

1 City of Marysville

1.1 Hazard Mitigation Plan Points of Contact

Primary Point of Contact

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1.2 Jurisdiction Profile

1.2.1 Population and Employment

The city of Marysville has a population of approximately 69,000 people. Based on the *Snohomish County Tomorrow 2016 Growth Monitoring Report*, Marysville is expected to experience a 16 percent growth in population change over the next 15 years (Snohomish County 2017).

Local industrial payrolls and agricultural activities provide a portion of the area’s economic base, which is supplemented by “commuter payrolls” in Everett. Planners classify Marysville as a service-oriented community with no major industry of its own. Therefore, the economy of Marysville is highly influenced by the industry of the surrounding area, the most significant of which is the Boeing Company’s manufacturing facilities in Everett.

1.2.2 Development and Trends

The city, incorporated in 1891, has experienced continued growth from businesses and individuals drawn to the area by the availability of buildable property and accessibility to water and sewer services. For these reasons, and because of its proximity to the population centers of Everett and Seattle, continued growth is expected. The city and the immediate area are primarily suburban and rural-residential, with supporting retail and commercial enterprises. Light industrial and manufacturing businesses are located in the north and south portions of the city, with vacant property in the north end emerging as a key location for economic development plans to attract light-industrial companies.

Over the years, the greater Marysville area has realized an increase in commercial and industrial growth along the Interstate 5 corridor in central Marysville and north of the city, in the Smokey Point region. Many of these commercial facilities are oriented toward the automobile-driving public. Residential development has increased in 2013 and 2014 due to the improving economy. The City adopted a Downtown Master Plan and Smokey Point Master Plan and the focus will be on mixed uses, affordable housing, and commercial/industrial uses leading to local job creation and security.

1.2.3 Geography and Climate

The city of Marysville is located to the west of the Tulalip Reservation and to the east of the Cascade Mountain foothills.

Marysville’s weather is typical of western Washington, summers are cool and comparatively dry, and winters are mild, wet, and cloudy. The average number of clear or only partly cloudy days each month varies from four to eight in winter, eight to 15 in spring and fall, and 15 to 20 in summer. The percent of possible sunshine received each month ranges from approximately 25 percent in winter to 60 percent in summer. In the interior valleys, measurable rainfall is recorded on 150 days each year and on 190 days in the mountains and along the coast. Thunderstorms over the lower elevations occur on four to eight days each year and over the mountains on seven to 15 days. Damaging hailstorms rarely, if ever, occur in most localities of western Washington. During July and August, the driest months, it is not unusual for two to four weeks to pass with only a few showers; however, in December and January, the wettest months, precipitation is frequently recorded on 20 to 25 days or more each month.

1.2.4 Governance

The city of Marysville is governed by a council–mayor form of government consisting of seven elected council members and a full-time elected mayor. A chief administrative officer oversees day-to-day operation of City-sponsored services, which include: Executive, Administrative Services, Finance, Community Development, Police, Fire, Parks and Recreation, Public Works, and Community Information.

1.3 Risk Assessment

1.3.1 Jurisdiction-specific Hazard Event History

Table 10-1 lists the hazard event history for the City of Marysville in reverse chronological order. Repetitive loss records (an NFIP-insured structure that had at least two paid flood losses of more than \$1,000 each in any 10-year period since 1978) are as follows:

- Number of FEMA identified Repetitive Flood Loss properties: none
- Number of FEMA identified Severe Repetitive Flood Loss properties: none
- Number of Repetitive Flood Loss Properties that have been mitigated: none

Table 10-1 Hazard Events			
Type of Event	FEMA Disaster Number (if applicable)	Date of Hazard Event	Preliminary Damage Assessment (if available)
Severe Storm, Flooding	4539-DR-WA	January 2020	\$548,000
Severe Windstorm	4418-DR-WA	December 2018	\$624,603.12
Severe Storms	4249-DR-WA	November 2015	\$95,528.36
Severe Windstorm	4242-DR-WA	August 2015	\$67,289.05
Snow/Severe Weather	4056-DR-WA	January 2012	\$56,156.77
Severe Winter Storm	1825-DR-WA	December 2008	\$50,201.85
Severe Weather	1159-DR-WA	January 1997	\$80,593.00

Table 10-1 Hazard Probability, Exposure and Vulnerability		
Type of Event	Probability	Local Description of Exposure and Vulnerability
Active assailant	Medium	<p>The City of Marysville is exposed to a medium level of probability concerning the threat of Active Assailants. However, the outcome of any one event will be catastrophic to the City.</p> <p>Marysville has 21 schools, which are exposed to the threat of an active assailant attack. The outcome of such an event would be catastrophic for the school involved with minimal impacts to the rest of the school district’s properties.</p> <p>The City also has approx. 20 governmental buildings, multiple shopping areas, and development centers, which are exposed to the medium threat of an active assailant event, based on probability.</p> <p>An Active Assailant event exposes the residents, businesses and property of the City to a medium level of risk based on probability, yet a high level of risk based on severity of event.</p>
Aircraft accident	Low	<p>The City of Marysville is exposed to a low level of probability concerning the threat of an Aircraft incident. Marysville does not have an airport. The closest airport is in Arlington as is the medical facility, which could have aircraft flying to and from it. Therefore, the residents, businesses and properties are only exposed to a low level of risk of an aircraft incident.</p>
Cybersecurity Incident	Medium	<p>The City of Marysville is exposed to a medium level of probability concerning the threat of a cyber-security incident. Of the critical facilities are exposed to the threat of a cyber-security incident. This type of incident, if contained could still do damage to the governmental systems and communications.</p> <p>If an attack was more broadly directed at City resources, all critical facilities listed in the plan can experience a cyberattack. it could impact Communications, Dams and secondary waterways, Fire/Police/Emergency Medical Services, Medical services provided in the City, Marysville Schools District (especially with the dependence on online schooling), the Wastewater Facilities, and Water Storage.</p>
Dam Failure	Low	<p>The City of Marysville is exposed to a low level of probability concerning the threat caused by a dam failure. This threat is mitigated by the distance of the nearest dam. A breach of the Culmback Dam could affect the residents in Marysville. A breach could significantly stress the public Works operations of City government and water systems.</p> <p>In addition, there would be limited residential property impacts along the waterway.</p>
Earthquake	medium	<p>The City of Marysville is exposed to a medium level of probability concerning the threat of an earthquake, however,</p>

Table 10-1 Hazard Probability, Exposure and Vulnerability		
Type of Event	Probability	Local Description of Exposure and Vulnerability
		<p>the vulnerability to such an event is exceptionally high. With 20% of the downtown area consisting of unreinforced masonry, many of the City’s structures are vulnerable to destruction or collapse during an earthquake. The damage to or destruction of critical structures like bridges and culverts would severely impact transportation routes. Residents, businesses and property would be further impacted by debris and utility interruptions, leaving all exposed to the hazards an earthquake would pose.</p> <p>The South Whidbey Fault Scenario demonstrates that Marysville will experience very strong to severe to violent shaking during an earthquake on that fault. According to the DNR, these three levels of shaking will result in the following:</p> <p>Very Strong-Difficult to stand. Furniture broken. Damage negligible in buildings of good design & construction; slight-moderate in other well-built structures; considerable in poorly built/badly designed structures. Some chimneys broken.</p> <p>Destructive (Severe)-Damage slight in specially designed structures; considerable in ordinary substantial buildings (partial collapse); great in poorly built structures. Fall of chimneys, factory stacks, columns, walls. Heavy furniture moved.</p> <p>Violent -General panic; damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings: partial collapse. Buildings shifted off foundations.</p> <p>This fault scenario exposes the residents, businesses, government and properties to a high risk of threat during this type of event.</p>
Epidemic	High	<p>The City of Marysville is exposed to a high level of probability concerning the threat of an epidemic. The entire City of Marysville is exposed to a high probability of epidemic threat. Daily analysis of COVID-19 demonstrates the potential of great risk to the City’s economy.</p> <p>Further, there is a great risk to the financial health and well-being of the residents. An epidemic of this scale has also caused fatalities in our City. An epidemic with a significant fatality risk exposes the entire populace to the threat of severe illness and death.</p>
Flood	High	<p>The City of Marysville is exposed to a high level of probability concerning the threat of flooding. The threat is greatest between November and February. A significant event would inundate the entire Public Works site; completely flooding the Community Development, Engineering, Fleet/Custodial.</p>

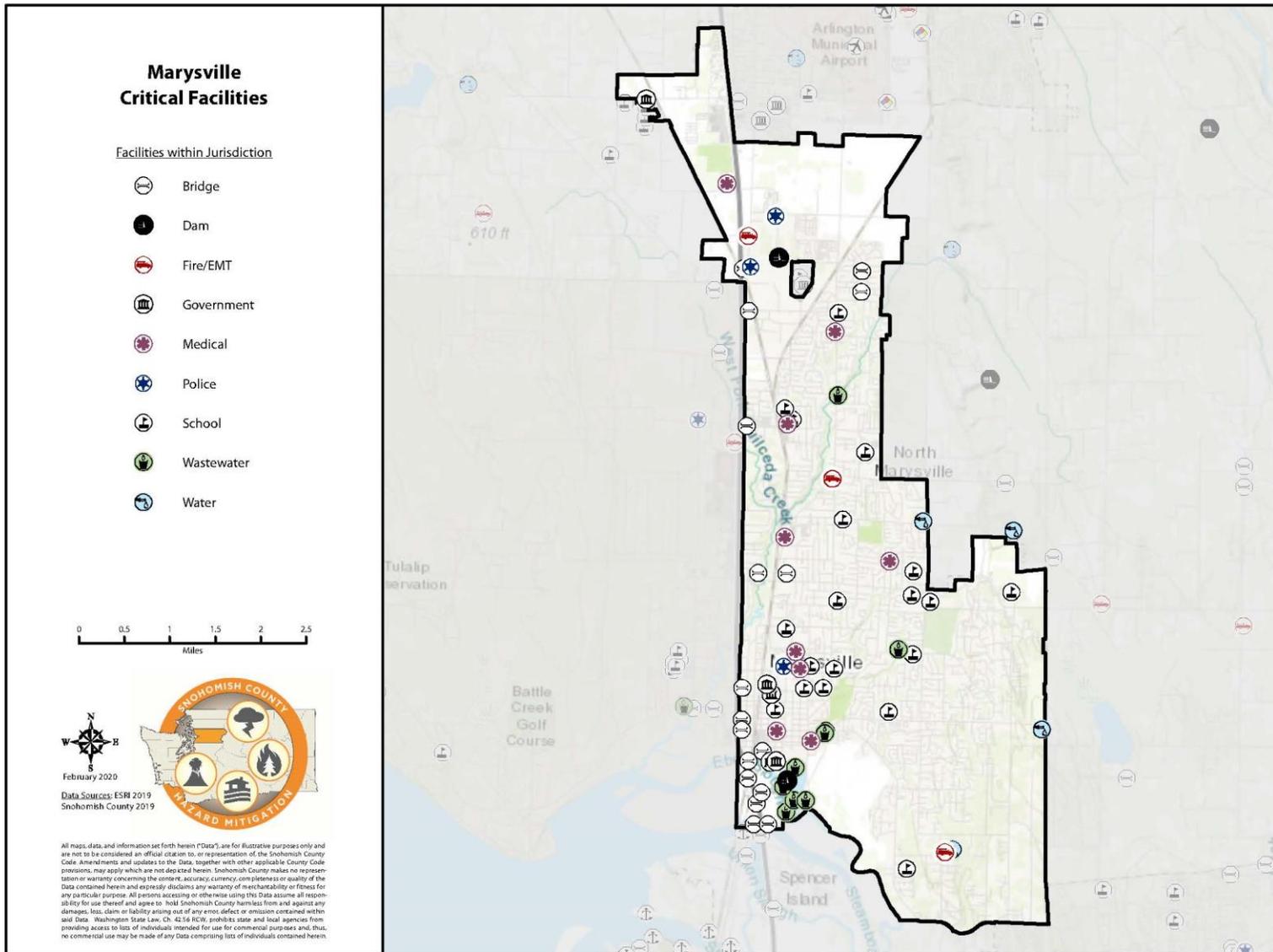
Table 10-1 Hazard Probability, Exposure and Vulnerability		
Type of Event	Probability	Local Description of Exposure and Vulnerability
		<p>Parks Maintenance, Operations, Sanitation, Sewer and Storm Water, and Streets Divisions.</p> <p>Further, a significant flood event could flood the Waste Water Treatment Plant, causing all ponds to overflow into the nearby sloughs.</p> <p>The risk of a flood event is high. The impacts would be the same as severe or extreme weather events.</p>
Hazardous Materials	High	<p>The City of Marysville is exposed to a high level of probability concerning the threat of a hazardous Materials event. The chief concern is the railway, which runs north to south through the City. This is compounded by the Interstate, which also carries hazardous materials all hours of the day. These factors expose the residents and property of the City to a high risk of exposure to such an event.</p> <p>Agencies such as the Washington State Emergency Management Division, Department of Ecology, Washington State Patrol and, most importantly, local HazMat response organizations; all contribute significantly from initial notification, to spills or emissions response, to incident command and to actual on-scene response.</p>
Mass Earth Movement	Medium	<p>The City of Marysville is exposed to a medium level of probability concerning the threat of mass earth movement (landslides and mudslides). Residents on the eastside of the City are exposed to the greatest risk of mass land movement. The greatest exposure to risk occurs between the months of January into spring after the water table has risen during the wet months of November and December. Human influences, including development activity and removing vegetation, factor into more than 80 percent of reported slides, according to experts.</p>
Tsunami	Low	<p>The City of Marysville is exposed to a moderate level of probability concerning the threat of tsunami.</p> <p>Both the DNR and University of Washington have Marysville experiencing a tsunami event following an earthquake scenario on the Seattle fault. The presumption about tsunami threat and the exposure of this threat to the residents and property of Marysville is that the threat is actually much greater during a South Whidbey Island Fault event. There is limited research currently on the tsunami threat regarding the SWIF scenario.</p> <p>Minimal residents would have exposure to tsunami threat under the Seattle Fault scenario. In that scenario, the Water Treatment plant and Public Works Facility may be affected, but only slightly.</p>

Table 10-1 Hazard Probability, Exposure and Vulnerability		
Type of Event	Probability	Local Description of Exposure and Vulnerability
Volcanic Hazard	High	The City of Marysville is exposed to a high level of probability concerning the threat of a volcanic event. The greatest exposure of risk to residents, businesses and property will come from ash in the air and its impacts. The City of Marysville is less than 50 miles from Glacier Peak. Glacier Peak is one of the most active volcanoes in Washington State. The secondary impacts would come from health impacts, commercial and business slowdowns secondary to people sheltering in place, increased demand on the health care system and emergency medical services. There is no exposure to risk of lahar for the City.
Weather Events	High	The City of Marysville is exposed to a high level of probability concerning the threat of severe weather events. Flooding exposes the residents, business and property in the City to the highest level of risk secondary to the prevalence of annual flooding in the City (see flooding, above). Further, the City is exposed to the potential of snow and ice storms. Such storms expose the residents, businesses and property to a high level of risk. The City is vulnerable to drought and extreme heat events. These events pose a high level of risk to the health and well-being of the residents of the City. Secondary impacts of drought and extreme heat events can include brush fires, and urban interface fires.
Wildfire	Low/medium	The City of Marysville is exposed to a low level of probability concerning the threat of wildfire. However the City is vulnerable to the risk of brush fires and human caused fires (secondary to fireworks) during drought, and extreme heat events. The City’s exposure to air pollutants and smoke secondary to wildfire is medium based on the occurrence of smoke events in the City over the last few years. These events expose the residents to a medium level of risk of smoke and secondary health impacts.

1.3.2 Critical Infrastructure Risk Assessment

Table 10-2 is an assessment of the exposure of critical infrastructures and facilities based on the best-available hazard data.

Table 10-2 Critical Infrastructures and Facilities Exposed to Hazards							
Critical Infrastructures + Facilities	Total CI	100-Year Flood	Earthquake	Liquefaction	Dam Inundation	Tsunami	Landslide
Bridge	21	8	21	18	8	4	18
Communication	1		1				
Dam	2	1	2	2	1	1	2
Fire/Emergency Medical Services	4		4	3			3
Government	6	2	6	5	2	2	5
Medical	9		9	9			9
Other	1		1	1			1
Police	3		3	3			3
School	19		19	16			14
Wastewater Facility	8	7	8	7	6	6	7
Water Storage	4		4				



Map 10-1 City of Marysville Critical Infrastructures and Facilities

1.4 Capabilities Assessment

Local hazard mitigation capabilities include the planning and regulatory, administrative and technical, financial, and education and outreach capabilities that are currently leveraged or are available to reduce risk.

	Very Low	Low	Moderate	High	Very High
Planning and Regulatory				X	
Administrative and Technical				X	
Financial			X		
Education and Outreach			X		

1.4.1 Planning and Regulatory Capabilities

Planning and regulatory capabilities include the plans, policies, codes, and ordinances that mitigate the impacts of hazards.

Plan Title	Yes/No Year Adopted	Does the plan address hazards?	How does the plan identify projects to include in the mitigation actions?	How can the plan be used to implement mitigation actions?	Accomplishments (2015-2020)
Comprehensive/ Master Plan	Yes/2015	Yes	Geologic hazardous areas and areas susceptible to earthquakes are identified in the Ch. 6 Environmental Element. Geologically hazardous areas are required to have a study to evaluate the soils and implement mitigation to ensure an area is safe to build.	Identify geologic hazard areas, shoreline and floodplain areas, etc. for reference in planning efforts. Identify potential impacts so that they can be addressed and reflected in functional plans and standards.	2016 Updated Stormwater Management Code 2017 Storm Water Master Plan update 2019 Cascade Industrial Center MIC designation by PSRC 2020 Shoreline Master Program 2020 Updated Floodplain Management Code
Capital Improvements Plan	Yes, annually	Yes	CIP includes project improvements to critical	The plan sets forth the path to allocate	Completed or current projects within the CIP

Plan Title	Yes/No Year Adopted	Does the plan address hazards?	How does the plan identify projects to include in the mitigation actions?	How can the plan be used to implement mitigation actions?	Accomplishments (2015-2020)
			infrastructure and facilities	funds and schedule such improvements	are identified in Section 1.5.1
Economic Development Initiative	Yes/2015	Not directly; however, it is addressed by requiring coordination with other agencies and functional plans.	ED-12 Work actively with the State of Washington, Snohomish County, Tulalip Tribes, City of Arlington, and neighboring communities, school districts, and private property owners to develop joint plans, regulations, and finance necessary infrastructure and utilities in the areas within and to the north of Marysville so that this area becomes a major employment center in Western Washington. Continue to promote development in the Smokey Point Master Plan Area and to pursue a Manufacturing Industrial Center (MIC) with the City of Arlington. Initiative 6C – Increase Infrastructure Support	Plan requires coordination on infrastructure, planning, development regulations and financing.	2015 – Economic Element of Comprehensive Plan adopted 2019 – Puget Sound Regional Council Manufacturing Industrial Center designation for Cascade Industrial Center (fka Arlington Marysville Manufacturing Industrial Center)

Plan Title	Yes/No Year Adopted	Does the plan address hazards?	How does the plan identify projects to include in the mitigation actions?	How can the plan be used to implement mitigation actions?	Accomplishments (2015-2020)
			throughout Commercial Core Areas Recommended Actions: Prepare a strategic plan to support infrastructure advancement.		
Local Emergency Operations Plan	Yes/2017	Yes	This plan addresses strategies to improve identified hazards, eliminate or reduce the impacts and risks of hazards through pro-active measures. For example identification of land-use management, public education and protective structures used, training and exercises to mitigate hazards such as flooding, wind events, snow, ice, heat wildfire, etc.	Identifies mitigation programs, training and exercises, and response and recovery operations to decrease response times and increase efficiency during an event. Public education is critical in hazard mitigation because it can empower residents to make changes to reduce and eliminate risks at that personal level. This helps protect properties.	
Continuity of Operations Plan	Yes/Pending Adoption	Yes	This plan integrates City disaster mitigation, preparedness, response and recovery activities	Identifies mitigation critical functions and personnel, response and recovery	Completed our Continuity of Operation Plan and

Plan Title	Yes/No Year Adopted	Does the plan address hazards?	How does the plan identify projects to include in the mitigation actions?	How can the plan be used to implement mitigation actions?	Accomplishments (2015-2020)
			and concepts at the operations level of government. Critical functions are defined as well as the personnel needed to complete the function that must be continued under any and all circumstances.	operations to decrease response times and increase efficiency and efficacy during an event.	activated it citywide for COVID-19 Pandemic
Transportation Plan	Yes/2015	Yes	The plan identifies planned transportation infrastructure over a 20-year planning period	The plan would help guide planned transportation infrastructure improvements.	Completed or current projects within the Transportation Plan are identified in Section 1.5.12020 First Street Bypass completion
Stormwater Management Plan	Yes/2016	Yes	The plan identifies specific structural and non-structural solutions to improve and control water quality and quantity problems within various drainage basins within the city. The plan identifies capital improvement projects to be completed from 2017-2022	City has adopted and requires compliance with DOE Stormwater requirements and maintains its NPDES permit annually. The plan is used to guide budgetary requests, grant applications, project prioritization, and developer	2017 Storm Water Comprehensive Plan update Compliance with all aspects of Western Washington Phase II Municipal Stormwater Permit.

Plan Title	Yes/No Year Adopted	Does the plan address hazards?	How does the plan identify projects to include in the mitigation actions?	How can the plan be used to implement mitigation actions?	Accomplishments (2015-2020)
			MMC Chapter 14.15, Controlling Storm Water Runoff from New Development, Redevelopment, and Construction Sites	contributions and improvements.	
Flood Management Plan	Yes/2020	Yes	MMC Chapter 22E.020, Floodplain Management.	Implementation of municipal code requirements by requiring floodplain permits, Endangered Species Act compliance, and mitigation measures as necessary.	2020 Floodplain Management code update
Growth Management	Yes/2015	Yes	Comprehensive Plan, functional plans, and development regulations.	Implementation of Unified Development Code and other Marysville Municipal Code provisions.	2015 Comprehensive Plan update 2015 to 2020 development regulations continuously refined
Risk and Resilience Assessment and Emergency Response Plan (Water Division of Public Works)	In progress/2021	Yes	The plan identifies the type of hazard and specific actions that can be taken to eliminate or reduce the hazard. Actions may include policy changes, hardening of security infrastructure,	The plan can be used to identify priority projects during the budgeting process, can be incorporated into the Water Division CIP, can be used to identify grant or	Consultant retained and plan in progress, in accordance with America’s Water Infrastructure Act of 2018.

Plan Title	Yes/No Year Adopted	Does the plan address hazards?	How does the plan identify projects to include in the mitigation actions?	How can the plan be used to implement mitigation actions?	Accomplishments (2015-2020)
			and construction of physical improvements.	funding opportunities relevant to mitigation recommendations, and can be used to identify developer contributions when applicable.	
Other special plans (e.g., disaster recovery, climate change adaptation)	Yes/2015	Yes	<p>Several subarea plans including Smokey Point Master Plan, Arlington-Marysville Manufacturing Industrial Subarea Plan (now Cascade Industrial Center), Whiskey Ridge Master Plan, Shoreline Master Program, etc. outline specific projects.</p> <p>Environmental Element of Comprehensive Plan addresses climate change. Policies include: Goals: 13. Work with public and private partners to develop strategies and programs to prepare for and mitigate the potential</p>	Foundation for implementing Marysville Municipal Code and functional plan requirements.	<p>2015 Comprehensive Plan update included an update to Environmental Element.</p> <p>2019 Arlington-Marysville Manufacturing Industrial Subarea Plan</p> <p>2020 Shoreline Master Program update</p> <p>2020 Floodplain Management code updates</p>

Plan Title	Yes/No Year Adopted	Does the plan address hazards?	How does the plan identify projects to include in the mitigation actions?	How can the plan be used to implement mitigation actions?	Accomplishments (2015-2020)
			<p>impacts of climate change, both on city government operations and on the general Marysville community. EN-61 Enhance and sustain public health system capacity to prepare for and respond to heat waves and smoke emergencies, and improve delivery of information on heat events and cooling centers, especially of isolated and vulnerable populations. EN-65 Develop short- and medium-term climate change adaptation strategies for urban forests and other fire-prone habitats, and improve development standards. EN-66 Inventory past flood conditions and define and map future flood conditions. EN-67 Improve capability to</p>		

Plan Title	Yes/No Year Adopted	Does the plan address hazards?	How does the plan identify projects to include in the mitigation actions?	How can the plan be used to implement mitigation actions?	Accomplishments (2015-2020)
			rapidly assess and repair damaged transportation infrastructure, in order to ensure rapid reopening of transportation corridors. EN-68 Undertake a policy review of City comprehensive, strategic and specific plans to assure that City policies are appropriately targeted to prepare for and mitigate potential impacts of climate change.		

Building Code, Permitting, Inspections for hazard mitigation	Yes/No Year Adopted	Describe the code and indicate if adequately enforced for hazard mitigation	Accomplishments (2015-2020)
Building Code	Yes/2015 IBC Editions & WA State Amendments	2015 IBC Editions & WA State Amendments. City Ordinance <u>MMC 22E.020.010</u> for Flood-Plain provisions updated in 6-2020.	City Ordinance <u>MMC 22E.020.010</u> for Flood-Plain provisions were recently updated in June-2020, to

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			incorporate best available science, additional guidance and requirements for special hazard areas.
Building Code Effectiveness Grading Schedule (BCEGS) Score	Yes	Score: 3/4	This was recently scored as of 8-2020.
Fire Department Insurance Services Office Rating	Yes	Score: 3	
Site Plan Review Requirements	Yes	Supports regulations based on rural or Urban Growth Areas and ensures regulations for utilities, infrastructure, and special hazard areas are met under our adopted City Ordinance <u>MMC 22E.020.010</u> for Flood-Plain provisions updated in 6-2020.	City Ordinance <u>MMC 22E.020.010</u> for Flood-Plain provisions were recently updated in June-2020, to incorporate best available science, additional guidance and requirements for special hazard areas.

Land-use Planning and Ordinances for hazard mitigation	Yes/No Year Adopted	Describe the ordinance and its effectiveness for hazard mitigation	Is the ordinance adequately administered and enforced?	Accomplishments (2015-2020)
Zoning Ordinance	Yes/2011 Unified Development Code (UDC) adopted	Requires analysis and mitigation of all environmental, geologic hazards, critical areas, floodplain, etc. impacts. Integrated with other code requirements.	Yes	2015 through 2020 – annual updates to improve and refine code
Subdivision Ordinance	Yes/2011 UDC	Requires analysis and mitigation of all environmental, geologic hazards, critical areas,	Yes	2015 & 2015 minor updates

		floodplain, etc. impacts. Integrated with other code requirements.		
Floodplain Ordinance	Yes/2020 update	Requires analysis and mitigation of floodplain impacts. Integrated with other code requirements.	Yes	2020 floodplain update
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	Yes/2015, 2016 updates	Requires analysis and mitigation of stormwater, steep slope, etc. impacts. Integrated with other code requirements.	Yes	2016 stormwater update 2015 geologic hazard code update
Flood Insurance Rate Maps	Yes/2020 updates	Required	Yes	2020 update
Acquisition of Land for Open Space and Recreation Uses	Yes/2015 with 2020 update pending		Yes	2015 acquired Crane property (5222 60 th Place NE) for future park improvements. 2015 Parks Plan update 2020 Parks Plan update pending
Other				

How might your Planning and Regulatory Capabilities be expanded and improved to reduce risk?

Continue to work collaboratively between departments and outside agencies to identify risk and work on solution to mitigate it. Expanding partnerships and outreach/education will go a long way to reducing risk and improving the quality of life for our citizens.

1.4.1.1 National Flood Insurance Program Participation

If your jurisdiction participates in the National Flood Insurance Program (NFIP), please indicate how.

NFIP Entry Date	Current Effective Map Date	Number of Policies	Amount of Coverage (in \$)	Total Losses	Closed Losses	Open Losses	CWOP Losses	Total Payments
2/15/84	6/19/2020	24	\$6,936,000	11	8	0	3	\$78,589.29

1.4.2 Administrative and Technical Capabilities

Administrative and technical capabilities include staff and their skills and resources that may be leveraged for mitigation planning and implementation.

Administration	Yes/No	Is coordination effective?	Accomplishments (2015-2020)
Planning Commission	Yes	Yes	2015 geologic hazard code update 2015 through 2020 annual updates to improve and refine code 2016 stormwater code update 2017 Surface Water Comprehensive Plan update 2017 Water Comprehensive Plan update 2020 floodplain management code update
Mitigation Planning Committee	Yes	Yes	
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	Yes	Yes	Planning staff does site visits of private Native Growth Protection Areas (NGPAs) to authorize tree removal as appropriate. The Surface/Storm Water and Street Divisions of the Public Works Department retain arborists and tree removal specialists to address

Administration	Yes/No	Is coordination effective?	Accomplishments (2015-2020)
			<p>inspection, treatment, and removal of damaged, diseased, potentially hazardous and fallen trees. This work takes place in known problem areas, when damage occurs, and on a citizen complaint basis. Focus areas are adjusted annually as needed.</p> <p>The Surface/Storm Water Division operates a routine maintenance program for inspection, cleaning and clearing of constructed and natural drainage systems. This work is performed on a cyclical basis. Record and results of this work are retained in the city’s asset/maintenance management program (Aktivov).</p>
Mutual aid agreements (includes inter-local agreements)	Yes	Yes	<p>City of Marysville is a member of WAWARN, a mutual aid network of Washington water/wastewater utilities that allows systems to receive rapid mutual aid and assistance from other systems in an emergency.</p>

Staff	Yes/No and FT/PT	Is staffing adequate to enforce regulations?	Is coordination effective between staff and agencies?	Are staff trained on hazards and mitigation?	Accomplishments (2015-2020)

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Chief Building Official	Yes/FT	Yes	Yes	Yes	2015 geologic hazard code update 2020 – floodplain management code update
Floodplain Administrator	Yes	Yes	Yes	Yes	2020 – floodplain management code update
Emergency Manager	Yes	Yes	Yes	Yes	City of Marysville became a standalone Emergency Management Organization in 2018. We hired a FT Emergency Preparedness Coordinator for Public Education and Training
Community Planner	Yes	Yes	Yes	Yes	2015 Comprehensive Plan update 2015 geologic hazard code update 2015 through 2020 – annual updates to improve and refine code 2016 stormwater code update 2017 Surface Water Comprehensive Plan update

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					2017 Water Comprehensive Plan update 2020 floodplain management code update 2020 Shoreline Master Program update
City Engineer	Yes	Yes	Yes	Yes	The City Engineer position was filled in 2015. This position is responsible for developing and implementing the City’s Capital Improvement Program.
GIS Supervisor	Yes	Yes	Yes	Yes	Updated GIS layers related to wetlands, snow routes, etc.
Other					

Technical	Yes/No Year Adopted	Has the capability been leveraged to assess or mitigate risk?	Accomplishments (2015-2020)
Warning Systems and Services (e.g., reverse 9-1-1, outdoor warning signals)	Yes	We have just started the Public opt-in campaign. Citizens can sign up to get alerts regarding weather, emergencies, city road projects/traffic or water projects/issues.	Purchased RAVE Alerts (aka Marysville Alerts) in 2018.
Hazard Data and Information	Yes	Helped with planning and preparedness	

Grant Writing/ Management Services	Yes	Yes, the City’s ability to obtain grants from State and Federal programs has allowed the City to advance its Capital Improvement Program, addressing projects that are identified in the hazard mitigation plan.	The City received Department of Ecology Stormwater Grant funds to address stormwater flooding within its Downtown (3rd St and 1st St LID retrofit). The City received a grant from the Transportation Improvement Board to replace the existing culvert at State Ave and Quil Ceda Creek with a new bridge.
HAZUS Analysis	Yes	Helped with planning and preparedness	
Other			

How might the Administrative and Technical capabilities be expanded and improved to reduce risk?

Administrative and Technical capabilities can be expanded by adding more staff in our Community Development Department. As our city has grown our extremely efficient staff are stretched even thinner. Additional staff would help ease the workload

1.4.3 Financial Capabilities

Financial capabilities include funding sources that do not need to be repaid (e.g., government grants, taxes, user fees, and philanthropic sources) and finance (e.g., bonds, private lending).

Funding Resource	Access/ Eligibility (Yes/No)	Has funding been leveraged for hazard mitigation, if so, how?	If not, could funding be used for mitigation and how?	Accomplishments
Capital Improvement Project Funding	Yes	Yes		
Authority to levy taxes for specific purposes (e.g., special assessment districts)	Yes	No	Yes	
Utility Fees (e.g., electric, water, sewer, gas)	Yes	Yes, funding of utility related projects that mitigate risk and improve overall services are funded by these fees.		
Impact fees for new development	Yes			
Stormwater Utility Fee	Yes	Yes. The stormwater rate structure includes funding of CIP projects identified in the respective comprehensive plans of each utility. Identified CIP projects include projects aimed at mitigating known and identified hazards.		See list of CIP projects and status listed under comprehensive plan section (Stormwater Management Plan).
Take on debt (e.g., General Obligation Bonds or Special Bond)	Yes	Yes		Regional Detention Ponds
Take on debt through private activities (e.g., loan)	Yes	No	Yes	
Community Development Block Grant	Yes	No	Yes	
Other Federal Funding Programs	Yes	Yes		FEMA grant - Upsize culvert for fish passage and mitigate flooding on 152 nd Ave
State Funding Programs	Yes	Yes		

Funding Resource	Access/ Eligibility (Yes/No)	Has funding been leveraged for hazard mitigation, if so, how?	If not, could funding be used for mitigation and how?	Accomplishments
Insurance Products (i.e., insurance pool)	Yes	No	No	
Other	Council Bonds, REET	No	Yes	

How might the Financial capabilities be expanded and improved to reduce risk?
Financial capabilities can be expanded and improved by writing more grants for projects that will reduce risk.

1.4.4 Education and Outreach

Education and outreach capabilities include ongoing programs that local-to-federal government, nonprofit, and other organizations provide to communities which may leveraged to implement hazard mitigation actions and build community resilience.

Program/Organization	Yes/No Year Adopted	Identify the program and describe how it relates to resilience and mitigation	How might it help implement resilience or mitigation activities?	Accomplishments (2015-2020)
Emergency preparedness, access and functional needs populations, etc.	Yes	Map Your Neighborhood Program (MYN) works with individual neighborhoods to identify needs that could/would arise in a disaster	It identifies risks and gets citizens talking about what they can do in an emergency. We always have Community Development staff at our trainings so, it helps because they can address concerns	

Program/Organization	Yes/No Year Adopted	Identify the program and describe how it relates to resilience and mitigation	How might it help implement resilience or mitigation activities?	Accomplishments (2015-2020)
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness)	Yes	Water Conservation Program	Water conservation minimizes the effects of drought and water shortages, which in turn helps to preserve and sustainably manage the natural environment.	Marysville participates in the regional water conservation program implemented by city of Everett. Accomplishments include rebates for certain water conserving appliances, distribution of indoor and outdoor water conservation kits, distribution of teaching kits to educators, classroom workshops to teach kids about water conservation, public outreach activities including information campaigns and lawn watering calendars. Met specified goals for water use reduction. See annual water use efficiency report for more details.
Cont'd Public Outreach and Education		Western Washington Phase II Municipal Stormwater Permit. Activities conducted under this permit improve water quality	Alleviation of drainage issues allows storm water to flow without backing up and flooding and causing	Public education and outreach at community events to educate on the removal of illicit

Program/Organization	Yes/No Year Adopted	Identify the program and describe how it relates to resilience and mitigation	How might it help implement resilience or mitigation activities?	Accomplishments (2015-2020)
		and alleviate localized and/or basin-wide drainage issues.	damage, or allows it to flow in a manner that causes much less damage than prior events.	discharges, operations and maintenance of public facilities, private facility inspections, new development inspection, TMDL monitoring. Detailed accomplishments are identified in the Surface/Storm Water Division Annual Report
Natural disaster or safety related school programs	Yes			
Storm Ready certification	No			
Firewise Communities certification	No			
Public-private partnership initiatives addressing disaster-related issues	Yes	Work with neighborhoods to reduce flooding by installing dry wells, rain gardens and retention areas to move water away from structures.	Our staff worked with the citizens and business owners to advise them of option to mitigate potential flooding issues	On-going
Other				

How might the Administrative and Technical Capabilities be expanded and improved to reduce risk?
Adding specific roles that can help focus on mitigation and risk would help to reduce the overall risk in the city. Increasing public education and educational campaigns to help make citizens aware of ways they can reduce risk to their property and help the environment would also benefit our community.

1.5 Hazard Mitigation Action Plan and Evaluation of Recommended Initiatives

This section includes a review and status update on those hazard mitigation action items as identified in the Snohomish County 2015 Hazard Mitigation Plan (HMP) and action items for the 2020 HMP.

1.5.1 2015 Initiative Review and Status

This assessment supports the evaluation of previous strategies and informs amendments to existing, incomplete strategies and the development of new strategies for the 2020 HMP Annex update.

ID	Name + Description	Lead Entity	Funding Source + Cost	Implementation Timeline	Priority Level	Status	Decision + Explanation
M-1	Construct additional Regional Stormwater Detention Facilities to increase capacity for a disaster.	City of Marysville	< \$500,000	~ 5 Years	High	Ongoing	Keep: City wants to complete this project when funding source is clear.
M-2	Construct additional reservoirs to increase water capacity for a disaster.	City of Marysville	< \$100,000,000	~ 5 Years	Medium	Not Started	Keep: City is currently working on plans for this.
M-3	Construct additional water main for additional water distribution routes for redundancy in a disaster.	City of Marysville		~ 10 Years	High	Not Started	Keep: The City is working on Water Supply Operational Strategy plan.
M-4	Replace and upgrade culverts throughout city to reduce vulnerability to severe flood events and earthquakes.	City of Marysville	General Fund Grants	~ 10 Years	High	Ongoing	Keep: City is currently doing this.
M-5	Install generators at all lift stations, wells, treatment plants and critical facilities to maintain operations and critical resources.	City of Marysville	General Fund Grants	~ 5 Years	High	Ongoing	Keep: City is working on this as funding becomes available.

ID	Name + Description	Lead Entity	Funding Source + Cost	Implementation Timeline	Priority Level	Status	Decision + Explanation
M-6	Upgrade and replace Lake Goodwin standpipe to protect redundant water sources from failing in a disaster.	City of Marysville	General Fund Grants	~ 10 Years	High	Not Started	Keep: The City is working on Water Supply Operational Strategy plan.
M-7	Improve 132nd Street soldier pile wall construction to improve its ability to prevent the roadway from collapsing during an earthquake.		General Fund		Low	Complete	Remove: City fixed the wall and eliminated the need for this project.
M-8	Upgrade State Avenue Quilceda Creek Crossing to prevent the roadway from collapsing during an earthquake.	City of Marysville	Funding Available, 11 M	> 1 Year	High	In Progress	Keep: City is process of completing this now. Should be done by end of 2021.
M-9	Install earthquake valves at Cedarcrest, Getchell, Edward Springs and Highway 9 Reservoirs.	City of Marysville	< \$100,000 Funding Available	> 1 Year	High	Not Started	Keep: City is interested in these projects. Still getting quotes.
M-10	Upgrade 45 Road Water Main from AC to DC to improve performance during an earthquake.	City of Marysville	11.2 M	~ 5 Years	Medium	Removed/Replace	Remove/Replace: This was deemed not feasible and will be replaced with a new project per recommendation from RH2 consulting. We will replace the main because of age and material to improve performance during an earthquake.

ID	Name + Description	Lead Entity	Funding Source + Cost	Implementation Timeline	Priority Level	Status	Decision + Explanation
							We would not upsize because of limitations of gravity flow, and would instead add a booster pump station (M21) to increase flow through the 45 Road pipeline to provide increase and redundancy of water supply during a disaster
M-11	Upgrade and retrofit Fire Station No. 61 to meet current seismic standards to help withstand an earthquake.	Marysville Regional Fire Authority	Unknown	~ 5 Years	High	Not Started	Keep: Building was sold to MFD and they plan on upgrading the Public Safety Building.
M-12	Mitigate impacts associated with the Qwuloolt Estuary Restoration Project and the levee breach.	City of Marysville			Low	Complete	Keep: City is currently watching this and should stay on here as an action item.
M-13	Improve development standards to include regulations to mitigate for natural hazards.	City of Marysville			High	Ongoing	Keep: Consistent with goals outlined in City’s Comprehensive Plan.
M-14	Create or enhance public information programs that will promote preparedness and mitigation of risks.	City of Marysville			High	Ongoing	Keep: Consistent with goals outlined in our City’s Comprehensive Plan.

ID	Name + Description	Lead Entity	Funding Source + Cost	Implementation Timeline	Priority Level	Status	Decision + Explanation
M-15	Continue to maintain and good standing under the National Flood Insurance Program (NFIP).	City of Marysville			High	Ongoing	Keep: Best practices for both our city and taxpayers.
M-16	Implement Infrastructure improvements on properties to mitigate flooding in redundant flood prone locations throughout city.	City of Marysville	Grants	~ 10 Years	Medium	Not Started	Keep: City is applying for grants and looking for funding on a case-by-case situation.
M-17	Elevate city owned shoreline properties out of flood zone.	City of Marysville	General Fund Grants	> 3 Years	Medium	Not Started	Keep: City wants to fill sites on the waterfront and is currently looking for funding.
M-18	Replace aging storm and sewer pipes throughout city, including upsizing water main to meet required fire flow needs.	City of Marysville	Unknown	~ 10 Years	Medium	Not Started	Keep: Replacing if part of larger project. Do not have current funding to do individually.
M-19	Add additional Public Works storage yard that is not in the flood or earthquake zone.		General Fund Grants	> 5 Years	High	Not Started	Keep: This is a goal for our Public Works staff.
M-20	Install battery back-up for city signals that are on designated emergency routes.		200,000	> 5 Years	Medium	Not Started	Keep: This is a project that Public Works is trying to find funding for.
M-21	Install Edward Springs Booster Pump Station to convey water from the source to 240 pressure zone.		1.2M	~ 5 Years	Medium	Not started	Keep: This project replaces M-10.

1.5.2 2020 Strategies

This subsection includes hazard mitigation actions for the City of Marysville as informed by the risk and capability assessments, including prioritization for implementation and funding mechanisms.

ID	Name + Description	Action Status	Goals Supported	Hazards Addressed	Lead Entity	Support Entity	Implementation Timeline + Anticipated Cost + Funding Source	STAPLEE + Mitigation Effectiveness Score	Priority
M-1	Construct additional Regional Stormwater Detention Facilities to increase capacity for a disaster.	Ongoing	2, 4	Flooding	City of Marysville		~ 5 Years <\$500,000	43	High
M-2	Construct additional reservoirs to increase water capacity for a disaster.	Not Started	1, 2	Flooding	City of Marysville		~ 5 Years <\$100,000,000	43	Medium
M-3	Construct additional water main for additional water distribution routes for redundancy in a disaster.	Not Started	2	Multiple	City of Marysville		~ 10 Years	35	High

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ID	Name + Description	Action Status	Goals Supported	Hazards Addressed	Lead Entity	Support Entity	Implementation Timeline + Anticipated Cost + Funding Source	STAPLEE + Mitigation Effectiveness Score	Priority
M-4	Replace and upgrade culverts throughout city to reduce vulnerability to severe flood events and earthquakes.	Ongoing	1, 2, 3	Flooding	City of Marysville		~ 10 Years General Fund Grants	37	High
M-5	Install generators at all lift stations, wells, treatment plants and critical facilities to maintain operations and critical resources.	Ongoing	1, 2	Weather Events	City of Marysville		~ 5 Years General Fund Grants	48	High
M-6	Upgrade and replace Lake Goodwin standpipe to protect redundant water sources from failing in a disaster.	Not Started	1, 2	Multiple	City of Marysville		~ 10 years General Fund Grants	40	High

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ID	Name + Description	Action Status	Goals Supported	Hazards Addressed	Lead Entity	Support Entity	Implementation Timeline + Anticipated Cost + Funding Source	STAPLEE + Mitigation Effectiveness Score	Priority
M-8	Upgrade State Avenue Quilceda Creek Crossing to prevent the roadway from collapsing during an earthquake.	In Progress	1, 2, 3	Earthquake	City of Marysville		>1 Year Funding Available, 11M	42	High
M-9	Install earthquake valves at Cedarcrest, Getchell, Edward Springs and Highway 9 Reservoirs.	Not Started	1, 2	Earthquake	City of Marysville		> 1 Year < \$100,000 Funding Available	46	High
M-11	Upgrade and retrofit Fire Station No. 61 to meet current seismic standards to help withstand an earthquake.	Not Started	1, 2	Earthquake	Marysville Regional Fire Authority	City of Marysville	~ 5 Years Funding Source Unknown	42	High

ID	Name + Description	Action Status	Goals Supported	Hazards Addressed	Lead Entity	Support Entity	Implementation Timeline + Anticipated Cost + Funding Source	STAPLEE + Mitigation Effectiveness Score	Priority
M-13	Improve development standards to include regulations to mitigate for natural hazards.	Ongoing	1, 2, 3	Multiple	City of Marysville			51	High
M-14	Create or enhance public information programs that will promote preparedness and mitigation of risks.	Ongoing	2, 3	Multiple	City of Marysville			51	High
M-15	Continue to maintain and good standing under the National Flood Insurance Program (NFIP).	Ongoing	4	Flooding	City of Marysville			55	High
M-16	Implement Infrastructure improvements on properties to mitigate flooding in	Not Started	1, 2	Flooding	City of Marysville		~ 10 Years Grants	47	Medium

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ID	Name + Description	Action Status	Goals Supported	Hazards Addressed	Lead Entity	Support Entity	Implementation Timeline + Anticipated Cost + Funding Source	STAPLEE + Mitigation Effectiveness Score	Priority
	redundant flood prone locations throughout city.								
M-17	Elevate city owned shoreline properties out of flood zone.	Not Started	1, 2	Flooding	City of Marysville		>3 years General Fund Grants	41	Medium
M-18	Replace aging storm and sewer pipes throughout city, including upsizing water main to meet required fire flow needs.	Not Started	2	Fire	City of Marysville		~ 10 Years Unknown Funding Source	36	Medium
M-19	Add additional Public Works storage yard that is not in the flood or earthquake zone.	Not Started	1, 2	Multiple			>5 Years General Fund Grants	35	High

ID	Name + Description	Action Status	Goals Supported	Hazards Addressed	Lead Entity	Support Entity	Implementation Timeline + Anticipated Cost + Funding Source	STAPLEE + Mitigation Effectiveness Score	Priority
M-20	Install battery back-up for city signals that are on designated emergency routes.	Not Started	1, 2	Multiple			>5 Years \$200,000	46	Medium
M-21	Install Edward Springs Booster Pump Station to convey water from the source to 240 pressure zone.	Not Started	2	Multiple			~ 5 Years 1.2M	37	Medium