



Stevenson's Geo-Hazards

A City of Stevenson Critical Areas Code Fact Sheet

The City of Stevenson Critical Areas Code regulates land use and development affecting wetlands; fish and wildlife habitat conservation areas; aquifer recharge areas; and frequently flooded and geologically hazardous areas.

This Geology fact sheet is one in a series, which describes the above-listed types of environmentally

critical areas protected by the City under SMC 18.13-Critical Areas and Natural Resource Lands. This has been provided to you as general information and is not intended as a substitute for the actual codes or regulations. For more information, stop by City Hall or call us at (509)427-5970.

What is a geologically hazardous area?

Geologically hazardous areas include areas susceptible to landslides, erosion, earthquakes, and volcanic or other geologic events. Their designations are dependent upon slope, soil type, geologic material, and hydrologic conditions. The city of Stevenson is located on historic landslide debris, making development on many sites - hazardous and/or difficult. The most hazardous sites are typically found along ravines, stream valleys, and steep slopes.

In many cases, these areas may be extremely desirable for development because they are currently undeveloped, have scenic views or have water access, but their development may endanger people, property, and surface water resources.

Does my property contain a geo-hazard?

To assist you in determining if your property contains a geo-hazard, you may contact Stevenson Planning

Department to obtain maps of likely geologically hazardous areas.

Since not all geo-hazards have been identified on the City's resource maps, these maps should be used as a general guide for property owners.

Your property may still contain a geo-hazard that requires protection under the Stevenson Critical Areas Code. In this case, a qualified geologist may need to visit your property to make the appropriate analyses and/or development recommendations.

Classification and Designation

In Stevenson, five types of geologically hazardous areas are considered:

- landslide
- erosion
- seismic
- mine hazards
- volcanic

The City is currently unaware of any areas associated with mine or volcanic hazards. However, our unique setting has led to the documentation of areas potentially prone to landslide, erosion, and seismic hazards.

Landslide Hazard Areas:

Landslide Hazard areas are potentially subject to landslide based on any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors. The City of Stevenson classifies landslide hazard areas as High, Moderate, or Unknown hazard. Landslides within any of these areas may be activated as a result of natural processes, site grading or concentration of surface water flows, or disturbance by development activities.

High Hazard areas include areas known or suspected to have Active or Historically Active Landslides and Discrete Inactive Landslide Masses (landforms smaller than 1 acre that indicate prehistoric landslide movements, though confirmed indications of ongoing ground movement may be lacking).

Moderate Hazard areas include Inactive Landslide Complexes (areas larger than 1 acre that indicate multiple zones or blocks of prehistoric landslide movements, though confirmed indications of ongoing ground movement may be lacking), Debris Flow Areas (areas of geologically youthful debris flows and areas prone to initiation, transport, and deposition of debris flows), and Potentially Unstable Steep Slopes (areas with slopes equal to or greater than 25% prone to landslide failure or rock fall).

Unknown Hazard areas include all areas not designated on the City's maps.

Development occurring on sites containing mapped hazards will be required to submit a Geotechnical Assessment to confirm or determine the hazard level. Developments proposed within High or Moderate hazard areas will then require the submittal and acceptance of a Geotechnical Stabilization Report.

Erosion Hazard Areas:

Erosion Hazard areas are identified by the presence of soils recognized as having a "severe" erosion hazard by the Soil Survey for Skamania County Area, Washington, US Department of Agriculture, Soil Conservation Service, 1990. These areas typically occur on very steep slopes and along Stevenson's streams.

Development in these areas may be allowed subject to the submittal and acceptance of erosion and drainage plans. Erosion control management practices will also be required during and after ground disturbing activities.

Seismic Hazard Areas:

Seismic Hazard areas are any areas subject to underlying deposits indicative of a risk of liquefaction, slope failure, or surface faulting during seismic events. The City defines seismic hazard areas as any area indicated by a Zone D1 or higher rating by the Seismic Risk Map of the United States, adopted by the Washington State Legislature and defined in the International Building Code (IBC).

General Development Standards for Geological Hazard Areas

Development on sites containing geological hazards will be required to clearly mark the edge of such areas in the field throughout the duration of any construction activities. Additionally, development on such sites will be required to record a conservation covenant giving notice of the hazard and indicating the development requirements and/or restrictions affecting the property.

Other Restrictions and Provisions

Examples of activities that are subject to the standards contained in the CAO and other applicable federal, state, and local ordinances include:

- Building/clearing activities;
- Cut and fill slopes for road construction;
- Forest Practices, Class IV General, and Conversion Option Harvest Plans (COHPs); and
- View Corridors.

For specific information you may contact City of Stevenson staff at City Hall or by calling (509)427-5970. Copies of the Critical Areas Code can be made available upon request.

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