COUNTY OF SAN MATEO
EMERGENCY MANAGEMENT

Local Hazard Mitigation Plan

San Mateo County, California

City of Redwood City Annex

2026

DRAFT

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This Annex details the hazard mitigation elements specific to the City of Redwood City, 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 Redwood City. 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 Redwood City 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
Shon Buford	Deputy Fire Chief	Redwood City Fire
Janice Cheung	Fire Marshal	Redwood City Fire
Terence Kyaw	Public Works Director	Public Works
Adrian Lee	Interim Public Works Services Director	Public Works
Vicki Sherman	Environmental Initiatives Coordinator	Public Works
Justin Chapel	Public Works Superintendent	Engineering and Transportation
Tanisha Werner	Director	Engineering and Transportation
Pam Lowe	Assistant Director	Engineering and Transportation
Paige Saber	Senior Civil Engineer	Parks and Recreation
Sarah La Torra	Director	Library Services
Lucas Wilder	Assistant Director	Planning
Apollo Rojas	Senior Planner	Planning
Sue Exline	Assistant Director/Planning Manager	Planning
Lindy Chan	Principal Planner	Planning
John Francis	Principal Planner	Community Development
Jeff Schwob	Director	Building
Christina McTaggart	Chief Building Official	City Attorney's Office
Lolita Fernandes	Deputy City Attorney	City Attorney's Office
Eleonor Ignacio	Senior Assistant City Attorney	City Manager's Office
Derek Wolfgram	Interim Assistant City Manager	City Manager's Office

Name	Title	Department
Nick Mathiowdis	Communications Manager	City Manager's Office
Darren Aston	Communications and Community Engagement Analyst	City Manager's Office

2. JURISDICTION PROFILE

The City of Redwood City is located approximately 25 miles south of the City of San Francisco and 27 miles north of the City of San Jose. The City is approximately 19 square miles in land area with a mean elevation of 15 feet above sea level. Redwood City is bordered by Menlo Park to the east, North Fair Oaks to the south, Foster City to the north, and San Carlos to the east. The City additionally wraps partially around Emerald Lake Hills to the west, and the San Francisco Bay borders Redwood City to the east. The City hosts a section of US Highway 101 to the east and provides easy access to Interstate 280. Additionally, California's historic thoroughfare, the El Camino Real (as State Route 82), passes through central Redwood City. Redwood City is considered densely populated, with an estimated 4,359 people per square mile compared to the State's average of 254 persons per square mile in 2020.

Redwood City contains natural geographical features along its border with the East Bay subregion. Specifically, the City contains Redwood Shores, a community located on a San Francisco Bay lagoon. In addition to the developed Redwood Shores Lagoon, Redwood City contains Bair Island, a marsh area consisting of three (3) islands - Inner, Middle, and Outer. The California Department of Fish and Game's Bair Island Ecological Reserve consists of approximately 2,000 acres of the Middle and Outer Island, while the remaining area is part of the Don Edwards Wildlife Refuge. Bair Island represents the largest open space island in the San Francisco Bay and is home to a variety of animal species.

Redwood City's location on the San Francisco Bay serves as a key factor in water transportation. The Port of Redwood City is the only deep-water port in South San Francisco Bay with access to inland transportation via the Union Pacific Railroad and US Highway 101.

Redwood City has a typical Mediterranean climate characterized by warm, dry summers and mild winters. Historically, July is the warmest month for the City, with average high temperatures reaching the low 80s. December and January are typically the coolest months, with average lows reaching the low 40s. Average precipitation for the City is approximately 20 inches per year, with February the wettest month and July the driest.

2.1. Brief History

Redwood City is the oldest city on the San Francisco Peninsula. Originally a port town during the Gold Rush, Redwood City became the County Seat of the newly formed San Mateo County in 1856. Redwood City was first incorporated in 1867 and re-incorporated as a town in 1897.

The land that eventually became Redwood City was originally home to the Muwekma Ohlone Tribe. Later, the land was part of a vast Spanish rancho owned by the Arguello family, which was used for grazing cattle and horses and for supplying missions in the area with food and animal hides. When California became part of the United States in 1850, the redwoods in the Santa Cruz Mountains were logged for use in construction to the north in rapidly growing San Francisco. Initially, the logs, cut from the redwood

forests along the peninsula skyline, were dragged overland by oxen teams. Soon, a deep-water channel off the Bay was discovered in what is now downtown Redwood City. A wharf was established at the point furthest inland. The availability of water transport greatly increased the efficiency of the lumber trade.

Following World War 2, the town expanded rapidly, annexing territory toward the Bay and inland toward the Santa Cruz Mountains. As San Mateo County grew, the County government built many large institutional buildings in the downtown area. Downtown became a vital center for commerce, government, and manufacturing in the early 20th Century. As regional shopping malls, freeways, and suburban sprawl developed, downtown began declining in the 1960s and 1970s. Many historic buildings fell into disrepair or were lost altogether. Beginning in the late 1900s, downtown Redwood City began revitalizing, and this revitalization continues today. The Port of Redwood City is now used for maritime commerce and recreation. In 2017, FEMA designated the Port as a Federal Staging Area (FSA) to support regional emergency response.

2.2. Governing Body Format

The City of Redwood City is a Charter City that uses a Council-Manager form of government, characterized by a legislative and executive branch. The legislative branch consists of a seven (7) member City Council. The City Council generally provides legislative direction and sets City policy. The executive branch consists of a Council-appointed City Manager. The City Manager is responsible for the operational activities of all City Departments; implementing the City's general policy guidelines; submitting a balanced budget for adoption; recommending strategies and solutions to the City Council; following legislative activities; and keeping the Council apprised of potential impacts on the City.

The City Council assumes responsibility for adopting this Plan, and the City Manager or designee will oversee its implementation.

2.3. Population

In 2024, the City of Redwood City had a population of 82,982, a 1.6% decrease from the estimated 2020 population of 84,304. **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***
76,815	84,304	82,982	-1.6%	5.1%	13.8%	6.3%

[1] United States Census Bureau. (2024). QuickFacts: City of Redwood City, California. Retrieved from https://www.census.gov/quickfacts/fact/table/redwoodcitycitycalifornia/.

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 Redwood City adopted its General Plan under this law and has updated various elements several times over the years, including most recently when the City Council adopted the General Plan in October 2010.

Over the past five (5) years, the City has experienced a consistent pattern of development in the Downtown area and along the US Highway 101 corridor, both of which are located in floodplain and inundation areas. The City anticipates that this development pattern of high-density residential and commercial buildings will continue over the next five (5) years.

The City is also updating its development plan for downtown and adjacent neighborhoods, called the Greater Downtown Area Plan (GDAP), which includes a climate resiliency analysis component. The intent is to identify potential hazards and incorporate policies to mitigate vulnerability of future development to floods, sea level rise, and other hazards. The GDAP, if adopted, would facilitate further development in downtown and adjacent neighborhoods and introduce new policies to mitigate the vulnerability of future development to flooding, sea level rise, and other hazards.

The Port is also working on the Redwood City Ferry Terminal Project, a plan to create public ferry service to the mid-peninsula, with Redwood City as the southernmost hub of the San Francisco Bay Ferry system. This potential service would provide a new transportation alternative connecting the mid-peninsula to San Francisco and the East Bay, reducing automobile traffic and enhancing emergency preparedness for the movement of first responders and supplies by water after a catastrophic event.

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

Criteria	Description
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.*	Redwood City has experienced continued development in the downtown area and along the US Highway 101 corridor, including commercial space and high-density housing, consistent with the level of development over the past five (5) years. The developments are built to comply with all building code standards, the City's floodplain management standards, and are subject to FEMA requirements for minimum base flood elevations. Although new development has been located in areas within flood zones, the City does not anticipate a substantial increase in vulnerability given the implementation of mitigating development standards.
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.*	The City is advancing several important efforts to improve resilience and reduce flood risk in hazard-prone areas. Key upcoming work includes continued progress on the Redwood Shores Sea Level Rise Protection Project, ongoing stormwater master planning to identify and prioritize future infrastructure needs, and the construction of the Price and Bradford pump stations to strengthen stormwater system capacity and reliability. Together, these projects will help protect residents, businesses, and critical infrastructure while preparing the City for future climate and storm-related challenges. Additionally, the Port of Redwood City has planned development, including a ferry terminal.
Provide the number of permits for each hazard area or provide a qualitative description of where development has occurred.	Over the past five (5) years, the City has experienced a consistent pattern of development of commercial space and high-density residential areas within the downtown area and along the US Highway 101 corridor, which are located in floodplain and inundation areas.

3.1. Changes in Priority

The City of Redwood City's overall hazard mitigation priorities have not changed significantly since the last Plan update. However, mitigation actions from the previous Plan were updated, and a more concerted effort to achieve equitable outcomes for all communities, including underserved communities and socially vulnerable populations, has been implemented.

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 Redwood City'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 Redwood City'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 (October 2010), Safety and Housing elements are regularly updated. Safety Element last updated 2023.
Capital Improvement Plan	Yes	Local	Finance Department	Part of City Master Plan (Updated every five (5) years)
Floodplain Management / Basin Plan	No	n/a	n/a	n/a
Stormwater Management Plan	Yes	Local	Public Works Department	Green Infrastructure Plan (May 2017)
Open Space Plan	No	n/a	n/a	n/a
Stream Corridor Management Plan	No	n/a	n/a	n/a
Watershed Management or Protection Plan	No	Local	Public Works Department	Redwood Shores Lagoon Management Plan
Economic Development Plan	Yes	Local	Community Development Department	Addressed in the General Plan Greater Downtown Area Plan
Comprehensive Emergency Management 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.)*
Emergency Operations Plan	Yes	Local	Police Department	Adopted 2018 Flood Incident Response Annex Continuity of Operations Plan (2020)
Evacuation Plan	No	n/a	n/a	n/a
Post-Disaster Recovery Plan	No	n/a	n/a	n/a
Transportation Plan	Yes	Local	Engineering and Transportation Department	Citywide Transportation Plan (2018)
Strategic Recovery Planning Report	No	n/a	n/a	n/a
Climate Adaptation Plan	Yes	Local	Public Works Department	Climate Action Plan (November 2020)
Resilience Plan	No	n/a	n/a	n/a
Urban Water Management Plan	Yes	Local	Public Works Department	Updated 2025
Community Wildfire Protection Plan	Yes	County	Redwood City Fire Department	San Mateo-Santa Cruz Community Wildfire Protection Plan (October 2022)
Regulatory Capability				
Building Code	Yes	Local	Community Development Department	Chapter 9 of the City Code
Zoning Code	Yes	Local	Community Development Department	Supplement 29
Subdivision Code	Yes	Local	Community Development Department	Chapter 30 of the City Code
Flood Damage Prevention Ordinance	Yes	Local	Public Works Department	Chapter 41 of the City Code
Cumulative Substantial Damage Ordinance	No	n/a	n/a	n/a
Freeboard	Yes	Local	Community Development Department	Chapter 41.18 of the City Code
Growth Management Ordinance	No	n/a	n/a	n/a
Site Plan Review	Yes	Local	Community Development Department	Engineering Standards (2019)
Stormwater Management Ordinance	Yes	Local	Public Works Department	Chapter 27A of the City Code

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.)*
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
Water Model Efficient Landscape Ordinance	Yes	Local	Community Development Department	Chapter 47.120 of the City 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 Board of Building Review
Mitigation Planning Committee	Yes	Utilities Sub-Committee Transportation Advisory Committee
Environmental Board/Commission	Yes	Climate Action Sub-Committee
Open Space Board/Committee	Yes	Parks, Recreation, and Community Services Commission
Economic Development Commission/Committee	No	n/a
Maintenance programs to reduce risk	Yes	Environmental programs
Mutual Aid Agreements	No	n/a
Technical/Staffing Capabilities		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Community Development Department, Planning Division Engineering and Transportation Department, Engineering Division
Engineer(s) or professional(s) trained in building or infrastructure construction practices	Yes	Community Development Department, Building Division (Building Inspectors)

Capability	Yes/No	Comments *(e.g., position, department, agency, explanation)*
Planners or engineers with an understanding of natural hazards	Yes	Community Development Department, Planning Division Engineering and Transportation Department, Engineering Division
NFIP Floodplain Administrator	Yes	Engineering and Transportation Department
Surveyor(s)	Yes	Community Development Department Contracted Consultants
Personnel skilled or trained in GIS applications	Yes	Community Development Department, Planning Division Information Technology Department, GIS
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	Redwood City Fire Department (Disaster Preparedness and Emergency Preparedness Coordinator)
Grantwriter(s)	Yes	Multiple Departments Contracted Consultants for larger grants
Staff with expertise or training in benefit cost analysis	Yes	Community Development Department, Planning Division Engineering and Transportation Department, Engineering Division
Professionals trained in conducting damage assessments	No	n/a

4.3. Fiscal Capabilities

Table 5 lists fiscal capabilities available to the City of Redwood City 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	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes

Capability	Accessible or Eligible to Use
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	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 (Public Communication Manager)
Personnel skilled or trained in website development	Yes	Administrative Services Department Information Technology Department City Manager's Office
Hazard mitigation information is available on the jurisdiction's website	Yes	Wildfire safety/WUI protection
Utilize social media for hazard mitigation education and outreach	Yes	**Facebook:** Facebook.com/cityofredwoodcity/ **Instagram:** Instagram.com/CityofRedwoodCity/ **X:** X.com/redwoodcity **Nextdoor:** nextdoor.com/city/redwood-city--ca/
Citizen boards or commissions that address issues related to hazard mitigation	No	n/a
Other programs already in place that could be used to communicate hazard-related information	No	n/a
An established warning system for hazard events	Yes	SMC Alert, in partnership with the San Mateo County Department of Emergency Management

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 Redwood City.

Table 7. Community Classifications

Program	Yes/No	Classification *(if applicable)*	Date Classified *(if applicable)*
Community Rating System (CRS)	No	n/a	n/a
Building Code Effectiveness Grading Schedule (BCEGS)	No	n/a	n/a
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	Class 1	2018
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 Redwood City 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).

To effectively implement the mitigation strategies identified in this Plan, Redwood City must expand several key capabilities across hazard mitigation planning, emergency management, infrastructure resilience, and operational readiness. Strengthening these capabilities will allow the City to better identify risks, pursue mitigation funding opportunities, improve situational awareness, and sustain emergency operations during disasters.

- **Grant Development and Mitigation Funding Capacity:** The City would benefit from increasing dedicated grant development and grant management capacity to pursue federal and state hazard mitigation funding opportunities. This includes the ability to identify funding opportunities, prepare competitive grant applications, and administer funded projects. In addition, the City requires greater capacity to identify and secure local match funding to leverage federal mitigation programs, such as FEMA's Hazard Mitigation Grant Program (HMGP), Building Resilient Infrastructure and Communities (BRIC), and other resilience and climate adaptation funding sources. Strengthening this capability will increase the City's ability to implement large-scale mitigation projects and resilience initiatives.
- **Advanced GIS, Data Integration, and Technology Strategy:** Expanded GIS and data management capabilities are needed to support hazard mapping, infrastructure analysis, emergency response modeling, and risk-informed decision-making. The City seeks to enhance its ability to integrate incident data, infrastructure data, and hazard information into unified platforms that support planning and operational coordination. Additionally, Redwood City requires technical support to develop and implement a comprehensive technology strategic plan and roadmap. This effort will help the City better harness data, integrate systems across departments, and utilize advanced analytics and modeling tools to support mitigation planning, emergency management, and resource allocation decisions.
- **Emergency Operations Center (EOC) Modernization and Continuity of Operations:** Redwood City seeks to modernize and expand the capabilities of its Emergency Operations Center (EOC) and

backup EOC facilities to ensure continuity of operations during large-scale emergencies and disasters. Improvements include upgraded communications infrastructure, enhanced coordination systems, and implementation of cloud-based or digital EOC platforms that enable remote coordination, real-time information sharing, and sustained multi-agency operations during extended incidents. Strengthening EOC capabilities will improve the City's ability to coordinate disaster response, maintain situational awareness, and support regional emergency management efforts.

- **Resilient Power Infrastructure for Critical Facilities:** To improve disaster resilience, Redwood City requires expanded backup power capabilities for critical public facilities. This includes portable and towable generators as well as permanently installed backup power systems. Municipal facilities also require upgrades to electrical infrastructure to support generator connections and rapid deployment during emergencies. These improvements will enable key public facilities to serve as emergency shelters, warming centers, cooling centers, and shelter-in-place locations during disasters, prolonged power outages, and extreme weather events.
- **Fire and Emergency Response Capacity Improvements:** Implementation of the mitigation strategy also requires expanding fire department operational capacity in accordance with recommendations from the City's 2023 Standards of Cover assessment. These improvements include acquiring a second fire engine and establishing a second battalion to strengthen response coverage, incident command capacity, and operational resilience during large or complex incidents. Enhancing response capabilities will help ensure adequate emergency response resources during disasters when simultaneous incidents or increased service demands may occur.
- **Marine Emergency Response and Port Safety Capabilities:** As Redwood City plans for development of a ferry terminal at the Port of Redwood City, the City will require expanded marine emergency response capabilities. These improvements include the acquisition of a modern fire and rescue boat, associated marine apparatus and equipment, and the staffing necessary to support water-based emergency response operations. Strengthening marine response capabilities will enhance the City's ability to respond to maritime emergencies, support ferry operations, and protect critical port infrastructure.
- **Specialized Hazard Monitoring and Inspection Capabilities:** Redwood City also seeks to improve its ability to monitor and assess critical infrastructure such as levees, flood control systems, and dams. This includes acquisition of specialized equipment such as hovercraft capable of accessing difficult floodplain or levee terrain, as well as expanded unmanned aerial system (drone) capabilities to support emergency response, infrastructure inspections, damage assessments, and situational awareness during disasters. These tools improve the City's ability to identify hazards, conduct rapid damage assessments, and prioritize mitigation actions.
- **Community Risk Reduction and Hazard Mitigation Planning Support:** Additional technical resources are needed to conduct risk assessments, engineering studies, and planning analyses that inform hazard mitigation investments. These assessments help identify vulnerabilities, prioritize mitigation actions, and guide long-term resilience planning. Redwood City is also working to implement recommendations from its Community Risk Assessment and Community Risk Reduction planning efforts, which require continued analytical support, planning resources, and cross-departmental coordination.

5. NATIONAL FLOOD INSURANCE PROGRAM

The City of Redwood City is a member of the National Flood Insurance Program (NFIP) but has chosen not 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
060325	6/28/1974	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 Redwood City Floodplain Administrator information is listed in **Table 9**.

Table 9. Floodplain Administrator

Name	Title	Department	Phone Number
Tanisha Werner	City Engineer	Engineer and Transportation	(650) 780-7380

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]

[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.

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 Redwood City.

Table 10. Repetitive Loss and Severe Repetitive Loss Properties

Repetitive Loss Properties		Severe Repetitive Loss Properties	
Total	***Occupancy***	***Total***	***Occupancy***
3	**1** Single Family **2** 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 Redwood City.

Table 11. NFIP Policies

NFIP Policies	Insurance in Force	Total Claims Paid	Sum of Claims Paid
240	$96,418,000	49	$1,961,364.3

5.3. Participation Activities

The City of Redwood City'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.

[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.

- The community teaches property owners or other stakeholders about the importance of flood insurance through public outreach events, workshops, and/or seminars.
- The community enforces local floodplain regulations and monitors compliance.
- The community's floodplain development regulations meet or exceed Federal Emergency Management Agency (FEMA) or State minimum requirements.

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. *(Chapter 41, Section 41.6 of the City Code)*

5.3.2. Substantial Improvement

Substantial improvement means any reconstruction, rehabilitation, addition or other proposed new development 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 include either:

- Any project for improvement of a structure to correct existing violations of 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." *(Chapter 41, Section 41.6 of the City Code)*

5.3.3. Substantial Damage/Substantial Improvement Determination Process

As the City Engineer is the designated floodplain administrator, engineering staff review permits for compliance with the NFIP. For all permits identified within the Special Flood Hazard Area, staff reviews for substantial improvement/substantial damage. Staff compares the value of the permitted work relative to the value of the structure. Where assessed values are out of date, staff use qualified estimates based on recent data from local and regional property sales. Following a flood event, the City's Building Inspectors conduct field investigations to document the extent of any damage and make any necessary occupancy determinations. Repairs from such flood damage are handled through the normal building permit procedures, including review by engineering staff for substantial damage.

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 Redwood City 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 and the information integrated.

Table 12. Existing Plan Integration

Planning Initiative	Current Integration Description
Urban Water Management Plan	Updated in progress. This Plan incorporated the LHMP by references that include information on climate change hazards and mitigation actions within the Redwood City service area.
General Plan	Hazard data and mitigation priorities from the LHMP informed the policy reviews of the Safety Element and Housing Element. 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 into its response actions to reduce the community's risk exposure. The LHMP is currently used as an essential tool to update the City EOP.
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 by departmental staff, 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
Water System Emergency Response Plan	The Water System Emergency Response Plan (ERP) will integrate the LHMP and connect to the Emergency Operations Plan (EOP). The policies in this ERP will include goals for risk reduction and safety. The planning process will use the risk assessment to guide the ERP and its policies, including mitigation plans and goals.

Planning Initiative	Current Integration Description
Water System Risk and Resilience Assessment	The Water System Risk and Resilience Assessment is a prerequisite for the Water System ERP (above) and will be integrated with and informed by this LHMP.
Climate Action Plan	The current Climate Action Plan refers to but does not integrate the LHMP. When the Climate Action Plan is updated, the process will provide an opportunity to directly integrate hazard mitigation within existing goals and objectives. Since the Climate Action Plan already provides a strategic guide for minimizing the impact of human activity on the environment, integrating hazard mitigation is the next strategic step. Future updates to the Climate Action Plan will incorporate hazard mitigation related to wildfire, drought, severe weather, and sea level rise.
City 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 of a preparedness and response nature will be analyzed for applicability and inclusion in the description of EOP processes and procedures.
Capital Improvement Plan	The City will continue to ensure consistency between this LHMP and future updates of the Capital Improvement Plan. The LHMP may identify new possible funding sources for capital improvement projects, which may result in modifications to proposed projects based on the results of the risk assessment.

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**.

- Dam Failure
- 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)*
- Tsunami
- 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.

- Drought

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 Redwood City 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	Lower Emerald Lake and Bear Gulch are High Hazard Dams as identified by the State. Inundation maps show that portions of Friendly Acres and Bayfront areas may be within dam inundation zones, depending on the source reservoir. The largest inundation area affecting the City is the potential inundation area from a sudden failure of the Lower Emerald Lake Dam. If this dam were to fail catastrophically, water would flow downward along natural drainage courses to the northeast, eventually reaching El Camino Real. It is likely that the most extensive damage would be expected for structures and facilities located in close proximity to the Lake. Further from the Dam, flood damage would be expected as water would spread across the City.
Drought	The Local Planning Team determined that the City does not have unique vulnerabilities or impacts from drought; rather, the jurisdiction's vulnerabilities and impacts are consistent with those experienced throughout the County.
Earthquake	There are no active faults within the Redwood City limits; however, the San Andreas Fault is located approximately 2,000 feet southwest of the City boundary. Areas surrounding US Highway 101, Redwood Creek, and most of Redwood Shores are classified as having very high susceptibility to liquefaction during earthquakes. The City's primary and alternate EOC locations, as well as emergency transportation corridors, are located within this area and may be unavailable.
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	Portions of Redwood City are susceptible to riverine, urban/flash, and coastal flooding. Flooding may occur near Redwood Creek and its tributary branches, in low-lying areas near the San Francisco Bay, in Friendly Acres, and in the vicinity of Veterans Boulevard and East Bayshore Road. Redwood Shores and an additional 950 parcels are included in a Special Flood Hazard Area (SFHA) in the 2019 Flood Insurance Rate Maps (FIRMs). Historically, the Friendly Acres/East Bayshore and the Centennial neighborhoods have experienced some degree of flooding during storms (e.g., atmospheric rivers), mostly due to overwhelming drainage infrastructure. The Friendly Acres/East Bayshore neighborhood near US Highway 101 and the northwestern portion of the Centennial neighborhood, adjacent to Cordilleras Creek, are prone to flooding. Flooding usually occurs when heavy rainfall coincides with high Bay tides, thereby impeding runoff from entering the Bay and causing storm flows to exceed design capacity. Storm drains clogged with leaves and debris can also increase the risk of flooding during storms.
Landslide	Some areas in Emerald Hills have moderate to high landslide susceptibility.

Hazard	Vulnerability and Impacts
Sea Level Rise	As sea levels rise, more areas of Redwood City will be vulnerable to 100-year flood events. Significant flooding, erosion, and water damage to the built environment along both sides of US Highway 101 could be expected due to sea level rise. Under all sea level rise scenarios, Redwood Shores will be inundated by rising Bay waters. Eventually, sea level may rise enough to permanently flood low-lying areas in eastern Redwood City along the Bayshore. Rising sea levels can cause the Bay shoreline to flood more frequently and severely. Because sea levels are higher under normal conditions due to sea level rise, coastal flooding (e.g., king tides and storm surges) can be exacerbated and extend farther inland. During strong storms and king tides, coastal flooding may damage or destroy homes and commercial buildings in low-lying areas in eastern Redwood City. These events can also disrupt transportation routes (e.g., US Highway 101, Veterans Boulevard, Bay Road, Broadway, Main Street, and Woodside Road (State Route 84)). Essential facilities and infrastructure, such as the Caltrain Transit Station, Kaiser Permanente Medical Center, fire stations, police stations, bridges, electric vehicle charging stations, solid waste facilities, and water and wastewater infrastructure, may be frequently inundated, negatively impacting them and the community services they support. In addition to increasing coastal flooding, sea level rise can lead to saltwater intrusion into groundwater aquifers, causing shallow groundwater tables to rise. This phenomenon can, in turn, cause ponding of water or flooding in low-lying areas with little to no prior flooding; infiltrate groundwater, sanitary sewer, water, and storm drain pipelines; increase the risk of soil liquefaction during seismic events; and remobilize old soil contaminants.
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	Heavy rainfall may impact flood-prone areas and mobile home parks east of US Highway 101. Strong wind events may impact mobile/manufactured homes, power lines, and the unhoused. Heat waves/extreme heat may impact the City's elderly, income-limited, low-income, and unhoused populations.
Tsunami	Areas at risk of tsunami include the Port of Redwood City, Seaport Business Center, Pacific Shores development, municipal and private marinas, and the Silicon Valley Clean Water Wastewater Pump Station serving Redwood City's sewer system and tributary sewer districts (maintained by San Mateo County and the Town of Woodside). Loss of the wastewater pump station could result in sanitary sewer overflows and flooding throughout the City.

Hazard	Vulnerability and Impacts
Wildfire	The City of Redwood City has many areas of primary wildfire concern. Several neighborhoods along the western hillside boundary are in the Wildland Urban Interface (WUI) zones. There are also several transportation corridors, including evacuation corridors and regional transportation lifelines, that, if impacted by wildfire, could impede evacuation, cause regional congestion, and disrupt Bay Area commuter flow. Critical water supply infrastructure is also vulnerable to wildfires. There are 10 water tanks and seven (7) pump stations in the WUI and/or influence zones. Six (6) pump stations have permanently installed emergency generators. One (1) pump station has a receptacle for a portable generator. Wildfire could also compromise water pressure or pumping capability, directly affecting firefighting operations. Redwood City's wildfire vulnerability is further influenced by the convergence of: • Ridge-top and steep-slope WUI development (Palomar Park, Farm Hill Estates). • Direct adjacency to Santa Cruz Mountain fuel beds. • Regional interdependence with Emerald Hills and San Carlos. • Critical transportation corridors within fire-prone terrain. • Aging housing stock predating WUI ignition-resistant standards. Climate-driven increases in fire weather severity.

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

Hazard	Vulnerability and Impact
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	Increased
Landslide	Remained the Same
Sea Level Rise	Increased
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	Increased
Tsunami	Remained the Same
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	No Change Anticipated
Sea Level Rise	Increase
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	Increase
Tsunami	No Change Anticipated
Wildfire	Increase

Table 6 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	Remained the Same
Earthquake	Remained the Same
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	Remained the Same
Landslide	Remained the Same
Sea Level Rise	Remained the Same
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	Remained the Same
Tsunami	Remained the Same
Wildfire	Remained the Same

Hazard	Vulnerability and Impact
Future Vulnerability and Impact	
Dam Failure	No Change Anticipated
Drought	No Change Anticipated
Earthquake	No Change Anticipated
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	No Change Anticipated
Landslide	No Change Anticipated
Sea Level Rise	No Change Anticipated
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	Increase
Tsunami	No Change Anticipated
Wildfire	No Change Anticipated

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	Remained the Same
Earthquake	Remained the Same
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	Remained the Same
Landslide	Remained the Same
Sea Level Rise	Remained the Same
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	Remained the Same
Tsunami	Remained the Same
Wildfire	Remained the Same
Future Vulnerability and Impact	
Dam Failure	No Change Anticipated
Drought	No Change Anticipated
Earthquake	No Change Anticipated
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	No Change Anticipated
Landslide	No Change Anticipated
Sea Level Rise	No Change Anticipated

Hazard	Vulnerability and Impact
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	No Change Anticipated
Tsunami	No Change Anticipated
Wildfire	No Change Anticipated

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.

- There is a proposed new potable water tank and pump station located at Public Works (1400 Broadway) and a proposed new recycled water tank and pump station at 1402 Maple Street; both of which could potentially be vulnerable to sea level rise and liquefaction.

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 Redwood City 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 Redwood City 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
Wildfire	2	18	10	34	62	57
Sea Level Rise	3	6	8	25	39	54
Riverine Flooding ***(Flood)***	2	12	9	31	52	48
Coastal Flooding ***(Flood)***	2	12	6	29	47	44
Landslide	2	9	6	30	45	42
Strong Winds ***(Severe Weather)***	2	9	13	22	44	41
Severe Thunderstorm ***(Severe Weather)***	2	9	13	21	43	40
Drought	2	6	11	22	39	36
Heat Wave/Extreme Heat ***(Severe Weather)***	2	9	10	18	37	34
Dam Failure	1	12	5	28	45	21
Tornado ***(Severe Weather)***	1	6	13	13	32	15
Fog ***(Severe Weather)***	1	6	9	11	26	12
Tsunami	1	6	5	15	26	12

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 Redwood City agreed to **23** 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 Redwood City Mitigation Actions Summary

Status	Mitigation Action Total
Continuing	6
In Progress	16
Not Yet Started	0
New	1
TOTAL	**23**
Completed	4
No Longer Needed	2

Mitigation Actions per Hazard			
Dam Failure	15	Sea Level Rise	11
Drought	8	Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	17
Earthquake	13	Tsunami	12
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	18	Wildfire	13
Landslide	12		

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

Mitigation Action	Where appropriate, support retrofitting, purchasing, or relocating structures located in high-hazard areas, prioritizing those that have experienced repetitive losses and/or are in high- or medium-risk hazard areas.				
Action Number	RWC-1	**Goal(s) Addressed**	1, 2, 3, 4, 5	**Prioritization Score**	20/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	Medium
Hazard(s) Mitigated	Dam Failure, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of Redwood City Public Works Department, City of Redwood City 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, BRIC		
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), the Redwood City Community Climate Action Plan, the City of Redwood City's Greater Downtown Area Plan, and the City of Redwood City's Water System Emergency Response Plan.				
Action Number	RWC-2	**Goal(s) Addressed**	5	**Prioritization Score**	29/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	Medium
Hazard(s) Mitigated	Dam Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Redwood City Public Works Department, City of Redwood City 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	RWC-3	**Goal(s) Addressed**	1, 2, 3, 4, 5	**Prioritization Score**	31/40
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, Tsunami, Wildfire				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Redwood City 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	Support countywide hazard mitigation actions and initiatives identified in the San Mateo County Local Hazard Mitigation Plan, specifically those taking place within the City.				
Action Number	RWC-4	**Goal(s) Addressed**	1, 2, 3, 4, 5	**Prioritization Score**	31/40
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, Tsunami, Wildfire				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Redwood City 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	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	RWC-5	**Goal(s) Addressed**	1, 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, Severe Weather, Tsunami				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Redwood City Engineering and Transportation Department (Engineering Division)				
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	Identify and institutionalize climate adaptation strategies by adopting and implementing the City's Climate Action Plan, which outlines and prioritizes City strategies to adapt to climate change impacts and reduce vulnerability to specific climate-driven hazards.				
Action Number	RWC-6	**Goal(s) Addressed**	1, 3, 5	**Prioritization Score**	26/40
Year Added to the Plan	2021	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	Medium
Hazard(s) Mitigated		Drought, Flood, 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 Redwood City 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	Implement a lifecycle replacement and modernization program for emergency backup power at critical facilities to ensure continuous power and operational resilience, and to reduce service interruptions following emergencies and disasters.				
Action Number	RWC-7	**Goal(s) Addressed**	1, 3, 5	**Prioritization Score**	29/40
Year Added to the Plan	2021	**Timeline** *(estimated)*	1 to 5 Years	**Implementation Priority**	Medium
Hazard(s) Mitigated	Dam Failure, Earthquake, Flood, Landslide, Severe Weather, Tsunami, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of Redwood City 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), HMGP, FMA, BRIC		
Additional Details *(optional)*					

Mitigation Action	Acquire portable generators for emergency backup power at critical facilities and infrastructure that lack backup power systems, ensuring continuous power and operational resilience and reducing service interruptions following emergencies and disasters.				
Action Number	RWC-8	**Goal(s) Addressed**	1, 3, 5	**Prioritization Score**	29/40
Year Added to the Plan	2021	**Timeline** *(estimated)*	1 to 5 Years	**Implementation Priority**	Medium
Hazard(s) Mitigated	Dam Failure, Earthquake, Flood, Landslide, Severe Weather, Tsunami, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of Redwood City 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), HMGP, FMA, BRIC		
Additional Details *(optional)*					

Mitigation Action	Conduct a feasibility study to inventory soft-story structures within the City.				
Action Number	RWC-9	**Goal(s) Addressed**	2, 5	**Prioritization Score**	32/40
Year Added to the Plan	2021	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Earthquake				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Redwood City Community Development Department (Building Division)				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Medium	**Potential Funding Source**	General Fund (Staff Time), HMGP, BRIC		
Additional Details *(optional)*	The existing ordinance under Chapter 9 of the Redwood City Municipal Code (updated in 2025) currently requires applicants to hire a licensed structural engineer to prepare an evaluation report for permit applications to repair. The feasibility study will develop a program to implement the soft-story retrofits between one (1) and five (5) years.				

Mitigation Action	Develop an inventory of soft-story structures in the City.				
Action Number	RWC-10	**Goal(s) Addressed**	n/a	**Prioritization Score**	n/a
Year Added to the Plan	2021	**Timeline** *(estimated)*	n/a	**Implementation Priority**	n/a
Hazard(s) Mitigated		Earthquake			
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	Assess the City's existing infrastructure, identify potential funding sources to upgrade its older facilities, and install new infrastructure that meets the latest seismic standards under its Seismic Improvement Plan. The Seismic Vulnerability Assessment - Water Distribution System Assessment has identified key water infrastructure that should be replaced to mitigate the effects of seismic events.				
Action Number	RWC-11	**Goal(s) Addressed**	1, 5	**Prioritization Score**	32/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	1 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Earthquake				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Redwood City Public Works Department, City of Redwood City Engineering and Transportation Department (Engineering Division)				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Medium	**Potential Funding Source**	General Fund (Staff Time), HMGP, BRIC		
Additional Details *(optional)*					

Mitigation Action	Improve the technical capabilities of City staff directly involved in hazard mitigation and project implementation to levels appropriate to their hazard mitigation tasks and responsibilities.				
Action Number	RWC-12	**Goal(s) Addressed**	3, 5	**Prioritization Score**	37/40
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, Tsunami, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Redwood City 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	Conduct all-hazards disaster exercises, such as a complex, multi-department event, guided by the California Office of Emergency Services Type 3 credential program. These exercises will help the City identify potential mitigation actions and initiatives that can be included in the San Mateo County Local Hazard Mitigation Plan for future implementation and funding identification.				
Action Number	RWC-13	**Goal(s) Addressed**	3, 5	**Prioritization Score**	37/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	1 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Redwood City 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	Develop an awareness-level training program for new City staff to address emergencies and align with the levels appropriate for their hazard mitigation tasks and responsibilities.				
Action Number	RWC-14	**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	Dam Failure, Drought, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire				
Project Status	No Longer Needed	If *No Longer Needed*, provide reason.	Outside the scope of mitigation, as the focus is on preparedness and response.		
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	Identify and implement environmentally sensitive flood reduction programs.				
Action Number	RWC-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	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)*	The City has a permitting process that already addresses environmentally sensitive items (C3 items) that must comply with regulatory requirements.				

Mitigation Action	Develop a targeted wildfire awareness public information program for property owners in the Wildland Urban Interface (WUI), including guidance on managing potential fuel sources on their privately owned property.				
Action Number	RWC-16	**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	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)*	The City has included links and information on its website for public access. It includes information on managing potential fuel sources on homeowners' privately owned property.				

Mitigation Action	Leverage community mitigation frameworks such as 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	RWC-17	**Goal(s) Addressed**	2, 3, 4, 5	**Prioritization Score**	35/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	1 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Flood, Sea Level Rise, Severe Weather, Tsunami				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	z				
Lead Agency / Organization	City of Redwood City Engineering and Transportation Department (Engineering Division)				
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	Expand the recycled water system, as outlined in the Phase II.B Pipeline Alignment Study, to alleviate demand on the domestic water system during droughts.				
Action Number	RWC-18	**Goal(s) Addressed**	1, 2, 3, 5	**Prioritization Score**	29/40
Year Added to the Plan	2021	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	Medium
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 Redwood City 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, BRIC		
Additional Details *(optional)*					

Mitigation Action	Expand the recycled water system to work towards Citywide coverage, including a rain barrel system.				
Action Number	RWC-19	**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	Drought				
Project Status	No Longer Needed	If *No Longer Needed*, provide reason.	After reviewing the language associated with mitigation action RWC-18, this action appears to be redundant.		
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 a drought public outreach program by engaging the community with educational efforts to enhance their ability to adapt to climate-related water shortages and motivate residents to adopt water conservation practices at home.				
Action Number	RWC-20	**Goal(s) Addressed**	2, 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				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Redwood City 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	Evaluate and sustain the City's stormwater drainage and pumping system structural integrity and performance by implementing the needed improvements, as necessary, to mitigate flooding conditions.				
Action Number	RWC-21	**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	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 Redwood City 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	Upgrade and add sanitary sewer lines in accordance with the 2013 Sewer System Master Plan to add capacity and redundancy, while reducing the risk of major service blockage that can result in overflow and flooding during heavy rainfall events.				
Action Number	RWC-22	**Goal(s) Addressed**	1, 2, 3, 4, 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, Earthquake, Flood, Landslide, Sea Level Rise, Severe Weather, Tsunami, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of Redwood City Engineering and Transportation Department (Engineering Division)				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Medium	**Potential Funding Source**	General Fund (Staff Time), HMGP, FMA, BRIC		
Additional Details *(optional)*					

Mitigation Action	Improve or exceed minimum standards regarding defensible space, where able and appropriate.				
Action Number	RWC-23	**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	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)*	The building permitting process incorporates code requirements for home hardening and defensible space, where applicable.				

Mitigation Action	Expand the existing Vegetation Management Program that focuses on clearing and maintenance of the hillsides.				
Action Number	RWC-24	**Goal(s) Addressed**	1, 2, 3, 4, 5	**Prioritization Score**	30/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Landslide, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of Redwood City Parks, Recreation, and Community Services Department, City of Redwood City 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)*	The City's Parks, Recreation, and Community Services Department (PRCS) manages the vegetation of only three (3) parks as part of the Program - Stulsaft Park, Easter Bowl Park, and Garrett Park. The rest of the hillsides and miscellaneous City property is done by the Public Works Department. Therefore, expansion of this Program will require the Public Works Department.				

Mitigation Action	Implement recommendations provided by the 2017 Facility Assessment to Fire Station 12.				
Action Number	RWC-25	**Goal(s) Addressed**	1	**Prioritization Score**	29/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	Medium
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 Redwood City Public Works Department, City of Redwood City Engineering and Transportation Department (Engineering Division), City of Redwood City Fire 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, BRIC, Assistance to Firefighters Grant		
Additional Details *(optional)*					

Mitigation Action	Implement recommendations provided by the 2017 Facility Assessment for the Public Works Building.				
Action Number	RWC-26	**Goal(s) Addressed**	1	**Prioritization Score**	28/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	Medium
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 Redwood City 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, BRIC		
Additional Details *(optional)*					

Mitigation Action	Ensure periodic status updates on local dams through continued communication with San Mateo County.				
Action Number	RWC-27	**Goal(s) Addressed**	1, 2, 5	**Prioritization Score**	36/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	Dam Failure, Flood				
Project Status	Continuing	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Redwood City 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	Assess the adequacy of current levees and execute the improvements to ensure structural integrity and reduce impacts from flooding and coastal hazards.				
Action Number	RWC-28	**Goal(s) Addressed**	1, 3, 4	**Prioritization Score**	35/40
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, Tsunami				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Redwood City Public Works Department, City of Redwood City Engineering and Transportation Department (Engineering Division)				
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	Update and implement the City's Stormwater Master Plan to identify areas vulnerable to localized flooding, prioritize capital projects to mitigate flooding in those areas, and ensure long-term system performance.				
Action Number	RWC-29	**Goal(s) Addressed**	1, 3, 5	**Prioritization Score**	33/40
Year Added to the Plan	2026	**Timeline** *(estimated)*	1 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated		Flood, Severe Weather			
Project Status		New	If *No Longer Needed*, provide reason.	n/a	
Benefits *(Loss Avoided)*		Medium			
Lead Agency / Organization		City of Redwood City Public Works Department, City of Redwood City Engineering and Transportation Department (Engineering Division)			
Supporting Agency / Organization *(If applicable)*		n/a			
Additional Participating Jurisdictions *(If Applicable)*		n/a			
Estimated Cost		High	**Potential Funding Source**	General Fund (Staff Time), FMA	
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)***	Medium	A significant hazard event is likely to occur within 25 years.	2	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)***	Medium	A significant hazard event is likely to occur within 25 years.	2	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)***	Medium	A significant hazard event is likely to occur within 25 years.	2	N/A
Tsunami	Low	A significant hazard event is likely to occur within 100 years.	1	N/A
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***	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
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***	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
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

Hazard Event	Extent Factor	Extent		Extent Factor	Weighted Factor	Score
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***	Low	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a low-intensity incident.	1	3	3
	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
Strong Winds ***(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

Hazard Event	Extent Factor	Extent		Extent Factor	Weighted Factor	Score
Tsunami	***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
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
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

Hazard Event	Vulnerability Factor	Vulnerability		Vulnerability Factor	Weighted Factor	Score
Riverine Flooding ***(Flood)***	***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
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***	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
Landslide	***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
Sea Level Rise	***Population Exposure***	Low	14% or less of the population is exposed to the hazard.	1	3	3
	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

Hazard Event	Vulnerability Factor	Vulnerability		Vulnerability Factor	Weighted Factor	Score
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
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

Hazard Event	Vulnerability Factor	Vulnerability		Vulnerability Factor	Weighted Factor	Score
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***	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
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***	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	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	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	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	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	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	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***	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	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
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	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	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	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	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	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	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***	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	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	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]