hazards each year. It is calculated for each hazard type and quantifies loss for relevant consequence types – buildings, people, and agriculture. The EAL score and rating represent a community's relative level of expected losses each year when compared to all other communities at the same level. Since the score is associated to a community's risk; the higher EAL score results in a higher Risk Index score.[3] **Table 14** illustrates each hazard EAL for the District's planning area boundary.

Table 14. Expected Annual Loss *(FEMA National Risk Index)*

Hazard	Population Equivalence	Building Value	Agriculture Value	Total Expected Annual Loss	Expected Annual Loss Score	Rating
Coastal Flooding *(Sea Level Rise)*	$0	$0	n/a	$0	0.0	No Expected Annual Losses
Drought	n/a	n/a	$0	$0	0.0	No Expected Annual Losses
Earthquake	$376,776	$1.2 Million	n/a	$1.6 Million	95.9	Very High
Hail *(Severe Weather)*	$1,795	$0	$0	$1,795	28.4	Relatively Low
Heat Wave *(Severe Weather)*	$12,235	$2	$0	$12,237	57.5	Relatively Moderate
Landslide	$25	$215	n/a	$240	33.9	Relatively Moderate
Riverine Flooding *(Flood)*	$0	$0	$0	$0	0.0	No Expected Annual Losses
Strong Winds *(Severe Weather)*	$33	$16	$0	$49	3.9	Very Low

[3] Federal Emergency Management Agency. (2023). Expected Annual Loss. Retrieved from https://hazards.fema.gov/nri/expected-annual-loss.

Hazard	Population Equivalence	Building Value	Agriculture Value	Total Expected Annual Loss	Expected Annual Loss Score	Rating
Tornado *(Severe Weather)*	$563	$1,893	$0	$2,456	7.2	Very Low
Tsunami	$0	$0	n/a	$0	0.0	No Expected Annual Losses
Wildfire	$252	$9,105	$0	$9,357	74.1	Relatively High
Expected annual loss scores are calculated utilizing an equation that combines values for exposure, annualized frequency, and historic loss ratios (Expected Annual Loss = Exposure x Annualized Frequency x Historic Loss Ratio).						

An EAL score and rating is calculated independently for each consequence type (i.e., buildings, population, and agriculture) for each county and Census Tract. The population EAL is measured in fatalities and injuries while the building and agriculture values are measured in dollars. However, for consistency in the unit of measurement, the population EAL was monetized into population equivalence using a value of statistical life (VSL) approach where each fatality or 10 injuries is treated as $11.6 Million of economic loss.

9.1.2. Social Vulnerability

Social vulnerability, the consequence enhancing risk component of the NRI, measures the susceptibility of social groups to the adverse impacts of natural hazards, including disproportionate death, injury, loss, or disruption of livelihood. The Social Vulnerability score and rating represent the relative level of a community's social vulnerability compared to all other communities at the same level. A higher Social Vulnerability score results in a higher Risk Index score.[4] **Table 15** illustrates the Social Vulnerability rating and score for the District's planning area boundary.

Table 15. Social Vulnerability *(FEMA National Risk Index)*

Jurisdiction	Rating	Score
Kensington Fire Protection District	Very Low	11.7
Social Vulnerability is measured using the Social Vulnerability Index (SoVI) published by the University of South Carolina's Hazards and Vulnerability Research Institute (HVRI).		

9.1.3. Community Resilience

Community resilience, the consequence reduction risk component, measures the ability of a community to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions. The Community Resilience score and rating represent the relative level of a community's resilience compared to all other communities at the same level. Since the score is inversely proportional to a community's risk; the higher Community Resilience score results in a lower Risk Index score.[5] **Table 16** illustrates the Community Resilience rating and score for the District's planning area boundary.

[4] Federal Emergency Management Agency. (2023). Social Vulnerability. Retrieved from https://hazards.fema.gov/nri/social-vulnerability.
[5] Federal Emergency Management Agency. (2023). Community Resilience. Retrieved from https://hazards.fema.gov/nri/community-resilience.

Table 16. Community Resilience *(FEMA National Risk Index)*

Jurisdiction	Rating	Score
Kensington Fire Protection District	Relatively High	66.4
Community Resilience is measured using the Baseline Resilience Indicators for Communities (HVRI BRIC) published by the University of South Carolina's Hazards and Vulnerability Research Institute (HVRI).		

9.1.4. Annualized Frequency

Annualized frequency is defined as the expected frequency or probability of a hazard occurrence per year. It is a natural hazard incidence factor for Expected Annual Loss, the natural hazards component of the National Risk Index. A higher annualized frequency value results in higher Expected Annual Loss and Risk Index scores. The annualized frequency is derived from either the number of recorded hazard occurrences each year over a given period or the modeled probability of a hazard occurrence each year (e.g., earthquake).[6] **Table 17** outlines the annualized frequency for each hazard, based on FEMA NRI data, for the District's planning area boundary.

Table 17. Hazard Annualized Frequency *(FEMA National Risk Index)*

Hazard	Period of Record	Events on Record	Annualized Frequency
Coastal Flooding *(Sea Level Rise)*	Various datasets	n/a	0.0 events per year
Drought	22 years	994	45.2 events per year
Earthquake	2021 dataset	n/a	0.010% chance per year
Hail *(Severe Weather)*	34 years	1	0.0 events per year
Heat Wave *(Severe Weather)*	16 years	8	0.5 events per year
Landslide	12 years	0	0.0 events per year
Riverine Flooding *(Flood)*	24 years	31	0.0 events per year
Strong Winds *(Severe Weather)*	34 years	2	0.0 events per year
Tornado *(Severe Weather)*	72 years	0	0.0 events per year
Tsunami	222 years	0	0.0 events per year
Wildfire	2021 dataset	n/a	0.001% events per year

10. HAZARD RISK RANKING

Table 18 presents the local hazard ranking for the District of all hazards of concern listed in **Volume 1 (Planning Area-wide Elements)** of this Plan. This ranking summarizes how hazards vary for this jurisdiction. As described in detail in **Volume 1 (Planning Area-wide Elements)** and **Appendix C** of this Annex, 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. For further details on how the probability, extent, vulnerability, and impact factors in **Table 18** were calculated, please refer to **Appendix D** of this Annex.

[6] Federal Emergency Management Agency. (2023). Annualized Frequency. Retrieved from https://hazards.fema.gov/nri/annualized-frequency.

It is important to note that the sub hazards for severe weather hazards (i.e., heavy rainfall, severe thunderstorms, strong winds/damaging winds, heat wave/extreme heat, and tornado) and flood hazards (i.e., riverine/creek flooding and urban/flash flooding) were individually ranked in the hazard risk ranking; however, flood and severe weather are each considered as the main hazard throughout this Annex and **Volume 1 (Planning Area-wide Elements)**.

Table 18. Hazard Risk Ranking

Hazard Event	Probability Factor	Sum of Weighted Extent Factors	Sum of Weighted Vulnerability Factors	Sum of Weighted Impact Factors	Consequence Score	Total Risk Score *(Probability x Consequence)*
Earthquake	2	18	17	36	71	68
Wildfire	2	18	17	31	66	63
Landslide	3	9	9	22	40	59
Heavy Rainfall *(Severe Weather)*	3	9	14	15	38	56
Flood (Urban/Flash Flood)	2	15	12	29	56	55
Strong Winds/ Damaging Winds *(Severe Weather)*	3	9	11	16	36	54
Severe Thunderstorm *(Severe Weather)*	3	6	16	14	36	54
Utility Interruptions	3	9	7	18	34	51
Heat Wave/Extreme Heat	3	9	10	15	34	51
Drought	2	18	12	20	50	50
Hazardous Materials Incidents	2	15	9	16	40	41
Climate Change	2	9	12	15	36	38
Cybersecurity Threats	2	12	7	13	32	34
Active Shooter Incidents	2	9	5	15	29	32
Terrorism (Weapons of Mass Destruction)	1	18	11	27	56	31
Flood (Riverine/Creek)	1	6	7	29	42	24
Tornadoes *(Severe Weather)*	1	6	6	14	26	16
Dam and Levee Failure	0	18	6	31	55	0
Sea Level Rise	0	6	6	12	24	0

Hazard Event	Probability Factor	Sum of Weighted Extent Factors	Sum of Weighted Vulnerability Factors	Sum of Weighted Impact Factors	Consequence Score	Total Risk Score *(Probability x Consequence)*
Tsunami	0	6	6	13	25	0

Consequence: *Sum of all weighted factors.*
Extent: *Sum of the weighted Extent factors.*
Vulnerability: *Sum of the weighted Vulnerability factors.*
Impact: *Sum of the weighted Impact factors.*
Total Risk Score* *= Probability x Consequence*
** Normalized to 100*

Total Risk Score Legend

Classification	Probability Factor	Extent	Vulnerability	Impact	Consequence Score	Total Risk Score
Low (L)	1	0 – 6	0 – 6	0 – 12	0 – 24	0 – 24
Medium (M)	2	7 – 12	7 – 12	13 – 26	25 – 50	25 – 54
High (H)	3	13 – 18	13 – 18	27 – 39	51 – 75	55 and above

*The **legend**—specifically the assignment of low, medium, and high—provides an additional means to qualitatively assess the probability factor, sum of weighted factors, and the total risk scores for each hazard. The **Consequence Score** represents the sum of the Extent, Vulnerability, and Impact Factors. The **Total Risk Score** is a measure of Probability and Consequence.*

11. MITIGATION ACTIONS

This section includes the mitigation actions that were developed to address identified risks and vulnerabilities to hazards identified in this Plan. This Plan serves only to recommend mitigation measures based on the potential for risk reduction and available funding. Implementation of mitigation actions is dependent on risk reduction priorities, feasibility, and available funding. It is also dependent on the cooperation and support of the jurisdiction and/or department responsible for each action item.

The Kensington Fire Protection District agreed upon **19** mitigation actions that apply to the jurisdiction's properties where they have jurisdictional responsibility and authority. One (1) mitigation action has been deleted/no longer needed. A summary of the District's mitigation actions status is listed in **Table 19**.

Table 19. Kensington Fire Protection District Mitigation Actions Summary

Status	Mitigation Action Total
Ongoing	12
In Progress/In Work	3
Not Started	0
Delayed/Deferred	3
New	1
TOTAL	**19**
Completed	0
Deleted/No Longer Needed	1

Mitigation Actions per Hazard			
Climate Change	4	Landslide	14
Dam and Levee Failure	13	Sea Level Rise	13
Drought	13	Severe Weather	13
Earthquake	15	Tsunami	13
Flood	14	Wildfire	19
Other Hazards of Concern: Active Shooter Incident (1), Hazardous Materials Incidents (1), Utility Interruptions (1)			

These shared actions, some of which address all hazards, help to meet the following requirements:

- Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure?
- Does the Plan include one (1) or more action(s) per jurisdiction for each hazard identified within the risk assessment?

A detailed explanation of the Mitigation Strategy can be found in Chapter 5 of **Volume 1 (Planning Area-wide Elements)**.

Mitigation Action	Where appropriate, support retrofitting or relocation of District facilities structures in high hazard areas, prioritizing structures that have experienced repetitive losses.				
Action Number	KFPD-1	**Year Initiated / Anticipated Year of Initiation**	2011	**Prioritization Score**	Medium
Goal(s) / Objective(s) Addressed		**Goals:** 1, 2, 3, 4, 5 **Objectives:** 1, 4, 7, 9, 12, 14, 15, 17	**Hazard(s) Mitigated**	Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire	
Project Status		Ongoing	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Short Term		**Estimated Cost**	High	
Potential Funding Source	HMGP, FMA, BRIC		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	N/A	
Implementation Priority	Medium	**Integration Ideas** *(Optional)*			

Mitigation Action	Actively participate in the Hazard Mitigation Plan maintenance protocols outlined in Volume 1 of the Contra Costa County Hazard Mitigation Plan.				
Action Number	KFPD- 2	**Year Initiated / Anticipated Year of Initiation**	2011	**Prioritization Score**	High
Goal(s) / Objective(s) Addressed		**Goals:** 1, 2, 3, 4, 5 **Objectives:** 3, 8, 16	**Hazard(s) Mitigated**	Climate Change, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire	
Project Status		Ongoing	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		Low			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Short Term		**Estimated Cost**	Low	
Potential Funding Source	Local Budgeted Funds		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	**Integration Ideas** *(Optional)*			

Mitigation Action	Upgrade the Emergency Operations Center's (EOC) internal communication system and maintain it in a fully functional state of operations.				
Action Number	KFPD-3	**Year Initiated / Anticipated Year of Initiation**	2011	**Prioritization Score**	Medium
Goal(s) / Objective(s) Addressed		**Goals:** 1, 2, 3, 5 **Objectives:** 1, 2	**Hazard(s) Mitigated**	Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire	
Project Status		In Progress/In Work	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Long Term		**Estimated Cost**	Medium	
Potential Funding Source	Local Budgeted Funds HMGP, BRIC, EMPG		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	Medium	**Integration Ideas** *(Optional)*			

Mitigation Action	Develop and conduct a multi hazard seasonal public awareness program that includes exercises.				
Action Number	KFPD-4	**Year Initiated / Anticipated Year of Initiation**	2011	**Prioritization Score**	High
Goal(s) / Objective(s) Addressed		**Goals:** 1, 2, 3, 4, 5 **Objectives:** 3, 16	**Hazard(s) Mitigated**	Climate Change, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire	
Project Status		Ongoing	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Ongoing		**Estimated Cost**	Low	
Potential Funding Source	Local Budgeted Funds		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	**Integration Ideas** *(Optional)*			

Mitigation Action	Conduct a mass care and shelter drill that involves the District, Kensington, County, Community Emergency Response Teams, and non-governmental organizations.				
Action Number	KFPD-5	**Year Initiated / Anticipated Year of Initiation**	2026	**Prioritization Score**	High
Goal(s) / Objective(s) Addressed		**Goals:** 1, 2, 3, 4, 5 **Objectives:** 3, 16	**Hazard(s) Mitigated**	Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire	
Project Status		Delayed/Deferred	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		Low			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Ongoing		**Estimated Cost**	Low	
Potential Funding Source	Local Budgeted Funds		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	**Integration Ideas** *(Optional)*			

Mitigation Action	Enhance/improve the District Code's language and enforcement including, but not limited to, District Fire codes to increase compliance with Senate Bill 1369 defensible space and other fire safe requirements within the District.				
Action Number	KFPD-6	**Year Initiated / Anticipated Year of Initiation**	2011	**Prioritization Score**	High
Goal(s) / Objective(s) Addressed		**Goals:** 1, 2, 3, 4, 5 **Objectives:** 5, 6	**Hazard(s) Mitigated**	Wildfire	
Project Status		Ongoing	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		Medium			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Ongoing		**Estimated Cost**	Low	
Potential Funding Source	Local Budgeted Funds		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	**Integration Ideas** *(Optional)*			

Mitigation Action	Improve, expand, and develop new programs that increase awareness of and reduce risk to wildfires including, but not limited to, support the Diablo Fire Safe Council and Fire Department Chipper Program.				
Action Number	KFPD-7	**Year Initiated / Anticipated Year of Initiation**	2011	**Prioritization Score**	Medium
Goal(s) / Objective(s) Addressed		**Goals:** 1, 2, 3, 4, 5 **Objectives:** 2, 17	**Hazard(s) Mitigated**	Wildfire	
Project Status		Ongoing	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		Low			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Ongoing		**Estimated Cost**	Medium	
Potential Funding Source	Local Budgeted Funds, HMGP, BRIC		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	Medium	**Integration Ideas** *(Optional)*			

Mitigation Action	Ensure that government owned facilities are subject to the same or more stringent City and County standard details as imposed on privately owned development.				
Action Number	KFPD-8	**Year Initiated / Anticipated Year of Initiation**	2011	**Prioritization Score**	Medium
Goal(s) / Objective(s) Addressed		**Goals:** 1, 2, 3, 4, 5 **Objectives:** 1, 2, 6	**Hazard(s) Mitigated**	Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire	
Project Status		Ongoing	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		Medium			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Ongoing		**Estimated Cost**	High	
Potential Funding Source	Local Budgeted Funds		If *Other*, you **must** identify a funding source.		
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	Medium	**Integration Ideas** *(Optional)*			

Mitigation Action	Prior to the acquisition of property to be used as a critical facility, conduct a study to ensure the absence of significant hazards.				
Action Number	KFPD-9	**Year Initiated / Anticipated Year of Initiation**	N/A	**Prioritization Score**	N/A
Goal(s) / Objective(s) Addressed		**Goals:** 1, 2, 3, 4, 5 **Objectives:** 1, 2, 6	**Hazard(s) Mitigated**	Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire	
Project Status		Deleted/No Longer Needed	If *Deleted/No Longer Needed*, provide reason.	Public Safety Building renovation is in progress on existing property.	
Benefits *(Loss Avoided)*		N/A			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	N/A		**Estimated Cost**	N/A	
Potential Funding Source	N/A		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	N/A	
Implementation Priority	N/A	**Integration Ideas** *(Optional)*			

Mitigation Action	Establish a framework and process for pre-event planning and post-event recovery that specifies roles, priorities, and responsibilities for various departments within local government organization, and outlines a structure and process for policymaking involving elected and appointed advisory committees.				
Action Number	KFPD-10	**Year Initiated / Anticipated Year of Initiation**	2011	**Prioritization Score**	High
Goal(s) / Objective(s) Addressed		**Goals:** 1, 3, 5 **Objectives:** 2, 3	**Hazard(s) Mitigated**	Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire	
Project Status		Ongoing	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Ongoing		**Estimated Cost**	Low	
Potential Funding Source	Local Budgeted Funds		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	**Integration Ideas** *(Optional)*			

Mitigation Action	Establish a goal for the resumption of local government services that may vary from function to function.				
Action Number	KFPD-11	**Year Initiated / Anticipated Year of Initiation**	2011	**Prioritization Score**	High
Goal(s) / Objective(s) Addressed		**Goals:** 1, 3, 5 **Objectives:** 2, 3	**Hazard(s) Mitigated**	Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire	
Project Status		Ongoing	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Ongoing		**Estimated Cost**	Low	
Potential Funding Source	Local Budgeted Funds		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	**Integration Ideas** *(Optional)*			

Mitigation Action	Maintain and update, as necessary, the District's Standardized Emergency Management System Plan.				
Action Number	KFPD-12	**Year Initiated / Anticipated Year of Initiation**	2011	**Prioritization Score**	High
Goal(s) / Objective(s) Addressed		**Goals:** 1, 3, 5 **Objectives:** 2, 3	**Hazard(s) Mitigated**	Climate Change, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire	
Project Status		Ongoing	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		Low			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Ongoing		**Estimated Cost**	Low	
Potential Funding Source	Local Budgeted Funds		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	**Integration Ideas** *(Optional)*			

Mitigation Action	Purchase command vehicles for use as mobile command/Emergency Operations Center (EOC) vehicles if current vehicles are unsuitable or inadequate.				
Action Number	KFPD-13	**Year Initiated / Anticipated Year of Initiation**	2027	**Prioritization Score**	Medium
Goal(s) / Objective(s) Addressed		**Goals:** 1, 2, 3, 5 **Objectives:** 1, 2	**Hazard(s) Mitigated**	Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire	
Project Status		Delayed/Deferred	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		Low			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Ongoing		**Estimated Cost**	High	
Potential Funding Source	Local Budgeted Funds, EMPG		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	Medium	**Integration Ideas** *(Optional)*			

Mitigation Action	Continue to participate in general mutual aid agreements and agreements with adjoining jurisdictions for cooperative response to all hazards and disasters.				
Action Number	KFPD-14	**Year Initiated / Anticipated Year of Initiation**	2011	**Prioritization Score**	High
Goal(s) / Objective(s) Addressed		**Goals:** 1, 2, 3, 4, 5 **Objectives:** 2, 16	**Hazard(s) Mitigated**	Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire	
Project Status		Ongoing	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Ongoing		**Estimated Cost**	Low	
Potential Funding Source	Local Budgeted Funds		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	**Integration Ideas** *(Optional)*			

Mitigation Action	Develop a business continuity plan that includes backup storage of vital records (e.g., essential medical records and financial information).				
Action Number	KFPD-15	**Year Initiated / Anticipated Year of Initiation**	2011	**Prioritization Score**	High
Goal(s) / Objective(s) Addressed		**Goals:** 1, 2, 3, 5 **Objectives:** 1, 2	**Hazard(s) Mitigated**	Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire	
Project Status		In Progress/In Work	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		Medium			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Ongoing		**Estimated Cost**	Medium	
Potential Funding Source	Local Budgeted Funds, HMGP		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	**Integration Ideas** *(Optional)*			

Mitigation Action	Increase efforts to reduce wildfire hazards in existing development in the Very High Fire Hazard Fire Severity Zones (VHFHSZ) through improving engineering design and vegetation management standards for mitigation, appropriate code enforcement and public education on defensible space mitigation strategies.				
Action Number	KFPD-16	**Year Initiated / Anticipated Year of Initiation**	2011	**Prioritization Score**	High
Goal(s) / Objective(s) Addressed		**Goals:** 1, 3, 5 **Objectives:** 3, 5	**Hazard(s) Mitigated**	Wildfire	
Project Status		Ongoing	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Ongoing		**Estimated Cost**	Medium	
Potential Funding Source	Local Budgeted Funds		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	**Integration Ideas** *(Optional)*			

Mitigation Action	Require new homes in Wildland Urban Interface and Very High Fire Hazard Fire Severity Zones (VHFHSZ) threatened communities to be constructed of fire resistant building materials to increase structural survivability and reduce ignitability.				
Action Number	KFPD-17	**Year Initiated / Anticipated Year of Initiation**	2018	**Prioritization Score**	High
Goal(s) / Objective(s) Addressed		**Goals:** 1, 3, 5 **Objectives:** 3, 5	**Hazard(s) Mitigated**	Wildfire	
Project Status		Ongoing	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Ongoing		**Estimated Cost**	Low	
Potential Funding Source	Local Budgeted Funds		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	**Integration Ideas** *(Optional)*			

Mitigation Action	Retrofit or replace the existing fire station.				
Action Number	KFPD-18	**Year Initiated / Anticipated Year of Initiation**	2011	**Prioritization Score**	Medium
Goal(s) / Objective(s) Addressed		**Goals:** 1, 2, 3, 4, 5 **Objectives:** 1, 2, 15	**Hazard(s) Mitigated**	Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire	
Project Status		In Progress/In Work	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Short Term		**Estimated Cost**	High	
Potential Funding Source	Local Budgeted Funds, HMGP, FMA, BRIC, Other		If *Other*, you **must** identify a funding source.	Lease Purchase Loan	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	Medium	**Integration Ideas** *(Optional)*			

Mitigation Action	Upgrade, replace, or upsize new fire main into the Very High Fire Hazard Fire Severity Zones (VHFHSZ).				
Action Number	KFPD-19	**Year Initiated / Anticipated Year of Initiation**	2027	**Prioritization Score**	Medium
Goal(s) / Objective(s) Addressed		**Goals:** 1, 2, 3, 4, 5 **Objectives:** 1, 2, 15	**Hazard(s) Mitigated**	Earthquake, Wildfire	
Project Status		Delayed/Deferred	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Ongoing		**Estimated Cost**	High	
Potential Funding Source	Local Budgeted Funds, HMGP, BRIC		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	Medium	**Integration Ideas** *(Optional)*			

Mitigation Action	Research, plan, and install early warning system using Long Range Acoustical Devices (LRADs) in coordination with Kensington Police Protection and Community Services District (KPPCSD).				
Action Number	KFPD-20	**Year Initiated / Anticipated Year of Initiation**	2024	**Prioritization Score**	37/40
Goal(s) / Objective(s) Addressed		**Goals:** 1	**Hazard(s) Mitigated**	Earthquake, Flood, Landslide, Wildfire, Active Shooter Incidents, Hazardous Materials Incident, Utility Interruptions	
Project Status		New	If *Deleted/No Longer Needed*, provide reason.	N/A	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization	Kensington Fire Protection District		**Supporting Agency / Organization** *(If applicable)*	Kensington Police Protection and Community Services District	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Project Duration	Ongoing		**Estimated Cost**	Medium	
Potential Funding Source	Local Budgeted Funds, HMGP, BRIC		If *Other*, you **must** identify a funding source.	N/A	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	**Integration Ideas** *(Optional)*			

APPENDIX A. HAZARD MAPS

The following hazards were mapped for the Kensington Fire Protection District – earthquakes, floods, landslides, and wildfires.

- **Figure 1** illustrates the liquefaction susceptibility, which helps assess potential damage from earthquakes within the District's service area.
- **Figure 2** illustrates the District's service area within the Special Flood Hazard Area (SFHZ), including each Flood Zone, and the 500-year floodplain. Flood Insurance Rate Maps (FIRMs) show the flood zones, floodplain boundaries, and Base Floor Elevation (BFE) and are used for floodplain management, flood insurance ratings, and to determine flood insurance requirements. FIRMs show areas with a 1% chance of flooding each year, commonly known as the 100-year floodplains, and are illustrated as the SFHA.[7] The 500-year floodplains show areas with a 0.2% chance of flooding each year.
- **Figure 3** illustrates landslide susceptibility within the District's service area. Landslide susceptibility maps describe the relative likelihood of future land sliding based solely on the intrinsic properties of a location or site. There are three (3) site factors that most determine susceptibility – prior failure, rock or soil strength, and steepness of slope.[8]
- **Figure 4** illustrates the California Fire Hazard Severity Zones (FHSZ) in the State Responsibility Area (SRA) within the District's service area.

[7] Federal Emergency Management Agency. (2017). Flood Insurance Study: Contra Costa County, California and Incorporated Areas. Retrieved from https://www.contracosta.ca.gov/DocumentCenter/View/77626/Volumes-I-V?bidId=.
[8] California Department of Conservation. (n.d.). Landslides. Retrieved from https://www.conservation.ca.gov/cgs/landslides.

Figure 1. Liquefaction Susceptibility (Earthquake)

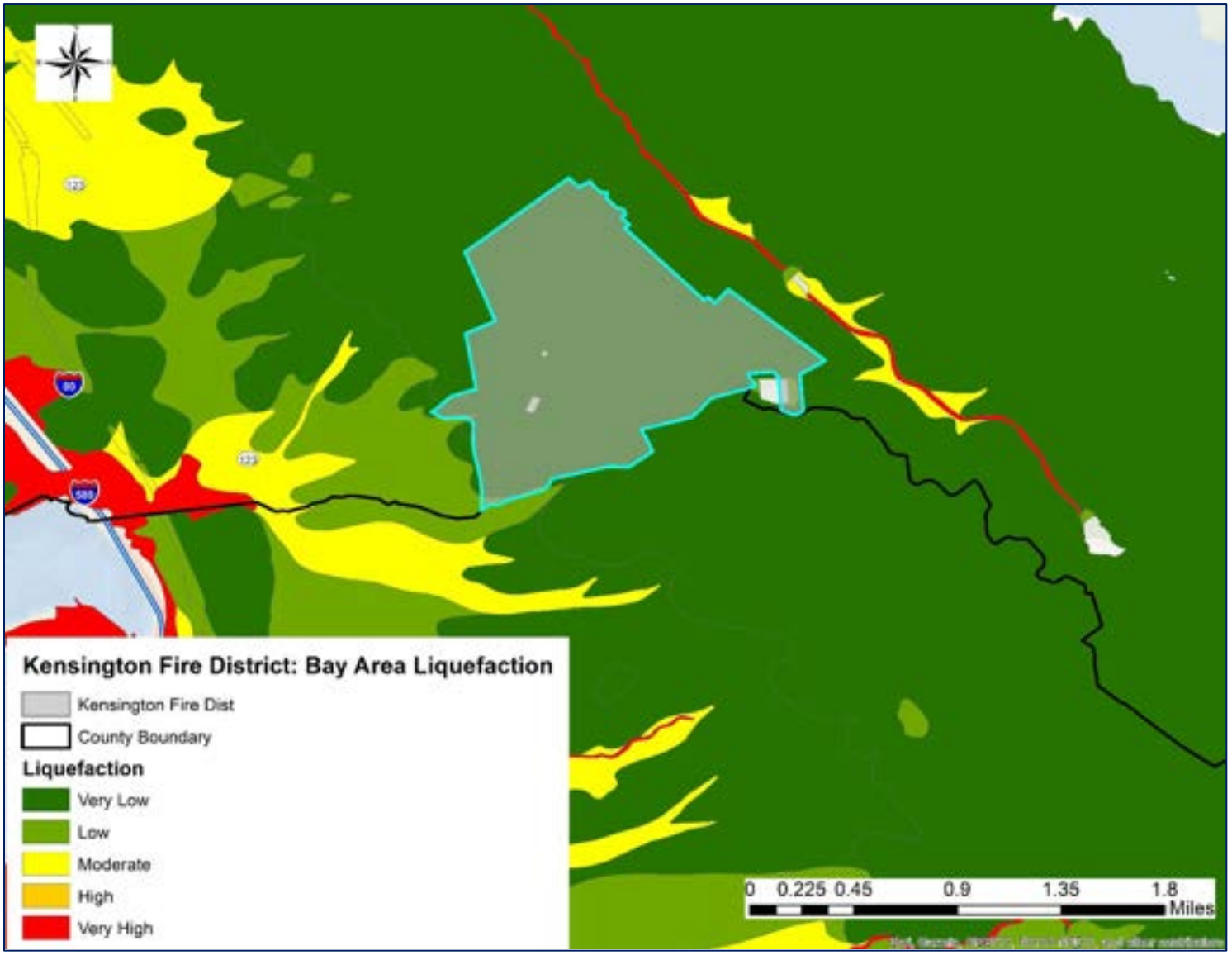


Figure 2. Special Flood Hazard Area

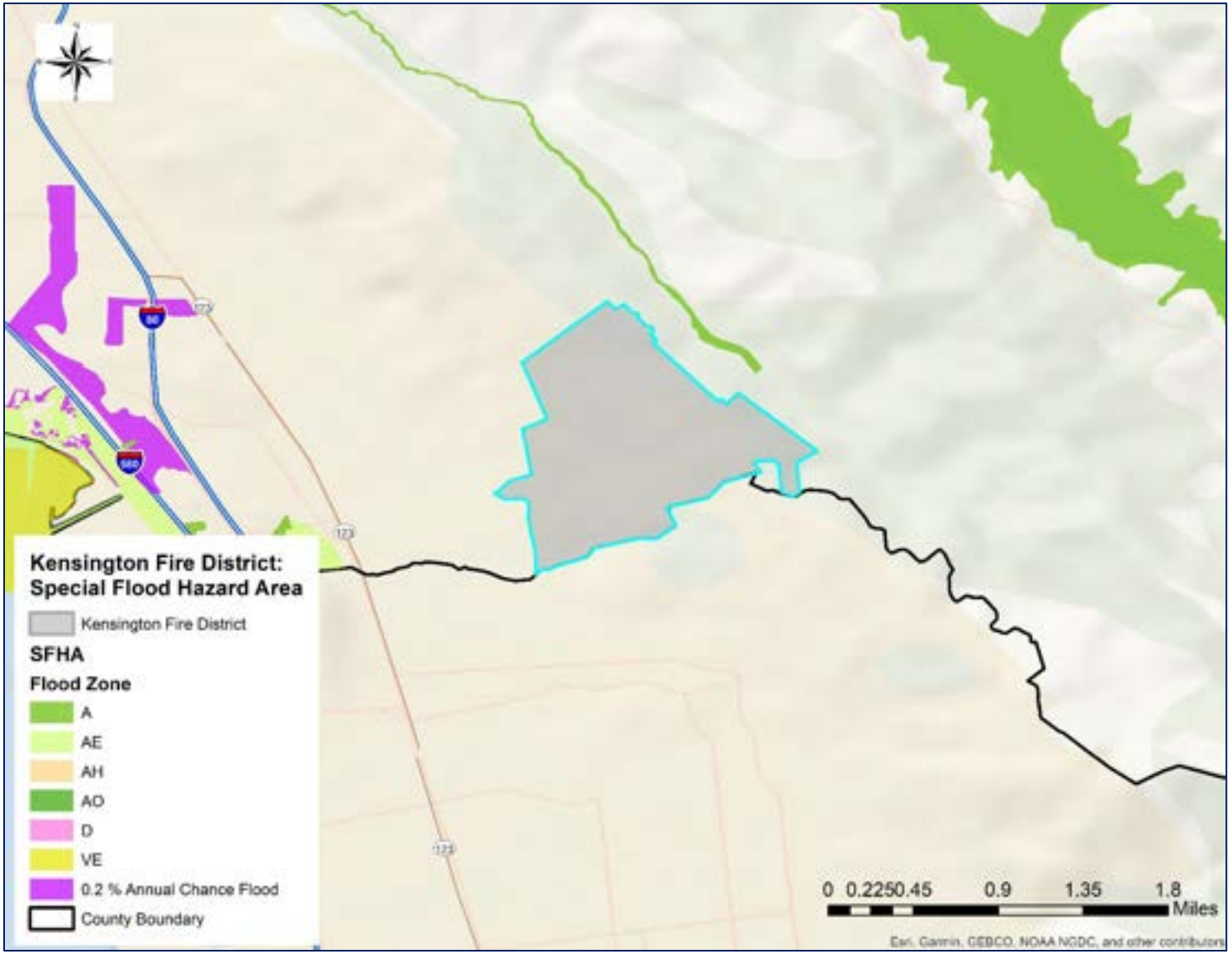


Figure 3. Landslide Susceptibility

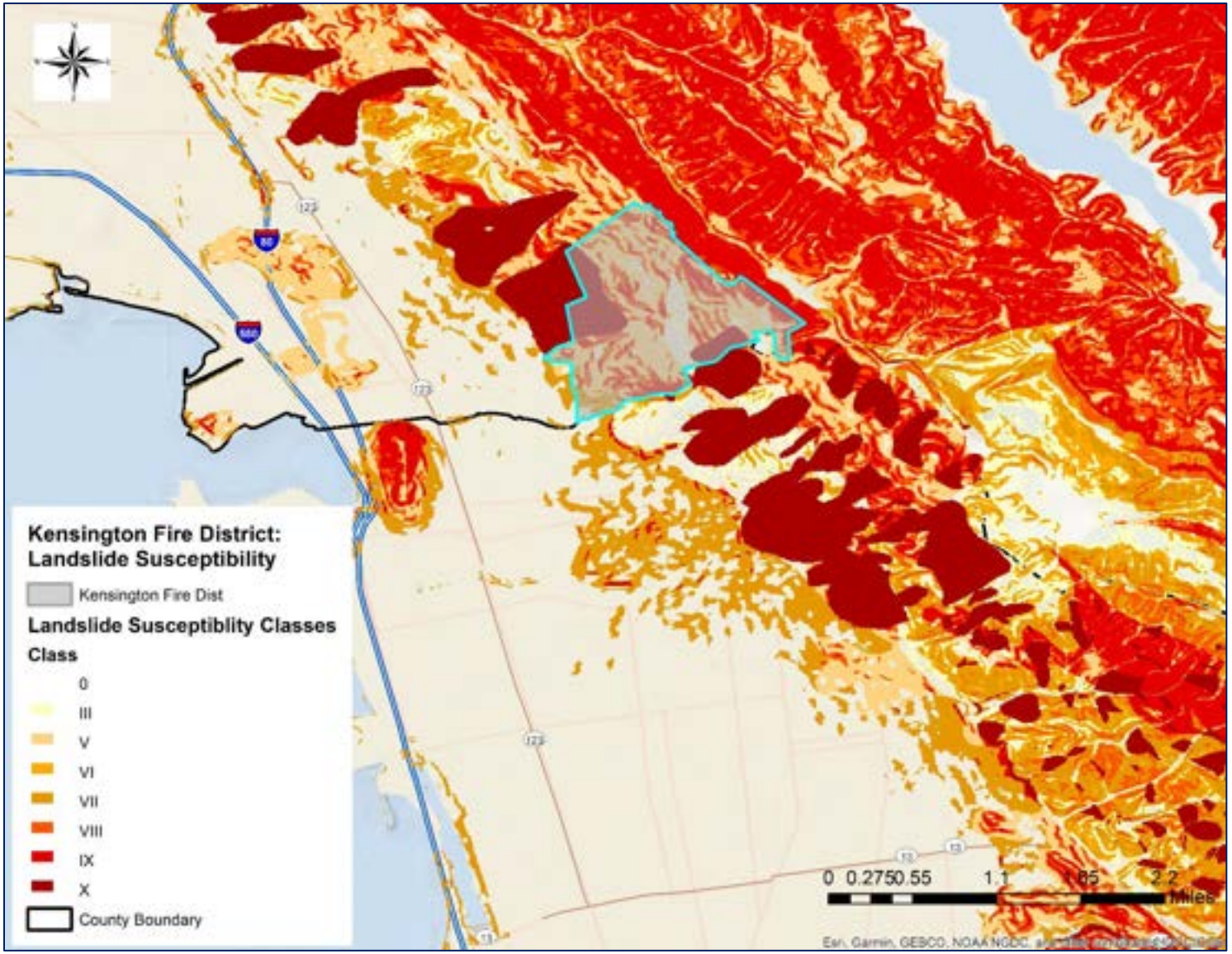
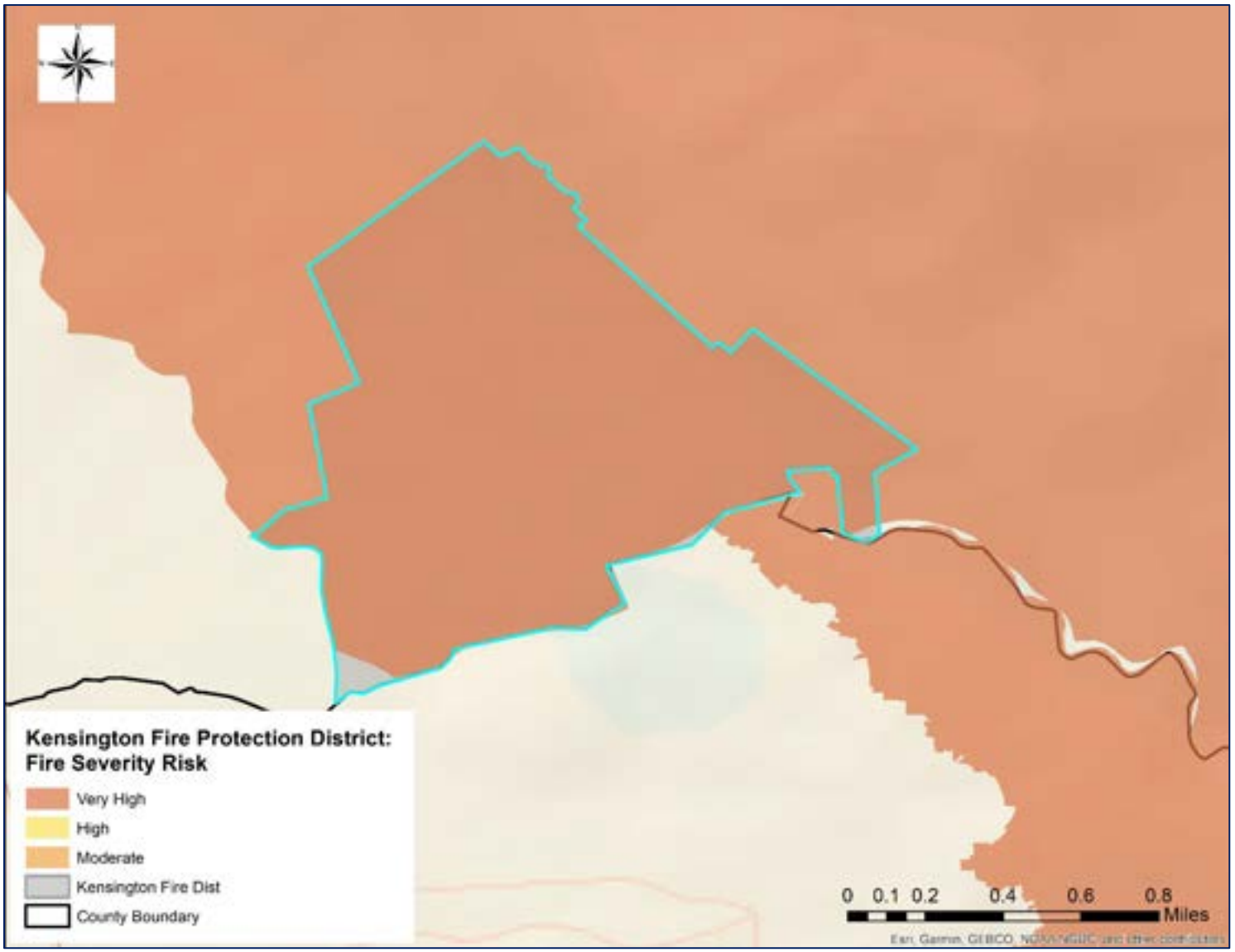


Figure 4. Fire Hazard Severity Zones



APPENDIX B. STAKEHOLDER AND PUBLIC ENGAGEMENT

The mitigation planning process promotes awareness of hazard risks and continues the conversation about the community's safety and resilience. A hazard mitigation plan generates additional community support when it accurately reflects the values and priorities of the community which will lead to successfully implementing the mitigation actions and projects identified in this Plan.

Federal regulations for mitigation plan approval require that stakeholders and the general public are given opportunities to be involved in the plan's development and update process. Input from community members can strengthen the content and outcomes of the hazard mitigation plan. Furthermore, the Plan must state continued public engagement as the Plan is carried out during its lifetime. A public outreach strategy outlines what the community intends to achieve throughout the outreach efforts. Additionally, it identifies who to involve in the process, and how and when to effectively engage the community. Contra Costa County and the Kensington Fire Protection District worked together to ensure that the stakeholder and public engagement was meaningful and productive. Refer to **Volume 1 (Planning Area-wide Elements)** for further information on how stakeholders and the general public were given opportunities to be involved throughout the planning process. However, every plan participant employed a slightly tailored engagement strategy that suits the community's demographics, including the underserved population, and needs in addition to the lead jurisdiction's engagement strategy.

The District's stakeholders and public were given a number of opportunities to be involved throughout the planning process. Opportunities were provided via a public survey, in person and virtual public meetings, and public engagement activities to review the Plan draft (i.e., public comment period). The public meetings allowed the County to introduce the Plan update, identify additional hazards of concern that should be included, if any, and to provide input for the various mitigation measures intended to eliminate or reduce the negative impact to those hazards. Language translation assistance in Spanish was available in all public meetings. The public survey asked community representatives and members of the public to rate each of the hazards in terms of perceived risk. Furthermore, they were asked to rate "mitigation importance" for each of the identified hazards in the Plan. The information gathered from this survey was used to inform the hazard risk prioritization process, and to ensure the Plan adequately addressed the public's concerns and priorities. The survey was available in English, Spanish, Tagalog, Traditional Chinese, and Simplified Chinese. A total of 14 respondents that lived in Kensington and two (2) that worked in Kensington participated in the survey. Please refer to **Volume 1 (Planning Area-wide Elements)** for further information and supporting documentation of the public meetings and public survey.

How Public Input was Incorporated into the Plan

Information and feedback gained through the public survey, public meetings, and public comment period provided valuable data to validate and confirm the risk assessment findings and potential mitigation strategies. Specifically, feedback from the public offered during the public meetings offered greater insights into the public's concerns regarding specific hazards and their impacts. The public also offered specific initiatives they felt would create greater resiliency for the District and its residents.

Survey results helped validate the hazards included in the Plan, the hazard ranking process, and areas where the County and jurisdictions could further improve outreach and education efforts. Open-ended responses, specifically regarding their experience with damages from past hazards, helped to validate hazard-specific impact data in *Chapter 4 (Hazard Identification and Risk Assessment)* of **Volume 1 (Planning Area-wide Elements)**. These, and related findings, helped the County and District Core Planning Teams determine meaningful mitigation projects.

After the public comment period ended, no public feedback was received for the District's Annex. However, in order to keep the Plan current after it is approved, the District will ensure that the public continues to be involved in the Plan and how it is carried out. Refer to Section B.2 of this Annex for further details on continued public engagement.

B.1. Public Comment Period

Once the draft Plan was completed, the public was given an opportunity to review and provide comments on the County Hazard Mitigation Plan, including the District's Annex, prior to submitting the Plan to the State and FEMA. The countywide public comment period began on April 22, 2024, and went on through May 31, 2024. Prior to the public comment period, the Contra Costa County Core Planning Team conducted a strategy meeting with all plan participants (i.e., Kensington Fire Protection District) that served as a brainstorming session and helped determine the public outreach goals and proper outreach methods for the public comment period. Subsequently, the District's Core Planning Team developed a public outreach strategy that meets the District's unique needs of the community to engage stakeholders and the public during the public comment period. The Distritct ensured equitable outreach by targeting Contra Costa County's vulnerable communities, including the younger (under 18 years old) and elderly (over 65 years old) population, individuals with limited English proficiency, and those with access and functional needs (e.g., limited access to transportation).

The District's Local Planning Team coordinated with its stakeholders to ensure that the public had an opportunity to learn about the Plan, mitigation actions planned for their community, and ways to get involved in the planning process. Outreach to the Kensington community involved a combination of in person, printed, and digital media starting on April 27, 2024, through the end of the public comment period on May 31, 2024. The public outreach strategy utilized platforms aimed at targeting all populations within the Kensington community, especially those that vocalize public safety concerns within the community. To ensure equitable outreach a calendar was created to strategize and map all events.

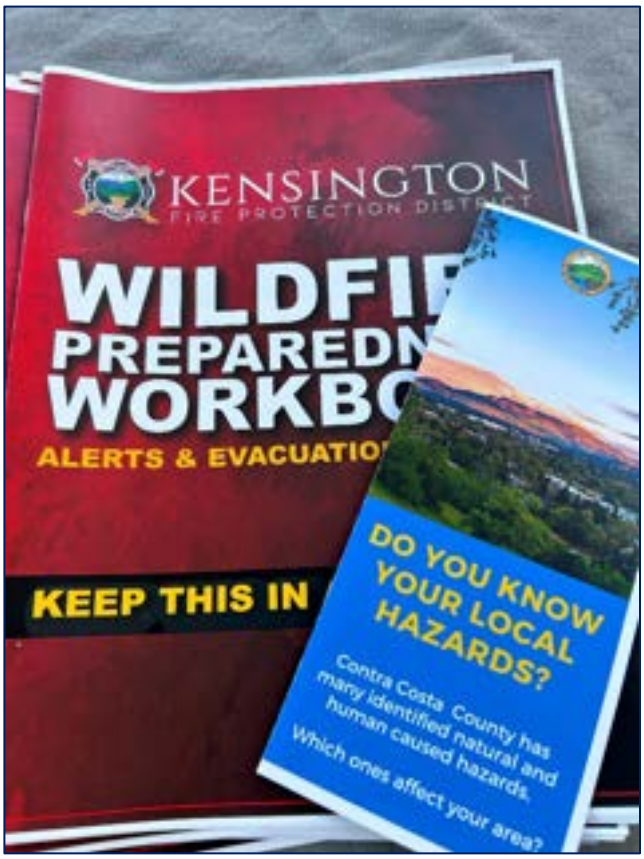
Public Comment Outreach Calendar

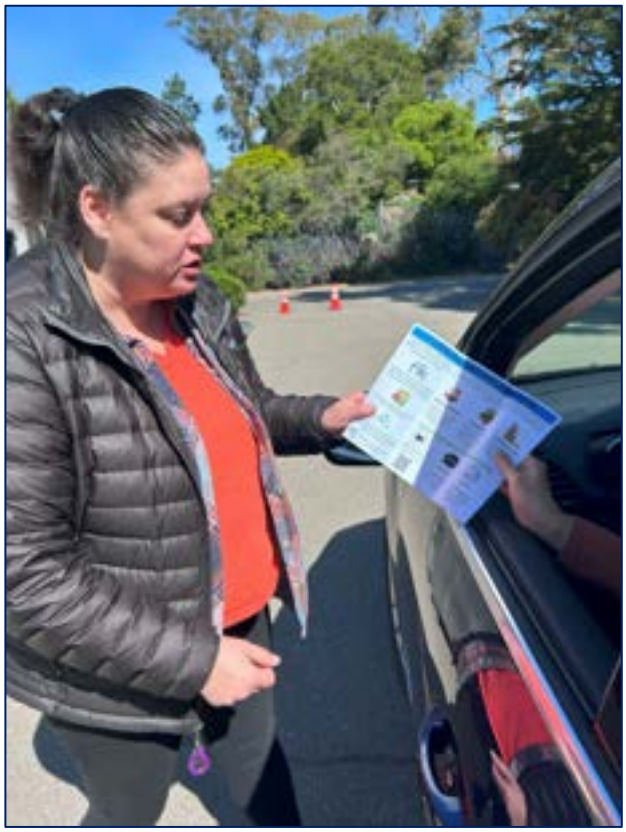
April 2024	
Date	**Saturday, April 27th**
Event Name	Kensington Paper Shredding Event
Location	Unitarian Universalist Church of Christ 1 Lawson Road Kensington, CA 94708
Outreach Method	Community Event
Outreach Purpose	Inform, Involve
Targeted Population	Districtwide, Age (Elderly and Younger), Access and Functional Needs
Accommodations Provided	Weekend Event, Outreach Materials in Multiple Languages

May 2024	
Date	**Wednesday, May 15th**
Event Name	Kensington Fire Protection District Regular Meeting of the Board of Directors
Location	Kensington Community Center 59 Arlington Avenue Kensington, CA 94707
Outreach Method	Presentation to Governing Body
Outreach Purpose	Inform, Involve
Targeted Population	Districtwide, Access and Functional Needs (Limited Access to Transportation), Public Safety Conscious
Accommodations Provided	ADA Compliant, Virtual Option, Outreach Materials in Multiple Languages, After Hours

April 27, 2024 – Kensington Paper Shredding Event

The Paper Shredding event is Kensington's most popular public safety event, occurring twice annually, and has the second highest number of interactions at a public safety event in the shortest amount of time. During this event, residents bring paper they would like shredded for free and learn more about making their residence, businesses, and communities safer. The District was able to distribute information on the Contra Costa County Hazard Mitigation Plan, including the District's Annex, and discuss how to review and provide feedback on the Plan. The event took place on a Saturday from 10:00 AM through 12:00 PM.





May 15, 2024 – Kensington Fire Protection District Regular Meeting of the Board of Directors

The Kensington Fire Protection District Board Meeting was held in person with a virtual option (Zoom), after hours (7:00 PM) on a weekday. District staff were able to discuss the Contra Costa County Hazard Mitigation Plan, including the District's Annex, the local hazards discussed in the Plan, and opportunities the public has to review and provide feedback on the Plan. All Board Meetings are open to the general public.

KENSINGTON FIRE PROTECTION DISTRICT
REGULAR MEETING OF THE BOARD OF DIRECTORS
AGENDA
Wednesday, May 15th, 2024, 7:00pm
Kensington Community Center, 59 Arlington Avenue
Kensington, CA 94707 (in-person and hybrid)

How to Submit Public Comments:
Prior to the meeting: Members of the public may submit public comment to the Board Members and Board Clerk prior to the meeting by emailing public.comment@kensingtonfire.org by 2:00pm the day of the regular meeting, or by the time posted on the special meeting agenda. Such comments will be noted as received and their contents orally summarized. However, if you attend the meeting, you will need to make your comment during the meeting.

During the meeting: Public comment will be taken on each agenda item, and comment on issues not on the agenda will be taken at the beginning of the meeting. Directors will also have an opportunity to comment on matters not on the agenda. Please address your comments to the Board of Directors and not to staff and/or the audience. Members of the public who attend the meeting either in person or via Zoom are allowed to provide public comment verbally with a maximum allowance of 3 minutes per individual comment, subject to the Chair's discretion. Each member of the public will be allotted the same maximum number of minutes to speak as set by the Chair, except that public speakers using interpretation assistance will be allowed to testify for twice the amount of the public testimony time limit (California Government Code section 54954.3(a)).

In person: At points in the meeting when the meeting chair requests public comment, members of the public participating in-person can simply raise their hand to be recognized.
Via Zoom: If participating via Internet, please click the "raise hand" feature located within the Zoom application screen. If connected via telephone, please dial *9 (star, nine).

Accommodations: To enable the District to make reasonable arrangements to ensure accessibility to this meeting (28 CFR 35.102-35.104 ADA Title II), if you need special assistance to participate, please email public.comment@kensingtonfire.org 48 hours prior to the meeting.

Agenda and supplemental materials: This agenda is available on the KFPD website under the relevant meeting date: https://www.kensingtonfire.org/governance. Please note that supplemental materials will be posted on the website with the agenda as soon as they are available prior to the meeting. Additional information or materials may be presented at the meeting itself.

PLEASE NOTE: The District will use Zoom to allow virtual access to this meeting. This additional means of access is provided as a courtesy to the public and is not required by law. The meeting will continue to be conducted at the physical address provided above regardless of any interruption or failure of the Zoom transmission.

Hybrid Meeting Option via Zoom Internet Address:
https://us06web.zoom.us/j/84966001242?pwd=bYLSQeHUuvFvaHNBM1TmcnZnQzpuSLT4&pwd=DAMFgn

Telephone Access:
(669) 444-9171 or (253) 205-0468 or (719) 359-4580

Webinar ID: 849 6600 1242

Passcode: 739874

Date of Notice: 05/10/2024 Page 1 of 4

KFPD Regular Meeting of the Board of Directors
May 15, 2024

TIMES OF AGENDA ITEMS: Approximate times are included below but may vary to accommodate appropriate discussion time and attention to the substantive items.

1. **(7:00pm) CALL TO ORDER/ROLL CALL**
President Levine, Vice President Mellage, Director Arkin, Secretary Swan, Director Weir

2. **(7:05pm) PUBLIC COMMENT**
Under "Public Comment," the public may address the Board on any subject not listed on the agenda. Please address your comments to the Board of Directors and not to staff and/or the audience. Each speaker may address the Board once under Public Comment for a limit of three minutes. The public will be given an opportunity to speak on each agenda item and once the public comment portion of any item on this agenda has been closed by the Board, no further comment from the public will be permitted unless authorized by the Board. The Board cannot act on items not listed on the agenda and, therefore, cannot respond to non-agenda issues brought up under Public Comment other than to provide general information.

Directors will also have an opportunity to comment on matters not on the agenda.

3. **(7:45pm) ADOPTION OF CONSENT ITEMS**
Items listed below are consent items; which are considered routine by the Board of Directors and will be enacted by one motion. The Board of Directors has reviewed and considered reports and recommendations prior to assigning consent item designations to the various items. Copies of the reports are available to the public. The disposition of the item is indicated. There will be no separate discussion of consent items. If discussion is requested for an item, that item will be removed from the list of consent items and considered separately on the agenda.
a. Approval of Minutes of the Board of Directors Regular meetings of 02/21/2024, 03/20/2024, 04/17/2024 (Approve)

b. Acceptance of Incident Activity Report April 2024 (Accept)

c. Approval of Monthly Transmittal 04/15/2024 (Approve)

d. Approval of Monthly Financial Reports 04/30/2024 (Approve)

4. **(7:50pm) PRESENTATION BY EAST BAY REGIONAL PARK DISTRICT** – Berry/Sayles (Supporting Material)
EBRPD Assistant Fire Chief Khari Hales will provide a presentation updating the board on newly permitted areas for fuels mitigation work in Tilden Park and other areas, a 2024 project status, their innovative biomass mass processing project, and contributions to combat the loss mortality die-off.
Action= Presentation/Discussion

5. **(8:10pm) FIRE CHIEF'S REPORT** – Sayles (Supporting Material)
Action = Presentation/Discussion

6. **(8:30pm) CONTRA COSTA COUNTY LOCAL HAZARD MITIGATION PLAN (LHMP)** – Sayles (Supporting Material)
Receive and file a presentation on the 2024 version of the LHMP regarding the plan's purpose, local hazards addressed, community preparation, and public involvement in the planning process.

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Action = Presentation/Discussion

7. **(8:40pm) EAST BAY HILLS WILDFIRE PREVENTION MOU AND COORDINATING GROUP** – Sayles/Berry (Supporting Material)
The Memorandum of Understanding for joining the East Bay Hills Wildfire Prevention Coordinating Group is presented for discussion and action by the board.
Action = Discussion, direction
Motion= To approve the Resolution 2024-01
Motion= To approve a director and an alternate to serve on the East Bay Hills Wildfire Prevention Coordinating Group.

8. **(8:45pm) EMERGENCY PREP COORDINATOR'S REPORT** – Vanzuela (Supporting Material)
Action = Presentation/Discussion

9. **(8:50pm) OLD BUSINESS** – No Old Business

10. **(8:55pm) NEW BUSINESS**
a. **PROPOSAL TO CHANGE START TIME OF REGULAR EMERGENCY PREPAREDNESS COMMITTEE (EPC) MEETINGS TO 4:00 P.M.** – Levine
President Levine will present the Emergency Preparedness Committee's request to change the start time of their monthly meetings from 3 p.m. to 4 p.m.]
Action = Discussion, Motion

b. **EXTERIOR COLOR OF PUBLIC SAFETY BUILDING** – Hall (Supporting Material)
Director Weir requested this item at the April 17th board meeting to consider a repainting modification and will present pertinent information.
Action = Discussion, direction, motion

11. **(9:45pm) GENERAL MANAGER'S REPORT** (Supporting Material)
Action = Presentation/Discussion/Direction/Action

12. **(9:50pm) PUBLIC SAFETY BUILDING PROJECT UPDATE** – Berry (Supporting Material)
A brief progress update on the PSB Seismic Renovation will be presented.
Action = Presentation/Discussion

13. **(9:55pm) COMMITTEE REPORTS**
Informational reports from Board members or staff covering the following assignments:

a. Emergency Preparedness Committee Meeting – Levine/Mellage (Supporting Material)

b. Finance Committee Meeting – No report

14. **(10:00pm) OUTSIDE AGENCIES REPORTS**

a. Contra Costa Special Districts Association – No report

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15. (10:05pm) ADJOURNMENT
The next regular meeting of the Board of Directors of the Kensington Fire Protection District will be held on Wednesday, June 19, 2024 at 7:00pm at the Kensington Community Center. The deadline for agenda items to be included in the Board packet is Wednesday, June 5, 2024, by 1:00pm. The deadline for agenda-related materials to be included in the Board Packet is Wednesday, June 12, 2024, by 1:00pm.

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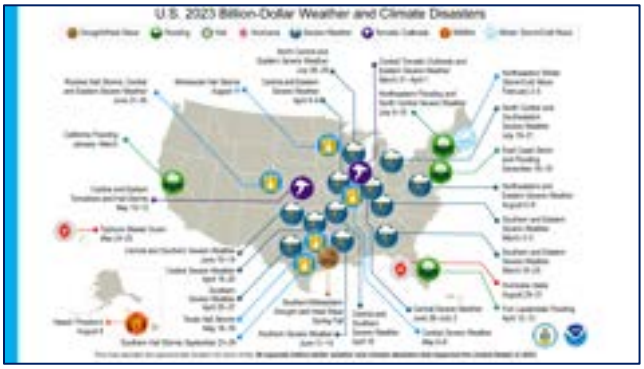
Local Hazard
Mitigation Plan
Presentation for

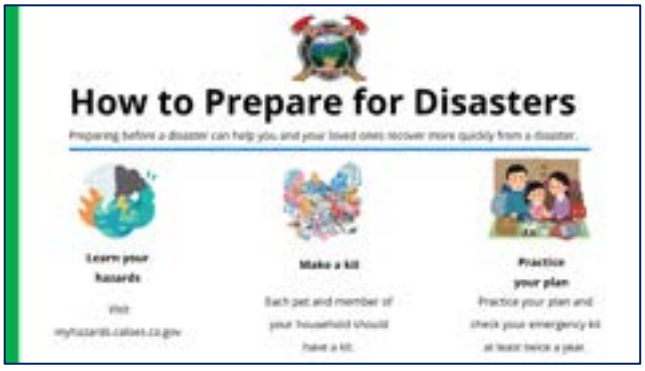

Presentation
Overview
Part 1: Plan Overview
Part 2: County Hazards
Part 3: How to Prepare
Part 4: Get Involved


Local Hazard
Mitigation Plan


U.S. 2023 Billion-Dollar Weather and Climate Disasters


Contra Costa
County
County-Wide Hazards
Natural Hazards (Required)
Human-Caused / Technological Hazards


High Priority Local Hazards
Natural Hazards
Human-Caused / Technological Hazards


How to Prepare for Disasters
Learn your hazards
Make a kit
Practice your plan


Contra Costa
County
Get Involved in the
Planning Process
Read the plan!
Comment!
SCAN ME
Share what you learned!

Printed Materials

A trifold was created specifically for the public comment period. The trifold (**Figure B-1**) contains information on the planning process, the top three (3) hazards in the County, ways to prepare, and ways to get involved in the planning process. Printed materials were distributed in four (4) languages – English, Spanish, Tagalog, and Simplified Chinese at public meetings and outreach events. Having the materials available in multiple languages allowed more of the community to receive information about the Hazard Mitigation Plan, ways to comment, and how to prepare for disasters. Printed materials are especially helpful to communities with limited English proficiency as the materials include a visual component.

Figure B-1. Trifold (English, Spanish, Tagalog, and Simplified Chinese)


MACHANDA PARA SA MGA SAKUNA
DEPENDE SA KUNG SAAN KA NAKATIRA, MAARARING MAG-IBA-IBA ANG IYONG MGA PANGANIB.
ALAM MO BA ANG MGA PANGANIB SA INYONG LUGAR?
Maraming natukoy na likas at gawang-taong panganib ang Contra Costa County.
Alin dito ang nakakaapekto sa inyong lugar?
PARA MATUTO PA, BISITAHIN ANG:
Ready


PLANO SA PAGBAWAS NG LOKAL NA PANGANIB
MGA LINDOL
MALAKING SUNOG
PAGGUHO NG LUPA
MAKISANGKOT SA PROSESO NG PAGPAPLANO!
BASAHIN ANG PLANO
MAGKOMENTO
IBAHAGI


为灾难做好准备
您是否了解当地的灾害?
Contra Costa 县有许多已确定的自然和人为灾害。
想要了解更多信息，请浏览:
Ready


当地减灾计划
地震
野火
山体滑坡
参与规划流程!

Social Media Posts

A public comment period announcement was disseminated through the District's Nextdoor on May 28, 2024.

Stakeholder Engagement

Due to the size of the Plan (the Base Plan and 40 annexes), some stakeholders would receive the same invitation a significant amount of times. For a more productive outreach and to avoid overwhelming stakeholders, Contra Costa County sent a single invitation to all the countywide stakeholders via e-mail. However, each plan participant was required to cross-reference the countywide list and identify the stakeholders that applied specifically to their jurisdiction. Not only did this help ensure that a comprehensive list was compiled as part of the stakeholder engagement, but it assisted each plan participant identify any additional stakeholders that may have not been on the list. **Table 20** outlines the stakeholders the District identified and provided an opportunity to review and provide feedback on the draft Plan and Annex, via the countywide stakeholders e-mail.

Table 20. Kensington Fire Protection District Specific Stakeholders List

Local and Regional Agencies	
Cal OES	Contra Costa County Office of the Sheriff
CalFire	Contra Costa County Risk Management
California Department of Transportation (Caltrans)	Contra Costa County Transportation Authority
California Department of Water Resources	Contra Costa County Treasurer-Tax Collector
California Highway Patrol	Contra Costa County Volunteer Organizations Aiding in Disaster
Contra Costa County Administrator's Office	Contra Costa Water District
Contra Costa County Auditor – Controller	Contra Costa Regional Medical Center
Contra Costa County Clerk-Recorder	East Bay Municipal Utility District
Contra Costa County Department of Information Technology	East Bay Regional Park District
Contra Costa County Department of Public Works	National Weather Service
Contra Costa County Office of Communication and Media	
Agencies that have the Authority to Regulate Development	
Contra Costa Local Agency Formation Commission	
Neighboring Communities	
Alameda County	Solano County
Sacramento County	Crockett-Carquinez Fire Department
San Joaquin County	Moraga-Orinda Fire District

Nonprofit Organizations	
American Red Cross	Futures Explored
California Autism Foundation	Independent Living Resources – Solano and Contra Costa Counties
California Resiliency Alliance	Inter-Tribal Council of California
Care Parent Network	La Familia Counseling
CARESTAR Foundation	Loaves and Fishes – Contra Costa County
Carlton Senior Living	Meals on Wheels
CocoKids	Monument Crisis Center
Community Awareness and Emergency Response	Regional Center of the East Bay
Concord Corps. – The Salvation Army	Richmond Community Foundation
Contra Costa County Crisis Center - 211	Society of St. Vincent de Paul of Contra Costa County
Contra Costa County Crisis Center – Hope Solutions	United Way Bay Area
Interfaith Council of Contra Costa County	VistAbility
Down Syndrome Connection of the Bay Area	
Businesses, Academia, and Other Private Organizations	
AC Transit	John Muir Behavioral Health
Amtrak	Kaiser Permanente Hospital
AtHoc/Blackberry	Lone Tree Post Acute Skilled Nursing Facility
Bloomfield Cherries	Marathon Petroleum
BMK Engineers	Martinez Refinery Company/PBF Energy
BNSF Railway	Milestone California-Based Investment Company
Brenden Theater	MV Transportation
California State University	Pacific Gas & Electric
Berkeley Unified School District	Philips 66 Rodeo Refinery
Chevron Refinery	Shell Oil Company
Contra Costa County Community College District	Sutter Delta Medical Center
Contra Costa Event Park – Contra Costa County Fair	Tenet Health
Corteva	University of California, Berkeley
County Connection Transportation and Link Paratransit Services	Valero Energy Corporation
Delta View Post Acute Care Skilled Nursing Facility	Vituity
EcoServices	Kensington Hilltop Elementary School
Food Bank of Contra Costa and Solano	West Contra Costa Unified School District
Global Medical Response	

Refer to **Volume 1 (Planning Area-wide Elements)** for a full list of the countywide stakeholders.

Additionally, the Kensington Fire Protection District identified the Unitarian Universalist Church of Berkeley as an additional stakeholder (unique to the jurisdiction/not in the countywide stakeholders e-mail) and provided an opportunity to review and provide feedback on the draft Plan and Annex.

B.2. Continued Public Engagement

To ensure continued public engagement, Contra Costa County and the District will ensure the Plan is available in the County's Hazard Mitigation Plan webpage after it has been approved to allow the public an opportunity to provide continual feedback and input. As future needs and concerns arise, or if the public would like to provide feedback regarding the latest version of the Plan and the District's Annex, the public is invited to use the comment form, which is provided on the website, to provide comments.

County Hazard Mitigation Webpage: contracosta.ca.gov/6415/Local-Hazard-Mitigation-Plan

Comment Form: survey.alchemer.com/s3/7792090/CommentFormContraCostaCountyHMP.

The District will continue to work with Contra Costa County and stakeholders to ensure that the public has an opportunity to learn about the Plan, mitigation actions planned for their communities, and ways to get involved. Hazard mitigation will be a part of the District's community outreach strategy to include, but not limited to, public meetings, community events, social media, and public surveys throughout the year. Furthermore, the Kensington Fire Protection District will continue to ensure equitable outreach by working with other departments, non-profits, and agencies that work with underserved communities throughout the County.

APPENDIX C. HAZARD RISK ASSESSMENT METHODOLOGY

As part of the Contra Costa County Office of Emergency Services (OES), the risk assessment identifies the natural, human-caused, and technological hazards that have potential impacts on all or portions of the County. Hazard identification, historical occurrences, and risk modeling (where applicable and available for specific hazards) information was collected from multiple sources including, but not limited to:

- Environmental Systems Research Institute (Esri)
- Federal Emergency Management Agency (FEMA)
- National Centers for Environmental Information (NCEI)
- National Weather Services (NWS)
- United States Geological Survey (USGS)
- Local repositories

This information was analyzed to assess the risk and vulnerability of people, property, the environment, and the jurisdiction's essential operations from these hazards. Furthermore, a risk ranking was performed for the hazards of concern described in this Plan. The risk ranking is an important step in developing an action plan, as it allows jurisdictions to compare the risk factors from one hazard to another. That comparison provides critical information to use in selecting hazard mitigation actions and their priorities. This process is not only intended to help focus actions on the hazards with the highest ranking, but also to ensure that jurisdictions are aware of the hazards that ranked low yet still pose significant risk.

In order to provide an informed and comprehensive ranking of the hazards addressed in this Plan, a number of factors were considered: probability, extent, vulnerability, and impact. The sum of all the weighted factors for the extent, vulnerability, and impact categories was combined into a final consequence score. Probability multiplied by consequence resulted in a total risk score for each hazard.

Extent + Vulnerability + Impact = Consequence

Consequence x Probability = Total Risk Score

These results were determined by following a data driven quantitative assessment, reviewing, and ranking local knowledge from local subject matter experts, and developing other risk elements by the Core Planning Team based on the data collected. These elements were then aggregated to inform the analysis.

At the fundamental level, consequence is an assessment of the potential impact(s) if the hazard incident actually occurs. In this assessment, the consequence of an event (or the impact) will be interdependent on the following factors:

- Vulnerabilities (i.e., social, physical, and community conditions)
- Capabilities and capacities
- Mitigation

- Characteristics of the hazard event (i.e., magnitude, scale)

The frequency/probability of the hazard is not included in assessing the consequence because without the event, there is no consequence or impact.

C.1. Probability of Occurrence

The probability of occurrence of a hazard is indicated by a probability factor based on the likelihood of annual occurrence. Numerical probability factors were assigned as follows.

Table 21 outlines the probability of occurrence factors used in the risk assessment calculations for this Plan. A significant hazard event is defined as any hazard occurrence that directly or indirectly damages structures or infrastructure, impedes normal business operations, and/or is likely to cause serious or fatal injuries.

Table 21. Probability of Occurrence

Probability	Description	Probability Factor
High	Significant hazard event is likely to occur annually.	3
Medium	Significant hazard event is likely to occur within 25 years.	2
Low	Significant hazard event is likely to occur within 100 years.	1
Unlikely	There is little to no probability of significant occurrence, or the recurrence interval is greater than every 100 years.	0

The assessment of hazard frequency is generally based on past hazard events in the area and professional judgment of local subject matter experts.

C.2. Extent Factors

Extent was assessed in two (2) categories – extent/intensity potential and catastrophic probability of the hazard. Numerical extent factors were assigned as follows.

C.2.1. Extent/Intensity Factor

Extent is defined as the range of anticipated intensities of the identified hazards. This category is most commonly expressed using various scientific scales (e.g., Saffir-Simpson, Enhanced Fujita, Modified Mercalli). Extent/Intensity Factors are hazard-specific and are detailed in each hazard profile. **Table 22** outlines the extent/intensity factors used in the risk assessment calculations for this Plan.

Table 22. Extent/Intensity Factor

Probability	Description	Extent Factor
High	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a high-intensity incident.	3
Medium	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a medium-intensity incident.	2
Low	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a low-intensity incident.	1
Unlikely	Historical and/or probabilistic models/studies for this hazard indicate the possibility of little to no intensity.	0

C.2.2. Catastrophic Factor

The probability that a hazard could be catastrophic. Catastrophes are defined as significant incidents that cause sudden and great harm or destruction. **Table 23** outlines the catastrophic factors used in the risk assessment calculations for this Plan.

Table 23. Catastrophic Factor

Probability	Description	Extent Factor
High	Catastrophic hazard event is likely to occur at least once in 10 years.	3
Medium	Catastrophic hazard event is likely to occur at least once between 11 and 50 years.	2
Low	Catastrophic hazard event is likely to occur at least once in 51 or more years.	1
No Impact	Virtually no probability that this hazard could be catastrophic.	0

Each category was assigned a weighting factor to reflect its significance, consistent with this typically used for measuring the benefits of hazard mitigation actions – a weighting factor of three (3) was assigned for *Extent/Intensity* and its potential for *Catastrophe*.

C.3. Vulnerability Factors

Vulnerabilities were assessed in three (3) categories – population exposure, property exposure, and exposure based on changes in development. Numerical vulnerability factors were assigned as follows.

C.3.1. Population Exposure Factor

Population exposure values were assigned based on the percentage of the total population exposed to the hazard event. **Table 24** outlines the population exposure factors used in the risk assessment calculations for this Plan.

Table 24. Population Exposure Factor

Probability	Description	Vulnerability Factor
High	30% or more of the population is exposed to the hazard.	3
Medium	15% to 29% of the population is exposed to the hazard.	2
Low	14% or less of the population is exposed to the hazard.	1
No Vulnerability	None of the population is exposed to the hazard.	0

C.3.2. Property Exposure Factor

Property exposure values were assigned based on the percentage of the total property value exposed to the hazard event. **Table 25** outlines the property exposure factors used in the risk assessment calculations for this Plan.

Table 25. Property Exposure Factor

Probability	Description	Vulnerability Factor
High	25% or more of the total assessed property value is exposed to the hazard.	3
Medium	10% to 24% of the total assessed property value is exposed to a hazard.	2
Low	9% or less of the total assessed property value is exposed to a hazard.	1
No Vulnerability	None of the total assessed property value is exposed to a hazard.	0

C.3.3. Changes in Development

Changes in development in the past five (5) years have increased or decreased the community's vulnerability/exposure to the hazard. **Table 26** outlines the changes in development factors used in the risk assessment calculations for this Plan.

Table 26. Changes in Development Factor

Probability	Description	Vulnerability Factor
High	Changes in development have increased the vulnerability/exposure of the community to the hazard by 10% or more.	3
Medium	Changes in development have increased the vulnerability/exposure of the community to the hazard between 5% and 9%.	2
Low	Changes in development have increased the vulnerability/exposure of the community to the hazard by 4% or less.	1
No Vulnerability	Changes in development had no effect and/or have decreased the vulnerability/exposure of the community to the hazard.	0

Each category was assigned a weighting factor to reflect the significance, consistent with those typically used for measuring the benefits of hazard mitigation actions – a weighting factor of three (3) was assigned for *Population Exposure*, and a weighting factor of one (1) was assigned for *Property Exposed* and *Changes in Development*.

C.4. Impact Factors

Hazard impacts were assessed in eight (8) categories – population and life/safety, underserved/equity, property damages, economic, environmental, essential operations, future development, and climate change. Numerical impact factors were assigned as follows.

C.4.1. Population and Life Safety Factor

Population and life safety values were assigned based on the best available data (historical and probabilistic) for people vulnerable to the hazard event and whether the affected population is likely to experience adverse impacts from the hazard incident. **Table 27** outlines the population and life safety factors used in the risk assessment calculations for this Plan.

Table 27. Population and Life Safety Factor

Probability	Description	Impact Factor
High	Populations exposed to this hazard are likely to experience significant adverse impacts, such as fatalities and severe injuries.	3
Medium	Populations exposed to this hazard are likely to experience some adverse impacts, such as injuries requiring acute medical care.	2
Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1
No Impact	Populations exposed to this hazard are not likely to experience significant adverse impacts.	0

C.4.2. Underserved/Equity Factor

Underserved/equity values were assigned based on the best available data for underserved populations vulnerable to the hazard event and whether the affected population is likely to experience adverse/disproportionate impacts from the hazard incident resulting in greater disparity in equity. **Table 28** outlines the underserved/equity factors used in the risk assessment calculations for this Plan.

Table 28. Underserved/Equity Factor

Probability	Description	Impact Factor
High	Underserved populations exposed to the hazard are likely to experience significant adverse/disproportionate impacts, such as fatalities and severe injuries.	3
Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2
Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1
No Impact	Underserved populations exposed to the hazard are not likely to experience significant adverse/disproportionate impacts.	0

C.4.3. Property Damage Factor

Property damage values were assigned based on the expected total property damage incurred from a hazard incident. It is important to note that values represent estimates of the loss from a major incident based on historical data or probabilistic models/studies. **Table 29** outlines the property damage factors used in the risk assessment calculations for this Plan.

Table 29. Property Damage Factor

Probability	Description	Impact Factor
High	More than $5 Million in property damages is expected from a single major hazard event, or damages are expected to occur to 15% or more of the property value within the jurisdiction.	3
Medium	More than $500,000 but less than $5 Million in property damages is expected from a single major hazard event, or damages are expected to occur to more than 5% but less than 15% of the property value within the jurisdiction.	2

Probability	Description	Impact Factor
Low	Less than $500,000 in property damages is expected from a single major hazard event or less than 5% of the property value within the jurisdiction.	1
No Impact	Little to no property damage is expected from a single major hazard event.	0

C.4.4. Economic Factor

An estimation of the impact, expressed in terms of dollars, on the local economy is based on a loss of business revenue, crops, worker wages, and local tax revenues or on the impact on the local gross domestic product (GDP). **Table 30** outlines the economic factors used in the risk assessment calculations for this Plan.

Table 30. Economic Factor

Probability	Description	Impact Factor
High	Where the total economic impact is likely to be greater than $10 Million.	3
Medium	Total economic impact is likely to be greater than $500,000, but less than or equal to $10 Million.	2
Low	Total economic impact is not likely to be greater than $100,000.	1
No Impact	Virtually no significant economic impact.	0

C.4.5. Environmental Factor

An estimate of the environmental impact from a major hazard event requiring outside resources and support; and/or repair, clean-up, restoration, and/or preservation work. **Table 31** outlines the environmental factors used in the risk assessment calculations for this Plan.

Table 31. Environmental Factor

Probability	Description	Impact Factor
High	Environmental impact from a single major hazard event is likely to be significant, requiring extensive outside resources and support; and/or repair, clean-up, restoration, and/or preservation work.	3
Medium	Environmental impact from a single major hazard event is likely to be localized, requiring some outside resources and support; and/or repair, clean-up, restoration, or preservation work.	2
Low	Environmental impact from a single major hazard event is likely to be minimal, requiring little to no outside resources and support, and/or minimal repair, clean-up, restoration, or preservation work.	1
No Impact	No environmental impacts from a single major hazard event are likely.	0

C.4.6. Essential Operations Factors

The essential operations factor is the impact on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community after a single major hazard event. **Table 32** outlines the essential operations factors used in the risk assessment calculations for this Plan.

Table 32. Essential Operations Factor

Probability	Description	Impact Factor
High	Impact greater than 72 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	3
Medium	Impact between 24 and 72 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	2
Low	Impact less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	1
No Impact	No impact on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	0

C.4.7. Future Development Factor

The future development factor is the potential that future development will have on increasing or decreasing the impact/consequence of the hazard. **Table 33** outlines the future development factors used in the risk assessment calculations for this Plan.

Table 33. Future Development Factor

Probability	Description	Impact Factor
High	Future development trends will significantly increase the impact/consequence of this hazard.	3
Medium	Future development trends will increase the impact/consequence of this hazard, but not significantly.	2
Low	Future development trends will minimally increase impact/consequence of this hazard.	1
No Impact	Future development trends will not increase the impact/consequence of the hazard, and/or may even decrease the impact/consequence of this hazard.	0

C.4.8. Climate Change Factor

The potential that climate change will increase the risk of the hazard (i.e., type, location, and range of anticipated intensities of the hazard and impacts). **Table 34** outlines the climate change factors used in the risk assessment calculations for this Plan.

Table 34. Climate Change Factor

Probability	Description	Impact Factor
High	Climate Change trends will significantly increase the risk of this hazard and its impacts.	3
Medium	Climate Change trends will increase the risk of this hazard and its impacts, but not significantly.	2
Low	Climate Change trends will minimally increase the risk of this hazard and its impacts.	1
No Impact	Climate change trends will not increase the risk of the hazard and its impacts.	0

Each category was assigned a weighting factor to reflect its significance, consistent with those typically used for measuring the benefits of hazard mitigation actions – a weighting factor of three (3) was assigned for *Population and Life Safety*, and *Underserved/Equity*, and a weighting factor of two (2) was assigned for *Property Damage*. A weighting factor of one (1) was assigned for *Economic*, *Environmental*, *Essential Operations, Future Development*, and *Climate Change*.

APPENDIX D. HAZARD RISK RANKING DETAILS

D.1. Probability of Occurrence

Hazard Event	Probability of Occurrence		Probability Factor	Weighted Factor
Climate Change	Medium	Significant hazard event is likely to occur within 25 years.	2	N/A
Dam and Levee Failure	Unlikely	There is little to no probability of significant occurrence, or the recurrence interval is greater than every 100 years.	0	N/A
Drought	Medium	Significant hazard event is likely to occur within 25 years.	2	N/A
Earthquake	Medium	Significant hazard event is likely to occur within 25 years.	2	N/A
Flood (Riverine/Creek)	Low	Significant hazard event is likely to occur within 100 years.	1	N/A
Flood (Urban/Flash Flood)	Medium	Significant hazard event is likely to occur within 25 years.	2	N/A
Heat Wave/Extreme Heat *(Severe Weather)*	High	Significant hazard event is likely to occur annually.	3	N/A
Heavy Rainfall *(Severe Weather)*	High	Significant hazard event is likely to occur annually.	3	N/A
Landslide	High	Significant hazard event is likely to occur annually.	3	N/A
Sea Level Rise	Unlikely	There is little to no probability of significant occurrence, or the recurrence interval is greater than every 100 years.	0	N/A
Severe Thunderstorm *(Severe Weather)*	High	Significant hazard event is likely to occur annually.	3	N/A
Strong Winds/ Damaging Winds *(Severe Weather)*	High	Significant hazard event is likely to occur annually.	3	N/A
Tornado *(Severe Weather)*	Low	Significant hazard event is likely to occur within 100 years.	1	N/A
Tsunami	Unlikely	There is little to no probability of significant occurrence, or the recurrence interval is greater than every 100 years.	0	N/A
Wildfire	Medium	Significant hazard event is likely to occur within 25 years.	2	N/A
Active Shooter Incidents	Medium	Significant hazard event is likely to occur within 25 years.	2	N/A
Cybersecurity Threats	Medium	Significant hazard event is likely to occur within 25 years.	2	N/A
Hazardous Materials Incidents	Medium	Significant hazard event is likely to occur within 25 years.	2	N/A

Hazard Event	Probability of Occurrence		Probability Factor	Weighted Factor
Terrorism (Weapons of Mass Destruction)	Low	Significant hazard event is likely to occur within 100 years.	1	N/A
Utility Interruptions	High	Significant hazard event is likely to occur annually.	3	N/A

D.2. Extent Factors

Hazard Event	Extent Factor	Extent		Extent Factor	Weighted Factor
Climate Change	***Extent/Intensity***	Medium	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a medium-intensity incident.	2	6
	Catastrophic	Low	Catastrophic hazard event is likely to occur at least once in 51 or more years.	1	3
Dam and Levee Failure	***Extent/Intensity***	High	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a high-intensity incident.	3	9
	Catastrophic	High	Catastrophic hazard event is likely to occur at least once in 10 years.	3	9
Drought	***Extent/Intensity***	High	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a high-intensity incident.	3	9
	Catastrophic	High	Catastrophic hazard event is likely to occur at least once in 10 years.	3	9
Earthquake	***Extent/Intensity***	High	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a high-intensity incident.	3	9
	Catastrophic	High	Catastrophic hazard event is likely to occur at least once in 10 years.	3	9
Flood (Riverine/Creek)	***Extent/Intensity***	Low	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a low-intensity incident.	1	3
	Catastrophic	Low	Catastrophic hazard event is likely to occur at least once in 51 or more years.	1	3
Flood (Urban/Flash Flood)	***Extent/Intensity***	High	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a high-intensity incident.	3	9
	Catastrophic	Medium	Catastrophic hazard event is likely to occur at least once between 11 and 50 years.	2	6

Hazard Event	Extent Factor	Extent		Extent Factor	Weighted Factor
Heat Wave/Extreme Heat *(Severe Weather)*	***Extent/Intensity***	Medium	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a medium-intensity incident.	2	6
	Catastrophic	Low	Catastrophic hazard event is likely to occur at least once in 51 or more years.	1	3
Heavy Rainfall *(Severe Weather)*	***Extent/Intensity***	Medium	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a medium-intensity incident.	2	6
	Catastrophic	Low	Catastrophic hazard event is likely to occur at least once in 51 or more years.	1	3
Landslide	***Extent/Intensity***	Medium	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a medium-intensity incident.	2	6
	Catastrophic	Low	Catastrophic hazard event is likely to occur at least once in 51 or more years.	1	3
Sea Level Rise	***Extent/Intensity***	Low	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a low-intensity incident.	1	3
	Catastrophic	Low	Catastrophic hazard event is likely to occur at least once in 51 or more years.	1	3
Severe Thunderstorm *(Severe Weather)*	***Extent/Intensity***	Low	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a low-intensity incident.	1	3
	Catastrophic	Low	Catastrophic hazard event is likely to occur at least once in 51 or more years.	1	3
Strong Winds/ Damaging Winds *(Severe Weather)*	***Extent/Intensity***	Medium	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a medium-intensity incident.	2	6
	Catastrophic	Low	Catastrophic hazard event is likely to occur at least once in 51 or more years.	1	3
Tornado *(Severe Weather)*	***Extent/Intensity***	Low	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a low-intensity incident.	1	3
	Catastrophic	Low	Catastrophic hazard event is likely to occur at least once in 51 or more years.	1	3
Tsunami	***Extent/Intensity***	Low	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a low-intensity incident.	1	3
	Catastrophic	Low	Catastrophic hazard event is likely to occur at least once in 51 or more years.	1	3

Hazard Event	Extent Factor	Extent		Extent Factor	Weighted Factor
Wildfire	***Extent/Intensity***	High	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a high-intensity incident.	3	9
	Catastrophic	High	Catastrophic hazard event is likely to occur at least once in 10 years.	3	9
Active Shooter Incidents	***Extent/Intensity***	Medium	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a medium-intensity incident.	2	6
	Catastrophic	Low	Catastrophic hazard event is likely to occur at least once in 51 or more years.	1	3
Cybersecurity Threats	***Extent/Intensity***	Medium	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a medium-intensity incident.	2	6
	Catastrophic	Medium	Catastrophic hazard event is likely to occur at least once between 11 and 50 years.	2	6
Hazardous Materials Incidents	***Extent/Intensity***	High	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a high-intensity incident.	3	9
	Catastrophic	Medium	Catastrophic hazard event is likely to occur at least once between 11 and 50 years.	2	6
Terrorism (Weapons of Mass Destruction)	***Extent/Intensity***	High	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a high-intensity incident.	3	9
	Catastrophic	High	Catastrophic hazard event is likely to occur at least once in 10 years.	3	9
Utility Interruptions	***Extent/Intensity***	Medium	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a medium-intensity incident.	2	6
	Catastrophic	Low	Catastrophic hazard event is likely to occur at least once in 51 or more years.	1	3

D.3. Vulnerability Factors

Hazard Event	Vulnerability Factor	Vulnerability		Vulnerability Factor	Weighted Factor
Climate Change	***Population Exposure***	High	30% or more of the population (including underserved population) is exposed to the hazard.	3	9
	Property Exposure	Low	9% or less of the total assessed property value is exposed to the hazard.	1	2

Hazard Event	Vulnerability Factor	Vulnerability		Vulnerability Factor	Weighted Factor
	Changes in Development	Low	Changes in development have minimally increased the vulnerability of the community to the hazard by 4% or less.	1	1
Dam and Levee Failure	***Population Exposure***	Low	14% or less of the population (including underserved population) is exposed to the hazard.	1	3
	Property Exposure	Low	9% or less of the total assessed property value is exposed to the hazard.	1	2
	Changes in Development	Low	Changes in development have minimally increased the vulnerability of the community to the hazard by 4% or less.	1	1
Drought	***Population Exposure***	High	30% or more of the population (including underserved population) is exposed to the hazard.	3	9
	Property Exposure	Low	9% or less of the total assessed property value is exposed to the hazard.	1	2
	Changes in Development	Low	Changes in development have minimally increased the vulnerability of the community to the hazard by 4% or less.	1	1
Earthquake	***Population Exposure***	High	30% or more of the population (including underserved population) is exposed to the hazard.	3	9
	Property Exposure	High	25% of the total assessed property is exposed to the hazard.	3	6
	Changes in Development	Medium	The changes in development have increased the vulnerability of the community to the hazard between 5% and 9%.	2	2
Flood (Riverine/Creek)	***Population Exposure***	Low	15% to 29% of the population (including underserved population) is exposed to the hazard.	1	3
	Property Exposure	Low	10% to 24% of the total assessed property value is exposed to the hazard.	1	2
	Changes in Development	Medium	The changes in development have increased the vulnerability of the community to the hazard between 5% and 9%.	2	2
Flood (Urban/Flash Flood)	***Population Exposure***	Medium	15% to 29% of the population (including underserved population) is exposed to the hazard.	2	6
	Property Exposure	Medium	10% to 24% of the total assessed property value is exposed to the hazard.	2	4
	Changes in Development	Medium	The changes in development have increased the vulnerability of the community to the hazard between 5% and 9%.	2	2
Heat Wave/Extreme Heat *(Severe Weather)*	***Population Exposure***	High	30% or more of the population (including underserved population) is exposed to the hazard.	3	9

Hazard Event	Vulnerability Factor	Vulnerability		Vulnerability Factor	Weighted Factor
	Property Exposure	No Vulnerability	None of the total assessed property value is exposed to the hazard.	0	0
	Changes in Development	Low	Changes in development have minimally increased the vulnerability of the community to the hazard by 4% or less.	1	1
Heavy Rainfall *(Severe Weather)*	***Population Exposure***	High	30% or more of the population (including underserved population) is exposed to the hazard.	3	9
	Property Exposure	Medium	10 to 14% of the total assessed property is exposed to the hazard.	2	4
	Changes in Development	Low	Changes in development have minimally increased the vulnerability of the community to the hazard by 4% or less.	1	1
Landslide	***Population Exposure***	Low	14% or less of the population (including underserved population) is exposed to the hazard.	1	3
	Property Exposure	Low	9% or less of the total assessed property value is exposed to the hazard.	1	2
	Changes in Development	Low	Changes in development have minimally increased the vulnerability of the community to the hazard by 4% or less.	1	1
Sea Level Rise	***Population Exposure***	Low	14% or less of the population (including underserved population) is exposed to the hazard.	1	3
	Property Exposure	Low	9% or less of the total assessed property value is exposed to the hazard.	1	2
	Changes in Development	Low	Changes in development have minimally increased the vulnerability of the community to the hazard by 4% or less.	1	1
Severe Thunderstorm *(Severe Weather)*	***Population Exposure***	High	30% or more of the population (including underserved population) is exposed to the hazard.	3	9
	Property Exposure	High	25% of the total assessed property is exposed to the hazard.	3	6
	Changes in Development	Low	Changes in development have minimally increased the vulnerability of the community to the hazard by 4% or less.	1	1
Strong Winds/ Damaging Winds *(Severe Weather)*	***Population Exposure***	Medium	15% to 29% of the population (including underserved population) is exposed to the hazard.	2	6
	Property Exposure	Medium	10% to 24% of the total assessed property value is exposed to the hazard.	2	4
	Changes in Development	Low	Changes in development have minimally increased the vulnerability of the community to the hazard by 4% or less.	1	1

Hazard Event	Vulnerability Factor	Vulnerability		Vulnerability Factor	Weighted Factor
Tornado *(Severe Weather)*	***Population Exposure***	Low	15% to 29% of the population (including underserved population) is exposed to the hazard.	1	3
	Property Exposure	Low	10% to 24% of the total assessed property value is exposed to the hazard.	1	2
	Changes in Development	Low	Changes in development have minimally increased the vulnerability of the community to the hazard by 4% or less.	1	1
Tsunami	***Population Exposure***	Low	14% or less of the population (including underserved population) is exposed to the hazard.	1	3
	Property Exposure	Low	9% or less of the total assessed property value is exposed to the hazard.	1	2
	Changes in Development	Low	Changes in development have minimally increased the vulnerability of the community to the hazard by 4% or less.	1	1
Wildfire	***Population Exposure***	High	30% or more of the population (including underserved population) is exposed to the hazard.	3	9
	Property Exposure	High	25% of the total assessed property is exposed to the hazard.	3	6
	Changes in Development	Medium	The changes in development have increased the vulnerability of the community to the hazard between 5% and 9%.	2	2
Active Shooter Incidents	***Population Exposure***	Low	14% or less of the population (including underserved population) is exposed to the hazard.	1	3
	Property Exposure	Low	9% or less of the total assessed property value is exposed to the hazard.	1	2
	Changes in Development	No Vulnerability	Changes in development had no effect and/or decreased the vulnerability of the community to the hazard.	0	0
Cybersecurity Threats	***Population Exposure***	Medium	15% to 29% of the population (including underserved population) is exposed to the hazard.	2	6
	Property Exposure	No Vulnerability	None of the total assessed property value is exposed to the hazard.	0	0
	Changes in Development	Low	Changes in development have minimally increased the vulnerability of the community to the hazard by 4% or less.	1	1
Hazardous Materials Incidents	***Population Exposure***	Medium	15% to 29% of the population (including underserved population) is exposed to the hazard.	2	6
	Property Exposure	Low	9% or less of the total assessed property value is exposed to the hazard.	1	2

Hazard Event	Vulnerability Factor	Vulnerability		Vulnerability Factor	Weighted Factor
	Changes in Development	Low	Changes in development have minimally increased the vulnerability of the community to the hazard by 4% or less.	1	1
Terrorism (Weapons of Mass Destruction)	***Population Exposure***	Medium	15% to 29% of the population (including underserved population) is exposed to the hazard.	2	6
	Property Exposure	Medium	10% to 24% of the total assessed property value is exposed to the hazard.	2	4
	Changes in Development	Low	Changes in development have minimally increased the vulnerability of the community to the hazard by 4% or less.	1	1
Utility Interruptions	***Population Exposure***	Medium	15% to 29% of the population (including underserved population) is exposed to the hazard.	2	6
	Property Exposure	No Vulnerability	None of the total assessed property value is exposed to the hazard.	0	0
	Changes in Development	Low	Changes in development have minimally increased the vulnerability of the community to the hazard by 4% or less.	1	1

D.4. Impact Factors

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor
Climate Change	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3
	Underserved/Equity	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3
	Property Damage	Low	Less than $500,000 in property damages is expected from a single major hazard event or less than 5% of the property value within the jurisdiction.	1	2
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1
	Environmental	Low	Environmental impact from a single major hazard event is likely to be minimal, requiring little to no outside resources and support, and/or minimal repair, clean-up, restoration, or preservation work.	1	1

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor
	Essential Operations	Low	Impact less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	1	1
	Future Development	Low	Future development trends will minimally increase impact/consequence of this hazard.	1	1
	Climate Change	High	Climate Change trends will significantly increase the risk of this hazard and its impacts.	3	3
Dam and Levee Failure	***Population and Life Safety***	Medium	Populations exposed to this hazard are likely to experience some adverse impacts, such as injuries requiring acute medical care.	2	6
	Underserved/Equity	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	6
	Property Damage	High	More than $5 Million in property damages is expected from a single major hazard event, or damages are expected to occur to 15% or more of the property value within the jurisdiction.	3	6
	Economic	High	Where the total economic impact is likely to be greater than $10 Million.	3	3
	Environmental	High	Environmental impact from a single major hazard event is likely to be significant, requiring extensive outside resources and support; and/or repair, clean-up, restoration, and/or preservation work.	3	3
	Essential Operations	High	Impact greater than 72 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	3	3
	Future Development	Medium	Future development trends will increase the impact/consequence of this hazard, but not significantly.	2	2
	Climate Change	Medium	Climate Change trends will increase the risk of this hazard and its impacts, but not significantly.	2	2
Drought	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3
	Underserved/Equity	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	6

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor
	Property Damage	Low	Less than $500,000 in property damages is expected from a single major hazard event or less than 5% of the property value within the jurisdiction.	1	2
	Economic	Medium	Total economic impact is likely to be greater than $500,000, but less than or equal to $10 Million.	2	2
	Environmental	Low	Environmental impact from a single major hazard event is likely to be minimal, requiring little to no outside resources and support, and/or minimal repair, clean-up, restoration, or preservation work.	1	1
	Essential Operations	Low	Impact less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	1	1
	Future Development	Medium	Future development trends will increase the impact/consequence of this hazard, but not significantly.	2	2
	Climate Change	High	Climate Change trends will significantly increase the risk of this hazard and its impacts.	3	3
Earthquake	***Population and Life Safety***	High	Populations exposed to this hazard are likely to experience significant adverse impacts, such as fatalities and severe injuries.	3	9
	Underserved/Equity	High	Underserved populations exposed to the hazard are likely to experience significant adverse/disproportionate impacts, such as fatalities and severe injuries.	3	9
	Property Damage	High	More than $5 Million in property damages is expected from a single major hazard event, or damages are expected to occur to 15% or more of the property value within the jurisdiction.	3	6
	Economic	High	Where the total economic impact is likely to be greater than $10 Million.	3	3
	Environmental	High	Environmental impact from a single major hazard event is likely to be significant, requiring extensive outside resources and support; and/or repair, clean-up, restoration, and/or preservation work.	3	3
	Essential Operations	High	Impact greater than 72 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	3	3
	Future Development	High	Future development trends will significantly increase the impact/consequence of this hazard.	3	3

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor
	Climate Change	No Impact	Climate change trends will not increase the risk of the hazard and its impacts.	0	0
Flood (Riverine/Creek)	***Population and Life Safety***	Medium	Populations exposed to this hazard are likely to experience some adverse impacts, such as injuries requiring acute medical care.	2	6
	Underserved/Equity	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	6
	Property Damage	High	More than $5 Million in property damages is expected from a single major hazard event, or damages are expected to occur to 15% or more of the property value within the jurisdiction.	3	6
	Economic	Medium	Total economic impact is likely to be greater than $500,000, but less than or equal to $10 Million.	2	2
	Environmental	Medium	Environmental impact from a single major hazard event is likely to be localized, requiring some outside resources and support; and/or repair, clean-up, restoration, or preservation work.	2	2
	Essential Operations	Medium	Impact between 24 and 72 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	2	2
	Future Development	Medium	Future development trends will increase the impact/consequence of this hazard, but not significantly.	2	2
	Climate Change	High	Climate Change trends will significantly increase the risk of this hazard and its impacts.	3	3
Flood (Urban/Flash Flood)	***Population and Life Safety***	Medium	Populations exposed to this hazard are likely to experience some adverse impacts, such as injuries requiring acute medical care.	2	6
	Underserved/Equity	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	6
	Property Damage	High	More than $5 Million in property damages is expected from a single major hazard event, or damages are expected to occur to 15% or more of the property value within the jurisdiction.	3	6
	Economic	Medium	Total economic impact is likely to be greater than $500,000, but less than or equal to $10 Million.	2	2

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor
	Environmental	Medium	Environmental impact from a single major hazard event is likely to be localized, requiring some outside resources and support; and/or repair, clean-up, restoration, or preservation work.	2	2
	Essential Operations	Medium	Impact between 24 and 72 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	2	2
	Future Development	Medium	Future development trends will increase the impact/consequence of this hazard, but not significantly.	2	2
	Climate Change	High	Climate Change trends will significantly increase the risk of this hazard and its impacts.	3	3
Heat Wave/Extreme Heat *(Severe Weather)*	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3
	Underserved/Equity	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	6
	Property Damage	No Impact	Little to no property damage is expected from a single major hazard event.	0	0
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1
	Environmental	No Impact	No environmental impacts from a single major hazard event are likely.	0	0
	Essential Operations	Low	Impact less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	1	1
	Future Development	Low	Future development trends will minimally increase impact/consequence of this hazard.	1	1
	Climate Change	High	Climate Change trends will significantly increase the risk of this hazard and its impacts.	3	3
Heavy Rainfall *(Severe Weather)*	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3
	Underserved/Equity	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor
	Property Damage	Low	Less than $500,000 in property damages is expected from a single major hazard event or less than 5% of the property value within the jurisdiction.	1	2
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1
	Environmental	Low	Environmental impact from a single major hazard event is likely to be minimal, requiring little to no outside resources and support, and/or minimal repair, clean-up, restoration, or preservation work.	1	1
	Essential Operations	Low	Impact less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	1	1
	Future Development	Low	Future development trends will minimally increase impact/consequence of this hazard.	1	1
	Climate Change	High	Climate Change trends will significantly increase the risk of this hazard and its impacts.	3	3
Landslide	***Population and Life Safety***	Medium	Populations exposed to this hazard are likely to experience some adverse impacts, such as injuries requiring acute medical care.	2	6
	Underserved/Equity	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3
	Property Damage	High	More than $5 Million in property damages is expected from a single major hazard event, or damages are expected to occur to 15% or more of the property value within the jurisdiction.	3	6
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1
	Environmental	Low	Environmental impact from a single major hazard event is likely to be minimal, requiring little to no outside resources and support, and/or minimal repair, clean-up, restoration, or preservation work.	1	1
	Essential Operations	Medium	Impact between 24 and 72 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	2	2
	Future Development	Low	Future development trends will minimally increase impact/consequence of this hazard.	1	1

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor
	Climate Change	Medium	Climate Change trends will increase the risk of this hazard and its impacts, but not significantly.	2	2
Sea Level Rise	***Population and Life Safety***	No Impact	Populations exposed to this hazard are not likely to experience significant adverse impacts.	0	0
	Underserved/Equity	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3
	Property Damage	Low	Less than $500,000 in property damages is expected from a single major hazard event or less than 5% of the property value within the jurisdiction.	1	2
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1
	Environmental	Low	Environmental impact from a single major hazard event is likely to be minimal, requiring little to no outside resources and support, and/or minimal repair, clean-up, restoration, or preservation work.	1	1
	Essential Operations	Low	Impact less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	1	1
	Future Development	Low	Future development trends will minimally increase impact/consequence of this hazard.	1	1
	Climate Change	High	Climate Change trends will significantly increase the risk of this hazard and its impacts.	3	3
Severe Thunderstorm *(Severe Weather)*	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3
	Underserved/Equity	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3
	Property Damage	Low	Less than $500,000 in property damages is expected from a single major hazard event or less than 5% of the property value within the jurisdiction.	1	2
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1
	Environmental	Low	Environmental impact from a single major hazard event is likely to be minimal, requiring little to no outside resources and support, and/or minimal repair, clean-up, restoration, or preservation work.	1	1

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor
	Essential Operations	Low	Impact less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	1	1
	Future Development	Low	Future development trends will minimally increase impact/consequence of this hazard.	1	1
	Climate Change	Medium	Climate Change trends will increase the risk of this hazard and its impacts, but not significantly.	2	2
Strong Winds/ Damaging Winds *(Severe Weather)*	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3
	Underserved/Equity	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3
	Property Damage	Medium	More than $500,000 but less than $5 Million in property damages is expected from a single major hazard event, or damages are expected to occur to more than 5% but less than 15% of the property value within the jurisdiction.	2	4
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1
	Environmental	Low	Environmental impact from a single major hazard event is likely to be minimal, requiring little to no outside resources and support, and/or minimal repair, clean-up, restoration, or preservation work.	1	1
	Essential Operations	Low	Impact less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	1	1
	Future Development	Low	Future development trends will minimally increase impact/consequence of this hazard.	1	1
	Climate Change	Medium	Climate Change trends will increase the risk of this hazard and its impacts, but not significantly.	2	2
Tornado *(Severe Weather)*	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3
	Underserved/Equity	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor
	Property Damage	Low	Less than $500,000 in property damages is expected from a single major hazard event or less than 5% of the property value within the jurisdiction.	1	2
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1
	Environmental	Low	Environmental impact from a single major hazard event is likely to be minimal, requiring little to no outside resources and support, and/or minimal repair, clean-up, restoration, or preservation work.	1	1
	Essential Operations	Low	Impact less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	1	1
	Future Development	Low	Future development trends will minimally increase impact/consequence of this hazard.	1	1
	Climate Change	Medium	Climate Change trends will increase the risk of this hazard and its impacts, but not significantly.	2	2
Tsunami	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3
	Underserved/Equity	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3
	Property Damage	Low	Less than $500,000 in property damages is expected from a single major hazard event or less than 5% of the property value within the jurisdiction.	1	2
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1
	Environmental	Low	Environmental impact from a single major hazard event is likely to be minimal, requiring little to no outside resources and support, and/or minimal repair, clean-up, restoration, or preservation work.	1	1
	Essential Operations	Low	Impact less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	1	1
	Future Development	Low	Future development trends will minimally increase impact/consequence of this hazard.	1	1
	Climate Change	Low	Climate Change trends will minimally increase the risk of this hazard and its impacts.	1	1

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor
Wildfire	***Population and Life Safety***	Medium	Populations exposed to this hazard are likely to experience some adverse impacts, such as injuries requiring acute medical care.	2	6
	Underserved/Equity	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	6
	Property Damage	High	More than $5 Million in property damages is expected from a single major hazard event, or damages are expected to occur to 15% or more of the property value within the jurisdiction.	3	6
	Economic	Medium	Total economic impact is likely to be greater than $500,000, but less than or equal to $10 Million.	2	2
	Environmental	High	Environmental impact from a single major hazard event is likely to be significant, requiring extensive outside resources and support; and/or repair, clean-up, restoration, and/or preservation work.	3	3
	Essential Operations	Medium	Impact between 24 and 72 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	2	2
	Future Development	High	Future development trends will significantly increase the impact/consequence of this hazard.	3	3
	Climate Change	High	Climate Change trends will significantly increase the risk of this hazard and its impacts.	3	3
Active Shooter Incidents	***Population and Life Safety***	Medium	Populations exposed to this hazard are likely to experience some adverse impacts, such as injuries requiring acute medical care.	2	6
	Underserved/Equity	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3
	Property Damage	Low	Less than $500,000 in property damages is expected from a single major hazard event or less than 5% of the property value within the jurisdiction.	1	2
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1
	Environmental	No Impact	No environmental impacts from a single major hazard event are likely.	0	0

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor
	Essential Operations	Medium	Impact between 24 and 72 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	2	2
	Future Development	Low	Future development trends will minimally increase impact/consequence of this hazard.	1	1
	Climate Change	No Impact	Climate change trends will not increase the risk of the hazard and its impacts.	0	0
Cybersecurity Threats	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3
	Underserved/Equity	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3
	Property Damage	Low	Less than $500,000 in property damages is expected from a single major hazard event or less than 5% of the property value within the jurisdiction.	1	2
	Economic	Medium	Total economic impact is likely to be greater than $500,000, but less than or equal to $10 Million.	2	2
	Environmental	No Impact	No environmental impacts from a single major hazard event are likely.	0	0
	Essential Operations	Medium	Impact between 24 and 72 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	2	2
	Future Development	Low	Future development trends will minimally increase impact/consequence of this hazard.	1	1
	Climate Change	No Impact	Climate change trends will not increase the risk of the hazard and its impacts.	0	0
Hazardous Materials Incidents	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3
	Underserved/Equity	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3
	Property Damage	Low	Less than $500,000 in property damages is expected from a single major hazard event or less than 5% of the property value within the jurisdiction.	1	2
	Economic	Medium	Total economic impact is likely to be greater than $500,000, but less than or equal to $10 Million.	2	2

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor
	Environmental	High	Environmental impact from a single major hazard event is likely to be significant, requiring extensive outside resources and support; and/or repair, clean-up, restoration, and/or preservation work.	3	3
	Essential Operations	Medium	Impact between 24 and 72 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	2	2
	Future Development	Low	Future development trends will minimally increase impact/consequence of this hazard.	1	1
	Climate Change	No Impact	Climate change trends will not increase the risk of the hazard and its impacts.	0	0
Terrorism (Weapons of Mass Destruction)	***Population and Life Safety***	High	Populations exposed to this hazard are likely to experience significant adverse impacts, such as fatalities and severe injuries.	3	9
	Underserved/Equity	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3
	Property Damage	High	More than $5 Million in property damages is expected from a single major hazard event, or damages are expected to occur to 15% or more of the property value within the jurisdiction.	3	6
	Economic	High	Where the total economic impact is likely to be greater than $10 Million.	3	3
	Environmental	Medium	Environmental impact from a single major hazard event is likely to be localized, requiring some outside resources and support; and/or repair, clean-up, restoration, or preservation work.	2	2
	Essential Operations	High	Impact greater than 72 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	3	3
	Future Development	Low	Future development trends will minimally increase impact/consequence of this hazard.	1	1
	Climate Change	No Impact	Climate change trends will not increase the risk of the hazard and its impacts.	0	0
Utility Interruptions	***Population and Life Safety***	Medium	Populations exposed to this hazard are likely to experience some adverse impacts, such as injuries requiring acute medical care.	2	6

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor
	Underserved/Equity	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	6
	Property Damage	No Impact	Little to no property damage is expected from a single major hazard event.	0	0
	Economic	Medium	Total economic impact is likely to be greater than $500,000, but less than or equal to $10 Million.	2	2
	Environmental	No Impact	No environmental impacts from a single major hazard event are likely.	0	0
	Essential Operations	Medium	Impact between 24 and 72 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single major hazard event.	2	2
	Future Development	No Impact	Future development trends will not increase the impact/consequence of the hazard, and/or may even decrease the impact/consequence of this hazard.	0	0
	Climate Change	Medium	Climate Change trends will increase the risk of this hazard and its impacts, but not significantly.	2	2

APPENDIX E. PLAN ADOPTION

[Placeholder for adoption documentation after State and FEMA Approval]