

# STAKEHOLDER/CITIZEN SUGGESTED MITIGATION STRATEGIES AND PROJECTS

*The following list is a compilation of comments and suggestions made by various stakeholders and the public regarding possible mitigation strategies and projects.*

*These mitigation strategies and/or projects have been suggested by various stakeholders and citizens as part of the plan development process. Some of these strategies and/or projects are currently funded, on-going programs within many of the participating communities. However, funding for some of these strategies and/or projects is currently very limited; for many of these strategies and/or projects, local funding is simply not available at this time. Funding for the majority of these mitigation strategies and/or projects is heavily dependent upon local entities receiving future federal and/or state hazard mitigation grant funding.*

## **ALL NATURAL HAZARDS:**

- Preserve open space
- Consider improving/upgrading current Codes, regulations and ordinances
- Encourage the implementation of a variety of public education programs to better inform the public about natural hazards and include the following:
  - 1) Individual and family preparedness plans
  - 2) Preparation of 72-hour survival kits
  - 3) Promote block watch and CERT members in communities
  - 4) Provide NOAA Weather Radios to high risk areas
  - 5) Better public information over cable, scanners, TV
- Improve communications between first responders
- Update fire sirens to include different tones for different hazards
- Improve current technology
- Early Warning Systems
- Spanish Emergency Alert messages
- Provide generators for all critical facilities

## **AVALANCHE:**

- Avalanche is not a concern in Skagit County's populated areas.

## **DROUGHT:**

- Much of the drought mitigation goals coincide with fire mitigation goals.
- Conservation and assistance for private water districts in replenishing tanks were discussed. It is very expensive to replenish the private water districts tanks after they have been drained for fire. Perhaps a payback system could be established?

## **EARTHQUAKE:**

Skagit County is located in seismic zone D as determined by the International Building Code. Damage and loss due to earthquake was experienced as recently as the 2001 Nisqually earthquake.

- Build to current seismic code (and/or improve current seismic code)
- Educate the public by providing maps and liquefaction information.
- Secure hot water tanks and other non-structural mitigation
- Upgrade structures and infrastructure
- Utility company retrofits (water, communications, gas, etc.)

## **FIRE:**

- Open space preservation
- Fire Wise Program
- Urban-Interface and Wildland fire breaks
- Fireworks enforcement
- Update building codes in high risk areas
- Encourage the implementation of a variety of public education programs to better inform the public about fire safety

## **FLOOD:**

A significant portion of Skagit County is located within the 100 year floodplain. In addition, portions of the County are located within a designated floodway or are located in a coastal high-hazard V zone. Substantial losses due to flooding have occurred most recently as a result of the 1990 and 1995 flood events.

- Improve codes and ordinances
- Make code and ordinances more available to the public
- Educate the public about codes and ordinances
- Open space preservation
- Acquisition of flood prone properties
- Restrict building in flood prone areas
- Reconstruct the ring dike that previously protected the Town of La Conner from flooding
- Improve flood evacuation plans
- Elevate structures
- Flood proof structures
- Educate the public about flood risk and flood insurance
- Improve evacuation shelters and Red Cross relations
- Maintaining and expanding current programs (CRS activities, etc.)
- Flood structure projects (i.e.: levees in the 3 bridge corridor and downriver, flood control dams, maintenance and improvements of dikes, bypass, etc.)
- Dredging (nearly impossible and expensive)
- Improve problem at the Rockport Bridge
- Dredging of sub-flood control zones (i.e.: Hansen Creek area, etc.)
- Samish River Basin needs attention
- End County-wide/local regulations requiring no net loss of 100-year floodplain storage
- Increase storage capacity at various hydro-electric dams in the Upper Skagit Valley
- Promote projects that reduce constriction to flood waters-especially transportation system barriers- and prohibit projects which add to restriction
- Install rain gauges and snow pillow stations within the watershed of the Skagit River and its tributaries to better predict peak flow volumes during flood events
- Provide 100-year flood protection for all water treatment facilities within the floodplain

- Provide 100-year flood protection for all of the wastewater facilities within the floodplain
- Increase the peak flow capacity of the Skagit River downstream of the Sterling Bend via the construction of one or more flood by-pass channel(s) and/or setting all existing levees back further from the river
- Develop and implement a variety of flood control projects designed to provide for 50-year to 80-year flood protection for all areas within the 100-year flood plan downstream of the Sedro Woolley Wastewater Treatment Plant
- Develop and implement a variety of flood control projects designed to reduce peak flow rates of the Skagit River during flood events
- Debris Removal
- Improve transportation infrastructure where necessary to better survive flood events

**LAND MOVEMENT:**

Portions of Skagit County are prone to landslide due to steep slopes, soil erosion, fractured rock faces, etc. Landslides occur with some frequency during winter storm events.

- Reduce or eliminate development in slide prone areas
- Move roads and/or improve roadside drainage
- Surface water management
- Educate the public
- Critical Areas Ordinance enforcement
- Land acquisition in slide prone areas
- Notification of Road Closures need to improve
- Increase building set-back requirements from known unstable slopes and alluvial fans

**SEVERE STORMS:**

Skagit County is located in a borderline high wind area. The design wind speed for Skagit County is 80 mph. Some portions of Skagit County are located in exposure B (International Building Code) areas where some protection from winds is provided by forests and hills. Other portions of the County are in exposure C areas with little or no protection from high wind.

- Educate the public with Damage Reduction Programs (tree trimming)
- Open space preservation
- Retrofit
- Manufactured Home Tie-Downs

**TSUNAMI:**

- Early Warning
- Education
- Evacuation Routes
- CREW Study

**VOLCANIC EVENT:**

- Relocate
- Early warning
- Public Education