

SEPTEMBER 2023

MASON COUNTY 2023
MULTI-JURISDICTION
HAZARD MITIGATION PLAN
VOLUME 2: PLANNING PARTNER ANNEXES



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**MASON COUNTY MULTI-JURISDICTION
2023 HAZARD MITIGATION PLAN UPDATE
VOLUME 2: PLANNING PARTNER ANNEXES**

SEPTEMBER 2023



:

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Mason County
2023 Multi-Jurisdiction Hazard Mitigation Plan Update
Volume 2—Planning Partner Annexes

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CHAPTER 1.

PLANNING PARTNER PARTICIPATION

1.1 BACKGROUND

The Federal Emergency Management Agency (FEMA) encourages multi-jurisdictional planning for hazard mitigation. Such planning efforts require all participating jurisdictions to fully participate in the process and formally adopt the resulting planning document. Chapter 44 of the Code of Federal Regulations (44 CFR) states:

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

In the preparation of the 2023 *Mason County Multi-Jurisdiction Hazard Mitigation Plan Update*, a Planning Partnership was formed to leverage resources and to meet requirements of the federal Disaster Mitigation Act of 2000 (DMA) for as many eligible local governments in Mason County as possible. The DMA defines a local government as follows:

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

There are two types of Planning Partners in this process, with distinct needs and capabilities:

- Incorporated municipalities (cities and towns)
- Special purpose districts (e.g., fire, hospital, school, water)
- For purposes of this update, the County elected to utilize the base plan as its document, with specific county data identified within the various tables within Volume 1.

1.2 THE PLANNING PARTNERSHIP

INITIAL SOLICITATION AND LETTERS OF INTENT

The planning team solicited the participation of the County and recognized special purpose districts at the outset of this project. Initial letters and emails were sent out in March 2022 to identify potential stakeholders for this process. The purpose of the letter was to introduce the planning process to jurisdictions in the County that could have a stake in the outcome of the planning effort, as well as to invite participation in the effort.

The planning process kickoff meeting was held on December 13, 2022 to solicit planning partners and inform potential partners of the benefits of participation in this effort. County-identified eligible local governments within the planning area were invited to attend; a press release of the meeting

was also published. Various agencies and citizen stakeholders were also invited to this meeting. The goals of the meeting were as follows:

- Provide an overview of the Disaster Mitigation Act.
- Provide an update on the planning grant.
- Outline the Mason County plan update work plan.
- Describe the benefits of multi-jurisdictional planning.
- Solicit planning partners.
- Confirm a Planning Committee.

All interested local governments were provided with a list of planning partner expectations developed by the planning team and were informed of the obligations required for participation. Local governments wishing to join the planning effort were asked to provide the planning team with a “notice of intent to participate” that agreed to the planning partner expectations and designated a point of contact for their jurisdiction. In all, formal commitment was received from seven planning partners by the planning team, and the Mason County Planning Partnership was formed.

PLANNING PARTNER EXPECTATIONS

The Planning Team previously developed the following list of planning partner expectations, which were confirmed at the December 2022 kick-off meeting:

- Each partner will provide a “Letter of Intent to Participate.”
- Each partner will support and participate in the development of the update by providing requested information. Support includes this body making decisions regarding plan development and scope on behalf of the partnership.
- Each partner will provide support for the public involvement strategy developed by the Planning Team in the form of mailing lists, possible meeting space, and media outreach such as newsletters, newspapers or direct-mailed brochures.
- Each partner will participate in plan update development activities such as:
 - Planning Team meetings
 - Public meetings or open houses
 - Workshops and planning partner sessions
 - Public review and comment periods prior to adoption.

Attendance will be tracked at such activities, and attendance records will be used to track and document participation for each planning partner. A minimum level of participation was established.

- Each partner will be expected to perform a “consistency review” of all technical studies, plans, and ordinances specific to hazards identified within the planning area to determine the existence of plans, studies or ordinances not consistent with the equivalent documents reviewed in preparation of the County plan. For example: if a planning partner

has a floodplain management plan that makes recommendations that are not consistent with any of the County's basin plans, that plan will need to be reviewed for probable incorporation into the plan for the partner's area.

- Each partner will be expected to review the risk assessment and identify hazards and vulnerabilities specific to its jurisdiction. County or contract resources will provide jurisdiction-specific mapping and technical consultation to aid in this task if unavailable by the local jurisdiction, but the determination of risk and vulnerability will be up to each partner.
- Each partner will be expected to review the mitigation recommendations chosen for the overall county and determine if they will meet the needs of its jurisdiction. Projects within each jurisdiction consistent with the overall plan recommendations will need to be identified, prioritized and reviewed to determine their benefits and costs.
- Each partner will be required to create its own action plan that identifies each project, who will oversee the task, how it will be financed and when it is estimated to occur.
- Each partner will be required to sponsor or take part in at least one public meeting to present the draft plan at least two weeks prior to adoption (various ways in which this may be met).
- Each partner will be required to formally adopt the plan.

It should be noted that by adopting this plan, each planning partner also agrees to the plan implementation and maintenance protocol established in Volume 1. Failure to meet these criteria may result in a partner being dropped from the partnership by the Planning Team, and thus losing eligibility under the scope of this plan.

LINKAGE PROCEDURES

Eligible local jurisdictions that did not participate in development of this hazard mitigation plan update may comply with DMA requirements by linking to this plan following the procedures outlined in Appendix A.

1.3 ANNEX-PREPARATION PROCESS

TEMPLATES

Templates were created to help the Planning Partners prepare their jurisdiction-specific annexes. Since special purpose districts operate differently from incorporated municipalities, separate templates were created for the two types of jurisdictions. The templates were created so that all criteria of 44 CFR Section 201.6 would be met, based on the partners' capabilities and mode of operation. If templates were not completed in advance, each partner was required to participate in a technical assistance workshop during which key elements of the template were completed by a designated point of contact for each partner and a member of the planning team. The templates were set up to lead each partner through a series of steps that would generate the DMA-required elements that are specific for each partner.

WORKSHOP

Workshops were held for Planning Partners to learn about the templates and the overall planning process. In addition to the workshops, one-on-one meetings and/or telephone conferences were also held to provide assistance. Topics addressed included the following:

- DMA
- Mason County plan background
- The Annex templates and Instructions
- Risk ranking (Calculated Priority Risk Index - CPRI)
- Developing an action plan
- Cost/benefit review.

The sessions provided technical assistance and an overview of the template completion process. Attendance at this workshop was mandatory under the planning partner expectations established by the Planning Team Committee. There was 100-percent attendance of the partnership at these sessions.

In the risk-ranking exercise, each planning partner was asked to rank each risk specifically for its jurisdiction, based on the impact on its population or facilities. Cities were asked to base this ranking on probability of occurrence and the potential impact on people, property and the economy. Special purpose districts were asked to base this ranking on probability of occurrence and the potential impact on their constituency, their vital facilities and the facilities' functionality after an event. The methodology followed that used for the countywide risk ranking presented in Volume 1. A principal objective of this exercise was to familiarize the partnership with how to use the risk assessment as a tool to support other planning and hazard mitigation processes. Tools utilized during these sessions included the following:

- The risk assessment results developed for this plan
- Hazard maps for all hazards of concern
- Special district boundary maps that illustrated the sphere of influence for each special purpose district partner
- Hazard mitigation catalogs
- Federal funding and technical assistance catalogs
- Copies of partners' prior annexes, if applicable.
- Calculated Priority Risk Ranking Table
- Loss Matrices, Critical Facility Exposure and Impact Tables, Comprehensive Data Management System database attribute tables.

PRIORITIZATION

44 CFR requires actions identified in the action plan to be prioritized (Section 201.c.3.iii). The planning team developed a methodology for prioritizing the action plans that meets the needs of the

partnership and the requirements of 44 CFR. The actions were prioritized according to the following criteria:

- **High Priority**—Project meets multiple plan objectives, benefits exceed cost, funding is secured under existing programs, or is grant eligible, and project can be completed in 1 to 5 years (i.e., short term project) once funded.
- **Medium Priority**—Project meets at least 1 plan objective, benefits exceed costs, requires special funding authorization under existing programs, grant eligibility is questionable, and project can be completed in 1 to 5 years once funded.
- **Low Priority**—Project will mitigate the risk of a hazard, benefits exceed costs, funding has not been secured, project is not grant eligible, and timeline for completion is long term (5 to 10 years).

These priority definitions are dynamic and can change from one category to another based on changes to a parameter such as availability of funding. For example, a project might be assigned a medium priority because of the uncertainty of a funding source but be changed to high once a funding source has been identified. The prioritization schedule for this plan will be reviewed and updated as needed annually through the plan maintenance strategy.

BENEFIT/COST REVIEW

44 CFR requires the prioritization of the action plan to emphasize a benefit/cost analysis of the proposed actions. Because some actions may not be implemented for up to 10 years, benefit/cost analysis was qualitative and not of the detail required by FEMA for project grant eligibility under the Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation (PDM) grant program. A review of the apparent benefits versus the apparent cost of each project was performed. Parameters were established for assigning subjective ratings (high, medium, and low) to costs and benefits as follows:

- Cost ratings:
 - **High**—Existing funding levels are not adequate to cover the costs of the proposed action; implementation would require an increase in revenue through an alternative source (for example, bonds, grants, and fee increases).
 - **Medium**—The action could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the action would have to be spread over multiple years.
 - **Low**—The action could be funded under the existing budget. The action is part of or can be part of an existing, ongoing program.
- Benefit ratings:
 - **High**—The action will have an immediate impact on the reduction of risk exposure to life and property.
 - **Medium**—The action will have a long-term impact on the reduction of risk exposure to life and property or will provide an immediate reduction in the risk exposure to property.

- **Low**—Long-term benefits of the action are difficult to quantify in the short term.

Using this approach, projects with positive benefit versus cost ratios (such as high over high, high over medium, medium over low, etc.) are considered cost-beneficial and are prioritized accordingly.

It should be noted that for many of the strategies identified in this action plan, funding might be sought under FEMA’s various mitigation programs. These programs require detailed benefit/cost analysis as part of the application process. These analyses will be performed on projects at the time of application preparation. The FEMA benefit-cost model will be used to perform this review. For projects not seeking financial assistance from grant programs that require this sort of analysis, the Partners reserve the right to define “benefits” according to parameters that meet their needs and the goals and objectives of this plan.

ANALYSIS OF MITIGATION INITIATIVES

Each planning partner reviewed its recommended initiatives to classify each initiative based on the hazard it addresses and the type of mitigation it involves. Mitigation types used for this categorization are as follows:

- **Prevention** - Government, administrative or regulatory actions that influence the way land and buildings are developed to reduce hazard losses. This includes planning and zoning, floodplain laws, capital improvement programs, open space preservation, and stormwater management regulations.
- **Public Information and Education** - Public information campaigns or activities which inform citizens and elected officials about hazards and ways to mitigate them – a public education or awareness campaign, including efforts such as: real estate disclosure, hazard information centers, and school-age and adult education, all of which bring awareness of the hazards of concern.
- **Structural Projects** —Efforts taken to secure against acts of terrorism, manmade, or natural disasters. Types of projects include levees, reservoirs, channel improvements, or barricades which stop vehicles from approaching structures to protect.
- **Property Protection** - Actions taken that protect the properties. Types of efforts include: structural retrofit, property acquisition, elevation, relocation, insurance, storm shutters, shatter-resistant glass, sediment and erosion control, stream corridor restoration, etc. Protection can be at the individual homeowner level, or a service provided by police, fire, emergency management, or other public safety entities.
- **Emergency Services / Response** —Actions that protect people and property during and immediately after a hazard event. Includes warning systems, emergency response services, and the protection of essential facilities (e.g., sandbagging).
- **Natural Resource Protection** - Wetlands and floodplain protection, natural and beneficial uses of the floodplain, and best management practices. These include actions that preserve or restore the functions of natural systems. Includes sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

- **Recovery** —Actions that involve the construction or re-construction of structures in such a way as to reduce the impact of a hazard, or that assist in rebuilding or re-establishing a community after a disaster incident. It also includes advance planning to address recovery efforts which will take place after a disaster. Efforts are focused on re-establishing the planning region in such a way as enhance resiliency and reduce impacts to future incidents. Recovery differs from response, which occurs during, or immediately after an incident. Recovery views long-range, sustainable efforts.

1.4 FINAL COVERAGE UNDER THE PLAN

Of the seven committed planning partners, all fully met the participation requirements specified by the Planning Team. All partners attended the workshop, and all subsequently submitted completed templates. Therefore, all jurisdictions are included in this volume and will seek DMA compliance under this plan.

Table 1-1 Planning Partner Status				
Jurisdiction	Letter of Intent Submitted	Attended Workshop?	Completed Template?	Will Be Covered by This Plan?
Mason County	Yes	Yes	Yes	Yes
City of Shelton	Yes	Yes	Yes	Yes
Central Mason Fire & EMS	Yes	Yes	Yes	Yes
Mason County Fire District #16	Yes	Yes	Yes	Yes
Mason County Fire District #4	Yes	Yes	Yes	Yes
Public Utility District #1	Yes	Yes	Yes	Yes
Public Utility District #3	Yes	Yes	Yes	Yes

CHAPTER 2. CITY OF SHELTON ANNEX



2.1 INTRODUCTION

This Annex details the hazard mitigation planning elements specific to the City of Shelton, a participating jurisdiction to the 2023 Mason County Hazard Mitigation Plan Update, having also been a previous planning partner in the County’s 2018 plan. This Annex is not intended to be a standalone document, but rather appends to and supplements the information contained in the base plan document. As such, all sections of the base plan, including the planning process and other procedural requirements apply to and were met by the City of Shelton. For planning purposes, this Annex provides additional information specific to the jurisdiction, with a focus on providing greater details on the risk assessment and mitigation strategy for this community only.

2.2 HAZARD MITIGATION PLANNING TEAM POINT(S) OF CONTACT

The City of Shelton followed the planning process detailed in Section 2 of the Base Plan. In addition to providing representation on the County’s Planning Team, the City of Shelton also formulated their own internal planning team to support the broader planning process. Individuals assisting in this Annex development are identified below, along with a brief description of how they participated.

Local Planning Team Members		
Name	Position/Title	Planning Tasks
Carol Beason, Chief of Police 525 W Cota Shelton, WA 98584	Primary Point of Contact	Attended meetings, provided local data to planning partnership; captured necessary information from various departments within the City to complete annex template. Conducted public outreach briefings during City Council meetings, including for risk assessment results and for plan review. Also presented final plan to City for adoption.
Chris Kostad, Police Captain 525 W Cota Shelton, WA 98584	Alternate Point of Contact	Work with Chief Beason to participate in countywide planning process. Assist with information gathering to provide to planning team. Assist with completion of annex template.
Mark Ziegler, Interim City Manager 525 W Cota Shelton, WA 98584	Planning Team Member	Provided information on overall annex; assisted in appointing City of Shelton Planning Team Members to serve on committee; provided input into various elements and hazard impact; reviewed all phases of plan development; presented plan to Council and for public outreach.
Jay Harris, Director of Public Works 525 W Cota	Planning Team Member	Provided information on all elements of plan development; conducted review of draft plans;

Local Planning Team Members		
Name	Position/Title	Planning Tasks
Shelton, WA 98584		reviewed risk assessment data; assisted with public outreach and presentation to City Council.
Jae Hill, Community and Economic Development Director 525 W Cota Shelton, WA 98584	Planning Team Member	Provided information on overall annex; assisted with Capabilities Assessment; conducted review of document; assisted with Annex development.

2.3 COMMUNITY PROFILE

The following is a summary of key information about the jurisdiction and its history:

- Date of Incorporation**—1890
- Current Population and Anticipated Growth**—Population for the City of Shelton has continued to expand since completion of the last plan, increasing to 10,763 based on US Census Facts (2021 figures). Housing units have also continued to increase, with certain portions of the City seeing a new residential areas being developed.
- Location and Description**— The City of Shelton is the westernmost city on Puget Sound, enjoying quiet harbors along pristine shorelines and densely forested hills. The City serves as the county seat for Mason County, Washington. The City is located at 47°12'49"N 123°6'22"W (47.213702, -123.106088).-According to the United States Census Bureau, the city has a total area of 6.09 square miles (15.77 km²), of which 5.76 square miles (14.92 km²) is land and 0.33 square miles (0.85 km²) is water. The City of Shelton is the only city in Mason County. Major roadways in the City include Highway 3 and Railroad Ave running through its boundaries. There are also three highly travelled accesses off Highway 101 which flow into the City. The City is geographically recognized as having three general areas: Hillcrest, Mt. View, and the Downtown area. Most of the City’s retail is transitioning into the Mt. View area. Likewise, Mason General Hospital is also expanding into the Mt. View area as well. The Downtown area continues with small local retail. The City has ~104 employees and provides a wide range of municipal services including City Administration, City Clerk, Community and Economic Development, Finance, Municipal Court, Fire, Police, and Public Works. Also offered are services such as: Water & Sewer, Solid Waste, and Parks & Recreation.
- Brief History**— Shelton was officially incorporated in 1890. The city was named after David Shelton (pictured right), a delegate to the territorial legislature. Shelton was once served by a small fleet of steamboats, which was part of the Puget Sound Mosquito Fleet. These boats included the Old Settler, Irene, Willie, City of Shelton, Marian, Clara Brown, and S.G. Simpson.
- The economy was built around logging, farming, dairying and ranching as well as oyster cultivation. The Simpson Timber



Company mill on Puget Sound's Oakland Bay dominated the landscape of the downtown area; the mill was sold to Sierra Pacific Industries in 2015, who are currently building a new mill. Shelton also identifies itself as the "Christmas Tree Capital."

- ☐ **Climate**— Shelton experiences heavy annual precipitation, but experiences a distinct drying trend in summer, in common with much of western Washington. Due to this trend, Shelton's climate is classified as a warm-summer climate classification system. Temperatures year-round are relatively mild, with few days of extreme highs in summer and extreme lows in winter.
- ☐ **Governing Body Format** --- Shelton was the last city in the state of Washington to utilize the Mayor/Commission form of government. A recent November 2017 election now changes government to a seven-member City Council with City Manager form of government.
- ☐ **Development Trends** - With the closure and sale of Simpson Timber and Sierra Pacific purchase we will have the largest lumber stud mill on the west coast. Now fully operational with Sierra Pacific's fabrication facility also located on site. In addition, a new water system now provides the needed water to the Mt. View area and out to the WSP academy on Hwy 102. Mason General Hospital, now Mason Health, completed a large expansion to put all of their medical clinics in one central location, including a three-story medical complex on the current footprint. Solidifying Mason Health as a regional healthcare provider and critical community service provider.
- ☐ **Economy** - The City of Shelton economic base consists of Forest Products, Medical Services, and Education (e.g., retail sales and services; recreational and healthcare services; agricultural; and light manufacturing. The largest employers include Sierra Pacific Lumber Manufacture, Mason General Hospital, and Shelton School District.

2.4 HAZARD EVENT HISTORY

Within the Base Plan, the Planning Team identified all hazard events which have occurred within the County. In the context of the planning region, it was determined that there are no additional hazards that are unique to the jurisdiction or there are hazards which are unique to the jurisdiction as follows. Table 2-1 lists all past occurrences of hazard events within the jurisdiction. If available, dollar loss data is also included.

Table 2-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Severe Winter Storm	4650	12/26/21- 1/15/22	Minimal for City facilities or operations. Unknown for overall community.
Severe Winter Storm	4593	12/29/20-1/16/21	Minimal for City facilities or operations. Unknown for overall community.

Table 2-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Severe Storm	4539	1/20/-2/10/2020	Minimal for City facilities or operations. Unknown for overall community.
Pandemic	4481	1/20/20 – Present	Unknown
Severe Storm	4418	12/10-24/2018	Unknown
Flood	4253	12/1/2015	Unknown
Severe Storm	4269	11/12/2015	Unknown
Severe Storm	4056	1/14/2012	Unknown
Severe Storm(s)	1825	12/12/2008	Unknown
Flood	1817	1/6/2009	Unknown
Severe Storm(s)	1734	12/1/2007	Unknown
Severe Storm(s)	1682	12/14/2006	Unknown
Severe Storm(s)	1641	1/27/2006	Unknown
Severe Storm(s)	1499	10/15/2003	Unknown
Earthquake	1361	2/28/2001	Unknown
Flood	1172	3/18/1997	Unknown
Severe Storm(s)	1159	12/26/1996	Unknown
Severe Storm(s)	1079	11/7/1995	Unknown
Severe Storm(s)	981	1/20/1993	Unknown
Flood	883	11/9/1990	Unknown
Volcano	623	5/21/1980	Unknown
Flood	612	12/31/1979	Unknown
Flood	492	12/13/1975	Unknown
Flood	414	1/25/1974	Unknown

Table 2-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Earthquake	196	5/11/1965	Unknown
Flood	185	12/29/1964	Unknown
Jurisdiction Specific Incidents Not Rising to Level of Disaster Declaration			
Wildfire by PUD 3 Headquarters - 240 Acres burned		10/2014	Unknown Damages

2.5 CAPABILITY ASSESSMENT

Coordination with other community planning efforts is paramount to the successful implementation of this plan. This section provides information on how planning mechanisms, policies, and programs are integrated into other on-going efforts. It also identifies the jurisdiction's capabilities with respect to preparing and planning for, responding to, recovering from, and mitigating the impacts of hazard events and incidents.

Capabilities include the programs, policies and plans currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. The capabilities are divided into the following sections: National Flood Insurance Program (NFIP) information; regulatory capabilities which influence mitigation; administrative and technical mitigation capabilities, including education and outreach, partnerships, and other on-going mitigation efforts; fiscal capabilities which support mitigation efforts, and classifications under various community programs.

2.6 NATIONAL FLOOD INSURANCE PROGRAM

The City of Shelton maintains active participation in the National Flood Insurance Program (NFIP) and implements the NFIP regulations through Chapter 18.07 of the Shelton Municipal Code. Within Section 18.07.050 SMC there are definitions for "substantial damage" and "substantial improvement" as follows:

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed fifty percent of the market value of the structure before the damage occurred.

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

1. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
2. Any alteration of a “historic structure”; provided, that the alteration will not preclude the structure’s continued designation as a “historic structure.”

Elsewhere in that same Chapter, the requirements of the Chapter—including development permits, elevation certificates, floodproofing, elevation above base flood elevation, structure anchoring, and so on—are applied to all new construction and buildings undergoing substantial improvements, including those damaged as a result of flood events.

The City maintains building officials that regularly inspect and enforce all building codes and construction regulations to ensure compliance with the established municipal codes.

Information on the community’s National Flood Insurance Program (NFIP) compliance is presented in Table 2-2. This identifies the current status of the jurisdiction’s involvement with the NFIP. Data for this section was compiled from FEMA websites and State of Washington, Emergency Management Division.

- Current Policies in Force (as of 2022): 11
- Total Coverage for Policies in Force: \$3,620,000

Repetitive flood loss records are as follows (all are for residential structures):

- Number of FEMA-Identified Repetitive Loss Properties: 22
- Number of FEMA-Identified Severe Repetitive Loss Properties: 3
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: 0

Table 2-2 National Flood Insurance Program Compliance	
What department is responsible for floodplain management in your community?	City of Shelton Community Development Department
Who is your community’s floodplain administrator? (department/position)	City of Shelton Community Development Department – Chief Building Official and Senior Planner
Do you have any certified floodplain managers on staff in your community?	No
What is the date of adoption of your flood damage prevention ordinance?	Originally adopted in 1992 and amended in 2006 and 2013 and 2022.

Table 2-2 National Flood Insurance Program Compliance	
When was the most recent Community Assistance Visit or Community Assistance Contact?	2012
To the best of your knowledge, does your community have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	None that we are aware of.
Do your flood hazard maps adequately address the flood risk within your community? (If no, please state why)	Yes.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Training regarding methods of achieving compliance in existing (older) structures undergoing significant remodel would be helpful.
Does your community participate in the Community Rating System (CRS)? If so, is your community seeking to improve its CRS Classification? If not, is your community interested in joining the CRS program?	No.

2.7 REGULATORY CAPABILITY

The assessment of the jurisdiction's legal and regulatory capabilities is presented in Table 2-3. This includes planning and land management tools, typically used by local jurisdictions to implement hazard mitigation activities and indicates those that are currently in place.

Table 2-3 Legal and Regulatory Capability Supporting Mitigation				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements				
Building Code Version - International Codes Year -2015	Yes			
Zoning Ordinance	Yes			
Subdivision Ordinance	Yes			
Floodplain Ordinance	Yes			
Stormwater Management	Yes			
Post Disaster Recovery	Unknown			
Real Estate Disclosure	Unknown			

Table 2-3 Legal and Regulatory Capability Supporting Mitigation				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Growth Management –	Yes			The City of Shelton operates under the Washington State Growth Management Act.
Site Plan Review	Yes			
Public Health and Safety	Yes			
Coastal Zone Management	Yes			
Climate Change Adaptation	Yes			The state has certain mandates which the City operates under, including mechanisms to reduce the carbon footprint.
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire, etc.)	Yes			Flood, stormwater, wildfire, critical areas ordinance.
Environmental Protection	Yes			
Planning Documents				
General or Comprehensive Plan	Yes (Comp Plan)			<i>Is the plan equipped to provide linkage to this mitigation plan? Yes</i>
Floodplain or Basin Plan	Yes			The City Floodplain Ordinance is enforced, but there is no “plan” per se
Stormwater Plan	Yes			The City of Shelton has stormwater requirements for all development. All new development is reviewed pursuant to the Department of Ecology Stormwater Management Manual for Western Washington (2005)
Capital Improvement Plan	Yes			
Habitat Conservation Plan –	Yes			While there is no Conservation Plan directly through the City of Shelton, the City of Shelton does work with the Mason Conservation District for Conservation efforts.
Shoreline Management Plan	Yes			The City of Shelton updated its Shoreline Master Program in 2013.
Community Wildfire Protection Plan	No			
Transportation Plan	Yes			Yes, in the City Comprehensive Plan.
Response/Recovery Planning				

Table 2-3 Legal and Regulatory Capability Supporting Mitigation				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Comprehensive Emergency Management Plan				Yes, through the County, who provides emergency management services to the City.
Threat and Hazard Identification and Risk Assessment	Yes			The City is part of the Region's THIRA
Terrorism Plan	Yes			Through law enforcement.
Post-Disaster Recovery Plan	No			
Continuity of Operations Plan	No			
Public Health Plans	Yes			Through the County.
Boards and Commission				
Planning Commission	Yes			
Mitigation Planning Committee	Yes			The points of contact for this 2023 update process will remain in force during the lifecycle of this plan.
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems, chipping, etc.)-	Yes			Through the City of Shelton Public Works Department.
Mutual Aid Agreements / Memorandums of Understanding	Yes			
Other				

2.7.1 Administrative and Technical Capability

The assessment of the jurisdiction's administrative and technical capabilities, educational outreach efforts, and on-going programmatic efforts are presented in Table 2-4. These are elements which support not only mitigation, but all phases of emergency management already in place that are used to implement mitigation activities and communicate hazard-related information.

Table 2-4 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	City of Shelton Community Development and Public Works and Engineering have planners and engineers as paid staff positions.
Professionals trained in building or infrastructure construction practices (building officials, fire inspectors, etc.)	Yes	City of Shelton Building and Fire Departments / Building Official and Assistant Fire Chief
Engineers specializing in construction practices?	Yes	City of Shelton Engineering Department and, to a degree, the City of Shelton Building Department
Planners or engineers with an understanding of natural hazards	Yes	City of Shelton Community Development and Engineering Departments
Staff with training in benefit/cost analysis	Yes	Available on a contractual basis
Surveyors	Yes	Available on a contractual basis
Personnel skilled or trained in GIS applications	Yes	City of Shelton Engineering Department
Scientist familiar with natural hazards in local area	Yes	City of Shelton Community Development Department, Planning Staff
Emergency Manager	Yes	Police Department / Chief of Police / Contracted services with the County, who provides assistance with planning and emergency response activities as needed, including damage assessment after a disaster incident.
Grant writers	Yes	No official, job specific, grant writers are on staff. Staff write grants as applicable.
Warning Systems/Services (Reverse 9-1-1, outdoor warning signs or signals, flood or fire warning program, etc.?)	Yes	County public works has signage available for use for warning systems; also, County communications programs support the City as needed for warning and broadcasts. The City also uses a PIO and social media.
Hazard data and information available to public	Yes	Through Mason County Emergency Management and City of Shelton
Maintain Elevation Certificates	Yes	City of Shelton Community Development keeps elevation certificates in specific project files as applicable.
Education and Outreach		
Local citizen groups or non-profit organizations focused on emergency preparedness?	No	The City is attempting to establish CERT teams throughout the City for this purpose.

Table 2-4 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Local citizen groups or non-profit organizations focused on environmental protection?	Yes	Numerous organizations (Mason Conservation District, South Puget Sound Enhancement Group, Squaxin Island Tribe, etc.) are focused on environmental protection in the area.
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	The City of Shelton Utility Department has outreach information for responsible water use, the City of Shelton contract Fire Department - Central Mason Fire & EMS, provides outreach for fire safety and household preparedness.
Multi-seasonal public awareness program?	Yes	Both the City and the County provide public awareness programs on an on-going basis throughout the year as seasonal issues arise, such as flood season, wildfire season, etc.
On-Going Mitigation Efforts		
Hazardous Vegetation Abatement Program	Yes	Mason County Noxious Weed Board
Noxious Weed Eradication Program or other vegetation management	Yes	Mason County Noxious Weed Board
Chipper program	Yes	Through Public Works. The City of Shelton also offers a free Christmas tree chipping program yearly.
Creek, stream, culvert or storm drain maintenance or cleaning program	Yes	The City of Shelton stormwater utility provides creek, stream, and culvert/storm drainage maintenance and cleaning. The City also advocates for residents to “adopt a storm drain” during the fall when leaf fall is at its highest level.
Stream restoration program	Yes	The City of Shelton Critical Areas Ordinance requires the restoration and/or maintenance of streams and riparian areas as the City develops. The City of Shelton Community Development Department administers the Critical Areas Ordinance.
Erosion or sediment control program	Yes	The City of Shelton Public Works and Engineering Department has adopted the 2018 Stormwater Management Manual for Western Washington and also has Public Works Standards that apply to any land clearing activity.

Table 2-4 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Address signage for property addresses	Yes	The City of Shelton adheres to the requirements for the International Fire Code for addressing of properties. The City of Shelton Building Department and contract Fire Department administer this code.
Other		

2.7.2 Fiscal Capability

The assessment of the jurisdiction’s fiscal capabilities is presented in Table 2-5. These are the financial tools or resources that could potentially be used to help fund mitigation activities.

Table 2-5 Fiscal Capability Available to Support Mitigation	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Other	

2.7.3 Community Classifications

Classifications under various community mitigation programs are presented in Table 2-6. Each of the classifications identified establish requirements which, when met, are known to increase the resilience of a community.

Table 2-6 Community Classifications	
	Participating (Yes/No)
Protection Class	5
Building Code Effectiveness Grading Schedule	Commercial 3 Dwellings 4
Storm Ready	Yes - County
Firewise	Yes
Tsunami Ready (if applicable)	NA

2.8 HAZARD RISK AND VULNERABILITY RANKING

The jurisdiction's Planning Team reviewed the hazard list identified within the Base Plan, and have identified the hazards that affect the City of Shelton

Table 2-7 presents the ranking of the hazards of concern based on their CPRI score. A qualitative vulnerability ranking was then assigned based on a summary of potential impact determined by: past occurrences, spatial extent, damage, casualties, and continuity of government. The assessment is categorized into the following classifications:

- Extremely Low – No or very limited impact. The occurrence and potential cost of damage to life and property is very minimal-to-nonexistent. No impact to government functions with no disruption to essential services.
- Low (Negligible) – Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal. Government functions are at 90% with limited disruption to essential services.
- Medium (Limited) – Moderate potential impact. This ranking carries a moderate threat level to the general population and /or built environment. The potential damage is more isolated, and less costly than a more widespread disaster. Government functions are at 80% with limited impact to essential services.
- High (Critical) – Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past. Government functions are at ~50% operations with limited delivery of essential services.
- Extremely High (Catastrophic) – Very widespread with catastrophic impact. Government functions are significantly impacted for in excess of one month.

Table 2-7 Hazard Risk and Vulnerability Ranking			
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank
1	Severe Weather	3.5	Medium
2	Wildfire	3.1	Low
3	Earthquake	3.6	High
4	Flood	2.9	Low
5	Landslide	2.45	Low
6	Drought	2.2	Extremely Low
7	Climate Change	1.15	Low

The hazards as ranked for this 2023 update remain the same as for the 2018 update. While the City has had some new construction occurring within its boundaries, those structures are built to higher codes in place, and must adhere to land use authority with respect to construction in hazard areas, thereby decreasing vulnerability associated with new construction. All measures possible have been taken to help ensure the safety of the citizens.

2.9 MITIGATION GOALS AND OBJECTIVES

The City of Shelton adopts the hazard mitigation goals and objectives developed by the Planning Team described in Volume 1.

2.10 HAZARD MITIGATION ACTION PLAN

The Planning Team for the jurisdiction identified and prioritized a wide range of actions based on the risk assessment, and their knowledge of the jurisdiction’s assets and hazards of concern. Table 2-8 lists the action items/strategies that make up the jurisdiction’s hazard mitigation plan. Background information and information on how each action item will be administered, responsible agency/office (including outside the district), potential funding sources, the timeframe, who will benefit from the activity, and the type of initiative associated with each item are also identified. (NOTE: City Funds reflect funding available from the City coffers.)

**Table 2-8
Hazard Mitigation Action Plan Matrix**

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE #1 Create a public education plan that would include classes, publication, and signage to raise the level of knowledge in the community about our current hazards. IE., Wildland fires, Earthquakes, Powerline Awareness. Focus will be on basic all hazard preparedness.									
New	All	1,2,3, 4	City of Shelton Police Dept, Chief or designee	\$2,000	EMPG, FEMA grants, City Funds	Short Term	Yes	Public Information	Local
INITIATIVE # 2 Outreach to the local community to create interest in the CERT program									
New	All	1,2,3,4	City of Shelton Police Dept, Chief or designee	\$1500	SHSP, FEMA HLS, City Funds	Short and Long Term	Yes	Public Information, Response, Emergency Services	Local
INITIATIVE #3 To work with Red Cross and Local Community to use the Civic Center for short term Shelter. This may include enhancing the facility to ensure appropriate equipment needs are met.									
New	All	1,2,3,4	City of Shelton City Council and Police Dept, Chief or designee	\$3000	FEMA Grants as available or City Funds	Short Term	Yes – Modified	Emergency Services	Local
INITIATIVE # 4 Upgrade the Communication System to mirror the MACECOM Communication Center									
New	All	1,2,3,4	City of Shelton Police Dept, Chief or designee	\$5000	HLS, EMPG, SHSP, City Funds	Long Term	Yes	Emergency Services	Local
INITIATIVE #5 Seek out grant funding to construct a new public safety structure which incorporates space to be utilized as a shelter or resilience center.									

Table 2-8 Hazard Mitigation Action Plan Matrix									
Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
New	All	All	City of Shelton Police Dept, Chief or designee, City of Shelton Finance Dept. Director	\$2 Million	FEMA, BRIC, HLS, HUD, etc.	Long Term	No	Emergency Services, Recovery, Response	Local and County

2.11 PRIORITIZATION OF MITIGATION INITIATIVES

Once the mitigation initiatives items were identified, the Planning Team followed the same process outlined within Volume 1 to prioritize their initiatives. An analysis of six different initiative types for each identified action item was conducted. Table 2-9 identifies the prioritization for each action item.

Table 2-9 Mitigation Strategy Priority schedule								
Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Priority ^a	
1	4	H	L	Y	Y	Y	H	
2	All	H	L	Y	Y	Y	H	
3	All	L	L	Y	Y	Y	L	
4	All	H	L	Y	Y	Y	H	
5	All	H	H	Y	Y	N	H	

a. See Chapter 1 for explanation of priorities.

2.12 STATUS OF PREVIOUS PLAN INITIATIVES

Table 2-10 summarizes the initiatives that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

Table 2-10. 2023 Status of previous Hazard Mitigation STRATEGIES											
Mitigation Strategy	Associated Hazards							2023 Project Status	Current Status		
	Coastal Erosion	Earthquakes	Floods	Landslides	Severe Weather	Tsunami	Wildland Fire		Completed	Continual /Ongoing/Noting	/No Longer Relevant
Public Outreach	X	X	X	X	X	X	X	Continuing in nature. In conjunction with the County and contracted Fire Dept., the City engages in regular emergency management and public safety efforts which relate to the specific hazards of concern.	X		X
CERT Training	X	X	X	X	X	X	X	The City works in conjunction with the County and its contract Fire Department to assist with this effort.	X		X
Shelter Arrangements	X	X	X	X	X	X	X				X
Upgrade Communications System	X	X	X	X	X	X	X	The City has applied for grant funds to acquire new communications equipment, but the grant is pending.			X

2.13 HAZARD MAPS

The following maps illustrate the areas of concern within the City of Shelton. All maps were updated with the most current data with the exception of two maps. In the case of the Coastal Landforms/Feeder Bluff map by Washington Department of Ecology, the State no longer provides this data, and it is therefore considered the best available data for this update. FEMA’s 2017 Risk Map project developed the Ground Shaking Map for the Cascadia M9.0 Earthquake event, which map

remains current as no additional Risk Map update has been completed by FEMA. As such, both maps were not replaced, and are a carry-over from the 2018 HMP.

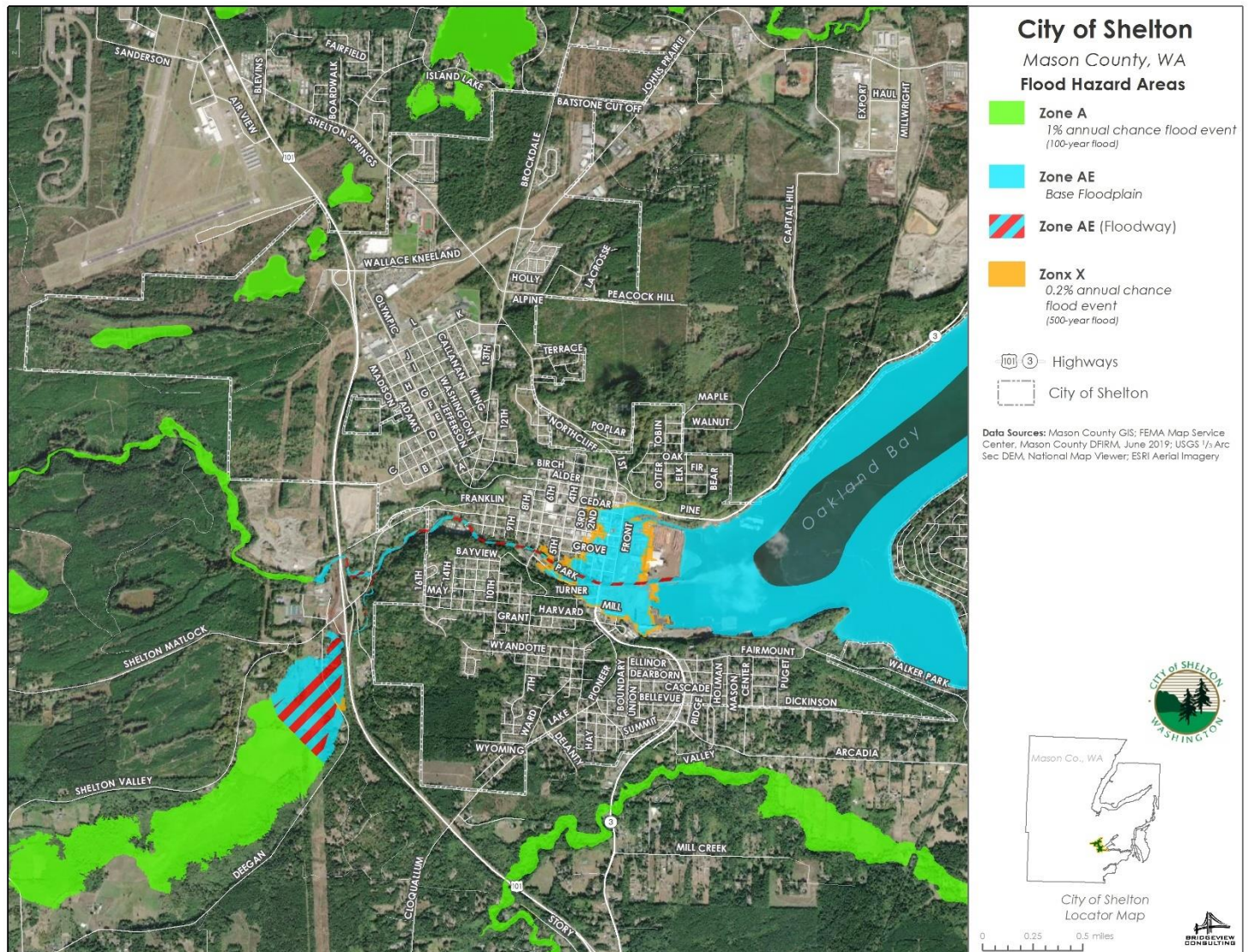


Figure 2-1 City of Shelton Flood Hazard Area

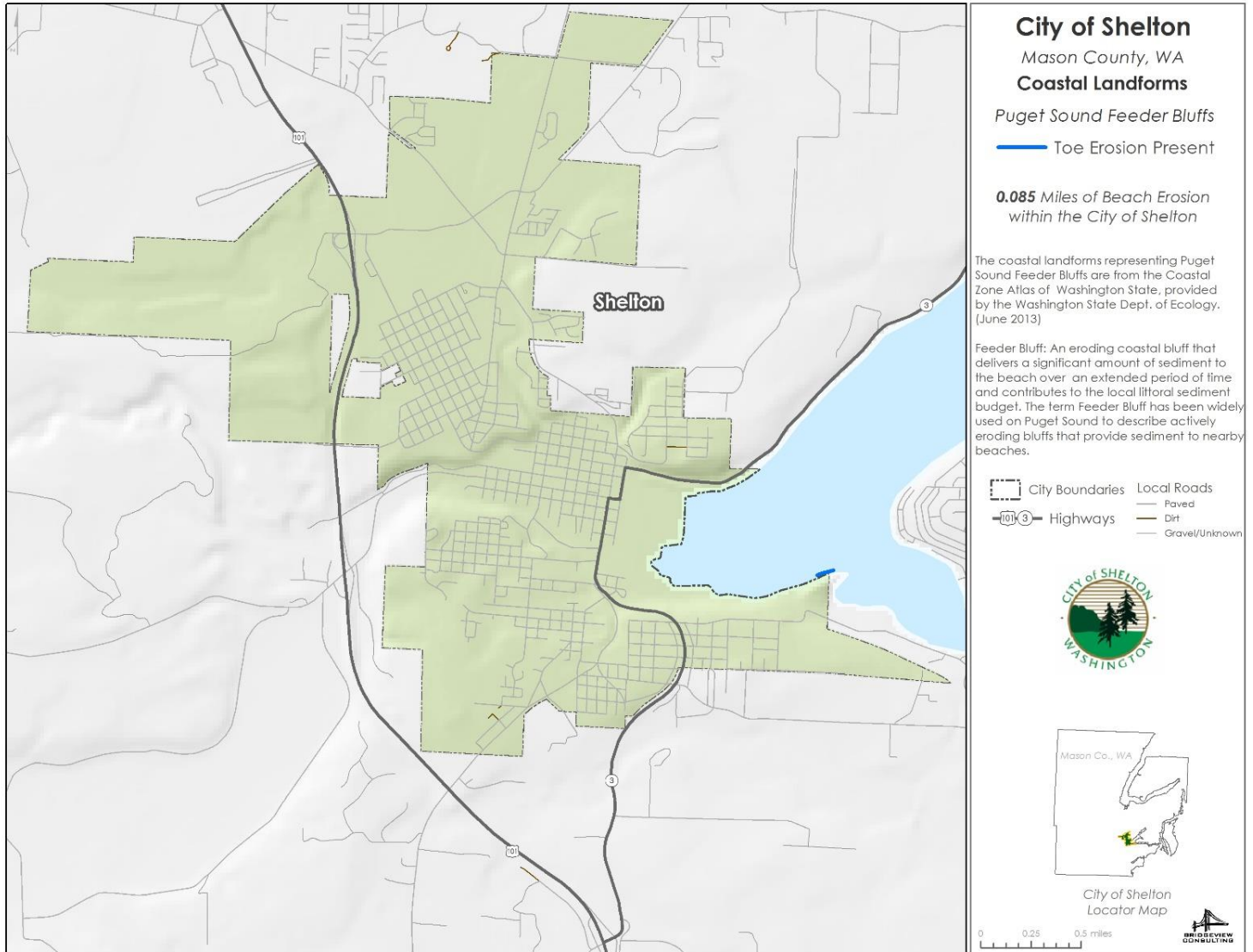


Figure 2-2 Erosion Hazard - Feeder Bluffs

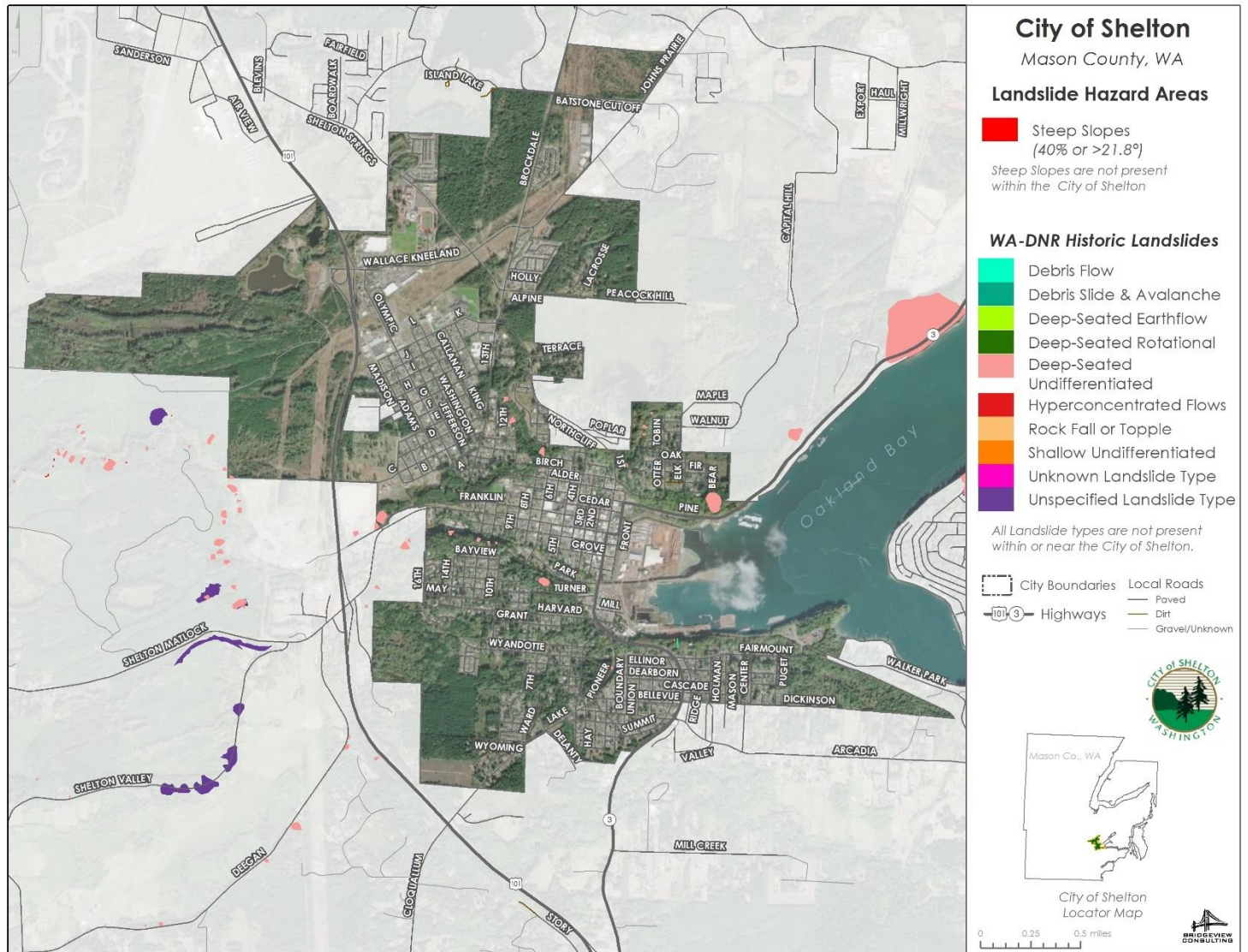


Figure 2-3 Historic Landslide Incidents and Landslide Hazard Areas of Concern

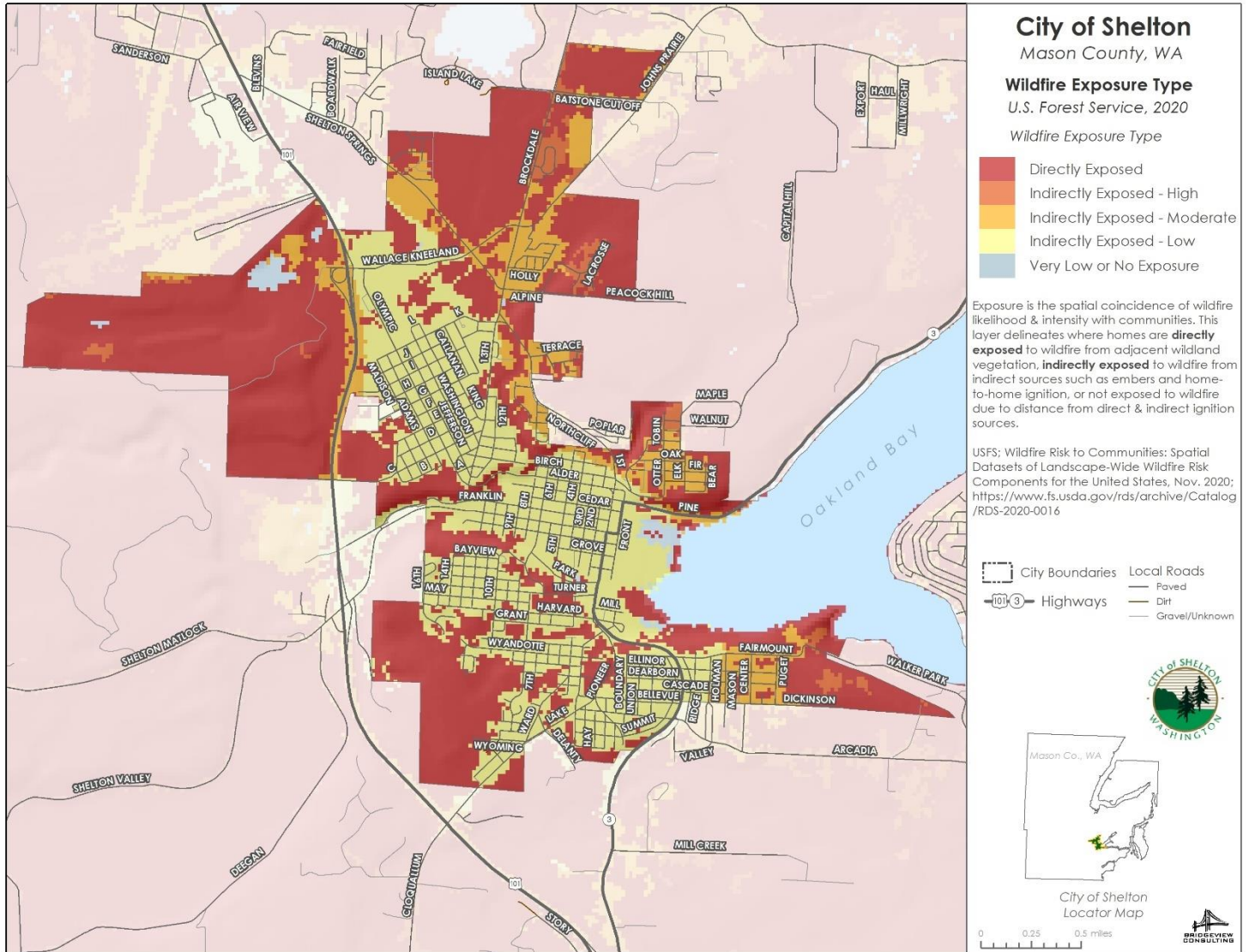


Figure 2-4 Wildfire Exposure

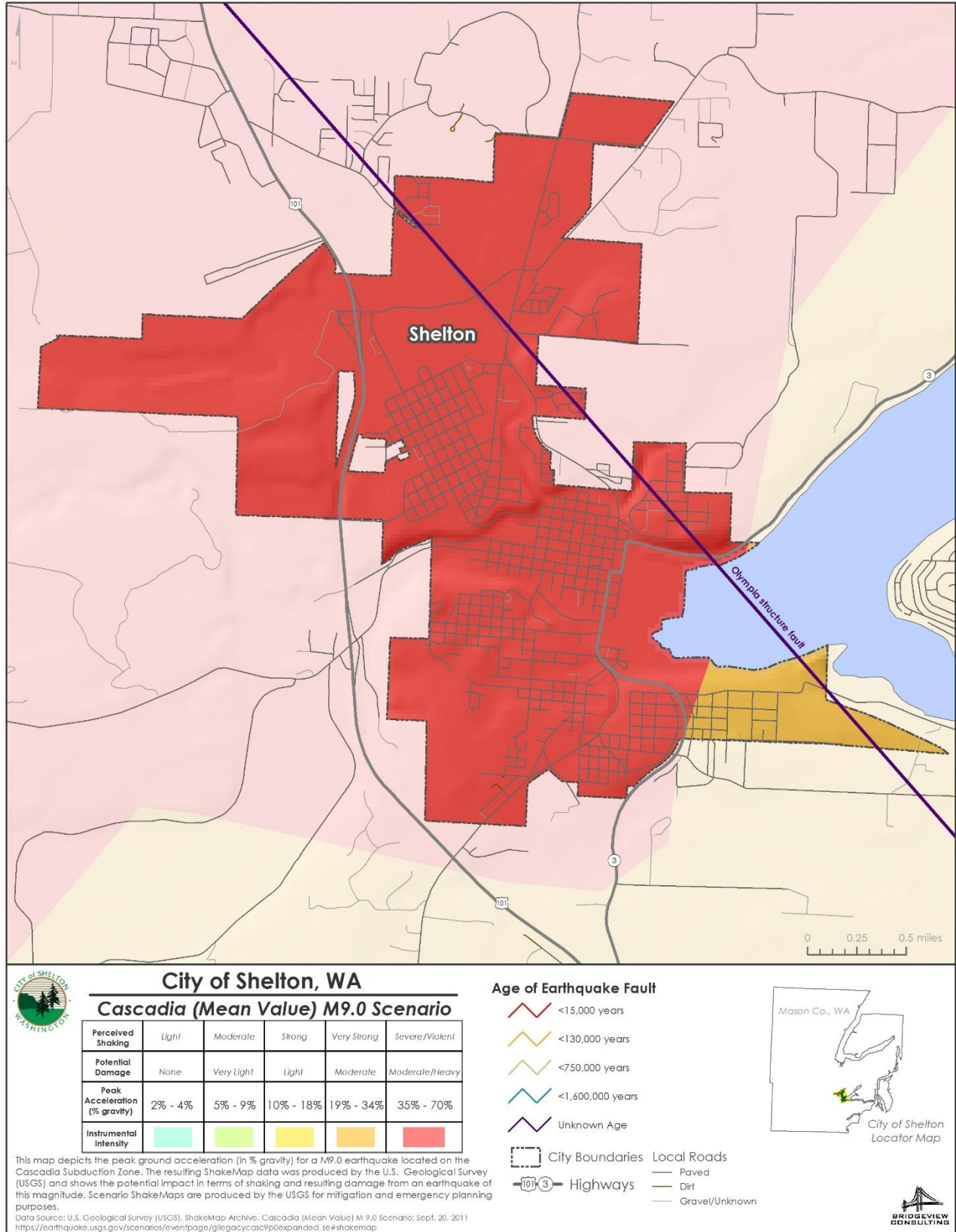


Figure 2-5 Ground Shaking from a Cascadia M9.0 Scenario (FEMA RiskMap 2017)

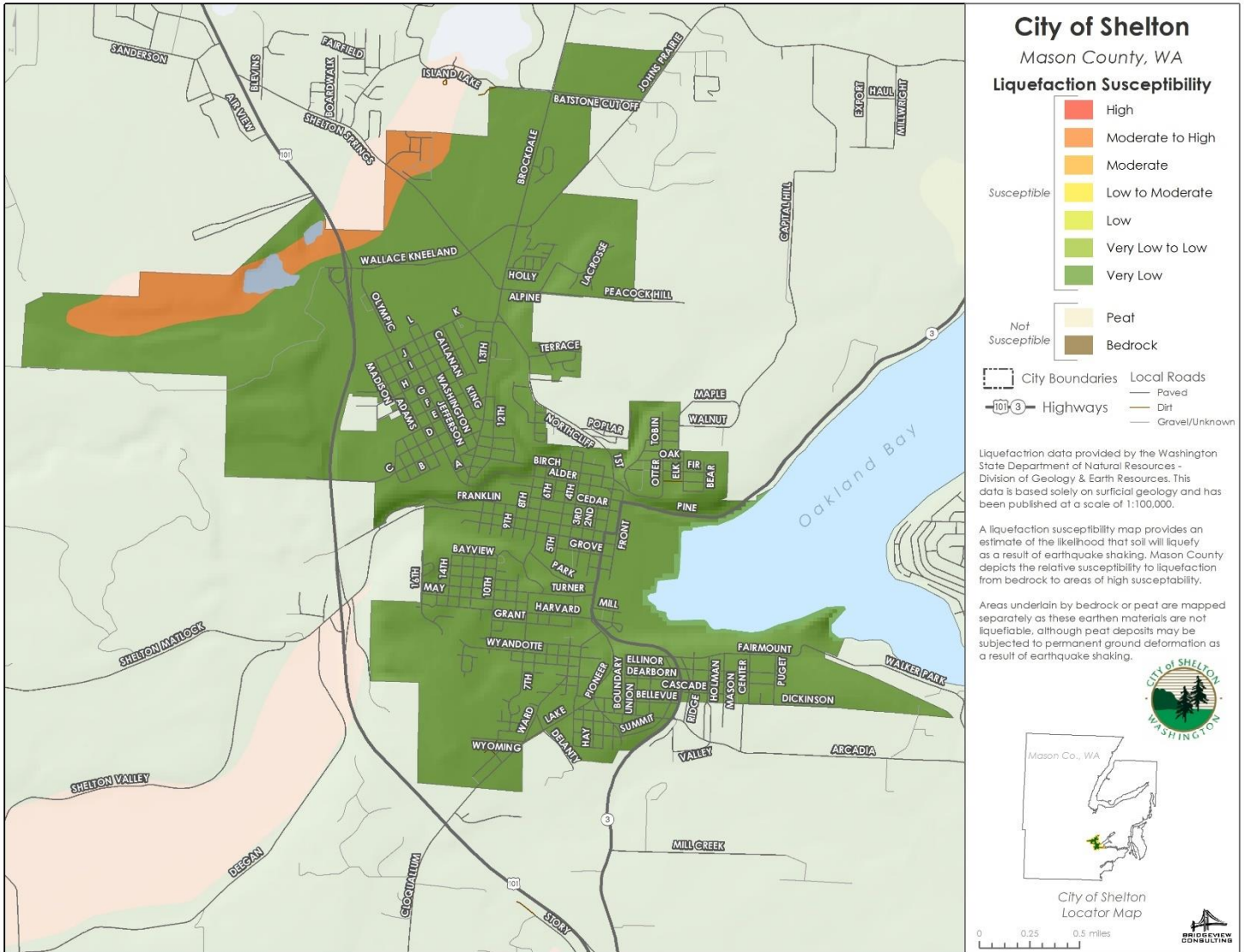


Figure 2-6 Liquefaction Susceptibility within the City of Shelton

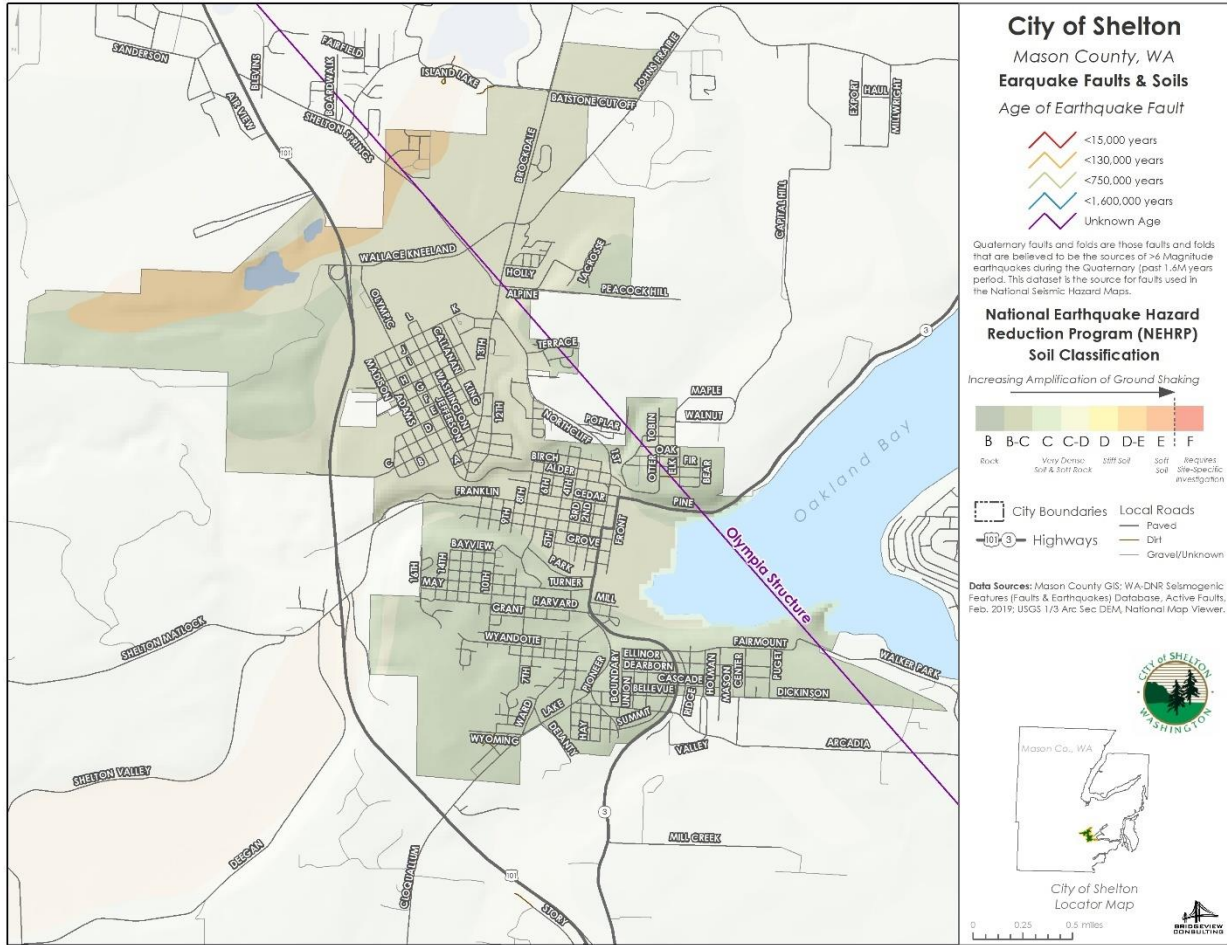


Figure 2-7 City of Shelton Earthquake Faults and NEHRP Soils Type

CHAPTER 3.
PUBLIC UTILITY DISTRICT NO. 3
HAZARD MITIGATION PLAN 2023 ANNEX UPDATE



3.1 INTRODUCTION

This Annex details the hazard mitigation planning elements specific to the PUD 3, a participating special purpose District to the Mason County Hazard Mitigation Plan Update. This Annex is not intended to be a standalone document, but rather appends to and supplements the information contained in the base plan document. As such, all sections of the base plan, including the planning process and other procedural requirements apply to and were met by the PUD 3. For planning purposes, this Annex provides additional information specific to the District, with a focus on providing greater details on the risk assessment and mitigation strategy for this entity only.

3.2 HAZARD MITIGATION PLANNING TEAM POINT(S) OF CONTACT

The Mason County PUD 3 followed the planning process detailed in Section 2 of the Base Plan. In addition to providing representation on the County’s Planning Team, the PUD 3 also formulated their own internal planning team to support the broader planning process. Individuals assisting in this Annex development are identified below, along with a brief description of how they participated.

LOCAL PLANNING TEAM MEMBERS		
NAME	POSITION/TITLE	PLANNING TASKS
Stephanie Schuffenhauer, Business Analyst PO Box 2148 Shelton, WA 98584 360-432-5240 stephanies@masonpud3.org	Primary Point of Contact	Identification of historic impact data; capturing of general plan data; identification of assets;
Ali Burgess, Safety & Environmental Programs Coordinator PO Box 2148 Shelton, WA 98584 360-432-5980 ali.burgess@masonpud3.org	Alternate Point of Contact	Annex development; assimilation of data; point of contact with County planning team; meeting attendance;

LOCAL PLANNING TEAM MEMBERS		
NAME	POSITION/TITLE	PLANNING TASKS
Lynn Eaton, Communications & Government Relations Manager PO Box 2148 Shelton, WA 98584 lynne@masonpud3.org	Public Relations	Public Outreach, meeting attendance;
Barbara Adkins PO Box 2148 Shelton, WA 98584 barbara.adkins@masonpud3.org	Grant Writer	Provided input and information to overall plan for PUD 3; attended meetings; assisted with update to critical facilities list; assisted with risk assessment and hazard ranking; conducted various reviews during plan completion.
Chris Miller, Operations Manager PO Box 2148 Shelton, WA 98584 chrism@masonpud3.org	Operations	Mutual aid, safety measures and regional prioritization
Justin Holzgrove, Director of Engineering & Utility Services PO Box 2148 Shelton, WA 98584 justinh@masonpud3.org	Engineering & Telecom	Oversight and review

3.3 DISTRICT PROFILE

Mason County PUD No. 3 (the District) provides electrical and telecommunication services to customers in Mason, Grays Harbor, and Kitsap Counties (see service territory map below). The District maintains 1,824 miles of electrical lines and 716 miles of telecommunication lines that service 35,525 electrical and 2,642 end-use telecommunications customers as of December 31, 2022. The District maintains 12 substations, an operations center on Johns Prairie Road, a telecommunications data center and office in downtown Shelton and a payment center in Belfair. The annual budget for 2023 was \$101.2 million and the District's net position as of December 31, 2022, was \$113,194,050. As of April 1, 2023, the average kWh cost for residential customers was \$0.0816 and the system charge was \$1.50/day.

The following is a summary of key information about the District:

- **Governing Authority**— The District is governed by a 3-board member commission and RCW 54.
- **Population Served**—35,525 owner-ratepayers as of December 31, 2022
- **Land Area Served**—600 sq. miles
- **Land Area Owned**—Approximately 105 acres scattered throughout Mason County.
- **Total Value of Critical Infrastructure/Equipment/Facilities**—The total book value of critical infrastructure and equipment owned by the District is \$292,210,561
- **Current and Anticipated Service Trends**— The county anticipates a 15% growth rate in the next ten years. Mason PUD 3 anticipates a similar growth rate.

Mason County PUD No. 3 Service Territory

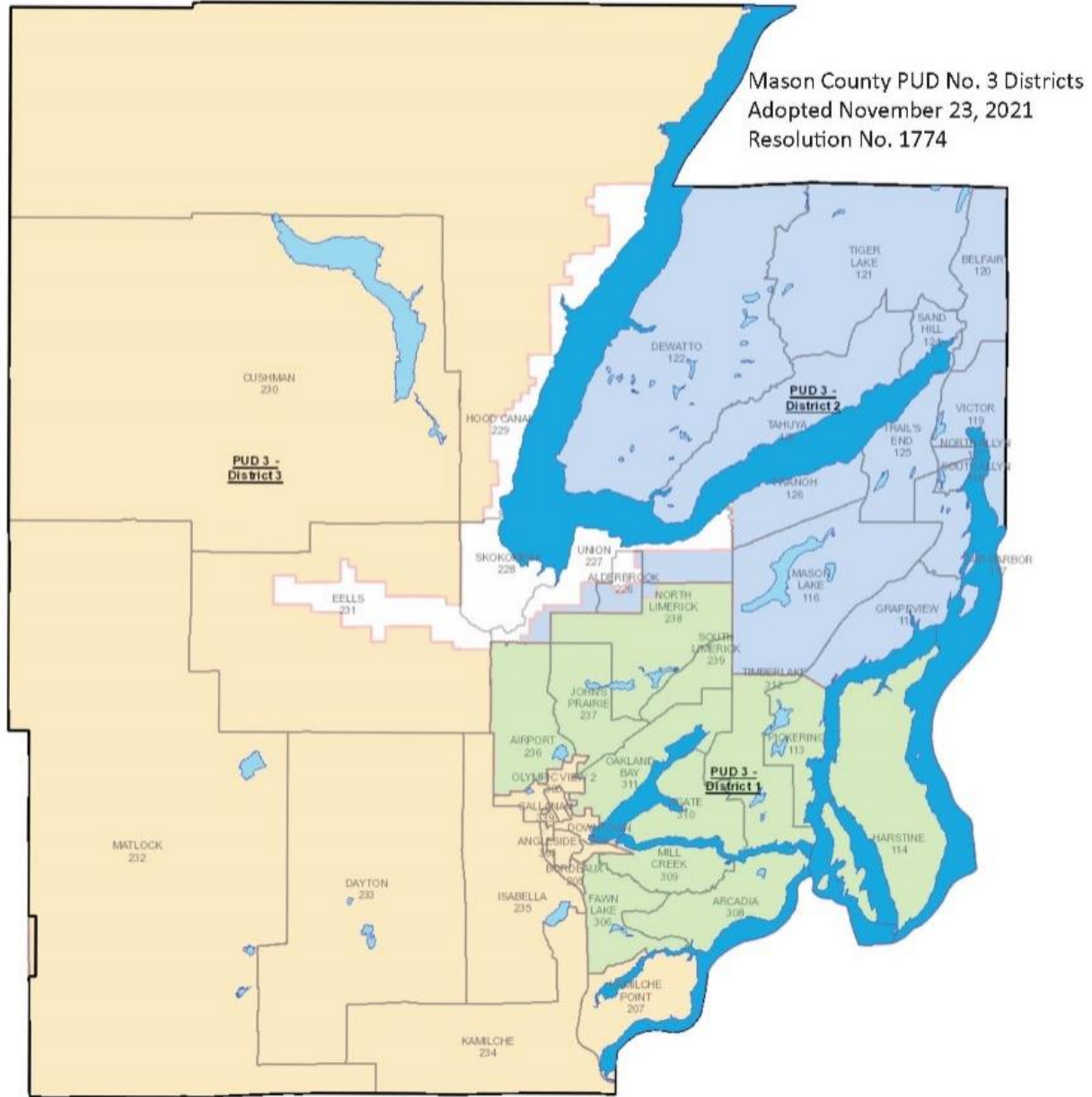


Figure 3-1 PUD 3 Service Territory

3.4 HAZARD EVENT HISTORY

Within the Base Plan, the Planning Team identified all hazard events which have occurred within the County. In the context of the planning region, it was determined that there are no additional hazards that are unique to the special purpose District Table 3-1 lists all past occurrences which have impacted the District. If available, dollar loss data is also included.

Table 3-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date/Period Incident	Dollar Losses Impacting District (if known)
Severe Winter Storm	4650	12/26/21- 1/15/22	\$391,638
Severe Winter Storm	4593	12/29/20-1/16/21	\$315,613
Severe Storm	4539	1/20/-2/10/2020	\$71,163
Severe Winter Storm	4418	12/10-24/2018	\$239,695
Flood	4253	12/1/2015	\$105,889
Severe Storm	4249	11/12/2015	\$282,461
Severe Storm	4056	1/14/2012	\$507,646
Severe Storm(s)	1825	12/12/2008	\$174,207
Flood	1817	1/6/2009	\$61, 240
Severe Storm(s)	1734	12/1/2007	\$800,706
Severe Storm(s)	1682	12/14/2006	\$1,416,245
Severe Storm(s)	1641	1/27/2006	Unknown
Severe Storm(s)	1499	10/15/2003	Unknown
Earthquake	1361	2/28/2001	Unknown
Flood	1172	3/18/1997	Unknown
Severe Storm(s)	1159	12/26/1996	Unknown
Severe Storm(s)	1079	11/7/1995	Unknown
Severe Storm(s)	981	1/20/1993	Unknown
Flood	883	11/9/1990	Unknown
Volcano	623	5/21/1980	Unknown
Flood	612	12/31/1979	Unknown
Flood	492	12/13/1975	Unknown
Flood	414	1/25/1974	Unknown

Table 3-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date/Period Incident	Dollar Losses Impacting District (if known)
Earthquake	196	5/11/1965	Unknown
Flood	185	12/29/1964	Unknown
Jurisdiction Specific Incidents Not Rising to Level of Disaster Declaration			
Wildfire by PUD 3 Headquarters - 240 Acres burned		10/2014	Unknown Damages

3.5 CAPABILITY ASSESSMENT

Coordination with other community planning efforts is paramount to the successful implementation of this plan. This section provides information on how planning mechanisms, policies, and programs are integrated into other on-going efforts. It also identifies the jurisdiction’s capabilities with respect to preparing and planning for, responding to, recovering from, and mitigating the impacts of hazard events and incidents.

Capabilities include the programs, policies and plans currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capabilities assessment is divided into the following sections: regulatory capabilities which influence mitigation; administrative and technical mitigation capabilities, including education and outreach, partnerships, and other on-going mitigation efforts; fiscal capabilities which support mitigation efforts, and classifications under various community programs.

3.5.1 Regulatory Capability

The assessment of the District’s legal and regulatory capabilities, including planning and land management regulations which are customarily used by location jurisdictions to implement hazard mitigation activities, are identified in Table 3-2. Those items applicable to the District are identified.

Table 3-2 Legal and Regulatory Capability Supporting Mitigation				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements				
Building Code		x		
Washington State Building Code			x	

Table 3-2 Legal and Regulatory Capability Supporting Mitigation				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Zoning Ordinance		x		
Floodplain Ordinance		x		
Stormwater Management		x		
Post Disaster Recovery		x		
Growth Management		x		
Site Plan Review		x		
Public Health and Safety		x		
Natural Hazard Specific Ordinance (steep slope, wildfire, etc.)		x		
Environmental Protection		x		
State Environmental Policy Act			x	
Federal and State Preservation Act		x	x	
Endangered Species Act		x		
Planning Documents				
General or Comprehensive Plan	x			Business Continuity
<i>Is the plan equipped to provide linkage to this mitigation plan?</i>				Yes
Capital Improvement Plan	x			5-year Capital Plan
Habitat Conservation Plan	x			Avian Protection Plan
Economic Development Plan	x			PUD 3 Part of EDC CEDS List
Community Wildfire Protection Plan	x			Wildfire Prevention Plan & Wildfire Smoke Response Plan
Disaster Preparedness	x			Business Continuity
Response/Recovery Planning				
Comprehensive Emergency Management Plan	x			Business Continuity Plan & Accident Prevention Plan (APP) & Safety Program
Threat and Hazard Identification and Risk Assessment	x			Business Continuity Plan
Terrorism Plan	x			Business Continuity Plan & APP
Post-Disaster Recovery Plan	x			Business Continuity Plan
Continuity of Operations Plan	x			Business Continuity Plan
Public Health Plans	x			Pandemic Response Policy

Table 3-2 Legal and Regulatory Capability Supporting Mitigation				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Boards and Commission				
Planning Commission	x			Board of Commissioners
Mitigation Planning Committee	x			Safety Committees as well as in conjunction with County
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems, chipping, etc.)	x			Tree Trimming, Infrared, Pole Test & Treat, Substation Testing
Mutual Aid Agreements / Memorandums of Understanding	x			Mutual Aid agreements, Regionally and Nationally
Other				

3.5.2 Administrative and Technical Capabilities

The assessment of the District’s administrative and technical capabilities, including educational and outreach efforts, and on-going programmatic efforts are presented in Table 3-3. These are elements which support not only mitigation, but all phases of emergency management already in place that are used to implement mitigation activities and communicate hazard-related information.

Table 3-3 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Engineering
Professionals trained in building or infrastructure construction practices (building officials, fire inspectors, etc.)	Yes	Engineering
Engineers specializing in construction practices?	Yes	Engineering
Planners or engineers with an understanding of natural hazards	Yes	Engineering & Safety/Environmental
Staff with training in benefit/cost analysis	Yes	Accounting
Surveyors	No	
Personnel skilled or trained in GIS applications	Yes	GIS Technician / Mappers

Table 3-3 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Personnel skilled or trained in Hazus use	No	
Scientist familiar with natural hazards in local area	Yes	Safety & Environmental
Emergency Manager	Yes	Identified through Business Continuity
Grant writers	Yes	Accounting
Warning Systems/Services (Reverse 9-1-1, outdoor warning signs or signals, flood or fire warning program, etc.?)	No	
Hazard data and information available to public	Yes	Public Affairs & Safety/Environmental
Maintain Elevation Certificates	No	
Education and Outreach		
Local citizen groups or non-profit organizations focused on emergency preparedness?	Yes	Engineering, Public Affairs and Safety & Environmental
Local citizen groups or non-profit organizations focused on environmental protection?	Yes	Energy Expo and School Education Committee
Organization focused on individuals with access and functional needs populations	Yes	Customer Service
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	Public Affairs / Safety & Environmental / Education Committee
Natural disaster or safety related school programs?	Yes	Public Affairs / Education Committee / Safety Demo
Public-private partnership initiatives addressing disaster-related issues?	Yes	Public Affairs / Education Committee / Safety Demo
Multi-seasonal public awareness program?	Yes	Public Affairs / Education Committee / Safety Demo
Other		
On-Going Mitigation Efforts		
Hazardous Vegetation Abatement Program	Yes	Operations: Slashing / Tree Trimming
Noxious Weed Eradication Program or other vegetation management	No	
Fire Safe Councils	No	
Chipper program	No	
Defensible space inspections program	No	

Table 3-3 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Creek, stream, culvert or storm drain maintenance or cleaning program	No	
Stream restoration program	No	
Erosion or sediment control program	Yes	Engineering & Safety/Environmental Certified Erosion and Sediment Control Lead (CESCL)
Address signage for property addresses	No	
Other	No	

3.5.3 Fiscal Capability

The assessment of the jurisdiction’s fiscal capabilities is presented in Table 3-4. These are the financial tools or resources that could potentially be used to help fund mitigation activities.

Table 3-4 Fiscal Capability Available to Support Mitigation	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Eligible
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes

3.6 COMMUNITY CLASSIFICATION

The District’s classifications under various hazard mitigation programs are presented in Table 3-5. Each of the classifications identified establishes requirements which, when met, are known to

increase the resilience of a community. Those which specifically require District participation or enhance mitigation efforts are indicated accordingly.

Table 3-5 Community Classifications		
	Participating (Yes/No)	Date Enrolled
Community Rating System	No	
Building Code Effectiveness Grading Schedule	No	
Storm Ready	Yes	Countywide
Firewise	No	
Tsunami Ready (if applicable)	N/A	
RP3 – Reliable Public Power Provider designation through the American Public Power Association (APPA) based on reliability, safety, work force development and system improvement.	Yes	2013- Current
Wildfire Prevention Plan – vegetation management and fire-wrapping poles for prevention	Yes	2022

3.7 HAZARD RISK AND VULNERABILITY RANKING

The District’s Planning Team reviewed the hazard list identified within the Base Plan and have identified the hazards that affect the PUD 3.

Table 3-6 presents the ranking of the hazards of concern based on their CPRI score. A qualitative vulnerability ranking was then assigned based on a summary of potential impact determined by: past occurrences, spatial extent, damage, casualties, and continuity of government. The assessment is categorized into the following classifications:

- Extremely Low – No or very limited impact. The occurrence and potential cost of damage to life and property is very minimal-to-nonexistent. No impact to government functions with no disruption to essential services.
- Low (Negligible) – Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal. Government functions are at 90% with limited disruption to essential services.
- Medium (Limited) – Moderate potential impact. This ranking carries a moderate threat level to the general population and /or built environment. The potential damage is more isolated, and less costly than a more widespread disaster. Government functions are at 80% with limited impact to essential services.

- High (Critical) – Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past. Government functions are at ~50% operations with limited delivery of essential services.
- Extremely High (Catastrophic) – Very widespread with catastrophic impact. Government functions are significantly impacted for in excess of one month.

Table 3-6 Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk
1	Earthquake	3.40	Extremely High	Most of the PUD’s structures fall within the very low to low liquefaction area (over 140), with 17 in the moderate to high liquefaction area, and three in the low to moderate. Some structures identified are masonry (unreinforced and reinforced masonry), steel; pre-cast, and manufactured structure. Many of the PUD’s facilities (both water and power) are older (1954-1969). An earthquake would also impact the district’s ability to provide service and repair lines as disruption in other areas outside of the planning area could impact transmission. In addition, failed roadways would also impact response capabilities for ingress and egress to lines, substations, and water facilities.
2	Severe Weather	3.0	Extremely High	All structures, poles, and lines (both water and power) can be impacted by a severe weather event. Impact could include power outages throughout the service area. The PUD has well over 5,000 poles and miles of line along the Olympic National Forest and Hood Canal. The PUD does conduct regular tree-trimming do help reduce the impact; however, power outages will continue to occur due to high wind events, ice forming on the power lines, lightning strikes, etc. A severe weather event which includes flooding could potentially impact water supply, although such incidents have not occurred. Power outages for the area also results in a

Table 3-6 Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk
				loss of water service for most of PUD 1's water systems due to no standby generators for the well pumps.
3	Flood	2.80	High	Several critical facilities or building structures owned by PUD are within the 100-year flood hazard area; none are within the 500-year zone. In addition to direct impact, flooding issues could also impact the wells in the area. Flood events could impact response to downed lines.
4	Climate Change	2.45	Medium	Climate change will impact the district through increased frequency of storm events, flooding, landslides, increased wildfire danger, and drought situations.
5	Landslide	2.15	Medium	The PUD has six (6) identified structures within the landslide hazard areas, or within 500' thereof. The PUD does own an extensive number of poles and lines, some of which have been impacted annually by landslide events. Assessment on the poles and lines were outside of the scope of this project.
6	Wildfire	2.15	Medium	Wildfires in the area have the potential to impact all lines and poles, as well as all structures, which fall into the various Fire Regimes. All poles and lines are subject to the wildfire risk.
7	Drought	2.15	Low	Drought will impact water supply for power generation and increase wildfire danger in the area. The District already mandates water use restrictions during peak use seasons due to drought and high consumption.

3.8 MITIGATION GOALS AND OBJECTIVES

The District adopts the hazard mitigation goals and objectives developed by the Planning Team described in Volume 1.

3.9 HAZARD MITIGATION ACTION PLAN

The Planning Team for the District identified and prioritized a wide range of actions based on the risk assessment, and their knowledge of the District assets and hazards of concern. Table 3-7 lists the action items/strategies that make up the District’s hazard mitigation plan. Background information and information on how each action item will be administered, responsible agency/office (including outside the District), potential funding sources, the timeframe, who will benefit from the activity, and the type of initiative associated with each item are also identified.

TABLE 3-7. HAZARD MITIGATION ACTION PLAN MATRIX									
Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE # P-1: Acquire a Mobile Substation to better withstand damage from major events and/or maintenance requirements at substations. Each of Mason PUD 3’s twelve substations supply electricity to approximately 1,500 to over 5,000 residents. The Mobile Substation could be used by multiple agencies for the benefit of Mason County residents.									
New/ Existing	ALL	1,5,6,7	Operations, Purchasing, Finance, Local/Regional Partners	High	PUD General Fund, Inter local Agreement, BRIC, HMGP Grants	Long-Term	Yes	Preventive, Emergency Response, Property Protection, Recovery	Facility, Local, County and Region
INITIATIVE # P-2: Replace the Hood Canal Submarine Cable ; a 6,000-foot, three-phase underwater, ground laid, armored cable installed in 1969 and used as a redundant, geo-diverse feed for approximately 3,000 customers. A life-prolonging attempt to inject insulative gel made its way through two of the phases but not the third phase signaling potential issues and increased levels of concern for reliability. Without this cable in place, PUD 3 is not able to take critical substations down for scheduled preventative maintenance. Additionally, when outages occur, this cable provides service to geographically isolated and economically distressed communities which may be critical during a natural disaster. Replacement of this cable will make it more resistant to disastrous conditions such as earthquakes.									
New/ Existing	ALL	1,2,4,5,7	Engineering, Purchasing, Finance, Operations	High ~\$3.5m	PUD General Fund, BRIC, HMGP Grants	Short-Term	No	Prevention, Property Protection, Emergency Response, Recovery	Facility, Local, County
INITIATIVE # P-3: Continue with proactive Tree Trimming program. This is a cyclic program with the goal of having enough miles trimmed each year so that the entire system is complete every five years. Additionally, hazardous trees are reported by customers and field personnel and investigated.									

**TABLE 3-7.
HAZARD MITIGATION ACTION PLAN MATRIX**

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
Existing	WS, SW, WF, FS	4,5,10,11	Operations, Finance	Low	PUD General Fund, Fire Grants, HLS, EMPG, Tribal Funds	Ongoing	Yes	Prevention, Property Protection, Natural Resource Protection, Recovery	Facility, Local, County
INITIATIVE # P-4: Implement Wildfire Prevention Plan District-wide, which includes preventative projects and activities such as: Improve system protections and operation of devices, reducing fuse sizes, replace legacy devices to reduce exposure to live lines, soil resistivity testing/grounding, fire retardant wraps in at-risk locations, tree wire upgrades, replace outdated arrestors, update safety & reliability standards, etc.									
New/ Existing	WF, FS, IF	1,3,4,5,7, 10	Engineering, Purchasing, Finance, Operations	Medium	PUD General Fund, Fire Grants as available	Short-Term	No	Prevention, Property Protection, Natural Resource Protection, Emergency Services	Facility, Local, County
INITIATIVE # P-5: Continue implementation of public Safety Education Programs within Mason County to educate citizens about the hazards faced with the utility and the appropriate preparedness and response measures.									
Existing	ALL	6,7,9,10	Operations, Engineering, Safety, PIO, Education Committee	Low	PUD General Fund	Ongoing	Yes	Prevention, Public Information and Education, Emergency Services, Recovery	Local, County
INITIATIVE # P-6: Continue to update and implement Business Continuity and Disaster Plan for emergency operations and planning efforts to help ensure continuity of operations and system reliability.									
New/ Existing	ALL	1,2,3,4,5, 6,7,9,10, 11	Operations, Safety, Administration, PIO	Low	PUD General Fund	Short-Term	Yes	Prevention, Recovery, Public Information and Education, Emergency Services	Facility, County, Community
INITIATIVE # P-7: Continue with proactive Pole Inspection Test and Treat program. This is a cyclic program with the goal of inspecting every pole in the District's service territory every ten years (which is industry standard). As poles have an average 50-year lifespan, the District's goal is to ensure safety and reliability by identifying and replacing poles which have met their end-of-life and are a hazard to the public and line workers.									
New/ Existing	WS, SW, IF, L	1,2,3,4,5, 7,10,11	Engineering, Finance, Purchasing	Low	PUD General Fund	Ongoing	No	Prevention, Property Protection	Facility, Local, County

**TABLE 3-7.
HAZARD MITIGATION ACTION PLAN MATRIX**

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE # P-8: Install Weather Monitoring Cameras in areas where the District currently has fiber access throughout the District for crews responding in inclement weather to emergency outages. The cameras would be accessible to the public and partner agencies like county crews, fire districts, and emergency responders.									
New/Existing	WS, SW, ET	1,3,6,7,9	Engineering, Finance, Purchasing, IS, Telecom	Low	PUD General Fund	Short-Term	No	Public Information and Education, Emergency Services, Recovery	Local, County

3.10 PRIORITIZATION OF MITIGATION INITIATIVES

Once the mitigation initiatives items were identified, the Planning Team followed the same process outlined within Volume 1 to prioritize their initiatives. An analysis of six different initiative types for each identified action item was conducted. Table 3-8 identifies the prioritization for each initiative.

**Table 3-8.
Mitigation Strategy Priority Schedule**

Initiative #	# Of Objectives Met	Benefits	Costs	Do Benefits			Priority ^a
				Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	
P-1	4	H	H	Y	Y	N	H
P-2	5	H	H	Y	Y	Y	H
P-3	4	H	M	Y	N	Y	H
P-4	6	M	L	Y	Y	Y	H
P-5	4	H	L	Y	N	Y	H
P-6	10	M	L	Y	N	Y	H
P-7	8	M	L	Y	Y	Y	H
P-8	5	H	L	Y	Y	Y	H

a. See Chapter 1 for explanation of priorities.

3.11 STATUS OF PREVIOUS PLAN INITIATIVES

Table 3-9 summarizes the initiatives that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

Table 3-9. 2023 Status of previous Hazard Mitigation STRATEGIES												
Mitigation Strategy	Associated Hazards							2023 Project Status	Current Status			
	Coastal Erosion	Earthquakes	Floods	Landslides	Severe Weather	Tsunami	Wildland Fire		Completed	Continual /Ongoing Nature	Removed /No Longer Relevant /No Action	Carried Over
INITIATIVE # P-1: Determine the necessity for a mobile substation to better withstand damage from major events and/or maintenance requirements at substations. Once need is determined, seek partnership with PUD 1 and/or other utilities in the region.	✓	✓	✓	✓	✓	✓	✓	Ongoing: The PUD will be increasing the priority of the project and looking for multiple funding sources and seeking availability as the supply chain is becoming a real risk to the reliable delivery of power.				✓

Table 3-9. 2023 Status of previous Hazard Mitigation STRATEGIES												
Mitigation Strategy	Associated Hazards							2023 Project Status	Current Status			
	Coastal Erosion	Earthquakes	Floods	Landslides	Severe Weather	Tsunami	Wildland Fire		Completed	Continual /Ongoing Nature	Removed /No Longer Relevant /No Action	Carried Over
<p>INITIATIVE # P-2: Evaluate radio system coverage for the District through radio mobile testing. Radio communication has become unreliable with an outdated system. A full upgrade will need to take place in order to better serve customers and maintain communication with field personnel for safety. Work with local planning partners to determine feasibility of shared equipment and/or</p>	✓	✓	✓	✓	✓	✓	✓	The PUD completed its digital radio upgrade throughout its service territory. Continued analysis of radio coverage is ongoing. Low performing areas will be addressed as appropriate.	✓			
<p>INITIATIVE # P-3: Continue routine tree trimming on 5-year cycle to minimize hazardous trees and debris from overhead lines. The benefit outweighs the cost to owner-ratepayers with system reliability.</p>					✓			The PUD continues with the tree trimming program. There are currently two full-time tree crews and one contracted tree crew. The goal each year is to trim enough miles of line to remain on the 5-year cycle. Additionally, hazardous trees are reported by customers and field personnel and dealt with on a case-by-case basis.		✓		

Table 3-9. 2023 Status of previous Hazard Mitigation STRATEGIES												
Mitigation Strategy	Associated Hazards							2023 Project Status	Current Status			
	Coastal Erosion	Earthquakes	Floods	Landslides	Severe Weather	Tsunami	Wildland Fire		Completed	Continual /Ongoing Nature	Removed /No Longer Relevant /No Action	Carried Over
INITIATIVE # P-4: Determine the necessity for a backup communication tower for Kamilche Tower, in the event it does not withstand damage from major events and/or during maintenance work. The backup tower could serve all critical emergency services	✓	✓	✓	✓	✓	✓	✓	The PUD determined this is no longer a necessary action. Other communication towers throughout the service territory are sufficient for temporary backup communications.			✓	
INITIATIVE # P-5: Continue implementation of public safety education programs within Mason County to educate citizens about the hazards faced with the utility and the appropriate preparedness and response measures	✓	✓	✓	✓	✓	✓	✓	The PUD continues to find value in educating the public about electrical safety and being prepared for emergencies and disasters.	✓			

Table 3-9. 2023 Status of previous Hazard Mitigation STRATEGIES												
Mitigation Strategy	Associated Hazards							2023 Project Status	Current Status			
	Coastal Erosion	Earthquakes	Floods	Landslides	Severe Weather	Tsunami	Wildland Fire		Completed	Continual /Ongoing Nature	Removed /No Longer Relevant /No Action	Carried Over
INITIATIVE # P-6: Continue to update and implement Business Continuity Plan for emergency operations and planning efforts to help ensure continuity of operations and system reliability.	✓	✓	✓	✓	✓	✓	✓	The PUD utilized its business continuity plan during the COVID-19 pandemic and plans to update it based on operational/procedural changes and improvements made during the emergency.				✓

3.12 FUTURE NEEDS TO BETTER UNDERSTAND RISK/ VULNERABILITY

Information in this plan was from the 2022 annual report for the fiscal year ending in 2022. Since completion of the last plan, PUD 3 service area has increased in numbers of customers prompting the need for significant infrastructure development. In 2020, the District energized a new Totten substation to meet the growth on the south end of its service territory including tribal and shellfish industry expansion.

The District anticipates future growth in the urban growth areas of Belfair and Shelton and is responding with the planning, design, and construction of switching yards, transmission lines, and substations in these two areas concurrently.

The risk to customers in the Cushman area of Mason PUD 3’s service territory (approximately 2,000 customers) has increased since the last plan with respect to the services provided by the District. The Potlatch substation serving that area is currently owned by the Bonneville Power Administration (BPA) and the output is shared by Mason PUD 1 and Mason PUD 3. The BPA has notified the two utilities that it will no longer provide upgrades/maintenance to the substation which was built in 1969. The District has purchased land adjacent to the existing substation and has plans to build a new substation within the next five years.

Additionally, since the last plan, the District has modernized its grid with a heavy reliance on its fiber optic network for meter reading, system monitoring, and security. While the system would be able to operate manually with the loss of telecommunications, it would hinder the speed of operations in a disaster or emergency situation.

CHAPTER 4.
MASON COUNTY PUBLIC UTILITY DISTRICT NO. 1
2023 ANNEX UPDATE

4.1 INTRODUCTION

This Annex details the hazard mitigation planning elements specific to the Mason County PUD No. 1, a participating special purpose district to the Mason County Hazard Mitigation Plan Update. This Annex is not intended to be a standalone document, but rather appends to and supplements the information contained in the base plan document. As such, all sections of the base plan, including the planning process and other procedural requirements apply to and were met by the Mason County PUD No. 1. For planning purposes, this Annex provides additional information specific to the district, with a focus on providing greater details on the risk assessment and mitigation strategy for this entity only. This document serves as an update to the district’s previously completed plan. All relevant data has been carried over and updated with new information as appropriate and as identified within the planning process discussed in Volume 1.

4.1.1 Hazard Mitigation Planning Team Point(S) of Contact

The Mason County PUD No. 1 followed the planning process detailed in Section 2 of the Base Plan. In addition to providing representation on the County’s Planning Team, the Mason County PUD No. 1 also formulated their own internal planning team to support the broader planning process. Individuals assisting in this Annex development are identified below, along with a brief description of how they participated.

Local Planning Team Members		
Name	Position/Title	Planning Tasks
Kristin Masteller, General Manager 21971 N. Hwy 101 Shelton, WA 98584 Telephone: 360-877-5249 e-mail Address: kristinm@mason-pud1.org	Primary Point of Contact	Attended planning team meetings; provided impact data re: power outages; provided hazard impact data; gave BOC briefings; presented final plan for adoption.
James Reyes 21971 N. Hwy 101 Shelton, WA 98584 Telephone: 360-877-5249 Jreyes@mascon-pud1.org	Engineering Manager	Served as alternate point of contact for all phases of plan development. Provided general information; conducted review of plan at various stages.

Local Planning Team Members		
Name	Position/Title	Planning Tasks
Katie Arnold 21971 N. Hwy 101 Shelton, WA 98584 Telephone: 360-877-5249 e-mail Address: karnold@mason-pud1.org	District Treasurer and Director of Business Services	Attended planning team meetings; provided impact data re: power outages; updated annex template with current data; provided hazard loss data; assisted with BOC briefings; coordinated and distributed public outreach information.

4.2 DISTRICT PROFILE

The following is a summary of key information about the jurisdiction as it is in place for the 2023 update:

- **Governing Authority**— The district is governed by the Board of Commissioners
- **Population Served**—8,400 water & electric customers as of January 2023
- **Land Area Served**—Hood Canal and Mason County
- **Land Area Owned**—The PUD provides services countywide.
- **List of Critical Infrastructure/Equipment Owned by the Jurisdiction:**

Water	\$16,650,447
Electric	\$37,618,956
Sewer	\$91,577
- **Total Value of Critical Infrastructure/Equipment**—The total value of critical infrastructure and equipment owned by the jurisdiction is \$54,360,980
- **Total Value of Critical Facilities**—The total value of critical facilities owned by the jurisdiction is \$6,956,712
- **Current and Anticipated Service Trends**— The District anticipates slow but steady growth (3-5%) to continue in Mason County, impacting both the water and electric business.

4.3 HAZARD EVENT HISTORY

Within the Base Plan, the Planning Team identified all hazard events which have occurred within the County. In the context of the planning region, it was determined that there are no additional hazards that are unique to the special purpose. Table 4-1 lists all past occurrences which have impacted the district. If available, dollar loss data is also included.

**Table 4-1
Natural Hazard Events**

Type of Event	FEMA Disaster # (if applicable)	Date/Period Incident	Dollar Losses (if known)
Severe Winter Storm	4650	12/26/21- 1/15/22	\$514,728
Severe Winter Storm	4593	12/29/20-1/16/21	\$74,060
Severe Storm	4539	1/20/-2/10/2020	\$163,887
Pandemic	4481	1/20/20 – Present	\$153,387
Severe Winter Storm	4418	12/10-24/2018	\$57,356
Flood	4253	12/1-12/14/2015	Data not available.
Snow Storm, High Winds	1079	11/7/95-12/18/95	Data not available.
Ice Storm	1159	12/26/96-2/10/97	Data not available.
Severe Wind storm, Flooding	1499	10/15/03- 10/23/03	Data not available.
Severe Wind storm, Landslides	1641	2/2/06- 2/4/06	Data not available.
Severe Storm, Landslides	1682	12/14/06- 12/15/16	Data not available.
Severe Storm, Snow/Ice	1734	12/1/07- 12/17/07	Data not available.
Severe Storm, Snow/Ice	1825	12/12/08- 1/7/09	Data not available.
Severe Storm, High Winds, Landslides	4249	11/12/15- 11/21/15	Data not available.
Local Area Disaster – Not Declared			
Snow Storm, Landslides	n/a	12/21/12- 12/24/12	Data not available.
Severe Wind Storm	n/a	3/10/16- 3/13/16	Data not available.
Snow Storm	n/a	2/09/19-2/13/19	87,922
Severe Wind Storm	n/a	9/2/20-9/19/20	75,957
Severe Storm	n/a	11/28/22-12/23/22	164,686

4.4 CAPABILITY ASSESSMENT

Coordination with other community planning efforts is paramount to the successful implementation of this plan. This section provides information on how planning mechanisms, policies, and programs are integrated into other on-going efforts. It also identifies the jurisdiction's capabilities with respect to preparing and planning for, responding to, recovering from, and mitigating the impacts of hazard events and incidents.

Capabilities include the programs, policies and plans currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. The capabilities are divided into the

following sections: regulatory capabilities which influence mitigation; administrative and technical mitigation capabilities, including education and outreach, partnerships, and other on-going mitigation efforts; fiscal capabilities which support mitigation efforts, and classifications under various community programs.

4.4.1 Regulatory Capability

The assessment of the district’s legal and regulatory capabilities, including planning and land management regulations which are customarily used by location jurisdictions to implement hazard mitigation activities, are identified in Table 4-2. Those items applicable to the district are identified.

Table 4-2 Legal and Regulatory Capability Supporting Mitigation			
	Local Authority	Other Jurisdictional Authority	State Mandated Comments
Codes, Ordinances & Requirements			
Building Code			
Zoning Ordinance			
Subdivision Ordinance			
Floodplain Ordinance			
Stormwater Management			
Post Disaster Recovery			
Real Estate Disclosure			
Growth Management			
Site Plan Review			
Public Health and Safety	X		Water Adequacy Determinations
Coastal Zone Management			
Climate Change Adaptation			
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire, etc.)			
Environmental Protection			
Planning Documents			
General or Comprehensive Plan			
<i>Is the plan equipped to provide linkage to this mitigation plan? Yes</i>			

Table 4-2 Legal and Regulatory Capability Supporting Mitigation				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Floodplain or Basin Plan				
Stormwater Plan				
Capital Improvement Plan	X			PUD 1 CIP plan for water & electric
Habitat Conservation Plan				
Economic Development Plan				
Shoreline Management Plan				
Community Wildfire Protection Plan				
Transportation Plan				
Response/Recovery Planning				
Comprehensive Emergency Management Plan				
Threat and Hazard Identification and Risk Assessment				
Terrorism Plan				
Post-Disaster Recovery Plan	X			PUD 1 Disaster Preparedness Plan
Continuity of Operations Plan	X			PUD 1 Disaster Preparedness Plan
Public Health Plans				
Boards and Commission				
Planning Commission				
Mitigation Planning Committee				
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems, chipping, etc.)	X			Annual Vegetation Management program
Mutual Aid Agreements / Memorandums of Understanding	X			Mutual Aid Agreements with neighboring utilities and BPA
Other	X			PUD Wildfire Mitigation Plan

4.4.2 Administrative and Technical Capabilities

The assessment of the district’s administrative and technical capabilities, including educational and outreach efforts, and on-going programmatic efforts are presented in Table 4-3. These are elements which support not only mitigation, but all phases of emergency management already in place that are used to implement mitigation activities and communicate hazard-related information.

Table 4-3 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	NO	
Professionals trained in building or infrastructure construction practices (building officials, fire inspectors, etc.)	NO	
Engineers specializing in construction practices?	NO	
Planners or engineers with an understanding of natural hazards	NO	
Staff with training in benefit/cost analysis	YES	District Treasurer
Surveyors	NO	
Personnel skilled or trained in GIS applications	YES	Electric & Water Depts.
Personnel skilled or trained in Hazus use	NO	
Scientist familiar with natural hazards in local area	NO	
Emergency Manager	NO	
Grant writers	YES	GM & Treasurer
Warning Systems/Services (Reverse 9-1-1, outdoor warning signs or signals, flood or fire warning program, etc.?)	NO	
Hazard data and information available to public	YES	Mason County’s Data
Maintain Elevation Certificates	NO	
Education and Outreach		
Local citizen groups or non-profit organizations focused on emergency preparedness?	NO	
Local citizen groups or non-profit organizations focused on environmental protection?	NO	
Organization focused on individuals with access and functional needs populations	NO	

Table 4-3 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	YES	Ongoing through social media and print media for water use and household preparedness for loss of utilities.
Natural disaster or safety related school programs?	NO	
Public-private partnership initiatives addressing disaster-related issues?	NO	
Multi-seasonal public awareness program?	YES	Ongoing through social and print media for utility-specific messaging.
Other	NO	
On-Going Mitigation Efforts		
Hazardous Vegetation Abatement Program	YES	PUD 1-specific vegetation mgmt. program
Noxious Weed Eradication Program or other vegetation management	NO	
Fire Safe Councils	NO	
Chipper program	YES	PUD 1- specific chipper use for VM program.
Defensible space inspections program	NO	
Creek, stream, culvert or storm drain maintenance or cleaning program	NO	
Stream restoration program	NO	
Erosion or sediment control program	NO	
Address signage for property addresses	NO	
Other	NO	

4.4.3 Fiscal Capability

The assessment of the jurisdiction’s fiscal capabilities is presented in Table 4-4. These are the financial tools or resources that could potentially be used to help fund mitigation activities.

Table 4-4 Fiscal Capability Available to Support Mitigation	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	YES

Table 4-4 Fiscal Capability Available to Support Mitigation	
Financial Resources	Accessible or Eligible to Use?
Capital Improvements Project Funding	YES
Authority to Levy Taxes for Specific Purposes	YES
User Fees for Water, Sewer, Gas or Electric Service	YES
Incur Debt through General Obligation Bonds	YES
Incur Debt through Special Tax Bonds	UNKNOWN
Incur Debt through Private Activity Bonds	UNKNOWN
Withhold Public Expenditures in Hazard-Prone Areas	NO
State Sponsored Grant Programs	YES
Development Impact Fees for Homebuyers or Developers	YES
Other	NO

4.5 COMMUNITY CLASSIFICATION

The district’s classifications under various hazard mitigation programs are presented in Table 4-5. Each of the classifications identified establish requirements which, when met, are known to increase the resilience of a community. Those which specifically require district participation or enhance mitigation efforts are indicated accordingly.

Table 4-5 Community Classifications		
	Participating (Yes/No)	Date Enrolled
Community Rating System	NO	
Building Code Effectiveness Grading Schedule	NO	
Storm Ready	NO	
Firewise	NO	
Tsunami Ready (if applicable)	NO	

4.6 HAZARD RISK AND VULNERABILITY RANKING

The district's Planning Team reviewed the hazard list identified within the Base Plan and have identified the hazards that affect Mason County PUD No. 1.

Table 4-6 presents the ranking of the hazards of concern based on their CPRI score. A qualitative vulnerability ranking was then assigned based on a summary of potential impact determined by past occurrences, spatial extent, damage, casualties, and continuity of government. The assessment is categorized into the following classifications:

- Extremely Low – No or very limited impact. The occurrence and potential cost of damage to life and property is very minimal-to-nonexistent. No impact to government functions with no disruption to essential services.
- Low (Negligible) – Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal. Government functions are at 90% with limited disruption to essential services.
- Medium (Limited) – Moderate potential impact. This ranking carries a moderate threat level to the general population and /or built environment. The potential damage is more isolated, and less costly than a more widespread disaster. Government functions are at 80% with limited impact to essential services.
- High (Critical) – Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past. Government functions are at ~50% operations with limited delivery of essential services.
- Extremely High (Catastrophic) – Very widespread with catastrophic impact. Government functions are significantly impacted for in excess of one month.

Table 4-6. Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk
1	Earthquake	3.40	High	Most of the PUD’s structures fall within the very low to low liquefaction area (over 140), with 17 in the moderate to high liquefaction area, and three in the low to moderate. Some structures identified are masonry (unreinforced and reinforced masonry), steel; pre-cast, and manufactured structure. Many of the PUD’s facilities (both water and power) are older (1954-1969). An earthquake would also impact the district’s ability to provide service and repair lines as disruption in other areas outside of the planning area could impact transmission. In addition, failed roadways would also impact response capabilities for ingress and egress to lines, substations, and water facilities.
2	Severe Weather	3.0	High	All structures, poles, and lines (both water and power) can be impacted by a severe weather event. Impact could include power outages throughout the service area. The PUD has well over 5,000 poles and miles of line along the Olympic National Forest and Hood Canal. The PUD does conduct regular tree-trimming do help reduce the impact; however, power outages will continue to occur due to high wind events, ice forming on the power lines, lightning strikes, etc. A severe weather event which includes flooding could potentially impact water supply, although such incidents have not occurred. Power outages for the area also results in a loss of water service for most of PUD 1’s water systems due to no standby generators for the well pumps.
3	Flood	2.8	High	22 critical facilities or building structures owned by PUD are within the 100-year flood hazard area; none are within the 500-year zone. In addition to direct impact, flooding issues could also impact the wells in the area. Flood events could impact response to downed lines.

Table 4-6. Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk
4	Climate Change	2.45	Medium	Climate change will impact the district through increased frequency of storm events, flooding, landslides, increased wildfire danger, and drought situations.
5	Landslide	2.15	Medium (Greater potential for impact along roadways and power poles)	The PUD has six (6) identified structures within the landslide hazard areas, or within 500' thereof. The PUD does own an extensive number of poles and lines, some of which have been impacted annually by landslide events. Assessment on the poles and lines were outside of the scope of this project.
6	Wildfire	2.15	Low	Wildfires in the area have the potential to impact all lines and poles, as well as all structures, which fall into the various Fire Regimes. All poles and lines are subject to the wildfire risk.
6	Drought	2.15	Low	Drought will impact water supply for power generation and increase wildfire danger in the area. The District already mandates water use restrictions during peak use seasons due to drought and high consumption.

The hazard ranking for the most part remained unchanged, with the top three hazards remaining consistent from the 2018 plan to this 2023 update. While PUD 1 has increased its critical facilities due to acquisition of new infrastructure and structures, that does not increase its vulnerability other than the fact that there are more assets.

4.7 MITIGATION GOALS AND OBJECTIVES

PUD 1 adopts the hazard mitigation goals and objectives developed by the Planning Team described in Volume 1.

4.8 HAZARD MITIGATION ACTION PLAN

The Planning Team for the district identified and prioritized a wide range of actions based on the risk assessment, and their knowledge of the district assets and hazards of concern. Table 4-7 lists the action items/strategies that make up the district's hazard mitigation plan. Background information and information on how each action item will be administered, responsible agency/office (including

outside the district), potential funding sources, the timeframe, and the type of initiative associated with each item are also identified.

Table 4-7. Hazard Mitigation Action Plan Matrix									
Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE #1- Continue social media activity to alert customers and residents of utility interruptions, extreme weather events, disaster events, planning, resources, transportation/highway closures, etc.									
Existing	All	All	PUD 1 Public Outreach coordinator	Low	n/a – PUD General Funds	Ongoing	YES	Public Information	Local/ Regional
INITIATIVE #2- Procure a mobile substation to help power sections of the grid during prolonged and significant outages; keep critical facilities in power- schools, hospitals, EMS, MACECOM, etc. Can be shared with neighboring counties.									
NEW	All	All	PUD 1 General Manager	High	Dept. of Energy (DOE) Grant, BRIC Grant	Long-term	YES	Emergency Services	Local/ Regional
INITIATIVE #3- Construct a Jorstad substation near the Mason/Jefferson County line to enable looping and keep the 1,600 customers on the Hwy 101 N. feeder in power if one of the other substations fails or there is a massive slide/storm that takes out infrastructure along 101.									
NEW	All	All	PUD 1 General Manager	High	BRIC, ARPA Grant, PUD 1 General Funds	Short Term	YES	Preventative, Structural Projects	Local
INITIATIVE #4- Construct Manzanita substation to modernize and replace the aging Union substation and provide a more robust and reliable power supply to the Union and Skokomish Valley area.									
NEW	All	All	PUD 1 Operations Mgr.	Low	BRIC Grant, HUD or DOE Grant	Short-term	NO	Preventative, Structural Projects	Local
INITIATIVE #5- Seven to 10 Year Vegetation Management Trim Cycle System-Wide									
Existing	All	All	PUD 1 Operations Mgr.	Low	SAFER Grant, Fire Mgmt. Grants	Ongoing	YES	Preventative, Natural Resource Protection	Local

Table 4-7. Hazard Mitigation Action Plan Matrix									
Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE #6- Utility Pole Testing & Replacements									
Existing	All	All	PUD 1 Operations	Medium	BRIC, PUD 1 General Funds	Long-term	YES	Preventative	Local
INITIATIVE #7- Interties at 106, Manzanita and Lake Cushman with PUD3 for redundant power feeds when one of us goes offline									
NEW	All	All	PUD 1 Operations	Medium	BRIC or DOE grants,	Long term	NO	Preventative, Recovery	Local/ Regional

4.9 PRIORITIZATION OF MITIGATION INITIATIVES

Once the mitigation initiatives items were identified, the Planning Team followed the same process outlined within Volume 1 to prioritize their initiatives. An analysis of six different initiative types for each identified action item was conducted. Table 4-8 identifies the prioritization for each initiative.

Table 4-8. Mitigation Strategy Priority Schedule								
Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/Budgets?	Priority ^a	
1	100+	H	L	Y	N	Y	H	
2	0	H	H	Y	Y	N	M	
3	3	M	H	Y	Y	Partially	M	
4	7	M	L	Y	Y	Partially	H	
5	3	H	M	Y	N	Y	H	
6	3	M	M	Y	Y	Partially	M	
7	1	M	M	Y	Y	Partially	M	

a. See Chapter 1 for explanation of priorities.

4.10 STATUS OF PREVIOUS PLAN INITIATIVES

Table 4-9 summarizes the initiatives that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

Table 4-9. 2023 Status of previous Hazard Mitigation STRATEGIES												
Mitigation Strategy	Associated Hazards							2023 Project Status	Current Status			
	Coastal Erosion	Earthquakes	Floods	Landslides	Severe Weather	Tsunami	Wildland Fire		Completed	Continual /Ongoing Nature	Removed /No Longer Relevant /No Action	Carried Over
1-Communications	X	X	X	X	X		X	Completed and ongoing.	X			
2-Mobile Substation		X	X	X	X		X	Not begun.				X
3-Jorstad Substation	X	X	X	X	X		X	Land procured. In design phase.		X		
4-Manzanita Substation	X	X	X	X	X		X	In design phase. Equipment purchased.		X		
5-Vegetation Management	X	X		X	X		X	Trimmed 3 out of 7 areas. Applied for grants for whole system trimming and highline truck. Removed danger trees each year.		X		
6-Test and Replace poles	X			X	X		X	Replaced 300+ poles. Completed pole attachment audit. Have not started inspection.		X		
7-Power Interties	X	X	X	X	X		X	Engineering design completed for 1/3 interties. Interlocal agreement between PUD 1 and PUD 3 executed. Soliciting funding.		X		

CHAPTER 5.
CENTRAL MASON FIRE & EMS
HAZARD MITIGATION PLAN 2023 ANNEX UPDATE



5.1 INTRODUCTION

This Annex details the hazard mitigation planning elements specific to the Central Mason Fire and EMS (CMFE), a participating special purpose district to the Mason County Hazard Mitigation Plan Update. This Annex is not intended to be a standalone document, but rather appends to and supplements the information contained in the base plan document. As such, all sections of the base plan, including the planning process and other procedural requirements apply to and were met by the Mason County DEM Planning Team. For planning purposes, this Annex provides additional information specific to the district, with a focus on providing greater details on the risk assessment and mitigation strategy for this entity only. This document serves as an update to the district’s previously completed plan. All relevant data has been carried over and updated with new information as appropriate and as identified within the planning process discussed in Volume 1.

5.2 HAZARD MITIGATION PLANNING TEAM POINT(S) OF CONTACT

The CMFE followed the planning process detailed in Section 2 of the Base Plan. In addition to providing representation on the County’s Planning Team, the CMFE also formulated their own internal planning team to support the broader planning process. Individuals assisting in this Annex development are identified below, along with a brief description of how they participated.

Local Planning Team Members		
Name	Position/Title	Planning Tasks
K.C. Whitehouse, Battalion Chief 122 W Franklin ST Shelton, WA 98584 360-545-2037 kwhitehouse@cmfe.org	Primary Point of Contact	Attend meetings, provide local data to planning partnership; seek necessary information from inside district to complete annex template; assist with public outreach efforts; present final plan and CMFE Annex to Fire Commissioners for review and adoption.
Jeff Snyder, Chief 122 W Franklin Shelton, WA 98584 360.229-1733 jsnyder@cmfe.org	Alternate Point of Contact	Work with Batt. Chief to participate in countywide planning process. Assist with information gathering to provide to planning team. Assist with completion of annex template.

5.3 DISTRICT PROFILE

Central Mason Fire & EMS (CMFE) is an all-hazards fire protection district established under Chapter 52 of the Revised Code of Washington. Situated between the Olympic Mountains and the Puget Sound, Central Mason serves the city of Shelton, and the communities of Allyn, Victor, Mason Lake, Pickering, Harstine Island, Agate, Deer Creek, Lake Limerick, Bayshore, John's Prairie, Island Lake, and Sanderson Field.

CMFE provides a wide range of emergency and non-emergency services out of six staffed stations and six volunteer stations. Services provided by CMFE include fire suppression, advanced life support (ALS) ambulance services, basic life support (BLS) ambulance services, rescue, incident management, fire investigation, community risk reduction, and fire marshal services.

The CMFE full-time staff consists of one chief, one deputy chief, three battalion chiefs (two certified as paramedics), one division chief of administrative services, one training/health & safety captain (certified as paramedic), one fire marshal, one deputy fire marshal, 12 lieutenants (seven certified as paramedics), 39 firefighters (18 certified as paramedics), one firefighter/mechanic, one facilities maintenance technician, and three administrative support staff members. Our volunteer staff includes 28 firefighters. All firefighters are trained to NFPA 1001 and WAC 296-305 standards.

The CMFE coverage area includes several pieces of critical infrastructure to the region, including 13 schools, one community college, three major highways, a major natural gas pipeline, the rail line leading to the Navy SUBBASE Bangor and the Puget Sound Naval Shipyard, as well as the transmission lines that power the much of the Olympic Peninsula. In addition, MCFD 5's response area includes three popular state parks.

CMFE maintains interlocal agreements and/or contracts for service to provide assistance for: county-wide mutual aid, Washington State Department of Natural Resources, Washington State Fire Service Mobilization, Emergency Management Assistance Compact, and Washington Corrections Center.

At the time this report was filed, CMFE is in the process of executing a merger with Mason County Fire District #11.

The following is a summary of key information about the jurisdiction:

Governing Authority— The district is governed by elected fire commissioners.

Population Served—31,186 as of 2023

Land Area Served— Fire District = 165 Square Miles. ALS Coverage = 748 Square Miles.

Value of Area Served—The estimated value of the area served by the district is \$5.3-billion.

Land Area Owned— CMFE currently owns parcels in nine locations within the fire district.

Critical Infrastructure/Equipment Owned by the Jurisdiction:

(11) fire engines, (3) water tenders, (1) ladder truck, (5) brush engines, (8) ambulances, (10) staff vehicles, and (4) support vehicles.

Total Value of Critical Infrastructure/Equipment—The total value of critical infrastructure and equipment owned by the jurisdiction is \$43,829,000.00

CRITICAL FACILITIES OWNED BY THE JURISDICTION AND VALUES			
Structure	Building Value	Content Value	Total Value
City of Shelton Fire Station	\$ 12,000,000.00	\$ 5,700,000.00	\$ 17,700,000.00
CMFE Station #1	\$ 1,240,000.00	\$ 1,650,000.00	\$ 2,890,000.00
CMFE Station #2	\$ 130,000.00	\$ 77,000.00	\$ 207,000.00
CMFE Station #3	\$ 1,750,000.00	\$ 1,880,000.00	\$ 3,630,000.00
CMFE Station #4	\$ 960,000.00	\$ 1,650,000.00	\$ 2,610,000.00
CMFE Station #5	\$ 402,000.00	\$ 810,000.00	\$ 1,212,000.00
CMFE Station #6	\$ 495,000.00	\$ 1,500,000.00	\$ 1,995,000.00
CMFE Station #7	\$ 2,800,000.00	\$ 1,650,000.00	\$ 4,450,000.00
CMFE Station #9	\$ 870,000.00	\$ 1,270,000.00	\$ 2,140,000.00
CMFE Station #10	\$ 618,000.00	\$ 1,350,000.00	\$ 1,968,000.00
CMFE Station #11	\$ 1,930,000.00	\$ 1,800,000.00	\$ 3,730,000.00
CMFE Station #12	\$ 487,000.00	\$ 810,000.00	\$ 1,297,000.00
TOTALS	\$ 23,682,000.00	\$ 20,147,000.00	\$ 43,829,000.00

SERVICE TRENDS 2020-2022						
Major Incident Breakdown	2022	% of Total Calls	2021	% of Total Calls	2020	% of Total Calls
Fires	193	2.07%	195	2.17%	183	2.28%
Overpressure ruptures, explosion, overhear - no fire	3	0.03%	6	0.07%	6	0.07%
Rescue & Emergency Medical Service	6,454	69.26%	6,322	70.35%	6,149	76.60%
Hazardous Conditions (No Fire)	79	0.85%	62	0.69%	63	0.79%
Service Call	799	8.57%	792	8.81%	526	6.55%
Good Intent Call	1,451	15.57%	1,344	14.95%	808	10.07%
False Alarm & False Call	315	3.38%	245	2.73%	265	3.30%
Severe Weather & Natural Disaster	20	0.22%	10	0.11%	19	0.24%
Special Incident Type	5	0.05%	11	0.12%	8	0.10%
TOTALS	9,319		8,987		8,027	

- Service trends in the area will continue to increase due to commercial and residential growth within CMFE coverage. The Shelton and Allyn Urban Growth Areas have seen considerable growth over the last five years. Three major residential expansions are in the permitting phase within the Shelton city limits.
- Current and forecasted growth within the fire district is predominantly in areas identified by the Washington State Department of Natural Resources (2020) as being in the wildland/urban interface. Many of these areas within the fire district include high densities of Highly Valued Resources and Assets (HVRA's).
- The CMFE response area will soon include the Port of Shelton at Sanderson Field through merger with Mason County Fire District #11. The Port of Shelton at Sanderson Field is home to several key pieces of infrastructure to the region and is an economic hub for Mason County.

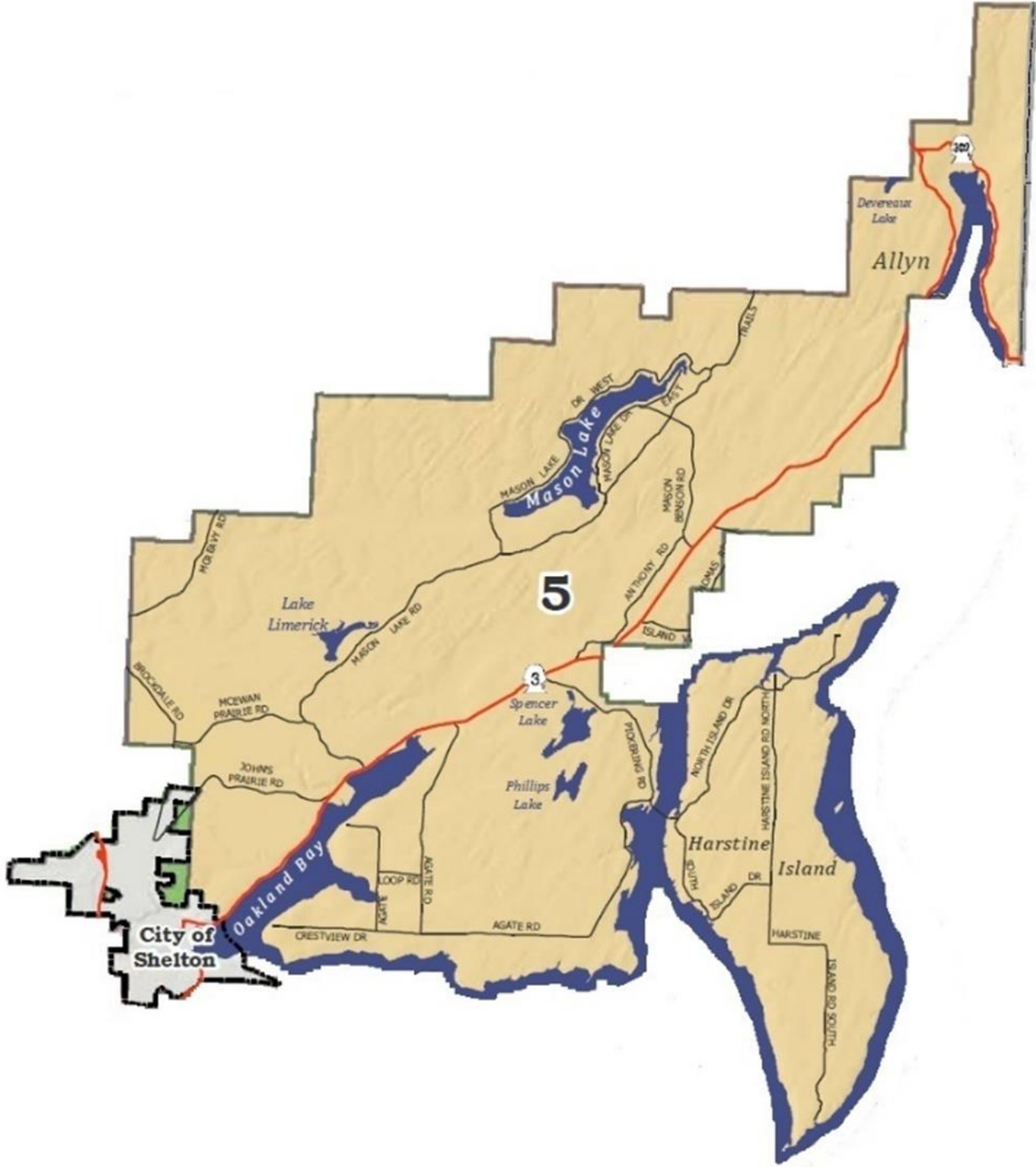


Figure 5-1 CMFE Service Area Boundaries

5.4 HAZARD EVENT HISTORY

CMFE provided response activities to all of those disasters identified within Table 5-1. In addition to those events identified, the District also responded to many additional events, one of which included resources owned by PUD 3. That incident is also identified below as a significant event which did not rise to a disaster declaration.

Table 5-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Severe Winter Storm	4650	12/26/21-1/15/22	Unknown
Severe Winter Storm	4593	12/29/20-1/16/21	Unknown
Severe Storm	4539	1/20/-2/10/2020	Unknown
Pandemic	4481	1/20/20 – Present	Unknown
Severe Storm	4418	12/10-24/2018	Unknown
Flood	4253	12/1/2015	Unknown
Severe Storm	4269	11/12/2015	Unknown
Severe Storm	4056	1/14/2012	Unknown
Severe Storm(s)	1825	12/12/2008	Unknown
Flood	1817	1/6/2009	Unknown
Severe Storm(s)	1734	12/1/2007	Unknown
Severe Storm(s)	1682	12/14/2006	Unknown
Severe Storm(s)	1641	1/27/2006	Unknown
Severe Storm(s)	1499	10/15/2003	Unknown
Earthquake	1361	2/28/2001	Unknown
Flood	1172	3/18/1997	Unknown
Severe Storm(s)	1159	12/26/1996	Unknown
Severe Storm(s)	1079	11/7/1995	Unknown
Severe Storm(s)	981	1/20/1993	Unknown

Table 5-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Flood	883	11/9/1990	Unknown
Volcano	623	5/21/1980	Unknown
Flood	612	12/31/1979	Unknown
Flood	492	12/13/1975	Unknown
Flood	414	1/25/1974	Unknown
Earthquake	196	5/11/1965	Unknown
Flood	185	12/29/1964	Unknown
Jurisdiction Specific Incidents Not Rising to Level of Disaster Declaration			
Wildfire by PUD 3 Headquarters - 240 Acres burned		10/2014	Unknown Damages

5.5 APPLICABLE REGULATIONS AND PLANS

The following codes, ordinance, policies or plans which are applicable to this hazard mitigation plan or support hazard mitigation planning efforts are identified as follows:

- Central Mason Fire and EMS Strategic Plan
- Central Mason Fire and EMS Policy and Guidelines
- Comprehensive Emergency Management Plan with the Mason County
 - www.masoncountywa.gov
- Capital Improvement Program, renewed as needed
- Federal Mitigation Act of 2000 requires State, Tribal and local governments to develop a hazard mitigation plan as a condition for receiving certain types of non-emergency disaster assistance, including funding for mitigation projects. The District’s current approved Hazard Mitigation Plan Update supports this regulation and plan update.
- County and Regional Response Plans
- National Response Framework
- National Incident Management System
- Revised Code of Washington 52.26 (Regional Fire Protection Service)
- WAC 296.305

5.5.1 Administrative and Technical Capabilities

The assessment of the district’s administrative and technical capabilities is presented in Table 5-2. These are elements which support not only mitigation, but all phases of emergency management already in place that are used to implement mitigation activities and communicate hazard-related information.

Table 5-2 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Professionals trained in building or infrastructure construction practices (building officials, fire inspectors, etc.)	Yes	These services are provided through the County. CMFE has a certified Fire Marshal / Inspector
Staff with training in benefit/cost analysis	Yes	These services, when necessary, may be contracted or provided by County.
Personnel skilled or trained in GIS applications	No	
Personnel skilled or trained in Hazus use	No	
Scientist familiar with natural hazards in local area	Yes	Through County and State resources.
Emergency Manager	Yes	The County provides this service.
Grant writers	Yes	We have two staff members. The fire district has the authority to apply for grants.
Warning Systems/Services (Reverse 9-1-1, outdoor warning signs or signals, flood or fire warning program, etc.?)	Yes	County public works has signage available for use for warning systems; also County communications programs support the District as needed for warning and broadcasts. We also use our PIO and social media for this.
Hazard data and information available to public	Yes	Hazard maps developed through this process are available on the County’s website for review.
Education and Outreach		
Local citizen groups or non-profit organizations focused on emergency preparedness?	Yes	CERT teams trained with citizens throughout the County and within the City of Shelton
Firewise, Washington Fire Adapted Communities, WA DNR Wildfire Ready Neighbors	Yes	Harstine Pointe is Firewise certified. Harstine Island is affiliated with the Washington Fire Adapted Communities. Lake Limerick, Rainbow Lake, and Emerald Lake are affiliated with WA DNR Wildfire Ready Neighbors.
Public-private partnership initiatives addressing disaster-related issues?	Yes	We work with many small communities in the Fire District to address Disaster Preparedness.

Table 5-2 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Multi-seasonal public awareness program?	Yes	The County regularly provides seasonal awareness programs via its website, safety fairs, Twitter accounts.
On-Going Mitigation Efforts		
Hazardous Vegetation Abatement Program	No	
Noxious Weed Eradication Program or other vegetation management	No	
Fire Safe Councils	Yes	
Chipper program	Yes	
Defensible space inspections program	Yes	
Address signage for property addresses	Yes	
Other		

5.5.2 Fiscal Capability

The assessment of the jurisdiction’s fiscal capabilities is presented in Table 5-3. These are the financial tools or resources that could potentially be used to help fund mitigation activities.

Table 5-3 Fiscal Capability Available to Support Mitigation	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Other	

5.6 COMMUNITY CLASSIFICATION

The district’s classifications under various hazard mitigation programs are presented in Table 5-4. Each of the classifications identified establishes requirements which, when met, are known to increase the resilience of a community. Those which specifically require district participation or enhance mitigation efforts are indicated accordingly.

Table 5-4 Community Classifications	
	Participating (Yes/No)
Protection Class	5
Building Code Effectiveness Grading Schedule	Commercial – 3 Dwelling - 4
Storm Ready	Yes - County
Firewise	Yes
Tsunami Ready (if applicable)	NA

5.7 HAZARD RISK AND VULNERABILITY RANKING

The district’s Planning Team reviewed the hazard list identified within the Base Plan, and have identified the hazards that affect Central Mason Fire & EMS. Following the same process identified in the base plan, Table 5-5 presents the ranking of the hazards of concern based on their CPRI score. A qualitative vulnerability ranking was then assigned based on a summary of potential impact determined by past occurrences, spatial extent, damage, casualties, and continuity of government. Based on the industry that CMFE operates, the internal Planning Team determined that wildfire warranted a ranking of “high.” This ranking is based on evaluation of impacts from previous events, as well as data sourced from the Washington State Department of Natural Resources Wildland/Urban Interface Risk Map and the Pacific Northwest Qualitative Risk Assessment. The assessment is categorized into the following classifications:

- Extremely Low – No or very limited impact. The occurrence and potential cost of damage to life and property is very minimal-to-nonexistent. No impact to government functions with no disruption to essential services.
- Low (Negligible) – Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal. Government functions are at 90% with limited disruption to essential services.
- Medium (Limited) – Moderate potential impact. This ranking carries a moderate threat level to the general population and /or built environment. The potential damage is more isolated, and less costly than a more widespread disaster. Government functions are at 80% with limited impact to essential services.

- High (Critical) – Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past. Government functions are at ~50% operations with limited delivery of essential services.
- Extremely High (Catastrophic) – Very widespread with catastrophic impact. Government functions are significantly impacted for in excess of one month.

Table 5-5. Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk
1	Wildfire	3.1	High	The majority of structures owned by the district fall into Fire Regimes 3 and 5. While structures owned by the district have not been impacted by wildfire, the district’s response to wildfire events has increased over the last several years, potentially because of climate change and the drought which the entire state experienced several times over the course of the last few years, as well as some of the driest summers on record with record-reaching temperatures occurring since completion of the last plan. CMF has been fortunate to be able to control wildfires which have erupted, although there was a significant wildfire which occurred significantly impacting PUD 3.
2	Severe Weather	2.35	Medium	Severe storms can impact all of the District’s structures. Most structures included in this assessment were built in 1977-1978 timeframe. One was built in 1920, the newest structure built in 1980. Strong winds in the area could damage the facilities. Severe storms also impact response capabilities. Falling trees and flooded roadways impact ingress and egress. Snow, while customarily not of a long duration or significant amounts, also has the potential to impact response times, as well as increasing calls for service. Snow-load capacities can also be of concern, causing roofs to collapse during significant snow event. Many of the structures in the service area are older in nature and may be impacted by such an event. A combined snow/rain event could also overcome drainage capacity, further impacting response.

Table 5-5. Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk
3	Earthquake	3.55	High	The entire planning area is susceptible to earthquakes. While all of the structures owned by the district fall within the “very low” liquefaction zone, all of the structures are dated, making them more susceptible to the EQ hazard. All but three of the structures owned by the district included in this assessment are wood, with three being steel construction.
4	Flood	2.4	Medium	None of the district’s structures fall within either the 100- or 500-year floodplain; however, response to areas flooded do frequently occur. In some instances, response is hampered by floodwaters over roadways.
5	Landslide	2.9	Medium	No structures owned by the district fall within the landslide hazard area; however, there are roadways throughout the County as a whole that are many times impacted by landslides occurring, particularly along major arterials. This does have the potential to impact the district due to delayed response times, or impacting ability for adequate staffing if roadways are impacted.
6	Climate Change	3.1	Low	Climate change will continue to exacerbate other hazards of concern, including increased severity of severe storms, increased flooding events, and impact to water supplies. These have the potential to impact not only district-owned structures, but also response capabilities.
7	Drought	2.05	Extremely Low	Droughts will increase the risk to wildfire and has the ability to limit water supplies needed to fight fires. The increase to wildfire danger could also impact the risk to the district’s structures

The service area in which CMFE is situated are the areas which have experienced the most rapid growth within Mason County since completion of the 2018 plan. With the increased calls for service, the district does feel there is a great amount of vulnerability within its service area as a whole due to the increase in population and structures; however, with respect to the district’s facilities, the vulnerability remains consistent with the 2018 plan.

5.8 MITIGATION GOALS AND OBJECTIVES

CMFE adopts the hazard mitigation goals and objectives developed by the Planning Team described in Volume 1.

5.9 HAZARD MITIGATION ACTION PLAN

The Planning Team for CMFE has identified and prioritized a wide range of actions based on the risk assessment, and their knowledge of the district assets and hazards of concern. Table 5-6 lists the action items/strategies that make up the district’s hazard mitigation plan. Background information and information on how each action item will be administered, responsible agency/office (including outside the district), potential funding sources, the timeframe, and the type of initiative associated with each item are also identified.

Table 5-6. Hazard Mitigation Action Plan Matrix									
Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE #1 Refine and expand CMFE public education programs related to risk profile and identified hazards, such as wildland fires, earthquakes, and severe weather events. Principal focus will be on basic all hazard preparedness.									
Existing	All	1, 2, 3, 4	CMFE Chief or Designee	\$2,000	DEM, FEMA, Tribal Funds or Fire Grants, District funds	Short Term	No	Public Information, Resource Protection, Emergency Services	This will benefit all district residents, and visitors.
INITIATIVE #2 Maintain and expand wildfire risk reduction programs (FireWise USA, Fire Adapted Communities, & Wildfire Ready Neighbors) throughout the fire district.									
Both	Wildfire	All	CMFE Chief or Designee	\$50,000	Fire Grants, FEMA Grants, District funds	Short Term	No	Property Protection, Emergency Services, Recovery	Private, Local, County, Region
INITIATIVE #3 Evaluate and expand disaster preparedness efforts on Harstine Island and other at-risk communities.									

Table 5-6. Hazard Mitigation Action Plan Matrix									
Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
Both	All	All	CMFE Chief or Designee	Medium	DEM, Fire or BRIC Grants, District Funds	Long Term	No	Preventive Activities, Emergency Services, Recovery	Local, County, Region

5.10 PRIORITIZATION OF MITIGATION INITIATIVES

Once the mitigation initiatives items were identified, the Planning Team followed the same process outlined within Volume 1 to prioritize their initiatives. An analysis of six different initiative types for each identified action item was conducted. Table 5-7 identifies the prioritization for each initiative.

Table 5-7. Mitigation Strategy Priority Schedule								
Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/Budgets?	Priority (a)	
1	4	H	L	Y	Y	Y	H	
2	All	H	H	Y	Y	Y	H	
3	All	H	M	Y	Y	N	M	
a. See Chapter 1 for explanation of priorities.								

5.11 STATUS OF PREVIOUS PLAN INITIATIVES

Table 5-8 summarizes the initiatives that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

TABLE 5-8. STATUS OF PREVIOUS HAZARD MITIGATION STRATEGIES												
Mitigation Strategy	Associated Hazards							2023 Project Status	Current Status			
	Coastal Erosion	Earthquakes	Floods	Landslides	Severe Weather	Tsunami	Wildland Fire		Completed	Continual /Ongoing Nature	Removed /No Longer Relevant /No Action	Carried Over
Station 57 Generator					✓			Project Complete	✓			
Station 51 Relocation				✓				Project will be reevaluated as part of capital facilities planning.			✓	

5.12 FUTURE NEEDS TO BETTER UNDERSTAND RISK/ VULNERABILITY

With the anticipated continued growth in the area, the CMFE will need to conduct additional risk and vulnerability assessments as development trends change to allow for a better understanding with respect to personnel and staffing, as well as equipment needs with respect to calls for service to ensure continued public safety at the appropriate levels.

CHAPTER 6.
MASON COUNTY FIRE DISTRICT #16
HAZARD MITIGATION PLAN 2023 ANNEX UPDATE

6.1 INTRODUCTION

This Annex details the hazard mitigation planning elements specific to the Mason County Fire District 16, a participating special purpose district to the Mason County Hazard Mitigation Plan Update. This Annex is not intended to be a standalone document, but rather appends to and supplements the information contained in the base plan document. As such, all sections of the base plan, including the planning process and other procedural requirements apply to and were met by Fire Protection District 16. For planning purposes, this Annex provides additional information specific to the district, with a focus on providing greater details on the risk assessment and mitigation strategy for this entity only. This document serves as an update to the district’s previously completed plan. All relevant data has been carried over and updated with new information as appropriate and as identified within the planning process discussed in Volume 1.

6.2 HAZARD MITIGATION PLANNING TEAM POINT(S) OF CONTACT

Mason County Fire District 16 followed the planning process detailed in Section 2 of the Base Plan. In addition to providing representation on the County’s Planning Team, the Mason County Fire District 16 also formulated their own internal planning team to support the broader planning process. Individuals assisting in this Annex development are identified below, along with a brief description of how they participated.

Local Planning Team Members		
Name	Position/Title	Planning Tasks
Matthew N Welander PO Box 2436 Shelton, WA 98584 Telephone: 360-485-3714 Email: mwelander@mcf16.com	Fire Chief, Primary Point of Contact	Attend meetings; provide local data to planning partnership; seek necessary information from inside district to complete annex template.
Greg Seals PO Box 2436 Shelton, WA 98584 Telephone: 360-426-7343 Email: gseals@mcf16.com	Deputy Fire Chief Alternate Point of Contact	Work with Chief to participate in countywide planning process. Assist with information gathering to provide to planning team; assist with completion of annex template.

6.3 DISTRICT PROFILE

Mason County Fire District 16 is in Mason County, bordering the City of Shelton on the west side of the city. The district covers the area in between Shelton and the Matlock area. In 2018 Mason County Fire District 9 merged into District 16. Formed in 1977 the original station was built primarily with lumber donated by the Simpson Timber Company. The fire district provides fire suppression, rescue and emergency medical services, and wildland/urban interface protection to the approximately 5500 permanent residents. In addition to the permanent residents, the district is responsible for the protection of a major state prison and a 90-acre motor sports facility, which both more than doubles our population and add special hazards. Funding for the district is provided by fire taxes, impact fees from the prison, and use fees for stand-by at the track.

The fire district is made up of three elected commissioners, two paid Chief Officers, and approximately 10 volunteer fire personnel. The Headquarters Station is located at the intersection of Shelton Matlock and Dayton Airport Roads. With satellite stations located in the Brockdale area, Skokomish Valley, and Shelton Valley.

The following is a summary of key information about the jurisdiction:

Governing Authority— The district is governed by elected commissioners.

Population Served— 4,900 as of 2022, with the 2016 population served at 3,433, signifying a significant increase. In addition, FD #16 also serves 1,200 inmates and large numbers of spectators at the motorsports park

Land Area Served— As of 2022, 94 square miles, with 2016 service area at 54 Square Miles

Land Area Owned—3.5 acres

- We do not own the Skokomish Valley Station and no ability to mitigate any of the current or potential issues with the flooding in the area.

Critical Infrastructure/Equipment Owned by the Jurisdiction:

– Dayton Fire Station	\$550,000
– Shelton Valley Station	\$175,550
– Skokomish Valley Station	\$250,000 (Leased Property)
– Brockdale Station	\$260,760
– 2 Engines and Contents	\$600,000
– 1 Tender	\$300,000
– 2 Brush Engines	\$100,000
– 1 Ambulance	\$100,000
– 2 Command Vehicles	\$120,000

Total Value of Critical Infrastructure/Equipment—The total value of critical infrastructure and equipment owned by the District is \$1,640,000.

List of Critical Facilities Owned by the Jurisdiction:

Station 16-1	\$700,000
Station 16-2	\$200,000
Station 91	\$200,000

Station 92

\$300,000

Total Value of Critical Facilities—The total value of critical facilities owned by the jurisdiction is \$1,400,000

- **Current and Anticipated Service Trends** – Mason County Fire District 16, is facing several issues in the ability to continue to provide services. We are a largely bedroom community, with the only industry tied directly to agriculture practices, timber, beef, etc. With that the availability of tax money is very limited. We are the only district in the county that saw a reduction in population since the last census. Between 2020 and 2022 we have seen a 5% drop in population with a call increase of 10% in that same time. The political climate has made it very difficult to increase funding through elective tax increases, and we now sit at the lowest tax rate of the county and have no EMS levy at all. As we move forward we will need to look at other funding sources to keep pace with the needs of the district.

6.4 HAZARD EVENT HISTORY

Anecdotally during storms, there is large areas of isolation due to the high percentage of overhead powerlines. Also of note is the Little Egypt area, which floods every year. There historically have been several large wildland fire incidents in our 80-90% timberland. The Skokomish Valley floods every year multiple times and cuts off the area's access to services. In addition to this, the floods over the years have damaged the grange hall that we use for a warming and waiting center at times of flood and deep snow. We are currently without the ability to serve the public during those times.

The following table identifies the disaster incidents which have impacted the county. At present, the District does not have any data which specifically illustrates impact to District facilities. This is something which the District has identified as a deficiency and will begin to capture moving forward.

Table 6-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Severe Winter Storm	4650	12/26/21-1/15/22	Unknown
Severe Winter Storm	4593	12/29/20-1/16/21	Unknown
Severe Storm	4539	1/20/-2/10/2020	Unknown
Pandemic	4481	1/20/20 – Present	Unknown
Severe Winter Storm	4418	12/10-24/2018	Unknown
Flood	4253	12/1/2015	Unknown
Severe Storm	4269	11/12/2015	Unknown
Severe Storm	4056	1/14/2012	Unknown
Severe Storm(s)	1825	12/12/2008	Unknown
Flood	1817	1/6/2009	Unknown
Severe Storm(s)	1734	12/1/2007	Unknown
Severe Storm(s)	1682	12/14/2006	Unknown
Severe Storm(s)	1641	1/27/2006	Unknown
Severe Storm(s)	1499	10/15/2003	Unknown
Earthquake	1361	2/28/2001	Unknown
Flood	1172	3/18/1997	Unknown
Severe Storm(s)	1159	12/26/1996	Unknown
Severe Storm(s)	1079	11/7/1995	Unknown
Severe Storm(s)	981	1/20/1993	Unknown
Flood	883	11/9/1990	Unknown
Volcano	623	5/21/1980	Unknown
Flood	612	12/31/1979	Unknown

Table 6-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Flood	492	12/13/1975	Unknown
Flood	414	1/25/1974	Unknown
Earthquake	196	5/11/1965	Unknown
Flood	185	12/29/1964	Unknown

6.5 APPLICABLE REGULATIONS AND PLANS

The following codes, ordinance, policies or plans which are applicable to this hazard mitigation plan or support hazard mitigation planning efforts are identified as follows:

- Mason County Fire District #16 Strategic Plan
- Mason County Fire District #16 SOP/SOGs
- Emergency Operations Plan with the Mason County
 - www.masoncountywa.gov
- Capital Improvement Program, renewed annually (See Strat Plan)
- Federal Mitigation Act of 2000 requires State, Tribal and local governments to develop a hazard mitigation plan as a condition for receiving certain types of non-emergency disaster assistance, including funding for mitigation projects. The District’s current approved Hazard Mitigation Plan Update supports this regulation and plan update.
- Response Plans
- National Response Framework
- National Incident Management System
- Revised Code of Washington 52.26 (Regional Fire Protection Service)
- WAC 296.305

6.5.1 Administrative and Technical Capabilities

The assessment of the district’s administrative and technical capabilities is presented in Table 6-2. These are elements which support not only mitigation, but all phases of emergency management already in place that are used to implement mitigation activities and communicate hazard-related information.

Table 6-2 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Professionals trained in building or infrastructure construction practices (building officials, fire inspectors, etc.)	Yes	These services are provided through the County.
Staff with training in benefit/cost analysis	Yes	These services, when necessary, may be contracted or provided by County.
Personnel skilled or trained in GIS applications	Yes	
Personnel skilled or trained in Hazus use	Yes	
Scientist familiar with natural hazards in local area	Yes	Through County and State resources.
Emergency Manager	Yes	The County provides this service.
Grant writers	No	While there is no designated staff, the District has the authority to apply for grants.
Warning Systems/Services (Reverse 9-1-1, outdoor warning signs or signals, flood or fire warning program, etc.?)	No	County public works has signage available for use for warning systems; also County communications programs support the District as needed for warning and broadcasts.
Hazard data and information available to public	Yes	Hazard maps developed through this process are available on the County’s website for review.
Education and Outreach		
Local citizen groups or non-profit organizations focused on emergency preparedness?	Yes	CERT teams trained with citizens throughout the County and within the City of Shelton
Firewise Groups?	No	There are limited groups which currently exist within areas of the County; however, this is a strategy addressed within the countywide strategies.
Public-private partnership initiatives addressing disaster-related issues?	Yes	Skokomish watershed groups addressing flood potential within the watershed areas.
Multi-seasonal public awareness program?	Yes	The County regularly provides seasonal awareness programs via its website, safety fairs, Twitter accounts.
On-Going Mitigation Efforts		
Hazardous Vegetation Abatement Program	Yes	County Conservation District

Table 6-2 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Noxious Weed Eradication Program or other vegetation management	Yes	County Conservation District
Fire Safe Councils	Yes	
Chipper program	Yes	Available through DNR; however, rarely used.
Defensible space inspections program	Yes	
Address signage for property addresses	No	
Other		

6.5.2 Fiscal Capability

The assessment of the District’s fiscal capabilities is presented in Table 6-3. These are the financial tools or resources that could potentially be used to help fund mitigation activities.

Table 6-3 Fiscal Capability Available to Support Mitigation	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Other	

6.6 COMMUNITY CLASSIFICATION

The district’s classifications under various hazard mitigation programs are presented in Table 6-4. Each of the classifications identified establish requirements which, when met, are known to increase the resilience of a community. Those which specifically require district participation or enhance mitigation efforts are indicated accordingly.

Table 6-4 Community Classifications	
	Participating (Yes/No)
Protection Class	7
Building Code Effectiveness Grading Schedule	County - 3
Storm Ready	Yes - County
Firewise	No
Tsunami Ready (if applicable)	NA

6.7 HAZARD RISK AND VULNERABILITY RANKING

The district’s Planning Team reviewed the hazard list identified within the Base Plan, and have identified the hazards that affect the Mason County Fire District 16. Following the same process identified in the base plan, Table 6-5 presents the ranking of the hazards of concern based on their CPRI score. A qualitative vulnerability ranking was then assigned based on a summary of potential impact determined by: past occurrences, spatial extent, damage, casualties, and continuity of government. The assessment is categorized into the following classifications:

- Extremely Low – No or very limited impact. The occurrence and potential cost of damage to life and property is very minimal-to-nonexistent. No impact to government functions with no disruption to essential services.
- Low (Negligible) – Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal. Government functions are at 90% with limited disruption to essential services.
- Medium (Limited) – Moderate potential impact. This ranking carries a moderate threat level to the general population and /or built environment. The potential damage is more isolated, and less costly than a more widespread disaster. Government functions are at 80% with limited impact to essential services.
- High (Critical) – Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past. Government functions are at ~50% operations with limited delivery of essential services.
- Extremely High (Catastrophic) – Very widespread with catastrophic impact. Government functions are significantly impacted for in excess of one month.

Table 6-5 Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk (Impact to Structures and/or Service Area)
1	Severe Weather	3.5	Medium	Severe storms can impact all of the District's structures depending on the type of event. Strong winds in the area could damage the facilities. Severe storms also impact response capabilities. Falling trees and flooded roadways impact ingress and egress. Snow, while customarily not of a long duration or significant amounts, also has the potential to impact response times, as well as increasing calls for service. Snow-load capacities would not be of great concern, as all of the district's structures were built 1979 or later. However, a combined snow/rain event could overcome drainage capacity, further impacting response.
2	Flood	3.7	High	Flood would be of concern with respect to the district's ability to respond to calls for service, as well as impact to structures.
3	Wildfire	3.1	Low	The majority of the district's structures fall within Fire Regime Class 3 (see wildfire profile for definition). Two of the structures are of concrete and steel construction. The remaining structure is wood construction, making it more vulnerable to fire.
4	Earthquake	3.6	High	The entire planning area is susceptible to earthquakes, which would impact response times due to damaged infrastructure throughout the county. All structures owned by the district fall within the very low liquefaction hazard zone. Due to the age of much of the building stock throughout the county, earthquake would also be of concern with respect to staffing, and employees' ability to report for duty due to blocked roadways, structure failure, etc.
5	Landslide	2.45	Low	No structure is within the landslide hazard area, however, roadways impacted by landslides would reduce response times.
6	Drought	2.2	Extremely Low	Droughts will increase the risk to wildfire and has the ability to limit water supplies needed to fight fires. The increase to wildfire danger could also impact the risk to the district's structures.

Table 6-5 Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk (Impact to Structures and/or Service Area)
7	Climate Change	1.15	Low	Climate change will continue to exacerbate other hazards of concern, including increased severity of severe storms, increased flooding events, and impact to water supplies. These have the potential to impact not only district-owned structures, but also response capabilities.

6.8 MITIGATION GOALS AND OBJECTIVES

The District adopts the hazard mitigation goals and objectives developed by the Planning Team described in Volume 1.

6.9 HAZARD MITIGATION ACTION PLAN

The Planning Team for the district identified and prioritized a wide range of actions based on the risk assessment, and their knowledge of the district assets and hazards of concern. Table 6-6 lists the action items/strategies that make up the district’s hazard mitigation plan. Background information and information on how each action item will be administered, responsible agency/office (including outside the district), potential funding sources, the timeframe, and the type of initiative associated with each item are also identified.

**Table 6-6
Hazard Mitigation Action Plan Matrix**

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE #1 Create a public education plan that would include classes, publication, and signage to raise the level of knowledge in the community about our current hazards, i.e., Wildland fires, Earthquakes, Powerline Awareness. Focus will be on basic all hazard preparedness.									
New	All	1, 2, 3, 4	Fire District 16 Chief or designee	\$2,000	BRIC or HLS Grants, Tribal Grants, District funds	Short Term	Y	Public Information	This will benefit all district residents, and visitors.
INITIATIVE #2 Add Larger Bays to Station 16-1 and remodel existing station, with emphasis on developing the ability to be a shelter for short to medium term displaced residents and emergency responders.									
Station 16-1	All	All	Fire District 16 Chief or designee	High	SAFER or BRIC grants, Bonds, District funds	Long Term	Y	Structural projects, Emergency Services, Recovery	Facility, Local, County, Region
INITIATIVE #3 Relocate all above ground power lines from in front of Fire Station									
Station 16-1	Severe weather, Earthquake	All	PUD 3 General Manager in conjunction with FD #16 Chief	TBD (Medium)	PUD 3, FEMA Grants (BRIC, HMGP) or DOE Grants	Long Term	Y	Preventive Activities, Emergency Services, Recovery	Facility, Local
INITIATIVE #4 Improve communications infrastructure between our major hazards and resources. To include WCC, DEM, neighboring fire districts.									
New, Station 16-1	All	All	District 16 Chief, and DEM	Assessing (High)	ARPA Grants, HLS DEM, District Funds	Long Term	Y	Structural Projects, Property Protection, Emergency Services, Recovery	Facility, Local, County, Region
INITIATIVE #5 Establish a well for Station 16-1.									

Table 6-6 Hazard Mitigation Action Plan Matrix									
Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
Station 16-1	All	All	District 16 Chief, DEM, FEMA	Assessing (Medium)	BRIC Grants, District Funds	Long Term	Y	Emergency Services, Recovery	Facility, Local, County
INITIATIVE #6 Seek grant funding to complete the quarters at the Brockdale Fire Station									
New	All	All	District 16 Chief	High	BRIC, Fire Grants	Long-Term	N	All	Local
INITIATIVE #7 Seek grant funding to construct a structure in the Skokomish Valley.									
New	All	All	District 16 Chief	High	BRIC, Fire Grants	Long-Term	N	All	Local

6.10 PRIORITIZATION OF MITIGATION INITIATIVES

Once the mitigation initiatives items were identified, the Planning Team followed the same process outlined within Volume 1 to prioritize their initiatives. An analysis of six different initiative types for each identified action item was conducted. Table 6-7 identifies the prioritization for each initiative.

Table 6-7 Mitigation Strategy Priority Schedule								
Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Priority ^a	
1	4	H	L	Y	Y	Y	H	
2	All	H	H	Y	Y	Y	H	
3	All	H	M	Y	Y	N	M	
4	All	H	H	H	Y	N	M	
5	All	M	M	Y	N	Y	M	
6	All	H	H	Y	Y	N	H	

Table 6-7 Mitigation Strategy Priority Schedule							
Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Priority ^a
7	All	H	H	Y	Y	N	H

a. See Chapter 1 for explanation of priorities.

6.11 STATUS OF PREVIOUS PLAN INITIATIVES

FD #16 has made no progress on any of the action items identified in the 2018 HMP Annex due to staffing shortage and funding. As such, all items are brought forward to the 2023 update.

6.12 FUTURE NEEDS TO BETTER UNDERSTAND RISK/ VULNERABILITY

We will need to work with DOC/WCC in the near future to further understand their specific needs in the event of a disaster of consequence.

CHAPTER 7.
MASON COUNTY FIRE DISTRICT #4
HAZARD MITIGATION PLAN ANNEX

7.1 INTRODUCTION

This Annex details the hazard mitigation planning elements specific to the Mason County Fire District 4, a participating special purpose district to the Mason County Hazard Mitigation Plan Update. This Annex is not intended to be a standalone document, but rather appends to and supplements the information contained in the base plan document. As such, all sections of the base plan, including the planning process and other procedural requirements apply to and were met by Fire Protection District 16. For planning purposes, this Annex provides additional information specific to the district, with a focus on providing greater details on the risk assessment and mitigation strategy for this entity only. This document serves as an update to the district’s previously completed plan. All relevant data has been carried over and updated with new information as appropriate and as identified within the planning process discussed in Volume 1.



7.2 HAZARD MITIGATION PLANNING TEAM POINT(S) OF CONTACT

Mason County Fire District #4 followed the planning process detailed in Section 2 of the Base Plan. In addition to providing representation on the County’s Planning Team, the Mason County Fire District 4 also formulated their own internal planning team to support the broader planning process. Individuals assisting in this Annex development are identified below, along with a brief description of how they participated.

Local Planning Team Members		
Name	Position/Title	Planning Tasks
Gregory C. Rudolph 2970 SE Arcadia Rd. Shelton, WA. 98584 Telephone: 360.426.7222 grudolph@masonfire4.com	Fire Chief Primary Point of Contact	Attend meetings, provide local data to planning partnership. Gather pertinent information from stakeholders from within district boundaries to complete annex.
Lisa Brengan 2970 SE Arcadia Rd. Shelton, WA. 98584 Telephone: 360.426.7222 lbrengan@masonfire4.com	Office Manager Alternate Point of Contact	Assist with information collection to facilitate the development of the annex template and to attend meetings if the primary contact is unable to attend.

7.3 DISTRICT PROFILE

Mason County Fire Protection District No. 4 consists of a 52 square mile area in southern Mason County serving an approximate population of 8500, bordering Thurston County to the south and the city of Shelton to the north, the Puget sound to the east and additional Mason County fire districts to the west. District #4 maintains a total of seven stations, three of the stations are staffed depending on resources available. The district employs a full-time Fire Chief, Assistant Chief, and an Office Manager which make up the administrative team. Line staff consists of three career Captains, six career firefighters, six part time firefighters and ten volunteer firefighters. The District provides an all-hazard service to the citizens including but not limited to fire suppression, rescue and emergency medical services, technical rescue, hazardous materials response, and wildland/urban interface protection.

The following is a summary of key information about the jurisdiction:

- **Governing Authority**— The district is governed by an elected board of three fire commissioners.
- **Population Served**—8500 as of 2023
- **Land Area Served**—52 square miles
- **Value of Area Served**—The estimated value of the area served by the jurisdiction is \$1,348,826,301.00
- **Land Area Owned**—5.71 acres.
- **List of Critical Infrastructure/Equipment Owned by the Jurisdiction:**

3 Fire Engines	\$3.0M
2 BLS Aid units	\$750K
3 Brush Engines	\$500K
2 Command Units	\$200K
2 Tender/Pumpers	\$1.5M
- **Total Value of Critical Infrastructure/Equipment**—The total value of critical infrastructure and equipment owned by the jurisdiction is \$5.95M
- **List of Critical Facilities Owned by the Jurisdiction:**

Station 41	\$1,480,423.00
Station 42	\$87,173.00
Station 43	\$100,872.00
Station 45	\$111,920.00
Station 46	\$915,166.00
Station 47	\$90,660.00
- **Total Value of Critical Facilities**—The total value of critical facilities owned by the jurisdiction is \$2,786,214.00

- Current and Anticipated Service Trends**—Over the last five years Mason County Fire District 4 has had an increase in call volume of 26 percent with very little change in funding or staffing. Call volumes are expected to increase with the available land in south Mason County for residential and commercial use secondary to the close proximity to Thurston County. Population has increased steadily since 2020 and we expect it to continue as more people move from urban areas to rural areas such as Mason County. We have seen a 19 percent increase in call volume in the southern end of the district that borders Thurston County and with our geographical location near the I5 corridor I would expect a projected increase in call volume with a potential spike coming in the next 3 to 5 years.

The district’s boundaries are shown on in the map provided below.

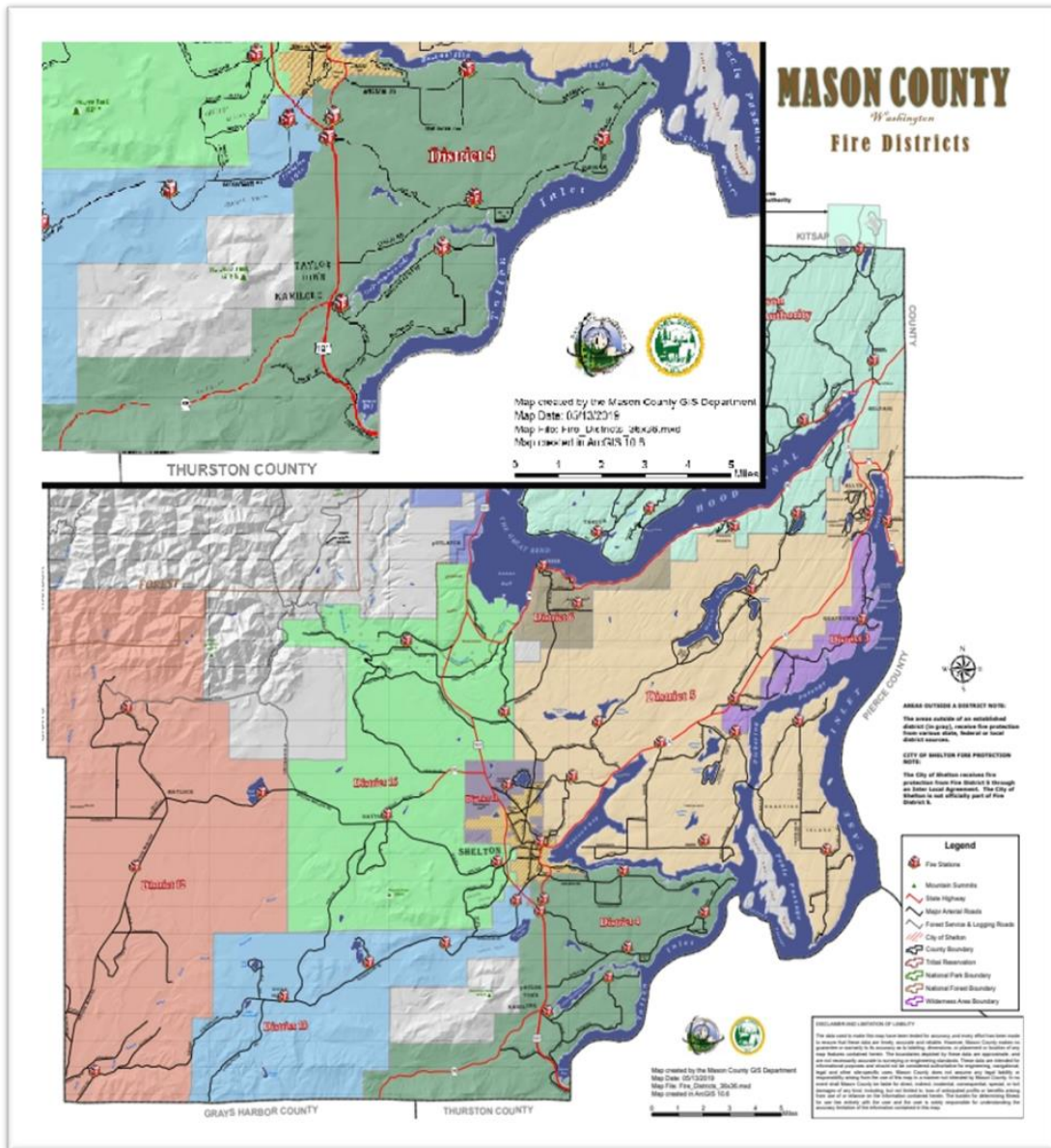


Figure 7-1 Fire District #4

7.4 HAZARD EVENT HISTORY

Within the Base Plan, the Planning Team identified all hazard events which have occurred within the County. In the context of the planning region, it was determined that there are no additional hazards that are unique to the special purpose district. Table 7-1 identifies the hazards of concern. The District has no specific dollar loss information at this time.

Table 7-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Severe Winter Storm	4650	12/26/21- 1/15/22	Unknown
Severe Winter Storm	4593	12/29/20- 1/16/21	Unknown
Severe Storm	4539	1/20/- 2/10/2020	Unknown
Pandemic	4481	1/20/20 – Present	Unknown
Severe Winter Storm	4418	12/10-24/2018	Unknown
Flood	4253	12/1/2015	Unknown
Severe Storm	4269	11/12/2015	Unknown
Severe Storm	4056	1/14/2012	Unknown
Severe Storm(s)	1825	12/12/2008	Unknown
Flood	1817	1/6/2009	Unknown
Severe Storm(s)	1734	12/1/2007	Unknown
Severe Storm(s)	1682	12/14/2006	Unknown
Severe Storm(s)	1641	1/27/2006	Unknown
Severe Storm(s)	1499	10/15/2003	Unknown
Earthquake	1361	2/28/2001	Unknown
Flood	1172	3/18/1997	Unknown
Severe Storm(s)	1159	12/26/1996	Unknown

Table 7-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Severe Storm(s)	1079	11/7/1995	Unknown
Severe Storm(s)	981	1/20/1993	Unknown
Flood	883	11/9/1990	Unknown
Volcano	623	5/21/1980	Unknown
Flood	612	12/31/1979	Unknown
Flood	492	12/13/1975	Unknown
Flood	414	1/25/1974	Unknown
Earthquake	196	5/11/1965	Unknown
Flood	185	12/29/1964	Unknown

7.5 APPLICABLE REGULATIONS AND PLANS

Coordination with other community planning efforts is paramount to the successful implementation of this plan. This section provides information on how planning mechanisms, policies, and programs are integrated into other on-going efforts. It also identifies the jurisdiction’s capabilities with respect to preparing and planning for, responding to, recovering from, and mitigating the impacts of hazard events and incidents.

Capabilities include the programs, policies and plans currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. The capabilities are divided into the following sections: regulatory capabilities which influence mitigation; administrative and technical mitigation capabilities, including education and outreach, partnerships, and other on-going mitigation efforts; fiscal capabilities which support mitigation efforts, and classifications under various community programs.

The following codes, ordinance, policies or plans which are applicable to this hazard mitigation plan or support hazard mitigation planning efforts are identified as follows:

Fire District Capabilities:

- Emergency Operations Plan
- Emergency Procedures and Policies
- County Comprehensive Emergency Management Plan

- State of Washington Comprehensive Emergency Management Plan
- National Response Framework
- National Incident Management System
- Revised Code of Washington 52.26 (Regional Fire Protection Service)
- WAC 296.305
- Response Plans

General Capabilities:

- Specific incident response plans
- Operations plans or policies
- Employee Handbooks and Safety Manuals
- Mutual Aid Agreements
- Continuity of Operations Plan

7.5.1 Administrative and Technical Capabilities

The assessment of the district’s administrative and technical capabilities is presented in Table 7-2. These are elements which support not only mitigation, but all phases of emergency management already in place that are used to implement mitigation activities and communicate hazard-related information.

Table 7-2 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Professionals trained in building or infrastructure construction practices (building officials, fire inspectors, etc.)	Yes	These services are provided through the County or from Mason Fire 4.
Staff with training in benefit/cost analysis	Yes	These services, when necessary, may be contracted or provided by County.
Personnel skilled or trained in GIS applications	Yes	The county provides this service
Scientist familiar with natural hazards in local area	Yes	Through County and State resources.
Emergency Manager	Yes	The County provides this service.
Grant writers	No	Available through local resources or contracted.

Table 7-2 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Warning Systems/Services (Reverse 9-1-1, outdoor warning signs or signals, flood or fire warning program, etc.?)	No	County public works can provide signage available for use for warning systems; also County communications programs support the District as needed for warning and broadcasts.
Hazard data and information available to public	Yes	Hazard maps developed through this process are available on the County’s website for review.
Specific equipment response plans.	Yes	Provided through the county and local jurisdictions
Specific operational plans.	Yes	Provided through the county and local jurisdictions
Education and Outreach		
Local citizen groups or non-profit organizations focused on emergency preparedness?	Yes	CERT teams trained with citizens throughout the County and within the City of Shelton
Firewise Groups?	No	There are limited groups which currently exist within areas of the County; however, this is a strategy addressed within the countywide strategies.
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	Fire prevention programs in schools and Stop the Bleed courses.
Public-private partnership initiatives addressing disaster-related issues?	Yes	Skokomish watershed groups addressing flood potential within the watershed areas.
Multi-seasonal public awareness program?	Yes	The County regularly provides seasonal awareness programs via its website, safety fairs, Twitter accounts.
On-Going Mitigation Efforts		
Hazardous Vegetation Abatement Program	No	
Noxious Weed Eradication Program or other vegetation management	No	
Chipper program	Yes	Through State DNR
Defensible space inspections program	No	
Address signage for property addresses	Yes	Mason FD #4 has an address sign program
Other		

7.5.2 Fiscal Capability

The assessment of the District’s fiscal capabilities is presented in Table 6-3. These are the financial tools or resources that could potentially be used to help fund mitigation activities.

Table 7-3 Fiscal Capability Available to Support Mitigation	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes
Other	

7.6 COMMUNITY CLASSIFICATION

The district’s classifications under various hazard mitigation programs are presented in Table 6-4. Each of the classifications identified establish requirements which, when met, are known to increase the resilience of a community. Those which specifically require district participation or enhance mitigation efforts are indicated accordingly.

Table 7-4 Community Classifications	
	Participating (Yes/No)
Protection Class	6
Building Code Effectiveness Grading Schedule	County - 3
Storm Ready	Yes - County
Firewise	No
Tsunami Ready (if applicable)	NA

7.7 HAZARD RISK AND VULNERABILITY RANKING

The district’s Planning Team reviewed the hazard list identified within the Base Plan, and have identified the hazards that affect the Mason County Fire District 16. Following the same process identified in the base plan, Table 6-5 presents the ranking of the hazards of concern based on their CPRI score. A qualitative vulnerability ranking was then assigned based on a summary of potential impact determined by past occurrences, spatial extent, damage, casualties, and continuity of government. The assessment is categorized into the following classifications:

- Extremely Low – No or very limited impact. The occurrence and potential cost of damage to life and property is very minimal-to-nonexistent. No impact to government functions with no disruption to essential services.
- Low (Negligible) – Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal. Government functions are at 90% with limited disruption to essential services.
- Medium (Limited) – Moderate potential impact. This ranking carries a moderate threat level to the general population and /or built environment. The potential damage is more isolated, and less costly than a more widespread disaster. Government functions are at 80% with limited impact to essential services.
- High (Critical) – Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past. Government functions are at ~50% operations with limited delivery of essential services.
- Extremely High (Catastrophic) – Very widespread with catastrophic impact. Government functions are significantly impacted for in excess of one month.

Table 7-5 Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk (Impact to Structures and/or Service Area)
1	Earthquake	3.60	High	Major roadway and infrastructure damage including older fire stations that are not retrofitted to current standards.
2	Severe Weather	3.50	High	High wind events impacting travel through the region and district that contains three State Highways.
3	Wildfire	3.10	High	Loss of natural resources having an economic impact on the local and regional economy

Table 7-5 Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk (Impact to Structures and/or Service Area)
4	Flood	2.90	High	Shutting down access/egress routes to roadways and thoroughfares
5	Landslides	2.45	Medium	Shutting down access/egress routes to roadways and thoroughfares
6	Drought	2.20	Medium	Increasing weather extremes and increased severe weather with an impact on wildland fire season.
7	Climate Change	1.15	Low	Increasing weather extremes and increased severe weather with an impact on wildland fire season.

7.8 MITIGATION GOALS AND OBJECTIVES

The District adopts the hazard mitigation goals and objectives developed by the Planning Team described in Volume 1.

7.9 HAZARD MITIGATION ACTION PLAN

The Planning Team for the district identified and prioritized a wide range of actions based on the risk assessment, and their knowledge of the district assets and hazards of concern. Table 6-6 lists the action items/strategies that make up the district’s hazard mitigation plan. Background information and information on how each action item will be administered, responsible agency/office (including outside the district), potential funding sources, the timeframe, and the type of initiative associated with each item are also identified.

**Table 7-6
Hazard Mitigation Action Plan Matrix**

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE # 1 Seek out grant or other funding sources to construct a new fire station to support emergency operations and to be used as a resilience center and shelter location in the event of natural disaster or weather-related emergency.									
New	All	All	Mason County Fire District 4 Chief	High	HUD, BRIC, HMGP,	Long Term	All	Mason County Fire District 4	High
INITIATIVE # 2 Add water storage at multiple stations that currently have wells throughout the district to enhance firefighting capabilities for wildland and structural fires.									
New	Wildfire	All	Mason County Fire District 4 Chief	Medium	SAFER Grants, HMGP, District Funds	Short Term	No	Property Protection, Emergency Services, Natural Resource Protection	Local, County, Region
INITIATIVE # 3 Improve the communications infrastructure to enhance interoperability between other agencies such as Squaxin Tribe, DEM, Law Enforcement, etc.									
New	All	All	Mason County Fire District 4 Chief	Medium	FEMA or HLS Grants, District Funds	Long Term	No	Emergency Services, Property Protection, Natural Resource Protection	Local, County, Region
INITIATIVE # 4 Create a public education plan that would include classes, publication, and signage to raise the level of knowledge in the community about the current hazards, such as wildland fires, earthquakes, powerline awareness, etc.									
New	All	All	Mason County Fire District 4	Low	DEM. FEMA Grants,, Tribal Grants, District Funds	Short Term	No	Public Information, Preventive Activities	Local
INITIATIVE # 5 Institute a regional Mobile Integrated Health Program with Physician Associate program to deliver health care more effectively in a rural community.									

Table 7-6 Hazard Mitigation Action Plan Matrix									
Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
New	All	All	Mason County Fire District 4 Chief	Medium	Hospital District, Squaxin Tribe, District Funds	Long Term	No	Preventive Activities, Emergency Services, Public Information	Local and Regional

7.10 PRIORITIZATION OF MITIGATION INITIATIVES

Once the mitigation initiatives items were identified, the Planning Team followed the same process outlined within Volume 1 to prioritize their initiatives. An analysis of six different initiative types for each identified action item was conducted. Table 6-7 identifies the prioritization for each initiative.

Table 7-7 Mitigation Strategy Priority Schedule								
Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Priority ^a	
1	All	H	H	Y	Y	N	H	
2	All	H	H	Y	Y	N	H	
3	All	H	M	Y	Y	N	M	
4	All	H	H	Y	Y	N	M	
5	All	H	H	Y	Y	N	H	

a. See Chapter 1 for explanation of priorities.

**Mason County 2023 Multi-Jurisdiction Hazard Mitigation Plan Update
Volume 2: Planning Partner Annexes**

**APPENDIX A.
LINKAGE PROCEDURES TO THE
HAZARD MITIGATION PLAN**

APPENDIX A. PROCEDURES FOR LINKING TO THE HAZARD MITIGATION PLAN UPDATE

Not all eligible local governments within Mason County are included in the *Mason County 2023 Multi-Jurisdiction Hazard Mitigation Plan Update*. It is assumed that some or all of these non-participating local governments may choose to “link” to the Plan at some point to gain eligibility for programs under the federal Disaster Mitigation Act. In addition, some of the current partnership may not continue to meet eligibility requirements due to a lack of participation as prescribed by the plan. The following “linkage” procedures define the requirements established by the Planning Committee for dealing with an increase or decrease in the number of planning partners linked to this plan. It should be noted that a currently non-participating jurisdiction within the defined planning area is not obligated to link to this plan. These jurisdictions can elect to do their own “complete” plan that addresses all required elements of 44 CFR Section 201.6.

INCREASING THE PARTNERSHIP THROUGH LINKAGE

Eligible linking jurisdictions are instructed to complete ***all*** of the following procedures during this time frame:

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

Name:	Tammi Wright
Title:	Emergency Management Coordinator
Address:	100 Public Works Drive
City, State ZIP:	Shelton, WA
Phone:	(360) 427-9670 x800
e-mail:	tammiw@masoncountywa.gov

The POC will provide a linkage packages that includes:

- Copy of Volume 1 and 2 of the plan.
 - Planning partner’s expectations package.
 - A sample “letter of intent” to link to the hazard mitigation plan update.
 - A Special Purpose District or City template and instructions.
 - Catalog of Hazard Mitigation Alternatives.
 - A “request for technical assistance” form.
 - A copy of Section 201.6 of Chapter 44, the Code of Federal Regulations (44 CFR), which defines the federal requirements for a local hazard mitigation plan.
- The new jurisdiction will be required to review both volumes of the hazard mitigation plan update, which includes the following key components for the planning area:
 - The planning area risk assessment

- Goals and objectives
- Plan implementation and maintenance procedures
- Comprehensive review of alternatives
- County-wide initiatives.

Once this review is complete, the jurisdiction will complete its specific annex using the template and instructions provided by the POC. Technical assistance can be provided upon request by completing the request for technical assistance (TA) form provided in the linkage package. This TA may be provided by the POC or any other resource within the Planning Partnership such as a member of the Planning Team Committee or a currently participating City or Special Purposes District partner. The POC will determine who will provide the TA and the possible level of TA based on resources available at the time of the request.

- The new jurisdiction will be required to develop a public involvement strategy that ensures the public’s ability to participate in the plan development process. At a minimum, the new jurisdiction must make an attempt to solicit public opinion on hazard mitigation at the onset of this linkage process and a minimum of one public meeting to present their draft jurisdiction specific annex for comment, prior to adoption by the governing body. The Planning Partnership will have resources available to aid in the public involvement strategy such as the Plan website. However, it will be the new jurisdiction’s responsibility to implement and document this strategy for incorporation into its annex. It should be noted that the Jurisdictional Annex templates ***do not*** include a section for the description of the public process. This is because the original partnership was covered under a uniform public involvement strategy that covered the planning area described in Volume 1 of the plan. Since new partners were not addressed by that strategy, they will have to initiate a new strategy, and add a description of that strategy to their annex. For consistency, new partners are encouraged to follow the public involvement format utilized by the initial planning effort as described in Volume 1 of the plan.
- Once their public involvement strategy is completed and they have completed their template, the new jurisdiction will submit the completed package to the POC for a pre-adoption review to ensure conformance with the Regional plan format.
- The POC will review for the following:
 - Documentation of Public Involvement strategy
 - Conformance of template entries with guidelines outlined in instructions
 - Chosen initiatives are consistent with goals, objectives and mitigation catalog of the hazard mitigation plan update
 - A designated point of contact
 - A ranking of risk specific to the jurisdiction.

The POC may utilize members of the Planning Committee or other resources to complete this review. All proposed linked annexes will be submitted to the Planning Team for review and comment prior to submittal to State Emergency Management.

- Plans approved and accepted by the Planning Team will be forwarded to Washington State Emergency Management for review with a cover letter stating the forwarded plan meets local approved plan standards and whether the plan is submitted with local adoption or for criteria met/plan not adopted review.
- Washington State Emergency Management Division (EMD) will review plans for federal compliance. Non-Compliant plans are returned to the Lead agency for correction. Compliant plans are forwarded to FEMA for review with annotation as to the adoption status.
- FEMA reviews the new jurisdiction's plan in association with the approved plan to ensure DMA compliance. FEMA notifies new jurisdiction of results of review with copies to Washington State EMD and approved planning authority.
- New jurisdiction corrects plan shortfalls (if necessary) and resubmits to Washington State EMD through the approved plan lead agency.
- For plans with no shortfalls from the FEMA review that have not been adopted, the new jurisdiction governing authority adopts the plan (if not already accomplished) and forwards adoption resolution to FEMA with copies to lead agency and Washington State EMD.
- FEMA regional director notifies new jurisdiction governing authority of plan approval.

The new jurisdiction plan is then included with the regional plan with the commitment from the new jurisdiction to participate in the ongoing plan implementation and maintenance.

DECREASING THE PARTNERSHIP

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

After receiving this notification, the POC shall immediately notify both Washington State EMD and FEMA in writing that the partner in question is no longer covered by the hazard mitigation plan update, and that the eligibility afforded that partner under this plan should be rescinded based on this notification.

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

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

- Are progress reports being submitted annually by the specified time frames?
- Are partners notifying the POC of changes in designated points of contact?
- Are the partners supporting the Planning Team by attending designated meetings or responding to needs identified by the body?
- Are the partners continuing to be supportive as specified in the Planning Partners expectations package provided to them at the beginning of the process?

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

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