

Part Two – Critical Areas

Landslide Hazard Areas

Landslide hazards include a variety of geologic features that together present hazards to development both above and below the landslide. Such hazards include slope failures, large-scale block failures, debris flows, rock falls, rapid undercutting by stream erosion or wave action, and snow avalanches. Some landslides are readily apparent, whereas others are revealed only through careful examinations by professional investigators.

The general intent of the King County Zoning Code is to encourage avoidance of landslide hazards. If avoidance is not desirable or practical, then the regulations call for scientific and engineering studies that both characterize the nature of the specific hazard and recommend ways to eliminate the hazard to the proposed development. In some cases, landslide mitigation is both straightforward and simple. In other cases, effective mitigation may be impossible or prohibitively expensive.

Development standards

General provisions

Landslide hazard areas may be separated into two varieties for the purposes of considering the applicable development restrictions:

- Landslide hazard areas that are also steep slopes (> 40% grade); and
- Landslide hazard areas that are on slopes of less than 40% grade.

Landslide hazard areas and steep slopes may be totally overlapping and even intimately related, but they are still considered separately (as are all critical areas) for the purposes of regulation. In cases, for example, where a landslide hazard area is also adjacent to a stream or wetland, the stream and wetland restrictions must also be met. So for this reason, you need to first determine if the landslide hazard area is also a steep slope. If so, please refer to that section for additional development restrictions not stated here.

Allowed alterations

In general, all alterations are allowed on landslide hazard areas provided that the landslide hazard itself is mitigated through proper engineering of the development so that the risk of property damage and injury is minimized or eliminated. A geologic characterization and evaluation of the landslide hazard is typically required (sometimes including deep boreholes and subsurface modeling by a geologist with

experience in landslide investigations) that includes proposals for landslide mitigation sufficient to protect the property and the people from the hazard. Review of the development plans by the geotechnical engineer is required. No alteration is permitted that would increase the landslide hazard to adjacent properties.

Slopes more than 40% grade

For landslide hazard areas that are also steep slopes, both the landslide requirements above and the additional steep slope requirements must be met. Please refer to the steep slope discussion for information on steep slope restrictions and see Section 131 for an expanded listing of allowed alterations on steep landslide hazards, which in this case is nearly identical to that for steep slopes.

Slopes less than 40% grade

For landslide hazard areas that are not on steep slopes, only the requirement for appropriate mitigation must be met. However, on all landslide hazard areas, vegetation removal is prohibited unless it is a necessary part of an allowed alteration. In some cases, removal of the vegetation would not affect the landslide hazard so clearing and grading may be allowed without any mitigation, however all alterations are subject to critical areas review and your project may require a critical areas study to evaluate the impacts of the hazard and the proposed development.

Buffers and setbacks

Unmitigated landslide hazards are protected (i.e. isolated from the public) with buffers and building setbacks. The typical buffer is 50 feet, with an additional 15-foot building setback, but the buffer may be reduced or enlarged depending upon the specific site conditions and the nature of the hazard.