

PART 1—THE PLANNING PROCESS

CHAPTER 1.

INTRODUCTION TO THE PLANNING PROCESS

1.1 WHY PREPARE THIS PLAN?

1.1.1 The Big Picture

Prior to 2000, federal disaster funding in the U.S. focused on relief and recovery, with limited funding for hazard mitigation planning. In 2000, the federal Disaster Mitigation Act required state and local governments to develop hazard mitigation plans as a condition for receiving disaster-related federal grant assistance (Public Law 106-390, approved by Congress on October 10, 2000). Commonly known as the DMA or the 2000 Stafford Act amendments, the act emphasizes the importance of community hazard mitigation planning before disasters occur.

Hazard mitigation is the use of long- and short-term strategies to reduce or alleviate the loss of life, personal injury, and property damage that can result from a disaster. It involves strategies such as planning, policy changes, programs, projects, and other activities that can mitigate the impacts of hazards. The responsibility for hazard mitigation lies with many, including private property owners, business and industry, and local, state and federal government.

The DMA encourages state and local authorities to work together on pre-disaster planning, and it promotes “sustainable hazard mitigation,” which includes the sound management of natural resources, local economic and social resiliency, and the recognition that hazards and mitigation must be understood in the largest possible social and economic context. The enhanced planning network called for by the DMA helps local governments articulate accurate needs for mitigation, resulting in faster allocation of funding and more cost-effective risk reduction projects.

1.1.2 Snohomish County’s Response to the DMA

Snohomish County has the most identified repetitive flood loss properties in the Federal Emergency Management Agency’s (FEMA) Region X. The County and a planning partnership of dozens of local governments within the county boundaries embraced the concept of the DMA and prepared one of the largest multi-jurisdictional hazard mitigation plans in the western U.S. The planning process took over 17 months and generated a plan that identified 216 initiatives to be implemented by 43 local governments (13 municipalities and 30 special purpose districts).

The Plan was developed according to the requirements of Chapter 44 of the Code of Federal Regulations (44CFR) and was formally approved by FEMA Region X on April 27, 2005. The FEMA approval qualified the planning partners to pursue implementation funding under the Stafford Act. The partnership has achieved numerous objectives identified in the plan, as reviewed in Chapter 2. Local hazard mitigation plans must be regularly updated to comply with the DMA, and the partnership is responding to this requirement with this plan update.

1.1.3 Purposes for Planning

DMA compliance is only one of multiple objectives driving this planning effort. Snohomish County and its planning partners have a long-standing tradition of proactive, progressive planning and program implementation, which is enhanced by the development of this plan. Elements and strategies in this plan

were selected because they meet a program requirement and because they best meet the needs of the planning partnership and its citizens.

This hazard mitigation plan identifies resources, information and strategies for reducing risk from natural hazards. It will help guide and coordinate mitigation activities throughout Snohomish County. The plan was developed to meet the following objectives:

- Meet or exceed program requirements specified under the DMA.
- Enable all planning partners to continue using federal grant funding to reduce risk through mitigation.
- Meet the needs of each planning partner as well as state and federal requirements.
- Perform a risk assessment for all Snohomish County hazards of concern.
- Create a single planning document to integrate all planning partners into a framework that supports partnerships in the County and puts all partners on the same cycle for future updates.
- Meet the planning requirements of FEMA’s Community Rating System (CRS), allowing partners that participate in the CRS program to maintain or enhance their CRS classifications.
- Coordinate existing plans and programs so that high-priority initiatives and projects to mitigate possible disaster impacts are funded and implemented.

1.2 WHO WILL BENEFIT FROM THIS PLAN?

The citizens and businesses of the entire Snohomish County planning area are the ultimate beneficiaries of this hazard mitigation plan. The plan strives to reduce risk for those who live in, work in, and visit Snohomish County. It provides a viable planning framework for all foreseeable natural hazards that may impact the County. Participation in development of the plan by key stakeholders in the County will help ensure mutually beneficial outcomes. The resources and background information in the plan are applicable countywide, and the plan’s goals and recommendations can lay groundwork for the development and implementation of local mitigation activities and partnerships.

1.3 HOW TO USE THIS PLAN

FEMA encourages multi-jurisdictional planning under its guidance for the DMA, and 44CFR establishes criteria for multi-jurisdictional plans (Section 206.1). One of the benefits of multi-jurisdictional planning is the ability to pool resources and eliminate redundant activities within a planning area that has uniform risk exposure and vulnerabilities. This plan has been set up in two volumes so that elements that are jurisdiction-specific can easily be distinguished from those that apply to the whole planning area:

- Volume 1 includes all the required elements of 44CFR Section 201.6 that apply to the entire planning area. This includes the description of the planning process, public involvement strategy, goals and objectives, countywide hazard risk assessment, countywide mitigation initiatives, and a plan maintenance strategy. Maps cited in each chapter are provided at the end of the chapter. The following appendices are provided at the end of Volume 1:
 - Appendix A—A glossary of acronyms and definitions
 - Appendix B—Hazard mitigation questionnaire and summary
 - Appendix C—Most recent progress report from initial performance period
 - Appendix D—Resolutions

- Volume 2 includes all jurisdiction-specific elements required by 44CFR Section 201.6. The planning partnership includes cities, the County and special purpose districts participating in this process and adopting this plan. Jurisdiction-specific elements are included in annexes for each planning partner. Volume 2 also includes a description of the participation requirements for planning partners established by the Steering Committee, as well as instructions and templates that the partners used to complete their annexes. It also includes “linkage” procedures for eligible, non-participating jurisdictions that wish to adopt the Snohomish County Natural Hazard Mitigation Plan in the future.

All planning partners will adopt Volume 1 in its entirety, the overview chapter of Volume 2 (Chapter 1), and their own jurisdictional annex.

CHAPTER 2. PLAN UPDATE—WHAT HAS CHANGED

2.1 THE INITIAL PLAN

Snohomish County was awarded a grant from the federal Pre-Disaster Mitigation Grant Program (PDM) to prepare the initial *Snohomish County Natural Hazards Mitigation Plan*. The County hired a consultant to prepare the plan with oversight from a 13-member Steering Committee. The committee acted as the principle vehicle for public involvement in the plan development. The plan development process covered five principal phases: organization, risk assessment, public involvement, plan development and adoption. Preparation of the plan began in 2003, and the plan was adopted by 43 planning partners in the spring of 2005. The partnership received formal approval by FEMA on April 27, 2005. The plan consisted of two volumes divided into seven parts:

- Volume 1—Planning-Area-Wide Elements
 - Part 1—Background Information
 - Part 2—The Planning Process
 - Part 3—Risk Assessment
 - Avalanche
 - Dam Failure
 - Earthquake
 - Flood
 - Landslide
 - Severe Storm
 - Tsunami
 - Volcano (Lahar)
 - Wildland Fire
 - Part 4—Mitigation Strategies
- Volume 2—Planning Partner Annexes
 - Part 1—Planning Partner Participation Requirements
 - Part 2—Municipal Partner Jurisdictional Annexes
 - Part 3—Special Purpose District Jurisdictional Annexes

The plan identified a guiding principal, 5 goals and 14 objectives, as well as 216 mitigation initiatives to meet them. Each initiative was prioritized based on the benefits of the project versus the cost, whether the project met multiple objectives, and whether the project could be implemented within the capabilities of the jurisdiction. The action plan was reviewed annually via a prescribed plan maintenance process that involved progress reports reviewed and prepared by the same Steering Committee that oversaw the plan’s development.

2.2 MITIGATION SUCCESS STORIES—PROGRESS REPORTS

The initial hazard mitigation planning effort produced a partnership that embraced the concept of risk reduction through proactive mitigation. The partnership was able to complete or initiate actions on 70 percent of the initiatives identified in the plan. This occurred while suffering the impacts from five presidentially declared disasters in a four-year span.

Chapter 7 of Volume 1 of the initial plan identified a comprehensive plan maintenance strategy that involved the completion of an annual progress report. This report was prepared by the Steering Committee formed to oversee the plan's development. The primary purpose for the progress report is to help keep the plan dynamic and establish opportunities to fine-tune or enhance the plan. Additionally, progress reporting provided an opportunity to identify and coordinate available grant funding opportunities, which is important for large multi-jurisdictional efforts. The Steering Committee prepared three progress reports during the initial plan performance period. These reports were made available to the public via a dedicated website. They acted as placeholders for identified enhancements to the plan, and were the first documents reviewed during the plan update process. To illustrate the mitigation success stories within the planning area, the most recent progress report is attached to this plan update in Appendix C; previous progress reports are available on the Snohomish County web site.

2.3 WHY UPDATE?

44CFR stipulates that hazard mitigation plans must describe the method and schedule for monitoring, evaluating, and updating the plan. Prescribing an update schedule establishes an opportunity to reevaluate recommendations, monitor the impacts of actions that have been accomplished, and determine if there is a need to change the focus of mitigation strategies. DMA compliance is contingent on meeting the plan update requirement. A jurisdiction covered by a plan that has expired is not able to pursue elements of federal funding under the Robert T. Stafford Act, which requires a current hazard mitigation plan for eligibility.

2.4 THE UPDATED PLAN—WHAT IS DIFFERENT?

Due to the success of the initial plan, no major changes were made to the plan's format and function. The plan has been significantly enhanced using recently updated best available data and technology, especially in the risk assessment portion of this update. This plan update followed the same basic planning process as was followed under the initial effort. A Steering Committee was once again the critical planning component in the process. Table 2-1 indicates the major changes between the two plans as they relate to 44CFR planning requirements.

**TABLE 2-1.
PLAN CHANGES CROSSWALK**

44CFR Requirement	Initial Plan	Updated Plan
<p>Multi-Jurisdictional Plan Adoption §201.6(c)(5): For multi-jurisdictional plans, each jurisdiction requesting approval of the plan must document that it has been formally adopted</p>	<p>All resolutions from adopting jurisdictions were included in Appendix D of Volume 1.</p>	<p>All resolutions from adopting jurisdictions are included in Appendix D of Volume 1.</p>
<p>Multi-Jurisdictional Planning Participation §201.6(a)(3): Multi-jurisdictional plans (e.g., watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process ... Statewide plans will not be accepted as multi-jurisdictional plans.</p>	<p>Chapter 1, of Volume 2 explains the participation requirements of each planning partner. Chapter 3, of Volume 1 describes the opportunities each partner had to meet these specified participation requirements.</p>	<p>Chapter 1 of Volume 2 specifies participation requirements. Chapter 3 of Volume 1 describes the participation opportunities.</p>
<p>§201.6(b): In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include: (1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval; (2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests, to be involved in the planning process; and (3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.</p>	<p>Volume 1, Chapters 3, 4 and 5 describe the planning process the initial plan went through, including: description of the planning process, organizing resources and public involvement.</p>	<p>Volume 1, Chapters 3, 4 and 5 describe the planning process this updated plan went through, including: Description of the planning process, organizing resources and public involvement.</p>
<p>§201.6(c)(2): The plan shall include a risk assessment that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards.</p>	<p>Part 2 of Volume 1 presents a comprehensive risk assessment for the planning area that looks at nine hazards of concern: avalanche, dam failure, earthquake, flood, landslide, severe weather, tsunami, volcano and wildland fire.</p>	<p>Part 2 of Volume 1 presents a comprehensive risk assessment for the planning area that looks at nine hazards of concern: avalanche, dam failure, earthquake, flood, landslide, severe weather, tsunami, volcano and wildland fire. All data from initial plan was updated with best available data. HAZUS-MH was used for dam failure, earthquake, flood and tsunami.</p>

**TABLE 2-1 (continued).
PLAN CHANGES CROSSWALK**

44CFR Requirement	Initial Plan	Updated Plan
<p>§201.6(c)(2)(i): [The risk assessment shall include a description of the] location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.</p>	<p>Volume 1, Part 2 included countywide extent location mapping for all hazards of concern. Each municipal annex in Volume 2 has jurisdiction specific hazard maps.</p>	<p>Chapters 10 – 18 present a comprehensive risk assessment of each hazard of concern. Each chapter is broken down into the following components:</p> <ul style="list-style-type: none"> • Hazard profile, including maps of extent and location, historical occurrences, frequency, severity and warning time. • Secondary hazards • Climate change impacts • Exposure of people, property, critical facilities and environment. • Vulnerability of people, property, critical facilities and environment. • Future trends in development • Scenarios • Issues
<p>§201.6(c)(2)(ii): [The risk assessment shall include a] description of the jurisdiction’s vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community</p>	<p>Vulnerability was estimated utilizing GIS applications with an emphasis on exposure and land use. Level 1 HAZUS analysis was utilized for exposure analyses only. HAZUS outputs were modeled for all hazards of concern.</p>	<p>Vulnerability was assessed for all hazards of concern. The HAZUS-MH computer model was used for the dam failure, earthquake, flood and tsunami hazards. These were Level 2 analyses using planning partner and county data. “User defined” analysis techniques were applied to the flood and dam failure hazards. Additionally, site-specific data on County-identified critical facilities was entered into the HAZUS model. HAZUS-MH outputs were generated for other hazards by applying an estimated damage function to affected assets. The asset inventory was extracted from the HAZUS-MH model. Best available data was utilized for all analyses.</p>
<p>§201.6(c)(2)(ii): [The risk assessment] must also address National Flood Insurance Program insured structures that have been repetitively damaged by floods</p>	<p>This was not a Section 201.6 planning requirement when the initial plan was done. However, Chapter 14.4.2 did include discussion on FEMA repetitive losses per CRS planning criteria.</p>	<p>The repetitive loss section was significantly enhanced to meet new DMA and CRS planning requirements. The update includes a comprehensive analysis of repetitive loss areas that includes an inventory of the number and types of structures in the repetitive loss area. Repetitive loss areas were delineated, causes of repetitive flooding was cited, and these areas were reflected on maps.</p>

**TABLE 2-1 (continued).
PLAN CHANGES CROSSWALK**

44CFR Requirement	Initial Plan	Updated Plan
<p>§201.6(c)(2)(ii)(A): The plan should describe vulnerability in terms of the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard area.</p>	<p>A complete inventory of the numbers and types of structures (assets) was developed using assessor’s data and GIS applications. The FEMA standard definition for critical facilities was utilized by the Steering Committee.</p>	<p>A complete inventory of the numbers and types of buildings exposed was generated for each hazard of concern. The Steering Committee defined “critical facilities” as they pertained to the planning area, and these facilities were inventoried by exposure. Each hazard chapter provides a discussion on future development trends as they pertain to each hazard</p>
<p>§201.6(c)(2)(ii)(B): [The plan should describe vulnerability in terms of an] estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(i)(A) of this section and a description of the methodology used to prepare the estimate.</p>	<p>Vulnerability was discussed in anecdotal terms with and emphasis on exposure and land use. No loss-estimation models were utilized in the risk assessment development.</p>	<p>Loss estimations in terms of dollar loss were generated for all hazards of concern. These were generated by HAZUS-MH for the dam failure, earthquake, flood and tsunami hazards. For the other hazards, loss estimates were generated by applying a regionally relevant damage function to the exposed inventory. In all cases, a damage function was applied to an asset inventory. The asset inventory was the same for all hazards and was generated in the HAZUS-MH model.</p>
<p>§201.6(c)(2)(ii)(C): [The plan should describe vulnerability in terms of] providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.</p>	<p>Utilizing data from the Snohomish County buildable lands analysis required by the Washington Growth Management Act, the plan includes discussion on future development trends for each identified hazard of concern.</p>	<p>Utilizing data from the Snohomish County buildable lands analysis required by the Washington Growth Management Act, the plan includes discussion on future development trends for each identified hazard of concern.</p>
<p>Multi-Jurisdictional Risk Assessment Requirement §201.6(c)(2)(iii): For multi-jurisdictional plans, the risk assessment must assess each jurisdiction’s risks where they vary from the risks facing the entire planning area.</p>	<p>Each participating jurisdiction utilized data from the risk assessment to rank the hazards of concern based on the potential impact on the jurisdiction. A risk ranking methodology was developed to support this step.</p>	<p>Utilizing the same risk ranking methodology developed for the initial plan, each jurisdiction ranked its risk utilizing the new updated data from the updated risk assessment.</p>
<p>§201.6(c)(3): The plan shall include a mitigation strategy that provides the jurisdiction’s blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.</p>	<p>The plan identifies 216 mitigation initiatives. These are segregated by countywide initiates, and jurisdiction-specific initiatives. The countywide initiatives are in Volume 1; the jurisdiction-specific initiatives are in Volume 2.</p>	<p>The update includes both countywide initiatives and jurisdiction specific initiatives. A crosswalk to action identified in the initial plan has been provided in the plan update to identify the status of actions identified in the initial plan.</p>

**TABLE 2-1 (continued).
PLAN CHANGES CROSSWALK**

44CFR Requirement	Initial Plan	Updated Plan
<p>§201.6(c)(3)(i): [The hazard mitigation strategy shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.</p>	<p>The Steering Committee identified a guiding principal, 5 goals and 14 objectives, as described in Chapter 5.</p>	<p>The Steering Committee determined that the original guiding principal, goals and objectives are still relevant for the updated plan. No changes were made.</p>
<p>§201.6(c)(3)(ii): [The mitigation strategy shall include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.</p>	<p>A catalog of mitigation alternatives was developed via a facilitated planning process that looked at strengths, weaknesses, obstacles, and opportunities within the planning area. This catalog supported each planning partner in identification of actions for the plan.</p>	<p>An enhanced mitigation catalog was utilized by the partners during the update process. The catalog supported each planning partner as it did during the initial plan development process. The mitigation catalog was included in the body of the plan of the update, and not as an appendix, as it was in the initial plan.</p> <p>An analysis of mitigation initiatives matrix was added to each jurisdictional annex to identify which of six mitigation categories each initiative meets. This helps to illustrated the comprehensive range of actions identified.</p>
<p>§201.6(c)(3)(ii): [The mitigation strategy] must also address the jurisdiction’s participation in the National Flood Insurance Program, and continued compliance with the program’s requirements, as appropriate.</p>	<p>This was not a section 201.6 planning requirement when the initial plan was done.</p>	<p>All municipal planning partners that participate in the National Flood Insurance Program (NFIP) have identified an action stating their commitment to maintain compliance and good standing under the NFIP. Additionally, communities that participate in the Community Rating System (CRS) have identified actions to maintain or enhance their standing under the CRS program.</p>
<p>§201.6(c)(3)(iii): [The mitigation strategy section shall include] an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.</p>	<p>Each recommended initiative is prioritized using an anecdotal methodology that looked at the objectives the project will meet, the timeline for completion, how the project will be funded, the impact of the project, the benefits of the project and the costs of the project. This prioritization scheme is detailed in Chapter 1 of Volume 2 of the plan.</p>	<p>The same prioritization scheme was carried over to the updated plan. This scheme is described in Chapter 1 of Volume 2 of the updated plan.</p>

**TABLE 2-1 (continued).
PLAN CHANGES CROSSWALK**

44CFR Requirement	Initial Plan	Updated Plan
<p>§201.6(c)(3)(iv): For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.</p>	<p>This was not a Section 201.6 planning requirement when the initial plan was done.</p>	<p>Chapter 21 of Volume 1 includes a countywide initiative for all participating jurisdictions to provide documentation of adoption to FEMA with a formal request for approval. This will be coordinated by Snohomish County Department of Emergency Management</p>
<p>§201.6(c)(4)(i): [The plan maintenance process shall include a] section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.</p>	<p>Chapter 7 of Volume 1 details a plan maintenance strategy that includes maintaining a steering committee, annual progress reporting, a 5-year update protocol, a strategy for continuing public involvement, and methods for incorporation into other planning mechanisms.</p>	<p>The initial plan maintenance strategy has been carried over to the plan update.</p>
<p>§201.6(c)(4)(ii): [The plan shall include a] process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.</p>	<p>Chapter 7 details recommendations for incorporating the plan into other planning components such as:</p> <ul style="list-style-type: none"> • Critical areas regulations • Shorelines master programs • Growth management plans • Capital improvement plans • Water Resource Inventory Area planning • Basin planning. 	<p>The initial plan maintenance strategy has been carried over to the plan update.</p>
<p>§201.6(c)(4)(iii): [The plan maintenance process shall include a] discussion on how the community will continue public participation in the plan maintenance process.</p>	<p>Chapter 7 details a strategy for continuing public involvement such as:</p> <ul style="list-style-type: none"> • Website • Libraries • Publication of annual progress report 	<p>The initial plan maintenance strategy has been carried over to the plan update.</p>

CHAPTER 3. PLAN UPDATE METHODOLOGY

3.1 PLANNING RESOURCE ORGANIZATION

The first phase in the update of the Snohomish County Natural Hazards Mitigation Plan was to organize the needed resources. Under this phase, the County secured FEMA grant funding, confirmed the planning partnership, sought technical assistance, and engaged the public to determine public perception of risk and support of hazard mitigation. This phase also included coordination with other local, state and federal agencies involved in hazard mitigation in the region to ensure a consistent platform with other ongoing efforts. This phase had the following primary objectives:

- Secure grant funding
- Form a planning team
- Confirm planning partnership
- Define the planning area
- Establish a steering committee
- Coordinate with other agencies
- Review existing programs
- Engage the public.

Chapter 4 describes the public involvement. The other objectives are discussed in the following sections.

3.1.1 Grant Funding

This planning effort was supplemented by a FEMA grant from the Pre-Disaster Mitigation Grant Program, created under the DMA. This program funds proactive pre-disaster hazard mitigation projects and plans. Funds are appropriated to this program annually by Congress. The grant applied for was funded in 2009. It covered 75 percent of the cost for development of this plan update; the County and its planning partners covered the balance through in-kind contributions.

3.1.2 Formation of the Planning Team

County staff resources were not sufficient to achieve all of the desired objectives of the plan. Following County procurement procedures, Tetra Tech, Inc. was hired to assist with development and implementation of the plan update. The Tetra Tech project manager assumed the role of the lead planner, reporting directly to a County-designated project manager from the Department of Emergency Management (DEM). A planning team was formed to lead the planning effort, made up of the following members from DEM, the Surface Water Management (SWM) division of the Department of Public Works, and Tetra Tech:

- Jason Biermann (DEM)—Supervising planner, project oversight
- Diana Rose (DEM)—Grant manager
- Mary Hurner (SWM)—Senior planner

- Suzy Brunzell (SWM)—GIS analyst
- Rob Flaner (Tetra Tech)—Lead project planner
- Laura Hendrix (Tetra Tech)—Public policy lead
- Ed Whitford (Tetra Tech)—HAZUS/GIS lead
- Cara Murphy (Tetra Tech)—HAZUS/GIS support
- Dan Portman (Tetra Tech)—Lead editor.

3.1.3 Confirmation of the Planning Partnership

The initial plan was prepared by a partnership of 43 local governments in Snohomish County—13 municipal governments and 30 special purpose districts. Since the initial performance period of the plan, mergers and consolidations impacted some of the partners, and the City of Mukilteo decided to participate in the Emergency Services Coordination Area (ESCA) planning effort and therefore withdrew from the partnership for this plan. Additionally, some planning partners struggled with the progress reporting process due to changes in personnel, or a lack of understanding of planning partner participation requirements.

Once a commitment was secured to pursue grant funding for this update, the planning team sought to determine the original planning partners’ level of interest in participating in the update. This was accomplished at a plan update kickoff meeting held on April 16, 2009. The planning team presented an overview of the proposed scope of work for the plan update, confirmed planning partner expectations and solicited volunteers to participate on the Steering Committee. Meeting attendees were asked to re-commit to the process by submitting a letter of intent to participate in the plan update. Thirty-five letters of intent to participate were received. The municipal planning partners to be covered under this update are shown in Table 3-1. The special purpose district planning partners are shown in Table 3-2.

TABLE 3-1. CITY/COUNTY PLANNING PARTNERS		
Jurisdiction	Point of Contact	Title
Arlington	Chris Badger	Emergency Management Coordinator
Darrington	Lyla Boyd	Clerk/Treasurer
Gold Bar	John Light	Director of Public Works
Granite Falls	Brent Kirk	Public Works Director
Index	Kim Peterson	Water Distribution Manger/Planner
Lake Stevens	Shane Oden	Project Engineer
Marysville	John Cowling	Asst. City Engineer
Monroe	Brad Feilberg	Operations Director
Snohomish	Andrew Sics	Project Engineer
Stanwood	Mike Simmons	Fire Dept/ Emergency Manager
Sultan	Connie Dunn	Public Works Director
Snohomish County	Jason Biermann	Program Manager, Snohomish County DEM

**TABLE 3-2.
SPECIAL DISTRICT PLANNING PARTNERS**

District	Point of Contact	Title
Snohomish Co. Fire District #1	Steve Sherman	Deputy Chief
Snohomish Co. Fire District #3	Michael A. Hill	Captain
Snohomish Co. Fire District #4	Mark Collins	Fire Chief
Snohomish Co. Fire District #5	Merlin Halverson	Fire Chief
Snohomish Co. Fire District #7	Ralph Provenzano	Fire Chief
Snohomish Co. Fire District #19	Keith Strotz	Fire Chief
Snohomish Co. Fire District #24	Dennis Fenstermaker	Fire Chief
Snohomish Co. Fire District #26	Wendy Enyart	Lieutenant
North County Regional Fire Authority	Dale Fulfs	Fire Chief
Alderwood Water/Wastewater District	Curt Russell	Safety & Emergency Preparedness Coordinator
Cross Valley Water District	Gary Hajek	General Manager
Highland Water District	Robert Shonka	General Manager
Mukilteo Water District	Rick Mathews	Project Coordinator
Silver Lake Water District	Rick Gilmore	District Engineer
Darrington School District	Alan Pickard	Family Liaison
Sultan School District# 311	Marianne Naslund	Administrative Secretary
Northshore Parks and Recreation District	Cheri Rondeau	Assistant Director
Snohomish County Flood Control District #2	Ruth Brandal	Secretary/Commissioner
Stillaguamish Flood Control District	Chuck Hazelton	Manager
Marshland Flood Control District	Paul Reasoner	Secretary/Manager
French Slough Flood Control District	Neil Wheeler	Manager
Snohomish County PUD	David Behar	Senior Manager
Snohomish County Health District	Donald E. Peterson	Business Manager

In addition to the City of Mukilteo, the following original planning partners chose not to participate in the plan update process:

- Snohomish County Fire District #17
- Snohomish County Fire District #21
- Snohomish County Fire District #25
- Snohomish County Fire District #27
- Snohomish County Fire District #28
- Monroe School District # 103

All of these partners have been advised that they can link to the plan at a later date by following the linkage procedures cited in Chapter 7.

3.1.4 Defining the Planning Area

The planning area boundary is the Snohomish County boundary, with one exception—the Northshore Parks and Recreation District, which is included in the planning area, extends into King County; the risk exposure and vulnerability of that portion of King County are consistent with those identified for Snohomish County.

The Emergency Services Coordinating Agency has emergency management responsibility for the southwestern portion of the county and has prepared its own hazard mitigation plan for its service area. Since some planning partners for this update have service areas that overlap the ESCA service area, the risk assessment for this plan covers the entire Snohomish County boundary. Most partners in this plan fall within the jurisdictional authority of Snohomish County DEM.

3.1.5 The Steering Committee

Hazard mitigation planning is one of the best ways to enhance collaboration and gain support among parties whose interests can be affected by hazard losses. By working together, a broad range of stakeholders can identify and create partnerships that pool resources to achieve a common vision for the community. A steering committee was formed to oversee all phases of the plan update. The members of this committee included key planning partner staff, citizens, and other stakeholders from within the planning area. The planning team assembled a list of possible candidates representing interests within the planning area that could have recommendations for the plan or be impacted by its recommendations. The partnership confirmed a committee of 13 members at the April 16, 2009 kickoff meeting. Table 3-3 lists the committee members.

Name	Title	Jurisdiction/Agency	Representing
Brad Feilberg (Chair)	Operations Director	City of Monroe	Planning Partner
Merlin Halverson (Vice Chair)	Fire Chief	Fire District #5	Planning Partner
Steve Thomsen	Director	Snohomish County Department of Public Works	Stakeholder
Mary Hurner	Senior Planner	Snohomish County Department of Public Works-Surface Water Management	Stakeholder
Andrew Sics	Project Engineer	City of Snohomish	Planning Partner
Jason Biermann	Program Manager	Snohomish County DEM	Planning Partner
Rochelle James		Tulalip Tribe	Stakeholder
Neil Wheeler	Manager	French Slough Flood Control District	Planning Partner
Chuck Steele	Floodplain Management Specialist	WA Department of Ecology	Stakeholder
Linda Neunzig			Citizen-Stakeholder
David Behar	Senior Manager	Snohomish County PUD	Planning Partner
Mike Simmons	Fire Dept/ Emergency Manager	Stanwood/Camano FD	Planning Partner
Rick Gilmore	General Manager	Silver Lake Water District	Planning Partner

Leadership roles and ground rules were established during the Steering Committee’s initial meeting on August 20, 2009. The Steering Committee agreed to meet monthly as needed throughout the course of the plan update’s development. The planning team facilitated each Steering Committee meeting, which addressed a set of objectives based on the work plan established for the update. The Steering Committee met nine times from August 2009 through June 2010. Meeting agendas, notes and attendance logs are available for review. All Steering Committee meetings were open to the public and agendas and meeting notes were posted to the hazard mitigation plan website (see Chapter 4).

3.1.6 Coordination with Other Agencies

44CFR requires that opportunities for involvement in the planning process be provided to neighboring communities, local and regional agencies involved in hazard mitigation, agencies with authority to regulate development, businesses, academia, and other private and nonprofit interests (Section 201.6.b.2). This task was accomplished by the planning team as follows:

- **Steering Committee Involvement**—Agency representatives were invited to participate on the Steering Committee.
- **ESCA Notification**—The Emergency Services Coordinating Agency was notified of this plan update effort and invited to participate in the update process by receiving notification of all Steering Committee meetings and public meetings.
- **Agency Notification**—The following agencies were invited to participate in the update process from the beginning and were kept apprised of plan development milestones:
 - FEMA Region X
 - Washington Emergency Management Division (WAEMD)
 - Washington Department of Ecology
 - University of Washington Institute of Hazard Mitigation and Planning
 - King County Emergency Management
 - The Tulalip Tribe
 - The Sauk/Suiattle Tribe
 - The Stillaguamish Tribe
 - City of Everett OEM

These agencies received meeting announcements, meeting agendas, and meeting minutes by e-mail throughout the plan update process. This proved to be beneficial when these agencies supported the effort by attending meetings or providing feedback on issues.

- **Pre-Adoption Review**—All the agencies listed above were provided an opportunity and the means to review and comment on this plan update. The predominant means for this review was through the hazard mitigation plan website (see Chapter 4). Each agency was sent an e-mail message informing them that draft portions of the plan were available for review. In addition, the complete draft plan was sent to FEMA Region X, WAEMD, and the Insurance Service Office (ISO) for a pre-adoption review to ensure program compliance.

3.1.7 Review of Existing Programs

44CFR states that hazard mitigation planning must include review and incorporation, if appropriate, of existing plans, studies, reports and technical information (Section 201.6.b(3)). Chapter 9 of this plan provides a review of laws and ordinances in effect within the planning area that can affect hazard mitigation initiatives. In addition, the following programs can affect mitigation within the planning area:

- Snohomish County Comprehensive Plan (2005)
- Washington State Enhanced Hazard Mitigation Plan, January 28, 2008
- Snohomish County Shoreline Master Program

- Snohomish County Unified Development Code 30.62 *Critical Area Regulation*
- Draft Stillaguamish River Comprehensive Flood Hazard Management Plan
- Snohomish River Comprehensive Flood Control Management Plan
- Sauk River Erosion/Flood Hazard Management Plan

An assessment of all planning partners’ regulatory, technical and financial capabilities to implement hazard mitigation initiatives is presented in Chapter 18 and in the individual jurisdiction-specific annexes in Volume 2. Many of these relevant plans, studies and regulations are cited in the capability assessment.

One of the Steering Committee’s first action items was to review the Washington State Enhanced Hazard Mitigation Plan and all of the progress reports completed during the plan performance period for the initial Snohomish County hazard mitigation plan. The Steering Committee identified hazards listed in the state plan to which the Snohomish County planning area is susceptible, in order to determine if there was a need to expand the scope of the risk assessment. The committee also reviewed the goals, objectives and strategies of the state plan in order to select goals, objectives and actions for the plan that are consistent with those of the state.

The annual progress reports proved to be valuable to the Steering Committee by indicating desired changes and enhancements to the plan identified during each annual review. Each progress report contains a section that recommended changes or enhancements to the plan or plan development process. These reports effectively completed a key step of the plan update process before the update process began—identifying needs for changes or enhancements. The progress reporting process accomplishes this annually, which is an effective way to keep the plan dynamic.

3.2 PLAN DEVELOPMENT CHRONOLOGY/MILESTONES

Table 3-4 summarizes important milestones in the development of the plan update.

**TABLE 3-4.
PLAN DEVELOPMENT CHRONOLOGY/MILESTONES**

Date	Event	Milestone	Attendance
2008			
12/19	County submits grant application under the Pre-Disaster Mitigation Grant Program	To secure funding for plan update process	N/A
2009			
3/16	Planning Partner Meeting #1	Meeting for the existing partnership to discuss game plan for plan update and to advise on the status of funding. Two funding scenarios were discussed: with and without grant assistance	9
4/16	Planning Partner Meeting #2 Kickoff meeting	A second meeting was held for the planning partnership to advise on grant status, and to position the partners for initiating the update process once funding is secured. Planning partners' expectations were the key discussion topic of this meeting.	15
5/20	Planning Partner Meeting #3	A third meeting was held for the planning partners to update them on the grant status.	12
5/27	FEMA approval of PDMC-PL-10-WA-2009-007 grant application and funding awarded	Hazard mitigation planning grant funds secured	NA
6/7	County follows procurement procedures to select planning consultant	To seek technical assistance for the plan update	N/A
6/18	County selects Tetra Tech as plan facilitation consultant	Technical assistance secured	N/A
7/16	Planning Partner Meeting #4	Organize Steering Committee Confirm partnership Detail next steps in plan update process	20
8/20	Steering Committee Meeting #1	Confirm Steering Committee Organization Review Steering Committee "ground rules" Planning partner strategy Risk Assessment update Review progress reports/State hazard plan	14
9/17	Steering Committee Meeting #2	Outreach Strategy Guiding principal, goals, objectives Elevation Certificate project	17
10/15	Planning Partner Meeting #5	Planning Partner expectations Confirmation of Steering Committee Plan Update Status report Critical facilities Public Information Strategy	25

**TABLE 3-4 (continued).
PLAN DEVELOPMENT CHRONOLOGY/MILESTONES**

Date	Event	Milestone	Attendance
2009 (continued)			
11/19	Steering Committee Meeting #3	Planning partner status HAZUS update Critical facilities definition Approve questionnaire language Outreach actions	23
12/17	Steering Committee Meeting #4	Risk Assessment update Questionnaire status Outreach status Review Mitigation Catalog	15
2010			
1/21	Steering Committee Meeting #5	Risk Assessment update Questionnaire status Outreach status (press release and public meetings)	23
2/17	Steering Committee Meeting #6	Special meeting of the Steering Committee to allow opportunity for public comment on plan update process.	20
2/23	Public Meeting #1	Public open house held in Stanwood from 6 to 9 PM. Risk assessment data shared with the public as well as distribution of the questionnaire	10
2/24	Public Meeting #2	Public open house held in Sultan from 6:00 to 9:00 PM. Risk assessment data shared with the public as well as distribution of the questionnaire	34
2/25	Public Meeting #3	Public open house held in Arlington from 6:00 to 9:00 PM. Risk assessment data shared with the public as well as distribution of the questionnaire	12
3/18	Steering Committee Meeting # 7	Update on planning team change Risk Assessment Update Debrief Public Meetings Review Questionnaire results Confirm workshops Follow-up to public input	21
3/30	Jurisdictional Annex Workshop #1	Two three-hour training sessions held during the day to provide guidance on completion of the jurisdictional annex template. These were MANDATORY sessions for all planning partners	18
3/31	Jurisdictional Annex Workshop #2	Two three-hour training sessions held during the day to provide guidance on completion of the jurisdictional annex template. These were MANDATORY sessions for all planning partners	18

**TABLE 3-4 (continued).
PLAN DEVELOPMENT CHRONOLOGY/MILESTONES**

Date	Event	Milestone	Attendance
2010 (continued)			
4/15	Steering Committee Meeting #8	Risk assessment update Review Workshops Survey results comparative analysis What is next Follow-up on public input	14
4/27	Template Technical Assistance workshop #1	Technical assistance was provided by the planning team to planning partners needing help in completing their jurisdictional annex template. Meeting #1 was held at DEM facilities in Everett	6
4/28	Template Technical Assistance Workshop #2	Technical assistance was provided by the planning team to planning partners needing help in completing their jurisdictional annex template. Meeting #2 was held at DEM facilities in Everett.	9
6/11	Draft Plan	Internal Review draft provided by planning team to Steering Committee	N/A
6/17	Steering Committee Meeting #9	Tsunami model update Review draft plan Plan adoption process	15
6/18	Public Comment Period	Initial public comment period of draft plan opens. Draft plan posted on mitigation plan website with press release notifying public of plan availability	N/A
6/25	Pre-Adoption Review	The pre-adoption review draft of the plan forwarded to WAEMD along with plan review crosswalk with request for pre-adoption review and approval.	N/A
6/29	Final Public Meeting #1	Public meeting in Everett to present draft plan to the public and provide open forum opportunity for public comment	3
7/1	Final Public Meeting #2	Public meeting in Monroe to present draft plan to the public and provide open forum opportunity for public comment	3
8/31	Pre-Adoption Approval	Pre-adoption approval of the plan provided by WAEMD and FEMA region X	NA
8/1	Adoption Process	Adoption window opens	N/A
9/20	Final Approval	Proof of adoption provided to FEMA Region X	N/A
10/1	Final Approval	Final approval of the plan provided by FEMA region X	N/A

CHAPTER 4. PUBLIC INVOLVEMENT

Broad public participation in the planning process helps ensure that a diverse range of points of view about the planning area's needs will be considered and addressed. 44CFR requires that the public have opportunities to comment on disaster mitigation plans during the drafting stages and prior to plan approval (Section 201.6.b.1). The Community Rating System expands on these requirements by making CRS credits available for optional public involvement activities.

4.1 STRATEGY

The Steering Committee drafted a comprehensive public involvement strategy using multiple media sources available to the County. The strategy for involving the public in this plan update emphasized the following elements:

- Include members of the public on the Steering Committee.
- Use a questionnaire to determine if the public's perception of risk and support of hazard mitigation has changed since the initial planning process.
- Attempt to reach as many planning area citizens as possible by using multiple media.
- Identify and involve planning area stakeholders.

4.1.1 Steering Committee

All members of the Steering Committee live or work in the Snohomish County planning area and are true stakeholders in the planning effort. The make-up of the Steering Committee proved to be integral in the success of this planning effort. One member of the committee represented Snohomish County citizen and property owner interests. Some of the Steering Committee members previously participated on the steering committee for the initial planning effort. This helped to add a historical perspective that proved to be valuable in identifying direction for the plan update process. Additionally, all Steering Committee meetings were open to the public. Several of the scheduled meetings were attended by members of the public, and they were provided opportunities to address the committee following protocol for public comment defined in the Steering Committee ground rules.

4.1.2 Stakeholders

Stakeholders are the individuals, agencies and jurisdictions that have a vested interest in the recommendations of the hazard mitigation plan. Regulations developed under the DMA expand the traditional meaning of this term by redefining "local government." The planning partners encouraged under the DMA (i.e., special purpose districts) make up a new list of jurisdictions with a stake in the process, so each planning partner is considered a stakeholder as well. Effort was made to include stakeholders in this process by their inclusion on the Steering Committee. An end result of this expanded definition of stakeholders is an increased accessibility to the constituency within the planning area.

4.1.3 Questionnaire

A hazard mitigation plan questionnaire was developed with guidance from the Steering Committee. The questionnaire was used to gauge household preparedness for natural hazards, to assess the level of knowledge of tools and techniques for reducing loss from natural hazards, and to help identify areas of

public concern about natural hazards. Many of the questions were the same as those asked on a questionnaire prepared for the initial planning effort. This allowed the Steering Committee to compare results between the two processes to see if the public's perception of risk had changed over time.

Responses to the 29 questions helped guide the Steering Committee in confirming goals, objectives and mitigation strategies. The principle means of dissemination of the survey was through web-based media. Hard copy versions of the questionnaire were made available at public open houses (see Section 4.1.4). Over 490 surveys were completed. The questionnaire and a summary of its findings are provided in Appendix B as well as a comparative analysis of the results from the 2005 survey and the 2010 survey.

4.1.4 Opportunity for Public Comment

Public Meetings

The Steering Committee determined that the planning area could be divided into north, central and eastern sections (the southwestern portion of the county was not targeted since it is predominantly the ESCA service area). Scheduling public meetings for each of these areas allowed the majority of citizens in the planning area to attend a meeting if they chose. Open-house public meetings were held on February 23, 2010 in Stanwood; on February 24, 2010 in Sultan; and on February 24, 2010 in Arlington (see Figures 4-1 through 4-4). Each ran from 5:30 to 8:30 p.m.

The meetings followed an open house format, where attendees could examine maps and handouts and have direct conversations with project staff. During the meetings, the reasons for planning and the information generated for the risk assessment were shared with attendees via a PowerPoint presentation. Tables were set up for each of the primary hazards to which the County is most vulnerable. A HAZUS-MH workstation allowed citizens to see information on their property, including exposure and damage estimates for dam failure, earthquake, and flood and tsunami hazard events. Participating property owners were provided printouts of this information for their properties. This tool was effective in illustrating risk to the public. Planning partners and the planning team were present to answer questions. Each citizen attending the open houses was asked to complete a questionnaire, and each was given an opportunity to provide written comments to the Steering Committee. Local media outlets were informed of the open houses by a press release from the County.

After the draft plan was assembled, a comment period to receive public input was held from June 18, 2010 through July 2, 2010. Two final public meetings were held: June 29, 2010 in Everett and July 1, 2010 in Monroe. Notice of these meeting was provided to all media outlets via a press release from the County. The purpose of these meetings was to make available and describe the draft plan, explain the plan development process, and request public review and comment. These open-house sessions ran from 5:30 to 8:30 p.m. The planning team gave a presentation that outlined the reasons for the plan, the process used in the plan's development, the key recommendations of the plan, and an opportunity for questions and answers. All attendees were given a copy of the executive summary for the plan and were encouraged to review the entire document on-line at the County website.

Press Releases

Press releases were distributed over the course of the plan's development as key milestones were achieved and prior to each public meeting. The planning effort received the following press coverage:

- The *Stanwood-Camano News*, which ran a full-length article on the plan on March 2, 2010 (see Figure 4-5).



Figure 4-1. Public Meeting #1, Stanwood



Figure 4-2. Public Meeting #2, Sultan

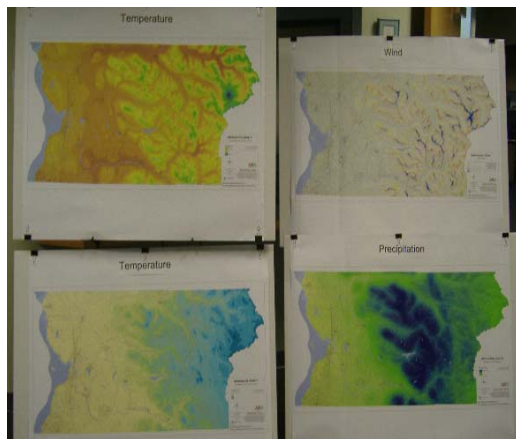


Figure 4-3. Public Meeting #3, Arlington

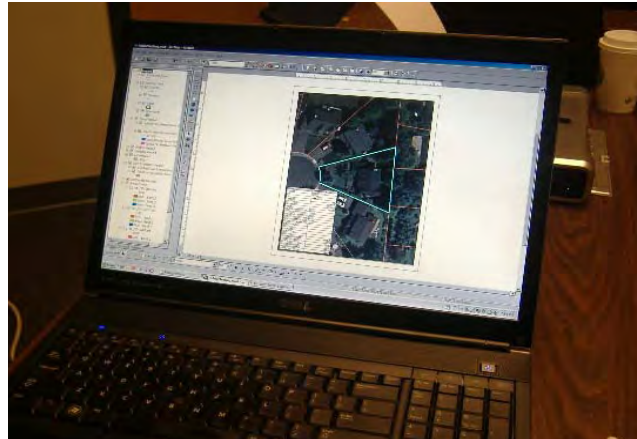


Figure 4-4. HAZUS-MH Workstation Used at Open Houses

- *The Snohomish County Business Journal* ran an article on the public comment period for the draft plan on June 16, 2010. (www.snohomishcountybusinessjournal.com/article/20100616/SCBJ02/100619914)
- *The Everett Herald* also ran an article on June 16 about the draft plan and its availability for public comment. (www.heraldnet.com/article/20100616/NEWS01/706169816)
- King 5 News ran a spot on its 5:00 news regarding increased concern on earthquake risk from the S. Whidbey fault. This segment included information on the draft plan and its availability for public comment. (www.king5.com/news/local/Western-Washington-fault-line-much-larger-than-once-thought--96598499.html)
- *Priorities in Action-News Flash*—This periodic newsletter from Snohomish County Executive Aaron Reardon included information on the public comment period for the draft plan on June 18, 2010.

TUESDAY, MARCH 2, 2010

WWW.SCNEWS.COM

SnoCo's hazards mitigation plan is all about prevention

Manipulate hazards, reduce exposure, reduce vulnerability and increase capability

By JEREMIAH O'HAGAN
Staff Reporter

The bad news is, some Snohomish County residents' early 20th century post-and-beam houses sit in an earthquake-prone floodplain, on unstable soil with a high risk of liquefaction. In the event of severe natural disaster, their homes could be a total loss.

The good news is, new technology provides a window into the previously unknown.

"We're the best nation in the world when it comes to dealing with the last disaster," said Rob Flaner, with Tetra Tech, Inc, at last Tuesday's Snohomish County natural hazards mitigation plan public meeting in Stanwood.

While "best" is nice, it's not good enough for Flaner, or Snohomish County, both of whom desire to be prepared for the next disaster.

This is where the county's Natural Hazards Mitigation Plan (NHMP) steps in.

Crafted in response to the Federal Emergency Management Agency's (FEMA) Disaster Mitigation Act (DMA) of 2000, Snohomish County's plan focuses on "sustained action taken to reduce or eliminate long-term risk to life or property," Flaner said.

Basically, the plan is all about pre-disaster mitiga-

dress, the program lists the risk factors for the home, and can even provide damage estimates for some disasters.

The program obviously can't calculate for every possible variable, Flaner said, but it provides a great deal of information that allows individual homeowners to plan mitigation.

Flaner also stressed the inter-relatedness of some disasters, and therefore preventions.

For example, floodplains are known for soils with poor structural quality, which don't hold up in earthquakes.

If a resident with a post-and-beam home, living in a floodplane, put a concrete foundation under the house, several risks would be reduced. The home could be raised above grade, reducing the risk of flood damage, and it would also be more stable in the event of an earthquake.

Flaner called these "multiple-objective projects."

He also spoke to the fact that the NHMP is a living, breathing document. It's updated every five years using the best available data, Flaner said.

"Our information and mappings are changing as science and technology advance," he said. "In five more years, some things will have changed again."

John Pennington, with the Department of Emer-

said data aren't the only things changing - thanks to NHMP, so is the effectiveness of response.

In the last three years, Pennington said, DEM has implemented "reverse 911." This warning system monitors disasters, such as flooding, and "let's people know in advance that waters are rising."

The result, Pennington said, is much less property loss and the cost of search and rescue during floods decreased dramatically.

Changing weather patterns are another reason why NHMP updates are valuable. Since 1964, there have been 18 federally declared flood disasters in Snohomish County, but six of them have occurred since 2006.

It used to be that a major flood occurred once every 10 years, Pennington said. Now, it's every three to five years.

"Risk is a factor of hazard, exposure, vulnerability and capability," Flaner said.

There are four ways, then, to reduce risk: Manipulate the hazard, reduce exposure, reduce vulnerability and increase capability.

These are the goals of Snohomish County's natural hazards risk management plan.

Staff Reporter Jeremiah O'Hagan: 629-8066 ext. 125

Figure 4-5. Stanwood-Camano News Article on Plan Update Process

Internet

At the beginning of the update process, a web site was set up to keep the public posted on plan development milestones and to solicit relevant input:

http://www1.co.snohomish.wa.us/Departments/Public_Works/Divisions/SWM/Work_Areas/River_Flooding/Planning/Countywide

The site was part of the County's web site, under The Surface Water Management web page (see Figure 4-6). The page was retrievable from the County home page (www.snoco.org) by using the search engine (searching for "hazard mitigation plan"), and the address was publicized in all press releases, mailings, questionnaires and public meetings. Information on the plan update process, the Steering Committee, the questionnaire and phased drafts of the plan was made available to the public on the site throughout the process. The County intends to keep a website active after the plan's completion to keep the public informed about successful mitigation projects and future plan updates.

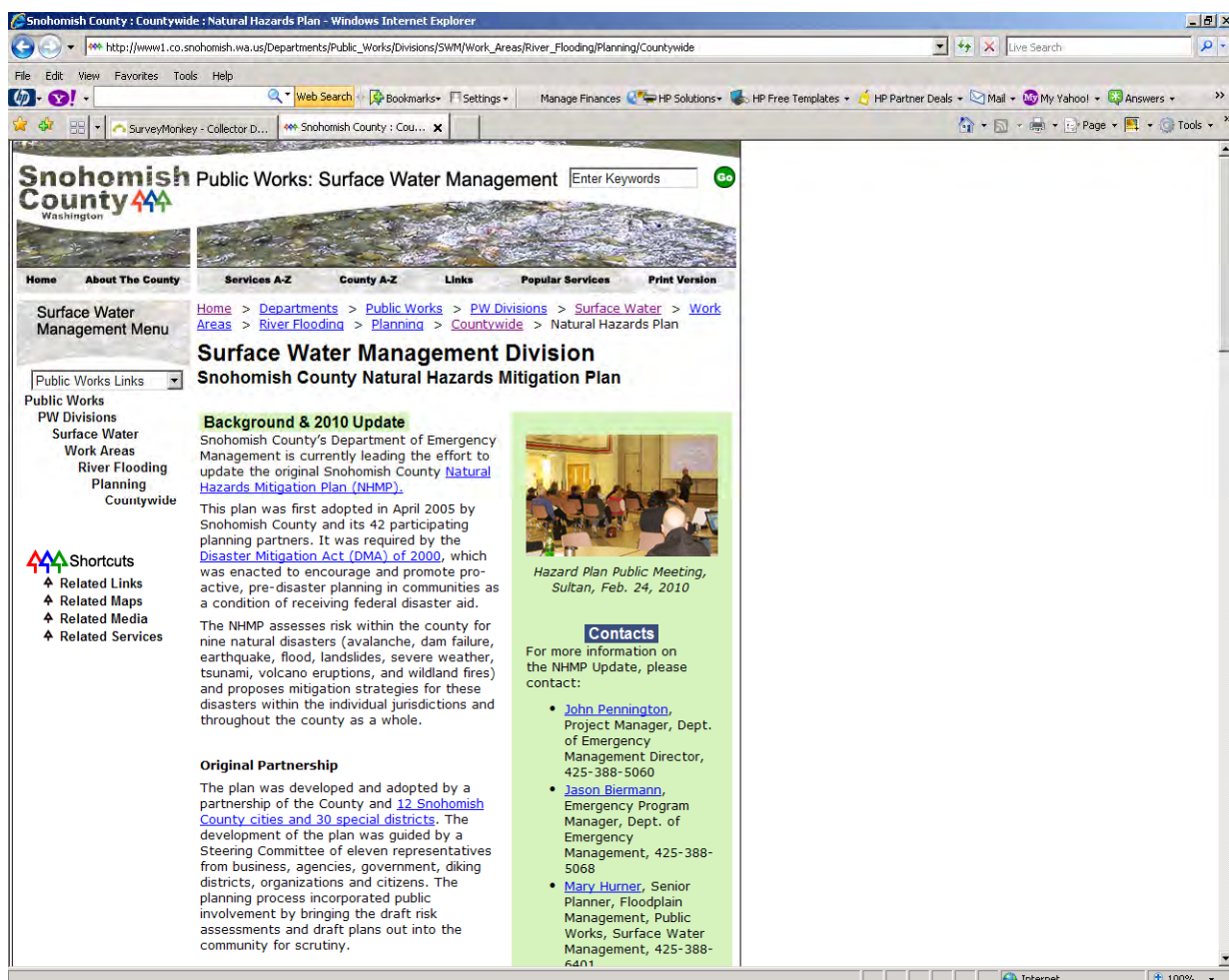


Figure 4-6. Sample Page from Hazard Mitigation Plan Web Site

4.2 PUBLIC INVOLVEMENT RESULTS

By engaging the public through the public involvement strategy, the concept of mitigation was introduced to the public, and the Steering Committee received feedback that was used in developing the components of the plan update. Details of attendance and comments received are summarized in Table 4-1.

**TABLE 4-1.
SUMMARY OF PUBLIC MEETINGS**

Date	Location	Number of Citizens in Attendance	Number of Comments Received	Number of Questionnaires Received
02/23/2010	Stanwood	10	0	5
02/24/2010	Sultan	34	8	15
02/25/2010	Arlington	12	0	4
6/29/2010	Everett	3	0	0 ^a
07/01/2010	Monroe	3	1	0 ^a
Total		52	9	24

a. Questionnaire was not available for these events.

CHAPTER 5. GUIDING PRINCIPLE, GOALS AND OBJECTIVES

5.1 BACKGROUND

44CFR requires a local hazard mitigation plan to identify goals for reducing or avoiding long-term vulnerabilities to identified hazards (Section 201.6.c.3.i). For this plan update, the Steering Committee reviewed the guiding principle, goals and objectives established for the initial plan to determine if they still fulfill the vision of the planning partnership of reducing risk in the planning area. It was determined that the guiding principal, goals and objectives are still relevant to the vision. Therefore, these components are carried over for this plan update. Some minor enhancements were made to Objective 6 for clarity.

5.2 GUIDING PRINCIPLE

A guiding principle focuses the range of objectives and actions to be considered. This is not a goal because it does not describe a hazard mitigation outcome, and it is broader than a hazard-specific objective. The guiding principle for the Snohomish County Natural Hazard Mitigation Plan Update is as follows:

Through partnerships, reduce the vulnerability to natural hazards in order to protect the health, safety, welfare and economy of the community.

5.3 GOALS

The following are the mitigation goals for this plan update:

- Goal 1—Reduce natural hazard-related injury and loss of life.
- Goal 2—Reduce property damage.
- Goal 3—Promote a sustainable economy.
- Goal 4—Maintain, enhance and restore the natural environment’s capacity to absorb and reduce the impacts of natural hazard events.
- Goal 5—Increase public awareness and readiness for disasters.

Achievement of these goals will define the effectiveness of a mitigation strategy. The goals also are used to help establish priorities.

5.4 OBJECTIVES

The selected objectives meet multiple goals, as listed in Table 5-1. Therefore, the objectives serve as a stand-alone measurement of a mitigation action, rather than as a subset of a goal. Achievement of the objectives will be a measure of the effectiveness of a mitigation strategy. The objectives also are used to help establish priorities.

**TABLE 5-1.
OBJECTIVES FOR NATURAL HAZARD MITIGATION PLAN UPDATE**

Objective Number	Objective Statement	Goals for which it can be applied
O-1	Eliminate or minimize disruption of local government operations caused by natural hazards.	1, 3
O-2	Increase resilience of infrastructure.	1, 2, 3
O-3	Consider the impacts of natural hazards on future land uses in Snohomish County.	2, 3, 4
O-4	Reduce natural hazard-related risks and vulnerability to potentially isolated populations in Snohomish County.	1,5
O-5	Sustain reliable local emergency operations and facilities during and after a disaster.	1, 2, 3
O-6	Seek mitigation projects that minimize environmental impacts or seek ways to mitigate their impacts on the environment.	2, 3, 4
O-7	Consider open space land uses within identified high-hazard risk zones.	2, 4
O-8	Improve systems that provide warning and emergency communications.	1, 5
O-9	Enhance understanding of natural hazards and the risk they pose.	2, 3, 5
O-10	Educate the public on the risk from and preparedness for natural hazards and ways to mitigate their impacts.	1, 2, 5
O-11	Seek mitigation projects that provide the highest degree of natural hazard protection at the least cost.	2, 4
O-12	Minimize the impacts of natural hazards on current and future land uses by providing incentives for hazard mitigation.	1, 2
O-13	Support agricultural preservation within the context of floodplain management.	1, 2, 3, 4
O-14	Retrofit, purchase, or relocate structures in high hazard areas, including those known to be repetitively damaged.	1, 2, 3, 4

CHAPTER 6. PLAN ADOPTION

Section 201.6.c.5 of 44CFR requires documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting federal approval of the plan. For multi-jurisdictional plans, each jurisdiction requesting approval must document that it has been formally adopted. This plan will be submitted for a pre-adoption review to both WAEMD and FEMA prior to adoption. Once pre-adoption approval has been provided by WAEMD and FEMA, all planning partners will formally adopt the plan update. All 35 partners understand that DMA compliance and its benefits cannot be achieved until the plan is adopted. Copies of the resolutions adopting this plan for all planning partners can be found in Appendix D of this volume.

CHAPTER 7. PLAN MAINTENANCE STRATEGY

7.1 OVERVIEW

44CFR requires hazard mitigation plans to outline a plan maintenance process that includes the following (Section 201.6.c.4):

- The method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle
- A process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate
- A discussion of how the community will continue public participation in the plan maintenance process.

This chapter details the formal process that will ensure that the Snohomish County Natural Hazard Mitigation Plan will meet these requirements and remain an active and relevant document, and that the planning partnership maintains its eligibility for applicable funding sources. The plan's format allows the partnership to review and update sections when new data becomes available. New data can be easily incorporated as it becomes available, resulting in a plan that will remain current and relevant to the planning partnership.

7.2 IMPLEMENTATION

The effectiveness of the hazard mitigation plan depends on the implementation of the plan and incorporation of the outlined action items into existing partnership plans, policies and programs. The updated plan includes a range of action items that, if implemented, would reduce losses from hazard events in the Snohomish County planning area. Together, the action items in the plan update provide the framework for activities that the partnership can choose to complete over the next 5 years. The planning team and Steering Committee have established goals and objectives, and have prioritized identified mitigation actions that will be implemented through existing plans, policies, and programs.

Snohomish County DEM will assume lead responsibility for planning and facilitating implementation and maintenance meetings. DEM will act as the County's point of contact for this plan and linkage procedures as outlined in Volume 2 of this plan. Although DEM will have primary responsibility for convening these meetings, plan implementation and evaluation will be a shared responsibility among all planning partners and agencies identified as lead agencies in the mitigation action plans.

7.3 STEERING COMMITTEE

The Steering Committee is a total volunteer body that contributed greatly to the development of the updated plan. The purpose of this committee was to oversee the development of the plan update and make recommendations on key elements, including the maintenance strategy. It was the Steering Committee's position that an oversight committee with representation similar to that of the Steering Committee should have an active role in the maintenance strategy for this plan. Therefore, it is recommended that a steering committee remain as a viable body involved in key elements of the plan maintenance strategy.

The new steering committee should include no more than 17 members, representing the planning partners, the citizens of Snohomish County and other stakeholders. The steering committee will convene to perform annual reviews at a place and time to be determined. The make-up of this committee can be dynamic, which will allow differing views to have a say in the implementation of the plan. DEM will strive for true “stakeholder” representation on this committee. Individuals involved in this plan update process will be contacted and given the option to remain involved in the process.

7.4 ANNUAL PROGRESS REPORT

The minimum task of the new steering committee will be the evaluation of the progress of the plan. This review will include the following:

- Summary of any hazard events that occurred during the prior year and their impact on the planning area
- Review of successful mitigation initiatives identified in the plan
- Brief discussion about why targeted strategies were not completed
- Re-evaluation of the action plans to determine if the timeline for identified projects needs to be amended (such as changing a long-term project to a short-term project because of funding availability)
- Recommendations for new projects
- Changes in or potential for new funding options (grant opportunities)
- Impact of any other planning programs or initiatives within the partnership that involve hazard mitigation.

The planning team will create a template to guide the new steering committee in preparing a progress report. The committee will provide feedback to the planning team on items included in the template. All planning partners will be responsible for submitting progress reports to the planning team using the template. *Failure of a planning partner to show progress on initiatives may result in that partner being deemed ineligible under the provisions of the DMA.* The planning team will use the submitted templates to prepare a formal annual report on the progress of the plan. This report will be used as follows:

- Posted on the website page dedicated to the hazard mitigation plan
- Provided to the local media through a press release
- Presented in the form of a council/board report to all participating jurisdictional governing bodies
- Provided as part of the CRS annual re-certification package.

The CRS program requires a recertification submitted by October 1 of every calendar year for which the community has not received a formal audit. To meet this recertification timeline, the planning team will strive to complete this progress report process between June and September each year.

7.5 PLAN UPDATES

44CFR requires that local hazard mitigation plans be reviewed, revised if appropriate, and resubmitted for approval in order to remain eligible for benefits under the DMA (Section 201.6.d.3). The planning partnership intends to update the plan on a five-year cycle from the date of initial plan adoption. This cycle may be accelerated to less than five years based on the following triggers:

- A Presidential Disaster Declaration that impacts the Snohomish County planning area

- A hazard event that causes loss of life
- A comprehensive update of the Snohomish County Comprehensive Plan or participating city's comprehensive plan.

It will not be the intent of this update process to start from scratch and develop a complete new hazard mitigation plan for the Snohomish County planning area. Based on needs identified by the planning team, this update will, at a minimum, include the elements below:

- The update process will be convened through the new steering committee.
- The hazard risk assessment will be reviewed and, if necessary, updated using best available information and technologies.
- The action plans will be reviewed and revised to account for any initiatives completed, dropped, or changed and to account for changes in the risk assessment or new partnership policies identified under other planning mechanisms, as appropriate (such as the general plan).
- The draft update will be sent to appropriate agencies and organizations for comment.
- The public will be given an opportunity to comment on the update prior to adoption.
- The planning partnership governing bodies will adopt their respective portions of the updated plan.

7.6 CONTINUING PUBLIC INVOLVEMENT

The public will continue to be apprised of hazard mitigation plan actions through the Partnership website, and copies of the annual progress reports will be distributed to the media. Copies of the plan will be available within the Sno-Isle Library System. A new public involvement strategy will be initiated based on guidance from the Steering Committee each time the plan is updated. This strategy will be based on the needs and capabilities of the Partnership at the time of the update. At a minimum, this strategy will include the use of local media outlets within the planning area.

7.7 INCORPORATION INTO OTHER PLANNING MECHANISMS

The information on hazard, risk, vulnerability and mitigation contained in this plan update is based on the best science and technology currently available. This information can be invaluable in making decisions required through other planning efforts, such as critical areas planning, growth management planning, and capital facilities planning. All partners will use information from this updated plan as the best available science and data on natural hazards impacting Snohomish County. The planning partnership chose not to extend the scope of this plan update into land-use-based recommendations because other programs in the planning area already have a primary focus on land use. Information in the updated plan can be used as a tool in other programs, such as the following:

- Critical areas regulation
- Growth management
- Capital improvements
- Water Resource Inventory Area planning
- Basin planning.

As information becomes available from other planning mechanisms that can enhance this plan, that information will be incorporated via the update process.

