COUNTY OF SAN MATEO
EMERGENCY MANAGEMENT

Local Hazard Mitigation Plan

San Mateo County, California

City of San Bruno Annex

2026

DRAFT

smcgov.org/dem/multijurisdictional-local-hazard-mitigation-plan

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This Annex details the hazard mitigation elements specific to the City of San Bruno, a participating jurisdiction of the 2026 San Mateo County Local Hazard Mitigation Plan (LHMP or the Plan) update. This Annex is not intended to be a standalone document but supplements the information contained in **Volume 1 (Countywide Planning Elements)**. Therefore, all sections of **Volume 1**, including the planning process, hazard identification and risk assessment, mitigation strategy (includes mitigation goals and objectives), and plan maintenance, apply to and were met by the City of San Bruno. This Annex provides additional information specific to the City, with a focus on providing further details on the hazard risk assessment and mitigation strategy (i.e., mitigation actions) for this community.

1. HAZARD MITIGATION LOCAL PLANNING TEAM

The following individuals have been identified as the City of San Bruno Local Planning Team for the 2026 LHMP. These individuals participated in all aspects of the planning process and developed a risk and vulnerability assessment, capability assessment, and mitigation strategy (including mitigation actions) specific to the jurisdiction.

Name	Title	Department
Matt Lethin	Police Chief	Police Department
Jeremy Brandenburg	Police Captain	Police Department
Jessica Power	Battalion Chief/Fire Marshal	San Bruno Fire Department
Mike Ku	Fire Chief	San Bruno Fire Department
Gino Quinn	Public Works, Streets and Stormwater Manager	Public Works Department

2. JURISDICTION PROFILE

The City of San Bruno is located on the San Mateo Peninsula, approximately 12 miles south of San Francisco. San Bruno is adjacent to the San Francisco International Airport, US Highway 101, and Interstate 280. The City is bordered by the City of Millbrae to the south, the City of Pacifica to the west, and the City of South San Francisco to the north.

San Bruno has a moderate climate with cool, dry summers and cool, rainy winters. January is typically the coldest month, with an average high of 56°F, while September is the warmest, with an average high of 73°F. On about four days each year, temperatures go over 90°F. During summer nights and mornings, fog and low overcast are frequent, and the weather remains mostly dry, apart from occasional light drizzles caused by fog. The annual precipitation totals around 20.1 inches, mostly falling between November and April.

2.1. Brief History

Much of San Bruno had been developed from wilderness to ranchland by the 1880s, which supplied San Francisco with horses, milk, and meat. After the San Francisco earthquake and fire in 1906, the San Bruno Park addition was developed into housing. Several other new neighborhoods sprang up in the area until 1914, when San Bruno was incorporated. At that time, San Bruno had roughly 1,400 residents.

Today, San Bruno is known as an airport city. Mills Field was dedicated in 1927 near the site now occupied by San Francisco International Airport, but it took many years for the airport to become the success it is today. The many other, more established airports in the area and the short and often swampy runways made Mills Field unpopular with aviators and businesses alike until 1945, when voters approved a bond to support the airport's improvement and expansion. Since then, the airport has become one of the busiest in the world, and San Bruno has grown into an international city alongside it.

2.2. Governing Body Format

The City of San Bruno is a General Law City. San Bruno is governed by the City Council and operates under a Council-Manager form of government. As the policymaking body, the City Council has the ultimate responsibility to the people of San Bruno and the implementation of all programs and City services. It approves all ordinances, resolutions, and major contracts, modifies and approves the budget, and is responsible for employing a City Manager and City Attorney. The Council appoints citizens to nine (9) advisory boards, commissions, and committees. Furthermore, the City Council must approve all major changes in direction or emphasis, as well as organizational changes.

The City Council is responsible for adopting this Plan. The City Manager is responsible for implementing the programs and policies established by the City Council.

2.3. Population

In 2024, the City of San Bruno had a population of 42,035, a 4.2% decrease from the estimated 2020 population of 43,891. **Table 1** summarizes population distribution between 2010 and 2024, and the percentage of the 2024 population that is under five (5) years old, over 65 years old, and living below the poverty level.[1]

Table 1. Population Trends

Population				Underserved Population		
2010	***2020***	***2024***	***Population Change*** *(2020 – 2024)*	***Youth*** *(Under 5 years old)*	***Elderly*** *(Over 65 years old)*	***Below Poverty Level***
41,114	43,891	42,035	-4.2%	4.6%	18.0%	6.0%

3. CHANGES IN DEVELOPMENT

California Law requires counties and cities to prepare and adopt a General Plan, a comprehensive long-range plan to guide community development. The General Plan must contain seven (7) state-mandated elements – land use, circulation, housing, conservation, open space, noise, and safety – and may contain additional elements as a jurisdiction sees fit. Counties and cities that have identified disadvantaged communities must also address environmental justice in their general plans, including air quality. Additionally, the General Plan must comprise an integrated and internally consistent set of goals, policies, and implementation measures. The City of San Bruno adopted its General Plan under this law and has

[1] United States Census Bureau. (2024). QuickFacts, San Bruno City, California. Retrieved from https://www.census.gov/quickfacts/fact/table/sanbrunocitycalifornia/PST040224.

updated various elements several times over the years, including most recently, when the City Council adopted the San Bruno General Plan in March 2009.

Table 2 summarizes development trends during the performance period since the previous LHMP was developed (i.e., past five (5) years), as well as expected future development trends (i.e., the next five (5) years).

Table 2. Recent and Expected Development Trends

Criteria	Description
Has your jurisdiction annexed any land since the development of the previous Local Hazard Mitigation Plan? *If yes, give the estimated area annexed and the estimated number of parcels or structures.*	No
Is your jurisdiction expected to annex any areas during the performance period of this Plan?	No

Has your jurisdiction had any significant changes in development over the past five (5) years that have occurred in hazard-prone areas? *If yes, briefly describe.*	Over the past five (5) years, the City of San Bruno has experienced notable changes in development patterns, infrastructure investment, and hazard classification, altering the community's vulnerability profile. These changes affect exposure to wildfire, earthquake, flooding, severe weather, and utility disruption hazards, and they influence both the potential consequences of a major event and the City's overall resilience. **Fire Hazard Severity Zones Designation:** One of the most significant changes has been the formal designation of Fire Hazard Severity Zones (FHSZ) within the City. While many hillside neighborhoods have historically been recognized as part of the wildland urban interface (WUI), the official designation clarifies and elevates their wildfire risk profile. Importantly, most existing structures within the newly designated zones were constructed before current ignition-resistant building standards were in place. As a result, many homes do not incorporate contemporary wildfire hardening measures such as ember-resistant venting, enhanced exterior wall assemblies, or upgraded defensible space configurations. Although the buildings themselves have not changed, their formal classification within FHSZ reflects an updated understanding of wildfire behavior and risk. This reclassification highlights an increased exposure and vulnerability to wind-driven wildfire events, ember intrusion, and structure-to-structure ignition. In addition, hillside roadway geometry and limited access points may pose challenges for evacuation and emergency access during a fast-moving wildfire incident. The formal designation of FHSZ has triggered enhanced construction and defensible space requirements for new construction and qualifying remodels within those areas. New development within designated FHSZ areas must comply with ignition-resistant construction standards consistent with the California Building Code and WUI requirements. These include enhanced exterior wall assemblies, ember-resistant venting, Class A roofing materials, and limitations on combustible materials near structures. In parallel, defensible space requirements have expanded, requiring greater vegetation clearance and ongoing maintenance within prescribed distances from structures. These regulatory changes represent a significant long-term reduction in wildfire vulnerability for newly constructed or substantially improved structures. **Large Residential, Commercial, and High-Rise Residential Developments:** Over the last five (5) years, San Bruno has seen the completion of several large residential developments, including multi-family and mixed-use housing projects. In addition to residential growth, San Bruno has experienced new commercial and high-rise residential development in key

Criteria	Description
	corridors. These structures increase economic exposure and concentrate employment and residential activity in vertical environments. A significant earthquake, extended power outage, or regional wildfire smoke event would now affect more residents in vertical living environments, potentially complicating evacuation, sheltering, and emergency response operations. These developments have increased overall population density and concentrated residents within multi-story structures that depend on elevators, fire protection systems, and reliable utility service. High-rise buildings are particularly dependent on functional fire protection systems, elevators, and backup power infrastructure. Extended utility disruptions, including Public Safety Power Shutoffs (PSPS), could have cascading impacts on habitability and business continuity. While newer buildings comply with modern California Building Code seismic standards, include contemporary life safety systems, and represent improved structural performance compared to older construction, the larger-scale buildings and increased occupancy loads raise the potential consequences of a major hazard event. **Recreation Facility:** The City has also added a new recreation facility located just outside the designated FHSZ. This facility introduces a new public assembly occupancy with high daytime and evening population loads. Although not located within a high wildfire risk area, the facility remains exposed to other hazards, including earthquakes, severe weather, and power disruptions. At the same time, the recreation facility enhances community resilience by serving as a cooling center, shelter site, or disaster support facility during emergencies. Accordingly, the development represents both an increase in exposure due to population concentration and an increase in adaptive capacity through potential emergency use. **Infrastructure Investments:** Infrastructure investments have also altered the City's vulnerability profile. Upgrades to sanitary sewer and drainage systems in the low-lying areas commonly referred to as "The Avenues" have improved stormwater conveyance and reduced flood risk in historically inundation-prone neighborhoods. These improvements decrease vulnerability to urban flooding during high-intensity rainfall and atmospheric river events. Enhanced drainage capacity reduces the likelihood of sewer surcharge, localized street flooding, and associated public health impacts. Unlike other recent development trends that have increased exposure through added population and structural density, these infrastructure improvements represent a measurable reduction in flood-related vulnerability and an increase in climate resilience.

Are there any areas targeted for development or major redevelopment in the next five (5) years that will occur in hazard-prone areas? *If yes, briefly describe.*	**Height-Limit Land Use Policies:** San Bruno is evaluating potential changes to land use policies, including discussions about raising building height limits in certain planning zones. If adopted, increased height allowances could result in additional mid-rise or high-rise residential and mixed-use construction. From a hazard mitigation perspective, taller buildings constructed under current seismic codes generally perform better structurally than older building stock. However, increased vertical density may elevate overall exposure and consequence in several ways: • Greater population concentration in multi-story structures. • Increased reliance on elevators and building systems during evacuations. • Higher dependency on electrical power and fire protection systems. • Increased complexity of emergency response operation. In earthquake scenarios, vertical evacuation and post-event habitability may become more complex. During extended power outages, residents in taller buildings may face mobility challenges and reduced access to water or climate control systems. These factors do not necessarily increase structural vulnerability, but they may increase the potential consequences of hazard events. If height limits are raised in areas near transit or commercial corridors, development patterns may further concentrate residential and economic assets. This would increase exposure while potentially reducing urban sprawl into higher wildfire risk hillside areas, a land use tradeoff that may have both positive and negative risk implications. **Defensible Space Requirements:** Implementation of enhanced defensible space requirements and wildfire construction standards is expected to continue. As redevelopment occurs within FHSZ areas, the proportion of wildfire-resistant structures will gradually increase. The City anticipates continued emphasis on: • Vegetation management enforcement. • Home hardening education and outreach. • Evacuation planning and access route maintenance. • Integration of wildfire mitigation into development review.

Criteria	Description
	• Over time, these efforts will incrementally reduce wildfire vulnerability, though legacy housing stock will continue to pose elevated risk in the near- to medium-term.
Provide the number of permits for each hazard area or provide a qualitative description of where development has occurred.	San Bruno has seen the completion of several large residential developments, including multi-family and mixed-use housing projects. These developments have increased overall population density and concentrated residents within multi-story structures that depend on elevators, fire protection systems, and reliable utility service. The City has also added a new recreation facility located just outside the designated FHSZ. This facility introduces a new public assembly occupancy with high daytime and evening population loads. Although not located within a high wildfire risk area, the facility remains exposed to other hazards, including earthquakes, severe weather, and power disruptions. At the same time, the recreation facility enhances community resilience by serving as a cooling center, shelter site, or disaster support facility during emergencies. In addition to residential growth, San Bruno has experienced new commercial and high-rise residential development in key corridors. These structures increase economic exposure and concentrate employment and residential activity in vertical environments. While newer buildings comply with modern California Building Code seismic standards and include contemporary life-safety systems, the increase in occupancy load raises the potential consequences of a major hazard event. The City's also experienced several infrastructure investments. Upgrades to sanitary sewer and drainage systems in the low-lying areas commonly referred to as "The Avenues" have improved stormwater conveyance and reduced flood risk in historically inundation-prone neighborhoods. These improvements decrease vulnerability to urban flooding during high-intensity rainfall and atmospheric river events. Enhanced drainage capacity reduces the likelihood of sewer surcharge, localized street flooding, and associated public health impacts.

In summary, recent and anticipated development changes in the City of San Bruno reflect two (2) parallel trends:

- Improved construction standards and defensible space requirements, which reduce vulnerability for new and substantially improved structures.
- Increased structural and population density, particularly if height limits are raised, which increases overall exposure and potential consequences during hazard events.

The City's risk profile is therefore evolving toward higher density and more modern construction. While newer buildings are built to stronger seismic and wildfire-resistant standards, the concentration of residents and assets in vertical and mixed-use environments increases the importance of continuity planning, evacuation capacity, and infrastructure reliability.

As San Bruno continues to modernize and grow, integrating hazard mitigation principles into zoning, height limit decisions, and development review processes will be critical to balancing growth with long-term resilience.

3.1. Changes in Priority

Over the past five (5) years, the City of San Bruno's hazard mitigation priorities have evolved in response to updated hazard data, regulatory changes, development trends, and climate-related impacts. While earthquake preparedness remains a foundational priority due to the City's location within a seismically active region, there has been an increased emphasis on wildfire risk reduction, climate resilience, and infrastructure reliability.

The formal designation of FHSZ has significantly elevated wildfire mitigation as a City priority. This shift has resulted in a greater focus on defensible space compliance, ignition-resistant construction standards, enforcement of vegetation management, and community outreach on home hardening and evacuation preparedness. Wildfire planning has become more integrated into land use review, code enforcement, and emergency planning processes than in prior planning cycles.

Climate-related impacts, including extreme heat, wildfire smoke events, and heavy rainfall associated with atmospheric river systems, have also influenced the City's priorities. Infrastructure upgrades in low-lying neighborhoods, particularly stormwater and sanitary sewer improvements, reflect a proactive approach to reducing flood vulnerability. The City has increasingly prioritized drainage capacity, infrastructure modernization, and system reliability to address projected increases in extreme precipitation events.

Additionally, recent PSPS events and regional power reliability concerns have elevated the importance of continuity planning and backup power capability for critical facilities. Ensuring operational continuity for public safety, emergency operations, and essential community services has become a more prominent focus for mitigation.

As residential density and vertical development have increased, the City's priorities have expanded to address evacuation planning, preservation of emergency access, and life safety considerations associated with high-occupancy and multi-story structures. There is greater recognition that population concentration and infrastructure dependence can exacerbate the consequences of hazardous events, even when buildings meet modern construction standards.

Looking forward, the City anticipates continuing to balance housing and economic development goals with hazard mitigation objectives. Potential changes in zoning and building height allowances may require additional evaluation of emergency response capacity, infrastructure demand, and community resilience considerations.

Overall, San Bruno's mitigation priorities have shifted from a primarily hazard-specific focus to a more integrated resilience framework. Current priorities emphasize:

- Wildfire risk reduction and defensible space implementation.
- Infrastructure reliability and climate adaptation.
- Emergency access and evacuation planning.
- Continuity of operations during power disruptions.
- Integration of hazard mitigation into land use and development decisions.

These evolving priorities reflect a growing and modernizing community adapting to changing hazard conditions while maintaining a strong foundation in seismic preparedness.

4. 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 developing specific hazard mitigation actions and projects is assessing existing authorities, policies, programs, and resources and capabilities, and using or modifying local tools to reduce losses and vulnerability from profiled hazards.

A capability assessment was conducted for the City of San Bruno's authorities, policies, programs, and resources. Goals and mitigation actions were developed using input from this assessment. Information regarding the City's implementation of and continued participation in the National Flood Insurance Program (NFIP) can be found in Section 5 of this Annex.

The Local Planning Team assessed the City of San Bruno'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
- Fiscal Capabilities
- Education and Outreach Capabilities

Additionally, ways to expand and improve these existing policies and programs to integrate hazard mitigation into the City's day-to-day activities were considered.

4.1. Planning and Regulatory Capabilities

Table 3 includes 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).

Table 3. Planning and Regulatory Capabilities

Capability Category	Yes/No	Authority *(local, county, state, federal)*	Responsible Department/ Agency	Code Citation and Comments *(e.g., Code Chapter, name of plan, explanation of authority, etc.)*
Planning Capacity				
Comprehensive Plan / General Plan	Yes	Local	Community Development Department	General Plan (March 2009), various elements have been updated several times over the years
Capital Improvement Plan	Yes	Local	City Manager	Updated annually. Budget covers a five (5) year span.
Floodplain Management / Basin Plan	No	n/a	n/a	n/a
Stormwater Management Plan	Yes	Local	Public Works Department	Storm Drain Master Plan (2014)
Open Space Plan	No	n/a	n/a	n/a
Stream Corridor Management Plan	Yes	Local, County	San Mateo County Flood and Sea Level Rise Resiliency District, Public Works Department	San Bruno Creek Resilience Project
Watershed Management or Protection Plan	Yes	Local, County	San Mateo County Flood and Sea Level Rise Resiliency District	OneWatershed Climate Resilience Framework
Economic Development Plan	Yes	Local	Community Development Department	Economic Development Element of the General Plan
Comprehensive Emergency Management Plan	No	n/a	n/a	n/a
Emergency Operations Plan	Yes	Local	San Bruno Fire Department	Updated in 2008
Evacuation Plan	No	n/a	n/a	n/a
Post-Disaster Recovery Plan	Yes	Local	San Bruno Fire Department	Included in the Emergency Operations Plan
Transportation Plan	Yes	Local	Public Works Department	Walk Bike Master Plan San Bruno Transit Corridors Specific Plan (TCP)
Strategic Recovery Planning Report	No	n/a	n/a	n/a
Climate Adaptation Plan	Yes	Local	Community Development Department	Under Development
Resilience Plan	No	n/a	n/a	n/a

Capability Category	Yes/No	Authority *(local, county, state, federal)*	Responsible Department/ Agency	Code Citation and Comments *(e.g., Code Chapter, name of plan, explanation of authority, etc.)*
Community Wildfire Protection Plan	Yes	Local	San Bruno Fire Department	Santa Cruz and San Mateo County Community Wildfire Protection Plan (April 2018)
Regulatory Capability				
Building Code	Yes	Local	Community Development Department	Title 11 of the City Code
Zoning Code	Yes	Local	Community Development Department	Title 12, Article III of the City Code
Subdivision Code	Yes	Local	Community Development Department	Title 12, Article II of the City Code
Flood Damage Prevention Ordinance	Yes	Local	Community Development Department	City Code Title 11, Chapter 11.40 of the City Code
Cumulative Substantial Damage Ordinance	No	n/a	n/a	n/a
Freeboard	Yes	Local	Public Works Department	Title 12, Chapter 12.44.09 of the City Code
Growth Management Ordinance	Yes	Local	Community Development Department	General Plan (March 2009), various elements have been updated several times over the years
Site Plan Review	Yes	Local	Community Development, Public Works Departments	Title 12, Article III of the City Code
Stormwater Management Ordinance	Yes	Local	Public Works Department	Title 10, Chapter 10.18 of the City Code
Municipal Separate Storm Sewer System (MS4)	No	n/a	n/a	n/a
Natural Hazard Ordinance	No	n/a	n/a	n/a
Post-Disaster Recovery Ordinance	No	n/a	n/a	n/a
Real Estate Disclosure Requirement	Yes	State	California Department of Real Estate	Section 1102 of the California Civil Code

4.2. Administrative and Technical Capabilities

The administrative and technical capabilities listed in **Table 4** include community (i.e., public and private) staff, their skills, and tools that can be used for mitigation planning and implementation. This capability

includes engineers, planners, emergency managers, Geographic Information System (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.

Table 4. Administration and Technical Capabilities

Capability	Yes/No	Comments *(e.g., position, department, agency, explanation)*
Administrative Capabilities		
Planning Board	Yes	Planning Commission
Mitigation Planning Committee	Yes	Emergency Preparedness Committee Crime Prevention Committee Complete Streets Committee
Environmental Board/Commission	No	n/a
Open Space Board/Committee	Yes	Parks and Recreation Commission
Economic Development Commission/Committee	No	n/a
Maintenance programs to reduce risk	Yes	Rain Barrel Rebate Program
Mutual Aid Agreements	Yes	CalFire South San Francisco Fire Department San Francisco Fire Department California Law Enforcement Mutual Aid Plan California Master Mutual Aid Agreement
Technical/Staffing Capabilities		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Community Development Department Public Works Department
Engineer(s) or professional(s) trained in building or infrastructure construction practices	Yes	Community Development Department Public Works Department
Planners or engineers with an understanding of natural hazards	Yes	Community Development Department Public Works Department
NFIP Floodplain Administrator	Yes	Community Development Department (Building Official)
Surveyor(s)	Yes	Contract Surveyor Staff
Personnel skilled or trained in GIS applications	Yes	Contract GIS Consultant Community Development Department (Long-Range Planning Manager)
A scientist familiar with natural hazards	No	n/a
Warning systems/services	Yes	SMC Alert, in partnership with the San Mateo County Department of Emergency Management
Emergency manager	Yes	Fire Battalion Chief
Grantwriter(s)	Yes	Public Works Department (Management Analyst)
Staff with expertise or training in benefit cost analysis	Yes	Finance Department
Professionals trained in conducting damage assessments	Yes	Community Development Department (Building Officials)

4.3. Fiscal Capabilities

Table 5 lists fiscal capabilities available to the City of San Bruno that may be used to implement mitigation activities to reduce risk and enhance resiliency. This capability includes available funding sources from local budgets, state and federal grants, potential cost-sharing arrangements with private entities, existing insurance policies, and the ability to generate additional revenue through mitigation-related fees and bonds.

Table 5. Financial Capabilities

Capability	Accessible or Eligible to Use
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Federal Hazard Mitigation Assistance Program *(i.e., Hazard Mitigation Grant Program (HMGP), HMGP Post Fire, Flood Mitigation Assistance (FMA) Program)*	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	No
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	Yes
Incur debt through general obligation bonds	No
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open space acquisition funding programs	No

4.4. Education and Outreach Capabilities

Table 6 lists the City's education and public outreach capabilities that can be used to inform residents about potential hazards, educate on mitigation strategies, and encourage proactive actions to reduce the community's impacts to disasters. These capabilities include fire safety programs, hazard awareness campaigns, public information, and communications offices.

Table 6. Education and Outreach Capabilities

Capability	Yes/No	Comments *(e.g., position, department, agency, explanation)*
Public Information Officer	Yes	City Manager's Office
Personnel skilled or trained in website development	Yes	Each department has a representative trained to update San Bruno's website pages.
Hazard mitigation information is available on the jurisdiction's website	Yes	The Fire Department has a page dedicated to disaster preparedness.

Capability	Yes/No	Comments *(e.g., position, department, agency, explanation)*
Utilize social media for hazard mitigation education and outreach	Yes	Individual departments use various social media platforms to provide education and information on hazard mitigation.
Citizen boards or commissions that address issues related to hazard mitigation	Yes	The Emergency Preparedness Committee promotes emergency preparedness planning and education to prepare residents to mitigate the potential consequences of natural and man-made disasters.
Other programs already in place that could be used to communicate hazard-related information	Yes	City-operated cable television station.
An established warning system for hazard events	Yes	SMC Alert, in partnership with the San Mateo County Department of Emergency Management Zonehaven

4.5. Community Classifications

The community classification relates to the community's ability to provide effective services to reduce its vulnerability to the identified hazards. These classifications can be viewed as indicators of the community's capabilities across all phases of emergency management (i.e., preparedness, response, recovery, and mitigation) and are used as underwriting parameters to determine the costs of various forms of insurance. **Table 7** summarizes the classifications of community programs available to the City of San Bruno.

Table 7. Community Classifications

Program	Yes/No	Classification *(if applicable)*	Date Classified *(if applicable)*
Community Rating System (CRS)	Yes	Class 9	April 2021
Building Code Effectiveness Grading Schedule (BCEGS)	No	n/a	n/a
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	2	2017
NWS StormReady®	No	n/a	n/a
NWS TsunamiReady®	No	n/a	n/a
Firewise USA®	No	n/a	n/a

4.6. Needs to Expand/Improve Capabilities

The City of San Bruno identified existing authorities, policies, programs, funding, and/or resources that need to be expanded and/or improved to support the implementation of the hazard mitigation initiatives identified in this Plan (e.g., mitigation actions). While the City maintains strong regulatory authority and interdepartmental coordination, evolving hazard conditions, increased development density, and climate-related impacts necessitate additional technical, operational, and resource capacity.

- **Wildfire Mitigation and Enforcement Capacity:** The designation of FHSZ has expanded the scope of defensible space inspections, vegetation management enforcement, and wildfire risk reduction outreach. Current staffing and inspection capacity may limit the City's ability to conduct proactive inspections, consistently enforce compliance, and implement home hardening education at scale. Expanding wildfire mitigation capacity will reduce the risk of structural ignition and improve long-term community resilience. Needed expansions include:
    - Additional inspection and enforcement staffing or seasonal support resources.
    - Enhanced data tracking and mapping tools for defensible space compliance.
    - Expanded public outreach and education programs on home hardening.
    - Continued integration of wildfire mitigation requirements into planning and building review processes.
- **Infrastructure Resilience and Capital Planning:** Climate projections indicate increasing rainfall intensity and continued strain on aging infrastructure systems. While recent upgrades have reduced vulnerability in low-lying areas, additional evaluation and modernization are needed to address long-term flood and system reliability risks. Strengthening infrastructure planning capacity will reduce flood exposure and support sustainable long-term mitigation. Needed expansions include:
    - Comprehensive stormwater system capacity analysis under future climate scenarios.
    - Continued phased drainage, sewer, and water upgrades in vulnerable neighborhoods.
    - Improved asset management and lifecycle replacement planning.
    - Identification of funding sources for climate adaptation infrastructure projects.
- **Emergency Power and Continuity Planning:** PSPS and grid reliability concerns have highlighted vulnerabilities in critical facilities, multi-story residential buildings, and essential service locations. Current backup power capabilities may not fully support extended outages. Improved power resilience will reduce cascading impacts during wildfires, heat waves, and seismic events. Needed expansions include:
    - Expanded backup power systems at critical facilities.
    - Evaluation of resilience hubs and cooling center capabilities.
    - Development of long-duration outage response planning.
    - Coordination with utilities on redundancy and restoration prioritization.
- **Evacuation Planning and Traffic Modeling:** Increased residential density, potential height limit changes, and wildfire risk in hillside areas require more robust evacuation analysis and traffic modeling. Current evacuation planning may not fully reflect increased population concentration or future development scenarios. Strengthening evacuation planning capabilities will improve life safety outcomes during fast-moving wildfire or earthquake events. Needed expansions include:
    - Updated evacuation modeling incorporating current and projected population density.
    - Evaluation of roadway capacity and choke points.
    - Public education and evacuation readiness campaigns.

  - Integration of evacuation considerations into development review and zoning discussions.

- **Data, GIS, and Risk Analysis Capacity:** As development patterns evolve and hazard data become more complex, the City requires enhanced GIS and risk modeling capacity to support data-driven mitigation decisions. Expanded analytical capacity will improve the prioritization of mitigation projects and grant competitiveness. Needed expansions include:
  - Improved GIS integration across departments.
  - Real-time or near-real-time hazard mapping capability.
  - Enhanced risk assessment tools tied to land use planning.
  - Staff training on FEMA grant alignment and benefit-cost analysis.
- **Grant Management and Funding Strategy:** Implementing mitigation projects requires sustained funding and administrative capacity to pursue state and federal grants. Limited staff bandwidth may constrain the City's ability to fully leverage Hazard Mitigation Assistance (HMA) programs. Strengthening funding capacity will accelerate implementation of high-priority mitigation projects. Needed expansions include:
  - Dedicated grant writing or grant administration support.
  - Development of a multi-year mitigation funding strategy.
  - Improved tracking of project readiness for HMA eligibility.
  - Cross-department coordination for capital improvement alignment.

In summary, to successfully implement the mitigation strategy outlined in this Plan, the City of San Bruno must expand its capacity in wildfire mitigation enforcement, infrastructure resilience planning, emergency power continuity, evacuation modeling, data analysis, and grant administration. These enhancements will enable the City to proactively address increasing hazard exposure associated with population growth, wildfire risk, climate change, and infrastructure dependency. By investing in these capability improvements, San Bruno will strengthen its ability to reduce risk, protect life and property, and maintain operational continuity during future hazard events.

5. NATIONAL FLOOD INSURANCE PROGRAM

The City of San Bruno is a member of the National Flood Insurance Program (NFIP) but has not chosen to participate in the NFIP Community Rating System (CRS) Program. The City is in good standing with the NFIP through adoption and enforcement of floodplain management requirements (e.g., regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. The City's NFIP participation information is listed in **Table 8**.

Table 8. NFIP Participation Information

Community ID	NFIP Participation Date	Current Effective FIRM Date	CRS Entry Date	CRS Current Effective Date	CRS Class
060326D	6/7/1974	4/5/2019	n/a	n/a	n/a

5.1. NFIP Floodplain Administrator

All NFIP participating jurisdictions have a designated Floodplain Administrator who is charged with enforcing floodplain regulations, routinely monitoring the floodplains, and providing community assistance, such as encouraging owners to maintain flood insurance. The City of San Bruno Floodplain Administrator information is listed in **Table 9**.

Table 9. Floodplain Administrator

Name	Title	Department	Phone Number
Darcy Axiaq	Building Official	Community Development Department	(650) 616-7020

5.2. Repetitive Loss and Severe Repetitive Loss Property

FEMA defines a Repetitive Loss property as an NFIP-insured property meeting at least one (1) of the following paid loss criteria since 1978, regardless of any changes in ownership:

- Four (4) or more separate claims payments greater than $5,000 each (including building and contents payment).
- Two (2) or more separate flood insurance claims payments (building payments only), where the total of the payments is greater than the property's current value.

Additionally, to receive a designation, at least two (2) of the claim payments must occur within 10 years of one another.[2]

A Severe Repetitive Loss property is defined by FEMA as any NFIP-insured single-family or multi-family residential building meeting at least one (1) of the following paid loss criteria since 1978 or from a building constructed after 1978, regardless of any changes in ownership:[3]

- That has incurred flood-related damage for which four (4) or more separate claims payments have been made, with the amount of each claim (including building and contents payments) exceeding $5,000, and with the cumulative amount of such claims payments exceeding $20,000.
- For which at least two (2) separate claims payments (building payments only) have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the building.

Table 10 summarizes FEMA Repetitive Loss and Severe Repetitive Loss properties within the City of San Bruno.

[2] Federal Emergency Management Agency, National Flood Insurance Program. (2023). A Policyholder's Guide to Severe Repetitive Loss. Retrieved from https://agents.floodsmart.gov/sites/default/files/fema_nfip-policyholders-guide-severe-repetitive-loss_brochure_07-2023.pdf.
[3] Federal Emergency Management Agency, National Flood Insurance Program. (2021). National Flood Insurance Program: Flood Insurance Manual. Retrieved from https://www.fema.gov/sites/default/files/documents/fema_nfip-all-flood-insurance-manual-apr-2021.pdf.

Table 10. Repetitive Loss and Severe Repetitive Loss Properties

Repetitive Loss Properties		Severe Repetitive Loss Properties	
Total	***Occupancy***	***Total***	***Occupancy***
3	**1** Single Family **1** Non-Residential Building **1** Single Family Residential Building	0	n/a
Occupancy Type: *Single Family = Single family residence • Two (2)-Four (4) Unit Residential Building = Two (2)-four (4) unit residential building • More Than Four (4) Units Residential Building = Residential building with more than four (4) units • Non-Residential Building = Non-residential building • Non-Residential Business = Non-residential business • Single Family Residential Building = Single-family residential building with the exception of a mobile home or a single residential unit within a multi-unit building • Residential (2, 3, or 4 units) Non-Condo Building = Residential non-condo building with two (2), three (3), or four (4) units seeking insurance on all units • Residential (5 or more units) Non-Condo Building = Residential non-condo building with 5 or more units seeking insurance on all units • Residential Mobile/Manufactured Home = Residential mobile/manufactured home • Residential Condo Association = Residential condo association seeking coverage on a building with one (1) or more units • Single Residential Unit = Single residential unit within a multi-unit building • Non-Residential Mobile/manufactured Home = Non-residential mobile/manufactured home • Non-Residential Building = Non-residential building • Non-Residential Unit = Non-residential unit within a multi-unit building*			

Table 11 summarizes NFIP active policies and coverage in force data for the City of San Bruno.

Table 11. NFIP Policies

NFIP Policies	Insurance in Force	Total Claims Paid	Sum of Claims Paid
124	$39,498,000	12	$206,360

5.3. Participation Activities

The City of San Bruno's NFIP participation over the last five (5) years includes the following:

- Community staff provide the following services – permit reviews, GIS, inspections, and engineering capability.

5.3.1. Substantial Damage

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred. *(Title 11, Chapter 11.40 of the City Code)*

5.3.2. Substantial Improvement

Substantial improvement means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:

- Any project for improvement of a structure to correct existing violations or state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions.

- Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure." *(Title 11, Chapter 11.40 of the City Code)*

5.3.3. Substantial Damage/Substantial Improvement Determination Process

The City of San Bruno's Substantial Damage/Substantial Improvement determination process ensures compliance with the NFIP and the local floodplain management ordinances. To determine whether a structure has sustained Substantial Damage/Substantial Improvement after a flood event, the City will use the FEMA Substantial Damage Estimator tool, along with a collaborative review conducted by the Building Inspectors, the Public Works Department, the floodplain manager, and other relevant officials.

6. HAZARD MITIGATION PLAN INTEGRATION

For a community to successfully reduce long-term risk, hazard mitigation must be integrated into day-to-day planning mechanisms and initiatives. Plan integration is the process by which communities critically assess the existing planning framework and align efforts to reduce long-term risks and build a more resilient community. It involves a two (2) way exchange of information and incorporation of ideas and concepts between hazard mitigation plans and other community plans. In particular, plan integration involves incorporating hazard mitigation principles and actions into other plans and integrating planning mechanisms into hazard mitigation plans. Plan integration involves community plans, policies, codes, and programs that guide development and define roles and responsibilities for implementing these capabilities. Additionally, plan integration is achieved through the involvement of key staff and community officials in collaborative hazard mitigation planning.

6.1. Existing Plan Integration

A hazard mitigation plan must explain how the jurisdiction incorporated the previous Plan update over the last five (5) years to demonstrate progress in local mitigation efforts. During the performance period since the adoption of the previous LHMP, the City of San Bruno has made progress in integrating components of the hazard mitigation strategy (e.g., goals, objectives, and actions) into planning initiatives and mechanisms. **Table 12** highlights the planning mechanisms/initiatives in which the previous Plan was integrated, as well as the information integrated.

Table 12. Existing Plan Integration

Planning Initiative	Current Integration Description
General Plan	Hazard data and mitigation priorities from the LHMP informed Safety Element policies, especially for flood, wildfire, seismic (e.g., earthquake), and climate-related risks. The LHMP served as a crucial tool in shaping policies and actions within the General Plan.
Emergency Operations Plan	The Emergency Operations Plan (EOP) integrates mitigation considerations in its response actions to reduce risk exposure to the community. The LHMP is currently used as an essential tool to update the City EOP.

Planning Initiative	Current Integration Description
Capital Improvement Program	Hazard data and mitigation priorities from the LHMP inform capital project prioritization and align mitigation projects with funding opportunities, including FEMA grant programs. During the development review, staff applied hazard maps and regulatory standards, consistent with LHMP objectives, to ensure that new construction and improvements reduce long-term risk. This integration occurs through coordinated review, ensuring that mitigation goals are embedded in both long-range planning and day-to-day operations.

6.2. Potential Future Integration

A hazard mitigation plan must explain how the jurisdiction intends to incorporate this Plan update into planning mechanisms over the next five (5) years. The capability assessment presented in Section 4 of this Annex identifies codes, plans, and programs that provide opportunities for integration. **Table 13** outlines planning mechanisms/initiatives that do not currently integrate the goals and recommendations of this Plan but provide opportunities to do so in the future.

Table 13. Potential Future Integration

Planning Initiative	Current Integration Description
General Plan	This LHMP will be incorporated into the General Plan Safety Element. The opportunity to incorporate additional hazard mitigation and abatement measures will be considered for inclusion in the updated General Plan. The Safety Element will be revised, and this LHMP will be used to identify new information not available during the previous revision, including hazards, climate adaptation, and resilience strategies.
Emergency Operations Plan	This LHMP will continue to be an essential tool to update the City EOP. The latest hazard descriptions in this LHMP will be included in the City EOP, as appropriate. Mitigation actions that are preparedness and response in nature will be analyzed for applicability and for inclusion in the description of EOP processes and procedures.
Capital Improvement Program	The City will continue to ensure consistency between this LHMP and future updates of the Capital Improvement Program. The LHMP may identify new funding sources for capital improvement projects, potentially leading to modifications to proposed projects based on the risk assessment results.
City Code	Mitigation actions and the hazard risk assessment in this LHMP can inform updates and revisions to the City Code (e.g., building, zoning). Portions of this Plan will be reviewed to consider any future improvements to the Code, if appropriate.
Stormwater Master Plan	Mitigation actions in this LHMP can inform updates and revisions to the Stormwater Master Plan. Watershed protection processes are a useful source of information for developing future mitigation actions.

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

7. SIGNIFICANT PAST EVENTS

A complete risk assessment, including past incidents, for each identified hazard of concern, can be found in **Volume 1** of this Plan. A summary of past events is provided under each hazard profile and includes a chronology of events that have affected the County and its municipalities.

8. 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 depending on existing community conditions (e.g., underserved populations or those with access and functional needs may be more susceptible under certain conditions).

The Local Planning Team identified ***unique vulnerabilities and impacts*** to the following natural hazards, based on the hazards profiled in **Volume 1**.

- Drought
- Earthquake
- Flood *(riverine flooding, urban/flash flooding, coastal flooding)*
- Landslide
- Sea Level Rise
- Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*
- Wildfire

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

- Dam Failure
- Tsunami

Note: Severe weather and flood are profiled as the two (2) hazards. However, to conduct a more thorough risk assessment, the sub-hazards (i.e., heavy rainfall, heat wave/extreme heat, fog, severe thunderstorms, tornadoes, strong winds, riverine flooding, urban/flash flooding, and coastal flooding) were ranked individually. The hazard risk assessment methodology can be found in Chapter 4 of **Volume 1** of this Plan.

Table 14 outlines the ***unique vulnerabilities and impacts*** for the City of San Bruno and addresses only the hazards relevant to the jurisdiction. A complete risk assessment for each identified hazard of concern is in **Volume 1** of this Plan. Hazard mapping can be found in Appendix A of this Annex.

Table 14. Hazard Vulnerability and Impact Assessment

Hazard	Vulnerability and Impacts
Dam Failure	The Local Planning Team determined that the City does not have unique vulnerabilities or impacts from dam failure; rather, the jurisdiction's vulnerabilities and impacts are consistent with those experienced throughout the County.
Drought	San Bruno includes hillside neighborhoods and WUI areas in designated FHSZ with significant vegetation exposure, which increases wildfire risk during extended drought conditions. Many open spaces in residential neighborhoods within FHSZ have limited access. Prolonged dry periods can heighten fire danger and strain water supply resources, compounding public safety and emergency response challenges.
Earthquake	San Bruno is uniquely vulnerable to earthquake impacts due to its geologic setting, topography, and infrastructure profile. The City's proximity to the San Andreas Fault and other regional fault systems increases the likelihood of strong ground shaking. Significant hillside residential development creates a heightened risk of landslides and slope failure, which could isolate neighborhoods and restrict emergency access. Older building stock along the El Camino Real corridor may be more susceptible to structural damage, and the presence of critical regional infrastructure, such as the San Francisco International Airport, within or adjacent to City boundaries increases the potential for cascading impacts on both local and regional response operations.
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	The City of San Bruno is uniquely vulnerable to urban/flash flooding and riverine flooding due to its steep hillside terrain, which channels stormwater into lower-lying neighborhoods and commercial areas. San Bruno Creek and El Zanjon Creek in San Bruno Park, along with portions of the City's drainage system, can be overwhelmed during heavy rain or atmospheric river events, increasing the risk of localized flooding and restricted emergency access. Aging stormwater infrastructure and projected increases in storm intensity further elevate the City's exposure compared to flatter jurisdictions.
Landslide	The City of San Bruno is uniquely vulnerable to landslides due to its steep hillside neighborhoods, soil composition, and patterns of concentrated runoff during prolonged rainfall events. Landslides are of particular concern in hilly areas of western San Bruno and near Junipero Serra County Park. During the 1997–1998 El Niño season, the City experienced numerous landslides, including slope failures that damaged property, disrupted roadways, and required evacuations. Heavy rainfall can saturate hillside soils, increasing the risk of slope instability and debris movement that may isolate neighborhoods and restrict emergency access. These topographic conditions, combined with ongoing development in hillside areas and the likelihood of more intense storm cycles, heighten San Bruno's landslide risk compared to flatter jurisdictions within the County.

Hazard	Vulnerability and Impacts
Sea Level Rise	Although San Bruno does not lie directly on the Bay, certain areas of the City may be vulnerable to sea level rise under certain sea level rise scenarios. Under more extreme sea level rise scenarios, portions of the City east of 1st Avenue could be permanently inundated. Portions of the City lie at or below sea level and are subject to tidal influences. During extreme high tides (e.g., King Tides), elevated water levels can reduce drainage capacity and increase the risk of localized flooding. The City's ability to implement large-scale protective improvements is constrained by jurisdictional and environmental factors, including infrastructure and lands controlled by Caltrans, the San Mateo County Flood and Sea Level Rise Resiliency District, and San Francisco International Airport, as well as reliance on a tide gate located in South San Francisco. Additionally, sensitive habitat areas that support protected species such as the California red-legged frog and the San Francisco garter snake limit certain construction or flood control options, further complicating mitigation efforts.
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	San Bruno faces localized flooding and erosion risks that create distinct response challenges. San Bruno Creek and its associated drainage systems, along with low-lying commercial and residential corridors, are susceptible to flooding during heavy rainfall and King Tide events. The City's hillside terrain increases the risk of erosion and slope instability, while high winds can cause tree falls and power line damage, further affecting public safety operations and infrastructure reliability.
Tsunami	The Local Planning Team determined that the City does not have unique vulnerabilities or impacts from tsunamis; rather, the jurisdiction's vulnerabilities and impacts are consistent with those experienced throughout the County.
Wildfire	The City of San Bruno is vulnerable to wildfire risk due to its hillside neighborhoods, open space areas, and WUI conditions. Extended drought, dry vegetation, and wind events increase the risk of wildfires that could threaten homes and critical infrastructure. Steep terrain may limit access for firefighting resources and accelerate fire spread, while evacuation routes in hillside areas could become constrained during a fast-moving incident. These factors elevate San Bruno's wildfire exposure compared to more densely urbanized jurisdictions with limited vegetation.

The City evaluated whether vulnerability in hazard-prone areas had increased, decreased, or remained the same for each natural hazard identified in this LHMP. 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 area 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 15 outlines whether climate change has increased or decreased the City's vulnerability (i.e., exposure) and impact to each natural hazard over the past five (5) years, and the effect of climate change on the future probability of occurrence and impacts from each natural hazard.

Table 15. Climate Change: Current and Future Vulnerability and Impact

Hazard	Vulnerability and Impact
Current Vulnerability and Impact	
Dam Failure	Remained the Same
Drought	Increased
Earthquake	Remained the Same
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	Increased
Landslide	Increased
Sea Level Rise	Increased
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	Increased
Tsunami	Not Applicable
Wildfire	Increased
Future Vulnerability and Impact	
Dam Failure	No Change Anticipated
Drought	Increase
Earthquake	No Change Anticipated
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	Increase
Landslide	Increase
Sea Level Rise	Increase
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	Increase
Tsunami	Not Applicable
Wildfire	Increase

Table 16 outlines whether changes in population within the City 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 16. Changes in Population: Current and Future Vulnerability and Impact

Hazard	Vulnerability and Impact
Current Vulnerability and Impact	
Dam Failure	Remained the Same
Drought	Increased
Earthquake	Increased
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	Increased

Hazard	Vulnerability and Impact
Landslide	Increased
Sea Level Rise	Increased
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	Increased
Tsunami	Not Applicable
Wildfire	Increased
Future Vulnerability and Impact	
Dam Failure	No Change Anticipated
Drought	Increase
Earthquake	Increase
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	Increase
Landslide	Increase
Sea Level Rise	Increase
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	Increase
Tsunami	Not Applicable
Wildfire	Increase

Table 17 outlines whether development over the past five (5) years has increased or decreased the City's vulnerability (i.e., exposure) and impact 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 17. Changes in Development: Current and Future Vulnerability and Impact

Hazard	Vulnerability and Impact
Current Vulnerability and Impact	
Dam Failure	Remained the Same
Drought	Increased
Earthquake	Increased
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	Increased
Landslide	Increased
Sea Level Rise	Increased
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	Increased
Tsunami	Not Applicable
Wildfire	Increased
Future Vulnerability and Impact	
Dam Failure	No Change Anticipated

Hazard	Vulnerability and Impact
Drought	Increase
Earthquake	Increase
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	Increase
Landslide	Increase
Sea Level Rise	Increase
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	Increase
Tsunami	Not Applicable
Wildfire	Increase

8.1. Future Major Assets

Community assets should include anything that is important to a community's character and function. Assets include people (i.e., underserved population); structures (i.e., new and existing buildings); community lifelines and other critical facilities; natural, historic, and cultural resources; and the economy and other activities that have value to the community. Although all assets may be affected by the hazards identified in this LHMP, the jurisdiction has identified future major assets that may be more vulnerable and impacted by these hazards.

- Fire Station 52 is situated within the FHSZ and is in proximity to the San Andreas Fault. Although the Station will be relocated, its subsequent location will also be within these designated zones.

Any new assets (e.g., new construction in hazard-prone areas) will be built to comply with the latest building codes and standards, and will be mitigated to protect them from identified and anticipated hazards, especially those expected to increase due to climate change.

9. HAZARD RISK RANKING

Table 18 presents the local hazard ranking for the City of San Bruno of all hazards of concern listed in **Volume 1** of this Plan. This ranking summarizes how hazards vary for this jurisdiction. As thoroughly described in **Volume 1** of this Plan, 14 factors were evaluated to provide an informed and comprehensive analysis and ranking of the hazards included in this LHMP.

- **Probability** (likelihood of annual occurrence)
- **Extent** of the hazard, including catastrophic potential
- **Vulnerability** (i.e., exposure) of the population, property (including critical infrastructure), and changes in the development (over the past five (5) years)
- **Impacts** on population and life safety, underserved population, property (including critical infrastructure), the economy, the environment, continuity of operations/delivery of services, future development, and climate change

The scores for extent, vulnerability, and impact were weighted and combined to produce a consequence score. This consequence score was then multiplied by the probability score to calculate the total risk score for each hazard. At the fundamental level, the consequence is an assessment of the potential impact(s) if the hazards incident were to occur. In this assessment, the consequence score (i.e., the consequence of an event) will be independent of the extent, vulnerability, and impacts. The probability of the hazards is not included in assessing the consequence because, without an event, there is no consequence or impact. For further details on how the probability, extent, vulnerability, and impact factors in **Table 18** were calculated, please refer to Chapter 4 in **Volume 1** of this Plan. Details of the hazard ranking results are provided in Appendix C of this Annex.

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

Table 18. City of San Bruno 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*
Urban/Flash Flooding ***(Flood)***	3	18	14	32	64	89
Heavy Rainfall ***(Severe Weather)***	3	12	13	23	48	67
Earthquake	2	18	14	35	67	62
Strong Winds ***(Severe Weather)***	3	6	13	22	41	57
Wildfire	2	18	10	34	62	57
Heat Wave/Extreme Heat ***(Severe Weather)***	3	9	10	15	34	47
Landslide	2	9	9	33	51	47
Sea Level Rise	3	6	5	20	31	43
Riverine Flooding ***(Flood)***	2	12	6	28	46	43
Severe Thunderstorm ***(Severe Weather)***	2	12	13	21	46	43
Drought	2	6	11	22	39	36
Tornado ***(Severe Weather)***	1	6	13	13	32	15
Fog ***(Severe Weather)***	1	6	9	11	26	12
Dam Failure	1	6	5	12	23	11
Coastal Flooding ***(Flood)***	0	0	0	0	0	0
Tsunami	0	0	0	0	0	0

Extent: Sum of the weighted Extent factors.
Vulnerability: Sum of the weighted Vulnerability factors.
Impact: Sum of the weighted Impact factors.

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

Total Risk Score Legend

Classification	Probability	Extent	Vulnerability	Impact	Consequence Score	Total Risk Score
Low (L)	1	0 – 6	0 – 4	0 – 12	0 – 24	0 – 32
Medium (M)	2	7 – 12	5 – 10	13 – 26	25 – 48	33 – 66
High (H)	3	13 – 18	11 – 15	27 – 39	49 – 72	67 – 100

*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.*

10. MITIGATION ACTIONS

This section includes the mitigation actions developed to address the risks and vulnerabilities to the 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. Additionally, all mitigation actions identified in the 2021 update or before were updated accordingly. Any new mitigation actions are listed as *New* (under Project Status).

The City of San Bruno agreed to **28** mitigation actions that apply to the jurisdiction's properties for which it has jurisdictional responsibility and authority. A summary of the City's mitigation actions status is listed in **Table 19**.

Note: The mitigation actions outlined in this Plan are designed only to address those natural hazards that received a risk ranking of *medium* or *high* during the hazard risk assessment (**Table 18**). Hazards that ranked *low* (dam failure and tsunami) may not have specific mitigation actions detailed in this document.

Table 19. City of San Bruno Mitigation Actions Summary

Status	Mitigation Action Total
Continuing	10
In Progress	18
Not Yet Started	0
New	0
TOTAL	**28**
Completed	2
No Longer Needed	0

Mitigation Actions per Hazard			
Dam Failure	19	Sea Level Rise	20
Drought	13	Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	25
Earthquake	19	Tsunami	n/a
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	26	Wildfire	21
Landslide	19		

A detailed explanation of the Mitigation Strategy can be found in Chapter 5 of **Volume 1**.

Mitigation Action	Expand the "Get Ready" Campaign to provide residents with information on disaster preparedness and community resilience, which will strengthen long-term community resilience by empowering residents to identify and reduce physical vulnerabilities before a disaster occurs.				
Action Number	SB-1	**Goal(s) Addressed**	1, 2	**Prioritization Score**	32/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Wildfire				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	San Bruno Fire Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time)		
Additional Details *(optional)*					

Mitigation Action	Establish a formal partnership with local care facilities to provide specialized training on hazard risk reduction and long-term operational continuity, ensuring that facilities caring for the underserved population can implement mitigation initiatives to reduce life safety risks during an emergency or major disaster.				
Action Number	SB-2	**Goal(s) Addressed**	1, 2	**Prioritization Score**	31/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Wildfire				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	San Bruno Fire Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time)		
Additional Details *(optional)*					

Mitigation Action	Establish water resource redundancy to ensure continuous and adequate supply for critical operations during emergencies and disaster recovery. This will reduce the risk of system disruptions and ensure continuity of services following an emergency or major disaster.				
Action Number	SB-3	**Goal(s) Addressed**	1, 3, 5	**Prioritization Score**	37/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated		Drought, Earthquake, Flood, Severe Weather, Wildfire			
Project Status		In Progress	If *No Longer Needed*, provide reason.	n/a	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization		City of San Bruno Public Works Department			
Supporting Agency / Organization *(If applicable)*		n/a			
Additional Participating Jurisdictions *(If Applicable)*		n/a			
Estimated Cost		Low	**Potential Funding Source**	General Fund (Staff Time), Water Funds, HMGP, FMA, CDBG	
Additional Details *(optional)*					

Mitigation Action	Conduct a drought vulnerability assessment to identify and implement permanent water conservation measures that increase long-term supply reliability and reduce the community's susceptibility to water shortages.				
Action Number	SB-4	**Goal(s) Addressed**	1, 3, 4, 5	**Prioritization Score**	40/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Drought				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of San Bruno Public Works Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time), Water Funds, HMGP, FMA, CDBG		
Additional Details *(optional)*					

Mitigation Action	Upgrade the City's stormwater system by increasing structural capacity to address inadequate drainage and reduce risk of local flooding.				
Action Number	SB-5	**Goal(s) Addressed**	1, 3, 4	**Prioritization Score**	36/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Flood, Sea Level Rise, Severe Weather				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of San Bruno Public Works Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	High	**Potential Funding Source**	General Fund (Staff Time), Bond Funds, HMGP, FMA, CDBG		
Additional Details *(optional)*					

Mitigation Action	Continue to keep good standing and compliance with the National Flood Insurance Program (NFIP) by implementing floodplain management programs that, at a minimum, meet NFIP requirements. These include, but are not limited to, enforcing the City's flood damage prevention ordinance, participating in floodplain identification and mapping updates, and providing public assistance/information on floodplain requirements and impacts.				
Action Number	SB-6	**Goal(s) Addressed**	1, 2, 3, 4, 5	**Prioritization Score**	33/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Flood, Sea Level Rise, Severe Weather				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of San Bruno Public Works Department, City of San Bruno Community Development Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Medium	**Potential Funding Source**	General Fund (Staff Time)		
Additional Details *(optional)*					

Mitigation Action	Establish a formal multi-jurisdictional partnership to coordinate floodplain management and implement shared risk reduction strategies.				
Action Number	SB-7	**Goal(s) Addressed**	1, 3, 4, 5	**Prioritization Score**	39/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Flood, Sea Level Rise, Severe Weather				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of San Bruno Public Works Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time)		
Additional Details *(optional)*					

Mitigation Action	Establish local funding mechanisms for stormwater flood mitigation.				
Action Number	SB-8	**Goal(s) Addressed**	n/a	**Prioritization Score**	n/a
Year Added to the Plan	2016	**Timeline** *(estimated)*	n/a	**Implementation Priority**	n/a
Hazard(s) Mitigated	Flood, Sea Level Rise				
Project Status	Completed	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	n/a				
Lead Agency / Organization	n/a				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	n/a	**Potential Funding Source**	n/a		
Additional Details *(optional)*					

Mitigation Action	Implement an urban/flash flood outreach program to provide property owners with information on urban/flash flooding impacts, preparedness actions, and the technical data and safety information needed to implement onsite mitigation measures. Increasing awareness empowers property owners to reduce physical vulnerabilities.				
Action Number	SB-9	**Goal(s) Addressed**	1, 2, 5	**Prioritization Score**	39/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	2 to 3 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Flood, Severe Weather				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of San Bruno Public Works Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time), HMGP, FMA		
Additional Details *(optional)*					

Mitigation Action	Conduct a sea level rise vulnerability assessment for the City that identifies vulnerable infrastructure, land use planning initiatives, and long-term mitigation activities to reduce the impacts of sea level rise.				
Action Number	SB-10	**Goal(s) Addressed**	1, 3, 4	**Prioritization Score**	38/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Flood, Sea Level Rise, Severe Weather				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of San Bruno Public Works Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Medium	**Potential Funding Source**	General Fund (Staff Time), CDBG		
Additional Details *(optional)*					

Mitigation Action	Upon completing the sea level rise assessment (mitigation action SB-10), implement mitigation initiatives to reduce the vulnerability and risk of sea level rise in the City. Mitigation actions will be identified for inclusion the San Mateo County Local Hazard Mitigation Plan.				
Action Number	SB-11	**Goal(s) Addressed**	1, 3, 4, 5	**Prioritization Score**	36/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Flood, Sea Level Rise				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of San Bruno Public Works Department, City of San Bruno Community Development Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	High	**Potential Funding Source**	General Fund (Staff Time), HMGP, FMA		
Additional Details *(optional)*					

Mitigation Action	Implement structural retrofits or replacements of critical infrastructures and facilities, including backup facilities, to eliminate or reduce known vulnerabilities and impacts to natural hazards. Physical hardening will help maintain operational continuity after an emergency or major disaster.				
Action Number	SB-12	**Goal(s) Addressed**	1, 2, 3, 4, 5	**Prioritization Score**	32/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of San Bruno Public Works Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	High	**Potential Funding Source**	General Fund (Staff Time), HMGP, FMA, CDBG		
Additional Details *(optional)*					

Mitigation Action	Institutionalize and sustain specialized Incident Command System (ICS)-based command training for supervisory personnel to ensure technical capacity required to maintain operational continuity and minimize systemic failure during emergencies and major disasters.				
Action Number	SB-13	**Goal(s) Addressed**	1, 5	**Prioritization Score**	40/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Wildfire				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of San Bruno Police Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time)		
Additional Details *(optional)*					

Mitigation Action	Enhance radio communications at critical areas in the City, including the mall and the Crossings Complex, to help reduce life safety risks during emergencies and disasters.				
Action Number	SB-14	**Goal(s) Addressed**	1, 2	**Prioritization Score**	37/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Earthquake, Flood, Landslide, Severe Weather, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of San Bruno Police Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	High	**Potential Funding Source**	General Fund (Staff Time), City Capital Improvement funds		
Additional Details *(optional)*					

Mitigation Action	Enhance the security of the police station facility to include the repair and replacement of the video system, intercom system, and keyless access system.				
Action Number	SB-15	**Goal(s) Addressed**	n/a	**Prioritization Score**	n/a
Year Added to the Plan	2016	**Timeline** *(estimated)*	n/a	**Implementation Priority**	n/a
Hazard(s) Mitigated	Earthquake, Flood, Landslide, Severe Weather, Wildfire				
Project Status	Completed	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	n/a				
Lead Agency / Organization	n/a				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	n/a	**Potential Funding Source**	n/a		
Additional Details *(optional)*					

Mitigation Action	Strengthen community resilience and risk reduction capabilities through the Community Preparedness Advisory Committee and the Community Emergency Response Team (CERT) program to build a permanent foundation of disaster resilience within the community.				
Action Number	SB-16	**Goal(s) Addressed**	1, 2, 5	**Prioritization Score**	34/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Wildfire				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	San Bruno Fire Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time)		
Additional Details *(optional)*					

Mitigation Action	Implement a Vegetation Management Program that focuses on the systematic clearing and fuel load reduction of the City's right-of-way, easements, and open spaces.				
Action Number	SB-17	**Goal(s) Addressed**	1, 3, 4, 5	**Prioritization Score**	39/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	San Bruno Fire Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Medium	**Potential Funding Source**	General Fund (Staff Time), City Capital Improvement funds		
Additional Details *(optional)*					

Mitigation Action	Integrate the San Mateo County Local Hazard Mitigation Plan into other City plans, ordinances, and programs that govern land use decisions in the community, including, but not limited to, the General Plan (and its elements, as appropriate) and the City's Climate Action Plan.				
Action Number	SB-18	**Goal(s) Addressed**	1, 5	**Prioritization Score**	39/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Wildfire				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	San Bruno Community Development Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time)		
Additional Details *(optional)*					

Mitigation Action	Collaborate with building officials to identify ways to obtain the City's Building Code Effectiveness Grading Schedule (BCEGS) classification. Obtaining this classification will ensure the City's building codes and enforcement practices meet a certain standard that supports long-term risk reduction.				
Action Number	SB-19	**Goal(s) Addressed**	1, 2	**Prioritization Score**	32/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	2 to 3 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of San Bruno Community Development Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time)		
Additional Details *(optional)*					

Mitigation Action	Establish a formal partnership with the American Red Cross to institutionalize short-term sheltering capacity and resources for the community with the intention to reduce the vulnerability of displaced populations, including underserved populations.				
Action Number	SB-20	**Goal(s) Addressed**	1, 4, 5	**Prioritization Score**	35/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Earthquake, Flood, Landslide, Severe Weather, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of San Bruno Community Development Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Medium	**Potential Funding Source**	General Fund (Staff Time), EMPG, HSGP		
Additional Details *(optional)*					

Mitigation Action	Implement and enforce a recurring professional development program for City building inspectors which focuses on specialized residential retrofitting techniques and structural hardening with the intent to reduce long-term property vulnerability.				
Action Number	SB-21	**Goal(s) Addressed**	1, 5	**Prioritization Score**	31/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Wildfire				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of San Bruno Community Development Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time)		
Additional Details *(optional)*					

Mitigation Action	Implement and enforce employee training and support continued education to ensure enforcement of building codes and construction standards, as well as identification of typical design inadequacies of housing and recommended improvements with the intent to reduce long-term physical vulnerability within the community.				
Action Number	SB-22	**Goal(s) Addressed**	1, 5	**Prioritization Score**	32/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Wildfire				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of San Bruno Community Development Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time)		
Additional Details *(optional)*					

Mitigation Action	Develop, adopt, and implement a Pre-Disaster Recovery Plan to prioritize long-term risk reduction and identifies opportunities to incorporate mitigation measures into recovery processes. By formalizing roles, responsibilities, and priorities for the City government, it ensure the City's rebuilding efforts focus on reducing community vulnerability and prevent recurring damages.				
Action Number	SB-23	**Goal(s) Addressed**	1, 3, 4, 5	**Prioritization Score**	30/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	2 to 3 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of San Bruno Manager's Office				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time)		
Additional Details *(optional)*					

Mitigation Action	Formalize and adopt a Recovery Plan that institutionalizes long-term risk reduction as a core component of post-disaster reconstruction and integrates resilience standards into the City's response planning. The Plan will outline key issues and recovery tasks to ensure resilient standards are implemented into land use planning and all future redevelopment to minimize hazard vulnerability and impact, among others.				
Action Number	SB-24	**Goal(s) Addressed**	5	**Prioritization Score**	35/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	2 to 3 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of San Bruno Manager's Office				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Medium	**Potential Funding Source**	General Fund (Staff Time)		
Additional Details *(optional)*					

Mitigation Action	Retrofit older downtown areas and redevelopment districts to protect architectural diversity and promote disaster resilience.				
Action Number	SB-25	**Goal(s) Addressed**	1, 3	**Prioritization Score**	40/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of San Bruno Community Development Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	High	**Potential Funding Source**	General Fund (Staff Time), Public-Private Partnerships funds		
Additional Details *(optional)*					

Mitigation Action	Expand the City's public outreach program to build community mitigation capability, broaden awareness on emergency alert notification, and increase participation in the SMC Alert (the County's official emergency notification system).				
Action Number	SB-26	**Goal(s) Addressed**	1, 2, 4, 5	**Prioritization Score**	38/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Wildfire				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	San Bruno Fire Department, City of San Bruno Police Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time)		
Additional Details *(optional)*					

Mitigation Action	Update, adopt, and implement the City's Emergency Operations Plan (EOP) to include integration of the San Mateo County Local Hazard Mitigation Plan. The EOP will help maintain continuity of operations and service delivery, potentially reducing the community impacts during and after an emergency or major disaster.				
Action Number	SB-27	**Goal(s) Addressed**	1, 5	**Prioritization Score**	40/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	2 to 3 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	San Bruno Fire Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Medium	**Potential Funding Source**	General Fund (Staff Time), EMPG, HSGP		
Additional Details *(optional)*					

Mitigation Action	Leverage community mitigation frameworks such as, Tree City, StormReady, and the National Flood Insurance Program Community Rating System (CRS) to optimize emergency notification systems and incentivize hazard reduction on private property.				
Action Number	SB-28	**Goal(s) Addressed**	1, 2, 3, 5	**Prioritization Score**	29/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	Medium
Hazard(s) Mitigated	Dam Failure, Drought, Flood, Landslide, Severe Weather, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of San Bruno Community Development Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time)		
Additional Details *(optional)*					

Mitigation Action	Actively participate in the Hazard Mitigation Plan maintenance protocols outlined in Volume 1 of the San Mateo County Local Hazard Mitigation Plan.				
Action Number	SB-29	**Goal(s) Addressed**	1, 2, 3, 4, 5	**Prioritization Score**	32/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Wildfire				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	San Bruno Fire Department				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time)		
Additional Details *(optional)*					

Mitigation Action	Acquire portable power systems (e.g., generators, solar, and battery-powered systems) for emergency backup power at critical facilities and infrastructure that lack backup systems, ensuring continuous power and operational resilience and reducing service interruptions following emergencies and disasters.				
Action Number	SB-30	**Goal(s) Addressed**	1, 3, 5	**Prioritization Score**	38/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated		Dam Failure, Earthquake, Flood, Landslide, Severe Weather, Wildfire			
Project Status		In Progress	If *No Longer Needed*, provide reason.	n/a	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization		City of San Bruno Public Works Department			
Supporting Agency / Organization *(If applicable)*		n/a			
Additional Participating Jurisdictions *(If Applicable)*		n/a			
Estimated Cost		High	**Potential Funding Source**	General Fund (Staff Time), Utility funds, Transportation funds, CDBG	
Additional Details *(optional)*					

APPENDIX A. HAZARD MAPS

[Maps are under development…]

APPENDIX B. STAKEHOLDER AND PUBLIC ENGAGEMENT

[Information and supporting documentation will be added after the Public Comment Period concludes.]

APPENDIX C. HAZARD RISK RANKING DETAILS

This appendix provides the details of the hazard ranking results presented in Section 9 of this Annex. For a comprehensive explanation of the risk assessment methodology used for the 2026 LHMP rankings, refer to Chapter 4 in **Volume 1** of this Plan.

C.1. Probability of Occurrence

Hazard Event	Probability of Occurrence		Probability Factor	Weighted Factor
Dam Failure	Low	A significant hazard event is likely to occur within 100 years.	1	N/A
Drought	Medium	A significant hazard event is likely to occur within 25 years.	2	N/A
Earthquake	Medium	A significant hazard event is likely to occur within 25 years.	2	N/A
Riverine Flooding ***(Flood)***	Medium	A significant hazard event is likely to occur within 25 years.	2	N/A
Urban/Flash Flooding ***(Flood)***	High	A significant hazard event is likely to occur annually.	3	N/A
Coastal Flooding ***(Flood)***	Unlikely	There is little to no probability of a significant occurrence, or the recurrence interval is greater than every 100 years.	0	N/A
Landslide	Medium	A significant hazard event is likely to occur within 25 years.	2	N/A
Sea Level Rise	High	A significant hazard event is likely to occur annually.	3	N/A
Heavy Rainfall ***(Severe Weather)***	High	A significant hazard event is likely to occur annually.	3	N/A
Heat Wave/Extreme Heat ***(Severe Weather)***	High	A significant hazard event is likely to occur annually.	3	N/A
Fog ***(Severe Weather)***	Low	A significant hazard event is likely to occur within 100 years.	1	N/A
Severe Thunderstorm ***(Severe Weather)***	Medium	A significant hazard event is likely to occur within 25 years.	2	N/A
Tornado ***(Severe Weather)***	Low	A significant hazard event is likely to occur within 100 years.	1	N/A
Strong Winds ***(Severe Weather)***	High	A significant hazard event is likely to occur annually.	3	N/A
Tsunami	Unlikely	There is little to no probability of a significant occurrence, or the recurrence interval is greater than every 100 years.	0	N/A

Hazard Event	Probability of Occurrence		Probability Factor	Weighted Factor
Wildfire	Medium	A significant hazard event is likely to occur within 25 years.	2	N/A

C.2. Extent Factors

Hazard Event	Extent Factor	Extent		Extent Factor	Weighted Factor	Score
Dam Failure	***Extent/Severity***	Low	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a low-intensity incident.	1	3	3
	Catastrophic	Low	Low potential that this hazard could be catastrophic.	1	3	3
Drought	***Extent/Severity***	Low	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a low-intensity incident.	1	3	3
	Catastrophic	Low	Low potential that this hazard could be catastrophic.	1	3	3
Earthquake	***Extent/Severity***	High	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a high-intensity incident.	3	3	9
	Catastrophic	High	High potential that this hazard could be catastrophic.	3	3	9
Riverine Flooding ***(Flood)***	***Extent/Severity***	Medium	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a medium-intensity incident.	2	3	6
	Catastrophic	Medium	Medium potential that this hazard could be catastrophic.	2	3	6
Urban/Flash Flooding ***(Flood)***	***Extent/Severity***	High	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a high-intensity incident.	3	3	9
	Catastrophic	High	High potential that this hazard could be catastrophic.	3	3	9
Coastal Flooding ***(Flood)***	***Extent/Severity***	Unlikely	Historical and/or probabilistic models/studies for this hazard indicate the possibility of little to no intensity.	0	3	0
	Catastrophic	Unlikely	Virtually no probability that this hazard could be catastrophic.	0	3	0

Hazard Event	Extent Factor	Extent		Extent Factor	Weighted Factor	Score
Landslide	***Extent/Severity***	Medium	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a medium-intensity incident.	2	3	6
	Catastrophic	Low	Low potential that this hazard could be catastrophic.	1	3	3
Sea Level Rise	***Extent/Severity***	Low	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a low-intensity incident.	1	3	3
	Catastrophic	Low	Low potential that this hazard could be catastrophic.	1	3	3
Heavy Rainfall ***(Severe Weather)***	***Extent/Severity***	Medium	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a medium-intensity incident.	2	3	6
	Catastrophic	Medium	Medium potential that this hazard could be catastrophic.	2	3	6
Heat Wave/Extreme Heat ***(Severe Weather)***	***Extent/Severity***	Medium	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a medium-intensity incident.	2	3	6
	Catastrophic	Low	Low potential that this hazard could be catastrophic.	1	3	3
Fog ***(Severe Weather)***	***Extent/Severity***	Low	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a low-intensity incident.	1	3	3
	Catastrophic	Low	Low potential that this hazard could be catastrophic.	1	3	3
Severe Thunderstorm ***(Severe Weather)***	***Extent/Severity***	Medium	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a medium-intensity incident.	2	3	6
	Catastrophic	Medium	Medium potential that this hazard could be catastrophic.	2	3	6
Tornado ***(Severe Weather)***	***Extent/Severity***	Low	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a low-intensity incident.	1	3	3
	Catastrophic	Low	Low potential that this hazard could be catastrophic.	1	3	3

Hazard Event	Extent Factor	Extent		Extent Factor	Weighted Factor	Score
Strong Winds *(Severe Weather)*	***Extent/Severity***	Low	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a low-intensity incident.	1	3	3
	Catastrophic	Low	Low potential that this hazard could be catastrophic.	1	3	3
Tsunami	***Extent/Severity***	Unlikely	Historical and/or probabilistic models/studies for this hazard indicate the possibility of little to no intensity.	0	3	0
	Catastrophic	Unlikely	Virtually no probability that this hazard could be catastrophic.	0	3	0
Wildfire	***Extent/Severity***	High	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a high-intensity incident.	3	3	9
	Catastrophic	High	High potential that this hazard could be catastrophic.	3	3	9

C.3. Vulnerability Factors

Hazard Event	Vulnerability Factor	Vulnerability		Vulnerability Factor	Weighted Factor	Score
Dam Failure	***Population Exposure***	Low	14% or less of the population is exposed to the hazard.	1	3	3
	Property Exposure	Low	9% or less of the total assessed property value is exposed to a hazard.	1	1	1
	Changes in Development	Low	Changes in development have increased the community's exposure to the hazard by 4% or less.	1	1	1
Drought	***Population Exposure***	High	30% or more of the population is exposed to the hazard.	3	3	9
	Property Exposure	Low	9% or less of the total assessed property value is exposed to a hazard.	1	1	1
	Changes in Development	Low	Changes in development have increased the community's exposure to the hazard by 4% or less.	1	1	1

Hazard Event	Vulnerability Factor	Vulnerability		Vulnerability Factor	Weighted Factor	Score
Earthquake	***Population Exposure***	High	30% or more of the population is exposed to the hazard.	3	3	9
	Property Exposure	High	25% or more of the total assessed property value is exposed to the hazard.	3	1	3
	Changes in Development	Medium	Changes in development have increased the community's exposure to the hazard between 5% and 9%.	2	1	2
Riverine Flooding ***(Flood)***	***Population Exposure***	Low	14% or less of the population is exposed to the hazard.	1	3	3
	Property Exposure	Medium	10% to 24% of the total assessed property value is exposed to a hazard.	2	1	2
	Changes in Development	Low	Changes in development have increased the community's exposure to the hazard by 4% or less.	1	1	1
Urban/Flash Flooding ***(Flood)***	***Population Exposure***	High	30% or more of the population is exposed to the hazard.	3	3	9
	Property Exposure	High	25% or more of the total assessed property value is exposed to the hazard.	3	1	3
	Changes in Development	Medium	Changes in development have increased the community's exposure to the hazard between 5% and 9%.	2	1	2
Coastal Flooding ***(Flood)***	***Population Exposure***	No Vulnerability	None of the population is exposed to the hazard.	0	3	0
	Property Exposure	No Vulnerability	None of the total assessed property value is exposed to a hazard.	0	1	0
	Changes in Development	No Vulnerability	Changes in development have had no effect and/or have decreased the community's exposure to the hazard.	0	1	0
Landslide	***Population Exposure***	Medium	15% to 29% of the population is exposed to the hazard.	2	3	6
	Property Exposure	Medium	10% to 24% of the total assessed property value is exposed to a hazard.	2	1	2
	Changes in Development	Low	Changes in development have increased the community's exposure to the hazard by 4% or less.	1	1	1

Hazard Event	Vulnerability Factor	Vulnerability		Vulnerability Factor	Weighted Factor	Score
Sea Level Rise	***Population Exposure***	Low	14% or less of the population is exposed to the hazard.	1	3	3
	Property Exposure	Low	9% or less of the total assessed property value is exposed to a hazard.	1	1	1
	Changes in Development	Low	Changes in development have increased the community's exposure to the hazard by 4% or less.	1	1	1
Heavy Rainfall ***(Severe Weather)***	***Population Exposure***	High	30% or more of the population is exposed to the hazard.	3	3	9
	Property Exposure	High	25% or more of the total assessed property value is exposed to the hazard.	3	1	3
	Changes in Development	Low	Changes in development have increased the community's exposure to the hazard by 4% or less.	1	1	1
Heat Wave/Extreme Heat ***(Severe Weather)***	***Population Exposure***	High	30% or more of the population is exposed to the hazard.	3	3	9
	Property Exposure	No Vulnerability	None of the total assessed property value is exposed to a hazard.	0	1	0
	Changes in Development	Low	Changes in development have increased the community's exposure to the hazard by 4% or less.	1	1	1
Fog ***(Severe Weather)***	***Population Exposure***	High	30% or more of the population is exposed to the hazard.	3	3	9
	Property Exposure	No Vulnerability	None of the total assessed property value is exposed to a hazard.	0	1	0
	Changes in Development	No Vulnerability	Changes in development have had no effect and/or have decreased the community's exposure to the hazard.	0	1	0
Severe Thunderstorm ***(Severe Weather)***	***Population Exposure***	High	30% or more of the population is exposed to the hazard.	3	3	9
	Property Exposure	High	25% or more of the total assessed property value is exposed to the hazard.	3	1	3
	Changes in Development	Low	Changes in development have increased the community's exposure to the hazard by 4% or less.	1	1	1

Hazard Event	Vulnerability Factor	Vulnerability		Vulnerability Factor	Weighted Factor	Score
Tornado ***(Severe Weather)***	***Population Exposure***	High	30% or more of the population is exposed to the hazard.	3	3	9
	Property Exposure	High	25% or more of the total assessed property value is exposed to the hazard.	3	1	3
	Changes in Development	Low	Changes in development have increased the community's exposure to the hazard by 4% or less.	1	1	1
Strong Winds ***(Severe Weather)***	***Population Exposure***	High	30% or more of the population is exposed to the hazard.	3	3	9
	Property Exposure	High	25% or more of the total assessed property value is exposed to the hazard.	3	1	3
	Changes in Development	Low	Changes in development have increased the community's exposure to the hazard by 4% or less.	1	1	1
Tsunami	***Population Exposure***	No Vulnerability	None of the population is exposed to the hazard.	0	3	0
	Property Exposure	No Vulnerability	None of the total assessed property value is exposed to a hazard.	0	1	0
	Changes in Development	No Vulnerability	Changes in development have had no effect and/or have decreased the community's exposure to the hazard.	0	1	0
Wildfire	***Population Exposure***	Medium	15% to 29% of the population is exposed to the hazard.	2	3	6
	Property Exposure	Medium	10% to 24% of the total assessed property value is exposed to a hazard.	2	1	2
	Changes in Development	Medium	Changes in development have increased the community's exposure to the hazard between 5% and 9%.	2	1	2

C.4. Impact Factors

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Dam Failure	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3	3
	Underserved Population	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3	3
	Property, Facilities, and Critical Infrastructure	Low	Less than $500,000 in property, facilities, and infrastructure damages is expected from a single significant event, or damages are expected to occur to less than 5% of the property value within the jurisdiction.	1	2	2
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1	1
	Environmental	Low	Environmental impact from a single significant event is likely to be minimal, requiring little to no outside resources and support; and/or minimal repair, cleanup, restoration, or preservation work.	1	1	1
	Continuity of Operations/Delivery of Services	Low	Impact lasting 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 significant event.	1	1	1
	Future Development	Low	Future development trends will minimally increase the impacts of this hazard.	1	1	1
	Climate Change	No Impact	Climate change trends will not increase the impacts of this hazard.	0	1	0

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Drought	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3	3
	Underserved Population	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	3	6
	Property, Facilities, and Critical Infrastructure	Low	Less than $500,000 in property, facilities, and infrastructure damages is expected from a single significant event, or damages are expected to occur to less than 5% of the property value within the jurisdiction.	1	2	2
	Economic	Medium	Total economic impact is likely to be greater than $100,000, but less than or equal to $10 million.	2	1	2
	Environmental	Medium	Environmental impact from a single significant event is likely to be localized, requiring some outside resources and support; and/or repair, cleanup, restoration, or preservation work.	2	1	2
	Continuity of Operations/Delivery of Services	Medium	Impact lasting 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 significant event.	2	1	2
	Future Development	Medium	Future development trends will increase the impacts of this hazard, but not significantly.	2	1	2
	Climate Change	High	Climate Change trends will significantly increase the impacts of this hazard.	3	1	3

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
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	3	9
	Underserved Population	High	Underserved populations exposed to the hazard are likely to experience significant adverse/disproportionate impacts, such as fatalities and severe injuries.	3	3	9
	Property, Facilities, and Critical Infrastructure	High	More than $5 million in property, facilities, and infrastructure damage is expected from a single significant event, or damages are expected to occur to 15% or more of the property value within the jurisdiction.	3	2	6
	Economic	High	Total economic impact is likely to be greater than $10 million.	3	1	3
	Environmental	High	Environmental impact from a single significant event is likely to be substantial, requiring extensive outside resources and support; and/or repair, cleanup, restoration, and/or preservation work.	3	1	3
	Continuity of Operations/Delivery of Services	High	Impact lasting more 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 significant event.	3	1	3
	Future Development	Medium	Future development trends will increase the impacts of this hazard, but not significantly.	2	1	2
	Climate Change	No Impact	Climate change trends will not increase the impacts of this hazard.	0	1	0

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Riverine Flooding *(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	3	6
	Underserved Population	High	Underserved populations exposed to the hazard are likely to experience significant adverse/disproportionate impacts, such as fatalities and severe injuries.	3	3	9
	Property, Facilities, and Critical Infrastructure	Medium	More than $500,000 but less than $5 million in property, facilities, and infrastructure damage is expected from a single significant event, or damages are expected to occur to more than 5% but less than 15% of the property value within the jurisdiction.	2	2	4
	Economic	Medium	Total economic impact is likely to be greater than $100,000, but less than or equal to $10 million.	2	1	2
	Environmental	Medium	Environmental impact from a single significant event is likely to be localized, requiring some outside resources and support; and/or repair, cleanup, restoration, or preservation work.	2	1	2
	Continuity of Operations/Delivery of Services	Low	Impact lasting 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 significant event.	1	1	1
	Future Development	Low	Future development trends will minimally increase the impacts of this hazard.	1	1	1
	Climate Change	High	Climate Change trends will significantly increase the impacts of this hazard.	3	1	3

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Urban/Flash Flooding ***(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	3	6
	Underserved Population	High	Underserved populations exposed to the hazard are likely to experience significant adverse/disproportionate impacts, such as fatalities and severe injuries.	3	3	9
	Property, Facilities, and Critical Infrastructure	High	More than $5 million in property, facilities, and infrastructure damage is expected from a single significant event, or damages are expected to occur to 15% or more of the property value within the jurisdiction.	3	2	6
	Economic	Medium	Total economic impact is likely to be greater than $100,000, but less than or equal to $10 million.	2	1	2
	Environmental	Medium	Environmental impact from a single significant event is likely to be localized, requiring some outside resources and support; and/or repair, cleanup, restoration, or preservation work.	2	1	2
	Continuity of Operations/Delivery of Services	Medium	Impact lasting 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 significant event.	2	1	2
	Future Development	Medium	Future development trends will increase the impacts of this hazard, but not significantly.	2	1	2
	Climate Change	High	Climate Change trends will significantly increase the impacts of this hazard.	3	1	3

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Coastal Flooding *(Flood)*	***Population and Life Safety***	No Impact	Populations exposed to this hazard are not likely to experience significant adverse impacts.	0	3	0
	Underserved Population	No Impact	Underserved populations exposed to the hazard are not likely to experience significant adverse/disproportionate impacts.	0	3	0
	Property, Facilities, and Critical Infrastructure	No Impact	Little to no property, facilities, and infrastructure damage is expected from a single significant event.	0	2	0
	Economic	No Impact	Virtually no significant economic impact.	0	1	0
	Environmental	No Impact	No environmental impacts from a significant event are likely.	0	1	0
	Continuity of Operations/Delivery of Services	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 significant event.	0	1	0
	Future Development	No Impact	Future development trends will not increase the impacts of this hazard, and/or may even decrease it.	0	1	0
	Climate Change	No Impact	Climate change trends will not increase the impacts of this hazard.	0	1	0

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Landslide	***Population and Life Safety***	High	Populations exposed to this hazard are likely to experience significant adverse impacts, such as fatalities and severe injuries.	3	3	9
	Underserved Population	High	Underserved populations exposed to the hazard are likely to experience significant adverse/disproportionate impacts, such as fatalities and severe injuries.	3	3	9
	Property, Facilities, and Critical Infrastructure	High	More than $5 million in property, facilities, and infrastructure damage is expected from a single significant event, or damages are expected to occur to 15% or more of the property value within the jurisdiction.	3	2	6
	Economic	Medium	Total economic impact is likely to be greater than $100,000, but less than or equal to $10 million.	2	1	2
	Environmental	Medium	Environmental impact from a single significant event is likely to be localized, requiring some outside resources and support; and/or repair, cleanup, restoration, or preservation work.	2	1	2
	Continuity of Operations/Delivery of Services	Medium	Impact lasting 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 significant event.	2	1	2
	Future Development	Low	Future development trends will minimally increase the impacts of this hazard.	1	1	1
	Climate Change	Medium	Climate Change trends will increase the impacts of this hazard, but not significantly.	2	1	2

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Sea Level Rise	***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	3	6
	Underserved Population	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	3	6
	Property, Facilities, and Critical Infrastructure	Low	Less than $500,000 in property, facilities, and infrastructure damages is expected from a single significant event, or damages are expected to occur to less than 5% of the property value within the jurisdiction.	1	2	2
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1	1
	Environmental	Low	Environmental impact from a single significant event is likely to be minimal, requiring little to no outside resources and support; and/or minimal repair, cleanup, restoration, or preservation work.	1	1	1
	Continuity of Operations/Delivery of Services	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 significant event.	0	1	0
	Future Development	Low	Future development trends will minimally increase the impacts of this hazard.	1	1	1
	Climate Change	High	Climate Change trends will significantly increase the impacts of this hazard.	3	1	3

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
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	3
	Underserved Population	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	3	6
	Property, Facilities, and Critical Infrastructure	Medium	More than $500,000 but less than $5 million in property, facilities, and infrastructure damage is expected from a single significant event, or damages are expected to occur to more than 5% but less than 15% of the property value within the jurisdiction.	2	2	4
	Economic	Medium	Total economic impact is likely to be greater than $100,000, but less than or equal to $10 million.	2	1	2
	Environmental	Medium	Environmental impact from a single significant event is likely to be localized, requiring some outside resources and support; and/or repair, cleanup, restoration, or preservation work.	2	1	2
	Continuity of Operations/Delivery of Services	Medium	Impact lasting 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 significant event.	2	1	2
	Future Development	Medium	Future development trends will increase the impacts of this hazard, but not significantly.	2	1	2
	Climate Change	Medium	Climate Change trends will increase the impacts of this hazard, but not significantly.	2	1	2

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
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	3
	Underserved Population	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	3	6
	Property, Facilities, and Critical Infrastructure	No Impact	Little to no property, facilities, and infrastructure damage is expected from a single significant event.	0	2	0
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1	1
	Environmental	Low	Environmental impact from a single significant event is likely to be minimal, requiring little to no outside resources and support; and/or minimal repair, cleanup, restoration, or preservation work.	1	1	1
	Continuity of Operations/Delivery of Services	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 significant event.	0	1	0
	Future Development	Low	Future development trends will minimally increase the impacts of this hazard.	1	1	1
	Climate Change	High	Climate Change trends will significantly increase the impacts of this hazard.	3	1	3

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Fog *(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	3
	Underserved Population	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3	3
	Property, Facilities, and Critical Infrastructure	Low	Less than $500,000 in property, facilities, and infrastructure damages is expected from a single significant event, or damages are expected to occur to less than 5% of the property value within the jurisdiction.	1	2	2
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1	1
	Environmental	Low	Environmental impact from a single significant event is likely to be minimal, requiring little to no outside resources and support; and/or minimal repair, cleanup, restoration, or preservation work.	1	1	1
	Continuity of Operations/Delivery of Services	Low	Impact lasting 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 significant event.	1	1	1
	Future Development	No Impact	Future development trends will not increase the impacts of this hazard, and/or may even decrease it.	0	1	0
	Climate Change	No Impact	Climate change trends will not increase the impacts of this hazard.	0	1	0

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
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	3
	Underserved Population	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	3	6
	Property, Facilities, and Critical Infrastructure	Medium	More than $500,000 but less than $5 million in property, facilities, and infrastructure damage is expected from a single significant event, or damages are expected to occur to more than 5% but less than 15% of the property value within the jurisdiction.	2	2	4
	Economic	Medium	Total economic impact is likely to be greater than $100,000, but less than or equal to $10 million.	2	1	2
	Environmental	Medium	Environmental impact from a single significant event is likely to be localized, requiring some outside resources and support; and/or repair, cleanup, restoration, or preservation work.	2	1	2
	Continuity of Operations/Delivery of Services	Low	Impact lasting 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 significant event.	1	1	1
	Future Development	Medium	Future development trends will increase the impacts of this hazard, but not significantly.	2	1	2
	Climate Change	Low	Climate Change trends will minimally increase the impacts of this hazard.	1	1	1

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
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	3
	Underserved Population	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3	3
	Property, Facilities, and Critical Infrastructure	Low	Less than $500,000 in property, facilities, and infrastructure damages is expected from a single significant event, or damages are expected to occur to less than 5% of the property value within the jurisdiction.	1	2	2
	Economic	Medium	Total economic impact is likely to be greater than $100,000, but less than or equal to $10 million.	2	1	2
	Environmental	Low	Environmental impact from a single significant event is likely to be minimal, requiring little to no outside resources and support; and/or minimal repair, cleanup, restoration, or preservation work.	1	1	1
	Continuity of Operations/Delivery of Services	Low	Impact lasting 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 significant event.	1	1	1
	Future Development	Low	Future development trends will minimally increase the impacts of this hazard.	1	1	1
	Climate Change	Low	Climate Change trends will minimally increase the impacts of this hazard.	1	1	1

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Strong Winds *(Severe Weather)*	***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	3	6
	Underserved Population	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	3	6
	Property, Facilities, and Critical Infrastructure	Medium	More than $500,000 but less than $5 million in property, facilities, and infrastructure damage is expected from a single significant event, or damages are expected to occur to more than 5% but less than 15% of the property value within the jurisdiction.	2	2	4
	Economic	Medium	Total economic impact is likely to be greater than $100,000, but less than or equal to $10 million.	2	1	2
	Environmental	Low	Environmental impact from a single significant event is likely to be minimal, requiring little to no outside resources and support; and/or minimal repair, cleanup, restoration, or preservation work.	1	1	1
	Continuity of Operations/Delivery of Services	Low	Impact lasting 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 significant event.	1	1	1
	Future Development	Low	Future development trends will minimally increase the impacts of this hazard.	1	1	1
	Climate Change	Low	Climate Change trends will minimally increase the impacts of this hazard.	1	1	1

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Tsunami	***Population and Life Safety***	No Impact	Populations exposed to this hazard are not likely to experience significant adverse impacts.	0	3	0
	Underserved Population	No Impact	Underserved populations exposed to the hazard are not likely to experience significant adverse/disproportionate impacts.	0	3	0
	Property, Facilities, and Critical Infrastructure	No Impact	Little to no property, facilities, and infrastructure damage is expected from a single significant event.	0	2	0
	Economic	No Impact	Virtually no significant economic impact.	0	1	0
	Environmental	No Impact	No environmental impacts from a significant event are likely.	0	1	0
	Continuity of Operations/Delivery of Services	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 significant event.	0	1	0
	Future Development	No Impact	Future development trends will not increase the impacts of this hazard, and/or may even decrease it.	0	1	0
	Climate Change	No Impact	Climate change trends will not increase the impacts of this hazard.	0	1	0

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
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	3	6
	Underserved Population	High	Underserved populations exposed to the hazard are likely to experience significant adverse/disproportionate impacts, such as fatalities and severe injuries.	3	3	9
	Property, Facilities, and Critical Infrastructure	High	More than $5 million in property, facilities, and infrastructure damage is expected from a single significant event, or damages are expected to occur to 15% or more of the property value within the jurisdiction.	3	2	6
	Economic	Medium	Total economic impact is likely to be greater than $100,000, but less than or equal to $10 million.	2	1	2
	Environmental	High	Environmental impact from a single significant event is likely to be substantial, requiring extensive outside resources and support; and/or repair, cleanup, restoration, and/or preservation work.	3	1	3
	Continuity of Operations/Delivery of Services	High	Impact lasting more 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 significant event.	3	1	3
	Future Development	Medium	Future development trends will increase the impacts of this hazard, but not significantly.	2	1	2
	Climate Change	High	Climate Change trends will significantly increase the impacts of this hazard.	3	1	3

APPENDIX D. PLAN ADOPTION

[Placeholder for adoption documentation after State and FEMA approval]