24 SNOHOMISH COUNTY FIRE DISTRICT #7 ANNEX

24.1 HAZARD MITIGATION PLAN POINT OF CONTACT

Primary Point of Contact

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Alternate Point of Contact

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24.2 JURISDICTION PROFILE

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

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- **Date of Incorporation—**1945
- **Current Population—**Approximately 110,000(Monroe, Mill Creek and District 7)as of 10/1/2016
- **Population Growth—**The Fire District population is growing at an annual rate of approximately 3%. This trend is expected to continue into the near future. The District anticipates an average annual increase in call volume to correspond with the ongoing population increase.
- **Location and Description-** Fire District 7 covers approximately 105 square miles in the south east corner of Snohomish County bordering King County to the south. The District includes the communities of Monroe, Maltby, Mill Creek, Clearview, North Creek, Silver Firs, Bear Creek and Mays Pond. The District operates 8 stations with Station 76 located in and serving the City of Mill Creek. A map of the district boundary is included at the end of this chapter.
- **Brief History—**Fire District 7 was established in 1945 after several local citizens pursued the idea of organizing a fire district as provided by the Washington State Legislature. The District was an entirely volunteer based organization until 1971 when an Administrative Secretary and a full time Firefighter were hired. The District has grown significantly since the late 70s adding emergency medical services including paramedic service and multiple stations. On October 1, 2016 Fire District 7 merged with Snohomish County Fire District #3.
- **Climate—**The climate in Fire District #7 tends to be moderate year round with average rainfall of approximately 49 inches. The average maximum temperature is 76 degrees F in August, the warmest month. The average minimum temperature is 33 degrees F in January, the coldest month. Humidity averages 78.4 percent. Prevailing winds are from the southwest and average 1.5 mph.
- **Governing Body Format—**Snohomish County Fire District #7 is a junior taxing district governed by a board of 5 elected Fire Commissioners.

- **Development Trends—**The District is seeing significant residential development in multiple areas. Annexation of Fire District #3 increased the size of Fire District #7 to 98 square miles serving a population of nearly 110,000. The annexation should be talked about in the past tense.

24.3 JURISDICTION-SPECIFIC NATURAL HAZARD EVENT HISTORY

Table 24-1 lists all past occurrences of natural hazards within the jurisdiction. Repetitive loss records are as follows:

- Number of FEMA Identified Repetitive Flood Loss Properties: Repetitive flood loss records are not kept by Fire Districts. Reference Snohomish County records for properties within Fire District #7
- Number of Repetitive Flood Loss Properties that have been mitigated Records not recorded by Fire District geographical area.

24.4 HAZARD RISK RANKING

Table 24-2 presents the ranking of the hazards of concern. The Risk Ranking meeting took place on October25, 2016. Attending were: Mark Toycen, BC, Jeff Chittenden, Lt., Mike Hill, Lt., Brad Feilberg, Public Works Director City of Monroe, Dara Salmon, Deputy Director Snohomish County DEM facilitated the meeting.

24.5 CAPABILITY ASSESSMENT

The assessment of the jurisdiction's legal and regulatory capabilities is presented in Table 24-3. The assessment of the jurisdiction's administrative and technical capabilities is presented in Table 24-4. The assessment of the jurisdiction's fiscal capabilities is presented in Table 24-5. Classifications under various community mitigation programs are presented in Table 24-6.

24.6 HAZARD MITIGATION ACTION PLAN AND EVALUATION OF RECOMMENDED INITIATIVES

Table 24-7 lists the initiatives that make up the jurisdiction's hazard mitigation plan. Table 24-8 identifies the priority for each initiative. Table 24-9 summarizes the mitigation initiatives by hazard of concern and the six mitigation types.

24.7 STATUS OF PREVIOUS PLAN INITIATIVES

Table 24-10 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.

24.8 FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

To account for and map the homes in the wild land /urban interface areas of the District and to identify potential mitigation and response plans to address wildfire risk.

24.9 INTERNAL PLANNING PROCESS

Multiple emails and phone conversations took place among Command Staff and the Plan preparer spanning 2/2016 through 12/2016. Multiple phone and email conversations occurred during the same period between the plan preparer and Snohomish County DEM Program Manager. On 5/14/2015 there was a phone meeting between

Lieutenant preparing plan and Battalion Chief in charge to discuss Action Matrix and melding of District 3 plan with District 7 plan post-merger of Districts. Plan was sent to Assistant Chiefs of Operations and Assistant Chief of Administration for review 8/18/2016. Hazard Risk Rating meeting occurred at Station 71 on 10/25/2016 attending was: DEM Deputy Director, three FD7 Operations staff and City of Monroe Disaster Manager.

24.10 PUBLIC OUTREACH PROCESS

Draft HMP posted to department website from: 12/20/2016 to 1/20/2016. Review of draft by Board of Fire Commissioners at open meeting took place on _____. No public comments were provided during the meeting.

TABLE 24-1.
NATURAL HAZARD EVENTS

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment
Severe Storm	4056-DR	3/2012	No estimates available
Severe Storm (Wind & flood)	N/A	11/2009	No estimates available
Flood	1817-DR	1/2009	No estimates available
Severe Winter Storm (record snow)	1825-DR	12/2008	No estimates available
Severe Winter Storm	N/A	11/2008	No estimates available
Severe Winter Storm	1734-DR	12/2007	No estimates available
Severe Winter Storm	N/A	1/2007	No estimates available
Severe Winter Storm	1682-DR	12/2006	No estimates available
Severe Storms (Flooding)	1671-DR	11/2006	No estimates available
Severe Storms (Flooding)	1641-DR	2/2006	No estimates available
Flood & Erosion	1499-DR	11/2003	No estimates available
Earthquake (Nisqually)	1361-DR	2/2001	No estimates available
Flood and Landslide	1172-DR	3/1997	No estimates available
Severe Weather	1159-DR	12/1996	No estimates available
Earthquake (Duvall)	N/A	5/1996	No estimates available
Flood	1100-DR	1-2/1996	No estimates available
Flood	1079-DR	11-12/1995	No estimates available
Severe Storm (wind)	981-DR	1/1993	No estimates available
Flood	896-DR	12/1990	No estimates available
Flood	883-DR	11/1990	No estimates available
Flood	784-DR	11/1986	No estimates available
Flood	N/A	12/1975	No estimates available

TABLE 24-2.
HAZARD RISK RANKING

Rank	Hazard Type	Risk Rating Score (Probability x Impact)	Description of Risk (Describe the community impacts)
1	Earthquake	54	An earthquake will impact our station facilities and infrastructure. Being built in a potential liquefaction zone we could lose water and natural gas to Station 31 and Headquarters.
2	Severe Weather	48	Severe storms stretch our response capabilities to their limits. Station 32 and 74 are in rural areas and response paths become blocked by falling trees and roadways become nearly impassable in snow storms. Station 31and 71 have flat roofs and heavy snow loads combined with rain could make them susceptible to collapse
3	Climate Change	33	Increases in the frequency of storm events, flooding and drought increase the impact on our water supply, frequency of responses, and response paths.
4	Volcano (Ash)	32	Volcanic ash could affect the performance of our vehicles and equipment.
5	Flood	27	A large area of our Fire District becomes unreachable by road during flooding events. This negatively impacts our response to those areas.
6	Dam Failure	10	In the event of a failure of the Culmback Dam our Station 31 is projected to be under up to 12 feet of water. Impact is high but frequency is low
6	Landslide/Mass Movement	9	Landslides can take out water, sewer and gas lines and impede emergency responses.
7	Wildfire	9	Wildland fire could affect our stations because they are made of combustible materials and roofing. A major wildland fire in the Sultan Basin could impact our water supply.
8	Avalanche	0	N/A
8	Tsunami/Seiche	0	N/A

TABLE 24-3.
LEGAL AND REGULATORY CAPABILITY

	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements					
Building Code	No	No	No	Yes	
Zonings	No	No	No	Yes	
Subdivisions	No	No	No	Yes	
Stormwater Management	No	No	No	Yes	
Post Disaster Recovery	No	No	No	No	
Real Estate Disclosure	No	No	No	Yes	
Growth Management	No	No	No	Yes	
Site Plan Review	Yes	No	No	No	
Special Purpose (flood management, critical areas)	No	Yes	Yes	Yes	
Planning Documents					
General or Comprehensive Plan	Yes	No	No	No	
Floodplain or Basin Plan	No	No	No	No	
Stormwater Plan	No	No	No	No	
Capital Improvement Plan	Yes	No	No	Yes	Facilities 2009
Habitat Conservation Plan	No	No	No	Yes	
Economic Development Plan	No	No	No	Yes	
Emergency Response Plan	Yes	No	No	No	Operations 2009
Shoreline Management Plan	No				
Post Disaster Recovery Plan	No				
Other					
Other					

TABLE 24-4.
ADMINISTRATIVE AND TECHNICAL CAPABILITY

Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	City of Mill Creek/City of Monroe Community Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	City of Mill Creek/City of Monroe Engineering Division
Planners or engineers with an understanding of natural hazards	Yes	City of Mill Creek/City of Monroe Community Development
Staff with training in benefit/cost analysis	Yes	Finance/ CFO
Floodplain manager	Yes	City of Monroe / Operations Department
Surveyors	No	
Personnel skilled or trained in GIS applications	Yes	CRR/1 Administrative Assistant
Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	DEM City of Monroe/ Emergency Manager
Grant writers	No	

TABLE 24-5.
FISCAL CAPABILITY

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

TABLE 24-6.
COMMUNITY CLASSIFICATIONS

	Participating?	Classification	Date Classified
Community Rating System	Y	3	5/1/2010
Building Code Effectiveness Grading Schedule	Y	3/3	5/1/2010
Public Protection	N	N/A	N/A
Storm Ready	N/A	N/A	N/A
Firewise	N/A	N/A	N/A
Tsunami Ready	N/A	N/A	N/A

TABLE X-7.
HAZARD MITIGATION ACTION PLAN MATRIX

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline	Included in Previous Plan?
FD7-1 –Study to determine structural stability of Stations 71 and 72, and 31 tower							
Existing	Earthquake, Severe Weather	7,9	District	$30,000	District Funds	Short term	No
FD7-2 –Install back-up generators in Stations 74, 76 and 77							
Existing	Earthquake, Severe Weather	7,9	District	$300,000	District Funds	Short Term	No
FD7-3 –Identify and map alternative response and evacuation routes for flood and dam failures							
New and Existing	Flood, Earthquake, Dam Failure	1,3,7	District	$5000	District Funds	Short Term	No
FD7-4 –Non-structural seismic retrofit of all District facilities							
Existing	Earthquake	7,9	District	$10,000	District Funds	Short Term	No
FD7-5 –Study the feasibility of implementing Firewise program							
New and Existing	Wildland Fire	1,3,7,8,9	District	$2,000	District Funds	Short Term	No
FD7-6 –Continue existing public education program to address preparedness for and mitigation of the impacts of natural hazards in cooperation Cities within the District							
New and Existing	All Hazards	7,9	City of Monroe	$10,000	District Funds, City Funds	Short term, ongoing	No
FD7-7 –Support County-wide initiatives							
New and Existing	All Hazards	All	County	Low	District Funds	Short term, ongoing	Yes
FD7-8 –Continue to support the implementation, monitoring, maintenance and updating of this Plan							
New and existing	All Hazards	All	County	Low	District Funds	Short term, ongoing	Yes

TABLE 24-8.
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]
FD7-1	2	High	Medium	Yes	Yes	No	Medium
FD7-2	2	High	Medium	Yes	Yes	No	Medium
FD7-3	3	High	Medium	Yes	No	No	Medium
FD7-4	2	High	Medium	Yes	Yes	No	Medium
FD7-5	5	Medium	Medium	Yes	No	Yes	High
FD7-6	2	Medium	Low	Yes	Yes	Yes	High
FD7-7	9	Medium	Medium	Yes	Yes	No	Medium
FD7-8	9	High	Medium	Yes	Yes	Yes	High

a) Explanation of priorities

- 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).

TABLE X-9.
ANALYSIS OF MITIGATION INITIATIVES

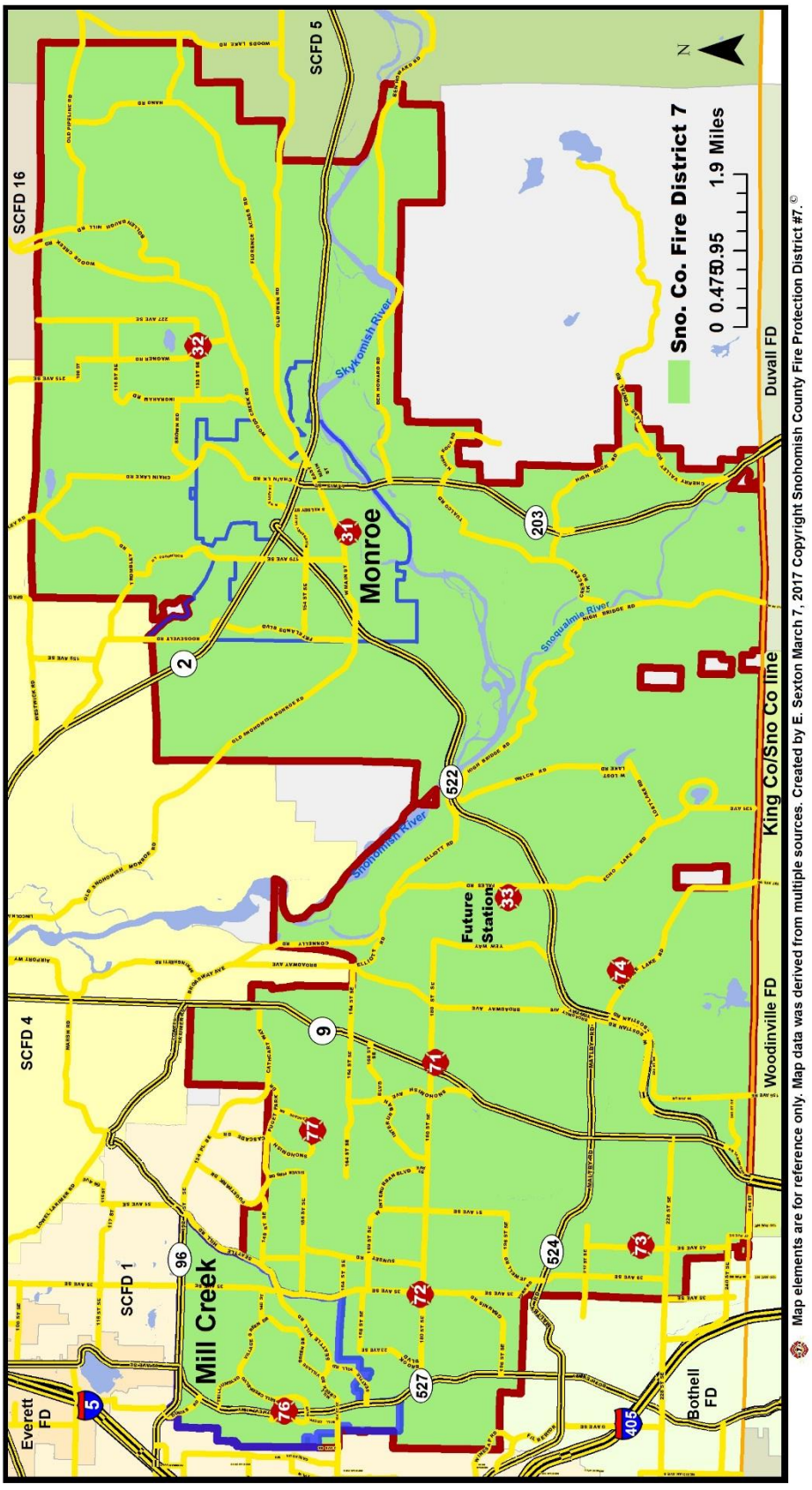
	Initiative Addressing Hazard, by Mitigation Type					
Hazard Type	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects
Severe Weather	FD7-7, FD7-8	FD7-1, FD7-2, FD7-7	FD7-6, FD7-7, FD7-8	FD7-7	FD7-1, FD7-2, FD7-6, FD7-7	FD7-7
Earthquake	FD7-7, FD7-8	FD7-1,FD7-2, FD7-4, FD7-7	FD7-6, FD7-7, FD7-8	FD7-7	FD7-1, FD7-2, FD7-4, FD7-6, FD7-7, FD7-8	FD7-7
Climate Change	FD7-7, FD7-8	FD7-7	FD7-6, FD7-7, FD7-8	FD7-7	FD7-6, FD7-7	FD7-7
Flooding	FD7-7, FD7-8	FD7-7	FD7-6, FD7-7, FD7-8	FD7-7	FD7-2, FD7- 3, FD7-7	FD7-7
Landslide/ Mass Movement	FD7-7, FD7-8	FD7-7	FD7-6, FD7-7, FD7-8	FD7-7	FD7-7	FD7-7
Wildland Fire	FD7-7, FD7-8	FD7-5,FD7-7	FD7-5,FD7-6, FD7-7, FD7-8	FD7-5,FD7-7	FD7-5, FD7-7	FD7-7
Dam Failure	FD7-7, FD7-8	FD7-7	FD7-6, FD7-7, FD7-8	FD7-7	FD7-3,FD7-7	FD7-7
Volcano/Lahar	FD7-7, FD7-8	FD7-7	FD7-6, FD7-7, FD7-8	FD7-7	FD7-7	FD7-7

Notes:

1. Prevention: Government, administrative or regulatory actions that influence the way land and buildings are developed to reduce hazard losses. Includes planning and zoning, floodplain laws, capital improvement programs, open space preservation, and stormwater management regulations.
2. Property Protection: Modification of buildings or structures to protect them from a hazard or removal of structures from a hazard area. Includes acquisition, elevation, relocation, structural retrofit, storm shutters, and shatter-resistant glass.
3. Public Education and Awareness: Actions to inform citizens and elected officials about hazards and ways to mitigate them. Includes outreach projects, real estate disclosure, hazard information centers, and school-age and adult education.
4. Natural Resource Protection: Actions that minimize hazard loss and 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.
5. Emergency Services: 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.
6. Structural Projects: Actions that involve the construction of structures to reduce the impact of a hazard. Includes dams, setback levees, floodwalls, retaining walls, and safe rooms.

TABLE 24-10.
PREVIOUS ACTION PLAN IMPLEMENTATION STATUS

Action #	Action Status: Completed	Action Status: Carry Over to Plan Update	Action Status: Removed; No Longer Feasible	Comments
FD7-1	**X**			Previous FD7-1 completed
FD7-2			**X**	
FD3-1		**X**		Previous FD3-1 is carried over as FD7-1
FD3-2		**X**		Previous FD3- is carried over as FD7-3


Sno. Co. Fire District 7
0 0.475 0.95 1.9 Miles
N
SCFD 16
SCFD 5
SCFD 4
SCFD 1
Monroe
Mill Creek
Everett FD
Bothell FD
Woodinville FD
Duvall FD
King Co/Sno Co line
Future Station 33
Skykomish River
Snoqualmie River
Snohomish River
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