

ARTICLE 14

SOIL EROSION AND SEDIMENT CONTROL

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SECTION 14-1 PURPOSE

**14-101. Purpose** During the construction process, soil is highly vulnerable to erosion by wind and water. Eroded soil endangers water resources by reducing water quality and causing the siltation of aquatic habitat for fish and other desirable species. Eroded soil also necessitates repair of sewers and ditches and the dredging of lakes. In addition, clearing and grading during construction cause the loss of native vegetation necessary for terrestrial and aquatic habitat.

The purpose of this Article is to safeguard persons, protect property, and prevent damage to the environment. These regulations will also promote the public welfare by guiding, regulating, and controlling the design, construction, use, and maintenance of any development or other activity that disturbs or breaks the topsoil or results in the movement of earth. These regulations supplement relevant federal and state laws on the same subject. Where two regulations apply the regulation establishing the higher or more restrictive standard shall control.

SECTION 14-2 DEFINITIONS

14-201.

**Clearing.** Any activity that removes the vegetative surface cover.

**Control plan.** Indicating the specific measures and sequencing to be used to control sediment and erosion on a development site during and after construction.

**Drainage way.** Any channel that conveys surface runoff throughout the site.

**Erosion control.** A measure that prevents erosion.

**Erosion and sediment control plan.** A set of plans prepared by or under the direction of a licensed professional engineer.

**Grading.** Excavation or fill of material, including the resulting conditions thereof.

**Perimeter control.** A barrier that prevents sediment from leaving a site by filtering sediment-laden runoff or diverting it to a sediment trap or basin.

**Phasing.** Clearing a parcel of land in distinct phases, with the stabilization of each phase completed before the clearing of the next.

**Sediment control.** Measures that prevent eroded sediment from leaving the site.

**Site development.** A permit issued by the City for the construction or alteration of ground.

**Stabilization.** The use of practices that prevent exposed soil from eroding.

**Start of construction.** The first land-disturbing activity associated with a development, including land preparation such as clearing, grading, and filling; installation of streets and walkways; excavation for basements, footings, piers, or foundations; erosion of temporary forms; and installation of accessory buildings such as garages.

**Waterway.** A channel that directs surface runoff to a watercourse or to a public stormwater drain.

## SECTION 14-3 PERMITS

### 14-301.

- a. No person shall be granted a site development permit for land-disturbing activity that would require the uncovering of one acre or more during the life of the project without the approval of an Erosion and Sediment Control Plan by the Zoning Administrator.
- b. No site development permit is required for the following activities:
  1. Any emergency activity that is immediately necessary for the protection of life, property, or natural resources.
  2. Existing nursery and agricultural operations conducted as a permitted or accessory use.
- c. Each application shall bear the name(s) and address(es) of the owner or developer of the site, and of any consulting firm retained by the applicant together with the name of the applicant's principal contact at such firm and shall be accompanied by a filing fee.
- d. Each applicant shall include a statement that any land clearing, construction, or development involving the movement of earth shall be in accordance with the Erosion and Sediment Control Plan, and in accordance with all applicable state and federal laws.
- e. The applicant will be required to file with the Zoning Administrator a performance bond, letter of credit, or other improvement security in an amount deemed sufficient by the Zoning Administrator to cover all costs of improvements, landscaping, maintenance of improvements, and engineering and inspection costs to cover the cost of failure or repair of improvements installed on the site.

**SECTION 14-4 REVIEW AND APPROVAL**

**14-401.**

- a. The Zoning Administrator will review each application for a site development permit to determine its conformance with the provisions of this Article. Within 30 days after receiving an application, the Zoning Administrator shall, in writing:
  - 1. Approve the permit application;
  - 2. Approve the permit application subject to such reasonable conditions as may be necessary to secure substantially the objectives of this Article, and issue the permit subject to these conditions; or
  - 3. Disapprove the permit application, indicating the reason(s) and procedure for submitting a revised application and/or submission.
- b. Failure of the Zoning Administrator to act on an original or revised application within 30 days of receipt shall authorize the applicant to proceed in accordance with the plans as filed unless such time is extended by mutual agreement. Pending preparation and approval of a revised plan, development activities shall be allowed to proceed in accordance with conditions established by the Zoning Administrator.

**SECTION 14-5 EROSION AND SEDIMENT CONTROL PLAN**

**14-501.**

- a. The Erosion and Sediment Control Plan shall include the following:
  - 1. A natural resources map identifying soils, forest cover, and resources.
  - 2. A sequence of construction of the development site, including stripping and clearing; rough grading; construction of utilities, infrastructure, and buildings; and final grading and landscaping. Sequencing shall identify the expected date on which clearing will begin, the estimated duration of exposure of cleared areas, areas of clearing, installation of temporary erosion and sediment control measures, and establishment of permanent vegetation.
  - 3. All erosion and sediment control measures necessary to meet the objectives of this Article throughout all phases of construction and after completion of development of the site. Depending upon the complexity of the project, the drafting of intermediate plans may be required at the close of each season.
  - 4. Seeding mixtures and rates, types of sod, method of seedbed preparation, expected seeding dates, type and rate of lime and fertilizer application, and kind and quantity of mulching for both temporary and permanent vegetative control measures.
  - 5. Provisions for maintenance of control facilities, including easements and estimates of the cost of maintenance.
- b. Modifications to the plan shall be processed and approved or disapproved in the same manner as section 14-4, and shall include:

1. Major amendments of the erosion and sediment control plan.
2. Field modifications of a minor nature.

**SECTION 14-6 DESIGN REQUIREMENTS**

- a. Grading, erosion control practices and sediment control practices shall be adequate to prevent transportation of sediment from the site to the satisfaction of the City Engineer. Cut and fill slopes shall be no greater than 2:1, except as approved by the City Engineer to meet other community or environmental objectives.
- b. Clearing and grading of natural resources, such as forests and wetlands, shall not be permitted, except as approved by the City Engineer. Clearing techniques that retain natural vegetation and drainage patterns shall be upon approval of the City Engineer.
- c. Clearing, except that necessary to establish sediment control devices, shall not begin until all sediment control devices have been installed and have been stabilized.
- d. Phasing shall be required on all sites disturbing greater than 30 acres, with the size of each phase to be established at plan review and as approved by the City Engineer.
- e. Erosion control requirements shall include the following:
  1. Soil stabilization shall be completed within five (5) days of clearing or inactivity in construction.
  2. If seeding or another vegetative erosion control method is used, it shall become established within two (2) weeks or the Zoning Administrator may require the site to be reseeded or a nonvegetative option employed.
  3. Special techniques for steep slopes or in drainage ways shall be used to ensure stabilization.
  4. Soil stockpiles must be stabilized or covered at the end of each workday.
  5. The entire site must be stabilized, using a heavy mulch layer or another method that does not require germination to control erosion, at the close of the construction season.
  6. Techniques shall be employed to prevent the blowing of dust or sediment from the site.
  7. Techniques that divert upland runoff past disturbed slopes shall be employed.
  8. Sediment control requirements shall include:
    - (a) Settling basins, sediment traps, or tanks and perimeter controls.
    - (b) Settling basins that are designed in a manner that allows adaptation to provide long term stormwater management.

- (c) Protection for adjacent properties by the use of a vegetated buffer strip in combination with perimeter controls.
9. Construction site access requirements shall include:
- (a) A temporary access road provided at all sites.
  - (b) Other measures required by the City Engineer in order to ensure that sediment is not tracked into public streets by construction vehicles or washed into stormwater drains.

### **SECTION 14-7 INSPECTION**

- a. The Zoning Administrator or designated agent shall make inspections as hereinafter required and either shall approve that portion of the work completed or shall notify the permittee wherein the work fails to comply with the Erosion and Sediment Control Plan as approved. Plans for grading, stripping, excavating, and filling work bearing the stamp of approval of the Zoning Administrator shall be maintained at the site during the progress of the work. To obtain inspections, the permittee shall notify the Zoning Administrator at least two (2) working days before the following:
- 1. Start of construction
  - 2. Installation of sediment and erosion measures
  - 3. Completion of site clearing
  - 4. Completion of rough grading
  - 5. Completion of final grading
  - 6. Close of the construction season
  - 7. Completion of final landscaping
- b. The permittee or his/her agent shall make regular inspections of all control measures in accordance with the inspection schedule outlined on the approved Erosion and Sediment Control Plan(s). The purpose of such inspections will be to determine the overall effectiveness of the control plan and the need for additional control measures. All inspections shall be documented in written form and submitted to the Zoning Administrator at the time interval specified in the approved permit.