

COMMUNITY RATING SYSTEM ANNUAL RECERTIFICATION

CRS Activity 510**Annual Progress Report on Implementation of Credited Plan**

Which Plan is this for (use separate templates for each credited Plan):

- ☒ **Floodplain Management Plan (Hazard Mitigation Plan)**
☐ **Repetitive Loss Area Analysis**
☐ **Floodplain Species Plan**
☐ **Substantial Damage Plan**

Name of Community: Snohomish County, WA

Date this Annual Progress Report was prepared: September 28, 2023

Name of Plan: Snohomish County Hazard Mitigation Plan – September 2020 Update

Date of Adoption of Plan: January 13, 2021

5 Year CRS Expiration Date: October 1, 2028

How can a copy of the credited Plan be obtained: Please visit the Department of Emergency Management (DEM) office (720 80th Street SW, Building A, Everett, WA 98203) to view a hard copy. A navigable electronic version is available on our website at:

<https://snohomishcountywa.gov/HMP>

Describe how this annual progress report (not the credited Plan) was prepared and how it was submitted to the governing body, released to the media, and made available to the public: This report was prepared by DEM staff and participating planning partners. The report is being submitted to the County Council for review. This progress report will be made available for review by the media and the public. A locally published notice stating progress report availability and the location of the full plan will be released this year.

Provide a description of the implementation of each recommendation or action item in the action plan or area analysis report, including a statement on how the project was implemented or not implemented during the previous year: Progress percentages, as applicable, are included under each action item.

Discuss why any objectives were not reached or why implementation is behind schedule: Objectives for the plan are in-progress and were prioritized based on current projects, funding, and objectives.

What are the recommendations for new projects or revised recommendations?
Ensure action items and lead agencies are correctly aligned after County department restructuring.

HAZARD MITIGATION ACTION PLAN MATRIX
Project/Mitigation Measure Number: SnoCo-1 Adapt, retrofit, and/or develop redundancy in, critical infrastructure and systems located in high-hazard areas or that support response, recovery, or continuity of operations plans.
<p>Actions:</p> <p>Reduce risk to critical facilities in higher risk areas where relocation is not practicable and where life safety can be assured.</p> <ol style="list-style-type: none"> 1. Support appropriate retrofitting using best available science to assure life safety and the functionality of critical facilities post disaster. 2. Implement structural and non-structural mitigation measures to reduce risk to vulnerable Snohomish County buildings and critical facilities. <p>Reduce risk to utility networks.</p> <ol style="list-style-type: none"> 1. Protect wastewater facility from ground water infiltration. 2. Establish micro grids and bury above ground systems as elements are upgraded or replaced.
Hazards Addressed: All
Goal(s): 1, 2, 3
Objective(s): 1.2, 1.5, 2.2, 2.3, 3.3
Lead Agency: Snohomish County Facilities Management (FM), Snohomish County Public Works (PW)
Secondary Agency(s): Snohomish County Department of Emergency Management (DEM), Snohomish County Planning and Development Services (PDS), Snohomish County Department of Conservation and Natural Resources (DCNR)
How does this project contribute to overall risk reduction? Cities have ongoing action items to seismically protect water infrastructure systems and water sources in the event of an earthquake. One city has completed road infrastructure projects to maintain emergency routes after a seismic event.
How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.
<p><u>Funding has not been secured</u> for all projects but is grant eligible for existing grant program.</p> <p>Possible implementation tools include -- Revenue sources: FEMA Hazard Mitigation Grants, General Fund, Airport Funds, Roads Fund, CIP Special Assessment Districts, and Assessment Fees.</p>
Timeline: Ongoing
<p>2023 Update: Completed Madden Bridge 58 Rehabilitation Project for seismic resilience. Installed scour protection for Swamp Creek Bridge 503 and completed scour monitoring on 96 bridges and underwater inspection on 1 bridge. Completed \$1.04M washout/slide repair work;335k in sinkhole repairs; 12k in bridge repairs; 59k in subgrade/embankment repair.</p>
<p>The City of Marysville is in the process of installing earthquake valves at four reservoirs, installed battery back-up in traffic signals that are on designated emergency routes within the city and completed an upgrade to State Ave/Quilceda Creek Crossing to prevent the roadway from collapsing during an earthquake.</p>

Project/Mitigation Measure Number: SnoCo-2 Enhance and improve capital improvement programs, taxing, zoning, and development approaches to promote mitigation and reduce exposure/vulnerability to hazards.

Actions:

1. Promote development in low-risk areas.
 - a. Conduct a pre-disaster gap analysis for urban and transit centers to identify the required provisions that need to be in place before a disaster for the growth centers to function to their full supportive capability.
 - b. Require deferral permit fees for risk reducing development.
 - c. Offer expedited permitting and prioritization for development within a growth center.
2. Make greatest use of the post disaster environment to advance the comprehensive plan and increase community safety.
 - a. Consider more stringent building standards commensurate with higher risks where practicable.
 - b. Evaluate the permitting process for opportunities to incentivize improved building practices.

Hazards Addressed: Earthquake, Hazardous Materials, Weather Events, Flooding, Dam Failure, Wildfire, Mass Earth Movement, Volcano, Tsunami

Goal(s): 1, 2, 3, 4

Objective(s): 1.1, 2.2, 3.1, 4.1, 4.3, 4.4

Lead Agency: PDS, PW

Secondary Agency(s): Snohomish County Tomorrow (SCT), DCNR, FEMA

How does this project contribute to overall risk reduction? As a result of the Oso slide, the County updated its Landslide Hazard regulations in Snohomish County Code 30.62B.340. Regulations concerning geologically hazardous areas are contained in Chapter 30.62B GEOLOGICALLY HAZARDOUS AREAS.

How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.

Funding has not been secured.

Timeline: Ongoing

2023 Update: The County will implement the 2021 State Building Codes, that are based on the model International Codes, including the state's Wildland Urban Interface Code (WUIC). On May 24, 2023, the State Building Code Council voted to delay the effective date of the 2021 editions of the model codes with Washington State Amendments for 120 days. The new effective date for all 2021 building codes is March 15, 2024.

Project/Mitigation Measure Number: SnoCo-3 Create and enhance coordinated public information programs that increase hazard awareness and that support actionable preparedness and mitigation measures and are inclusive of individuals with limited English proficiency and those with access and functional needs.

Actions:

1. Encourage emergency preparedness kits (3 to 10 days survival) and promote emergency preparedness programs (CERT, SNAP, etc.).

2. Inform and deliver accessible education to the public for local hazards, hazard mitigation and preparedness via a County-operated website.
3. Map and maintain public sector critical transportation routes.
4. Maintain and improve hazard monitoring, emergency communications, and early warning systems.
Hazards Addressed: All
Goal(s): 1, 2, 3, 4
Objective(s): 1.5, 2.1, 2.3, 3.2, 4.4
Lead Agency: DEM
Secondary Agency(s): PW, Snohomish County Human Services Department (HSD), Snohomish County Office of Social Justice (OSJ), WA Emergency Management Division (WA EMD)
How does this project contribute to overall risk reduction? The County and cities were able to provide in person and online outreach to assist the public with all hazards education along with planned social media campaigns while also supporting countywide Citizen Corp efforts and offering free in person preparedness training.
How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.
<u>Funding has not been secured</u> but is grant eligible for existing grant program.
Timeline: Ongoing
2023 Update: DEM did stand-up information booths at National Night Out events in multiple jurisdictions and the Evergreen State Fair. Snohomish County established a countywide CERT leadership group to align training and outreach efforts with the various Citizen Corp programs. DEM held multiple weekend offerings of individual preparedness classes free for any citizen. The Town of Woodinville supports community resilience by providing public information for their communities on how best to mitigate identified hazards they're vulnerable to.

Project/Mitigation Measure Number: SnoCo-4 Promote individual community's ability to respond and recover from an event through the developing of social capital and strengthening of community networks.
Actions:
1. Provide incentives, such as neighborhood grants, for high-risk neighborhoods to develop plans.
2. Promote a "Map-Your-Neighborhood" program.
3. Connect neighborhoods by increasing walkability and increased connectivity of walkable and bikeable networks.
Hazards Addressed: All
Goal(s): 2, 3
Objective(s): 2.3, 3.1, 3.2, 3.3
Lead Agency: DEM
Secondary Agency(s): All

How does this project contribute to overall risk reduction? As part of its 2024 Comprehensive Plan Update the County is increasing multi-modal infrastructure, in particular in the Southwest UGA.
How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.
Funding has not been secured but is grant eligible for existing grant program.
Timeline: Ongoing
2023 Update: Policies have been drafted and capital projects identified for such improvements. Such policies are part of the update in a new Subarea Plan Element and the Transportation Element.

Project/Mitigation Measure Number: SnoCo-5 Enhance and improve support for risk reduction programs and capabilities including supporting efforts through programs, processes, regulations, and funding.
Actions: <ol style="list-style-type: none"> 1. Develop Departmental continuity of operations plans and neighborhood-based continuity plans (small businesses and neighborhoods). 2. Coordinate with Planning processes and programs in PDS, PW and DCNR to support grant applications for funding department specific projects and to brief on DEM led projects. 3. Attend SCT Meetings to provide subject matter expertise to capital and comprehensive planning processes and provide briefings on DEM led projects.
Hazards Addressed: All
Goal(s): 1, 2, 3, 4
Objective(s): 1.4, 1.5, 2.1, 2.3, 3.3, 4.1
Lead Agency: DEM
Secondary Agency(s): All
How does this project contribute to overall risk reduction? Developing and maintaining a County-wide Continuity of Operations Plan provides guidance for leadership and essential personnel on where to report and how to respond after a hazard event, including roles and responsibilities, tasks and redundancy of communication. Interdepartmental Climate and Resiliency Committee (ICRC) to coordinate on among other things, grant opportunities that would result in increased resiliency.
How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.
Funding has not been secured but may be HMP grant eligible.
Timeline: Ongoing
2023 Update: DEM has worked with Snohomish County Departments to complete the Continuity of Operations Plan base plan, and is working to complete an update of the Department Annexes and has coordinated with internal and external partners on applications for Hazard Mitigation Assistance grants. Many County departments take part in the ICRC and the committee provides meeting summaries to the Executive Cabinet and department management to assist in countywide coordination.

Project/Mitigation Measure Number: SnoCo-6 Integrate HMP with other planning and regulatory documents and mechanisms through a coordinated County-wide approach while considering regional partners.

Actions:

1. Integrate the HMP with the following plans and mechanisms:
 - a. Comprehensive Plan
 - b. Capital Improvements Plan
 - c. Critical Areas Ordinances
 - d. Shoreline Master Plan
 - e. Other applicable mechanisms
2. Continue support, maintenance, improvement, and implementation of HMP.
 - a. Update hazard, risk, and vulnerability information incorporating best available science and enhanced technology.
3. Provide intergovernmental coordination and partnership opportunities.

Hazards Addressed: All

Goal(s): 1, 2, 3, 4

Objective(s): 1.1, 1.5, 2.2, 3.1, 3.3, 4.1, 4.2, 4.3, 4.4

Lead Agency: DEM, PDS

Secondary Agency(s): None

How does this project contribute to overall risk reduction? Providing an All Hazards briefing for the Capital Improvement Program provides Leadership and Decision Makers with additional information when planning and siting future facilities and infrastructure, as well as helps identify existing ones that may require maintenance or improvements to withstand the risks of different hazards. Updating the GIS database with recent seismic modeling results provides a better perspective of potential damage to the local Critical Transportation System and impacts to Mass Care services and the Supply Chain.

How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.

Funding secured, available, is an ongoing project or meets existing grant eligibility requirements.

Possible implementation tools: General Fund Expenditures (Growth Management Act, Critical Areas Ordinance, Coastal Zone Management Area Plans, Capital Improvement Program, NFIP Community Rating System 510 Plans, Special Area and Functional Plans).

Timeline: Ongoing

2023 Update: The HMP is integrated into the County's Capital Facilities Plan of the 2015 Snohomish County Comprehensive Plan and the annual Capital Improvement Plan (CIP). As part of the 2024 Comprehensive Plan Update, hazard mitigation planning is being integrated into other elements including the Land Use, Natural Environment, Climate Change and Resiliency, and Subarea Plan Element. DEM has been involved in the Capital Improvement Plan and has presented briefings to the Snohomish County Planning Commission.

Project/Mitigation Measure Number: SnoCo-7 Develop and implement a County-wide risk reduction program that supports comprehensive, all-hazards strategies.

Actions:

1.	Activate and utilize the Disaster Resilience Committee to perform stakeholder and public outreach, examine damage assessments from past Snohomish County hazard events, and provide strategies based on best available science to develop a County-wide plan for risk reduction.
2.	Work with Regional Partners to coordinate regional mass care and transportation efforts and agreements.
Hazards Addressed: All	
Goal(s): 1, 2, 3, 4	
Objective(s): 1.1, 1.2, 1.3, 1.4, 2.2, 3.3, 4.1, 4.3, 4.4, 4.5	
Lead Agency: DEM	
Secondary Agency(s): All	
How does this project contribute to overall risk reduction? No feedback received.	
How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.	
Funding has not been secured but is grant eligible for existing grant program.	
Timeline: Not Started	
2023 Update: No feedback received.	

Project/Mitigation Measure Number: SnoCo-8 Provide incentives for eligible non-profits and private entities, including homeowners, to adapt to risks through structural and nonstructural mitigation measures.	
Actions:	
1.	Provide retrofitting information and technical expertise to organizations.
2.	Develop special retrofitting loan packages with banks and home-based government loan and or grant programs for communities with higher risks.
3.	Work with neighborhood organizations to inform homeowners of retrofit options, through special purpose events such as block parties.
Hazards Addressed: Earthquake, Hazardous Materials, Weather Events, Flooding, Dam Failure, Wildfire, Mass Earth Movement, Volcano, Tsunami	
Goal(s): 2, 3	
Objective(s): 2.1, 2.2, 2.3, 3.1, 3.3	
Lead Agency: PDS, PW, DEM	
Secondary Agency(s): Snohomish County Executive's Office, HSD, Snohomish County Health Department (SCHD)	
How does this project contribute to overall risk reduction? Continuing to provide incentives and assistance with home elevation projects to residents reduces structure damage and human casualties.	
How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.	

Funding has not been secured but is grant eligible for existing grant program.

Timeline: Ongoing

2023 Update: No feedback received.

Project/Mitigation Measure Number: SnoCo-9 Develop and implement metrics that identify the most at-risk communities, especially those at risk of isolation or “islanding”, to ensure that critical services and facilities are resilient.

Actions:

1. Utilize the AFN need factors established in the Regional RCPGP 2019 CPOD project to prioritize food and water distribution post disaster and to assess sheltering needs.
2. Give a higher priority within capital improvement budgets, grant programs or other funding sources to:
 - a. Relocate or retrofit vulnerable emergency operation centers, medical facilities, and other critical facilities serving communities at risk of isolation during an event.
 - b. Provide alternative access to critical facilities.
 - c. Establish and maintain backup or redundant power sources.
 - d. Strengthen community networks.
 - e. Expand disaster sheltering services, public outreach to vulnerable communities, and coordination of local and regional critical services.

Hazards Addressed: Earthquake, Epidemic, Hazardous Materials, Weather Events, Flooding, Dam Failure, Wildfire, Mass Earth Movement, Volcano, Tsunami

Goal(s): 2, 3

Objective(s): 2.3, 3.1, 3.3

Lead Agency: DEM, HSD, SCHD, Executive's Office

Secondary Agency(s): PW, PDS

How does this project contribute to overall risk reduction? Tools were developed to inform a Climate Change and Resiliency Element and a Subarea Plan Element for planning efforts.

How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.

Funding has not been secured but is grant eligible for existing grant program.

Timeline: Ongoing

2023 Update: As part of the County's 2024 Comprehensive Plan Update, PDS developed and/or incorporated the following information to help identify the most at-risk communities:

- A Climate and Vulnerability Tool was developed through a Commerce grant.
- The HO-5 Housing Characteristics and Needs in Snohomish County report includes a chapter on displacement. The Puget Sound Regional Council (PSRC) Displacement Risk Mapping Tool provides information on displacement. Measures include displacement risk, cost burden households, people of color, and linguistic isolation by census tract. This information was also used to inform the Housing Element in the Comprehensive Plan.

Project/Mitigation Measure Number: SnoCo-10 Promote earthquake risk reduction and resilience methods including specific planning for identified geographic islands through the improved data collection, education and outreach, and planning for seismic activity.

Actions:

1. Perform a GIS analysis with current State and Federal layers to assess the islanding effect of worst-case scenarios on the transportation system and identify population islands that may be created based on infrastructure damage and repair times.
2. Work with regional partners and cities to establish viable CPOD sites and produce a CONOPs plan for prioritization, operation and logistics for resupply and distribution
3. Work with regional partners and cities to establish viable sheltering sites based on the 2019 RCPGP CPOD population island results

Hazards Addressed: Earthquake, Hazardous Materials, Dam Failures, Mass Earth Movement, Tsunami

Goal(s): 1, 2, 3, 4

Objective(s): 1.5, 2.1, 2.3, 3.1, 3.2, 3.3, 4.3, 4.4

Lead Agency: DEM, PW

Secondary Agency(s): FM, PDS, DCNR

How does this project contribute to overall risk reduction? No feedback received.

How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.

Funding has not been secured but is grant eligible for existing grant program.

Timeline: Ongoing

2023 Update: The population island mapping has been completed with funding from the Regional Catastrophic Grant Program - <https://storymaps.arcgis.com/stories/167af809215c4854bf4bb2a920117afc>

Project/Mitigation Measure Number: SnoCo-11 Promote wildfire mitigation and risk reduction methods in areas identified in medium and high-risk areas.

Actions:

1. Using a five-step process, encourage communities to develop an action plan that guides their residential risk reduction activities, while engaging and encouraging their neighbors to become active participants in maintaining a safer place to live (www.firewise.org).

Hazards Addressed: Wildfire

Goal(s): 1, 2, 4

Objective(s): 1.5, 2.1, 2.2, 2.3, 4.1

Lead Agency: DEM

Secondary Agency(s): PDS, DCNR, WA Department of Natural Resources (WA DNR), United States Forest Service (USFS)

How does this project contribute to overall risk reduction? Working with the State and regional partners in implementation of the WUI Code will help set regional standards for building and land use codes within the WUI, making it easier for property owners and developers to understand and comply.

How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.

Funding has not been secured but is grant eligible for existing grant program.

Timeline: Ongoing

2023 Update: Published new Snohomish County Wildfire Risk Analysis and WUI maps.

The 2024 Comp Plan Update includes a new wildfire related policy within the Land Use Element. Policy 6.B.10. "The county shall use land use planning tools to reduce and mitigate the risk to lives and property posed by wildfire. Tools such as reducing residential development pressure in the wildland urban interface area, adopting portions or all of the wildland urban interface code developed by the international code council, developing building and maintenance standards consistent with the firewise USA program, separating human development from wildfire prone landscape with open space, and protecting existing residential development through community wildfire preparedness and fire adaptation measures."

Project/Mitigation Measure Number: SnoCo-12 Consider flood control structure maintenance and restoration.

Actions:

1. Consider the benefits and life cycle costs of removing flood-prevention structures and instituting an adaptive strategy for vulnerable land uses.
2. Continue compliance with the Shoreline Master Plan and Growth Management Act Programs.
3. Implement salmon recovery plans and Sustainable Lands Strategy (SLS).
4. Implement storm water management to prevent land use caused increases in flood levels and restore flood plain function.
5. Reestablish and maintain healthy riparian areas and consider setbacks and the use of bioengineering techniques where it is not feasible to decommission existing flood control structures.
6. Prohibit new dikes, levees, floodgates, pump stations, culverts, dams, water diversions, and other alterations in the floodplain unless it has been demonstrated that no feasible alternative exists.

Hazards Addressed: Flooding

Goal(s): 1, 2, 3, 4

Objective(s): 1.1, 1.2, 1.3, 1.5, 2.1, 2.2, 3.2, 3.3, 4.1, 4.3 4.4

Lead Agency: DCNR - SWM

Secondary Agency(s): PDS, Executive's Office

How does this project contribute to overall risk reduction? The Washington State GMA requires review of a participating jurisdiction's Critical Area Codes and Development Regulations during a Comprehensive Plan update. Consideration of other Environmental planning factors during the development of the Comp plan and CAO updates ensures that programs like the SLS and other mitigation strategies can be implemented when considering the growth target rate of the region within the next 30 years.

How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.

Funding has been secured through WA State Department of Ecology, Washington State Recreation and Conservation Office, and sponsors including Adopt a Stream. Other projects do not have funding secured but are grant eligible for existing grant program.

Timeline: Ongoing

2023 Update: PDS maintained continued compliance with Shoreline Master Plan and the GMA. SWM completed a project for instream installation of 10+ large woody debris structures within Jim Creek and participated in a multijurisdictional project to remove the creosote railroad trestle on Wood Creek which was a barrier to migrating salmon.

Project/Mitigation Measure Number: SnoCo-13 Plan and prepare for climate impacts using best available science.

Actions:

1. Consider best available climate science modeling in comprehensive planning efforts
2. Conduct study in collaboration with local jurisdictions to identify critical infrastructure that may be impacted due to climate change.
3. Upgrade/relocate county buildings and infrastructure to protect and prepare for sea level rise, flooding, and storm events from climate change.
4. Continue implementation of Sustainable Operations Action Plan (SOAP).
5. Establish a collaborative workgroup of County Departments, municipal governments in the county, and organizations that provide public services to focus on implementation of strategies to reduce greenhouse gas emissions and adapt to changing climate.

Hazards Addressed: All

Goal(s): 2, 3, 4

Objective(s): 2.2, 3.1, 3.2, 3.3, 4.1

Lead Agency: PDS, PW, Executive's Office

Secondary Agency(s): All

How does this project contribute to overall risk reduction? Consideration of the Hazard Mitigation Plan during the Capital Improvement Plan process ensures that infrastructure and facility improvements are developed to minimize damage from hazards, and that future population planning is a factor in land use and capital facility decisions.

How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.

Funding has been secured through Floodplains by Design and additional projects do not have funding secured but are grant eligible for existing grant programs.

Timeline: Ongoing

2023 Update: As part of the 2024 Comprehensive Plan Update, a climate change vulnerability and resiliency GIS tool was developed that was funded by a Commerce grant. Data from the University of Washington Climate Impacts Group (UW CIG), NOAA, FEMA, and the US Census / ACS informed the tool. In 2022, an Interdepartmental Climate and Resiliency Committee (ICRC) was developed to increase the County's coordination on climate change. SWM also conducted a Flood Control Assistance Account Program (FCAAP) Vulnerability Assessment Pilot (HAZUS plus DEI plan for underserved communities). SWM completed 2-dimensional (2D) Hydrologic & Hydraulic (H&H) model study within the Stillaguamish Basin as well as HAZUS model study evaluating impacts to Stanwood from a sea dike failure due to an

earthquake/tsunami or significant flood that was utilized by the City of Stanwood in securing a \$1.7M grant.

Project/Mitigation Measure Number: SnoCo-14 Identify and implement a comprehensive dam and levee mitigation and response program with a lens on climate change, the most vulnerable communities, and highest risk structures.

Actions:

1. Identify high-risk dams and levees.
2. Map the failure inundation areas for high-risk dams and levees.
3. Create dam and levee failure action plans.
4. Upgrade dam failure warning system in compliance with CRS requirements.
5. Establish levee failure warning system.

Hazards Addressed: Dam Failure

Goal(s): 1, 2, 3

Objective(s): 1.1, 1.5, 2.2, 3.1, 3.2, 3.3

Lead Agency: PW, PDS, DEM

Secondary Agency(s): HSD, Executive's Office

How does this project contribute to overall risk reduction? No feedback received.

How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.

Funding has not been secured but is grant eligible for existing grant program.

Timeline: Ongoing

2023 Update: No feedback received.

Project/Mitigation Measure Number: SnoCo-15 Update and improve County flood hazard risk assessment data and methodology and identify innovative methods to reduce the impacts of flooding to the community while preserving and restoring ecosystem functions and services.

Actions:

1. Adopt improved DFIRMs.
2. Work with the City of Bothell and the National Weather Service (NWS) Seattle Weather Field Office (WFO) to develop a flood stage for the North Creek stream gage at 228th Street SE. Include development of flood phase's 1, 2, 3, 4 with corresponding property damages and loss of use with each flood stage identified.
3. Work with the UW Atmospheric Sciences department and Seattle Public Utilities to expand the "rain watch" products north of the City of Seattle.
4. Upgrade/improve flood hazard warning based on CRS requirements.

Hazards Addressed: Flooding, Mass Earth Movement, Weather Events

Goal(s): 1, 2, 3, 4

Objective(s): 1.1, 1.2, 1.3, 1.5, 2.1, 2.2, 2.3, 3.1, 3.2, 4.2, 4.3, 4.4, 4.5

Lead Agency: PW, PDS

Secondary Agency(s): DEM, DCNR, Executive's Office
How does this project contribute to overall risk reduction? No feedback received.
How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.
<u>Funding has not been secured</u> but is grant eligible for existing grant program.
Timeline: Ongoing
2023 Update: No feedback received.

Project/Mitigation Measure Number: SnoCo-16 Support the development of a regional, comprehensive, and equitable acquisition, development, and redevelopment strategy for areas that experience substantial, severe or repetitive loss, are in high-hazard areas.

Actions:

1. Relocate or retrofit and continue the acquisition of "repetitive flood-loss" properties and those at risk to channel migration.
2. Expand county TDR/PDR program to include all high flood risk areas as sending areas.
Use the best available science to:
3. Incorporate best available science as required by the Growth Management Act to prioritize hazard areas.

Expand use of the transfer and purchase of development rights programs to include prioritized hazard areas.

Hazards Addressed: Flooding, Weather Events, Dam Failure, Wildfire, Mass Earth Movement, Volcano, Tsunami

Goal(s): 1, 3, 4

Objective(s): 1.2, 3.1, 3.3, 4.2, 4.3, 4.4, 4.5

Lead Agency: PW, PDS, DEM

Secondary Agency(s): Executive's Office, FEMA

How does this project contribute to overall risk reduction? Acquiring homes in the flood hazard area allows jurisdictions to incentivize safe relocation of residents susceptible to the hazards and losses from flood events. Designating the acquisition properties to Open Space prohibits significant development that may be subject to loss in the future, and allows natural flood functions to occur, reducing downstream impacts.

How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.

Funding has been secured through Floodplains by Design and HMA grant programs.

Timeline: Ongoing

2023 Update: SWM has facilitated the acquisition of 347 acres in high flood risk areas across five projects. Three projects include tenant relocation out of the floodplain areas. One project includes riparian restoration of the land and extinguishing of 7 development rights within the identified floodplain.

Multiple acquisition and restoration projects are located within the Chinook Marsh restoration footprint with outreach efforts resulting in around 54 residents attending an informational open house.

Project/Mitigation Measure Number: SnoCo-17 Support improved data collection, education and outreach, and planning for tsunami activity.

Actions:

1. Obtain tsunami numerical modeling data from NOAA/DNR to approximate wave height maximums along the Snohomish County coastline and map the results to better understand potential tsunami risk.
2. Coastal land uses may be vulnerable to increased landslides as tsunami wave energy destabilizes slopes. Identify high risk coastlines utilizing DOE Shoreline Sediment Driftcell data, DNR Surficial Geology and Tsunami Inundation data, and USGS soils data.

Hazards Addressed: Tsunami

Goal(s): 2, 3, 4

Objective(s): 2.3, 3.2, 4.3, 4.4

Lead Agency: DCNR

Secondary Agency(s): DEM, WA DNR

How does this project contribute to overall risk reduction? No feedback received.

How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.

Funding has/has not been secured but is grant eligible for existing grant program.

Timeline: Ongoing

2023 Update: No feedback received.

Project/Mitigation Measure Number: SnoCo-18 Revise existing plans to address updated assessments of risks identified in refined methodology, mapping, and analysis.

Actions:

1. Utilize Best Available Science and Best Available Data when updating the Comprehensive Emergency Management Plan, the Hazard Mitigation Plan, and other Standard Operating Procedures.
2. Participate in Regional and Statewide Preparedness meetings.
3. Update GIS databases when new data products are released to maintain a current data library of base layers and hazard data.

Hazards Addressed: All

Goal(s): 2, 3, 4

Objective(s): 2.3, 3.2, 4.3, 4.4

Lead Agency: DEM

Secondary Agency(s): All

How does this project contribute to overall risk reduction? Incorporating the latest State and Federal agency GIS data into our local database and modeling ensures that we are identifying vulnerable communities, infrastructure and facilities, and helping historically underserved communities that will benefit from the Justice40 Initiative prepare by utilizing public outreach and pre-screening efforts for response efforts and outreach sites.
How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.
<u>Funding has not been secured</u> but is grant eligible for existing grant program.
Timeline: Ongoing
2023 Update: DEM GIS has updated all of the addressing for Sno911 in addition to researching, updating methodology and performing a new wildfire risk analysis for Snohomish County and is currently adding public lands and infrastructure data to the interactive map for wildfire planning efforts.

Project/Mitigation Measure Number: SnoCo-19 Support local, tribal, state, and federal mitigation efforts, when feasible, and ensure alignment with County mitigation efforts to support a comprehensive and regional mitigation strategy.
Actions: <ol style="list-style-type: none"> 1. Expand the StormReady program in Snohomish County to include more sites around the county. 2. Coordinate with US Geological survey staff to identify actions the County can take to accelerate new monitoring station installation to improve early warning of eruption and lahar flow. 3. Coordinate Priority Transportation Routes and Alternate Routes with WA EMD and FEMA. 4. Continue to support the multi-jurisdiction ILA and regional planning, training and exercise efforts between Snohomish County and local and regional partners.
Hazards Addressed: All
Goal(s): 1, 2, 3, 4
Objective(s): 1.4, 1.5, 2.2, 2.3, 3.1, 3.2, 3.3, 4.1, 4.3, 4.4, 4.5
Lead Agency: DEM
Secondary Agency(s): All
How does this project contribute to overall risk reduction? Collaboration with local and regional jurisdictions and agencies prior to an event, and finding opportunities to exercise and test these capabilities, better prepares the County and Cities to respond to an event, including having cross-jurisdictional communications and outreach plans in place, identifying needs for ILAs and Site Agreements before a response is needed, and preparing partners for interoperability by identifying roles and responsibilities, providing operational plans, and support for incident response, situational awareness and public outreach.
How were risk reduction actions prioritized through a benefit cost analysis? Snohomish County departments implement a Continuous Improvement process that includes prioritizing projects by impact, cost and risk analysis. All budget funded projects go through Council and Executive approval.
<u>Funding has not been secured</u> but is grant eligible for existing grant program.
Timeline: Ongoing
2023 Update: DEM completed the process and renewed Snohomish County's NOAA/NWS StormReady designation through 2027.

