

# AVALANCHE

## **DEFINITIONS:**

**Avalanche** – a mass of sliding snow, ice, earth, and rock that grows and collects additional material as it descends.

## **HISTORY:**

To our knowledge, there is no record of an avalanche impacting homes, businesses, or communities within Skagit County. However, avalanches do occur in various unpopulated backcountry and wilderness areas within Skagit County. Typically, these avalanches have little or no impact except to those persons who may be backpacking or climbing in these areas or traveling through the eastern portion of the county via State Route 20.



## **HAZARD IDENTIFICATION:**

The Cascade Range is the largest mountainous area within Washington State. The west slopes of the Cascades receive extensive snow due to their elevation and perpendicular orientation to the prevailing Pacific marine airflow.

Skagit County's avalanche season usually begins in November and continues until the last remnants of snow have melted, normally in the early summer. In the highest alpine areas of the Cascades, the avalanche season continues throughout the entire year.

**The following list is a compilation of comments and suggestions made by various stakeholders and the public regarding possible problems that could result from an avalanche.**

In addition to damaging the environment, an avalanche in Skagit County could potentially result in the following:

- Snowmobiler's and backcountry travelers may be stranded, injured, or killed if caught in an avalanche.
- A very large avalanche on the slopes of Mount Baker could reach Baker Lake and cause severe wave-action in the lake. It is unknown if this could result in damage to the Upper Baker Dam owned by Puget Sound Energy.

## **VULNERABILITY ASSESSMENT:**

Avalanches have and do occur in the mountainous backcountry areas of eastern Skagit County. While very few (if any) persons live in these areas, there may be people in these areas who are engaging in extreme skiing, snowmobiling, cross-country skiing, snowshoeing, mountaineering, or similar outdoor activities.

State Route 20 is the main transportation route between western Washington and eastern Washington. It travels through Skagit County and crosses the Cascade Range at Rainy Pass located at the eastern border of Skagit County. Snow pack and/or avalanches typically close State Route 20 east of the Seattle City Light community of Diablo during the winter.



While the winter closure of State Route 20 has little impact on the majority of the citizens of Skagit County, the occurrence of a large avalanche while State Route 20 is open to the traveling public could have a serious impact on those persons traveling and recreating in the immediate area and could isolate remote areas of eastern Skagit County.

A large avalanche that would cause a long-term closure of State Route 20 would most likely impact the businesses in eastern Skagit County. The timber industry, recreational resorts, and various recreational groups depend upon access to wilderness areas that may be restricted or closed as the result of a large avalanche.

The increasing development of recreational sites in the mountains brings added exposure to the people using these sites and associated structures.

## **PROBABILITY and RISK:**

Because an avalanche would most likely affect only those persons recreating in the backcountry and high alpine areas or traveling through the area on State Route 20, there is a **very low probability** and a **very low risk** associated with avalanche hazard in Skagit County.

## **CONCLUSION:**

Those persons actively involved in recreation activities in the remote alpine backcountry areas of Skagit County need to be aware of the dangers posed by avalanches and take the necessary precautions when avalanche conditions are present.

The Mountaineers, a backcountry recreational group based in Seattle conducts avalanche awareness classes for their members and others who frequent backcountry wilderness areas

during the winter months. Those people engaging in such activities that may place them at risk from an avalanche should educate themselves as to the danger of avalanche and have the proper equipment with them while they are skiing, snowmobiling, cross-country skiing, snowshoeing, mountaineering, or similar outdoor activities in the backcountry.

The United States Forest Service, National Park Service, National Weather Service, and Washington State Department of Transportation have programs to monitor avalanche zones and forecast avalanche hazards. However, there is no effective way to keep the public out of avalanche-prone areas, even during times of highest risk.