ATTACHMENT A.3

CHAPTER 38: COLUMBIA RIVER GORGE NATIONAL SCENIC AREA ZONING CODE
(Geologic Hazards Permit)

The following text is used within the proposed amendments:

Double Underline = Proposed new language
~~Strikethrough~~ = Language proposed for removal
Blue double underlined and ~~blue strikethrough~~ text = changes since the November 5, 2018 PC Hearing

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GEOLOGIC HAZARDS OVERLAY (GH) ~~HILLSIDE DEVELOPMENT~~

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§ 38.0530 SUMMARY OF DECISION MAKING PROCESSES.

The following decision making processes chart shall control the County's review of the indicated permits:

APPROVAL PROCESS					
Permit Type	**I**	**II**	**II Expedited**	**III**	**PC**
Initial Approval Body:	(Not a "land use decision")	(Planning Director)	(Planning Director)	(Hearings Officer)	(Legislative)
~~Hillside Development~~ Geologic Hazards Permit		**X**			

(Part 5 Header)…

PART 5 - SPECIAL DISTRICTS - OFF-STREET PARKING; PLANNED DEVELOPMENT; GEOLOGIC HAZARDS ~~HILLSIDE DEVELOPMENT~~

~~HILLSIDE DEVELOPMENT~~ GEOLOGIC HAZARDS

§ 38.5500- PURPOSES

The purpose of this subdistrict is to regulate ground disturbing activity within the Geologic Hazards Overlay in order to promote public health, safety and general welfare and to minimize the following risks potentially arising from ground disturbing activity or the establishment or replacement of impervious surfaces: public and private costs, expenses and losses; environmental harm; and human-caused erosion, sedimentation or landslides. ~~The purposes of the Hillside Development and Erosion Control subdistrict are to protect geologic resources and avoid hazards, ensure that grading on unstable or steep slopes does not derade geologic resources; to promote the public health, safety and general welfare, and minimize public and private losses due to earth movement hazards in specified areas and minimize erosion and related environmental damage in unincorporated Multnomah County. This subdistrict is intended to:~~

~~(A) Protect human life;~~

~~(B) Preserve stability of geologic features;~~

~~(C) Protect property and structures;~~

~~(D) Minimize expenditures for rescue and relief efforts associated with earth movement failures;~~

~~(E) Control erosion, production and transport of sediment; and~~

~~(F) Regulate land development actions including excavation and fills, drainage controls and protect exposed soil surfaces from erosive forces.~~

§ 38.5503 DEFINITIONS

As used in this Subsection, unless the context requires otherwise, the following terms and their derivations shall have the meanings provided below:

Best Management Practices - Methods that have been determined to be the most effective, practical means of preventing or reducing erosion, sedimentation or landslides including but not limited to: use of straw bales, slash windrows, filter fabric fences, sandbags, straw cover and jute netting.

Certified Engineering Geologist – Any person who has obtained certification by the State of Oregon as an engineering geologist.

Cut - When used in the context of ground disturbing activity**:**

(1) An excavation;

(2) The difference between a point on the original ground surface and the point of lowest elevation on the final grade;

(3) The material removed in excavation work.

Development – Any act requiring a permit stipulated by Multnomah County Ordinances as a prerequisite to the use or improvement of any land, including, but not limited to, a building, land use, occupancy, sewer connection, or other similar permit, and any associated ~~grading~~ ground disturbing activity or removal of vegetation. As the context allows or requires, the term "development" may be synonymous with the term "use" and the terms "use or development" and "use and development."

Development Area – The total area of alteration of the naturally occurring ground surface resulting from construction activities whether permanent or temporary.

Disturbed Area - When used in reference to ground disturbing activity, the area where ground disturbing activity is occurring or has, will or is proposed to occur.

Drainage Area – The subject property together with the watershed (acreage) contributing water runoff to and receiving water runoff from the subject property.

Drainageway – Any natural or artificial stream, swale, creek, river, ditch, channel, canal or other open ~~watercourse~~ water body.

~~**Earth Movement** – Any type of land surface failure resulting in the downslope movement of material . The term includes, but is not limited to, soil creep, mudflow, rockslides, block failures, and massive landslides.~~

Erosion - The wearing away of the ground surface or other earth layer, whether dry, submerged or submersible, due to the movement of wind, water, ice gravity, or other element. ~~**Erosion** – The wearing~~

~~away or removal of earth surface materials by the action of natural elements or forces including, but not limited to, wind, water or gravity.~~

Excavation - The motorized removal of earth material or other motorized activity resulting in the exposure of the ground surface or other earth layer to wind, water, ice, gravity, or other element, including, but not limited to, cutting, digging, grading, stripping, trenching, dredging, bulldozing, benching, terracing, mining or quarrying, and vegetation or tree removal. Hydrologic scour attributed to development is also a form of excavation. Work conducted by hand without the use of motorized equipment is not excavating. ~~**Excavation** – Any act by which earth, sand, gravel, rock or any similar material is dug into, cut, quarried, uncovered, removed, displaced, relocated or bulldozed, including the conditions resulting therefrom.~~

Farming Practice - As defined in ORS 30.930.

Fill: The deposit (noun or verb) of any earth materials by motorized means for any purpose, including, but not limited to, stockpiling, storage, dumping, raising elevation or topography, and tracking material such as mud onto a road surface with vehicle tires. Work conducted by hand without the use of motorized equipment is not filling.

~~**Fill:**~~

~~(1) Any act by which earth, sand, gravel, rock or similar material is pushed, placed, dumped, stacked, pulled, transported, or in any way moved to a new location above the existing natural surface of the ground or on~~
~~the top of a stripped surface, including the condition resulting therefrom.~~

~~(2) The difference in elevation between a point on the original ground surface and the point of higher elevation on a finished grade.~~

~~(3) The material used to make a fill.~~

Geologic Hazards Overlay Map – A series of maps adopted by the Multnomah County Board of Commissioners.

Geotechnical Engineer - A Civil Engineer, licensed to practice in the State of Oregon, who by training, education and experience is competent in the practice of geotechnical or soils engineering practices.

Geotechnical Report – Any information required in addition to ~~HDP~~ GHP Form– 1 which clarifies the geotechnical conditions of a proposed development site. Examples of this would be reports on test hole borings, laboratory tests or analysis of materials, or hydrologic studies.

~~**Grading** – Any stripping, cutting, filling, stockpiling or any combination thereof, including the land in its cut or filled condition.~~

Gravel - Aggregate composed of hard and durable stones or pebbles, crushed or uncrushed, more than half of which is retained on a No. 4 sieve (2 mm).

Ground Disturbing Activity - Any excavating or filling or combination thereof.

GHP ~~HDP~~ Form– 1 – The form required for specified developments subject to the Geologic Hazards Overlay ~~Hillside Development and Erosion Control subdistrict~~. It contains a geotechnical reconnaissance and stability questionnaire which must be filled out and certified by a Certified Engineering Geologist or Geotechnical Engineer.

Hydrologic Scour – Evidence of concentrated flows of water over bare soils or evidence of on-site erosion such as rivulets on bare soil slopes, where the flow of water is not filtered or captured on site.

Landslide - Any downward slope movement of earth material, including, but not limited to, soil creep, debris flow, mudflow, earth flow, mudslide, rock slide, rotational slide, slide, slump, block failure, rock fall, fall, topple, and spread.

~~**Land disturbing Activities** – Any act which alters earth, sand, gravel, or similar materials and exposes the same to the elements of wind, water, or gravity. Land disturbing activities includes: excavations or fills, site grading, and soil storage.~~

Mulch - Organic materials, such as straw, bark, jute, coconut fibers, or nut shells spread over the surface of the ground, especially freshly graded or exposed soils, to prevent physical damage from erosive agents such as stormwater, precipitation or wind, and which shield soil surfaces until vegetative cover or other stabilization measures can take effect. ~~**Mulch** – Materials spread over the surface of the ground, especially freshly graded or ex-posed soils, to prevent physical damage from erosive agents such as storm water, precipitation or wind, and which shield soil surfaces until vegetative cover or other stabilization measures can take effect.~~

Ordinary High ~~Water Mark~~ Watermark – Features found by examining the bed and banks of a stream and ascertaining where the presence and action of waters are so common and usual, and so long maintained in all ordinary years, as to mark upon the land a character distinct from that of the abutting upland, particularly with respect to vegetation. For streams where such features cannot be found, the channel bank shall be substituted. In braided channels and alluvial fans, the ordinary high ~~water mark~~ watermark shall be measured to include the entire stream feature.

Sedimentation (sediment). The deposit in a waterbody of any earthen material by wind, water, ice, gravity, or other element.

Slope:

(1) Any ground whose surface makes an angle from the horizontal; or

(2) The face of an embankment or cut section.

~~**Slope Hazard Map** – A series of maps maintained and updated from time to time by Office of the Director, Department of Community Services;~~

Spoil Material – Any rock, sand, gravel, soil or other earth material removed by ground disturbing activity ~~excavation or other grading activities~~.

Stream – Areas where surface waters flow sufficient to produce a defined channel or bed. A defined channel or bed is indicated by hydraulically sorted sediments or the removal of vegetative litter or loosely rooted vegetation by the action of moving water. The channel or bed need not contain water year-round. This definition is not meant to include irrigation ditches, canals, stormwater runoff devices or other entirely artificial water bodies ~~watercourses~~ unless they are used to convey Class 1 or 2 streams naturally occurring prior to construction. Those topographic features resembling streams but which have no defined channels (e.g. swales) shall be considered streams when hydrologic and hydraulic analyzes performed pursuant to a development proposal predict formation of a defined channel after development.

Stream Protection – Activities or conditions which avoid or lessen adverse water quality and turbidity effects to a stream.

Topographic Information – Surveyed elevation information which details slopes, contour intervals and ~~drainageways~~ water bodies. Topographic information shall be prepared by a registered ~~l~~Land ~~s~~Surveyor or a registered ~~p~~Professional ~~e~~Engineer qualified to provide such information and represented on maps with a contour interval not to exceed 10 feet.

Topsoil – The top organic and mineral rich layer of soil that provides nutrients to growing plants.

Vegetation – All plant growth, especially trees, shrubs, grasses and mosses.

Vegetative Protection – Stabilization of erosive or sediment-producing areas by covering the soil with:

(1) Permanent seeding, producing long-term vegetative cover;

(2) Short-term seeding, producing temporary vegetative cover;

(3) Sodding, producing areas covered with a turf or perennial sod-forming grass; or

(4) Netting with seeding if the final grade has not stabilized.

Water Body - Any surface or ground water, or wetland of the state or the United States, including but not limited to, rivers, streams, creeks, sloughs, drainageways, swales, seeps, springs, watercourses, canals, drainages, ponds, lakes, bays, aquifers, coastal waters, impounding reservoirs, estuaries, marshes, and inlets, regardless of whether perennial, intermittent, ephemeral, or otherwise, and regardless of whether natural or human-made. ~~**Water Body** – Areas permanently or temporarily flooded which may exceed the~~

deep-water boundary of wetlands. Water depth is such that water, and not the air, is the principal medium in which prevalent organisms live. Water bodies include rivers, creeks, lakes, and ponds.

Watercourse – Natural and artificial features which transport surface water. Watercourse includes a river, stream, creek, slough, ditch, canal, or drainageway.

§ 38.5505 PERMITS REQUIRED

Hillside Development Permit: All persons proposing development, construction, or site clearing (including tree removal) on property located in hazard areas as identified on the "Slope Hazard Map", or on lands with average slopes of 25 percent or more shall obtain a Hillside Development Permit as prescribed by this subdistrict, unless specifically exempted by MCC 38.5510.

§ 38.5510 EXEMPT LAND USES AND ACTIVITIES

The following are exempt from the provisions of this Chapter:

(A) Development activities approved prior to February 6, 1993; except that within such a development, issuance of individual building permits for which application was made after February 6, 1993 shall conform to site-specific requirements applicable herein.

(B) General Exemptions – All activity land-disturbing activities outlined below shall be undertaken in a manner designed to minimize earth movement hazards, surface runoff, erosion, and sedimentation and to safeguard life, limb, property, and the public welfare. A person performing such activities need not apply for a permit pursuant to this subdistrict, if:

(1) Natural and finished slopes will be less than 25 percent; and,

(2) The disturbed or filled area is 20,000 square feet or less; and,

(3) The volume of soil or earth materials to be stored, in conjunction with the project, is 50 cubic yards or less; and,

(4) Rainwater runoff is diverted, either during or after construction, from an area smaller than 10,000 square feet; and,

(5) Impervious surfaces, if any, of less than 10,000 square feet are to be created; and,

(6) No drainageway is to be blocked or have its stormwater carrying capacities or characteristics modified.

(C) Categorical Exemptions – Notwithstanding MCC 38.5510 (A) and (B) (1) through (6), the following activities are exempt from the permit requirements:

~~(1) An excavation below finished grade for basements and footings of a building, retaining wall, or other structure authorized by a valid building permit. This shall not exempt any fill made with the material from such excavation, nor exempt any excavation having an unsupported finished height greater than five four feet.~~

~~(2) Cemetery graves, but not cemetery soil disposal sites.~~

~~(3) Excavations for wells.~~

~~(4) Routine agricultural crop management practices.~~

~~(5) Residential gardening and landscape maintenance at least 100 feet by horizontal measurement from the top of the bank of a watercourse, or the mean high watermark (line of vegetation) of a body of water or wetland.~~

~~(6) Emergency response activities conducted according to MCC 38.7090.~~

~~(7) Forest practices as defined by ORS 527 (The State Forest Practices Act) and approved by the Oregon Department of Forestry.~~

§ 38.5505 PERMITS REQUIRED

Unless exempt under this code; no development, or ground disturbing activity shall occur (1) on land located in hazard areas as identified on the Geologic Hazards Overlay map, or 2) where the disturbed area or the land on which the development will occur has average slopes of 25 percent or more, except pursuant to a Geologic Hazards permit (GH).

§ 38.5510 EXEMPTIONS

Ground disturbing activity occurring in association with the following uses is exempt from GH permit requirements:

(A) An excavation below finished grade for basements and footings of a building, retaining wall, or other structure authorized by a valid building permit. This shall not exempt any fill made with the material from such excavation, nor exempt any excavation having an unsupported finished depth greater than four feet.

(B) Cemetery graves, but not cemetery soil disposal sites.

(C) Excavations for wells.

(D) Farming practices other than filling or the placement of structures.

(E) Residential gardening disturbing less than 5,000 square feet of ground surface area and landscape maintenance disturbing less than 10,000 square feet of ground surface area when either activity is at least 100 feet from the top of the bank of any watercourse located at a lower elevation to and in the surface drainage path of the ground disturbing activity. Landscape maintenance includes normal planting,

transplanting, and replacement of trees and vegetation. Landscape maintenance does not include preparatory ground disturbing activity for a development project.

(F) Emergency response activities conducted according to MCC 38.7090.

(G) Forest Practices.

(H) Ground disturbing activities attributed to routine road maintenance when undertaken by an organization operating under Limit 10, Section 4d of the Endangered Species Act.

(I) Decommissioning or replacing an underground storage tank(s), such as a septic, oil, or other similar tank(s), but not including a sanitary drainfield, provided that:

(1) Any contaminated excavated material is handled in accordance with law, whether through treatment, being transported to and deposited at an off-site facility certified and willing to accept the material, or other direction from the Oregon Department of Environmental Quality, and

(2) Any replacement tank(s) is placed in the same location as the tank(s) being replaced.

(J) Placement and replacement of mailbox posts, fence posts, sign posts, utility posts or poles, and similar support structures, but not including any post or pole that provides structural support to a building requiring a structural building permit.

(K) Boring for utilities in a public road right-of-way, provided such activity does not occur within 100-feet of a water body and is completed within 48-hours of commencement. Completion includes final compaction of earthen materials within any trench and removal and lawful disposal or deposit of any excess excavation or fill material from the site of the activity.

(L) Uses not identified in subsections (A) through (K) that meet all of the following requirements:

(1) Natural and finished slopes will be less than 25 percent; and,

(2) The disturbed or filled area is 20,000 square feet or less; and,

(3) The volume of soil or earth materials to be stored is 50 cubic yards or less; and,

(4) Rainwater runoff is diverted, either during or after construction, from an area smaller than 10,000 square feet; and,

(5) Impervious surfaces, if any, of less than 10,000 square feet are to be created; and,

(6) No drainageway is to be blocked or have its stormwater carrying capacities or characteristics modified.

(M) Placement of gravel or asphalt for the maintenance of existing driveways, roads and other travel surfaces.

§ 38.5515 GEOLOGIC HAZARDS PERMIT APPLICATION INFORMATION REQUIRED

An application for a Geologic Hazards permit ~~development subject to the requirements of this subdistrict~~ shall include two copies of each of the following:

(A) A scaled site plan showing the following, both existing and proposed:

(1) Property lines;

(2) Buildings, structures, driveways, roads and right-of-way boundaries;

(3) Location of wells, utility lines, site drainage provisions, stormwater disposal system, sanitary tanks and drainfields (primary and reserve);

(4) Trees and vegetation proposed for removal and planting and an outline of wooded areas;

(5) Water bodies;

(6) Boundaries of ground disturbing activities;

(7) Location and height of unsupported finished slopes:

(8) Location for washout and cleanup of concrete equipment;

(9) Storage location and proposed handling and disposal methods for potential sources of non-erosion pollution including pesticides, fertilizers, petrochemicals, solid waste, construction chemicals, and wastewaters;

(10) Soil types;

(11) Ground topography contours (contour intervals no greater than 10-feet); and

(12) Erosion and sediment control measures.

~~A map showing the property line locations, roads and driveways, existing structures, trees with 8-inch or greater caliper or an outline of wooded areas, watercourses and include the location of the proposed development(s) and trees proposed for removal.~~

(B) Calculations of the total area of proposed ground disturbance (square feet), volume of proposed cut and fill (cubic yards), and existing and proposed slopes in areas to be disturbed (percent slope); ~~An estimate of depths and the extent and location of all proposed cuts and fills.~~

~~(C) The location of planned and existing sanitary drainfields and drywells.~~

(C~~D~~) ~~Narrative,~~ Written findings, together with any supplemental plans, maps, reports, or other information ~~map or plan information~~ necessary to demonstrate compliance of the proposal with all applicable provisions of the Geologic Hazards standards in MCC 38.5520 (A). ~~The application shall provide applicable supplemental~~ Necessary reports, certifications, or plans ~~relative~~ may pertain to: engineering, soil characteristics, stormwater drainage control, stream protection, erosion and sediment control, and~~/or~~ replanting. The written findings and supplemental information shall include:

(1) With respect to fill:

(a) Description of fill materials, compaction methods, and density specifications (with calculations). The planning director may require additional studies or information or work regarding fill materials and compaction.

(b) Statement of the total daily number of fill haul truck trips, travel timing, loaded haul truck weight, and haul truck travel route(s) to be used from any fill source(s) to the fill deposit site.

(2) A description of the use that the ground disturbing activity will support or help facilitate.

(3) One of the following:

~~(E) A Hillside Development permit may be approved as a Type II decision only after the applicant provides:~~

(~~1~~a) Additional topographic information showing that the proposed development to be on land with average slopes less than 25 percent, and located more than 200 feet from a known landslide, and that no cuts or fills in excess of 6 feet in depth are planned. High groundwater conditions shall be assumed unless documentation is available, demonstrating otherwise; or

(~~2~~b) A geological report prepared by a Certified Engineering Geologist or Geotechnical Engineer certifying that the site is suitable for the proposed development; or,

(~~3~~c) An ~~HDP~~ GHP Form– 1 completed, signed and certified by a Certified Engineering Geologist or Geotechnical Engineer with ~~his/her~~ their stamp and signature affixed indicating that the site is suitable for the proposed development.

(~~a~~i) If the ~~HDP~~ GHP Form– 1 indicates a need for further investigation, or if the ~~D~~director requires further study based upon information contained in the ~~HDP~~ GHP Form– 1, a geotechnical report as specified by the ~~D~~director shall be prepared and submitted.

[a] A geotechnical investigation in preparation of a geotechnical report shall be conducted at the applicant's expense by a Certified Engineering Geologist or Geotechnical Engineer. The report shall include specific investigations required by the director and recommendations for any further work or changes in proposed work which may be necessary to ensure reasonable safety from landslide hazards.

[b] Any development related manipulation of the site prior to issuance of a permit shall be subject to corrections as recommended by the geotechnical report to ensure safety of the proposed development.

[c] Observation of work required by an approved geotechnical report shall be conducted by a Certified Engineering Geologist or Geotechnical Engineer at

the applicant's expense; the geologist's or engineer's name shall be submitted to the director prior to issuance of the permit.

[d] The director, at the applicant's expense, may require an evaluation of GHP Form– 1 or the geotechnical report by another Certified Engineering Geologist or Geotechnical Engineer.

(4) Documentation of approval by each governing agency having authority over the matter of any new stormwater discharges into public right-of-way.

(5) Documentation of approval by the City of Portland Sanitarian and any other agency having authority over the matter of any new stormwater surcharges to sanitary drainfields.

~~(F) Geotechnical Report Requirements~~

~~(1) A geotechnical investigation in preparation of a Report required by MCC 38.5515 (E) (3) (a) shall be conducted at the applicant's expense by a Certified Engineering Geologist or Geotechnical Engineer. The Report shall include specific investigations required by the Director and recommendations for any further work or changes in proposed work which may be necessary to ensure reasonable safety from earth movement hazards.~~

~~(2) Any development related manipulation of the site prior to issuance of a permit shall be subject to corrections as recommended by the Geotechnical Report to ensure safety of the proposed development.~~

~~(3) Observation of work required by an approved Geotechnical Report shall be conducted by a Certified Engineering Geologist or Geotechnical Engineer at the applicant's expense; the geologist's or engineer's name shall be submitted to the Director prior to issuance of the Permit.~~

~~(4) The Director, at the applicant's expense, may require an evaluation of (a) If the HDP Form – 1 or the Geotechnical Report by another Certified Engineering Geologist or Geotechnical Engineer.~~

~~(G) Development plans shall be subject to and consistent with the Design Standards For Grading and Erosion Control in MCC 38.5520 (A) through (D). Conditions of approval may be imposed to assure the design meets those standards.~~

§ 38.5520 ~~GRADING AND EROSION CONTROL~~ GEOLOGIC HAZARDS PERMIT STANDARDS

(A) A Geologic Hazards (GH) permit shall not be issued unless the application for such permit establishes compliance with MCC 39.6210 and satisfaction of the following standards: ~~Approval of development plans on sites subject to a Hillside Development Permit shall be based on findings that the proposal adequately addresses the following standards. Conditions of approval may be imposed to assure the design meets the standards:~~

~~(A) Design Standards For Grading and Erosion Control~~

~~(1) Grading Standards~~

(B~~a~~) Fill shall be composed of earth materials only ~~Fill materials, compaction methods and density specifications shall be indicated. Fill areas intended to support structures shall be identified on the plan. The Director or delegate may require additional studies or information or work regarding fill materials and compaction~~;

(C~~b~~) Cut and fill slopes shall not ~~be steeper than 3:1~~ exceed 33 percent grade (3 Horizontal: 1Vertical), unless a Certified Engineering Geologist or Geotechnical Engineer certifies in writing that a grade in excess of 33 percent is safe (including, but not limited to, not endangering or disturbing adjoining property) and suitable for the proposed development; ~~geological and/or engineering analysis certifies that steep slopes are safe and erosion control measures are specified;~~

(D~~c~~) Unsupported finished cuts and fills greater than 1 foot in height and less than or equal to 4 feet in height at any point shall meet a setback from any property boundary of a distance at least twice the height of the cut or fill, unless a Certified Engineering Geologist or Geotechnical Engineer certifies in writing that the cuts or fills will not endanger or disturb adjoining property. All unsupported finished cuts and fills greater than 4 feet in height at any point shall require a Certified Engineering Geologist or Geotechnical Engineer to certify in writing that the cuts or fills will not endanger or disturb adjoining property. ~~Cuts and fills shall not endanger or disturb adjoining property~~;

~~(d) The proposed drainage system shall have adequate capacity to bypass through the development the existing upstream flow from a storm of 10-year design frequency;~~

(E~~e~~) Fills shall not encroach on ~~natural watercourses or constructed channels~~ any water body unless ~~measures are approved which will~~ an Oregon licensed Professional Engineer certifies that the altered portion of the water body will continue to provide equal or greater flood carrying capacity for a storm of 10-year design frequency. ~~adequately handle the displaced streamflow for a storm of 10-year design frequency~~;

~~(2) Erosion Control Standards~~

(F~~a~~) Stripping of vegetation, ~~grading~~ ground disturbing activities, 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;

(G~~b~~) Development Plans shall minimize cut or fill operations and ensure conformity with topography so as to create the least erosion potential and adequately accommodate the volume and velocity of surface runoff;

(H~~c~~) Temporary vegetation and/or mulching shall be used to protect exposed critical areas during development;

(Id) Whenever feasible, natural vegetation shall be retained, protected, and supplemented;

1. A 100-foot undisturbed buffer of natural vegetation shall be retained from the top of the bank of a stream, or from the ordinary high watermark (line of vegetation) of a water body, or within 100-feet of a wetland;

2. The buffer required in (I)(1)1. may only be disturbed upon the approval of a mitigation plan which utilizes erosion, sediment and stormwater control features measures designed to perform as effectively as those prescribed in the currently adopted edition of the "Erosion Prevention & Sediment Control Plans Technical Guidance Handbook (1994)" and the "City of Portland Stormwater Quality Facilities, A Design Guidance Manual (1995)" in the most recent edition of the City of Portland Erosion and Sediment Control Manual and the City of Portland Stormwater Management Manual and which is consistent with attaining equivalent surface water quality standards as those established for the Tualatin River Drainage Basin in OAR 340-041-0345(4);

(Je) Permanent plantings and any required structural erosion control and drainage measures shall be installed as soon as practical;

(Kf) 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;

(Lg) Sediment in the runoff water shall be trapped by use of debris basins, silt traps, or other measures until the disturbed area is stabilized;

(Mh) 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 or seeding;

(Ni) All drainage measures provisions shall be designed to avoid erosion and adequately carry existing and potential surface runoff to suitable drainageways such as storm drains, natural water bodies watercourses, drainage swales, or an approved drywell system;

(Oj) Where drainage swales are used to divert surface waters, they shall be vegetated or protected as required to minimize potential erosion;

(Pk) Erosion and sediment control devices shall be required where necessary to prevent polluting discharges from occurring. Erosion and sediment control measures must be utilized such that no visible or measurable erosion shall occur on-site and no visible or measurable sediment shall exit the site, enter the public right-of-way or be deposited into any water body or storm drainage system. Control devices and measures which may be required include, but are not limited to:

1. Energy absorbing devices to reduce runoff water velocity;

2. Sedimentation controls such as sediment or debris basins. Any trapped materials shall be removed to an approved disposal site on an approved schedule;

3. Dispersal of water runoff from developed areas over large undisturbed areas.

(Q~~1~~) Disposed spoil material or stockpiled topsoil shall be prevented from eroding into ~~streams or drainageways~~ water bodies by applying mulch or other protective covering; or by location at a sufficient distance from ~~streams or drainageways~~ water bodies; or by other sediment reduction measures;

(R~~m~~) 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, continuous site monitoring and cleanup activities;

(S) Ground disturbing activities within a water body shall use instream best management practices designed to perform as prescribed in the City of Portland Erosion and Sediment Control Manual. To the extent that there is a conflict between the Manual and the requirements of the National Scenic Area (NSA) Permit, the requirements in the NSA will apply; and

(T) The total daily number of fill haul truck trips shall not cause a transportation impact (as defined in the Multnomah County Road Rules) to the transportation system or fill haul truck travel routes, unless mitigated as approved by the County Transportation Division.

(U) Fill trucks shall be constructed, loaded, covered, or otherwise managed to prevent any of their load from dropping, sifting, leaking, or otherwise escaping from the vehicle. No fill shall be tracked or discharged in any manner onto any public right-of-way.

(V) No compensation, monetary or otherwise, shall be received by the property owner for the receipt or placement of fill.

~~(B) Responsibility~~

~~(1) Whenever sedimentation is caused by stripping vegetation, regrading or other development, it shall be the responsibility of the person, corporation or other entity causing such sedimentation to remove it from all adjoining surfaces and drainage systems prior to issuance of occupancy or final approvals for the project;~~

~~(2) It is the responsibility of any person, corporation or other entity doing any act on or across a communal stream watercourse or swale, or upon the floodplain or right-of-way thereof, to maintain as nearly as possible in its present state the stream, watercourse, swale, floodplain, or right-of-way during such activity, and to return it to its original or equal condition.~~

~~(C) Implementation~~

(1) Performance Bond – A performance bond may be required to assure the full cost of any required erosion and sediment control measures. The bond may be used to provide for the installation of the measures if not completed by the contractor. The bond shall be released upon determination the control measures have or can be expected to perform satisfactorily. The bond may be waived if the Director determines the scale and duration of the project and the potential problems arising therefrom will be minor.

(2) Inspection and Enforcement. The requirements of this subdistrict shall be enforced by the Planning Director. If inspection by County staff reveals erosive conditions which exceed those prescribed by the Hillside Development, work may be stopped until appropriate correction measures are completed.

(D) Final Approvals

A Certificate of Occupancy or other final approval shall be granted for development subject to the provisions of this subdistrict only upon satisfactory completion of all applicable requirements.

§ 38.5525 HILLSIDE DEVELOPMENT AND EROSION CONTROL RELATED DEFINITIONS

Certified Engineering Geologist – Any person who has obtained certification by the State of Oregon as an engineering geologist.

Cut:

(1) An excavation;

(2) The difference between a point on the original ground surface and the point of lowest elevation on the final grade;

(3) The material removed in excavation work.

Development Area – The total area of alteration of the naturally occurring ground surface resulting from construction activities whether permanent or temporary.

Drainage Area – The subject property together with the watershed (acreage) contributing water runoff to and receiving water runoff from the subject property.

Drainageway – Any natural or artificial stream, swale, creek, river, ditch, channel, canal or other open watercourse.

Earth Movement – Any type of land surface failure resulting in the downslope movement of material . The term includes, but is not limited to, soil creep, mudflow, rockslides, block failures, and massive landslides.

Erosion – The wearing away or removal of earth surface materials by the action of natural elements or forces including, but not limited to, wind, water or gravity.

Excavation – Any act by which earth, sand, gravel, rock or any similar material is dug into, cut, quarried, uncovered, removed, displaced, relocated or bulldozed, including the conditions resulting therefrom.

Fill:

(1) Any act by which earth, sand, gravel, rock or similar material is pushed, placed, dumped, stacked, pulled, transported, or in any way moved to a new location above the existing natural surface of the ground or on the top of a stripped surface, including the condition resulting therefrom.

(2) The difference in elevation between a point on the original ground surface and the point of higher elevation on a finished grade.

(3) The material used to make a fill.

Geotechnical Engineer – A Civil Engineer, licensed to practice in the State of Oregon, who by training, education and experience is competent in the practice of geotechnical or soils engineering practices.

Geotechnical Report – Any information required in addition to HDP Form 1 which clarifies the geotechnical conditions of a proposed development site. Examples of this would be reports on test hole borings, laboratory tests or analysis of materials, or hydrologic studies.

Grading – Any stripping, cutting, filling, stockpiling or any combination thereof, including the land in its cut or filled condition.

HDP Form 1 – The form required for specified developments subject to the Hillside Development and Erosion Control subdistrict. It contains a geotechnical reconnaissance and stability questionnaire which must be filled out and certified by a Certified Engineering Geologist or Geotechnical Engineer.

Land-disturbing Activities – Any act which alters earth, sand, gravel, or similar materials and exposes the same to the elements of wind, water, or gravity. Land-disturbing activities includes: excavations or fills, site grading, and soil storage.

Mulch – Materials spread over the surface of the ground, especially freshly graded or ex-posed soils, to prevent physical damage from erosive agents such as storm water, precipitation or wind, and which shield soil surfaces until vegetative cover or other stabilization measures can take effect.

Ordinary High Water Mark – Features found by examining the bed and banks of a stream and ascertaining where the presence and action of waters are so common and usual, and so long maintained in all ordinary years, as to mark upon the land a character distinct from that of the abutting upland, particularly with respect to vegetation. For streams where such features cannot be found, the channel bank

shall be substituted. In braided channels and alluvial fans, the ordinary high water mark shall be measured to include the entire stream feature.

Slope:

(1) Any ground whose surface makes an angle from the horizontal; or

(2) The face of an embankment or cut section.

Slope Hazard Map – A series of maps maintained and updated from time to time by the Office of the Director, Department of Community Services;

Spoil Material – Any rock, sand, gravel, soil or other earth material removed by excavation or other grading activities.

Stream – Areas where surface waters flow sufficient to produce a defined channel or bed. A defined channel or bed is indicated by hydraulically sorted sediments or the removal of vegetative litter or loosely rooted vegetation by the action of moving water. The channel or bed need not contain water year-round. This definition is not meant to include irrigation ditches, canals, stormwater runoff devices or other entirely artificial watercourses unless they are used to convey Class 1 or 2 streams naturally occurring prior to construction. Those topographic features resembling streams but which have no defined channels (e.g. swales) shall be considered streams when hydrologic and hydraulic analyzes performed pursuant to a development proposal predict formation of a defined channel after development.

Stream Protection – Activities or conditions which avoid or lessen adverse water quality and turbidity effects to a stream.

Topographic Information – Surveyed elevation information which details slopes, contour intervals and drainageways. Topographic information shall be prepared by a registered land surveyor or a registered professional engineer qualified to provide such information and represented on maps with a contour interval not to exceed 10 feet.

Vegetation – All plant growth, especially trees, shrubs, grasses and mosses.

Vegetative Protection – Stabilization of erosive or sediment-producing areas by covering the soil with:

(1) Permanent seeding, producing long-term vegetative cover;

(2) Short-term seeding, producing temporary vegetative cover;

(3) Sodding, producing areas covered with a turf or perennial sod-forming grass; or

(4) Netting with seeding if the final grade has not stabilized.

~~*Water Body* – Areas permanently or temporarily flooded which may exceed the deep-water boundary of wetlands. Water depth is such that water, and not the air, is the principal medium in which prevalent organisms live. Water bodies include rivers, creeks, lakes, and ponds.~~

~~*Watercourse* – Natural and artificial features which transport surface water. Watercourse includes a river, stream, creek, slough, ditch, canal, or drainageway.~~