

## **ALTERNATE AMENDMENT 1 – ALTERATION OF LANDSLIDE HAZARD AREAS**

### **20.80.224 GEOLOGIC HAZARDS – Development standards.**

**A. Activities and uses shall be prohibited in geologic hazard areas and their required buffers except as provided for in this Title.**

**B. Activities allowed in all geologic hazard areas and buffers.** The activities listed below are allowed in the identified geologic hazard areas types pursuant to SMC 20.80.0XX Allowed Activities. Additional exemptions are listed in SMC 20.80.030 and 20.80.040, but do not apply within the shoreline jurisdiction. These activities do not require submission of a critical area report.

1. All exempt activities per SMC 20.80.040, unless critical area report is required for the exemption;
2. Installation of fences as allowed without a building permit in Chapter 20.50 Development standards; and
3. Non-structural interior remodel, maintenance, or repair of structures which do not meet the standards of this chapter, if the maintenance or repair does not increase the footprint or height of the structure and there is no increased risk to life or property as a result of the proposed maintenance or repair.
4. **Landslide and Seismic Hazard Areas.** No additional activities allowed without submission of a critical area report in landslide and seismic hazard areas.
5. **Erosion Hazard Areas.** If the site does not contain another type of critical area or critical area buffer and does not exceed any other threshold contained in SMC 20.50.320, then up to 1,500 square feet may be cleared on any lot in an erosion hazard area without a permit.

**C. Alteration.** The City shall approve, condition, or deny proposals in a geologic hazard area as appropriate based upon the effective mitigation of risks posed to property, health and safety. The objective of mitigation measures shall be to render a site containing a geologic hazard as safe as one not containing such hazard. Conditions may include limitations of proposed uses, modification of density, alteration of site layout, and other appropriate changes to the proposal. Where potential impacts cannot be effectively mitigated to eliminate a significant risk to public health, safety and property, or important natural resources, the proposal shall be denied.

**D. Alteration of Landslide Hazards.**

Alterations of a landslide hazard area and/or buffer may only occur for activities for which a hazards analysis is submitted and certifies that:

1. The development will not increase surface water discharge or sedimentation on site or to adjacent properties beyond pre-development conditions;
2. The development will not decrease slope stability on the site or on adjacent properties;
3. Such alterations will meet other critical areas regulations; and
4. The design criteria in subsection (E) are met.

**E. Design Criteria for Alteration of Landslide Hazard Areas.** Development within a landslide hazard area and/or buffer shall be designed to meet the following basic requirements unless it can be demonstrated that an alternative project design provides greater short and long-term slope stability while meeting all other provisions of this Chapter. The requirement for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function. The basic development design criteria are:

1. The proposed development shall not decrease the factor of safety for landslide occurrences below the limits of 1.5 for static conditions and 1.2 for dynamic conditions. Where the existing conditions are below these

**Comment [jn1]:** Wavy underline is the alternate amendment language for proposed SMC 20.80.224.

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limits the proposed development shall increase the factor of safety to these limits. Analysis of dynamic conditions shall be based on the seismic event as established by the current version of the International Building Code;

2. New structures and improvements shall be clustered to avoid geologically hazardous areas and other critical areas;
3. New structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography;
4. New structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;
5. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties;
6. Where the existing natural slope area cannot be retained undisturbed with native vegetation, the use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes; and
7. Development shall be designed to minimize impervious lot coverage.

**F. Alteration of Seismic Hazard Areas.** Avoidance of alterations in seismic hazard areas per SMC 20.80.080(A) is not required. Development activities and uses that result in impact to seismic hazard areas may be permitted, consistent with SMC 20.80.055(B-F), in accordance with an approved geologic hazards critical area report prepared by a qualified professional. The report must provide assurances that the risk of damage from the proposal, both on-site and off-site, are minimal subject to the conditions set forth in the report, that the proposal will not increase the risk of occurrence of the potential hazard, and that measures to eliminate or reduce risks have been incorporated into the report's recommendations. The report must include the following:

1. For one-story and two-story residential detached structures and all nonstructural projects, a qualified professional shall conduct an evaluation of site response and liquefaction potential based on current mapping, site reconnaissance, research of nearby studies; or
2. For all other proposals, the applicant shall conduct an evaluation of site response and liquefaction potential including sufficient subsurface exploration to determine the site coefficient for use in the static lateral force procedure described in the International Building Code.

**G. Alteration of Erosion Hazard Areas.** Development activities and uses in erosion hazard areas can be permitted, not subject to 20.80.055(A), based on review of a critical area report prepared by a qualified professional demonstrating that the project is consistent with SMC 20.80.055(B-F) and the following provisions:

1. All development proposals on sites containing erosion hazard areas shall include a stormwater pollution prevention plan consistent with the requirements of the adopted Stormwater Manual and a revegetation plan to ensure permanent stabilization of the site. Specific requirements for revegetation plans shall be determined on a case-by-case basis during permit review and administrative guidelines shall be developed by the Department. Critical area revegetation plans may be combined with required landscape, tree retention, and/or other critical area mitigation plans as appropriate.
2. All subdivisions, short subdivisions or binding site plans on sites with erosion hazard areas shall comply with the following additional requirements:
  - a. Except as provided in this section, existing vegetation shall be retained on all lots until building permits are approved for development on individual lots;

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- b. If any vegetation on the lots is damaged or removed during construction of the subdivision infrastructure, the applicant shall be required to implement the revegetation plan in those areas that have been impacted prior to final inspection of the site development permit or the issuance of any building permit for the subject property;
- c. Clearing of vegetation on individual lots may be allowed prior to building permit approval if the City of Shoreline determines that:

  - i. Such clearing is a necessary part of a large scale grading plan,
  - ii. It is not feasible to perform such grading on an individual lot basis, and
  - iii. Drainage from the graded area will meet established water quality standards.
- 3. Where the City of Shoreline determines that erosion from a development site poses a significant risk of damage to downstream receiving water, the applicant shall be required to provide regular monitoring of surface water discharge from the site. If the project does not meet water quality standards, the City may suspend further development work on the site until such standards are met.
- 4. The City may require additional mitigation measures in erosion hazard areas, including, but not limited to, the restriction of major soil-disturbing activities associated with site development between October 1<sup>st</sup> and April 30<sup>th</sup> to meet the stated purpose contained in SMC 20.80.010 and 20.80.210.
- 5. The use of hazardous substances, pesticides and fertilizers in erosion hazard areas may be prohibited by the City of Shoreline.