

# MULTI-JURISDICTION/MULTI-HAZARD MITIGATION

## **Mitigation Goals:**

The natural hazard mitigation goals listed in this portion of the plan are multi-jurisdictional in nature and are intended to help guide the direction of and prioritize future natural hazard mitigation activities at the local level aimed at reducing risk and preventing loss from natural hazards. The following mitigation goals were identified in 2003; as part of the 2008 plan update process, these goals were re-evaluated and determined to remain valid and effective and were re-affirmed by the Skagit Natural Hazards Mitigation Planning Committee.

### **1. Protect Life and Property**

- Implement mitigation activities that will assist in protecting lives and property by making homes, businesses, infrastructure, and critical facilities more resistant to natural hazards.
- Continue the Skagit Community Emergency Response Team (C.E.R.T.) Program to provide citizens from all areas of Skagit County with the information and tools they need to help themselves, their families, and their neighbors in the hours and days immediately following an emergency or disaster event.
- Encourage homeowners and businesses to purchase insurance coverage for damages caused by natural hazards.
- Encourage homeowners and businesses to take preventative actions in areas that are especially vulnerable to natural hazards.

### **2. Increase Public Awareness**

- Develop and implement additional education and outreach programs to increase public awareness of the risks associated with natural hazards.
- Continue the current flood awareness programs conducted by various jurisdictions as part of the National Flood Insurance Program Community Rating System.

### **3. Encourage Partnerships**

- Strengthen inter-jurisdiction and inter-agency communication and coordination and partnering of jurisdictions and agencies to foster the establishment and implementation of natural hazard mitigation strategies and/or projects designed to benefit multiple jurisdictions.

### **4. Provide for Emergency Services**

- Encourage the establishment of policies to help insure the prioritizing and implementation of mitigation strategies and/or projects designed to benefit critical/essential facilities, services, and infrastructure.
- Where appropriate, coordinate and integrate natural hazard mitigation activities with existing local emergency operations plans.

## **Multiple-Hazard Mitigation Action Items:**

For the purpose of this plan, multiple-hazard action items are those strategies and/or activities that pertain to drought, earthquake, fire, flood, land movement, severe storm, tsunami/seiche, and volcanic event. Action items were not identified for avalanche as explained below:

*The avalanche hazard in Skagit County exists in only a small portion of mountainous backcountry in far eastern Skagit County. This locale is not populated and consists of wilderness area within the boundaries of the North Cascades National Park. The area is accessible by trail and State Route #20 which crosses the Cascade Range at Rainy Pass; because of the large snow accumulations in this area, the Washington State Department of Transportation closes State Route #20 during the winter months. Due to the fact that avalanche is a concern only to those persons engaged in isolated, backcountry activities, specific mitigation action items were not identified for this hazard.*

The action items included in this section of the plan may be short-term, long-term, or on-going in nature. Some actions may include activities that jurisdictional agencies may implement with existing resources and authorities. Other more complex actions may require new or additional resources or authorities as well as multi-agency and/or multi-jurisdictional partnering.

Some of the mitigation actions and/or projects included in this plan are focused on reducing the effects of various natural hazards on new buildings and infrastructure. Examples of these mitigation actions and/or projects include:

- Mitigation strategies and/or ordinances and codes regarding building regulations and construction set-backs from unstable or steep slopes, alluvial fans and other critical areas.
- Community Rating System Program activities designed to reduce or limit damage from flooding to structures built within the 100-year floodplain.

Some of the mitigation actions and/or projects included in this plan are focused on reducing the effects of various natural hazards on existing buildings and infrastructure.

Examples of these mitigation actions and/or projects include:

- Construction and/or modification of river levee systems.
- Obtaining additional flood storage capacity within existing hydroelectric reservoirs located with the Skagit River and Baker River watersheds.
- Buy-out and/or elevation of flood repetitive loss properties.

## **2003 – 2008 Mitigation Action Items: Successes and Failures**

In developing the plan in 2003, the Skagit Natural Hazards Mitigation Planning Committee formulated seven (7) multiple-hazard mitigation action items to support the four basic mitigation goals of protecting life and property, increasing public awareness, encouraging partnerships, and providing for emergency services.

The 2003 multiple-hazard mitigation action items are summarized below with an explanation of progress that has been made in accomplishing each item during the 2003 – 2008 plan cycle:

**2003 Multiple-Hazard Action Item #1:** Each of the jurisdictions and Indian tribes participating in the **Skagit County Natural Hazards Mitigation Plan** shall establish their own Mitigation Planning Committee to assist the local governing body of that specific entity in the selecting, prioritizing, and evaluating of entity-specific mitigation measures.

Responsibility for selecting, prioritizing, and evaluating specific mitigation measures rests with the individual jurisdictions or Indian tribes. During the 2003 – 2008 plan cycle, this responsibility was typically delegated to planning agencies with approval by the elected governing body.

Within Skagit County, many jurisdictions rely on their public works or engineering agencies as well as partnering dike districts to identify, select, and prioritize flood mitigation measures with approval by the elected governing body. Recently, there has been an increased effort to coordinate flood mitigation measures with neighboring jurisdictions to provide an increased level of inter-agency and inter-jurisdictional coordination and to increase the possibility of receiving federal funding for these measures. The recent formation of the *Skagit County Flood Control Zone District* is a central component to this effort.

Jurisdictions with active flood hazard mitigation and emergency plans have standing mitigation planning committees that meet regularly and maintain the plans on an annual basis. The City of Burlington is an example. Due to a lack of employees, smaller municipalities typically rely exclusively on their monthly Town Council meetings to prioritize and receive updates regarding mitigation measures. In most cases, these small municipalities contract for work to be performed with monitoring by the Town Council.

***This action item will be deleted from this portion of the plan. Responsibility for this function will remain with the individual participating jurisdictions and Indian tribes and is further described within each entity's portion of the plan.***

**2003 Multiple-Hazard Action Item #2:** Where appropriate, incorporate the goals and action items identified in this section of the **Skagit County Natural Hazards Mitigation Plan** into other existing plans and/or regulatory documents and programs.

At this time, efforts are underway to coordinate the **Skagit County Natural Hazards Mitigation Plan** and the Skagit County Comprehensive Flood Hazard Management Plan.

***This action item will be continued during the 2008 – 2013 plan cycle.***

**2003 Multiple-Hazard Action Item #3:** Continue and/or enhance existing education programs aimed at mitigating natural hazards, and reducing the risk to citizens, public agencies, private property owners, businesses, and schools.

Throughout the 2003 – 2008 plan cycle, the **Skagit County Natural Hazards Mitigation Plan** was utilized by numerous jurisdictions as a guide for developing their own mitigation plans. Copies of the plan remain available to the public at locations throughout Skagit County and the plan is also available via the Skagit County web site.

The Skagit Community Emergency Response Team (C.E.R.T.) Program was expanded in 2006 to offer Spanish C.E.R.T. training – the first such program within the State of Washington.

The municipalities of Burlington, La Conner, and Mount Vernon as well as Skagit County continue to maintain their involvement in the NFIP Community Rating System Program.

The Skagit County Department of Emergency Management coordinates with other county departments as well as all of the incorporated municipalities in providing a variety of public awareness materials and disaster education programs available to the public.

***This action item will be continued during the 2008 – 2013 plan cycle.***

**2003 Multiple-Hazard Action Item #4:** Develop partnerships with various jurisdictions and agencies as well as private business and industry to identify and pursue funding opportunities to implement local mitigation activities and to foster coordination and collaboration of natural hazard mitigation goals, strategies, and projects within Skagit County.

Due to differing priorities among the participating jurisdictions, this action item was not fully accomplished during the 2003 – 2008 plan cycle. However, during the past two years, significant progress has been made towards accomplishing this action item with the formation of the *Skagit County Flood Control Zone District* that will link planning agencies, dike districts, and environmental groups together in a cooperative effort to update the Skagit County Comprehensive Flood Hazard Management Plan over the course of the next two years.

***This action item will be continued during the 2008 – 2013 plan cycle.***

**2003 Multiple-Hazard Action Item #5:** Establish procedures for the Skagit Natural Hazards Mitigation Planning Committee for the development of a sustainable process for monitoring and evaluating multi-jurisdictional mitigation activities.

This action item was completed by members of the Skagit Natural Hazards Mitigation Planning Committee in 2005.

***These procedures have been established and incorporated into the plan; they are included on page 11 of this portion of the plan.***

**2003 Multiple-Hazard Action Item #6:** In cooperation with the Washington State Military Department, Emergency Management Division, establish local requirements and/or procedures for non-participating jurisdictions, Indian tribes, and special purpose districts located within Skagit County to adopt the **Skagit County Natural Hazards Mitigation**

**Plan** as their plan and thereby become eligible for future federal hazard mitigation grant funding.

This action item was completed in 2005 with assistance from the Washington State Military Department, Emergency Management Division.

***These requirements have been established and incorporated into the plan; they are included on page 17 of the Plan Methodology portion of the plan.***

**2003 Multiple-Hazard Action Item #7:** Strengthen emergency services preparedness and response by linking emergency services with natural hazard mitigation programs.

Throughout the 2003 – 2008 plan cycle, sincere and consistent efforts have been made by various plan participants to accomplish this action item. Inter-agency and inter-jurisdiction training has been increased in preparation for the 2010 Winter Olympic Games to be held in Vancouver, British Columbia, Canada thereby also strengthening the ability of various local, state, and federal agencies and jurisdictions to work cooperatively to respond and recover from a natural hazard caused event. Local participation with the Northwest Region Fire Defense Board and the Northwest Region Fire Mobilization Plan continues.

In addition, regional disaster planning efforts have been substantially improved due to cooperative efforts to plan for Homeland Security related events with our partner counties within Washington State Homeland Security Region I. Significant progress has been made to incorporate Skagit C.E.R.T. members in local Emergency Medical Services and Fire training, including participants in the Spanish C.E.R.T. Program.

***This action item will be continued during the 2008 – 2013 plan cycle.***

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## **2008 – 2013 Multiple-Hazard Action Items:**

**The mitigation actions listed in this portion of the plan are intended to reduce the effects of the natural hazards identified in this plan on existing buildings and infrastructure as well as new buildings and infrastructure.**

***THE FOLLOWING MITIGATION ACTIONS ARE CURRENT AND ON-GOING AND HAVE BEEN CONTINUED FROM THE 2003-2008 PLAN CYCLE ...***

**2008 Multiple-Hazard Action Item #1:** Where appropriate, each jurisdiction and Indian tribe participating in this plan will strive to continue efforts to incorporate the goals and action items identified in this section of the **Skagit County Natural Hazards Mitigation Plan** into other planning mechanisms such as:

- Jurisdictional/Tribal Codes and Ordinances
- Jurisdictional/Tribal Comprehensive Plans and Critical Areas Ordinance(s)
- Jurisdictional/Tribal Capital Facilities and/or Improvement Plans
- Skagit County Comprehensive Economic Development Strategy

- Growth Management Act
- Coordinated Water System Plan
- Skagit County Comprehensive Emergency Management Plan
- County-wide and Jurisdictional Flood Plan(s)
- Jurisdictional National Flood Insurance Program
- Jurisdictional Community Rating System Programs

LEAD AGENCY: Jurisdiction and/or Indian Tribe Planning Department and/or Public Works Department

FUNDING SOURCE: Jurisdiction/Indian Tribe Budget and/or available grant funding

TIME-LINE: These efforts are currently active and on-going

Unless stated otherwise within an individual entities portion of SECTION IV of this plan, the process by which mitigation action items and/or activities will be incorporated into existing plans, documents and programs should involve the following components:

1. Lead Agency identifies appropriate plans, programs, and directional documents where mitigation action items and/or activities may be incorporated.
2. Public hearings and participation of all involved agencies throughout the incorporation process.
3. Inter-jurisdictional and/or inter-agency cooperation and partnering; in some cases formalized by signed inter-local agreements.
4. Inter-jurisdictional and/or inter-agency studies or work sessions.
5. Final approval by the local elected governing body such as the board of county commissioners, city or town council, tribal senate or tribal council.

**2008 Multiple-Hazard Action Item #2:** Continue and/or enhance existing education programs aimed at mitigating natural hazards, and reducing the risk to citizens, public agencies, properties at risk, businesses, and schools.

- Continue to make the **Skagit County Natural Hazards Mitigation Plan** available to the public by providing a link to the plan on local jurisdictional websites.
- Continue and/or enhance and expand the Skagit Community Emergency Response Team (C.E.R.T.) Program.
- Continue participation in the National Flood Insurance Program Community Rating System Program to inform citizens in participating jurisdictions about the flood risk in Skagit County.
- Continue to make public awareness materials and programs available from various sources available to the public to help inform the citizens of all communities within Skagit County as to the risks associated with various natural hazards.

LEAD AGENCY: Skagit County Department of Emergency Management and local Community Rating System coordinators

FUNDING SOURCE: Jurisdiction Budget; Region 3 Life Safety Council Budget; various grant monies such as Washington State Department of Ecology Flood Control Assistance Account Program (FCAAP) funds

TIME-LINE: All programs are currently active and on-going

**2008 Multiple-Hazard Action Item #3:** Continue to develop partnerships with various jurisdictions and agencies as well as business and industry to identify and pursue funding opportunities to implement local mitigation activities and to foster coordination and collaboration of natural hazard mitigation goals, strategies, and projects within Skagit County. Possible actions include:

- Identify and encourage partnering with various agencies and organizations within Skagit County that have an interest in or have established natural hazard mitigation programs.
- Identify and encourage partnering with various state and federal agencies that have programs that support natural hazard mitigation programs such as the Flood Control Assistance Account Program administered by the Washington State Department of Ecology.

LEAD AGENCY: Local elected officials; jurisdiction/Indian tribe department/agency directors; Skagit County Department of Emergency Management; Skagit Natural Hazards Mitigation Planning Committee

FUNDING SOURCE: Local Jurisdictional/Private Business Funding via Budget Process

TIME-LINE: Short term (less than 3 years from funding)

**2008 Multiple-Hazard Action Item #4:** Continue to strengthen emergency services preparedness and response by linking emergency services with natural hazard mitigation programs. Possible ideas include:

- Promote inter-agency response planning and training among various first response agencies within Skagit County.
- Continue involvement at the county level with the Northwest Region Fire Defense Board and the Northwest Region Fire Mobilization Plan.
- Encourage local fire service, emergency medical, and law enforcement agencies to include Skagit C.E.R.T. members in training opportunities.

LEAD AGENCY: Skagit County Department of Emergency Management

FUNDING SOURCE: Department of Emergency Management Budget

TIME-LINE: Short term (less than 3 years from funding)

***THE FOLLOWING MITIGATION ACTIONS ARE NEW TO THE PLAN FOR THE 2008-2013 PLAN CYCLE ...***

**2008 Multiple-Hazard Action Item #5:** Various members of the Skagit Natural Hazards Mitigation Steering Committee will continue their involvement with the Skagit Flood Control Zone District in an effort to support and assist in the updating of the Skagit County Comprehensive Flood Hazard Management Plan.

LEAD AGENCY: Skagit County Public Works Department

FUNDING SOURCE: Various federal, state, and local funding

TIME-LINE: This action item is currently active and on-going with expected completion in 2010

**2008 Multiple-Hazard Action Item #6:** Begin efforts to develop a comprehensive multi-jurisdictional Tsunami public education program to inform the public of the Tsunami danger in various locations within Skagit County. Elements of this program may include:

- Creation of a tsunami awareness brochure and distribute to property owners located within identified tsunami inundation areas.
- Encourage and coordinate with the Washington State Department of Transportation and local public works agencies to identify and sign tsunami evacuation routes.
- Encourage and coordinate with state and local agencies with developed parks located within identified tsunami inundation areas to post signs to alert visitors of the hazard and provide information as to what actions should be taken to avoid tsunami.

LEAD AGENCY: Skagit County Department of Emergency Management; WSDOT and local public works agencies; Washington State Parks Department, Skagit County Parks Department, City of Anacortes Parks Department

FUNDING SOURCE: Jurisdiction Budget; various state and federal grant funds

TIME-LINE: Short term (less than 3 years from funding)

**2008 Multiple-Hazard Action Item #7:** Develop a drought contingency plan that provides for the following:

- Public education and awareness regarding the effects of drought and utilization of water conservation measures.
- The instituting of water conservation practices (as necessary) that encourage residents to employ water saving measures and prioritize or control water use, especially when needed for firefighting.

LEAD AGENCY: Skagit County Public Utility District #1; City of Anacortes Public Works Department; community water systems on Fidalgo Island and Guemes Island

FUNDING SOURCE: Agency Budget; various state and federal grant funds

TIME-LINE: Short term (less than 3 years from funding)

**2008 Multiple-Hazard Action Item #8:** Purchase a county-wide "REVERSE 9-1-1" or similar system such as "MyStateUSA" to assist in providing emergency warning and evacuation information during emergency and disaster events affecting Skagit County.

LEAD AGENCY: Skagit County Sheriff's Office; Skagit 9-1-1

FUNDING SOURCE: Grant funding; local jurisdictions

TIME-LINE: Short term (less than 3 years from funding)

### **Prioritization of Mitigation Measures:**

Because this plan is multi-jurisdictional, the prioritizing of mitigation measures will be made at the jurisdictional level with direct involvement of the designated lead agency as well as the local elected governing body such as the board of county commissioners, city or town council, tribal senate or tribal council, school board, or special purpose district board of commissioners.

Due to local budget constraints, most of the mitigation measures incorporated into this plan are dependent upon local jurisdictions receiving outside funding; as a general rule, local funding is



not available. As a result, local jurisdictions are unsure as to when these mitigation measures will be implemented and the conditions and/or requirements under which implementation may occur.

Unless stated otherwise within an individual entities portion of SECTION IV of this plan, the individual entities participating in this plan should prioritize their proposed mitigation measures based on the following factors:

- Mitigation measures that have a positive cost/benefit analysis.
- Mitigation measures consistent with the National Flood Insurance Program.
- Mitigation measures that reduce or eliminate repetitive loss properties.
- Mitigation measures that are multi-jurisdictional and or multi-agency in nature.
- Mitigation measures that provide the greatest good for the greatest number.
- Mitigation measures that have broad-based public and/or elected official approval.
- Mitigation measures for which funding has already been secured.
- Mitigation measures that qualify for alternate and/or matching funding.

While it is highly recommended that each of the entities participating in this plan utilize the above-listed factors in prioritizing their mitigation measures, it is recognized that final prioritization of mitigation measures is determined by the entities elected governing body. A change in local elected officials, changing environmental requirements, public acceptance of a project, or the occurrence of an actual disaster event may dramatically affect the priority ranking of mitigation measures at the local level.

If federal funding is involved in the implementation of a hazard mitigation project, the jurisdiction, Indian tribe, or special purpose district will conduct a cost/benefit analysis based on guidelines provided by the United States Department of Homeland Security (FEMA) and the Washington State Military Department, Emergency Management Division on how to determine cost-effectiveness of mitigation projects and how to calculate the benefit-cost ratio. The purpose of the benefit-cost analysis is to determine if the benefits of the project exceed the federal costs of the project. Both the Hazard Mitigation Grant Program and the Pre-Disaster Mitigation Grant Program require a benefit-cost ratio of at least 1.0 for a project to be considered for funding. While it may be important to emphasize a positive cost/benefit analysis in the prioritizing of mitigation measures, it is also important to recognize the influence of local political factors, sovereign authority, community needs, traditional and cultural customs and values, historic properties, and habitat and environmental issues upon the selection of specific mitigation measures.

### **Implementation of Mitigation Measures:**

Mitigation measures that are already in place at the jurisdiction level through existing plans, codes, and ordinances as well as programs such as the National Flood Insurance Program Community Rating System Program or the Skagit Community Emergency Response Team (C.E.R.T.) Program are current and on-going programs funded through existing and established budgets.

The implementation of new and/or additional mitigation measures is dependent upon the approval of the local elected governing body such as the board of county commissioners, city or

town council, tribal senate or tribal council, school board, or special purpose district board of commissioners as well as obtaining funding from outside sources that have not been secured at this time. As a general rule, local funds are not available for implementation of new mitigation measures. Funding for mitigation measures is largely dependent upon individual entities applying for and receiving federal and/or state hazard mitigation grant funding. For each action item listed and described above (as well as the entity-specific mitigation measures contained in SECTION IV) every effort has been made to identify lead agencies, current or possible funding sources, and a time-line for implementation as part of the planning process.

It should be noted that ***short term*** action items and/or mitigation measures are those activities that are expected to be completed in less than 3 years from the receipt of funding by the local entity. ***Long term*** action items and/or mitigation measures are those activities that are expected to require more than 3 years to complete from the receipt of funding by the local entity. Those action items and/or mitigation measures that are current and on-going have been so indicated.

The entities participating in the **Skagit County Natural Hazards Mitigation Plan** have a variety of local, state, and federal resources available to support the implementing and administering of the mitigation actions. The Skagit Natural Hazards Mitigation Planning Committee will continue to identify additional resources to support the implementation of the action items. At this time, possible implementation funding sources include the following:

#### Local Funding Sources

Local implementation resources vary based on each entity's scope of function(s), authorities, and operational capability and capacity. They may include:

- Use and support of existing local personnel (planners, floodplain managers, city engineers, GIS specialists, emergency managers).
- Capital improvement project funding.
- Authority to levy taxes, special bonds.
- Fees for services.

The current economic condition and funding level of the participating local entities drastically limits the use of local resources. State or federal funding will be needed to accomplish many of the action items and mitigation measures referenced in this plan.

#### State Funding Sources

- State administered Hazard Mitigation Grant Program, Flood Mitigation Act and Pre-Disaster Mitigation Program.
- Department of Ecology Flood Control Assistance Account Program (FCAAP).
- Department of Transportation Emergency Relief Program.
- Department of Community, Trade, and Economic Development Grants such as the Community Development Block Grant Program.
- Programs administered by the Washington State Transportation Improvement Board.
- Programs administered by the Washington State County Road Administration Board.

## Federal Funding Sources

- Stafford Act, Section 406 – Public Assistance Program Mitigation Grants.
- Stafford Act, Section 404 – Hazard Mitigation Grant Program.
- Disaster Mitigation Act of 2000– Pre-Disaster Mitigation Program Competitive Grants.
- United States Fire Administration – Assistance to Firefighters Grants.
- United States Small Business Administration Pre and Post Disaster Mitigation Loans.
- United States Department of Economic Development Administration grants.
- United States Department of Housing and Urban Development Grants such as the Community Development Block Grant Program.
- United States Army Corps of Engineers.
- United States Department of the Interior, Bureau of Land Management.
- Federal Highway Administration.
- Other sources as yet to be identified.

An extensive listing of federal funding opportunities is identified in the document *"Federal Mitigation Programs, Activities, & Initiatives"* and is available at the following web site:

<http://www.fema.gov/doc/fima/fmpai.doc>

## **Monitoring and Evaluating Multi-Jurisdictional Mitigation Activities:**

**Purpose:** This procedure is established to ensure a sustainable process for monitoring and evaluating multi-jurisdictional mitigation activities.

1. The Chairperson shall ensure that written reports are prepared and submitted as required and shall coordinate with the Department of Emergency Management to call the annual meeting.
2. A mailing with a survey/questionnaire shall be sent to all participating jurisdictions and special purpose districts no later than August 15th of each calendar year requesting the following information be submitted to the Chairperson:
  - Update on hazard mitigation activities implemented during the past year.
  - Comments on the success of the activities, or recommendations for follow-up.
  - Statement of any new goals, objectives and mitigation activities.
  - Statement of any activities being modified for the following year.
3. Community Rating System jurisdictions shall address the elements in #2 above in their respective Floodplain Management Plan Annual Progress Report and a copy of that report shall be submitted to the Chairperson no later than September 15th of each year.
4. Notice of the annual meeting will be published twice in the newspaper and sent to the open meeting mailing list.
5. The annual meeting will be scheduled on the Wednesday following September 15<sup>th</sup> of each year.
6. One representative of each jurisdiction and/or special purpose district shall be asked to attend the annual meeting.
7. Skagit County Department of Emergency Management staff will prepare the required annual report and submit to the Washington State Mitigation Officer.
8. The Skagit County Natural Hazards Mitigation Plan will be updated on a five year cycle. As part of the plan update process, participating jurisdictions will be encouraged to integrate hazard mitigation planning into their Comprehensive Plans and Capital Facilities Plans and provide clear links to the Skagit County Natural Hazard Mitigation Plan.