

### **18.32.620 Landslide Hazard Areas - Administratively Authorized Uses and Activities**

The Department may, after evaluation, authorize the following uses and activities within a landslide hazard area or its buffer:

- A. Beach or Shoreline Access.
- B. Existing Structure - Remodel and Replacement.
- C. Forest Practices, pursuant to the provisions of OMC 16.60 and RCW 76.09.050, as amended.
- D. Nondevelopment educational activities and scientific research.
- E. Noxious Weed Control.
- F. Restoration/Revegetation of Site.
- G. Site Investigation.
- H. Slope Stabilization. The Department may allow the elimination of a landslide hazard area less than twenty (20) feet in height subject to the provision of the IBC.
- I. Stormwater Facilities. The Department may allow stormwater facilities only in the outer half of the buffer at the toe of the slope, and only if the applicant demonstrates:
  - 1. No practicable alternative exists;
  - 2. The facility does not exceed twenty-five (25) percent of the buffer on site; and
  - 3. The stability of the landslide hazard area will not be adversely impacted.
- J. Trail construction or maintenance of a trail located immediately adjacent to a stream, greater than four (4) feet wide, with a paved surface, and/or involving more than fifty (50) cubic yards of cut or fill, but only when the Department determines that there are no practicable or reasonable alternatives.
  - 1. Public and private trails and trail-related facilities such as picnic tables, benches, interpretive centers and signs, viewing platforms and campsites shall be allowed, but use of impervious surfaces shall be minimized.

2. Trail planning, construction, and maintenance shall adhere to the following additional criteria:
  - a. Trails and related facilities shall, to the extent feasible, be placed on previously disturbed areas such as: existing or abandoned levees, or road, railroad, or utility corridors; and
  - b. Trails and trail related facilities shall be planned to minimize removal of trees, shrubs, snags and important wildlife habitat.

K. Utility Line. Utility lines may be allowed within landslide hazard areas when it can be determined that:

1. There are no practicable alternatives for the utility corridor,
2. The corridor alignment follows a path of least impact to the landslide hazard areas critical areas including maintaining and protecting and retaining the slope stability of streams in ravines and landslide hazard areas;
3. The corridor avoids cutting trees greater than six (6) inches in diameter at breast height when possible; and
4. Any access to the corridor for maintenance is provided as much as possible at specific points rather than by parallel roads.

(Ord. 6426 §48, 2006; Ord. 6356 §5, 2005).

**18.32.625 Landslide Hazard Areas - Hearing Examiner Authorized Uses and Activities**

The Hearing Examiner may, after review, authorize the following uses and activities within a landslide hazard area or its buffer:

- A. Road/Street - Expansion of Existing Corridor and New Facilities.
    1. Crossings of landslide hazard areas or other critical areas shall be avoided to the extent possible.
    2. Crossings shall serve multiple properties/purposes, whenever possible.
  - B. Utility Facility.
- Refer to the performance standards for Utility Line in OMC 18.32.625(K).
- C. Elimination of a Landslide Hazard Area.

When the landslide hazard area has a vertical dimension greater than twenty (20) feet in height and the landslide hazard could be eliminated through site grading.

D. Other uses and activities.

Other uses and activities may be allowed within a landslide hazard area on a case-by-case basis when it can be demonstrated that:

1. A Geotechnical Report described in OMC 18.32.640 has been provided, and
2. The applicant has demonstrated to the Examiner's satisfaction that legally enforceable commitments, such as bonds, letters of credit, and/or covenants, guarantee the use of development practices that will render the development as safe as if it were not located in a landslide hazard area.

(Ord. 6426 §49, 2006; Ord. 6356 §5, 2005).

**18.32.630 Landslide Hazard Areas - Buffers**

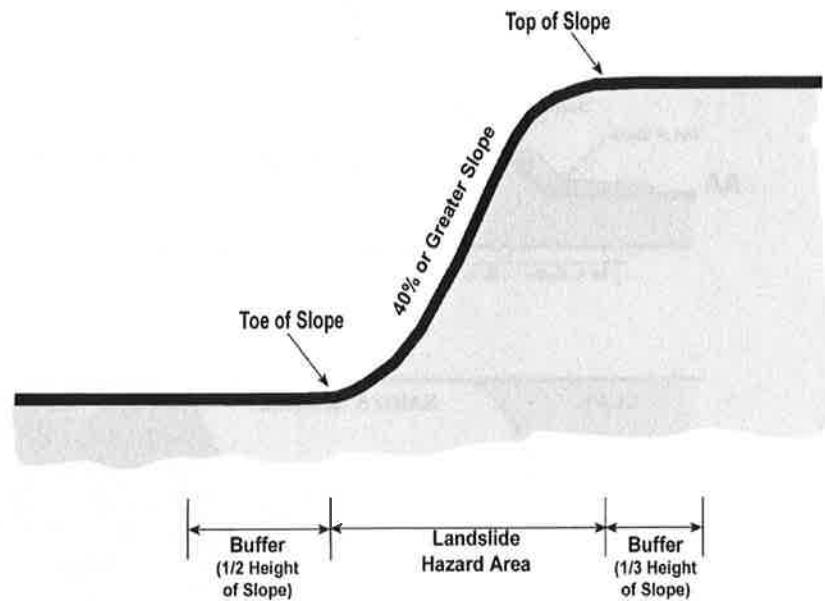
A. In order to minimize damage to personal health and property due to landslides, a buffer of undisturbed vegetation as provided in this Section shall be maintained between all regulated activities and landslide hazard areas. Development must maximize the retention of existing vegetation and retains all vegetation outside of the developed building area. Vegetation, in the form of ground cover, shrubs or trees, assists in stabilizing the ground surface. Damage to existing vegetation through removal or disturbance can have significant impacts on slope stability. Any removal of vegetation, therefore, must be minimized in steep slope areas. Where removal of vegetation cannot be avoided in order to accommodate a permitted development or to stabilize a slope, an acceptable plan to fully revegetate and restabilize affected areas must be provided.

B. The required buffer width is the greater amount of the following distances measured from the edges of the landslide hazard area (except for Subsection B.4 below):

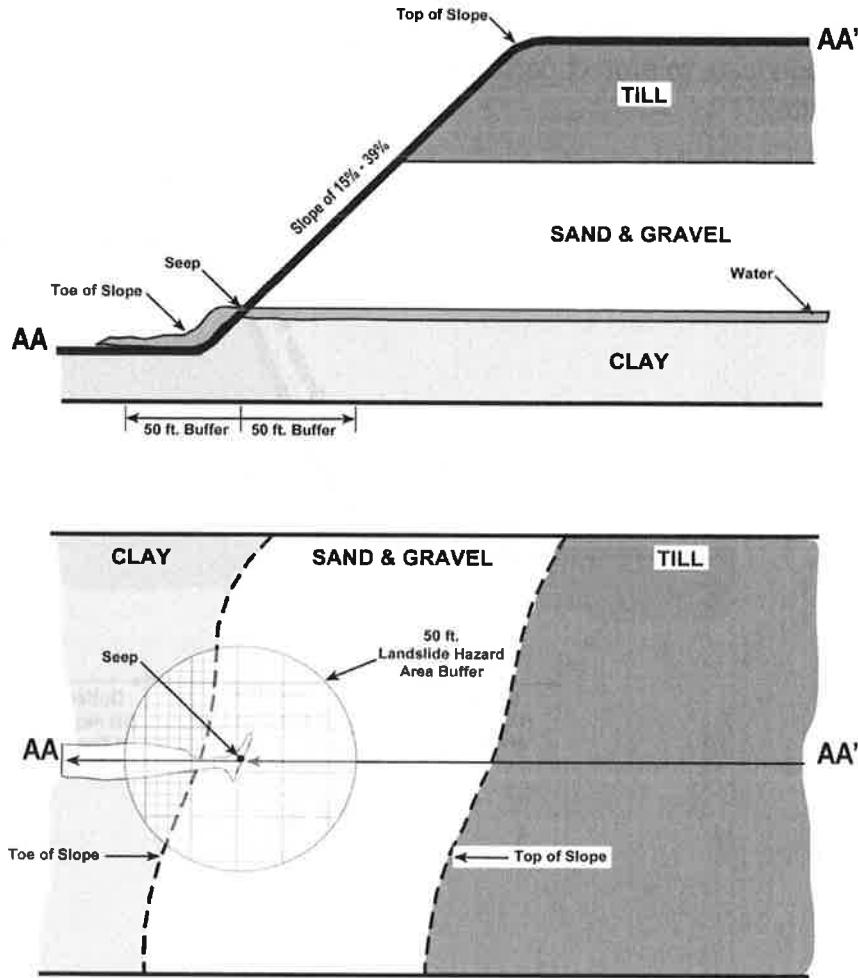
1. From all sides of the landslide hazard area limits: the distance recommended by the engineering geologist or geotechnical engineer;
2. At the top of the landslide hazard area: a distance of one-third (1/3) the height of the slope;
3. At the bottom of the landslide hazard area a distance of one-half (1/2) the height of the slope;

4. Fifty (50) feet in all directions from a seep; or
  5. The minimum distance recommended by the engineering geologist or geotechnical engineer (Refer to Figures 6 and 7).
- C. All landslide hazard area buffers shall be measured from the landslide hazard area as located in the field.
- D. The landslide hazard area, its buffer, and any critical area tract shall be identified on all grading, landscaping, site, utility or other development plans submitted on the project.
- E. The Department may reduce the required landslide hazard areas buffer widths except buffers recommended pursuant to OMC 18.32.630 B 5, up to fifty (50) percent on a case-by-case basis when supported by a Geotechnical Report including the following:
1. Buffer width reduction is supported by a Geotechnical Report described in OMC 18.32.640 that evaluates the criteria in OMC 18.32.630(E);
  2. The existing buffer area is well-vegetated;
  3. The protection of the landslide hazard area buffer using a fence and sign have been evaluated, as described in OMC 18.32.145;
  4. Topographic conditions of the site and the buffer have been evaluated;
  5. The intensity and type of the land uses adjacent to the buffer have been evaluated with respect to minimizing potential adverse impacts upon the landslide hazard area; [e.g. publicly owned parks, designated open space areas in plats and binding site plans, or lands with a recorded conservation easement];
  6. The site has been evaluated with respect to its site design and building layout to minimize potential risks with landslide hazard areas; and
  7. A smaller buffer will be adequate to protect property from the landslide hazard based on the best available science.
- F. The Hearing Examiner may allow reductions greater than those described in OMC 18.32.630(E) to the required landslide hazard area buffer width on a case-by-case basis when it can be demonstrated that:
1. The provisions of OMC 18.32.630(E) have been evaluated by a Geotechnical Report described in OMC 18.32.640, and

2. Based upon the Geotechnical Report and the best available science it is demonstrated that the proposed landslide hazard area buffer width will be adequate to protect personal health and property from a landslide from this site.



**FIGURE 6**



**FIGURE 7**

(Ord. 6426 §50, 2006; 6356 §5, 2005).

**18.32.635 Landslide Hazard Areas - Special Reports**

A. Every application for development within a landslide hazard area or its buffer shall provide the following special reports:

1. Drainage and erosion control plan;
2. Grading plan;
3. Geotechnical Report, and
4. Landscape Plan.

B. The Department may waive the submittal of any or all of these special reports when:

1. The proposal increases the impervious surfaces within the subject parcel or parcels by less than ten (10) percent,
2. The removal of vegetation is minimal and is not likely to cause erosion or slope instability,
3. Less than fifty (50) cubic yards of material is excavated upslope from the steep slope,
4. The surface water flow is directed away from the face of the steep slope, or
5. The proposed project or activity will not substantially affect the natural integrity of the steep slope.

(Ord. 6356 §5, 2005).

**18.32.640 Landslide Hazard Areas - Geotechnical Report**

- A. The Geotechnical Report shall be prepared by either an engineering geologist or a geotechnical engineer as defined by RCW 18.220, as amended.
- B. The Geotechnical Report shall indicate if:
  1. A potential landslide hazard is either present or highly likely; or
  2. A potential landslide hazard is present or that it is highly unlikely; or
  3. Available information to evaluate a potential landslide hazard is inadequate.
- C. Any area in which the Geotechnical Report investigation indicates a potential landslide hazard shall not be subject to development unless the report demonstrates one of the following:
  1. The site specific subsurface conditions indicate that the proposed development is not located in a landslide hazard area or its buffer; or
  2. The proposed development has been designed so that the risk on the site and to adjacent property have been eliminated or mitigated to such a degree that the site is determined to be safe;
  3. Development practices are proposed that would render the development as safe as if it were not located in a landslide hazard area, or
  4. The proposed development activity is so minor as not to pose a threat to the public health, safety, and welfare.

D. The Geotechnical Report shall be submitted for review by the Department and shall include:

1. A detailed review of the field investigations, published data and references, data and conclusions from past geological assessments, or geotechnical investigations of the site, site-specific measurements, tests, investigations, or studies,
2. A determination of potential landslide hazard area conditions on the site, and its immediate vicinity, which may affect development on the site,
3. Consideration of the run-out hazard to the proposed development posed by debris from a landslide starting upslope (whether part of the subject property or on a neighboring property) and/or the impacts of landslide run-out on down slope properties, and
4. Results, conclusions and recommendations including supporting analysis and calculations and a list of mitigation measures necessary in order to safely construct or develop within the landslide hazard area.

(Ord. 6356 §5, 2005).

#### **18.32.645 Landslide Hazard Areas - Covenant**

A. The Department may require a covenant between the owner(s) of the property and the City when development is to occur within a landslide hazard area. The covenant shall be signed by the owner(s) of the site and notarized prior to issuance of any permit by the City. The covenant shall not be required where the permit or approval is for work done by the City. The covenant shall include:

1. A legal description of the property;
2. A description of the property condition making this subsection applicable;
3. A statement that the owner(s) of the property understands and accepts the responsibility for the risks associated with development on the property given the described condition, and agrees to inform future purchasers and other successors and assignees that the property is located within a landslide hazard area, of the risks associated with development thereon, of any conditions or prohibitions on development imposed by the City, and of any features in this design which will require maintenance or modification to address anticipated soils changes;

4. The application date, type, and number of the permit or approval for which the covenant is required; and
  5. A statement waiving the right of the owner(s), the owner's heirs, successors and assigns to assert any claim against the City for any loss or damage to people or property either on- or off-site resulting from soil movement by reason of or arising out of issuance of the permit or approval by the City for the development on the property, except only for such losses that may directly result from the sole negligence of the City.
- B. The covenant shall be filed by the Department with the Thurston County Auditor, at the expense of the owner, so as to become part of the Thurston County real property records.

(Ord. 6356 §5, 2005).

