

SEC. 17.5.7 CONTROL OF EROSION AND POLLUTANTS DURING LAND DISTURBANCE AND DEVELOPMENT.

(a) **Applicability.** This Section applies to the following sites of land development or land disturbing activities:

(1) Those requiring a subdivision plat approval of the construction of houses or commercial, industrial or institutional building on lots of approved certified surveys.

(2) Those requiring a certified survey approval of the construction of houses of commercial, industrial or institutional buildings on lots of approved certified surveys.

(3) Those involving grading, removal of protective ground cover or vegetation, excavation, land filling or other land disturbing activity affecting a surface area of four thousand (4,000) square feet or more.

(4) Those involving excavation or filling or a combination of excavation and filling affecting four hundred (400) cubic yards or more of dirt, sand or other excavation or fill material.

(5) Those involving street, highway, road or bridge construction, enlargement, relocation or reconstruction.

(6) Those involving the laying, repairing, replacing or enlarging of an under-ground pipe or facility for a distance of three hundred (300) feet or more.

NOTE: The above applicability criteria are specifically stated in 1983 Wisconsin Act 416 for inclusion in this Chapter. Utility companies responsible for energy repair work should enter into a "memorandum of agreement" with the Building Inspector clearly stating their responsibilities if their activities may be included under any of the above applicability criteria.

(b) **Erosion and Other Pollutant Control Requirements.** The following requirements shall be met on all sites described in Subsection (a)

(1) Site Dewatering. Water pumped from the site shall be treated by temporary sedimentation basins, grit chambers, sand filters, up-slope chambers, hydro-cyclones, swirl concentrators, or other appropriate controls designed and used to remove particles of one hundred (100) microns or greater for the highest dewatering pumping rate. If the water is demonstrated to have no particles greater than one hundred (100) microns during dewatering operations, then no control is needed before discharge, except as determined by the Building Inspector. Water may not be discharged in a manner that causes erosion of the site or receiving channels.

NOTE: There are several ways to meet this particle size performance objective, depending on the pumping rate. As an example, if the pumping rate is very low (1 gal/min), then an inclined or vertical enlargement pipe (about 8" in diameter for 1 gal/min) several feet long would be an adequate control device to restrict the discharge of one hundred (100) micron, and larger, particles. As the pumping rate increases, then the "device" must be enlarged. At a moderate (100 gal/min) pumping rate, a vertical section of corrugated steel pipe, or concrete pipe section, or other small "tank" (about 4-1/2 feet across for a 100 gal/min pumping rate) several feet tall would be adequate. With these pipe sections or small tanks, inlet baffles would be needed to minimize turbulence. With very large pumping rates (10,000 gal/min), sediment basins (about 35 feet in diameter for a pumping rate of 10,000 gal/min) at least three (3) feet in depth with a simple (but adequately sized) pipe outlet would be needed. More sophisticated control devices (such as swirl concentrators or hydro-cyclones) could be specially fabricated that would generally be smaller than the simple sedimentation devices described above, but they would not be required.

(2) Waste and Material Disposal. All waste and unused building materials (including garbage, debris, cleaning wastes, wastewater, toxic materials, or hazardous materials) shall be properly disposed and not allowed to be carried by runoff into a receiving channel or storm sewer system.

(3) Tracking. Each site shall have graveled roads, access drives and parking areas of sufficient width and length to prevent sediment from being tracked onto public or private roadways.

(4) Drain Inlet Protection. All storm drain inlets shall be protected with a straw bale, filter fabric, or equivalent barrier meeting accepted design criteria, standards and specifications.

(5) Site Erosion Control. The following criteria apply only to land development or land disturbing activities that result in runoff leaving the site:

a. Channelized runoff from adjacent areas passing through the site shall be diverted around disturbed areas, if practical. Otherwise, the channel shall be protected as described below in Subsection (b)(5)c.3. Sheetflow runoff from adjacent areas greater than ten thousand (10,000) square feet in area shall also be diverted around disturbed areas unless shown to have resultant runoff velocities of less than 0.5 ft/sec. across the disturbed area for the set of one (1) year design storms. Diverted runoff shall be conveyed in a manner that will not erode the conveyance and receiving channels.

NOTE: Soil and Conservation Service guidelines for allowable velocities in different types of channels should be followed.

b. All activities on the site shall be conducted in a logical sequence to minimize the area of bare soil exposed at anyone time.

c. Runoff from the entire disturbed area on the site shall be controlled by meeting either of the following:

1. All disturbed ground left inactive for seven (7) or more days shall be stabilized by seeding or sodding (only available prior to September 15th) or by mulching or covering, or other equivalent control measure.

2. For sites with more than ten (10) acres disturbed at one time, or if a channel originates in the disturbed area, one or more sedimentation basins shall be constructed. Each sedimentation basin shall have a surface area of at least one (1%) percent of the area draining to the basin and at least three (3) feet of depth and constructed in accordance with accepted design specifications. Sediment shall be removed to maintain a depth of three (3) feet. The basin shall be designed to trap sediment greater than fifteen (15) microns in size, based on the set of one (1) year design storms having durations from 0.5 to 24 hours. The basin discharge rate shall also be sufficiently low as to not cause erosion along the discharge channel or the receiving water.

3. For sites with less than ten (10) acres disturbed at one time, filter fences, straw bales, or equivalent control measures shall be placed along all sideslope and downslope sides of the site. If a channel or area of concentrated runoff passes through the site, filter fences shall be placed along the channel edges to reduce sediment reaching the channel.

d. Any soil or dirt storage piles containing more than ten (10) cubic yards of material should not be located with a downslope drainage length of less than twenty-five (25) feet to a roadway or drainage channel. If remaining for more than seven (7) days, they shall be stabilized by mulching, vegetative cover, tarps or other means. Erosion from piles which will be in existence (or less than seven (7) days shall be controlled by placing straw bales or filter fence barriers around the pile. In-street utility repair or construction soil or dirt storage piles located closer than twenty-five (25) feet of a roadway or drainage channel must be covered with tarps or suitable alternative control if exposed for more than seven (7) days, and the storm drain inlets must be protected with straw bales or other appropriate filtering barriers.