

CHAPTER 155

EROSION AND SEDIMENT CONTROL

155.01 Purpose
155.02 Definitions
155.03 Permit Required
155.04 Application

155.05 Permit Requirements
155.06 Duration
155.07 Violations

155.01 PURPOSE. In order to protect the beauty, water quality, and integrity of the public lakes in the City, it is the purpose of this chapter to control and prevent soil erosion and siltation into the lakes and other public waterways from construction and other activity which disturbs land within the lakes watershed located in the City by requiring the installation of erosion and sediment control measures prior to said activity.

155.02 DEFINITIONS. For use in this chapter, the following terms are defined.

1. “Administrator” means the Zoning Administrator or the designated zoning inspector of the City.
2. “Compost blanket” means applications of compost materials that reduce or prevent erosion on slopes on a temporary or long-term basis.
3. “Erosion” means the wearing away of the land surface by rainfall, wind tracking or other geological agents that cause detachment, transportation, and deposition of soil.
4. “Erosion control” means action taken or acceptable practices installed properly that prevent soil from detaching from the surface, moving and being deposited off-site into streets, drainage systems, and ultimately the public lakes.
5. “Lakes watershed” means the lands lying in any area that naturally or by design drains into any public lake. All property located within the limits of the City of Spirit Lake is considered part of the “lakes watershed.”
6. “Land disturbing activity” means any activity which changes the state or condition of land, including but not limited to, tilling, clearing, grading, excavating, transporting or filling land which may have the potential to result in erosion and/or siltation into any public lake, but does not include:
 - A. Planting or harvesting of agricultural, horticultural or forest crop land.

- B. Minor land disturbing activity, including home gardening, repairs and maintenance work.
 - C. Installation of fence posts, sign posts, telephone posts, electric posts and other kinds of posts or poles.
 - D. Emergency activity to protect life or property.
 - E. Cemetery graves.
7. "Lot" means a parcel of land under one descriptive ownership whether singular, joint or in common, and located inside the corporate limits of the City.
8. "Property susceptible to erosion" means property that has level grade or positive slope toward the street or adjoining property.
9. "Public lake" means all lakes in the City under the ownership and control of the State or any subdivision thereof.
10. "Public waterways" means storm drainage facilities, detention ponds, and other publicly owned facilities used for the collection and management of rain water.
11. "Rolled Erosion Control Practices" means single layers of degradable fibers such as straw, wood excelsior, coconut, polypropylene or a combination thereof, stitched or glued to natural fiber nettings that is used to cover an area of unprotected ground as a means of erosion control and also refers to the practice of using erosion control blankets.
12. "Sediment logs" means flexible, biodegradable, mesh tube filled with composted material, generally twelve inches in diameter that can be placed perpendicular to water run-off. May also be called filter socks, compost logs, and wattles.
13. "Silt screen" means a fencing screen material manufactured for the purpose of capturing and maintaining soil, silt and sediment from water and gravity runoff from a land slope. Said fencing screen material shall meet or exceed applicable Iowa Statewide Urban Design and Specifications (SUDAS).
14. "Silt screen fence" means a length of silt screen supported by steel posts to form a continuous soil, silt or sediment barrier.
15. "Siltation" means the transportation and deposition by water, air and/or gravity of soil particles.

155.03 PERMIT REQUIRED. No person shall engage in or employ, solicit or allow another to engage in any land disturbing activity on a lot located within the City of Spirit Lake without first obtaining a permit from the Administrator.

It shall be the responsibility of the person having ownership or control of a site to obtain a permit required by this chapter.

155.04 APPLICATION. A person seeking a permit shall file an application for the same with the Administrator, on forms provided by the Administrator or as part of the zoning and building permit applications, which shall be accompanied by or contain an erosion and sediment control plan showing anticipated compliance with this chapter. If the project requires a National Pollutant Discharge Elimination System permit (NPDES) as prescribed by the Iowa Department of Natural Resources, said permit application shall be accompanied with the required Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must be reviewed and approved by the Administrator prior to issuance of a permit.

155.05 PERMIT REQUIREMENTS. The erosion and sediment control shall be installed on the lot where land disturbing activity is anticipated. An acceptable and effective erosion and sediment control program means the installation of practices in accordance with Chapter 7 of the SUDAS manual. Practice installation must be done in the timeliest manner possible and practices are installed and maintained according to design standards and specification in SUDAS. Sediment control practices shall be in place before land disturbing activities begin. Erosion control practices shall be installed during construction whenever and wherever possible, i.e. temporary cover at the end of each day and permanent practices immediately following the conclusion of grading activities. Examples of approved erosion and sediment control practices include, but are not limited to:

1. Sediment Control.

A. The silt screen fence shall be installed below the direction of run-off from the lot between the land disturbing activity and ordinary high water mark of the public lake in a manner suitable to the lot so as to be most effective in preventing siltation of lot soil and rock fragments or other materials in the public lake or storm drain facilities, detention ponds, and other publicly owned facilities used for the collection and management of rain water.

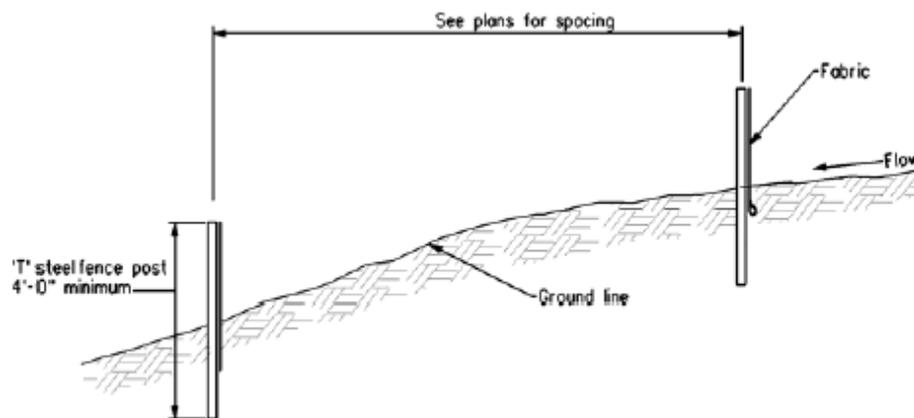
B. The silt screen fence, filter sock, or other acceptable control measure shall be installed to run the entire length of the land disturbing activity and be hooked up on each end to prevent run-off around the ends of the control device and to create a storage area in order to protect the public lake from siltation from the entire land disturbing activity area.

C. The silt screen shall have a minimum width of thirty-six (36) inches and be installed in such a manner so that the bottom of

the screen is dug into the surface of the lot a minimum of twelve (12) inches with the backfill soil compacted.

D. The silt screen fence support shall be made of steel tee-posts and be spaced along the entire length of the fence with a maximum distance of eight (8) feet between tee-posts. Said tee-posts shall extend above the silt screen and be placed into the ground at a depth consistent with their design and adequate support of the silt screen. Said tee-posts will be placed on the down slope side of the fence and be connected with a minimum of three UV protective wire ties no shorter than 11 inches.

E. Sediment logs can be placed along the perimeter of a site, or at intervals along a slope to capture and treat storm water runoff. Intervals laid along the slope should be done so the top of the lower sediment log has equal elevation to the top of the next sediment log up the slope (see illustration below). Silt fence will be installed in the same manner. Generally, they can be laid adjacent to each other, perpendicular to storm water flow to reduce flow velocity and soil erosion. Sediment logs used for erosion control are usually 12 inches in diameter, although 8-inch, 18-inch and 24-inch diameter socks are used in some applications. The smaller, 8-inch diameter sediment logs are commonly used to protect storm water intakes.



2. Erosion Control.

A. Site disturbing activities should consider exposing the smallest practical area of land at any given time during development or work.

B. Use of Rolled Erosion Control Practices (RECP) including Erosion Control Blankets (ECB) can be used according to the manufacturer's requirements. The upper edge of the material

needs to be trenched with staples holding the material in the bottom of the trench. The trench needs to be filled and compacted. The material is to overlap by 12 inches on all edges. The installation of ECB will start from the bottom of a slope and work up the slope. All ECB will be attached using manufacture recommended staples covering at least every 3 square feet of the material unless specified more by the manufacturer.

C. Composite blankets can be used over the entire site and must be a minimum of 2 inches thick or in accordance with SUDAS Section 9040. Compost blankets cannot be used in areas of concentrated flows.

D. Provisions are required to address soil which can be tracked onto the adjoining street(s) by equipment moving in and out of the project site. Applicant will be responsible for keeping streets and roadways free from soil and protect City drainage systems from direct entry into storm system by installation of sediment log or other appropriate measure around opening of storm intake until the completion of the project and the site is properly vegetated.

E. Use erosion control blankets, compost blankets, or establish a temporary seeding of annual grasses on disturbed property susceptible to erosion that is left undisturbed for more than 14 days.

F. After completion of construction or land disturbing activity, the property owner shall properly seed or sod the site to protect the soil from runoff. Maintenance of sediment control devices shall be continued until the soil is secured by vegetation.

(Ord. 03-10 – Mar. 10 Supp.)

155.06 DURATION. The erosion and sediment control shall remain in place on the lot and be maintained until all land disturbing activity is completed and sufficient landscaping or vegetation exists to prevent erosion and any run-off siltation from the lot or work area.

155.07 VIOLATIONS. A violation of this chapter occurs when the property owner allows sediment to flow off the property onto an adjoining property, including public streets, sidewalks, and storm drains from a rain event of 0.5 inches of rainfall or more. It is also a violation when erosion control is not used or when improperly used as described herein. Each day that a violation of any provision of this chapter is permitted to exist shall constitute a separate offense. At any time the Administrator may suspend indefinitely any City-issued permit related to the applicant's project due to failure to comply with the

regulations of purpose set forth by this chapter, the NPDES General Permit #2, or any other requirements of the law, statute or regulations. The only work that will be allowed on the site will be the work to achieve compliance and other work on the site will be considered a violation of this chapter. The suspension of the permit will be removed once the entire site is within compliance with this chapter.

(Chapter 155 amended by Ord. 09-08 – Mar. 10 Supp.)

[The next page is 779]