# Landslide Hazard Areas

GEOLOGICALLY HAZARDOUS AREAS



17425 Ballinger Way NE Lake Forest Park, WA 98155 206-368-5440

### WHAT IS A LANDSLIDE HAZARD AREA?

Landslide hazard areas occur where the land has certain characteristics that contribute to the risk of the downhill movement of material including soil, rock or snow. Landslide hazard areas are slopes that are greater than 15 percent, that have one or more of the following:

- Impermeable soils, such as silt or clay, which are interbedded with granular soils such as sand and gravel
- Impermeable soils and the presence of water from springs or groundwater seepage
- Landslide activity or movement sometime during the last 10,000 years (since the last glaciation) when the current topography of the Puget Sound region was formed
- Stream or wave activity that has caused erosion, undercut a bank, or cut into a bank to cause the surrounding land to be unstable
- The presence of or potential for snow avalanches
- The presence of an alluvial fan, which indicates the vulnerability to the flow of debris or sediments

A landslide hazard area on a slope of 40% or more with a vertical height greater than 10 feet is also regulated as a steep slope hazard area.

# LANDSLIDE HAZARD AREA BUFFERS

Most critical areas have a "buffer" of land that protects them from human activities. No clearing or grading is allowed within this buffer or within the critical area itself.

- Buffers are measured horizontally and are more accurately measured on a map rather than "walked-off" on the ground unless it is perfectly level.
- A minimum buffer of 50 feet is required for all landslide hazard areas. Buffer widths may be extended or adjusted as required to mitigate a steep slope or erosion hazard or to promote the health and safety of the public.
- The landslide hazard area buffer may be reduced to a minimum of 25 feet when a qualified professional demonstrates to the Planning Director's satisfaction that the reduction will protect the proposed development, adjacent developments, and uses and the landslide hazard area.

#### **CONSERVATION EASEMENTS**

Development proposals – including subdivisions, short subdivisions, boundary line adjustments, variance requests, conditional use permits, and reasonable use requests – that contain landslide hazard areas, will be required to set aside the critical area in a separate preservation tract called a conservation easement. This tract shall be recorded on all documents of title or record for all affected lots.

#### **VEGETATION REMOVAL OR INTRODUCTION**

In a landslide hazard area, vegetation acts as an anchor for the soil. The roots of the vegetation secure the soil, reducing erosion and the possibility of a landslide thereby protecting property, the environment and the health and safety of the public. Consequently, vegetation must remain in place in landslide hazard areas unless it is a part of an approved alteration.

Limited vegetation removal may be allowed after approval by Lake Forest Park for:

- Surveying
- The removal of hazard trees that have been determined to be unsafe

Native species or other appropriate vegetation may be allowed to be planted on slopes which have been disturbed by human activity or infested by noxious species if the Lake Forest Park Planning Department approves an enhancement plan. The use of pesticides, herbicides or other hazardous materials may only be used when a permit is granted.

### PERMITTED ALTERATIONS

All permitted alterations are subject to conditions and requirements administered through a <u>Critical Area Work Permit</u>. Landslide hazard areas located on a slope of 40% or greater may only be altered according to the established standards and limitations for Steep Slope Hazard Areas found in <u>Lake Forest Park Municipal Code 16.16.310</u>.

A development activity in a landslide hazard area with a slope of less than 40 percent may be permitted when the following conditions are met:

- The development will not decrease slope stability on contiguous property
- A licensed geologist or geotechnical engineer certifies to the Planning Director's satisfaction that the landslide hazard area can be safely modified or the development proposal designed so the landslide hazard risk to the property or adjacent property is eliminated or mitigated
- The alteration will not adversely impact other sensitive areas, such as streams
- The alteration will not result in an increase in peak surface water flows or sedimentation to adjacent properties
- Mitigation based on the best available engineering and geological practices is used to eliminate or minimize the risk from a landslide

## **Questions?**

For more information, please contact the Planning
Department
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206-957-2837

# **Access to Information**

Electronic versions of all forms, permits, applications, and codes

are available on the Lake Forest Park website:

http://www.cityoflfp.com/

Paper copies of all of the above are available at City Hall: 17425 Ballinger Way Northeast, Lake forest Park, WA 98155 206-368-5440

**DISCLAIMER:** The information contained herein is meant to provide general information about Landslide Hazard Areas. This summary is not a substitute for the actual codes or regulations, and does not include information pertaining to other land use and building permit requirements and procedures. Environmentally Critical Area requirements can and do sometimes change after action by the City Council. Interested parties should always verify current requirements with the City Planning Department.