

HAZARD OVERLAY ZONE (HO)

Sections

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17.78.010 Purpose

The purpose of the Hazard Overlay Zone is to protect people, lands and development in areas that have been identified as being subject to geologic hazards and to apply review standards to all proposed development activity within the areas subject to geologic hazards by:

- a) Identifying areas subject to natural hazards (Landslide, Coastal Erosion, and Liquefaction);
- b) Assessing the risks to life and property posed by new development in areas of known natural hazard susceptibility; and
- c) Applying standards to the siting and design of new development on lands subject to natural hazards that will reduce the risk to life and property from these hazards.

17.78.020 Applicability

The following areas are considered potentially geologically hazardous and are therefore subject to the requirements of this section:

- a) All lands partially or completely within “high” or “very high” landslide susceptibility areas as mapped in DOGAMI Open File Report 0-16-02, “Landslide susceptibility overview map of Oregon”.
- b) All lands partially or completely within “high” or “very high” liquefaction susceptibility as mapped in DOGAMI OPEN-FILE REPORT O-13-06, “Ground motion, ground deformation, tsunami inundation, co-seismic subsidence, and damage potential maps for the 2012 Oregon Resilience Plan for Cascadia Subduction Zone Earthquakes.”
- c) All lands along the oceanfront.

17.78.030 Geologic Assessment Review

1. Except for activities identified in Subsection 2 of this section as exempt, any new development or substantial improvement, as defined in Title 15, in an area subject to the provisions of this section shall require a Geologic Assessment Review.

2. The following development activities are exempt from the requirement for a Geologic Assessment Review:

- a. Maintenance, repair, or alterations to existing structures that do not alter the building footprint or foundation and do not constitute substantial improvement as defined in Title 16.
- b. Exploratory excavations under the direction of a certified engineering geologist or registered geotechnical engineer;
- c. Construction of structures for which a building permit is not required;
- d. Yard area vegetation maintenance and other vegetation removal on slopes less than 25%;
- e. Maintenance and reconstruction of public and private roads, streets, parking lots, driveways, and utility lines, provided the work does not extend outside of the previously disturbed area;
- f. Maintenance and repair of utility lines, and the installation of individual utility service connections;
- g. Emergency response activities intended to reduce or eliminate an immediate danger to life, property, or flood or fire hazard;
- h. Construction/erection of beachfront protective structures subject to regulation by the Oregon Parks and Recreation Department under OAR 736, Division 20; and
- i. Any development or activity to be conducted on a site for which a certified engineering geologist has determined that there are no high or very high geologic hazards present. The City of Bandon is not liable for any type of certification that a geologic hazard is not present on site.

3. Application, review and appeals for a Geologic Assessment Review shall be in accordance with the requirements for plan review as set forth in BMC 17.120. Applications for a Geologic Assessment Review may be made prior to or concurrently with any other type of application required for the proposed use or activity. Geologic Assessment Review shall be completed prior to any ground disturbance.

4. All applications for Geologic Assessment Review shall be accompanied by a Geologic Report prepared by a qualified geoprofessional (as defined in Title 16) that meets the content requirements of section 17.78.040, at the applicant's expense.

17.78.040 Geologic Report (Engineering Geologic Report and Geotechnical Engineering Report) Standards

1. The Geologic Report shall include the required elements of this section and one of the following:

- a. A statement that the use and/or activity can be accomplished without measures to mitigate or control the risk of geologic hazard to the subject property resulting from the proposed use and/or activity;
- b. A statement that there is an elevated risk posed to the subject property by geologic hazards that requires mitigation measures in order for the use and/or activity to be undertaken safely sited on the property; or
- c. A certification that there are no high or very high geological hazards present on site. If such is certified by a licensed professional, then a Geologic Hazard Review application is not required. The City of Bandon is not liable for any type of certification that a geologic hazard is not present on site.

2. Geologic Reports required pursuant to this section shall be prepared consistent with standard geologic practices employing generally accepted scientific and engineering principles, and shall at a minimum contain the applicable provisions of "Guideline for Preparing Engineering Geologic Reports," 2nd Edition, 5/30/2014, published by the Oregon Board of Geologist Examiners.

3. For oceanfront property, reports shall also address the "Geological Report Guidelines for New Development on Oceanfront Properties," prepared by the Oregon Coastal Management Program of the Department of Land Conservation and Development, in use as of the effective date of this section.

4. Geologic Reports required by this section shall include a statement from the preparer of the report that all of the applicable content requirements of this subsection have been addressed or are not applicable to the review. The report shall also include a description of the qualification of the licensed professional or professionals that prepared the report.

5. For the purposes of Section 17.78.040, a Geologic Report refers to both engineering geologic reports and geotechnical engineering reports.

6. Geologic Reports required by this section shall be valid for a period of five years from the date of preparation of such report. No extensions to this time line shall be granted. The city assumes no responsibility for the quality or accuracy of such reports.

17.78.050 Decisions of Geological Assessment Reviews

A decision on a Geologic Assessment Review shall be based on the following standards:

1. The Geologic Report shall meet the content standards set forth in Section 17.78.040.
2. In approving a Geologic Assessment Review, the decision maker may impose any conditions which are necessary to ensure compliance with the provisions of this section or with any other applicable provisions of the City of Bandon Land Use and Development Code.
3. In the event the decision maker determines that additional review of the Geologic Report by an appropriately licensed and/or certified professional is necessary to

determine compliance with this section, the City of Bandon may retain the services of such a professional for this purpose. The applicant shall be responsible for all costs associated with the additional review. The results of that evaluation shall be considered in making a decision on the Geologic Assessment Review.

17.78.060. Development Standards for Uses Subject to Review

In addition to the conditions, requirements and limitations imposed by a required Geologic Report, all uses subject to a Geologic Assessment Review shall conform to the following requirements:

1. Historical, Cultural, and Archaeological Resources: All activities and uses subject to Geologic Assessment Reviews proposed for areas of historical, cultural, or archaeologically sensitive areas, as identified in the City of Bandon Comprehensive Plan, shall require consultation with the appropriate Tribe prior to the commencement of any and all ground disturbing activity. Proof of this consultation shall be provided as a part of application submission.
2. Hazard Disclosure Statement: All applications for new development or substantial improvements subject to Geologic Assessment Review shall provide a Hazard Disclosure Statement signed by the property owner that acknowledges:
 - a. The property is subject to potential natural hazards and that development thereon is subject to risk of damage from such hazards;
 - b. The property owner has commissioned an engineering geologic report for the subject property, a copy of which is on file with City of Bandon Planning Department, and that the property owner has reviewed the Geologic Report and has thus been informed and is aware of the type and extent of hazards present and the risks associated with development on the subject property;
 - c. The property owner accepts and assumes all risks of damage from natural hazards associated with the development of the subject property.
3. Mitigation measures: If on-site structural mitigation measures are required as a condition of approval, the applicant shall, prior to the issuance of zoning compliance, record on the title to the subject property a notification that includes a description of the measures or improvements and that also specifies the obligation of the property owners to refrain from interfering with such measures or improvements and to maintain them.
4. Safest site requirement: All new construction shall be limited to the recommendations, if any, contained in the Geologic Report; and
 - a. Property owners should consider use of construction techniques that will render new buildings readily moveable in the event they need to be relocated; and

b. Properties shall possess access of sufficient width and grade to permit new buildings to be relocated or dismantled and removed from the site.

5. Minimum Oceanfront Setbacks: In areas subject to the provisions of this section, the building footprint of all new development or substantial improvement subject to a Geologic Assessment Review shall be set back from the ocean shore a minimum twenty-five (25) feet from the top of the bank or greater if recommended by the Geologic Report.

6. Erosion Control Measures: A certified engineering geologist, geotechnical engineer, or qualified civil engineer shall address the following standards:

- a. Stripping of vegetation, grading, or other soil disturbance shall be done in a manner which will minimize soil erosion, stabilize the soil as quickly as practicable, and expose the smallest practical area at any one time during construction;
- b. Development plans shall minimize cut or fill operations so as to prevent off-site impacts
- c. Temporary vegetation and/or mulching shall be used to protect exposed critical areas during development;
- d. Permanent plantings and any required structural erosion control and drainage measures shall be installed as soon as practical;
- e. Provisions shall be made to effectively accommodate increased runoff caused by altered soil and surface conditions during and after development. The rate of surface water runoff shall be structurally retarded where necessary;
- f. Provisions shall be made to prevent surface water from damaging the cut face of excavations or the sloping surface of fills by installation of temporary or permanent drainage across or above such areas, or by other suitable stabilization measures such as mulching, seeding, planting, or armoring with rolled erosion control products, stone, or other similar methods;
- g. All drainage provisions shall be designed to adequately carry existing and potential surface runoff from the twenty year frequency storm to suitable drainageways such as storm drains, natural watercourses, or drainage swales. In no case shall runoff be directed in such a way that it significantly decreases the stability of known landslides or areas identified as unstable slopes prone to earth movement, either by erosion or increase of groundwater pressure;

- h. Where drainage swales are used to divert surface waters, they shall be vegetated or protected as necessary to prevent offsite erosion and sediment transport;
- i. Erosion and sediment control devices shall be required where necessary to prevent polluting discharges from occurring. Control devices and measures which may be required include, but are not limited to:
 - i. Energy absorbing devices to reduce runoff water velocity;
 - ii. Sedimentation controls such as sediment or debris basins. Any trapped materials shall be removed to an approved disposal site on an approved schedule;
 - iii. Dispersal of water runoff from developed areas over large undisturbed areas;
- j. Disposed spoil material or stockpiled topsoil shall be prevented from eroding into streams or drainageways by applying mulch or other protective covering; or by location at a sufficient distance from streams or drainageways; or by other sediment reduction measures; and
- k. Such non-erosion pollution associated with construction such as pesticides, fertilizers, petrochemicals, solid wastes, construction chemicals, or wastewaters shall be prevented from leaving the construction site through proper handling, disposal, site monitoring and clean-up activities.

7. Certification of compliance: Permitted development shall comply with the recommendations in the required Geologic Report.

No development requiring a Geologic Report shall receive final approval (e.g. certificate of occupancy, final inspection, etc.) until the planning director receives a written statement by an appropriately licensed and/or certified professional indicating that all performance, mitigation, and monitoring measures contained in the report have been satisfied. If mitigation measures involve engineering solutions prepared by a licensed professional engineer, then the City of Bandon must also receive an additional written statement of compliance by the design engineer.

8. Restoration and replacement of existing structures:

- a. A building or structure that is nonconforming under Section 17.108 that is destroyed by fire, other casualty or natural disaster shall be subject to the casualty loss provisions contained in Section 17.108. Application of the provisions of this section to a property shall not have the effect of rendering it nonconforming.

- b. A building or structure that conforms to the Municipal Code that is destroyed by fire, other casualty or natural disaster may be replaced with a building or structure of up to the same size provided a Geologic Report is prepared by a qualified geoprofessional. A Geologic Report prepared pursuant to this subsection shall adhere to the Geologic Report Standards outlined in this section. All recommendations contained in the report shall be followed.

Add to:

Definitions 16.42.010

Geoprofessional: refers to a Registered Geologist (RG), Certified Engineering Geologist (CEG), Professional Engineer (PE), and Geotechnical Engineer (GE).

- Registered Geologists (RG) provide geologic maps and documents and are licensed by the Oregon State Board of Geologist Examiners (OSBGE).
- Certified Engineering Geologists (CEG) provide engineering geologic reports and are licensed by the Oregon State Board of Geologist Examiners (OSBGE). They apply geologic data, principles and interpretation to naturally occurring materials so that geologic factors affecting planning, design, construction and maintenance of civil engineering works are properly recognized and utilized. As defined under ORS 672 and OAR 809.
- A Geotechnical Engineer (GE) is a Professional Engineer (PE) with the specific training, expertise, and experience to qualify as a Geotechnical Engineer (GE). GEs provide geotechnical engineering reports and are licensed by the Oregon Board of Examiners for Engineering and Land Surveying (OSBEELS).