

SECTION 400: GEOLOGICALLY HAZARDOUS AREAS

16.20.405 Purpose.

This article applies to all regulated uses included in this chapter within three hundred feet of areas designated as geologically hazardous areas, **as defined in WAC 365-19-030 and** as categorized in Section [16.20.410](#). The intent of this article is to:

- A. Provide standards to protect human life and property from potential risks;
- B. Control erosion, siltation, and water quality; and
- C. Provide controls to minimize shoreline erosion caused by human activity.

16.20.410 Geologically hazardous area categories.

A. Classification. The following categories shall be used in classifying geologically hazardous areas:

1. Geologically Hazardous Areas.

- a. Areas with slopes greater than thirty percent and mapped by the Coastal Zone Atlas or Quaternary Geology and Stratigraphy of Kitsap County as unstable (U), unstable old land slides (UOS) or unstable recent slides (URS).
- b. Areas with slopes greater than thirty percent in grade and deemed by a qualified geologist or geotechnical engineer to meet the criteria of U, UOS, or URS.

2. Areas of Geologic Concern.

- a. Areas designated U, UOS, or URS in the Coastal Zone Atlas or Quaternary Geology and Stratigraphy of Kitsap County, with slopes less than thirty percent; or areas found by a qualified geologist to meet the criteria for U, URS, or UOS with slopes less than thirty percent; or
- b. Slopes identified as intermediate (I) in the Coastal Zone Atlas or Quaternary Geology and Stratigraphy of Kitsap County, or areas found by a qualified geologist to meet the criteria of I; or
- c. Slopes fifteen percent or greater, not classified as I, U, UOS, or URS, with soils classified by the Natural Resources Conservation Service as “highly ~~erodible~~ erodable” or “potentially highly ~~erodible~~ erodable”; or
- d. Slopes of fifteen percent or greater with springs or groundwater seepage not identified in subsections (A)(2)(a) through (c) of this section; or
- e. Seismic areas subject to liquefaction from earthquakes (seismic hazard areas) such as hydric soils as identified by the Natural Resources Conservation Service, and areas that have been filled to make a site more suitable. Seismic areas may include former wetlands which have been covered with fill; or
- f. Areas mapped as “severe” in all development limitations based on mapped soil units of the USDA Soil Conservation Service. These designations are listed in Table 10 of Soil Survey of Kitsap County Area, Washington.

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B. Site-Specific Determination—Geological and Geotechnical Report Provisions. **Depending upon the site and proposed project, a geotechnical or geological report shall be required from the applicant to confirm or modify existing information about a specific site and** for development proposals located within geologically hazardous areas and areas of geologic concern. The requirements for special reports are contained in **Section 700** ~~Article VII~~ of this chapter.

16.20.415. Allowable uses.⁵⁶

A. **The director may limit the types, locations and intensity of proposed land uses and development if such limits are recommended by a geotechnical report prepared according to the requirements in Section 700.**

B. **Critical facilities as defined below are restricted in geologically hazardous areas as defined in 16.20.410.A.1 and may be restricted from being located in areas of geologic concern as defined in 16.20.410.A.2. if no other location of the proposed use is feasible and if supported by the recommendation of a geotechnical report prepared according to the requirements in Section 700.**

1. **Critical facilities are those facilities that meet one or more of the following criteria:**
 - a. **Facilities that are essential to the health and welfare of the population, including services that protect life and property. Such facilities include, but are not limited to, hospitals, emergency clinics, police and fire stations, emergency vehicle and equipment storage facilities, emergency operations centers, aviation control centers, and utility facilities such as sewage treatment plants and electric transmission substations.**
 - b. **Facilities that are intended or likely to serve as public emergency shelter locations.**
 - c. **Facilities that produce, use or store highly volatile, flammable, explosive, toxic and/or water reactive materials.**

16.20.420~~15~~ Development standards.

A. Approval. The director will review all submittals for clearing, grading and building on property containing geologically hazardous areas **or areas of geologic concern**. The director will consider any proposed mitigation measures included in a geotechnical report, if submitted. In cases where a special report indicates a significant risk to public health, safety or welfare, the city shall deny or require revision of the application.

B. City Engineer Requirements. The city engineer, in conjunction with a clearing, grading or building permit application in geologically hazardous areas **or areas of geologic concern**, may require, but not be limited to, construction plans, details and specifications for clearing, grading, erosion and sedimentation control and stormwater drainage, and detailed hydrological, geotechnical, soils and drainage reports and analyses **that address the potential concerns and mitigations for development in geologically hazardous area or area of geologic concern**.

C. ~~Minimum Native Vegetative Buffer~~ Required **Buffer**. A standard ~~native vegetation~~ buffer of twenty-five feet shall be established from the top, toe, and all edges of geologically hazardous areas and areas of geologic concern, unless otherwise specified through a geological report or site-specific

⁵⁶ Washington Department of Commerce recommends that inappropriate uses in geohazard areas, such as critical facilities, should be identified and regulated.

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determination. **Existing vegetation shall be retained, or the buffer shall be replanted with appropriate native vegetation.**

D. Buffer and Building Setback Modifications. The minimum native vegetative buffer and/or building setback requirement may be decreased if a geotechnical report demonstrates that a lesser distance, and the design and engineering, will adequately protect the proposed development and stabilize the potential hazard.

Should the report indicate a greater buffer and/or building setback than required by this section, the greater buffer and/or building setback shall be required.

E. Time Limitations. For new or redevelopment, clearing and grading may be limited by the city engineer to the period between May 1st and October 1st, unless the applicant provides an erosion and sedimentation control plan prepared by a professional engineer licensed in the state of Washington that specifically identifies methods of erosion control for wet weather conditions.

F. Field Marking Requirements. For new or redevelopment, the proposed clearing for the project and all critical area buffers may be required to be marked in the field for inspection and approval by the city prior to beginning work. Field marking shall remain in place until construction is completed and final approval is granted by the city. The requirement for field marking will be identified as a condition of approval for the underlying development permit.

G. **Trees and** Vegetation⁵⁷. The following requirements apply in geologically hazardous areas and areas of geologic concern: ~~director may require enhancement of buffer vegetation to increase protection of the hazard area. Minor pruning of buffer vegetation and tree limbs may be allowed for enhancement of views, provided such activity is approved by the director.~~

1. As a development permit condition, the director may require enhancement of native buffer vegetation and trees to increase protection of the hazard area by stabilizing slopes and preventing soil erosion. A management plan shall be prepared for such enhancement, and the installation shall require maintenance bonding for a minimum of five years to ensure that performance standards have been met.

2. Removal of danger trees is allowed only if such activity is approved by the director, and requires a written determination by a certified arborist in the State of Washington that the trees proposed for elimination represent a legitimate safety hazard. The director may require that stumps and root systems be retained for soil retention and erosion control.

3. Minor pruning of vegetation may be allowed only if such activity is approved by the director and is conducted according to a plan prepared by a certified arborist in the State of Washington and approved by the city arborist. The following are allowable methods and techniques for vegetation thinning.

a. Tree thinning. The selective removal of branches in the inner crown of the tree, provided not more than 25% of a tree's leaf-bearing crown is removed. An even distribution of

⁵⁷ Amendment to address issues of tree cutting on critical slopes; language per Washington State Commerce's recommended ordinance language.

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interior small branches and foliage on remaining limbs shall be maintained to avoid over-thinning.

- b. Tree raising. The removal of the lower branches of a tree in order to provide clearance for passage or for views. After raising, the height of the pruned portion shall not exceed 1/3 of the total tree height; provided, that removal of branches from the lower portion shall not exceed 25% of the tree's leaf-bearing crown.**
- c. Tree reduction. Reducing the height or spread of a tree for clearance or views by selectively removing leaders and terminals of branches. Cuts should be made to lateral branches at unions, whereby the cut branch is at least 1/3 the diameter of the stem at the union. No more than 25% of a tree's crown mass shall be removed, unless it can be demonstrated that further reduction is necessary for essential installation or continuing maintenance of utilities.**
- d. Tree topping. Topping shall be used as a last resort when it can be demonstrated that methods in subsections (a) through (d) are not feasible, or when it can be demonstrated by a certified arborist that topping is less harmful to the particular species of tree than other listed methods. Topping is the indiscriminate cutting of branches and laterals to stubs at a specific tree height or spread, often, exceeding 25% of a tree's crown mass. Topping shall only be allowed with a written determination from a certified arborist that the proposed topping will not harm the tree's short-term health or long-term survivability.**
- e. Pruning mature trees. Mature and old-growth trees are more susceptible to permanent damage or death from pruning. Pruning of mature trees may be allowed as a corrective or preventative measure, such as the removal of decayed, rubbing or crowded branches that affect the tree's health. A written determination from a certified arborist must be provided that states the proposed pruning will not harm the mature tree's short-term health or long-term survivability.**

H. Roads and Utilities.

- 1. Only the clearing necessary to install temporary erosion control measures will be allowed prior to clearing for roads and utilities construction;
- 2. Clearing for roads and utilities shall be the minimum necessary and shall remain within marked construction limits;
- 3. Clearing for overhead power lines shall be the minimum necessary for construction and will provide the required minimum clearances of the serving utility; and
- 4. Where existing logging roads occur in geologically hazardous areas or areas of geologic concern, a geological or geotechnical report may be required prior to use as a temporary haul road or permanent access road under a conversion or COHP forest practices application.

I. Seismic Hazard Areas Standards. Applications for new or redevelopment within seismic hazard areas may be required to provide a geotechnical report, addressing any fill or grading that has occurred on the subject parcel. Any fill placed for such development shall have documented construction monitoring as required by the International Building Code.