

## **ORDINANCE NO. NS-2505**

### **AN ORDINANCE AMENDING BEND CODE (BC) TITLE 3, RIGHTS-OF-WAY AND CITY PROPERTY, AND TITLE 16, GRADING, EXCAVATION AND STORMWATER MANAGEMENT, INCLUDING CREATING CHAPTER 16.35, EROSION CONTROL REQUIREMENTS, AND CHAPTER 16.40, TREE PRESERVATION AND REMOVAL, AND DECLARING AN EMERGENCY**

#### Findings:

- A. The City of Bend has a National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit (NPDES MS4) issued by the Oregon Department of Environmental Quality (DEQ) under the federal Clean Water Act. This permit governs stormwater requirements that the City must implement in order to protect surface water quality, discharge stormwater through its stormwater infrastructure, and maintain regulatory compliance.
- B. The City's current permit became effective in January 2022 and includes an implementation schedule for various permit sections through 2026. Under this schedule, the requirement for Construction Site Runoff Control implementation is November 1, 2024, which includes a mandated reduction to the threshold for minimum erosion control program requirements to projects with 5,000 square feet or more of land disturbance.
- C. The City Council finds that the amendments to BC Title 16, which include new erosion control program requirements, comply with the City's National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit.
- D. The proposed amendments also create a new chapter called BC Chapter 16.40, Tree Preservation and Removal, which includes tree preservation and root protection zone performance standards for Regulated Trees (6" DBH or larger) that apply prior to development approval. The City Council finds that the proposed amendments balance the important goals of tree preservation and housing development, are necessary to protect trees prior to development approval, and are consistent with the Bend Development Code tree preservation standards.
- E. The proposed amendments also update BC Chapter 3.6, Trees on City Property and Public Rights of Way, for consistency with the City of Bend Approved Street Tree list, Appendix D of the City of Bend Standards and Specifications.
- F. Although this Ordinance includes an emergency clause and will be effective on August 16, 2024, to align with the effective date of related amendments to the Development Code, the City will only begin applying the new erosion control program requirements in BC Chapter 16.35 to projects with applications that are submitted on or after November 1, 2024, or to activities that occur on or after November 1, 2024.

**Based on these findings, THE CITY OF BEND ORDAINS AS FOLLOWS:**

Section 1. The Bend Code is amended as depicted in the attached Exhibit A. All other provisions of the Bend Code remain unchanged and in full effect.

Section 2. If any provision, section, phrase or word of this ordinance or its application to any person or circumstance is held invalid, the invalidity does not affect other provisions that can be given effect without the invalid provision or application.

Section 3. Declaration of Emergency. The City Council finds that this ordinance is necessary for the health, safety and welfare of the public, and finds that an emergency exists. The ordinance will therefore become effective on August 16, 2024.

First Reading: July 17, 2024

Second reading and adoption by roll call vote: August 7, 2024

YES: Mayor Melanie Kebler  
Mayor Pro Tem Megan Perkins  
Councilor Barb Campbell  
Councilor Anthony Broadman  
Councilor Ariel Méndez  
Councilor Mike Riley  
Councilor Megan Norris


NO: None

  
\_\_\_\_\_  
Melanie Kebler, Mayor

ATTEST:

  
\_\_\_\_\_  
Morgen Fry, City Recorder

APPROVED AS TO FORM:

  
\_\_\_\_\_  
Mary A. Winters, City Attorney

**Exhibit A**

**Bend Code Update**

Draft: June 4, 2024

Revised July 11, 2024

Prepared by:

Planning Division

Note:

Text in underlined typeface is proposed to be added

Text in ~~striketrough~~ typeface is proposed to be deleted.

\*\*\*Indicates where text from the existing code has been omitted because it will remain unchanged.

Staff comments are ***bold and italicized***

**BEND CODE**

Change Bend Area General Plan to Bend Comprehensive Plan

Rename Chapter 16.10, Clearing, Grading and Erosion Control on Construction Sites to Grading Requirements and Permits

**Title 3**

**RIGHTS-OF-WAY AND CITY PROPERTY**

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**CHAPTER 3.60**

**TREES ON CITY PROPERTY AND PUBLIC RIGHTS-OF-WAY**

**3.60.070 Downtown Street Tree Replacement.**

This section applies to removal and replacement of trees in City rights-of-way in the Central Business District.

- A. Trees may be removed only if replacement is provided. ~~Replacement trees shall be consistent with the Downtown Street Tree Plan.~~
1. On Wall and Bond Streets, street trees shall be Bowhall Maples.
  2. On Franklin, Minnesota and Oregon Avenues and on Brooks Street, street trees shall be flowering trees allowed under the ~~Downtown Street Tree Plan~~ City's currently approved tree list.
- B. ~~Replacement trees shall be the largest available size, with a minimum DBH of four inches.~~ Replacement trees at planting must have a minimum caliper size of two inches measured at four and one-half feet above ground.
- C. Trees shall be planted within an approved tree grate located no closer than three feet from the curb. Trees shall be installed using a root barrier to protect the City's sidewalk, curb and street.
- D. The trees ~~shall~~ must be installed with an approved irrigation system in conformance with the City's of Bend Standards and Specifications.
- E. Tree value reimbursement must be paid for removal of street trees in the Central Business District according to the following schedule.
1. Less than six-inch DBH: \$1,000.
  2. Between six-inch and 10-inch: \$1,500.
  3. Greater than 10-inch: \$2,000.
- F. The permittee ~~shall~~ must provide a performance and maintenance bond to ensure the planting of the new tree(s) and their care during the first two years after planting. The amount of the bond ~~shall~~ must be 120 percent of the actual replacement tree cost.

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**Title 16**

**GRADING, EXCAVATION, AND STORMWATER MANAGEMENT GRADING, EROSION CONTROL,  
STORMWATER, ILLICIT DISCHARGE, TREE PROTECTION, AND WELLS**

**Chapters:**

**16.05 General Provisions**

**~~16.10 Clearing, Grading, and Erosion Control on Construction Sites~~ Grading Requirements and  
Permits**

**16.15 Stormwater Management Design Standards and Post-Construction Maintenance Controls**

**16.20 Illicit Discharge Controls**

**16.25 Well Drilling**

**16.30 Stormwater Drainage Utility**

**16.35 Erosion Control Requirements**

**16.40 Tree Preservation and Removal**

**Chapter 16.05  
GENERAL PROVISIONS**

**Sections:**

**16.05.010 Purpose.**

**~~16.05.015 Organization of Title 16.~~**

**16.05.020 Regulatory Consistency.**

**16.05.030 Responsibility.**

**16.05.040 Central Oregon Stormwater Manual.**

**16.05.050 Enforcement.**

**16.05.060 Definitions and Acronyms.**

**16.05.010 Purpose.**

The purpose of this title is to establish minimum grading, drainage, and stormwater management and tree preservation requirements and controls for new and existing developments within Bend, as described in each section of this title. The specific objectives of this title are:

- A. To minimize the negative impacts of increased stormwater discharges from new land development and redevelopment.
- B. To maintain the integrity and quality of the Deschutes River and Tumalo Creek for their biological functions, aesthetic and recreational properties, and natural recharge of groundwater.
- C. To preserve the natural infiltration of groundwater to maintain the quantity and quality of groundwater resources.
- D. To protect against and minimize the pollution of public drinking water supplies and surface waterbodies resulting from development and redevelopment (whether private or public projects).
- E. To control the rate, quality and volume of stormwater originating from development and redevelopment sites so that surface water and groundwater are protected, and flooding and erosion potential are not increased.
- F. To control non-stormwater discharges to storm drains, dry wells and drill holes, and to reduce pollutants in stormwater discharges.
- G. To provide design, construction, operation and maintenance standards for temporary and permanent on-site stormwater management practices so as to control stormwater runoff.
- H. To promote the public health, safety, property, general welfare, and aesthetics for the citizens of Bend by regulating ~~clearing and grading activities, associated with land development,~~ erosion control, tree preservation and construction activity ~~including but not limited to initial clearing, brushing, grubbing, excavating, filling and any other activity that disturbs or breaks the topsoil.~~
- I. To preserve and enhance the City's physical and aesthetic character, to reduce erosion, and to reduce the volume of ~~polluted~~ stormwater runoff and pollution by ~~preventing untimely and indiscriminate~~ regulating construction activity and land disturbance and land disturbing activity, including but not limited to removal or destruction of trees and ground cover, by limiting clearing of Regulated Trees and native vegetation, and trees; and by keeping grading to the minimum amount needed ~~to build lots, to allow approved development to proceed, to allow access to property, and to provide fire protection.~~

- J. To promote building and site planning practices that are consistent with the City's natural topography, soils, and vegetative features.
- K. To provide long-term responsibility for and maintenance of stormwater best management practices (BMPs) and facilities.
- L. To enable the City to comply with provisions in the City's National Pollutant Discharge Elimination System (NPDES) permit, as well as adhere to provisions contained in the City's water pollution control facilities permit for Class V stormwater underground injection control systems issued by the Oregon Department of Environmental Quality, ~~as anticipated through Oregon Department of Environmental Quality (ODEQ) permit templates, in a manner promoted by the U.S. Environmental Protection Agency that implements innovative solutions including increased use of low impact development (LID) and best management practices.~~
- M. To make people responsible for costs of mitigation if they drill wells that impact existing stormwater facilities
- N. To retain and protect Regulated Trees and limit unnecessary removal by establishing minimum tree preservation and protection requirements.

**~~16.05.015 Organization of Title 16.~~**

~~This title is organized into six chapters. BC Chapter 16.05, General Provisions, provides general standards applicable to the entire title. BC Chapter 16.10, Clearing, Grading and Erosion Control on Construction Sites, contains a requirement to obtain a permit for certain clearing and grading activities, describes the exemptions from the permit requirements, and establishes standards for clearing, grading, erosion and sediment control. BC Chapter 16.15, Stormwater Management Design Standards and Post-Construction Maintenance Controls, provides standards for stormwater management systems on private property and requirements for ongoing maintenance. BC Chapter 16.20, Illicit Discharge Controls, prohibits certain discharges to stormwater systems and groundwater. BC Chapter 16.25, Well Drilling, imposes mitigation responsibility on those responsible for new wells that impact existing stormwater facilities. BC Chapter 16.30, Stormwater Drainage Utility, contains standards and procedures and imposes charges for the City's stormwater drainage utility.~~

**16.05.020 Regulatory Consistency.**

This title is consistent with Federal laws, rules and regulations including the Federal Water Pollution Control Act (33 USC 1251 et seq. (1972, as amended) (Clean Water Act)), the Safe Drinking Water Act (42 USC 300f et

seq. (1974, as amended)); the State of Oregon's air quality standards; the State of Oregon's Administrative Rules related to groundwater quality, underground injection controls and surface water quality; Oregon Drainage Law; the City's National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System permit; the City's ~~w~~Water ~~p~~Pollution ~~e~~Control ~~f~~Facilities permit for Class V ~~s~~Stormwater ~~u~~Underground ~~i~~njection ~~e~~Control ~~s~~Systems; and any other provisions of the Bend Code. No permit or approval issued pursuant to this title shall relieve a person of the responsibility to secure permits and approvals required for activities regulated by any other applicable rule, code, act, permit or ordinance. Compliance with this title does not exempt any person from complying with other applicable ordinances, rules, codes, acts or permits. The requirements of this title are minimum requirements. If any other ordinance, rule or regulation, or other provision of law also applies, the provisions that are more restrictive or impose higher protective standards shall take precedence.

#### **16.05.030 Responsibility.**

Any person who undertakes or causes to be undertaken ~~land development or redevelopment shall construction activity and/or land disturbing activities must~~ ensure that soil erosion, sedimentation, increased pollutant loads, and changed water flow characteristics resulting from the activity are controlled to minimize pollution of receiving waters and minimize any increased threat of localized flooding. The requirements of this title are minimum standards and a person's compliance shall not relieve the person from existing duties relating to stormwater or to enacting measures and best management practices (BMPs) necessary to minimize pollution of receiving waters, and minimize threat of localized flooding resulting from increased runoff or impacted drainage systems ~~as a result of development~~. By approving a plan under this title, the City does not accept responsibility for the design, installation, and operation and maintenance of stormwater BMPs unless specifically agreed to in a separate agreement.

#### **16.05.040 Central Oregon Stormwater Manual.**

The Central Oregon Stormwater Manual (COSM) is adopted by the City as the design manual for stormwater. Stormwater design professionals are required to be familiar with and use the COSM. All activities and facilities governed by this title shall be in compliance with the COSM and the City of Bend Standards and Specifications. In case of a conflict, the latter will control. The City Manager may adopt guidance documents and procedures ~~manuals~~ related to implementation of provisions of this title. The COSM may be updated and expanded periodically ~~by the City Manager, including by adding a Bend Supplement, after public notice and input, based on improvements in engineering, science, monitoring and local maintenance experience.~~ and the City may



adopt or amend a Bend Supplement and/or stormwater standards and requirements specific to the City of Bend.

#### **16.05.050 Enforcement.**

~~Violation of permits, plans, provisions, and/or performance standards authorized or contained in this title are subject to the following enforcement actions. With the exception of BC Chapter 16.10, which is based closely on long-standing clearing and grading standards, during the first year of implementation (January 30, 2012, through January 31, 2013), enforcement will be limited to education and administrative enforcement remedies as described in subsection (A) of this section. Thereafter judicial enforcement remedies may also be imposed in cases where education or administrative enforcement remedies are not proving to be effective in meeting the purpose of this title.~~

#### **A. Administrative Enforcement Remedies.**

1. *Withholding Inspections/Approvals.* The City may withhold inspections or approvals for projects or development that are not in compliance with any provision of this title.
2. *Notification of Violation.* When the City determines that a ~~land owner~~ responsible party has violated or continues to violate any provision of this title including any permit, agreement or plan authorized by this title, the City may serve upon the ~~owner~~ responsible party a written notice of violation (NOV) describing the violation. Within five working days of the receipt of the notice or other deadline agreed to in writing by the City, an explanation of how the violation was rectified or a plan for the satisfactory correction and prevention, to include specific actions, shall be submitted ~~by the land owner~~ to the City. Submission of this plan does not relieve ~~the owner~~ of liability for any violations occurring before or after receipt of the NOV. Nothing in this title shall limit the authority of the City to take any action, including emergency actions, stop work orders, or any other enforcement action, without first issuing a NOV.
3. *Consent Orders.* The City may enter into voluntary compliance agreements with any ~~land owner~~ party responsible for noncompliance. The voluntary compliance agreement will include specific action(s) to be taken ~~by the owner~~ to correct the noncompliance within a time period specified by the agreement. The agreements ~~shall~~ must be judicially enforceable. Use of a voluntary compliance agreement ~~shall~~ must not be a bar ~~against,~~ to or prerequisite for the City, taking any other action ~~against the land owner.~~

4. *Cease and Desist Orders.* When the City determines that ~~there is a land owner has violated (or continues to violate)~~ violation of any provision of this title including a ~~clearing, grading and erosion control~~ permit; performance standards; or any other required plan or other remedies provided for by this title, or that ~~the owner's~~ past violations are likely to recur, the City may, in addition to other remedies provided by this title, issue an order ~~to the land owner~~ identifying the violation(s) and directing the ~~land owner~~ responsible party to cease and desist all violations and ~~directing the owner to:~~
- a. Immediately comply with all requirements; and
  - b. Take appropriate remedial or preventive action as needed to properly address the violation, including halting ~~land clearing, grading or other land development actions~~ any construction activities, land disturbing activities, or any other activities causing or contributing to the violation(s). Issuance of a cease and desist order ~~shall~~ must not be a bar ~~against, to~~ or a prerequisite for ~~the City,~~ taking any other action ~~against the land owner.~~
5. *Emergency Suspensions.* The City may immediately suspend a ~~land owner's~~ permit or approvals ~~by (after oral or written notice to the user identifying the violation and provide notice within two working days as to the violation to the permit holder)~~ whenever the suspension is necessary to stop an actual, recurring or explicitly threatened action that reasonably appears to present or cause an imminent or substantial endangerment to the health or welfare of persons, to property, the environment, or water quality in the City. ~~The City may also immediately suspend a land owner's permit or approvals (after notice and opportunity to respond) that presents or may present an endangerment to the environment.~~
- ~~Land owners~~ Parties notified of a suspension of ~~their a~~ permit or approvals shall immediately stop or eliminate the violation. In the event of the ~~owner's~~ failure to immediately comply voluntarily with the suspension order, at the ~~owner's~~ responsible party's expense, the City may take steps to prevent or minimize endangerment to any individuals or harm to the environment including unauthorized discharges to surface water and/or groundwater. The City ~~shall~~ must allow ~~the land owner~~ a party to ~~recommence land development~~ resume activities for ~~the a~~ site ~~when the owner has upon demonstrated demonstration~~ to the satisfaction of the City that the period of endangerment has passed. Notwithstanding any permit suspension, ~~the land owner~~ a responsible party may take whatever action(s) are needed to correct the violations, subject to review and approval in the discretion of the City.

**B. Judicial Enforcement Remedies.**

1. *Injunctive Relief.* The City may seek a temporary or permanent injunction from the Circuit Court for Deschutes County to restrain or compel specific performance of permits, plans, approvals, orders issued or other requirements imposed or authorized by this title ~~on the land owner~~. The City may also initiate other action for legal and/or equitable relief, including a requirement for ~~the land owner~~ a party to conduct environmental remediation. A petition for injunctive relief shall not be a bar against, or a prerequisite for, taking any other action ~~against a land owner~~.
  
2. *Civil Penalties.*
  - a. Violation of any provision of this title or of any permit or order issued under this title is a Class A civil infraction. Each day that a violation remains uncured in effect is a separate violation.
  
  - b. The City may recover reasonable attorneys' fees, court costs, and other expenses associated with enforcement activities (i.e., subsection (A)(5) of this section), including expenses related to stormwater BMP maintenance and/or repair, monitoring expenses, and the cost of any actual damages incurred by the City.
  
  - c. In determining the amount of civil penalty, the Municipal Court ~~shall~~ must take into account all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the magnitude and duration, any economic benefit gained through the ~~owner's~~ violation, corrective actions ~~by the owner taken~~, the compliance history ~~of the owner~~, and any other factor as justice requires.
  
  - d. Initiation of a civil infraction proceeding ~~shall~~ must not be a bar ~~against, to or a prerequisite for,~~ the City taking any other action ~~against a land owner~~.
  
3. *Remedies Nonexclusive.* The provisions in this section are not exclusive remedies. The City reserves the right to take any, all, or any combination of these actions ~~against a noncompliant land owner or other responsible person~~. The City is empowered to take more than one enforcement action against any noncompliant ~~land owner or other responsible person~~ party. These actions may be taken concurrently.

#### **16.05.060 Definitions and Acronyms.**

The following definitions apply in this title:

**Access road** means a road within one mile of a construction site, designated on an approved construction plan and used during site clearing, grading and construction for the transport of equipment, hauling of fill, and other equivalent vehicular traffic to and from the construction site.

**Approval authority** means the respective City Department/Division that approves the required permit or measure. ~~This could include the Community Development Director, City Engineer, or the Public Works Director or his/her designees.~~

**Areas of special interest (ASI)** means river corridor and upland areas of special interest as described in BDC 2.7.630 and 2.7.700.

**Bedrock** means naturally occurring solid rock.

**Berm** means a mound, small rise or hill that is used for landscaping or visual screening purposes.

**Best management practice (BMP)** means a technique, activity, maintenance procedure, structural and/or managerial practice, and/or prohibition of a practice that, when used singly or in combination in a designated manner, is proven to be effective in preventing or reducing the release of pollutants and other adverse impacts to downstream or down-gradient systems. BMPs include, but are not limited to, those listed in the COSM.

**Blasting** means any activity entailing the use of explosives for the purpose of producing an explosion to demolish structures or to fragment rock for mining, quarrying, excavation and construction.

**Blasting performance standards** mean measures intended to provide a minimum threshold for controlling stormwater pollution associated with blasting activity, and are used to determine if the requirements in this title have been met (see BC 16.10.090).

**Brushing** means the selective removal of vegetation.

**Building footprint** means the outline of a building, as measured around its foundation.

**Canopy or tree canopy** means all portions of the tree with foliage.

**Central Oregon Stormwater Manual (COSM)** means the most current version of the stormwater design guidance manual adopted by the City of Bend and any City of Bend-specific supplements.

**City** means City of Bend, Oregon.

**Clearing** means the cutting or removal of vegetation, including trees.

**Clearing and grading performance standards** mean measures intended to provide a minimum threshold for controlling stormwater pollution associated with clearing and grading activity, and are used to determine if the requirements in this title have been met (see BC 16.10.070(A)).

~~**Clearing, grading, and erosion control permit (permit)** means a permit that is issued for construction, demolition, and site development for improvements related to all land divisions, multifamily developments, and commercial, industrial, and institutional sites (see BC 16.10.020(A)).~~

**Construction activity** means any activity occurring in the furtherance of a construction project, including that includes, but is not necessarily limited to, land disturbing activities disturbance and/or land disturbing activity; hauling of soil and rock; handling of building materials and construction tools; concrete, stone and tile cutting; and/or operation of motorized machinery and motor vehicles on a site or on any access routes to a construction site.

**Cut and fill performance standards** mean measures intended to provide a minimum threshold for controlling stormwater pollution associated with cut and fill activity, and are used to determine if the requirements in this title have been met (see BC 16.10.070(B)).

~~**DBH (dbh)** means the diameter at breast height, which is a measurement of tree diameter taken between four and five feet from natural ground level.~~ **Diameter at breast height (DBH)** means the diameter or thickness of a tree trunk measured at four and one-half feet above the ground. For multi-stemmed trees, the DBH is found by taking the square root of the sum of all squared stem DBHs rounding to the nearest whole number measured four and one-half feet above the ground. Example: You have three stems that measure 5", 6" and 8" so the DBH would be  $\sqrt{(5^2+6^2+8^2)} = \sqrt{(25+36+64)} = \sqrt{125} = 11"$ .

**Detention** means the process of collecting and holding surface and stormwater runoff temporarily in a designed facility such as a pond.

**Detention facility** means an above ground or below ground facility, such as a pond or tank, that temporarily stores stormwater runoff and subsequently releases it at a slower rate than it is collected by the drainage facility system.

**Development.** See definition in BDC Chapter 1.2.

**Development approval** means written consent from the approval review authority.

**Discharge** means any addition or introduction of any pollutant, surface runoff, or any other substance whatsoever into the municipal storm sewer system, a dry well, drill hole or into waters of the State.

**Discharger** means any person who causes, allows, permits or is otherwise responsible for a discharge including, without limitation, any operator of a construction site or commercial/industrial facility.

**Drainage submittal** means the submittal of documentation including narrative, basin maps, plans, calculations and other supporting documentation to demonstrate that the proposed project will adequately treat and dispose of the stormwater (see BC 16.15.010 and COSM Chapter 3).

**Drip-line** means an imaginary line around a tree or shrub at a distance from the trunk equivalent to the tree canopy(leaf and branch) spread.

**Earth material** means any rock, natural soil or fill, and/or any combination of those materials.

**Equivalent residential unit (ERU)** means a configuration of development or impervious surface estimated to contribute an amount of runoff to the City's stormwater system that is approximately equal to that created by the average developed single-family residence. One ERU is equal to 3,800 square feet of impervious surface area. All single-family residences are one ERU, regardless of impervious surface area.

**Erosion** means the progressive detachment and removal of particles, including soil and rock fragments, from the earth's surface by means of water, wind, ice, gravity or mechanical processes, including but not limited to vehicular traffic.

**Erosion and sediment control (ESC) measures** are those best management practices that when implemented correctly help prevent soils from moving and eroded sediment from leaving a site.

**Erosion and sediment control (ESC) performance standards** mean measures intended to provide a minimum threshold for controlling stormwater pollution associated with erosion and sediment control activity, and are used to determine if the requirements in this title have been met (see BC 16.10.080).

**Erosion and sediment control plan (ESCP) ~~plan~~** means a specific plan prepared by or under the direction of a Oregon licensed professional engineer or other certified professional as authorized by the City Engineer, or a plan or template provided by the City, that includes a specific set of best management practices and construction sequencing that are designed to control surface runoff and erosion, and to retain sediment on a site both before, during and after development. For the purposes of this title, an ESCP ~~plan shall~~ must be prepared in accordance with the COSM.

**ERU** means equivalent residential unit.

**ESC** means erosion and sediment control.

**Excavation** means the removal of earth material.

**Fill** means the deposit of earth material by mechanical means.

**Good housekeeping practice** means a BMP related to the transfer, storage, use, or cleanup of materials performed in a regular manner that minimizes the discharge of pollutants to the storm drain system and/or receiving waters.

**Grade** means the vertical location of the ground surface. **Existing grade** means the existing condition of the elevation of the ground surface or the natural grade prior to grading, placement of fill, or the excavation or removal of earth from the site. **Rough grade** means the stage at which the grade substantially conforms, in an unfinished state, to an approved clearing and grading sketch or plan. **Finished grade** means the final grade of the site after all clearing and grading has been completed that conforms to an approved clearing and grading sketch or plan. For sloping sites exceeding 12 percent slope, the finished grade shall not exceed four feet above or below the existing grade, unless the finished grade has been set through a site map and grading plan as specified in this title and approved by the City.

**Grading** means land disturbance including excavation or filling of earth materials or any combination thereof, ~~including the land in its excavated or filled condition.~~

**Grading permit** means a permit for any activities subject to Chapter 16.10 of the Bend Municipal Code, which may include but are not limited to tree removal, erosion control, excavation, fill, grading, and other activities, including but not necessarily limited to those related to construction, demolition, and site development.

**Grading plan** means a document that defines and describes what activities will take place in clearing and grading a site, typically in preparation for development.

**Ground cover** means a plant material or non-plant organic material (e.g., mulch, bark chips/dust) that is used to cover bare ground.

**Grubbing** means the removal of trees and other large plants by their roots.

**IBC** means International Building Code.

**Illicit discharge** means any discharge to a catch basin, surface water body, dry well or drill hole that is not composed entirely of stormwater, except conditionally exempt discharges pursuant to a NPDES permit or WPCF permit or rule authorization requirement specific to the inlet, discharges resulting from firefighting activities, or other exempt discharges as outlined in BC Chapter 16.20.

**Illicit Discharge Manual** means City of Bend Illicit Discharge Minimization Best Management Practices Manual.

**Illicit drainage connection** means any physical connection to a publicly maintained storm drain system composed of non-stormwater that has not been permitted by the public entity responsible for the operation and maintenance of the system.

**Impervious surface** means a hard surface area that either prevents or retards the entry of water into the soil mantle. Common impervious surfaces include building roofs, walkways, patios, driveways, parking lots, concrete or asphalt paving, gravel roads, and packed earthen materials.

**Infiltration** means the passage of water through the soil surface into the underlying geologic material.

~~**Land disturbance and land disturbing activities** mean moving or removal of earth material or significant removal of one or more vegetation (e.g., clear cutting) by manual or mechanical means that results in a denuded landscape that could result in significant erosion problems. activities that include, but are not necessarily limited to, demolition, construction, clearing, grading, filling, excavation, tree removal, and or compaction.~~

~~**Limited clearing and grading** mean clearing and grading resulting in only minor land disturbing activity.~~

**Low impact development (LID)** means a stormwater management strategy that emphasizes conservation and use of existing natural site features integrated with distributed, small-scale stormwater controls to more closely mimic natural hydrologic patterns and prevent, reduce and treat runoff and pollutant loadings as close to the source as possible in residential, commercial, and industrial settings.

~~**Minor land disturbing activities** mean those activities that are equivalent to or less than:~~

- ~~1. Excavation or fill of two feet or less (other than foundation areas of single family or duplexes);~~
- ~~2. Alteration to or creation of a slope that is 20 percent or less; and~~



~~3. An excavation of fill that is two feet or further away from the property line.~~

**Mitigation** means measures undertaken to rectify, repair, rehabilitate, restore and/or compensate for negative impacts that result from other actions.

**MS4** means a municipal separate storm sewer system that is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curb, gutters, ditches, manmade channels, or storm drains) owned or operated by a public body (created under State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes that discharge to the waters of the United States and which are not part of a publicly owned treatment works (POTW) as defined at 40 CFR 122.2.

**National Pollutant Discharge Elimination System (NPDES) permit** means a stormwater discharge permit issued by the U.S. EPA, Region X, in compliance with the Federal Clean Water Act and its amendments, for the discharge of pollutants into the waters of the United States as defined in 40 CFR 122.2.

**Native vegetation** means ~~plants commonly found growing in, and adapted to, Central Oregon soils and climate~~ the indigenous terrestrial and aquatic species that have evolved and occur naturally in a particular region, ecosystem, and habitat.

**Non-stormwater discharge** means any discharge to the storm drain system or receiving waters that is not entirely composed of stormwater or melted snow and ice.

**NOV** means notice of violation.

**NRCS** means Natural Resource Conservation Service.

**OAR** means Oregon Administrative Rules.

**ODEQ** means Oregon Department of Environmental Quality.

**ORS** means Oregon Revised Statutes.

**P.E.** means professional engineer in the State of Oregon.

**Performance standards** ~~mean provisions of this title intended to provide a minimum threshold for controlling stormwater pollution in the subject area, and are used to determine if the requirements of the section have been met. (See BC 16.10.070 through 16.10.100 and 16.15.040.)~~ **(Renamed and relocated to Stormwater Performance standard.)**

**Perimeter control** means any physical barrier that prevents sediment from leaving a site, either by filtering sediment-laden runoff or by diverting runoff to a sediment trap or basin.

**Permit** means a clearing, grading and erosion control permit.

**Person responsible** means the occupant, lessee, tenant, contract purchaser, owner, agent or other person having possession of property, or if no person is in possession, then the person in control of the use of the property, or in control of the supervision of development on the property. ***(Relocated and renamed to Responsible Party)***

**Phasing** means ~~clearing~~ developing a parcel of land in distinct phases, and stabilizing each phase using erosion and sediment control measures, before ~~clearing~~ developing the next phase.

**Pollutant** means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, sewage sludge, garbage, munitions, oils and grease, paints, solvents, fertilizers, pesticides, other chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, concrete washout, rock, sand, dirt, and industrial, municipal, and agricultural waste discharged into water, and as otherwise defined in 40 CFR 122.2.

**Pollution prevention** means implementing one or a series of BMPs to prevent pollutants of any kind from entering the storm drainage system including drainage to a surface waterbody, a dry well or a drill hole.

**Pollution source control plan** means a plan that addresses the prevention and/or control of stormwater pollutants at their source.

**Post-construction performance standards** mean measures intended to provide a minimum threshold for controlling stormwater pollution associated with post-construction activity, and are used to determine if the requirements in this title have been met (see BC 16.15.040(A)).

**POTW** means publicly owned treatment works.

**Predevelopment** means the natural condition before any type of development.

**Redevelopment** means a project ~~for which a building permit is required~~ that proposes to add, replace and/or alter impervious surfaces, other than routine maintenance, resurfacing, or repair.

**Regulated Tree** means an individual tree with a trunk diameter of six inches or larger measured at four and one-half feet above the ground (known as DBH, for “diameter at breast height”). See BC 16.40, Tree Preservation and Removal.

**Responsible Party** means the occupant, lessee, tenant, contract purchaser, owner, agent or other person having possession of property, or if no person is in possession, then the person in control of the use of the property, or in control of the supervision of development on the property. *(Existing definition but relocated and renamed from Person Responsible)*

**Retaining wall** means a wall designed to resist the lateral displacement of soil or other material, as defined in the current International Building Code (IBC).

**Retention** means the process of collecting and holding surface and stormwater runoff with no surface outflow.

**Revegetation** means placement of living plant material on sites or excavation and fill slopes where the natural vegetation has been removed.

**Riparian Area.** See definition in BDC Chapter 1.2.

**Riparian corridor** means the area within and adjacent to the Deschutes River and Tumalo Creek that includes water areas, fish and wildlife habitat, wetlands, and riparian vegetation and other State Planning Goal 5 resources to be conserved and protected. For purposes of this title, the riparian corridor is defined as the area within the Waterway Overlay Zone (WOZ).

**Root protection zone** means a circular area measured from the outside trunk of the tree equal to one foot in radius for every inch of tree at diameter at breast height. For offsite trees with root protection zones that extend into the site, the root protection zone may be estimated but no less than the extent of the dripline.

**Sensitive areas** means wetlands, areas within a site with ~~individual trees with a specific trunk diameter for deciduous trees of six inches or greater and for coniferous trees of 10 inches or greater as measured four dbh~~ one or more Regulated Trees, steep slopes, floodplains and other natural resource areas designated for protection or conservation by the Bend Area General Comprehensive Plan or the State of Oregon.

**Site** means, for purposes of this Title, any lot or parcel of land, or a contiguous combination of lots, parcels and/or easements under the same ownership or unified control.

**Site development envelope** means that area of a site that is best suited for development, as determined by identifying sensitive areas (as defined in this title) for protection, setbacks, and other local standards and requirements.

**Site map** means a document that defines and describes specific attributes of a site proposed for development.

~~**Site map and grading plan** means a document that defines and describes specific attributes of a site proposed for development and what activities will take place in clearing and grading a site in preparation for development (see BC 16.10.020(B)).~~

**Slope** means an inclined ground surface, the inclination of which is expressed as a ratio of horizontal distance to vertical distance or expressed as a percent of the change in elevation over a given distance.

**SM Zone** means surface mining zone.

**Soil** means naturally occurring unconsolidated sediments and deposits that overlay bedrock.

**Soils and geological reconnaissance report (soils report)** means a report based on adequate test borings (as necessary) that contains data regarding the nature, distribution, strength and erodibility of both existing soils and soils to be placed on the site, if any (see BC 16.10.020(B)).

**Source control practice** means one or a series of best management practices that, when implemented correctly, controls pollutants at their source and limits their discharge into the storm drainage system, dry well or drill hole.

**Stabilization** means the use of practices that prevent exposed soil from eroding and/or increases the structural strength of a graded area.

**Standards and Specifications** mean the most recent version of the City of Bend ~~Public Improvement Construction Procedures~~ Standards and Specifications for all public infrastructures in the City of Bend and apply to both City Capital Improvement Projects and to private development projects.

**Steep slope** means slopes that are greater than 10 percent.

**Stormwater** means water from precipitation that collects on or runs off surfaces such as roofs, buildings, roads, or paved or unpaved land surfaces; that portion of precipitation that does not naturally percolate into the ground

or evaporate, but flows, via overland flow, interflow pipes and other features of a stormwater drainage system, into a defined surface water body or constructed infiltration or evaporation facility.

**Stormwater facility** means a detention and/or retention pond, swale, dry well, or other surface water feature that provides storage during high rainfall events and/or water quality treatment.

**Stormwater management** means the process of collection, conveyance, storage, treatment, and disposal of stormwater to ensure control of the magnitude and frequency of runoff and to minimize the hazards associated with flooding. It also includes implementing controls to reduce the discharge of pollutants to streams and groundwater including management practices, control techniques and systems, design and engineering methods.

**Stormwater performance standards** mean measures intended to provide a minimum threshold for controlling stormwater quantity, flow, and/or pollution in the subject area, and are used to determine if the requirements of this title have been met. *(Relocated and renamed from Performance Standard to Stormwater Performance standard.)*

**Stormwater service** means the operations of the City's stormwater utility in providing programs and facilities for maintaining, improving, regulating, collecting, and managing stormwater quantity and quality within the City's service area.

**Stormwater system** means any structure or configuration of ground that is used or by its location becomes a place where stormwater flows or is accumulated, including but not limited to dry wells, drill holes, swales, pipes, curbs, gutters, manholes, catch basins, ponds, creeks, open drainage ways, ditches and their appurtenances. **City stormwater system** means the portions of the stormwater system in public rights-of-way, within easements owned by the City, or on City property. **Private stormwater facility** means any stormwater facility on private property and not within an easement owned by the City.

**Stormwater system maintenance agreement** means a document executed by the property owner that is recorded in the Deschutes County Clerk's office to run with the land, that requires the current and successor owners to maintain the stormwater system on the property so that the system continues to function as planned (see BC 16.15.050).

**Stream** means a year round flowing watercourse.

**Surface runoff** means that portion of rain, snow melt, or irrigation water that does not naturally percolate into the ground or evaporate, but instead flows over the land or impervious surfaces.

**Swale** means a type of stormwater facility consisting of a broad, shallow depression used to provide a required volume of on-site storage for stormwater, typically planted with vegetation that filters and processes contaminants.

**SWMP** means stormwater management plan.

**TMDL** means total maximum daily load, a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards. Under Section 303(d) of the Federal Clean Water Act, states, territories, and authorized tribes are required to develop lists of impaired waters (e.g., waters that are too polluted or otherwise degraded to meet the water quality standards set by the states, etc.) and TMDLs for these waters. (Source: United States Environmental Protection Agency.)

**Tree preservation performance standards** mean measures intended to provide a minimum threshold for preserving and protecting Regulated Trees ~~during clearing and grading activities~~, and are used to determine if the requirements in this title have been met (see BC ~~46.40.100~~ 16.40, Tree Preservation and Removal).

**Tree ~~protection~~ preservation site plan** means a plan developed in accordance with BDC 3.2.200(~~CB~~)(2).

**UIC** means underground injection control.

**Underground injection control (UIC) system** means any structure or activity that discharges fluids such as stormwater or septic effluent below the ground or subsurface. Common UIC designs include dry wells, drill holes, floor drains, trench drains, and drain fields.

**Water Overlay Zone (WOZ)** means areas of special designation adjacent to the Deschutes River and Tumalo Creek as described in BDC 2.7.600.

**Wellhead protection area** means an area within 500 feet of an undelineated water well (e.g., drinking or irrigation water); or within the modeled two-year-time-of-travel area for a delineated water well.

**Work schedule** means the schedule of anticipated clearing, grading, installation of ESC measures, and proposed inspection and maintenance schedule(s) for a construction site (see BC 16.10.020(F)).

**WOZ** means ~~Waterway Overlay Zone~~.

WPCF means water pollution control facility.

## Chapter 16.10

### ~~CLEARING, GRADING AND EROSION CONTROL ON CONSTRUCTION SITES~~

#### GRADING REQUIREMENTS AND PERMITS

- 16.10.010      Applicability and Exemptions.
- 16.10.020      ~~Clearing, Grading and Erosion Control on Construction Sites.~~
- 16.10.030      Permit Fees.
- 16.10.040      Issuance and Implementation of Permits.
- 16.10.050      ~~Clearing, Grading, Erosion and Sediment Control, and Pollution Prevention~~  
Inspections.
- 16.10.060      Erosion and Sediment Control and Pollution Prevention Compliance.
- 16.10.070      Clearing and Grading Performance Standards.
- 16.10.075      Temporary Rock Crushing Outside of the SM Zone.
- 16.10.080      Erosion and Sediment Control and Pollution Prevention Performance Standards.
- 16.10.090      Blasting Performance Standards.
- ~~16.10.100      Tree Preservation Performance Standards. (Revised and relocated to BC 16.40, Tree  
Preservation and Removal)~~
- 16.10.010 Applicability and Exemptions.

A. **Applicability.** This chapter applies to all construction activity ~~and all land disturbing activity, directly or indirectly associated with construction projects,~~ and land disturbance and/or land disturbing activities and

all persons engaged in ~~construction activity and land disturbing activity, directly or indirectly associated with construction projects, within the City~~ those activities, unless expressly exempted under this chapter.

1. Erosion and sediment pollution must be prevented on all construction sites, regardless of whether a clearing, grading and erosion control permit (permit) is required, to prevent migration of sediment and construction related pollutants off site. Erosion must be controlled to keep sediment and debris from streets, storm drainage facilities, and surface water bodies. All construction sites must be cleaned up and stabilized to avoid erosion and sedimentation.
2. Unless exempt, no clearing and grading shall occur without a valid permit.
3. Unless exempt, the applicant for a permit must submit a written commitment to comply with this title to the maximum extent practicable.
4. If a permit has been suspended, revoked or has expired, all work covered by the permit shall cease until the suspension or revocation is lifted by the City or a new permit is issued.

**B. ~~1. Exemptions.~~** ~~Projects in the following categories do not need to apply for, and are exempt from the permit requirements, but not from the performance standards (described in BC 16.10.070 through 16.10.100, and 16.15.040), provided the project or site does not include an existing or proposed UIC facility:~~ The following are exempt from Chapter 16.10, Grading Requirements and Permits:

- ~~1. Commercial agriculture practices involving working the land for production are generally exempt, except land disturbance related to the construction of new, permanent impervious surfaces as related to commercial agriculture or the construction of agricultural drains that are designed to act as UICs.~~  
**(Relocated to BC 16.10.020.A.1)**
- ~~2. Forest practices regulated under the Oregon Forest Practices Act ORS 527.610 through 527.770, 527.990(1) and 527.992), except conversions from forest lands or timberlands to other land uses.~~  
**(Relocated to BC 16.10.020.A.1 and BC 16.40)**
- ~~3. a.~~ Actions by a public utility or any other governmental agency to remove or alleviate an emergency condition, restore utility service, or reopen a public thoroughfare to traffic.
- ~~4. Remodeling permits or tenant improvements that do not add 5,000 or more square feet of impervious surface.~~ **(Would not result in any clearing or grading.)**



- ~~5. Change of use permits. **(Would not result in any clearing or grading.)**~~
6. b. Records of survey, boundary (i.e., minor lot line) adjustments, and property aggregations, unless the action affects drainage tracts or easements.
- ~~7. c. Activities, Permits or applications for projects not physically disturbing the land; issuance of permits and/or approvals for land divisions; interior improvements to an existing structure; or other approvals for which there is no physical disturbance to the ~~surface~~ of the land.~~
8. ~~Public or private road and parking area preservation/maintenance projects such as:~~
- ~~a. Pothole and square cut patching;~~
  - ~~b. Crack sealing;~~
  - ~~c. Resurfacing with in-kind material without expanding the area of coverage;~~
  - ~~d. Overlaying existing asphalt or concrete pavement with bituminous surface treatment (or chip seal), asphalt or concrete without expanding the area of coverage;~~
  - ~~e. Shoulder grading;~~
  - ~~f. Maintaining existing drainage systems including reshaping or regrading drainage systems to original design; and~~
  - ~~g. Vegetation maintenance.~~

***(Relocated to BC 16.10.020.A.1)***

9. ~~Operation and maintenance or repair of existing facilities. **(Relocated to BC 16.10.020.A.1)**~~
10. d. Routine Landscaping and maintenance on residential lots, including gardening, and noncommercial agricultural activity, ~~and limited clearing and grading. (Note: this This exemption does not apply to tree removal or landscaping modifications to stormwater drainage or treatment swales.)~~
11. ~~Cemetery graves. **(Relocated to BC 16.10.020.A.1)**~~

- ~~12. Landfill operations by a governmental entity consistent with an Oregon Department of Environmental Quality permit for the operation of post-closure activities at a landfill. **(Relocated to BC 16.10.020.A.1)**~~
- ~~13. Archaeological exploration conducted under State permit. **(Relocated to BC 16.10.020.A.1)**~~
- ~~14. Removal of selected individual plants for storage or replanting. **(Relocated to BC 16.10.020.A.1)**~~
- ~~15. Removal of trees on single family residential lots on one acre or less. **(Relocated to BC 16.40)**~~
- ~~16. Removal of trees less than eight inches dbh. **(Relocated to BC 16.10.020.A.1)**~~
- ~~17. Removal of flammable vegetation and combustible growth within 30 feet of a structure for fire safety. **(Revised and relocated to BC 16.40)**~~
- ~~18. Normal maintenance, pruning or limbing of trees. **(Relocated to BC 16.40)**~~
- ~~19. Removal of noxious weeds. **(Relocated to BC 16.10.020.A.1)**~~
- ~~20. Removal of trees within an area approved by Deschutes County for a sanitary septic system. **(Relocated to BC 16.10.020.A.1 and BC 16.40)**~~
- ~~21. Normal and customary excavation and fill associated with the ongoing maintenance activities on golf courses such as reconstruction of tee boxes, re-sculpturing of fairway bunkers and greens, etc. **(Relocated to BC 16.10.020.A.1)**~~
- ~~22. Normal pruning, limbing and removal of trees and vegetation in routine landscaping maintenance of public school grounds, parks and trails, golf courses and cemeteries that is not associated with preliminary grading or clearing of a development project. **(Covered in revised subsection d., above)**~~
- ~~23. e. An Actions to alleviate an emergency that immediately affects life or property.~~

~~Any of the exemptions from treatment requirements are superseded by requirements set forth in a total maximum daily load (TMDL), water cleanup plan, groundwater cleanup plan, surface water management plan (SWMP), Safe Drinking Water Act, Oregon Administrative Rules specifically OAR 340-040-0030, and UIC permit requirements.~~

#### ~~16.10.020 Clearing, Grading and Erosion Control on Construction Sites~~

## A. Grading Permit Requirements.

- ~~1. The City shall issue a clearing, grading, and erosion control permit (permit) for nonexempt construction work.~~
- ~~2. The permit is required for clearing and grading activities related to construction, demolition, and site development for improvements related to all land divisions, multifamily developments, and commercial, industrial, and institutional sites. Single family and duplex site developments are exempt from the permit requirement (but not from the standards described in BC 16.10010 and 16.10.070 through 16.10.100) unless one of the following activities is proposed:~~
  - ~~a. Excavation or fill exceeding two feet other than foundation areas of single family or duplexes.~~
  - ~~b. Alteration to or creation of a slope exceeding 20 percent.~~
  - ~~c. An excavation or fill within two feet of the property line.~~
  - ~~d. Tree removal of trees more than eight inches dbh on properties greater than one acre.~~
  - ~~e. Any clearing and grading activity located entirely or partially on sensitive areas or within a designated area of special interest or Waterway Overlay Zone as described in BDC Chapter 2.7.~~
  - ~~f. Any other site determined by the City to have conditions necessitating additional control measures on a site specific basis for the protection of health, safety, property, or water quality protection.~~
1. A grading permit is required for all projects and activities subject to this chapter. Projects and activities in the following categories do not require a grading permit but must comply with the requirements and standards in other chapters of this Title:
  - a. Sites with an existing or proposed single-unit detached dwelling, accessory dwelling unit, duplex, triplex, quadplex, townhome, cottage (part of a cottage cluster development), or single room occupancy with six or fewer units unless one of the following activities is proposed:
    - i. Excavation or fill exceeding two feet other than foundation areas of a dwelling unit.
    - ii. Alteration to or creation of a slope exceeding 20 percent.
    - iii. An excavation or fill within two feet of the property line.

- iv. Removal of Regulated Trees on sites greater than one acre.
  - v. Any clearing and grading activity located entirely or partially on sensitive areas or within a designated area of special interest or Waterway Overlay Zone as described in BDC Chapter 2.7.
  - vi. Any other site determined by the City to have conditions necessitating additional control measures on a site-specific basis for the protection of health, safety, property, or water quality protection.
- b. Commercial agriculture practices involving working the land for production are exempt, except land disturbance related to the construction of new, permanent impervious surfaces as related to commercial agriculture or the construction of agricultural drains that are designed to act as UICs.
- c. Public or private road and parking area preservation/maintenance projects such as:
- i. Pothole and square cut patching;
  - ii. Crack sealing;
  - iii. Resurfacing with in-kind material without expanding the area of coverage;
  - iv. Overlaying existing asphalt or concrete pavement with bituminous surface treatment (or chip seal), asphalt or concrete without expanding the area of coverage;
  - v. Shoulder grading;
  - vi. Maintaining existing drainage systems including reshaping or regrading drainage systems to original design; and
  - vii. Vegetation maintenance along the edges of the pavement for weed abatement and to keep the clear vision areas and sight distance areas unobstructed.
- d. Operation and maintenance or repair of existing facilities.
- e. Normal and customary excavation and fill associated with cemetery graves.
- f. Landfill operations by a governmental entity consistent with an Oregon Department of environmental Quality permit for the operation of post-closure activities at a landfill.

- g. Archaeological exploration conducted under State permit.
- h. Removal of selected individual plants for storage or replanting.
- i. Removal of noxious weeds.
- j. Normal and customary excavation and fill associated with the ongoing maintenance activities on golf courses such as reconstruction of tee boxes, re-sculpturing of fairway bunkers and greens, etc.
- k. Removal of trees less than six inches DBH.
- l. Removal of trees within an area approved by Deschutes County for a sanitary septic system.  
***(Exempted from tree preservation in BC Chapter 16.40)***
- m. Forest practices regulated under the Oregon Forest Practices Act ORS 527.610 through 527.770, 527.990(1) and 527.992), except conversions from forest lands or timberlands to other land uses.  
***(Exempted from tree preservation in BC Chapter 16.40)***
- n. Removal of flammable vegetation, including Regulated Trees, and combustible growth if declared a hazard by the Fire Code Official and approved by the Planning Manager. ***(Similar to an exemption in BC Chapter 16.40)***

**B. *Applications.*** A grading permit must be obtained prior to performing activities authorized by a City building permit or other permit authorizing construction. The application for a permit ~~shall~~ must include:

1. A completed permit application form.
2. A fee in an amount set by Council resolution.
3. A site map and grading plan containing all the following information:
  - a. Existing and proposed topography of the site taken at a contour interval sufficiently detailed to define the topography over the entire site. Ninety percent of the contours shall be plotted within one contour interval of the true location.
  - b. One-foot contour intervals that extend off site sufficient to show on- and off-site drainage.
  - c. The site's property lines shown in true location with respect to the plan's topographic information.

- d. The location of all sensitive lands including area of special interest (ASI) lands, and any areas on the site that are intended to remain undisturbed.
- e. The location and dimensions of the site development envelope as defined in this title.
- f. Location and graphic representation of all existing and proposed natural and man-made drainage facilities, including the direction of drainage within 300 feet of the site boundaries in all directions. The site map and grading plan shall demonstrate that clearing and grading activities will have minimal impact on the existing water flow through the natural and existing drainage routes, except in instances where an approved surface water collection facility is incorporated into this plan.
- g. The site's point(s)-of-entry and/or access road(s) that will be used for clearing and grading activity access.
- h. ~~Existing Trees. Location of existing vegetation types, and the location and type of vegetation to be left undisturbed, per the requirements specified in BDC 3.2.200, Landscape Conservation, and shown in the Planning Development approval. The following must be shown:~~
  - i. Location of all Regulated Trees on the site and within abutting rights-of-way.
  - ii. Tree size (Diameter at Breast Height).
  - iii. Proposed tree status (trees to be removed or preserved).
  - iv. Location of root protection zones for on-site trees proposed to be preserved and the portion of any off-site tree's root protection zones that extends into the site.
  - v. An indication that protection fencing of each tree proposed to be preserved will be installed in compliance with BDC 3.2.200.F, Root Protection Zone Requirements.
- i. A description of the ~~tree root zone protection standards requirements~~ requirements to be implemented during construction in compliance with BDC 3.2.200.F, Root Protection Zone Requirements.
- j. Location and graphic representation of all drainage features, existing and proposed underground injection controls (UICs), and erosion and sediment control measures.
- k. Location of any buildings or structures on the work site, and the location of any buildings or structures on land of adjacent owners that are within 15 feet of the work site, or that may be

affected by the proposed grading operations. These would include, but not be limited to, utilities locations.

- I. For applicable sites, an overlay map including the 100-year flood zone, WOZ, ASI, or otherwise depicting the sensitive areas.

4. The City may require the site map and grading plan be prepared by a registered professional licensed to prepare such documents by the State of Oregon.

5. An erosion and sediment control plan (ESCP) ~~plan~~ prepared in accordance with City Standards and Specifications and the COSM.

6. A soils and geological reconnaissance report (soils report) prepared by an Oregon licensed professional engineer (P.E.) or an Oregon licensed professional geologist may be required if the City determines that special circumstances warrant such information.

- a. The report shall contain all geotechnical engineering information and recommendations applicable to the project including data, based on adequate test borings (as necessary), regarding the nature, distribution, strength and erodibility of both existing soils and soils to be placed on the site, if any; and shall be sealed and signed by an Oregon licensed professional engineer or an Oregon licensed professional geologist.

- b. The report shall be incorporated into the site map and grading plan and statement and be provided during clearing, grading and erosion and sediment control inspections.

**C. *Approval Criteria.*** An application for a permit may be approved only if it includes all materials required by this title and demonstrates compliance with applicable standards of this title, including compliance with performance standards described in BC 16.10.070 through ~~16.10.400~~ 16.10.090 and 16.40. The application must show that receiving ground and surface waters are protected and that surface runoff, erosion and off-site sediment transport are minimized to the maximum extent possible.

If a permit application cannot be approved as submitted, the City may require the applicant to do any or all of the following:

1. Reduce the area of land to be disturbed.
2. Change a BMP or any facet of, where deemed necessary.

3. Submit a soils report to inform conclusions and recommendations for grading procedures and soil stabilization.
4. Restrict land disturbing, filling or soil storage activities during precipitation.
5. Revise and resubmit the plan as per the direction of the approval authority.

**D. *Compliance.*** All construction activity under a ~~clearing, grading and erosion control~~ permit must comply with the conditions of the permit and approved plans. ~~All C~~construction activity ~~shall~~ must be conducted in compliance with ~~performance~~ standards (described in BC 16.10.070 through ~~16.10.100~~ 16.10.090, and in BC 16.15.040 and BC 16.40) to the maximum extent practical unless otherwise specified in the permit. During construction, a copy of the ESCP plan must be kept on the construction site and readily available to construction personnel and inspectors. The permit holder is responsible for ensuring that contractor(s), subcontractor(s), and all other persons entering the site abide by the conditions of the permit and ~~plan~~ ESCP.

Land disturbing activities involving one acre or more of disturbed area may also require a NPDES stormwater discharge permit (1200-C for construction activity) from the Oregon Department of Environmental Quality (ODEQ) when the site discharges to surface water or to a conveyance system that leads to surface water.

**E. *Conditions of Approval.*** All permits ~~shall~~ must contain standard conditions to ensure compliance with this title and construction consistent with the approved plans.

The following items are required as conditions of approval to be included in each permit:

1. A requirement to provide the City any updates to the site map and grading plan and work schedule.
2. ~~A tree protection plan, if required by BDC 3.2.200(C).~~ A requirement to maintain a copy of the approved tree preservation site plan and root protection zone requirements in conformance with subsection (B)(3)(h and i) of this section, on the work site and available for inspection during work hours.
3. A requirement to maintain a copy of the permit, approved plans, site map and grading plan addenda in conformance with subsection (G) of this section, and required reports on the work site, available for inspection during work hours.



4. A requirement to construct and maintain BMPs in conformity with the permit and approved plans.

**F. *Work Schedule.*** A detailed work schedule must be provided prior to grading that includes the following:

1. Anticipated grading schedule (e.g., the proposed sequence, schedule and/or timing for excavation, filling, and other land disturbing and filling activities, and earth material storage and disposal).
2. Anticipated clearing and grading and/or construction status conditions of the site at the end of each month during which the permit is in effect.
3. Proposed schedule for installation of all erosion and sediment control measures described in the erosion and sediment control plan (ESCP) ~~plan~~ including, but not limited to, the stage of completion of erosion and sediment control devices and vegetative measures on each of the dates set forth in the work schedule.
4. Proposed project inspection and maintenance schedule(s).
5. Schedule for construction of final improvements, if any.

**G. *Site Map and Grading Plan Addenda.*** If the following information could not be provided as part of the original site map and grading plan, it shall be submitted as site map and grading plan addenda prior to clearing and grading activities.

1. Location and graphic representation of proposed excavations and fills, of on-site storage and/or stockpiling of soil and other earthen materials, and of on-site disposal.
2. Location of dumpsters, concrete and cement wash areas, vehicle fueling and maintenance areas, and construction material (including but not limited to drywall, plaster, paint, solvents, adhesives, and other hazardous materials) storage and handling areas, if any.
3. Outline of the methods to be used in clearing vegetation, and in storing and disposing of the cleared vegetative matter.
4. Quantity of soil and other earth materials expressed in tons or cubic yards to be excavated, filled, stored, or otherwise used on site. If fill is to be removed from the site, the location where fill materials will be taken.

**16.10.030 Permit Fees.**

**A. *Applicability and Establishment.***

1. Fees are established by Council resolution. Applicable fees shall be paid at the time of application and at any other time additional fees are incurred.
2. The permit fees may be based on the nature or size of the permitted area.
3. The applicable fees shall be doubled if the construction activity is commenced prior to permit issuance, except where an emergency situation has been recognized by the City. Payment of the doubled fee shall not preclude the City from taking any other enforcement actions within its authority. The City may waive doubling of the fee if the applicant is shown to have acted in good faith.
4. The fee necessary to resubmit an application for an expired permit shall be one-half of the otherwise applicable fee.

**16.10.040 Issuance and Implementation of Permits.**

**A. *Permit Issuance.*** The City shall issue a permit on approval of a site map and grading plan, an ESCP ~~plan~~, a work schedule, a soils report (if required), and on payment of applicable fees. The permit is subject to the following conditions:

1. The permittee shall maintain a copy of the permit, approved plans and required reports on the work site and available for inspection during all working hours.
2. ~~The permittee shall, at all times, be in conformity with the approved site map and grading plan, and ESC plan.~~ If site conditions require emergency measures and in-field changes, the permittee must notify the City and obtain amendments of the plans as necessary.

**B. *Implementation of Permit – Permittee's Duties.***

1. Holders of a permit ~~shall~~ must comply with the permit requirements, including ~~the a~~ a site map and grading plan, ESCP ~~plan~~, work schedule, and incorporated BMPs appropriate to meet performance standards requirements (as described in BC 16.10.070 through ~~46.40.400~~ 16.10.090 and BC 16.40).
2. A permittee shall notify the City via email or in writing at least 48 hours before the beginning of land disturbing or filling activities, or soil storage when these activities are scheduled to occur in areas located in designated WOZ or ASI zones. The permittee shall also submit, based on a schedule

agreed upon between the permittee and the City based on activity levels on the site, and at least quarterly, regular notifications on:

- a. The progress of, or delays in, land disturbing or filling activities or soil storage.
  - b. Any other departures from the approved site map and grading plan that may affect implementation of the ESCP ~~plan~~, as scheduled.
  - c. Possible delays in obtaining materials, machinery, services, or manpower necessary to the implementation of the ESCP ~~plan~~, as scheduled.
  - d. The progress of, delays in or any other departures from implementation of the ESCP ~~plan~~.
3. For any post-construction or long-term BMPs or stormwater facilities incorporated as part of the ESCP ~~plan~~, the permittee shall submit a copy of the instructions given by the permittee to the new owners of the improved property or their agent regarding the maintenance of the surface runoff, erosion and sediment control measures, and devices implemented under the ESCP ~~plan~~ to the City.
  4. *Maintenance.* The owner of any private property on which clearing and grading or other work has been performed pursuant to an approved site map and grading plan, ESCP ~~plan~~, approved land use application, or approved building permit granted by the Community Development Department shall maintain and repair in perpetuity all graded surfaces and erosion prevention, sediment control, and pollution prevention devices, retaining walls, drainage structures, plantings and ground cover, or other means or devices deemed not to be the responsibility of the City or other public agency.

**C. *Implementation of Permit – City’s Duties.*** The City shall review all reports submitted by the permittee. If the City finds delays in implementing or departures from the approved site map and grading plan or ESCP ~~plan~~, or any problems with or breakdowns in any technique provided for by the ESCP ~~plan~~, the City shall notify the permittee in writing of the requirement, and the permittee shall be required to comply with the order to modify within five working days or sooner should the City request based on potential threat from weather conditions.

The City may develop an inspection schedule to inspect work sites for compliance with this title, permits and plans.

**D. *Suspension or Revocation of Permit.*** The City shall must follow the procedures of this section before resorting to other enforcement activities.

1. The City ~~shall~~ must suspend any ~~clearing, grading and erosion control~~ permit and issue a stop work order, and the permittee ~~shall~~ must cease all work on the work site, except work necessary to remedy the cause of the suspension, on notification of the suspension when:
  - a. The permittee fails to act in compliance with subsection (B) of this section.
  - b. The permittee fails to submit required reports in full on time.
  - c. A City inspection reveals that the work or work site is not in compliance or conformance with:
    - i. Subsection (A) of this section;
    - ii. The site map and grading plan and/or the ESCP plan;
    - iii. Required reports (e.g., private inspection records, permit reports and copy of maintenance instructions); or
    - iv. Orders authorized by this title.
2. The City may revoke any permit and issue a stop work order, and the permittee ~~shall~~ must cease work, when:
  - a. The permittee fails or refuses to cease work after receiving a stop work order.
  - b. Any failure to comply with this title, permit or order issued under this title, or plan or schedule approved under this title in the Riparian Corridor Sub Zone as described in BDC 2.7.620, or in a wellhead protection area.
3. If a stop work order has been placed on a project due to violations of this title the City may require the applicant to provide the City with financial security in an amount designed to assure compliance with this title. If required, the financial security must be a bond or other financial security approved by the City Attorney. The financial security must be sufficient to restore the site to a stable and safe condition.
4. The City may reinstate a suspended permit on the permittee's correction of the cause of the suspension, but ~~shall~~ must not reinstate a revoked permit. A permittee may appeal a permit revocation decision to the City Manager within 30 days of receipt of the revocation notice.

**16.10.050 Clearing, Grading, Erosion and Sediment Control, and Pollution Prevention Inspections.**

**A. General Inspections.**

1. All clearing, grading, erosion and sediment control plans (ESCPs), and pollution prevention controls that require a permit ~~shall~~ must be inspected by the City to ensure compliance with the permit:
  - a. The permit holder ~~shall~~ must request an inspection 48 hours prior to the desired inspection time and date.
  - b. Whenever clearing and grading, ESC, and pollution prevention work requiring City inspection is concealed by additional work without first having been inspected, the City may require that such work be exposed for inspection by the City.

**B. Inspection of Rough Grade.**

1. At the discretion of the City, a rough grade inspection may be required. All rough clearing and grading ~~shall~~ must be completed in accordance with the permit.
2. A copy of the soils report (if required) and certification of sub-base requirements ~~shall~~ must be submitted to the City prior to any foundation inspections or prior to issuance of certificate of final clearing/grading approval.

**C. Final Clearing and Grading and Erosion and Sediment Control and Pollution Prevention Inspections.**

1. All required clearing and grading and ESC and pollution prevention control work ~~shall~~ must be completed in accordance with the permit prior to final clearing and grading, ESC control and pollution prevention inspections by the City and issuance of final approvals.
2. Where the conditions of a permit include the establishment of vegetation or other final site clearing and grading or ESC control work that extends beyond the expiration of the permit, the City ~~shall~~ must make a post-clearing and grading or ESC and pollution prevention control inspection within six months of permit expiration or as required by the permit before final approval.

**16.10.060 Erosion and Sediment Control and Prevention Compliance.**

**A. Applicability.**

1. Permittees are required to ensure compliance with this title during clearing, grading and construction activities. The permittee must designate a person to be responsible for compliance with this section. The person must be knowledgeable in the principles and practices of erosion and sediment controls; possess the skills to assess conditions at the construction site that could impact stormwater quality; be knowledgeable in the correct installation of the erosion and sediment controls and general construction site pollution prevention and good housekeeping practices; and be able to assess the effectiveness of any sediment and erosion control and pollution prevention measures selected to control the quality of stormwater discharges from the construction activity.
2. The permit application form ~~shall~~ must contain the name, address, telephone number and email of the person designated to be responsible for erosion and sediment control during ~~clearing, grading and other~~ construction activities.
3. The following must be routinely inspected by the person designated to be responsible for ESC and pollution prevention compliance:
  - a. All areas of the site disturbed by construction activity to ensure that BMPs are followed and are being effective.
  - b. Discharge point(s) identified in the ESCP ~~plan~~ for evidence of or the potential for the discharge of pollutants (including sediment and turbidity), and to ascertain whether ESC and pollution prevention measures are effective in preventing significant impacts to surface waters. Where discharge points are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practical.
  - c. BMPs identified in the ESCP ~~plan~~ or any revision thereto to assess whether they are functioning properly.
  - d. Locations where vehicles enter or exit the site for evidence of off-site sediment tracking.
  - e. Areas used for storage of materials that are exposed to precipitation for evidence of spillage or other potential to contaminate stormwater runoff.
4. The permittee is responsible to ensure BMPs are utilized, that inspections required by this section occur on a site-appropriate schedule and that BMPs are maintained, repaired and/or removed so that the performance standards continue to be met.

5. The permittee must document all inspections conducted by permittee and retain records of inspections for at least three years after project completion.

**16.10.070 Clearing and Grading Performance Standards.**

A. **General Performance Standards.** The following performance standards ~~shall~~ must be implemented prior to the start of and as part of clearing and grading of all lands requiring a permit per this title unless exempted in writing by the City:

1. Site clearing and grading ~~shall~~ must be in conformance with an approved ~~subdivision/site plan final~~ land use decision or final decision of the Review Authority or other development approval. Site clearing and grading ~~shall~~ must protect water resource quality by:
  - a. Limiting clearing or destruction of native vegetation ~~and trees~~ to those areas defined within the site development envelope as shown on the site map and grading plan required on the permit application form; ~~and~~
  - b. Keeping construction activity outside of the root protection zone of each tree required to be preserved as shown on the development approval's tree preservation site plan; and
  - c. Keeping clearing and grading limited to the site development envelope as shown on the site map and grading plan.
2. Establishment of the site development envelope ~~shall~~ must consider preservation of natural land and water features, steep slopes, topography, native ~~vegetation such as per the tree preservation standards,~~ root protection zones of trees required to be preserved consistent with the development approval's tree preservation site plan, drainage, geotechnical site assessments, areas that provide water quality or quantity benefits and/or are necessary to maintain riparian and aquatic biota, and other indigenous natural features of the site.
3. Site clearing or grading, except that necessary to establish erosion and sediment control devices, ~~shall~~ must not begin until all erosion and sediment control devices and tree protection fencing have been installed by the permittee and have been inspected by the City.
4. During site clearing or grading activity, no vehicles ~~shall~~ can be driven over sensitive lands including river corridor areas of special interest (ASI) (as described in BDC 2.7.630) or upland areas of special interest (as described in BDC 2.7.700), or any areas on the site that are intended to remain as

protected natural open space areas, as designated on the site map and grading plan, ~~and/or a tree protection plan~~ or any root protection zones as shown on the tree preservation site plan, including all areas outside of the site development envelope.

5. During site clearing or grading activity, no potential soil or earth compaction activities, including the operation of heavy construction equipment or vehicles, ~~shall~~ can be allowed to the maximum extent practicable in areas that have been designated as stormwater infiltration facilities within the site development envelope or on a site map and grading plan, ~~and/or a tree protection plan~~ or in any root protection zones as shown on the tree preservation site plan. Any infiltration facility areas that do become compacted during construction must be fully mitigated so that they will infiltrate properly.
6. Phasing of site clearing and grading ~~shall~~ must be considered on all sites disturbing greater than five acres, with the size of each phase to be established prior to grading and as approved by the City.
7. Site grading ~~shall~~ must not result in landslides, accelerated soil creep, settlement, or any pollutant that crosses beyond the site development envelope boundary.
8. All site clearing and grading activity within 100 feet of the ordinary high water mark of the Deschutes River or Tumalo Creek ~~shall~~ must comply with all provisions of the Water Overlay Zone (WOZ; as described in BDC 2.7.600).
9. During clearing and grading operations, all public right-of-way, sidewalks and other improvements ~~shall~~ must be maintained in a neat and clean condition at the end of each working day (i.e., free of loose soil, construction debris, and trash).
10. During clearing and grading operations, no debris, fill, stockpiles, or equipment ~~shall~~ must be stored within a public right-of-way, or in such a way that blocks an emergency access route(s).
11. Construction site access ramps ~~shall~~ must be constructed so that:
  - a. Material used in construction of the ramp will not erode or deteriorate under adverse conditions;
  - b. Sediment tracking onto adjacent roadways ~~shall~~ must be minimized to the maximum extent practicable and dry swept at the end of each working day; and
  - c. Access ramp material ~~shall~~ must not be placed in a manner that interferes with or blocks the passage of surface runoff in the public right-of-way.



12. During clearing and grading operations, and until site re-vegetation and/or site stabilization has occurred, dust ~~shall~~ must be minimized to the maximum extent practicable through application of dust control measures approved by the City.
13. All clearing and grading activities ~~shall~~ must be performed in accordance with noise standards in BC Chapter 5.50.
14. The transport of earth material, including but not limited to soil and vegetation to or from the site on public rights-of-way, ~~shall~~ must be covered to eliminate any soil or other material being blown from the transport vehicle in accordance with Deschutes County Code.
15. Slash and other cleared vegetative material that exceeds three cubic yards in volume ~~shall~~ must be removed from cleared sites within three months from the completion of the site clearing operation.
16. Any site for which a stop work order has been issued, or where work has stopped for any other reason, must be left in a condition that prevents erosion or sediment from leaving the site development envelope and prevents threats to public health and safety.
17. When applicable, the permittee ~~shall~~ must obtain and comply with a special use permit for temporary rock crushing outside the Surface Mining (SM) Zone.
18. Any site for which grading and clearing stops prematurely for whatever reason must continue to meet the erosion and sediment control and pollution prevention performance standards (described in BC 16.10.080) and implement the provisions of the site ESC plan.

**B. *Cut and Fill Performance Standards.*** The following ~~performance~~ standards ~~shall~~ must be implemented prior to the start of, and as part of clearing and grading of all private and public lands requiring a permit as described in this title, unless specifically exempted by the City ~~for minor clearing and grading operations not intended to support structures, or in instances where the literal interpretation of the underlying provisions would not serve the intent or purposes of this section. In all other instances, the following performance standards shall be followed to the maximum extent practicable:~~

1. Cut slopes greater than five feet in height ~~shall~~ must not exceed a slope of 2:1 except where approved retaining walls are engineered and installed, and where trenches are refilled with material from the excavation. Cut slopes in solid rock or cemented tuff ~~shall~~ must not exceed a slope of 0.5:1.

2. The ground surface ~~shall~~ must be prepared to receive fill by removing vegetation, nonapproved fill, topsoil, and other unsuitable earth material as determined by the City and, where the slopes are 5:1 or steeper, by the excavation of level steps into the slope on which fill is to be placed.
3. Fill slopes ~~shall~~ must not be constructed on natural slopes that are steeper than 2:1.
4. Fill slopes exceeding five feet in depth ~~shall~~ must be no steeper than 2:1, except where approved retaining walls are engineered and installed.
5. The slopes of all fill surfaces ~~shall~~ must be no steeper than 2:1 unless approved by the City.
6. When the owner of any parcel alters the level or existing grade of a site by a fill or excavation, the owner shall at their own expense protect all adjoining property from encroachment by such fill, or from danger of collapse due to such excavation, either by the erection of an engineered retaining wall or by sloping the sides of such fill or excavation entirely within the confines of the site in a manner approved by the City.
7. Cut and fill slopes ~~shall~~ must be provided with subsurface and surface drainage as necessary to retain slope stability, to control erosion, and for public safety.
8. The faces of all cut and fill slopes ~~shall~~ must be prepared and maintained to control erosion.

**16.10.075 Temporary Rock Crushing Outside of the SM Zone.**

- A. Temporary on-site rock crushing for on-site construction and maintenance is permitted outright in any zone if the following standards are met:
  1. The subject property has received site plan, tentative plat or final plat approval for the construction or maintenance activity or is an approved public facility project.
  2. Rock crushing equipment has a valid Oregon Department of Environmental Quality air contaminant discharge permit.
  3. The crushing equipment is capable of providing material meeting “three-quarter-inch minus” specifications.
  4. No off-site materials are brought on site for crushing.

5. Rock crushing equipment is removed from the site within 15 days of completing the crushing activity.
6. Excavated crushed material not used for on-site construction or landscaping is removed to a City approved location within 15 days of completing the crushing activity.
7. The rock crushing equipment is set up as far away as practicable from any property line or existing residence but in no case shall the setback be less than 150 feet.
8. The duration of the temporary rock crushing activity is for no more than 60 consecutive days from the issuance of the permit, unless the applicant obtains an extension of time pursuant to the City of Bend Development Code.
9. Rock crushing occurs Monday through Friday, between 8:00 a.m. and 5:00 p.m., and not on legal holidays.
10. Water is available to provide dust control.

**B. *Application Requirements.*** An application for a temporary permit for on-site rock crushing ~~shall~~ must contain the following:

1. A detailed explanation of the proposed construction and rock crushing activities, including:
  - a. ~~An approved g~~Grading/clearing plan.
  - b. An ESCP, if required by the City.
  - ~~b.~~ c. An estimate of the amount of material to be processed.
  - ~~c.~~ d. The amount of material to be used on site and the amount to be removed if any.
  - ~~d.~~ e. The duration and operating characteristics of the rock crushing activity.
2. An explanation of how the proposal will reduce truck trips or otherwise benefit the community.
3. A map drawn to scale showing:
  - a. The location of property boundaries.
  - b. The truck travel route for vehicles accessing the site and rock material being removed from site.

- c. The location site for material being removed.
  - d. Setbacks to the rock crushing activity.
  - e. Any topographic features in the immediate vicinity of the proposed rock crusher.
4. Any additional information which will assist in the evaluation of the proposed rock crushing.
  5. The application ~~shall~~ must be processed pursuant to the City of Bend Development Code.

**C. *Revocation of a Temporary Permit for Noncompliance.*** Any permit for temporary permit for rock crushing granted in accordance with the terms of this section may be revoked if any of the conditions or terms of such permit are violated.

**16.10.080 Erosion and Sediment Control (ESC) and Pollution Prevention Performance Standards.**

A. Appropriate erosion and sediment control devices, and measures and devices to prevent and control other construction site pollutants, ~~shall~~ must be in place prior to the start of and as part of construction activity on all private or public lands requiring a permit as part of this section, unless specifically exempted by the City, so that the performance standards of the erosion and sediment control chapter of the COSM and as follows are met.

~~**A. *Additional ESC Performance Standards.***~~

~~4.~~ B. Once permanent ESC have been effectively established and temporary ESC and pollution prevention measures are no longer needed, temporary measures and materials (e.g., silt fences, inlet protection devices, etc.) ~~shall~~ must be removed and properly disposed of.

**16.10.090 Blasting Performance Standards.**

**A. *General Performance Standards.*** All persons conducting blasting activities ~~shall~~ must comply with all Federal, State and local regulations applicable to blasting activities and maintain and provide upon request evidence of all necessary Federal, State and local licensing required to conduct blasting activities.

This section in no way replaces or negates the requirements pertaining to explosives as contained in ORS 480.010 through 480.290, or replacement of such.

**B. *Notification.***

1. Notice of all blasting ~~shall~~ must be provided to the City. Prior to blasting, the person responsible for the blast ~~shall~~ must inform all building occupants within 100 feet of the blast site.
2. The City may require additional notification for particular areas where sudden excessive noise would be especially disruptive such as medical districts, hospitals, schools, and properties engaged in farm use, veterinary or commercial day care/boarding involving animals.
3. Signs ~~shall~~ must be placed at street intersections adjacent to the blasting site on the day of the blasting or earlier if feasible. The sign ~~shall~~ must state the approximate blasting times and the responsible party to contact.

**~~16.10.100 Tree Preservation Performance Standards.~~**

*~~A. General Performance Standards.~~*

- ~~1. For clearing and/or grading activities on all undeveloped properties or properties without land use approval, including single family residential lots greater than one acre in size, the following tree preservation performance standards shall be implemented:
 
  - ~~a. All trees 12 inches diameter at breast height (dbh) and larger shall be retained on site.~~
  - ~~b. Fifty percent of all trees between eight inches and 12 inches dbh shall be retained on site.~~
  - ~~c. The 50 percent retention of trees between eight inches and 12 inches dbh shall result in a tree coverage pattern that is dispersed throughout the site pursuant to on-site tree locations.~~
  - ~~d. All trees retained on site shall be protected during clearing and grading activities.~~~~
- ~~2. Clearing and grading activities on sites with an approved development application are not subject to the standards of subsection (A)(1) of this section; however, trees shall be preserved as specified in the development approval.~~

***(Relocated to BC 16.40 Tree Preservation and Removal)***

**Chapter 16.15  
STORMWATER MANAGEMENT DESIGN STANDARDS  
AND POST-CONSTRUCTION MAINTENNANCE CONTROLS  
*(No changes)***

**Chapter 16.20**  
**ILLICIT DISCHARGE CONTROLS**  
*(No changes)*

**Chapter 16.25**  
**WELL DRILLING**  
*(No changes)*

**Chapter 16.30**  
**STORMWATER DRAINAGE UTILITY**  
*(No changes)*

**Chapter 16.35**  
**EROSION CONTROL REQUIREMENTS**

**Sections:**

**16.35.010 Purpose.**

**16.35.020 Applicability.**

**16.35.030 Large Project Erosion Control.**

**16.35.040 Small Project Erosion Control.**

**16.35.050 Inspections.**

**16.35.060 Project Completion.**

**16.35.010 Purpose.**

**A. Purpose.** As required by the City's National Pollutant Elimination System (NPDES) Municipal Separate Storm Sewer System Permit (MS4) and Water Pollution Control Facilities Permit for Class V Stormwater Underground Injection Control Systems, the City intends this Chapter to address and regulate erosion control for construction activity and land disturbing activity within the City of Bend.

**16.35.020 Applicability.**

**A. Applicability.** All construction activity and land disturbing activity involving land disturbance of 5,000 square feet or more is subject to this Chapter. For such activities that disturb one or more acres (or that disturb less than one acre, if part of a “common plan of development or sale” disturbing one or more acres) a NPDES 1200C permit from the Oregon Department of Environmental Quality (DEQ) may also be required.

All other construction and land disturbing activity involving less than 5,000 square feet per site, must comply with BC 16.20 Illicit Discharge Controls.

#### **16.35.030 Large Project Erosion Control.**

- A. For projects or activities that are subject to a grading permit, an Erosion and Sediment Control Plan (ESCP) must be submitted for review with the permit application as required by the City (BC 16.10.020). The City will review the ESCP for potential approval.
- B. Erosion control measures as shown on the approved ESCPs must be in place prior to any construction activity and/or land disturbing activity and must be maintained and/or updated for the duration of the project in order to prevent erosion, sedimentation, and pollutants from leaving the site.

#### **16.35.040 Small Project Erosion Control.**

- A. A signed Erosion and Sediment Control Plan Template must be submitted by the project applicant for small projects such as building permits involving 1- 4 unit housing developments not covered under BC 16.35.030 Large Project Erosion Control.
- B. Small Project ESCP Templates must:
  - 1. Be a pre-approved template provided by the City.
  - 2. Be signed and dated by the project applicant.
  - 3. Be submitted with the project building permit application.
  - 4. Be kept on site and made available for review and inspection by the City and DEQ.
- C. Erosion control measures shown on the ESCP template must be in place prior to commencement of any construction activity and/or land disturbing activity and must be maintained and or updated for the duration of the project to prevent erosion, sedimentation, and pollutants from leaving the site.
  - 1. Photo documentation: The City may require photo documentation to verify installation of approved erosion control measures prior to any construction and/or land disturbing activity, or at any other time requested or required by the City.

**16.35.050 Inspections.**

A. All projects subject to BC 16.35.020 are subject to inspection by the City. Additional inspections by the City must occur if follow up is required to verify non-compliance has been corrected and/or to escalate enforcement for non-compliance. Inspection will also occur at any size project site when the City receives a complaint related to erosion and sediment control or pollutants or whenever the City becomes aware of a possible violation. The City may also conduct inspections whenever necessary to enforce any provisions of Title 16 or when there is reasonable cause to believe there exists any violation of this Title.

**16.35.060 Project Completion.**

A. Once permanent erosion control measures and site stabilization has been effectively established and temporary erosion control and pollution prevention measures are no longer needed, temporary measures and materials (e.g., silt fences, inlet protection devices, wattles, etc.) must be removed and properly disposed of.

**Chapter 16.40**

**TREE PRESERVATION AND REMOVAL**

**Sections:**

**16.40.010 Tree Performance Standards.**

**16.40.020 Exemptions to the Tree Performance Standards.**

**16.40.030 Dead, Diseased, and/or Hazardous Trees.**

**16.40.040 Emergencies.**

**16.40.010 Tree Performance Standards.**

**A. *Tree Performance Standards.*** The following tree preservation performance standards apply:

**1. *Regulated Trees.*** Sites must preserve all Regulated Trees.

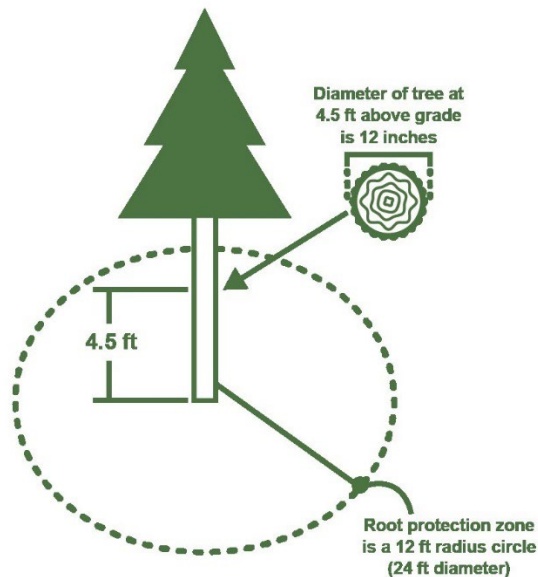


**2. Root Protection Zone Requirements** These standards apply to any on-site tree to be preserved and to any root protection zone that extends into the site from an offsite tree. The tree protection methods and specifications must be consistent with ISA best management practices.

**a. Identify a Root Protection Zone.** Root protection zone means a circular area measured from the outside trunk of the tree equal to one foot in radius for every inch of tree at diameter at breast height. For offsite trees with root protection zones that extend into the site, the root protection zone may be estimated but no less than the extent of the dripline.

**b. Encroachments.** Existing encroachments into the root protection zone may remain. No new encroachments are permitted.

### Root Protection Zone



**c. Prohibited in Root Protection Zone.** The following are prohibited within the root protection zone of each tree:

- i. Clearing, grading and construction activity including vehicle or equipment access (but excluding access on existing streets or driveways), storage of equipment or materials

including soil, temporary or permanent stockpiling, excavation or fill, compaction, trenching or other work activities.

(A). Exception: Demolition of existing structures or other encroachments is permitted in the root protection zone. Trees damaged or destroyed during demolition must be replaced in compliance with BDC 3.2.200.E, Mitigation Options.

**d. Protection fencing:**

- i. Required protection fencing must be installed before any construction activities start; and may only be removed upon completion.
- ii. Protection fencing must be installed at the edge of the root protection zone and existing encroachment areas on the site in accordance with the City of Bend Standards and Specifications Standard Drawing E-3, Tree/Vegetation Protection Fencing. Existing structures and/or existing secured fencing at least 3.5 feet tall can serve as the required protective fencing.
- iii. When a root protection zone extends beyond the site, protection fencing is not required to extend beyond the site.
- iv. Signage designating the protection zone and penalties for violations must be secured in a prominent location on each protection fence.

**e. Landscaping and Irrigation.** Any landscaping and irrigation done within the root protection zone before or after the removal of the fence must not disturb existing trees including roots within the root protection zone.

**16.40.020 Exemptions to the Tree Performance Standards.**

**A.** The following are exempt from BC 16.40.010(A), Tree Performance Standards:

1. Removal of trees on a site **one acre or smaller** that includes one or more existing dwelling units, micro-units, or single room occupancies, or as part of constructing an approved development that includes one or more dwelling units, micro-units, or single room occupancies.

2. Removal of trees in compliance with a development approval that includes one or more dwelling units, micro-units, or single room occupancies on a site larger than one acre.
3. Removal of trees in compliance with a development approval that includes a land division or site plan review application on a site larger than one acre.
4. Removal of Regulated Trees for fire safety if declared a hazard by the Fire Code Official and approved by the Planning Manager.
5. Removal of trees within an area approved by Deschutes County for a sanitary septic system.
6. Normal maintenance, pruning or limbing of trees.
7. Forest practices regulated under the Oregon Forest Practices Act ORS 527.610 through 527.770, 527.990(1) and 527.992), except conversions from forest lands or timberlands to other land uses.

**16.40.030 Dead, Diseased, and/or Hazardous Trees.**

**A. Dead, Diseased, and/or Hazardous Trees.** Trees that are dead or diseased, or pose a hazard to personal safety, property or the health of other trees, may be removed if the Planning Manager approves a request for removal supported by a report and recommendation from an ISA Certified Arborist. Prior to tree removal, the applicant must provide a report to determine whether the subject tree is diseased or poses a hazard, and any possible treatment to avoid removal.

**16.40.040 Emergencies.**

**A. Emergencies.** Regulated Trees may be immediately removed in the event of an emergency when the tree poses an immediate threat to life or safety. The Planning Manager retains authority to determine if particular circumstances constitute or constituted an emergency.