COUNTY OF SAN MATEO
EMERGENCY MANAGEMENT

Local Hazard Mitigation Plan

San Mateo County, California

Mid-Peninsula Water District Annex

2026

DRAFT

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This Annex details the hazard mitigation elements specific to the Mid-Peninsula Water District, 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 MPWD. This Annex provides additional information specific to the District, 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 MPWD 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
Kat Wuelfing	General Manager	Administration
Sarah Scheidt	Operations Manager	Operations
Michael Anderson	Operations Superintendent	Operations

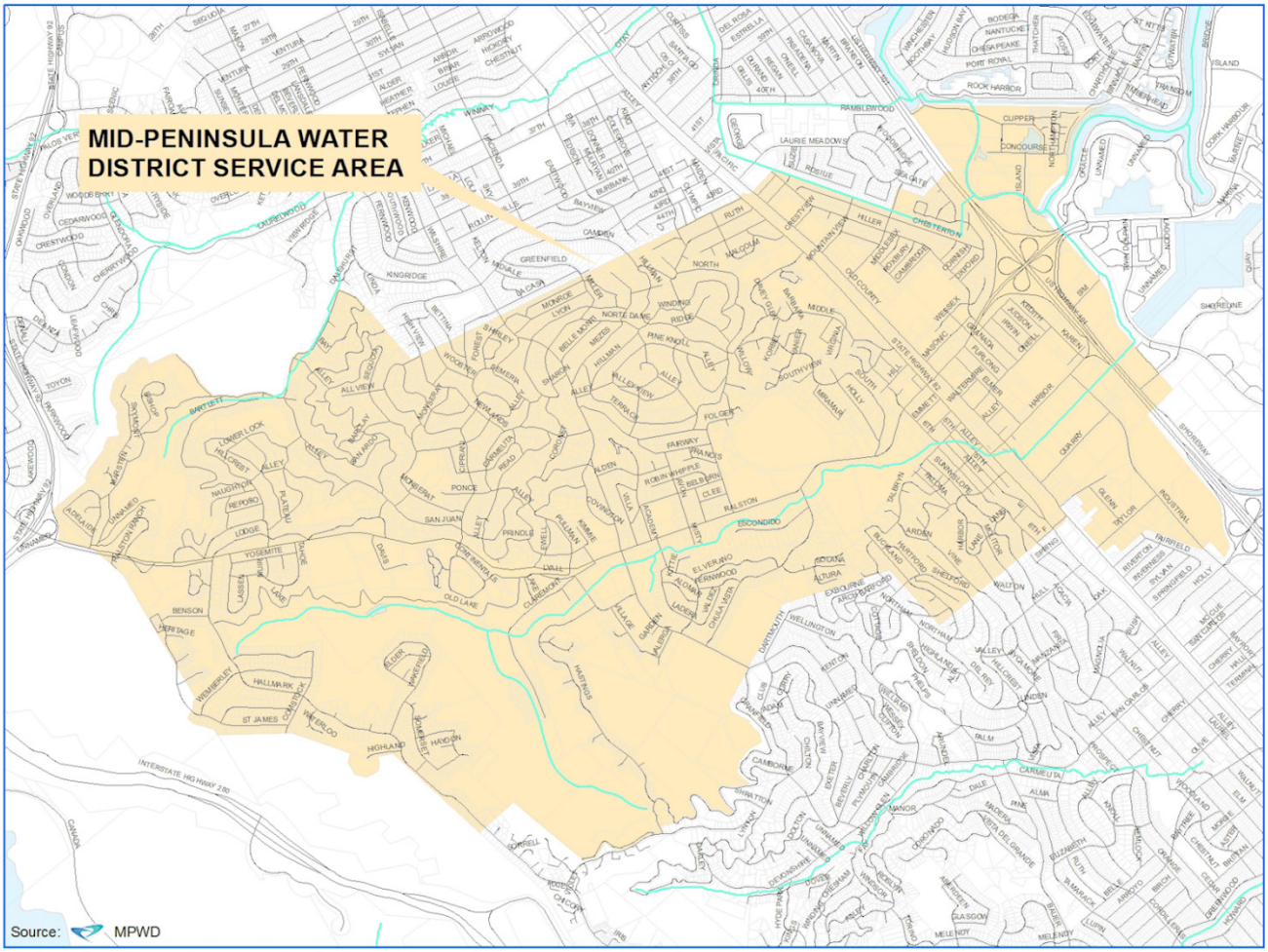
2. JURISDICTION PROFILE

MPWD (formerly Belmont County Water District) is an independent special district created in 1929 under the County Water District Act of California (Division 12 of the California Water Code, Sections 30000, et seq.) to provide potable water service to the City of Belmont. Seven (7) independent systems, including the Spring Valley Water Company, were consolidated and began functioning as a public utility in 1930. Since the first operation, the District has purchased its entire water supply from the City of San Francisco.

The District now supplies water to consumers in an area slightly larger than the City of Belmont's city limits. Small portions of the service area are within the boundaries of the City of San Carlos, the City of Redwood City (hydrants only), and parts of the unincorporated County. The District's service territory covers approximately five (5) square miles and serves approximately 30,000 people. In the event of an emergency, the District can serve or be served with interties between neighboring utilities. As of today, the District has one (1) intertie with the City of Foster City, three (3) with the City of San Carlos, one (1) with the City of Redwood City, and three (3) with the City of San Mateo.

The District's average daily consumption during summer months is 2,800,000 gallons per day, and the average daily consumption in winter months is 1,700,000 gallons per day. The District's jurisdictional area is displayed in **Figure 1** below.

Figure 1. Mid-Peninsula Water District Area Map



2.1. Governing Body Format

A five (5) member elected Board of Directors governs the District. The Board of Directors assumes responsibility for adopting this Plan, and the General Manager will oversee its implementation. The District is funded primarily through rates and has a staff of 21 full-time employees.

2.2. Population

MPWD provides services to a total population of approximately 30,000 people.

2.3. Assets

The District serves over 8,100 water connections and has two (2) turnouts from the San Francisco Public Utilities Commission (SFPUC) system. Within the system, there are eleven (11) storage tanks in which a combined total of 12,500,000 gallons of water can be stored. Though most of the system is gravity-fed, the system includes eight (8) pumping stations that allow the Water District to pump uphill when needed.

Water is conveyed throughout the system by approximately 95 miles of pipeline, ranging from four (4) inches to 24 inches in diameter.

3. CHANGES IN DEVELOPMENT

The District does not have direct jurisdiction over development approvals, plans, or permits, but does consult with municipalities and developers to provide approval for water service to new or improved developments. The District regularly coordinates with the cities of Belmont and San Carlos to assess impacts associated with major developments and zoning changes (e.g., Specific Plans). Over the last five (5) years, the cities of Belmont and San Carlos have focused heavily on transit-oriented housing and affordable residential units to meet regional housing needs. The District has made numerous system improvements, including the replacement and upsizing of many aging water mains to support current and future growth.

The Mid-Peninsula Water District's service area boundaries remain unchanged since the last Hazard Mitigation Plan cycle. The District's service area is built out. New construction is almost entirely redevelopment, typically the conversion of commercial or industrial areas to multi-family or mixed-use developments.

The cities of Belmont and San Carlos are currently completing two (2) Specific Plans for areas within the District – the City of Belmont Harbor Industrial Area Specific Plan and the City of San Carlos Northeast Specific Plan. The District has completed Water Supply Assessments for both Plans, studying the increased water use expected to be associated with the changes proposed in the Plans. Both Plans will enable the development of multi-family housing (including mixed-use developments) in areas that are currently built out as commercial and industrial spaces, as well as allow the redevelopment of areas into life sciences research and development use. The City of Belmont is also seeing increased redevelopment of multifamily residential buildings, particularly along the transportation corridor, in part due to concerted efforts to meet its Regional Housing Needs Allocation (RHNA) numbers.

The two (2) Specific Plan areas are vulnerable to flooding, earthquakes (liquefaction areas), and sea level rise risk due to their location. Based on the proposed zoning changes, development in these areas is anticipated to convert land use from industrial to mixed-use, multifamily residential, and other commercial uses, which may result in greater economic and human impact from hazards.

The District is continually working to reinvest in its system to maintain and improve it, increase its resiliency, and support future needs of the community. MPWD is currently planning the following infrastructure improvement projects for the next five (5) years:

- **Dekoven Water Storage Tanks Replacement:** Structural analysis of the Dekoven Water Storage Tanks identified seismic vulnerabilities that could lead to failure during a large seismic event. The Dekoven Water Storage Tanks are the oldest tanks in the system (built in 1952) with a combined capacity of 1.7 million gallons. Failure of a tank would not only damage critical infrastructure but could also damage neighboring residential properties. To mitigate the risk of tank failure in the event of a large earthquake, the tanks are being operated below full capacity, reducing available storage. Particularly in the summer months, when demand is high, this reduces the water available as emergency storage for fire flow needs and in the event of a loss of SFPUC supply, such as during a large earthquake or other disaster. The tanks will be rebuilt to meet current

seismic building standards and mitigate seismic risks as well as increase the storage available for firefighting needs. Additionally, a chloramine booster station will be added to the site, which will allow the District to better control water quality and avoid the need to "dump" tanks if water quality is lost. This will mitigate risks to water quality related to climate change, extreme warm weather, and droughts.

- **Hallmark Water Storage Tanks Replacement:** Structural analysis of the Hallmark Water Storage Tanks identified seismic vulnerabilities that could lead to failure during a large seismic event. The Hallmark Water Storage Tanks are the two (2) largest and most critical tanks in the MPWD system (built in 1967), with a combined capacity of five (5) million gallons. Failure of a tank would not only damage critical infrastructure but could also damage neighboring properties. To mitigate the risk of tank failure in the event of a large earthquake, the tanks are being operated below full capacity, reducing available storage. Particularly in the summer months, when demand is high, this reduces the water available as emergency storage for fireflow needs and in the event of a loss of SFPUC supply, such as in a large earthquake or other disaster. The tanks will be rebuilt to meet current seismic building standards and mitigate seismic risk. Additionally, the rebuilding will increase the storage available for firefighting needs.
- **Arthur Ave. Improvements and Notre Dame Avenue Loop Closure:** Future projects on Arthur Avenue and Notre Dame Avenue aim to eliminate "dead-end" pipes. These assets are vulnerable because a single break can isolate entire neighborhoods from both drinking water and firefighting flows. These projects reduce potential impacts from both seismic and wildfire risks.
- **Modernize Dairy Lane Operations Center for Resiliency:** In the 2022/2023 New Year's Flood, the District's operations center at 3 Dairy Lane experienced flooding from a significant atmospheric river weather event. The 3 Dairy Lane Operations Center Rehabilitation is designed to address the facility's severe vulnerability to flooding and sea level rise, as well as mitigate seismic deficiencies and add facilities needed for day-to-day operations. The scope includes a reconstruction of the administration facility to modern seismic and environmental standards, seismic retrofit of the existing warehouse structure, flood mitigation features, installation of solar (photovoltaic) panels, electric vehicle charging infrastructure, improved backup power generation ability, and office space expansion to accommodate space planning for a 75–100-year planning horizon.

  This project is critical to ensure that the operations center will withstand seismic and flooding events and that MPWD staff will be able to deploy for repairs and system restoration immediately following a major hazard event. It will also integrate "Green" building practices and climate-adaptive site drainage to mitigate localized flooding.
- **Folger Drive Emergency Operations Center:** The Folger Drive project is a critical infrastructure initiative for the MPWD. It involves the significant renovation of an existing underused property to serve as a hub for district coordination during natural disasters or system failures. The facility will be designated as the District's emergency operations center (EOC). The project includes converting one (1) room to a six (6)-bed bunkroom to allow staff to stay overnight at the building during an emergency. The Project scope includes, but is not limited to, modifications to existing interior and exterior walls, doors, interior and exterior glazing, ceilings, and finishes, compliance with current life safety codes, and modifications to building systems (e.g., HVAC, electrical, lighting, telecommunications, audio/visual, and plumbing).

  The project will upgrade the facility to modern seismic standards to ensure it remains functional during and after a major earthquake and to act as a secure command center during regional emergencies. Additionally, it will ensure operational continuity, allowing MPWD to maintain or

quickly restore water services following a disaster, so the facility can support community lifelines and water district operations during emergencies.

- **US Highway 101 Crossing at Palo Alto Medical Foundation Hospital:** The first phase of this project was completed in 2021. The next phase will include replacing a major transmission main that runs beneath US Highway 101, near the Palo Alto Medical Foundation facility in San Carlos. This project will replace an existing AC water main that is particularly susceptible to catastrophic failure during a large earthquake. Replacing this water main will protect the transmission of water and increase the system's redundancy and operational flexibility to support the needs of the Palo Alto Medical Foundation facility through a major event. The District is proceeding with its final design, anticipating construction in late summer 2026.
- **Exbourne/West Belmont Water Tanks Recoating and Structural Improvements:** The two (2) Exbourne and two (2) West Belmont water storage tanks are in need of recoating to extend the life of these steel tanks. Additionally, it was found that in at least one (1)of the Exbourne tanks, the interior coating has failed such that the roof rafter structure has degraded and warrants replacement. Improvements will include recoating degraded interior and exterior surfaces and needed structural retrofits.
- **Lower Notre Dame Avenue/Willow Lane/Oak Knoll Cross Country (LNDWO) Water Main Improvements:** Notre Dame Avenue improvements include replacing 3,400 linear feet of water main installed in 1946, which serves as the primary transmission line between the Hannibal Pump Station and the Hersom tank, which have experienced several leaks over the past few years. Willow Lane improvements will abandon an existing four (4)-inch water main installed in 1946 and replace it with an eight (8)-inch main and install additional fire hydrants. The project will increase potential fire flow by over 200%. Design is underway with verification of the topographic survey, utility locating, and preliminary layout.

  The Oak Knoll Cross Country water main project involves replacing a section of cast iron pipe (CIP) with new ductile iron pipe. To complete this, the project team must address several encroachment issues where private property improvements overlap with the city's right-of-way. Key tasks include performing topographic and boundary surveys to map the exact extent of the encroachments, and coordination with property owners and the City of Belmont to either move private structures out of the right-of-way or determine if the new water main can be rerouted to avoid them.
- **Regional Intertie Reliability and Reconfiguration Project:** MPWD manages eight (8) interties, or interconnections, with neighboring water systems at seven (7) different locations. These interties allow water to be transferred from one (1) water system to another in times of emergency need. Interties are an important resilience resource that can be used by water agencies following emergencies such as main breaks, earthquakes, loss of a water supply source, pump station failure, wildfire, or other large-scale fire events.

  These interties help prevent loss of service, loss of pressure, and the associated water quality health risks and boil water notices. The scope includes rebuilding and reconfiguring seven (7) critical water system interconnections at six (6) locations. This project upgrades the physical infrastructure connecting MPWD to the City of San Carlos, City of San Mateo, and City of Redwood City water systems. Improvements include structural hardening, updated valving for ease of operation, and high-accuracy metering to ensure reliable emergency water transfers during large-scale disasters.

- **San Juan Boulevard Improvements Project:** This project will abandon a parallel 4" CIP along San Juan Boulevard and increase a 6" CIP along San Juan Blvd to 8" ductile iron pipe (DIP). The original pipes were installed in 1936 and 1950. The project will also add a new fire hydrant, replace two (2) fire hydrants that do not meet current standards, and result in an 83% increase in available fire flow in this area.

3.1. Changes in Priority

MPWD has placed a higher priority on emergency preparedness, particularly by improving coordination and collaboration with external partners, including the City of Belmont, San Mateo Consolidated Fire Department, County Department of Emergency Management, and the San Francisco Public Utilities Commission, among others. This was reflected in the District's 2025 and 2026 Strategic Plan updates. Along with this, the District has renewed its emphasis on completing infrastructure modernization and upgrades to address seismic deficiencies and flood vulnerabilities. These changes are a direct response to recent environmental disasters, including the 2025 Los Angeles County wildfires and the 2022/2023 New Year's Eve floods, the increased rate of housing development in the City of Belmont, and the need for long-term funding to support major infrastructure improvements. Recent extreme weather events and the constant threat of earthquakes have further emphasized the need for enhancing disaster resilience of the District's operations and infrastructure.

The following projects reflect the District's higher priority to emergency preparedness:

- **Dairy Lane Operations Center Modernization and New Emergency Operations Center (EOC):** The devastating 2022 New Year's Eve storm flooded the District's Dairy Lane operations center and forced District office and customer services functions to relocate to a leased space. The Dairy Lane operations center will undergo a significant renovation, including the reconstruction of its office building, seismic retrofit of the shop building, flood mitigation features, and other improvements. Due to the operation center's location, vulnerability to hazards, and limited access to the site, it was determined that the District would benefit from a permanent EOC that is not subject to the same hazards, with the expectation that it would be accessible if the main operations center is unavailable. While the primary Dairy Lane facility is being rebuilt for long-term resiliency, the Board prioritized the development of a secondary, geographically separate EOC at Folger Drive to ensure redundant command-and-control capabilities. The goal of completing both of these projects is to maintain continuity of service during future floods, fires, earthquakes, or other disasters.
- **Acceleration of Seismic Retrofit and Mitigation Projects:** Most of the District's current high-priority capital projects are specifically targeting major seismic deficiencies in critical infrastructure, such as water mains and storage tanks, to ensure they survive and remain operational through a major regional earthquake. To accelerate these projects, the District included a more aggressive CIP implementation plan in its 2024 customer water rate increase and issued debt in 2025. The District is also pursuing grants and other funding opportunities to continue to achieve this goal.
- **Capacity Charge Update:** The District elected to do a new Capacity Charge Study in 2026 to update its capacity charge fees. The revenue generated from new commercial and multi-family development capacity charge fees is used to fund expansion-related capital costs, such as upsizing water mains to accommodate increased demand on the system. The 2026 Capacity

Charge Study will ensure that new developments pay their proportional share of system expansion. This protects existing ratepayers from subsidizing the infrastructure needed for new, high-density residential projects, supporting economic equity across the District.

- **Rate Realignment:** The District completed a Water Rate Study in 2024 and increased customer water rates in January 2025 for the first time since 2019, with the exception of pass-throughs of wholesale cost increases. This Water Rate Study included a more aggressive implementation rate for the District's 5-year CIP to accelerate the completion of high-priority projects, including those to mitigate a variety of hazards, and to facilitate the issuance of long-term debt to fund these projects. The Water Rate Study also realigned customer rate tiers to match current usage patterns.

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 MPWD's authorities, policies, programs, and resources. Goals and mitigation actions were developed using input from this assessment.

The Local Planning Team assessed MPWD'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 District's day-to-day activities were considered.

4.1. Planning and Regulatory Capabilities

MPWD relies on San Mateo County and the cities of Belmont and San Carlos to maintain a strong framework of codes, ordinances, and requirements to help mitigate the impacts of the hazards identified in this Plan. **Table 1** 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 1. 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	n/a	n/a	n/a	Responsibility of other entities
Strategic Plan	Yes	Local	MPWD	Updated annually
Capital Improvement Plan	Yes	Local	MPWD	2024-2025 Capital Improvement Program, updated every two (2) to three (3) years
Floodplain Management / Basin Plan	n/a	n/a	n/a	Responsibility of other entities
Stormwater Management Plan	n/a	n/a	n/a	Responsibility of other entities
Open Space Plan	n/a	n/a	n/a	Responsibility of other entities
Stream Corridor Management Plan	n/a	n/a	n/a	Responsibility of other entities
Watershed Management or Protection Plan	n/a	n/a	n/a	Responsibility of other entities
Economic Development Plan	n/a	n/a	n/a	Responsibility of other entities
Comprehensive Emergency Management Plan	n/a	n/a	n/a	Responsibility of other entities
Emergency Operations Plan	Yes	Local	MPWD	AWIA Emergency Response Plan, last updated in 2021; 2026 update in progress
Evacuation Plan	n/a	n/a	n/a	Responsibility of other entities
Post-Disaster Recovery Plan	n/a	n/a	n/a	Responsibility of other entities
Transportation Plan	n/a	n/a	n/a	Responsibility of other entities
Strategic Recovery Planning Report	n/a	n/a	n/a	Responsibility of other entities
Climate Adaptation Plan	n/a	n/a	n/a	Responsibility of other entities
Resilience Plan	n/a	n/a	n/a	Responsibility of other entities
Urban Water Management Plan	Yes	Local	MPWD	Last updated in 2021; 2026 update in progress
Water Storage Contingency Plan	Yes	Local	MPWD	Last updated in 2021; 2026 update in progress
Regulatory Capability				
Water Service Ordinance	Yes	Local	Board of Directors	Ordinance No. 103 (Last amended by Ordinance No. 133 in April 2026)

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.)*
Building Code	n/a	n/a	n/a	Responsibility of other entities
Zoning Code	n/a	n/a	n/a	Responsibility of other entities
Subdivision Code	n/a	n/a	n/a	Responsibility of other entities
Flood Damage Prevention Ordinance	n/a	n/a	n/a	Responsibility of other entities
Cumulative Substantial Damage Ordinance	n/a	n/a	n/a	Responsibility of other entities
Freeboard	n/a	n/a	n/a	Responsibility of other entities
Growth Management Ordinance	n/a	n/a	n/a	Responsibility of other entities
Site Plan Review	n/a	n/a	n/a	Responsibility of other entities
Stormwater Management Ordinance	n/a	n/a	n/a	Responsibility of other entities
Municipal Separate Storm Sewer System (MS4)	n/a	n/a	n/a	Responsibility of other entities
Natural Hazard Ordinance	n/a	n/a	n/a	Responsibility of other entities
Post-Disaster Recovery Ordinance	n/a	n/a	n/a	Responsibility of other entities
Real Estate Disclosure Requirement	n/a	n/a	n/a	Responsibility of other entities

4.2. Administrative and Technical Capabilities

The administrative and technical capabilities listed in **Table 2** 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 2. Administration and Technical Capabilities

Capability	Yes/No	Comments *(e.g., position, department, agency, explanation)*
Administrative Capabilities		
Planning Board	Yes	MPWD Board of Directors
Mitigation Planning Committee	No	n/a
Environmental Board/Commission	No	n/a
Open Space Board/Committee	No	n/a

Capability	Yes/No	Comments *(e.g., position, department, agency, explanation)*
Economic Development Commission/Committee	No	n/a
Maintenance programs to reduce risk	Yes	MPWD Operations
Mutual Aid Agreements	Yes	CalWarn California Utilities Emergency Association
Technical/Staffing Capabilities		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	General Manager Operations Manager District Engineer Water Resources Coordinator
Engineer(s) or professional(s) trained in building or infrastructure construction practices	Yes	District Engineer
Planners or engineers with an understanding of natural hazards	Yes	General Manager District Engineer
NFIP Floodplain Administrator	No	n/a
Surveyor(s)	No	n/a
Personnel skilled or trained in GIS applications	Yes	General Manager Water Resources Coordinator
A scientist familiar with natural hazards	No	n/a
Warning systems/services	Yes	MPWD "Customer Connect" Opt-in text messaging and email alerts
Emergency manager	Yes	General Manager Operations Manager
Grantwriter(s)	No	n/a
Staff with expertise or training in benefit cost analysis	No	n/a
Professionals trained in conducting damage assessments	No	n/a

4.3. Fiscal Capabilities

Table 3 lists fiscal capabilities available to MPWD 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 3. Financial Capabilities

Capability	Accessible or Eligible to Use
Community Development Block Grants (CDBG, CDBG-DR)	No
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

Capability	Accessible or Eligible to Use
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
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 4 lists the District'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 4. Education and Outreach Capabilities

Capability	Yes/No	Comments *(e.g., position, department, agency, explanation)*
Public Information Officer	Yes	General Manager Operations Manager
Personnel skilled or trained in website development	Yes	Consultants
Hazard mitigation information is available on the jurisdiction's website	Yes	Water Resources Coordinator
Utilize social media for hazard mitigation education and outreach	No	n/a
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	Yes	Water Resources Coordinator
An established warning system for hazard events	Yes	Water Resources Coordinator

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 5** summarizes the classifications of community programs available to MPWD.

Table 5. 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)	No	n/a	n/a
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

MPWD 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).

- **Non-Functional Turf Ordinance:** As required under State law, the District will be developing and implementing an ordinance banning the watering of non-functional turf by commercial, industrial, institutional, and homeowner association customers. This ordinance does not currently exist for the District, but will be helpful in reducing water use to better mitigate against future droughts and climate change impacts. This may include the need for additional staff or consulting resources to fully implement.
- **Cross-Connection Control and Backflow Prevention Program:** The District updated and expanded its Cross-Connection Control Program (CCCP) in 2025. This program is designed to mitigate risks associated with the creation of cross-connections to our system and backflow into the MPWD system. Various natural hazards can cause backflow conditions that allow contamination to enter the system, such as pressure loss from wildfires in urban areas or main breaks from a major earthquake. The District is working to implement the new program and work with customers to mitigate such risks across the system. This may include the need for additional staff or consulting resources to fully implement.
- **Emergency Response Training:** The District has a small staff, consisting of water system operators and administrative staff. The District has identified a need for additional, expanded emergency response training for all staff, including more comprehensive National Incident Management System (NIMS) training and advanced incident command training, including in-house emergency response exercises and activities.
- **Geographic Information System:** GIS provides complex mapping and data management of MPWD facilities, land use, and potential hazards. It also supports visualizing complex datasets using geolocation and data correlation. The District has identified a need to improve its GIS mapping update processes, train additional staff in GIS use, and expand the capabilities of its GIS-based management system.
- **Grant Writing Capabilities:** The District uses consultants to identify and pursue grant funding opportunities. The grant program is new to the District, and to date, the District has not obtained

any grant or related funding. The District has identified a need to expand its grant writing program and improve its project planning to better align with available grant programs and ultimately pursue more funding opportunities to support MPWD projects and programs that mitigate hazards, among other benefits.

- **External Emergency Response Organizations:** MWPD is working to better engage in collaborative emergency planning with outside agencies, such as the police and fire departments that share jurisdictions, as well as the County Department of Emergency Management, and other regional stakeholders. MPWD is also an engaged member of the California Water Agency Response Network (CalWARN) and California Utility Emergency Association (CUEA). Active engagement with these external emergency response organizations allows MPWD to establish relationships, leverage mutual aid resources, gather information and expertise from other utilities and emergency response organizations, and collaborate on shared emergency plans and communication strategies. The District plans to continue this involvement and effort, although it is acknowledged that with a small staff, this engagement is challenging to achieve and would benefit from additional regional planning, coordination, and leadership.
- **District Reserves:** Consists primarily of water sales, supplemented by capacity charges and investment interest, and a small amount of property tax, property leases, and other revenues that can be used for operating and maintenance expenses and capital improvement projects for the water system. When necessary or applicable, and after its operational budgetary needs are met, the District can utilize its reserves for projects and programs that mitigate natural hazards.
- **Hazard Mitigation Grant Program:** The Hazard Mitigation Grant Program (HMGP) provides support for post-disaster mitigation plans and projects. The District can train staff or continue to utilize staff to track and pursue opportunities on the Cal OES mitigation website for grant funding. By aligning projects with HMGP criteria, MPWD could leverage federal dollars to offset mitigation costs.
- **Building Resilient Infrastructure and Communities:** Building Resilient Infrastructure and Communities (BRIC) provides support for pre-disaster mitigation plans and projects. The District can train staff or continue to utilize staff to track and pursue opportunities on the Cal OES mitigation website for grant funding. By aligning projects with BRIC criteria, MPWD could leverage federal dollars to offset mitigation costs.
- **Flood Mitigation Assistance Grant Program:** The Flood Mitigation Assistance (FMA) Grant Program mitigates structures and infrastructure with repetitive losses. The District can train staff or continue to utilize staff to track and pursue opportunities on the Cal OES mitigation website for grant funding. By aligning projects with FMA criteria, MPWD could potentially leverage federal dollars to offset the costs of flood mitigation upgrades.

5. NATIONAL FLOOD INSURANCE PROGRAM

As a special district, the MPWD is not eligible to participate in FEMA's National Flood Insurance Program (NFIP). Further information on San Mateo County's NFIP and Community Rating System (CRS) participation is available in **Volume 1** of this Plan and under each jurisdictional annex (**Volume 2**).

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, MPWD has made progress in integrating components of the hazard mitigation strategy (e.g., goals, objectives, and actions) into planning initiatives and mechanisms. **Table 6** highlights the planning mechanisms/initiatives in which the previous Plan was integrated and the information integrated.

Table 6. Existing Plan Integration

Planning Initiative	Current Integration Description
Capital Improvement Program	The District's Capital Improvement Program (CIP) identifies capital projects needed to improve the water system, continue to provide a high level of service to customers, and support community growth. It is the primary vehicle for executing the physical mitigation actions identified in the LHMP. The CIP is updated as needed, typically every four (4) years, and supports the District's ability to prioritize capital improvements and the financial planning needed to complete those projects. Many of the projects in the CIP include improvements that mitigate hazards identified in the LHMP.
Urban Water Management Plan	The UWMP evaluates long-term water supply reliability over a 20-year horizon and is updated every five (5) years, as required by the California Urban Water Management Planning Act, and integrates the latest LHMP. The UWMP examines supply availability under a range of conditions, including single- and multi-year droughts and climate change, and assesses the impacts on supply availability and sufficiency to meet projected customer demand within the planning horizon.
Water Shortage Contingency Plan	The Water Shortage Contingency Plan (WSCP) is updated every five (5) years. The WSCP identifies actions for the District to take in times of water shortage, whether due to droughts or other conditions that cause a loss of supply, such as catastrophic infrastructure failures during a major earthquake. During WSCP updates, the District refers to and consults the LHMP while considering the factors that can result in water shortages, such as drought and supply loss from earthquakes or other disasters, and how that may affect the types of actions taken at each level of shortage.

Planning Initiative	Current Integration Description
Annual Budget	The District prepares budgets each fiscal year for both operating and capital needs. Capital projects that mitigate the hazards identified in the LHMP are critical for the District to be able to maintain its level of service to the customers and are therefore considered and prioritized in the development of the capital budgets on an annual basis and on a five (5) year look ahead.
Five-Year Rate Studies	Approximately every five (5) years, the District conducts a water rate study under Proposition 218 to determine its revenue requirements to meet the cost of service of the District. This process considers the cost of services needed for operations, as well as capital projects necessary to maintain service to customers. Capital projects that mitigate the hazards identified in the LHMP are critical for the District to maintain its level of service to customers and are therefore included in the District's revenue needs.
Emergency Response Plan	The Emergency Response Plan (ERP) is the tactical guide for how staff respond during a disaster. It describes strategies, resources, plans, and procedures the District can use to prepare for and respond to an incident, natural or human-caused, that threatens life, property, or the environment. Incidents can range from small main breaks or localized flooding, earthquakes, or system contamination, among other examples. The risk assessment data from the LHMP is used to identify the types of emergencies that the District may need to respond to and is integral in developing the ERP. New vulnerabilities are addressed as they are identified by hazard mitigation efforts. For example, because the District was affected by a flood, which highlighted how flood-prone District facilities can be, the next ERP update will include more detail and greater emphasis on responses to flood conditions.

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 7** 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 7. Potential Future Integration

Planning Initiative	Current Integration Description
Emergency Operations Plan	San Mateo Consolidated Fire Department (SMCFD) expressed an interest in updating the Emergency Operations Plan (EOP) for the City of Belmont and the other jurisdictions it serves. SMCFD engaged with water purveyors, including MPWD, to create water purveyor-specific annexes in the updated EOP. If SMCFD moves forward with this update, this LHMP will serve as an essential tool for creating the MPWD EOP annex. Mitigation actions that are of a preparedness and response nature will be analyzed for applicability and inclusion in EOP processes and procedures.

Planning Initiative	Current Integration Description
Water Shortage Contingency Plan	In accordance with the California Urban Water Management Planning Act, the District's Water Shortage Contingency Plan (WSCP) is updated every five (5) years, as required of all public water suppliers that provide water for municipal purposes to more than 3,000 customers or supply more than 3,000 acre-feet of water annually. The WSCP identifies actions for the District to take during water shortages, whether caused by droughts or other conditions that lead to a loss of supply, such as catastrophic infrastructure failures during a major earthquake. This LHMP will be used as a tool to update the WSCP. Mitigation actions that are of a preparedness and response nature will be analyzed for applicability and inclusion in the WSCP.
Capital Improvement Program	The District's Capital Improvement Program (CIP) identifies capital projects needed to improve the water system, maintain a high level of service for customers, and support community growth. This document gets updated as needed (usually every four (4) years) and supports the District's ability to prioritize capital improvements and the financial planning needed to complete those projects. As specifically identified, the CIP includes capital projects and programs that will improve MPWD's facilities and mitigate hazards included in the LHMP. This LHMP will be used as a tool to update the CIP. Mitigation actions that are of a preparedness and response nature will be analyzed for applicability and inclusion in the CIP.
Strategic Plan	The District's Strategic Plan lays out the visionary goals and strategic elements of the Board, as well as the specific priorities the District will work toward. The Plan is updated every year with new priorities and focus for the coming year and guides budgetary and staff resources planning. This LHMP will be used to update the Strategic Plan, and mitigation actions will be analyzed for applicability and inclusion in future Strategic Plan updates.
Emergency Response Plan	The Emergency Response Plan (ERP) describes strategies, resources, plans, and procedures the District can use to prepare for and respond to an incident, natural or human-made, that threatens life, property, or the environment. Incidents can range from small main breaks or localized flooding, earthquakes, or system contamination, among other examples. The American Water Infrastructure Act (AWIA) requires community (drinking) water systems serving more than 3,300 people to develop or update Risk and Resilience Assessments (RRAs) and ERPs. The LHMP will serve as an essential tool for updating the ERP, including the hazard descriptions. Mitigation actions that are of a preparedness and response nature will be analyzed for applicability and inclusion in the description of ERP processes and procedures.

The District'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. **Table 8** provides information on significant hazard events that uniquely impacted MPWD.

Table 8. Significant Past Events

Date	Event Type *(include Disaster Declaration, if applicable)*	Description of Event and Impacts
December 31, 2022	Severe Winter Storms, Flooding, Landslides, and Mudslides *(4683-DR-CA)*	Extraordinary rainfall due to an atmospheric river storm fell across Northern California on December 31st, 2022. During this storm, many areas of San Mateo County experienced flooding, including the District's Dairy Lane Operations Facility. Flood waters inundated the District's administrative offices, shop, and corporation yard. Staff were on site and were able to mitigate some damage to the building's interior using sandbags, plastic sheeting, and other measures. This mitigation was successful, as evidenced by the floodwaters being higher on the exterior of the building than on the interior. However, despite these efforts, damage to the building and its contents was significant. Currently, the administrative offices remain unoccupiable, and the field operations facility's functionality is limited until the building is rehabilitated. Several states of emergency were declared for the region due to these storms, including: • City of San Carlos – December 31, 2022; • County of San Mateo – January 2, 2023; • City of Belmont – January 3, 2023; • The Governor of California – January 4, 2023; and • President of the United States – January 9, 2023.

8. HAZARD VULNERABILITY AND IMPACT ASSESSMENT

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

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

- Drought
- Earthquake
- Flood *(riverine flooding, urban/flash flooding, coastal flooding)*
- Sea Level Rise

- Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*
- Wildfire

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

- Dam Failure
- Landslide
- Tsunami

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

Table 9 outlines the ***unique vulnerabilities and impacts*** for MPWD 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 9. Hazard Vulnerability and Impact Assessment

Hazard	Vulnerability and Impacts
Dam Failure	The Local Planning Team determined that the District does not have unique vulnerabilities or impacts from dam failure; rather, the jurisdiction's vulnerabilities and impacts are consistent with those experienced throughout the County.

Hazard	Vulnerability and Impacts
Drought	The MPWD is a water purveyor serving businesses and residents within its jurisdiction. The sole source of water supply is the San Francisco Regional Water System, and, as such, water availability is significantly reduced during drought. The District does not have any other "drought-proof" sources of supply, such as groundwater or recycled water. Current estimates indicate a potential for a greater than 50% reduction in water availability relative to our customers' current demands during a multi-year drought if the Bay Delta Plan Amendment is implemented as written (state law). In addition to a limited water supply during drought, water sales are the District's primary source of revenue, which can be dramatically affected during significant and prolonged droughts. Further, if customers are unable to reduce their water demand to the degree required under a San Francisco-mandated cutback, the per-unit cost of water purchases will increase to an amount unknown in advance. The 2020 Urban Water Management Plan (UWMP) identifies drought-shortfall impacts on the water supply based on conditions known at the time. The District is currently updating the UWMP, which is anticipated to be adopted in summer 2026 and will identify drought shortfall impacts under current conditions. The Water Supply Agreement with San Francisco outlines the drought surcharge process if the District's purchase exceeds the mandatory cutback amount. The District's annual budgets identify how much revenue comes from our water sales.
Earthquake	MPWD has many critical infrastructure assets that have been identified as requiring seismic upgrades and/or replacement, including: • Dairy Lane Operations Center • Hallmark Water Tanks • Dekoven Water Tanks • Folger Emergency Operations Center • O'Neill Slough Bridge Crossing Infrastructure • Multiple Water Mains (many locations and projects identified with older pipes and those made of AC/cast iron/steel) These projects are specifically identified in the Capital Improvement Program, last updated FY 2024/2025.

Hazard	Vulnerability and Impacts
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	In the 2022/2023 New Year's Flood, the entire Dairy Lane Operations Center flooded. The District was unable to access the administrative offices and the corporate yard. The administrative offices sustained significant damage, and the District had to find an alternative leased location for customer service, Board activities, and all other office functions. With sea level rise, the site is expected to become increasingly vulnerable to future flooding. The mobile home park immediately adjacent to the facility has flooded multiple times, and the District is now noticing an increasing severity impact on District facilities.
Landslide	The Local Planning Team determined that the District does not have unique vulnerabilities or impacts from landslides; rather, the jurisdiction's vulnerabilities and impacts are consistent with those experienced throughout the County.
Sea Level Rise	All of the District's water mains are underground, and particularly those on the west side of El Camino Real (State Route 82), could come into contact with rising groundwater associated with sea level rise. This can impact the stability of pipes by eroding support structures and surrounding soils. Rising groundwater levels near the coastal areas of the jurisdiction pose a risk of saltwater intrusion, which contributes to the corrosion and deterioration of mains and introduces the potential for contamination in the event of a pipe defect that allows water to enter. These threats can cause system failures, leaving the community and customers without water until repairs are made. In addition, sea level rise can contribute to flooding during king tides, when rain cannot efficiently drain into the bay because higher sea levels inundate storm drainage systems.
Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	Under extreme heat, the quality of water in storage tanks can be compromised. There have been numerous incidents in which the water temperature in the tanks has increased, degrading the chloramine residuals that inhibit bacterial growth. When that occurs, the water can become nitrified and unsuitable for serving customers. As a result, the entire tank of water has to be discarded (potentially hundreds of thousands to over two (2) million gallons at a time).
Tsunami	The Local Planning Team determined that the District does not have unique vulnerabilities or impacts from tsunamis; rather, the jurisdiction's vulnerabilities and impacts are consistent with those experienced throughout the County.
Wildfire	Two (2) of the District's largest and most important water storage tank sites are adjacent to open spaces (Hallmark and West Belmont tank sites) that are vulnerable to wildfires. Additionally, the key water supply take point from the San Francisco Regional Water Supply system is located in a heavily vegetated open space area. The tanks and accompanying pump stations are key infrastructure where water is stored, and system pressures for both drinking water customers and firefighting needs are regulated and controlled. The take point is the primary source of water for the entire system. If these assets were lost to wildfire, it would impair the District's ability to provide drinking water and firefighting flows to much of the system.

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

Table 10. Climate Change: Current and Future Vulnerability and Impact

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

Table 17 outlines whether changes in population within the District over the past five (5) years have increased or decreased the vulnerability (i.e., exposure) and impact to these natural hazards, and the

anticipated effects changes in population may have on the future probability of occurrence and impacts from these natural hazards.

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

Hazard	Vulnerability and Impact
Current Vulnerability and Impact	
Dam Failure	Not Applicable
Drought	Increased
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	Not Applicable
Drought	Increase
Earthquake	Increase
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	Increase
Wildfire	No Change Anticipated

Table 12 outlines whether development over the past five (5) years has increased or decreased the District'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 12. Changes in Development: Current and Future Vulnerability and Impact

Hazard	Vulnerability and Impact
Current Vulnerability and Impact	
Dam Failure	Not Applicable
Drought	Increased
Earthquake	Increased

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	Increased
Wildfire	Remained the Same
Future Vulnerability and Impact	
Dam Failure	Not Applicable
Drought	Increase
Earthquake	Increase
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	Increase
Wildfire	Increase

8.1. Future Major Assets

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

- **Dekoven Water Storage Tanks:** These are the oldest tanks in the system (built in 1952). Future replacement is necessary because structural analysis identified seismic vulnerabilities that could lead to failure during a large earthquake. While the facilities will still be vulnerable to earthquakes, the risk will be lessened. This asset is also critical for reducing hazards from drought and wildfire, and the rebuilding will increase the storage available to meet firefighting needs.
- **Hallmark Water Storage Tanks:** These are the two (2) largest and most critical tanks in the system (built in 1967) with a combined capacity of five (5) million gallons. Replacement is necessary because structural analysis identified seismic vulnerabilities that could lead to failure during a large earthquake. Failure of a tank would not only damage critical infrastructure but also damage neighboring properties. The rebuilding will increase the storage available for firefighting needs.

- **Dead-End Main Replacements:** Future projects on Arthur Avenue and Notre Dame Avenue aim to eliminate "dead-end" pipes. These assets are vulnerable because a single break from an earthquake can isolate entire neighborhoods from both drinking water and firefighting flows needed to protect against wildfire.
- **Dairy Lane Operations Center Rehabilitation:** This project includes work to update the operations center shop and corporate yard and to replace its office building with a new two-story structure. This project will address the facility's severe vulnerability to flooding, as well as correct seismic deficiencies, provide additional office space, and make other facility improvements. The project specifically includes raising the office building slab by 8.5 inches and creating 30-inch stem walls with emergency storm doors to provide over three (3) feet of additional flood protection to the office building. The rebuild will ensure that MPWD staff can deploy to perform repairs and restore systems immediately following a major earthquake, flood, or wildfire.
- **Folger Drive Emergency Operations Center:** The Folger Drive project is a critical infrastructure initiative. The project will upgrade the facility to modern seismic standards to ensure it remains functional during and after a major earthquake and to act as a command center and satellite corporate yard during regional emergencies. Additionally, it will ensure operational continuity so that MPWD can maintain or quickly restore water services following a disaster, ensuring the facility can support community lifelines and water district operations during emergencies.

9. HAZARD RISK RANKING

Table 13 presents the local hazard ranking for MPWD 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 13** 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 13. Mid-Peninsula Water District 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	33	65	90
Heavy Rainfall ***(Severe Weather)***	3	12	13	27	52	72
Earthquake	2	18	14	35	67	62
Wildfire	2	18	9	34	61	56
Heat Wave/Extreme Heat ***(Severe Weather)***	3	9	11	18	38	53
Drought	2	15	13	29	57	53
Landslide	2	9	9	31	46	45
Riverine Flooding ***(Flood)***	2	12	5	31	48	44
Severe Thunderstorm ***(Severe Weather)***	2	12	13	21	46	43
Strong Winds ***(Severe Weather)***	2	9	13	22	44	41
Sea Level Rise	2	6	5	25	36	33
Tornado ***(Severe Weather)***	1	6	13	13	32	15
Coastal Flooding ***(Flood)***	1	6	5	15	26	12
Fog ***(Severe Weather)***	1	6	9	11	26	12
Tsunami	1	6	5	12	23	11
Dam Failure	0	0	0	0	0	0

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

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

Total Risk Score Legend

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

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

10. MITIGATION ACTIONS

This section includes the mitigation actions developed to address the risks and vulnerabilities to the hazards identified in this Plan. This Plan serves only to recommend mitigation measures based on the potential for risk reduction and available funding. Implementation of mitigation actions is dependent on risk reduction priorities, feasibility, and available funding. It is also dependent on the cooperation and support of the jurisdiction and/or department responsible for each action item. Additionally, all mitigation actions identified in the 2021 update or before were updated accordingly. Any new mitigation actions are listed as *New* (under Project Status).

MPWD agreed to **12** mitigation actions that apply to the jurisdiction's properties for which it has jurisdictional responsibility and authority. A summary of the District's mitigation actions status is listed in **Table 14**.

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 13**). Hazards that ranked *low* (dam failure and tsunami) may not have specific mitigation actions detailed in this document.

Table 14. Mid-Peninsula Water District Mitigation Actions Summary

Status	Mitigation Action Total
Continuing	5
In Progress	2
Not Yet Started	0
New	6
TOTAL	**13**
Completed	0
No Longer Needed	0

Mitigation Actions per Hazard			
Dam Failure	n/a	Sea Level Rise	7
Drought	10	Severe Weather *(heavy rainfall, severe thunderstorms, strong winds, tornadoes, heat wave/extreme heat, fog)*	8
Earthquake	11	Tsunami	4
Flood *(riverine flooding, urban/flash flooding, coastal flooding)*	7	Wildfire	10
Landslide	4		

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, and stabilization of natural features located in high-hazard areas, prioritizing those that have experienced repetitive losses and/or are in high- or medium-risk hazard areas.				
Action Number	MPW-1	**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	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)*	High				
Lead Agency / Organization	Mid-Peninsula Water District (Operations Manager)				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	High	**Potential Funding Source**	General Fund, HMGP, FMA, BRIC		
Additional Details *(optional)*					

Mitigation Action	Integrate the San Mateo County Local Hazard Mitigation Plan into other District plans, ordinances, and programs that govern land use decisions in the community, including, but not limited to, the Capital Improvement Program and Emergency Response Plan.				
Action Number	MPW-2	**Goal(s) Addressed**	5	**Prioritization Score**	39/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	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	Mid-Peninsula Water District (Operations Manager)				
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		
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	MPW-3	**Goal(s) Addressed**	1, 2, 3, 4, 5	**Prioritization Score**	38/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	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)*	Low				
Lead Agency / Organization	Mid-Peninsula Water District (Operations Manager)				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Low	**Potential Funding Source**	General Fund, Staff Time, EMPG		
Additional Details *(optional)*	EMPG often funds the Staff positions that are responsible for plan maintenance and implementation.				

Mitigation Action	Identify and institutionalize climate adaptation strategies, such as developing alternative water supplies and increasing recycled water use. This will mitigate the impacts of climate-driven hazards by enhancing system redundancy and ensuring operational continuity after system failures due to disasters.				
Action Number	MPW-4	**Goal(s) Addressed**	1, 3, 5	**Prioritization Score**	37/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated		Drought, Flood, Sea Level Rise, Severe Weather, Wildfire			
Project Status		In Progress	If *No Longer Needed*, provide reason.	n/a	
Benefits *(Loss Avoided)*		Low			
Lead Agency / Organization		Mid-Peninsula Water District (Operations Manager)			
Supporting Agency / Organization *(If applicable)*		n/a			
Additional Participating Jurisdictions *(If Applicable)*		n/a			
Estimated Cost		Low	**Potential Funding Source**	General Fund, Staff Time	
Additional Details *(optional)*					

Mitigation Action	Enhance the Water Conservation Program by furthering public education and outreach campaigns to inform residents about water-saving techniques that can help mitigate drought impacts. This initiative will enable the District to educate its customers about the importance of water conservation and encourage them to implement water-saving techniques in their homes and businesses. Techniques can include installing low-flow shower heads and toilets, turning off the water while brushing your teeth, shaving, or washing produce, operating washers and dishwashers with full loads, watering lawns and plants during the cool part of the day, and replacing your turf with drought-resistant and native plants, among others.				
Action Number	MPW-5	**Goal(s) Addressed**	1, 2, 3, 4, 5	**Prioritization Score**	38/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated		Drought			
Project Status		Continuing	If *No Longer Needed*, provide reason.	n/a	
Benefits *(Loss Avoided)*		Medium			
Lead Agency / Organization		Mid-Peninsula Water District (Operations Manager)			
Supporting Agency / Organization *(If applicable)*		n/a			
Additional Participating Jurisdictions *(If Applicable)*		n/a			
Estimated Cost		Medium	**Potential Funding Source**	Operating Revenue	
Additional Details *(optional)*					

Mitigation Action	Ensure the structural integrity of critical water infrastructure and other District facilities by assessing vulnerabilities, implementing capital improvement projects to mitigate hazards, and aligning work with other agencies and jurisdictions.				
Action Number	MPW-6	**Goal(s) Addressed**	1, 3, 4, 5	**Prioritization Score**	36/40
Year Added to the Plan	2016	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	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	Mid-Peninsula Water District (Operations Manager)				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	High	**Potential Funding Source**	Operating Revenue, Debt		
Additional Details *(optional)*					

Mitigation Action	Augment the District's water supply beyond the San Francisco Public Utilities Commission (SFPUC) Regional Water System to ensure operational resilience and mitigate the impacts of drought and system failures during other hazard events.				
Action Number	MPW-7	**Goal(s) Addressed**	1, 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	Drought, Earthquake, Wildfire				
Project Status	In Progress	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	Mid-Peninsula Water District (Operations Manager)				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	High	**Potential Funding Source**	Operating Revenue, Debt issuance, California Department of Water Resources grants		
Additional Details *(optional)*					

Mitigation Action	Retrofit the Folger Drive Emergency Operations Center (EOC) to meet modern seismic standards and floodproofing requirements, ensuring ongoing operations and service delivery during and after a major earthquake. Additionally, emergency backup power will be added. Keeping this facility operational ensures that staff, neighboring agencies, and the public can rely on District operations during disasters when the main EOC is inaccessible.				
Action Number	MPW-8	**Goal(s) Addressed**	1, 2, 3, 4, 5	**Prioritization Score**	40/40
Year Added to the Plan	2026	**Timeline** *(estimated)*	3 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Drought, Earthquake, Flood, Sea Level Rise, Severe Weather, Wildfire				
Project Status	New	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	Mid-Peninsula Water District (Operations Manager)				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	High	**Potential Funding Source**	Customer Rate Revenue, Certificates of Participation, HMGP, BRIC		
Additional Details *(optional)*	The Folger EOC Project is the renovation of an underutilized property that was formerly part of the District's headquarters, to serve as an operations center and satellite corporate yard. The 2022/2023 New Year's flood severely damaged the District's Dairy Lane EOC (primary facility) and highlighted the vulnerabilities of the Dairy Lane site. Therefore, an alternative location outside any flood-prone or seismic-risk areas was identified. The conversion of the Folger Drive property will include remodeling of the existing office building, creation of a six (6) bed bunk room, seismic upgrades to the building, construction of a new shop building, and site upgrades, including stormwater management, electric vehicle charging, and an emergency backup power.				

Mitigation Action	Replace the two (2) existing steel water storage tanks at the Dekoven Tank Site with new seismically resilient tanks. The current tanks were built in 1952 and have structural vulnerabilities that require operating them at less than full capacity to prevent failure during a major seismic event. Replacing them will restore full storage capacity, ensuring adequate emergency water supply and fire flow during high-demand summer months, drought, and after a seismic event. Additionally, adding a chloramine booster station at the site will allow the District to control water quality locally and avoid the potential loss of water due to water quality degradation and the need to "dump" tanks.				
Action Number	MPW-9	**Goal(s) Addressed**	1, 2, 3, 4, 5	**Prioritization Score**	40/40
Year Added to the Plan	2026	**Timeline** *(estimated)*	1 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Drought, Earthquake, Severe Weather, Wildfire				
Project Status	New	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	Mid-Peninsula Water District (Operations Manager)				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	High	**Potential Funding Source**	Capital Improvement Program funds, HMGP, BRIC, United States Environmental Protection Agency Community Grants, State and Tribal Assistance Grants, Drinking Water State Revolving Fund		
Additional Details *(optional)*					

Mitigation Action	Retrofit the Dairy Lane Emergency Operations Center (EOC) to meet modern seismic standards and integrate flood mitigation features, ensuring ongoing operations and service delivery during and after a major earthquake or flood. Additionally, improvements to the plumbing and electrical system, HVAC system upgrades, and general facility modernization are needed.				
Action Number	MPW-10	**Goal(s) Addressed**	1, 2, 3, 4, 5	**Prioritization Score**	40/40
Year Added to the Plan	2026	**Timeline** *(estimated)*	1 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Earthquake, Flood, Sea Level Rise, Severe Weather				
Project Status	New	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	Mid-Peninsula Water District (Operations Manager)				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	High	**Potential Funding Source**	Capital Improvement Program funds, Customer Rate Revenue, Certificates of Participation, HMGP, FMA, BRIC		
Additional Details *(optional)*					

Mitigation Action	Replace the existing tanks in Hallmark Drive, built in 1967, with two (2) 2.5-million-gallon steel tanks built to current seismic standards and capable of being filled to capacity without risk of failure during a seismic event (or other hazards). The Hallmark Water Tanks Replacement project includes the demolition of the existing non-compliant tanks, geotechnical stabilization of the hillside site, construction of new tanks with seismic-rated foundations and flexible "earthquake" couplings, and integration of Supervisory Control and Data Acquisition (SCADA) monitoring system for real-time leak detection.				
Action Number	MPW-11	**Goal(s) Addressed**	1, 2, 3, 4, 5	**Prioritization Score**	40/40
Year Added to the Plan	2026	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Earthquake, Wildfire				
Project Status	New	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	Mid-Peninsula Water District (Operations Manager)				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	High	**Potential Funding Source**	Capital Improvement Program funds, HMGP, BRIC, United States Environmental Protection Agency Community Grants, State and Tribal Assistance Grants, Drinking Water State Revolving Fund		
Additional Details *(optional)*	The Hallmark Water Tanks are critical elements of the MPWD distribution system, providing potable and emergency water to the 30,000 customers the water district serves in the City of Belmont and other areas of San Mateo County. With five (5) million gallons of capacity, these are the largest tanks in the distribution system and impact every other part of the MPWD water system. The tanks are supplied from MPWD's primary connection to the San Francisco Hetch Hetchy Power System and are the only tanks able to supply water to each of the distribution system's nine (9) pressure zones, enabling pressure management, emergency water delivery, and water quality control.				

Mitigation Action	Rebuild and reconfigure seven (7) critical water system interconnections at six (6) locations. This project enhances the physical infrastructure connecting MPWD to the San Carlos, San Mateo, and Redwood City water systems. Improvements include structural hardening, updated valving for easier operation, and high-accuracy metering to ensure dependable emergency water transfers during large-scale disasters. The project also involves the reconstruction of seven (7) intertie vaults and piping, installation of modernized bidirectional meters and valves, integration of automated controls for quick activation, and structural reinforcement of vaults to withstand seismic ground shaking.				
Action Number	MPW-12	**Goal(s) Addressed**	1, 2, 3, 4, 5	**Prioritization Score**	40/40
Year Added to the Plan	2026	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Drought, Earthquake, Wildfire				
Project Status	New	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	Mid-Peninsula Water District (Operations Manager)				
Supporting Agency / Organization *(If applicable)*	City of San Carlos, City of San Mateo, City of Redwood City, City of Foster City, Estero Municipal Improvement District				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Medium	**Potential Funding Source**	Capital Improvement Program funds, HMGP, BRIC, United States Environmental Protection Agency Community Grants, State and Tribal Assistance Grants, Drinking Water State Revolving Fund		
Additional Details *(optional)*	MPWD manages eight (8) interties, or interconnections, with neighboring water systems at seven (7) different locations. These interties allow water to be transferred from one water system to another in times of need. Interties are an important resilience resource that can be used by water agencies following an emergency (e.g., main breaks during an earthquake), loss of a water supply source, pump station failure, wildfire, or other large-scale fire event. These interties help prevent loss of service, loss of pressure, and the associated water-quality health risks and boil-water notices.				

Mitigation Action	Replace and relocate an aged AC water main that crosses beneath the US 101 freeway. The current pipe would be expected to fail in a large earthquake, potentially catastrophically, and result in damage to the freeway. Replacing this pipe with modern, earthquake-resilient materials will eliminate this risk, provide resilient supply redundancy for portions of the system west of US Highway 101, and support the Palo Alto Medical Foundation (PAMF) facility.				
Action Number	MPW-13	**Goal(s) Addressed**	1, 2, 3, 4, 5	**Prioritization Score**	40/40
Year Added to the Plan	2026	**Timeline** *(estimated)*	1 to 3 Years	**Implementation Priority**	High
Hazard(s) Mitigated	Earthquake				
Project Status	New	If *No Longer Needed*, provide reason.	n/a		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	Mid-Peninsula Water District (Operations Manager)				
Supporting Agency / Organization *(If applicable)*	n/a				
Additional Participating Jurisdictions *(If Applicable)*	n/a				
Estimated Cost	Medium	**Potential Funding Source**	Capital Improvement Program funds, HMGP, BRIC, United States Environmental Protection Agency Community Grants, State and Tribal Assistance Grants, Drinking Water State Revolving Fund		
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)***	Low	A significant hazard event is likely to occur within 100 years.	1	N/A
Landslide	Medium	A significant hazard event is likely to occur within 25 years.	2	N/A
Sea Level Rise	High	A significant hazard event is likely to occur annually.	3	N/A
Heavy Rainfall ***(Severe Weather)***	High	A significant hazard event is likely to occur annually.	3	N/A
Heat Wave/Extreme Heat ***(Severe Weather)***	High	A significant hazard event is likely to occur annually.	3	N/A
Fog ***(Severe Weather)***	Low	A significant hazard event is likely to occur within 100 years.	1	N/A
Severe Thunderstorm ***(Severe Weather)***	Medium	A significant hazard event is likely to occur within 25 years.	2	N/A
Tornado ***(Severe Weather)***	Low	A significant hazard event is likely to occur within 100 years.	1	N/A
Strong Winds ***(Severe Weather)***	High	A significant hazard event is likely to occur annually.	3	N/A
Tsunami	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***	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
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***	Medium	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a medium-intensity incident.	2	3	6
	Catastrophic	Medium	Medium potential that this hazard could be catastrophic.	2	3	6
Tornado ***(Severe Weather)***	***Extent/Severity***	Low	Historical and/or probabilistic models/studies for this hazard indicate the possibility of a low-intensity incident.	1	3	3
	Catastrophic	Low	Low potential that this hazard could be catastrophic.	1	3	3
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***	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
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***	Low	14% or less of the population is exposed to the hazard.	1	3	3
	Property Exposure	Medium	10% to 24% of the total assessed property value is exposed to a hazard.	2	1	2
	Changes in Development	Low	Changes in development have increased the community's exposure to the hazard by 4% or less.	1	1	1
Urban/Flash Flooding *(Flood)*	***Population Exposure***	High	30% or more of the population is exposed to the hazard.	3	3	9
	Property Exposure	High	25% or more of the total assessed property value is exposed to the hazard.	3	1	3
	Changes in Development	Medium	Changes in development have increased the community's exposure to the hazard between 5% and 9%.	2	1	2
Coastal Flooding *(Flood)*	***Population Exposure***	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
Landslide	***Population Exposure***	Medium	15% to 29% of the population is exposed to the hazard.	2	3	6
	Property Exposure	Medium	10% to 24% of the total assessed property value is exposed to a hazard.	2	1	2
	Changes in Development	Low	Changes in development have increased the community's exposure to the hazard by 4% or less.	1	1	1
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	Medium	More than $500,000 but less than $5 million in property, facilities, and infrastructure damage is expected from a single significant event, or damages are expected to occur to more than 5% but less than 15% of the property value within the jurisdiction.	2	2	4
	Economic	Medium	Total economic impact is likely to be greater than $100,000, but less than or equal to $10 million.	2	1	2
	Environmental	Medium	Environmental impact from a single significant event is likely to be localized, requiring some outside resources and support; and/or repair, cleanup, restoration, or preservation work.	2	1	2
	Continuity of Operations/Delivery of Services	Low	Impact lasting less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single significant event.	1	1	1
	Future Development	Low	Future development trends will minimally increase the impacts of this hazard.	1	1	1
	Climate Change	High	Climate Change trends will significantly increase the impacts of this hazard.	3	1	3

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Urban/Flash Flooding *(Flood)*	***Population and Life Safety***	Medium	Populations exposed to this hazard are likely to experience some adverse impacts, such as injuries requiring acute medical care.	2	3	6
	Underserved Population	High	Underserved populations exposed to the hazard are likely to experience significant adverse/disproportionate impacts, such as fatalities and severe injuries.	3	3	9
	Property, Facilities, and Critical Infrastructure	High	More than $5 million in property, facilities, and infrastructure damage is expected from a single significant event, or damages are expected to occur to 15% or more of the property value within the jurisdiction.	3	2	6
	Economic	Medium	Total economic impact is likely to be greater than $100,000, but less than or equal to $10 million.	2	1	2
	Environmental	Medium	Environmental impact from a single significant event is likely to be localized, requiring some outside resources and support; and/or repair, cleanup, restoration, or preservation work.	2	1	2
	Continuity of Operations/Delivery of Services	Medium	Impact lasting between 24 and 72 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single significant event.	2	1	2
	Future Development	Medium	Future development trends will increase the impacts of this hazard, but not significantly.	2	1	2
	Climate Change	High	Climate Change trends will significantly increase the impacts of this hazard.	3	1	3

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Coastal Flooding *(Flood)*	***Population and Life Safety***	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	High	More than $5 million in property, facilities, and infrastructure damage is expected from a single significant event, or damages are expected to occur to 15% or more of the property value within the jurisdiction.	3	2	6
	Economic	Medium	Total economic impact is likely to be greater than $100,000, but less than or equal to $10 million.	2	1	2
	Environmental	Medium	Environmental impact from a single significant event is likely to be localized, requiring some outside resources and support; and/or repair, cleanup, restoration, or preservation work.	2	1	2
	Continuity of Operations/Delivery of Services	Medium	Impact lasting between 24 and 72 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single significant event.	2	1	2
	Future Development	Low	Future development trends will minimally increase the impacts of this hazard.	1	1	1
	Climate Change	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	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	3	6
	Property, Facilities, and Critical Infrastructure	No Impact	Little to no property, facilities, and infrastructure damage is expected from a single significant event.	0	2	0
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1	1
	Environmental	Low	Environmental impact from a single significant event is likely to be minimal, requiring little to no outside resources and support; and/or minimal repair, cleanup, restoration, or preservation work.	1	1	1
	Continuity of Operations/Delivery of Services	No Impact	No impact on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single significant event.	0	1	0
	Future Development	Low	Future development trends will minimally increase the impacts of this hazard.	1	1	1
	Climate Change	High	Climate Change trends will significantly increase the impacts of this hazard.	3	1	3

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Fog *(Severe Weather)*	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3	3
	Underserved Population	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3	3
	Property, Facilities, and Critical Infrastructure	Low	Less than $500,000 in property, facilities, and infrastructure damages is expected from a single significant event, or damages are expected to occur to less than 5% of the property value within the jurisdiction.	1	2	2
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1	1
	Environmental	Low	Environmental impact from a single significant event is likely to be minimal, requiring little to no outside resources and support; and/or minimal repair, cleanup, restoration, or preservation work.	1	1	1
	Continuity of Operations/Delivery of Services	Low	Impact lasting less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single significant event.	1	1	1
	Future Development	No Impact	Future development trends will not increase the impacts of this hazard, and/or may even decrease it.	0	1	0
	Climate Change	No Impact	Climate change trends will not increase the impacts of this hazard.	0	1	0

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Severe Thunderstorm ***(Severe Weather)***	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3	3
	Underserved Population	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	3	6
	Property, Facilities, and Critical Infrastructure	Medium	More than $500,000 but less than $5 million in property, facilities, and infrastructure damage is expected from a single significant event, or damages are expected to occur to more than 5% but less than 15% of the property value within the jurisdiction.	2	2	4
	Economic	Medium	Total economic impact is likely to be greater than $100,000, but less than or equal to $10 million.	2	1	2
	Environmental	Medium	Environmental impact from a single significant event is likely to be localized, requiring some outside resources and support; and/or repair, cleanup, restoration, or preservation work.	2	1	2
	Continuity of Operations/Delivery of Services	Low	Impact lasting less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single significant event.	1	1	1
	Future Development	Medium	Future development trends will increase the impacts of this hazard, but not significantly.	2	1	2
	Climate Change	Low	Climate Change trends will minimally increase the impacts of this hazard.	1	1	1

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Tornado ***(Severe Weather)***	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3	3
	Underserved Population	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3	3
	Property, Facilities, and Critical Infrastructure	Low	Less than $500,000 in property, facilities, and infrastructure damages is expected from a single significant event, or damages are expected to occur to less than 5% of the property value within the jurisdiction.	1	2	2
	Economic	Medium	Total economic impact is likely to be greater than $100,000, but less than or equal to $10 million.	2	1	2
	Environmental	Low	Environmental impact from a single significant event is likely to be minimal, requiring little to no outside resources and support; and/or minimal repair, cleanup, restoration, or preservation work.	1	1	1
	Continuity of Operations/Delivery of Services	Low	Impact lasting less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single significant event.	1	1	1
	Future Development	Low	Future development trends will minimally increase the impacts of this hazard.	1	1	1
	Climate Change	Low	Climate Change trends will minimally increase the impacts of this hazard.	1	1	1

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Strong Winds *(Severe Weather)*	***Population and Life Safety***	Medium	Populations exposed to this hazard are likely to experience some adverse impacts, such as injuries requiring acute medical care.	2	3	6
	Underserved Population	Medium	Underserved populations exposed to the hazard are likely to experience some adverse/disproportionate impacts, such as injuries requiring acute medical care.	2	3	6
	Property, Facilities, and Critical Infrastructure	Medium	More than $500,000 but less than $5 million in property, facilities, and infrastructure damage is expected from a single significant event, or damages are expected to occur to more than 5% but less than 15% of the property value within the jurisdiction.	2	2	4
	Economic	Medium	Total economic impact is likely to be greater than $100,000, but less than or equal to $10 million.	2	1	2
	Environmental	Low	Environmental impact from a single significant event is likely to be minimal, requiring little to no outside resources and support; and/or minimal repair, cleanup, restoration, or preservation work.	1	1	1
	Continuity of Operations/Delivery of Services	Low	Impact lasting less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single significant event.	1	1	1
	Future Development	Low	Future development trends will minimally increase the impacts of this hazard.	1	1	1
	Climate Change	Low	Climate Change trends will minimally increase the impacts of this hazard.	1	1	1

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
Tsunami	***Population and Life Safety***	Low	Populations exposed to this hazard are likely to experience minimal adverse impacts, such as ambulatory injuries.	1	3	3
	Underserved Population	Low	Underserved populations exposed to the hazard are likely to experience minimal adverse/disproportionate impacts, such as ambulatory injuries.	1	3	3
	Property, Facilities, and Critical Infrastructure	Low	Less than $500,000 in property, facilities, and infrastructure damages is expected from a single significant event, or damages are expected to occur to less than 5% of the property value within the jurisdiction.	1	2	2
	Economic	Low	Total economic impact is not likely to be greater than $100,000.	1	1	1
	Environmental	Low	Environmental impact from a single significant event is likely to be minimal, requiring little to no outside resources and support; and/or minimal repair, cleanup, restoration, or preservation work.	1	1	1
	Continuity of Operations/Delivery of Services	Low	Impact lasting less than 24 hours on the ability of the jurisdiction to meet the essential day-to-day operational demands and needs of the community from a single significant event.	1	1	1
	Future Development	Low	Future development trends will minimally increase the impacts of this hazard.	1	1	1
	Climate Change	No Impact	Climate change trends will not increase the impacts of this hazard.	0	1	0

Hazard Event	Impact Factor	Impact		Impact Factor	Weighted Factor	Score
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]