This susceptibility map was prepared by combining three factors: 1) landslide inventory data taken from the field and aerial photo interpretation; 2) geologic factors (susceptible geologic units and contacts, slope angles, and preferred direction of failure); and 3) DEM-based factors (downslope distance to head scarps, head scarp height, and minimum head scarp setback distance). A susceptibility zone is a combination of several factors (see Hazard Zone Matrix, below).

Geologic factors

Medium Weathered Basalt (CRBG - Wanapum-Priest Rapids Member)
Generally Eocene to Middle Miocene volcanic rocks
Generally Eocene to Middle Miocene volcanic rocks

Landslide inventory data

5) Some landslides in the inventory may have been mitigated, thereby reducing their level of susceptibility.

DEM-based factors

1) Every effort has been made to ensure the accuracy of the GIS and tabular database, but it is not feasible to completely verify all of the original input data. Inherent uncertainty, the resultant hazard zones also have uncertainty.

2) The lidar-based digital elevation model does not distinguish elevation changes that may be due to the presence of vegetation, buildings, and other infrastructure.

3) Typically, for each landslide inventory entry, a set of horizontal and vertical dimensions was estimated. These estimates were based on interpretations of aerial photography, field observations, and an understanding of the geology.

4) The horizontal distance between internal scarps was estimated by planimetric measurement except for cases where the scarps were too closely spaced to distinguish separately.

The susceptibility map shows relative degrees of hazard with low, moderate, and high levels. Each susceptibility zone is a combination of several factors. For additional geologic factors (susceptible geologic units and contacts, slope angles, and preferred direction of failure), see the Generalized Bedrock Engineering Geology Map.

The study area is one of the most densely populated areas in Oregon. This product is for informational purposes and may not have been reviewed or edited. User discretion is always the case. References and methods and data used to prepare this publication are available in the report. See the notes at the bottom of the map. See the references at the bottom of the map as well as the text and cross-sections for more detail.