



SECTION 1. PLAN MISSION, GOALS, AND UPDATE PROCESS

PLAN MISSION

The mission of the *Whatcom County Natural Hazards Mitigation Plan* is to promote sound public policy designed to protect citizens, critical facilities, infrastructure, private property, and the environment from natural and technological hazards. This can be achieved by increasing public awareness, documenting the resources for risk reduction and loss-prevention, and identifying activities to guide the county towards building a safer, more sustainable community.

PLAN GOALS

The plan goals describe the overall direction that Whatcom County jurisdictions, organizations, and citizens can take to work toward mitigating risk from natural and technological hazards.

The goals represent stepping-stones between the broad direction of the mission statement and the specific recommendations outlined in the action items. Key Contributors reviewed the Plan Goals from the 2011 Whatcom County Natural Hazard Mitigation Plan and determined them to be still valid. In the current plan, however, the plan goals were expanded, providing additional detail to more clearly define and clarify those goals. The Plan goal topics are:

1. **Protect Life, Property and Public Welfare.**

- a. Implement activities that assist in protecting lives by making homes, businesses, infrastructure, critical facilities, and other property more resistant to losses from natural and technological hazards.
- b. Reduce losses and repetitive damages for chronic hazard events while promoting insurance coverage for catastrophic hazards. Improve hazard assessment information to make recommendations for discouraging new development and encouraging preventive measures for existing development in areas vulnerable to natural and technological hazards.

2. **Public Awareness.**

- a. Develop and implement education and outreach programs to increase public awareness of the risks associated with natural and technological hazards.
- b. Provide information on tools, partnership opportunities, and funding resources to assist in implementing mitigation activities.

3. **Natural Systems.**

- Encourage development of acquisition and management strategies to preserve open space.

4. **Partnerships and Implementation.**

- a. Strengthen communication and coordinate participation among and within public agencies, citizens,



non-profit organizations, business, and industry to gain a vested interest in implementation.

- b. Encourage leadership within public and private sector organizations to prioritize and implement local, county, and regional hazard mitigation activities.

5. Emergency Services.

- a. Establish policy to ensure mitigation projects for critical facilities, services, and infrastructure.
- b. Strengthen emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry.
- c. Coordinate and integrate natural and technological mitigation activities, where appropriate, with emergency operations plans and procedures.

INTEGRATION OF FEMA GUIDANCE

Reference: FEMA's Local Mitigation Planning Handbook, March 2013

The mitigation plan belongs to the local community. While FEMA has the authority to approve plans in order for local governments to apply for mitigation project funding, there is no required format for the plan's organization. When developing the mitigation plan, keep the following guiding principles in mind:

- Focus On The Mitigation Strategy. The mitigation strategy is the plan's primary purpose. All other sections contribute to and inform the mitigation strategy and specific hazard mitigation actions.
- Process Is As Important As The Plan Itself. In mitigation planning, as with most other planning efforts, the plan is only as good as the process and people involved in its development. The plan should also serve as the written record, or documentation, of the planning process.
- This Is Your Community's Plan. To have value, the plan must represent the current needs and values of the community and be useful for local officials and stakeholders. Develop the mitigation plan in a way that best serves your community's purpose and people.

The suggested mitigation actions are summarized into four types: (1) Local Planning and Regulations, (2) Structure and Infrastructure Projects, (3) Natural Systems Protection, and (4) Education and Awareness Programs. Examples of activities that can be used to accomplish each mitigation goal are identified, as well as the relevant FEMA publications or resources, if applicable.

FEMA recognizes that local governance structures vary, and that the authority to implement mitigation strategies (e.g., land use planning and zoning, building code enforcement, infrastructure improvements, floodplain management, etc.) may not reside within a single governmental entity. In addition, certain FEMA hazard mitigation assistance programs accept applications from private, nonprofit organizations and other quasi-governmental entities that do not necessarily align with traditional geopolitical boundaries. To ensure these potential sub-applicants to FEMA mitigation assistance programs meet the eligibility requirements for mitigation plans under 44 CFR §201.6, FEMA has identified procedures for several of these entities.



Federal Regulations

Federal regulations regarding the planning process and updating of multi-jurisdictional hazard mitigation plans can be found in 44 CFR 201.6. The “Planning Process” subsection (b) of 44 CFR 201.6 requires an open public involvement process to be developed and documented as part of the Plan. According to this section, the public involvement 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; agencies that have the authority to regulate development; and businesses, academia, and other private and non-profit interests to be involved in the planning process.
3. Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

FEMA’s Local Mitigation Planning Handbook, March 2013

“A community must review and revise an existing plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities and resubmit for approval within 5 years to continue to be eligible for FEMA mitigation project grant funding.”

REGULATION CHECKLIST	
Regulation (44 CFR 201.6 Local Mitigation Plans)	
A1.	Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))
A2.	Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(c)(2))
A3.	Does the Plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))
A4.	Does the Plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))
A5.	Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))
A6.	Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4) (i))
B1.	Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))
B2.	Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(ii))
B3.	Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))
C1.	Does the Plan document each jurisdiction’s existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))



REGULATION CHECKLIST Regulation (44 CFR 201.6 Local Mitigation Plans)	
C2.	Does the Plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3))
C3.	Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3) (i))
C4.	Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3) (ii))
C5.	Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3) (iv)); (Requirement §201.6(c)(3) (iii))
C6.	Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4) (ii))
D1.	Was the Plan revised to reflect changes in development? (Requirement §201.6(d)(3))
D2.	Was the Plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))
D3.	Was the Plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))
E1.	Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))
E2.	For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))

The "Plan Content" subsection (c) of 44 CFR 201.6 requires the Plan to include documentation of the planning process including how it was prepared, who was involved, and how the public was involved. The "Plan Review" subsection (d)(3) of 44 CFR 201.6 states that jurisdictions with adopted plans are required to review, revise if appropriate, and resubmit plans for approval within 5 years to continue to be eligible for Hazard Mitigation Grant Program funding.

PLAN UPDATE PARTICIPANTS

Plan Update Participants

The Plan is intended to be multi-jurisdictional; therefore, all of the jurisdictions included in the 2010 Plan dedicated time and effort to provide jurisdiction-specific information contained throughout the 2015 Plan update.

The following jurisdictions assisted in the development of this Plan Update:



- Bellingham
- Blaine
- Everson
- Ferndale
- Fire District #11
(Community of Lummi Island)
- Lake Whatcom Water District
- Lynden
- Meridian School District
- Nooksack
- Port of Bellingham
- Sumas
- Whatcom County
- Whatcom County Flood Control Zone District

Key Contributors That Provided Jurisdiction-Specific Information

Cities of Everson, Nooksack and Sumas	Dan Macphee, Police Chief Rollin Harper (Planning Contractor)
City of Bellingham	Bill Hewitt, Assistant Fire Chief
City of Blaine	Mike Haslip, Police Chief
City of Ferndale	Michael Knapp, Police Chief Greg Young (City of Ferndale Planning)
City of Lynden	Gary Baar, Fire Chief
City of Sumas	Chris Haugen, Police Chief Rollin Harper (Planning Contractor)
Fire District 11-Lummi Island	Duncan McLane, Fire Chief
Lake Whatcom Water District	Rich Munsun, Safety Officer
Meridian School District	David Forsythe, Assistant Superintendent
Port of Bellingham	Neil Clement
Whatcom County	Kent Catlin, Deputy Director
Whatcom County FCZD	Paula Cooper, River and Flood Manager

In addition to the participating jurisdictions mentioned above, smaller agencies throughout the County were invited to participate in the development and adoption of the Hazard Mitigation Plan.

The Whatcom County GIS Department was responsible for locating and collecting all natural hazard-related GIS data updates from local and state sources.

In order to involve the public in the 2015 Plan update, Whatcom County DEM advertised and conducted, four Community disaster preparedness fairs were the plan was discussed, four town hall meetings were the plan was presented for input, as well as maintained a 24/7 online virtual town hall meeting on their website about the plan update process (<http://www.whatcomready.org/preparedness/whatcom-natural-hazards-mitigation-plan-update/>). These meetings provided opportunities for participation in the 2015 Plan update and, just as importantly, provided opportunities to solicit information and comments from the citizens of Whatcom County and to better involve them in the Plan.



In addition to the Whatcom County DEM and Washington State EMD, the Emergency Response Institute International, a private consulting firm, was contracted to support the 2015 Plan update.

PLAN UPDATE PROCESS

2015 Plan Update Timeline and Milestones

The timeline and discussion on the following page summarizes outreach and jurisdictional actions during the Plan update process:

Date	Activity
09/24/13	Initial communication with participating agencies.
10/15/13	Mitigation planning meeting: Virtual Town Hall launched on web page.
12/10/13	Email sent to all participants detailing the plan update process and their roles and responsibilities.
12/17/13	Begin receiving initial update information from participants. Begin initial re-write and updates of the plan.
1/28/14	Provided briefing to LEPC on status of the plan update, the process, and tasks completed to date.
2/19/14	Presented the HAZMIT Plan update process, roles and responsibilities to newly elected officials at the "Emergency Operations for Newly Elected Officials" class.
8/30/14	Solicitation for contractor support.
9/6/14	Conducted community hazards meeting for City of Ferndale and presented HAZMIT Plan update process, roles, responsibilities.
9/17/14	Conducted community hazards meeting for City of Lynden and presented HAZMIT Plan update process, roles, responsibilities.
9/22/14	Meeting and work session with contractor. Refined the update process scope of work and determined need for and type of participant surveys and worksheets.
9/22/14	Selected contractor: ERI International, Lacey, WA
10/3/14	Winter Storm, Flood Natural Hazards yearly meeting. Presented HAZMIT Plan update process, roles, responsibilities.
10/7/14	Conducted community hazards meeting for Fire District 11-Lummi Island and presented HAZMIT Plan update process, roles, responsibilities.
10/11/14	Conducted community hazards meeting for Sudden Valley Lynden and presented HAZMIT Plan update process, roles, responsibilities.



Date	Activity
10/23/14	Jurisdictions were contacted via email announcing the initial planning meeting, with an attached workbook, outlining tasks to be performed as part of the update process.
10/30/14	HAZMIT Planning Meeting at WUECC, Bellingham, WA. Review of progress to date. Briefings on what needs to be done and by who. Distribute plan update workbooks (surveys and worksheets).
11/1/14 through 11/30/14	Individual support and assistance provided to jurisdictions on all aspects of the Plan Mitigation Update process. In addition, the email indicated the Consultant and Emergency management Director will provide support at the meetings and during the update process as needed. Updates provided to ERI/WCEMD staff via emails.
12/21/14	HAZMIT update process Work Books due for review-all jurisdictions.
12/22/14	<p>ERI staff met with participating jurisdictions to discuss issues involving Mitigation Measures and Action Items and other updated information, including progress on the update process. In addition, a 24/7 virtual town hall was initiated and jurisdictions were encouraged to:</p> <ol style="list-style-type: none"> a. Update the identified and analyzed natural hazards present and hazardous to Whatcom County. b. Encourage each jurisdiction committed to the plan to update their jurisdiction. c. Invite the public to participate.
12/29/14	Geological Hazards Section of the Plan was reviewed and updates made.
1/1/15 through 2/28/15	Jurisdictions complete their updates to their individual plans and proposed Mitigation Action items. Updates provided to ERI/WCEMD staff via emails
1/22/15	Reminder sent to Flood district and City of Blaine regarding turning workbook items in.
2/12/15	Conversation with contractor regarding jurisdictions that need additional help. Outreach and reminders sent to those participants who have not responded.
3/3/15	WCSO- DEM assists City of Blaine with finishing their section and work sheets.
3/10/15	On site work sessions with contractor to review data that jurisdictions have submitted. Gaps identified.
3/15/15 through 4/15/15	Information solicited and gaps filled.
5/20/15	Complete first draft provided to WCSO-DEM.
5/20/15 through 6/5/15	Comments provided to contractor and second draft completed.
After 6/5/15	Last round of "Community Input/ Draft Review" of the plan.
7/10/15	Plan submitted to the State



Date	Activity
9/15/15	Receive comments from WA-EMD.
9/15/15-07/22/16	Jurisdictions incorporate recommended changes.
4/21/16	WCSO-DEM met with WA-EMD Mitigation & Recovery Strategist to review recommended updates and discuss improvement strategies.
7/22/16	Submit revised version to WA-EMD.

PUBLIC INVOLVEMENT

Despite the high level of effort it takes to develop and implement mitigation strategies, it is ultimately up to the people that comprise each community and jurisdiction to determine the success of the Plan in the event of a natural hazard. Therefore, public involvement is essential in each step of the planning process. Whatcom County uses a variety of methods to provide public outreach and involvement during and following Plan development including public meetings and web-based outreach.

Public Meetings

Whatcom County DEM used social media, public meeting announcements, website and presentations at association meetings to jurisdictional representatives (i.e., Cities, Fire Districts, and School Districts) to advertise the meetings. The purposes of the meetings were to review the 2015 Plan, advise the public regarding the update process, and receive public feedback. Each representative in attendance was provided a checklist to complete that included specific jurisdictional and natural hazard information to be updated for the 2015 Plan. The same checklists were delivered to representatives not in attendance to ensure that similar updates were completed.

Every October, the DEM hosts an annual flood meeting to bring all of the agencies involved in responding to flood events together to review response procedures. Agencies involved in emergency response include:

- U.S. Army Corps of Engineers (USACE)
- National Weather Service
- Red Cross
- Whatcom County Sheriff's Office
- Police departments within cities impacted by flooding
- Fire departments within cities impacted by flooding
- Fire departments within unincorporated Whatcom County impacted by flooding
- Whatcom County Maintenance and Operations Division
- British Columbia Ministry of Environment
- Washington State Department of Transportation (WSDOT)
- Local media



- Water Districts
- Tribal Jurisdictions
- Parks Management

Additional annual meetings facilitated by the DEM include a winter storm meeting, a Local Emergency Planning Committee meeting, and an Emergency Planning Council meeting. The Local Emergency Planning Committee is composed of various representatives from around the County and the annual meeting is open to the public. The Emergency Planning Council is composed of elected officials and holds annual private meetings.

WEB-BASED OUTREACH

The Whatcom County DEM utilizes an extensive website that is frequently updated with the most recent hazard preparation materials, hazard updates, and emergency event press releases. Hazard preparation materials published on the website include disaster planning documents, a disaster preparedness handbook,¹ and other hazard-specific information (e.g., earthquakes, fires, floods, and winter storms). Hazard updates on the site include the latest weather and road conditions and emergency road closures and restrictions. Emergency event press releases are also published on the website that follows incidents in progress or weather events of alert level concern. The website also includes links to the Washington State EMD, the City of Bellingham Office of Emergency Management, the American Red Cross Mount Baker Chapter, and the FEMA websites. The site was used capture input on the Natural Hazard Mitigation Plan with a page that was dedicated as a “virtual town hall” on the Mitigation Plan update efforts .

¹ Available on the Whatcom County DEM website at:
http://www.co.whatcom.wa.us/dem/pdf/emergency_resources-guide.pdf



ELEMENTS NEW TO THE 2015 PLAN

Note: This *Table of Changes* documents pertinent changes made from the 2010 WCHMP Plan to the 2015 WCNHMP Plan update.

Whatcom County Natural Hazards Mitigation Plan	2015
Introduction	The 2015 WCNHMP retains the same integrity in the Introduction, as the 2010 WCNHMP.
Section 1: Plan Process and Development	<p>The 2015 WCNHMP retains the same integrity in Section1, as the 2010 WCNHMP.</p> <p>Additions to Section 1 included an (1) Integration of FEMA Guidance as referenced in <i>FEMA's Local Mitigation Planning Handbook, March 2013</i>; (2) Federal Regulations, Regulation Checklist (44 CFR 201.6 Local Mitigation Plans); (3) State and FEMA Plan Review; and, (4) Stakeholders.</p>
Section 2: Hazard Summaries	<p>The 2015 WCNHMP retains the same integrity in Section2, as the 2010 YC HMP.</p> <p>Updated for 2015 based upon the Washington State 2013 Enhanced Plan.</p> <p>New addition to the 2015 Update include Section 2.1 Other Hazards of Concern and Section 2.2 Whatcom County Storm Events Data Base 2010-2014, based on NOAA's National Climate Data Center (NCDC).</p>
Section 3: Jurisdiction Overview	<p>The 2015 NCHMP retains the same integrity in Section 3, as the 2010 WCHMP.</p> <p>Mitigation Measures and Action Items format was a new addition for jurisdictions to detail their specific hazard mitigation measures and action items. A 2015-2020 jurisdiction process and instructions for monitoring of jurisdiction mitigation projects and activities has also been included.</p>
Section 4: Plan Maintenance	The 2015 WCNHMP retains the same integrity in Section 4, as the 2010 WCNHMP.
Appendices	New appendices for 2015 included Whatcom County Mitigation Ideas (FEMA's Mitigation Ideas), a Mitigation Action Progress Report Form, and a Whatcom County Contact List.



PLAN ORGANIZATION

This Plan Is Organized Into Four Sections and Multiple Appendices

Section 1: Plan Process and Development

The first section contains information pertaining to the Plan development process, including:

1. Natural Hazards Mitigation Planning
 - a. Federal Regulations
 - b. Plan Update Participants
 - c. Public Involvement
2. Plan Revisions

Section 2: Hazard-Summaries

The second section contains information specific to the natural hazards present in Whatcom County. This section is broken down into:

1. Hazard-Related Definitions
2. Background Information
3. History
4. Vulnerability Assessment
5. Mitigation Strategies
6. Maps

Section 3: Jurisdiction Profiles and Mitigation Action Plans

The third section contains jurisdiction-specific chapters, with the following information for each:

1. Contact Information
2. Approving Authority
3. Hazards Present in the Jurisdiction, Descriptions and Areas Impacted
4. Growth Trends



5. Critical Facilities List and Assessment Rankings
6. Status of 2010-2014 Mitigation Strategies and Projects
8. Proposed Mitigation Strategies and Projects for 2015-2020
9. Annual Review Process
10. Hazard Maps

Section 4: Plan Maintenance

This section ends with a description of how the Plan will be maintained in the future.

Appendices

- A. Capabilities Listing (documents, processes, and resources reviewed and added by the team)
- B. List of Acronyms and Abbreviations
- C. Whatcom County RAMS Assessment (wildland-fire related)
- D. 2015 Plan Development Process
- E. NFIP Status
- F. Whatcom County Mitigation Ideas
- G. Whatcom County 2015 Contact List

This Plan is an evolving document that will eventually include additional information and discussions of additional natural hazard studies, man-made hazards such as terrorism, and general updates as they become available.

STATE AND FEMA PLAN REVIEW PROCESS

1. Submitting the Plan.
 - a. Once the planning team is confident the plan meets the required elements and includes all supporting documentation, forward the plan to your SHMO or State Mitigation Planner. It is critical that all supporting documentation related to the planning process and other components of the plan are included in the initial submittal. Incomplete plan submittals can delay plan approval. The State will review the plan and work with you on any required revisions for approval.



- b. At least one of the participating jurisdictions must adopt the plan within 1 year of FEMA's APA notice. FEMA will issue an official approval letter stating which jurisdictions have adopted the plan and are eligible for FEMA hazard mitigation assistance programs. The plan will expire 5 years from the date of FEMA's approval letter for the mitigation plan. The approval letter and date are generated with the first jurisdiction adopting the plan. The plan approval date remains the same regardless of when other participating jurisdictions adopt the plan. It is important to coordinate the adoption process to ensure that all participants are covered by the plan for the full 5 years. Plan updates follow the same adoption process.

6. Procedures for Additional Jurisdictions to the HMP.

This procedure was developed by the Whatcom County DEM in cooperation with the Washington State Emergency Management Division. This procedure has been incorporated into the plan as part of the 2015 plan update.

- a. A jurisdiction not included in this update and wishing to join the plan contacts the Whatcom County DEM with the request to become a participant of the plan.
- b. The Whatcom County DEM provides the jurisdiction with a copy of the planning requirements and any other pertinent data.
- c. The jurisdiction reviews the plan and develops the portions of the plan that are specific to the jurisdiction as directed by the Whatcom County DEM staff. The portion of the plan must meet the requirements of the current FEMA's Local Mitigation Planning Handbook, March 2013.
- d. The new jurisdiction submits its portions of the plan to the Whatcom County DEM and the new jurisdiction plan is forwarded to the State Hazard Mitigation Program Manager for review and compliance with current Local Multi-Hazard Mitigation Planning Guidance.
- e. The State Hazard Mitigation Program Manager reviews the new jurisdiction plan for compliance with current Local Multi-Hazard Mitigation Planning Guidance in conjunction with the Whatcom County Multi-Jurisdictional Hazard Mitigation Plan. If the new jurisdiction does not meet the required standard, the State Hazard Mitigation Program Manager will work with the jurisdiction to resolve issues until it does.
- f. The State Hazard Mitigation Program Manager forwards the new jurisdiction plan to FEMA Region X for review and comment.
- g. Upon approval from FEMA Region X, the new jurisdiction is considered part of the Whatcom County Multi-Jurisdictional Hazard Mitigation Plan and will comply with the update schedule of the plan.

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