

Section VII: Soil Erosion, Sedimentation and Pollution Control

Discharge of sediment or other polluting materials to a waterway that is under the jurisdiction of the Water Resources Commissioner, either within or outside of the subdivision, will be considered pollution to a county drain, and hence a violation of section 280.423 of the Michigan Drain Code. Under the Michigan Drain Code, pollution of a county drain is a criminal misdemeanor, punishable by fine of \$25,000 or imprisonment.

1. SOIL EROSION/ SEDIMENTATION CONTROL

All erosion control measures will be regularly inspected and maintained.

During Construction

- i. The development plan shall fit the topography and soil so as to create the least erosion potential.
- ii. An approved soil erosion permit from the local enforcing agent, as well as a National Pollution Discharge Elimination System (NPDES) permit where applicable, will be required.
- iii. Sediment shall not be permitted to leave the site. Recommended procedures to achieve this goal are as follows:
 - Wherever feasible, locally adapted vegetation should be retained and protected.
 - The smallest practical area of raw land should be exposed at any one time (i.e. only areas under active construction).
 - The entire site should be planted with temporary vegetation immediately after mass grading operations.
 - Temporary vegetation and/or mulching should be used to protect critical areas exposed during development.
- iv. Areas within open drain easements that have been cleaned, reshaped or disturbed in any manner will be stabilized with seed and mulch or sod as quickly as possible.
- v. All storm sewer facilities that are or will be functioning during construction will be protected, filtered, or otherwise treated to prevent sediment from entering the system. Construction activities will be complete before the construction of any stormwater management facilities susceptible to clogging such as infiltration devices.

Permanent Erosion Control Measures

- i. Best management practices will be utilized to remove pollutants, including sediment, from stormwater runoff before entering any natural watercourse, protected

wetland, county drain or other body of water. Pollutant removal methods will include capture and treatment of the first flush and bankfull storm events, as previously described in these standards. In addition, receiving waters shall be protected as previously described.

- ii. Permanent erosion protection will be placed at bends, drain inlets and outlets, and other locations as needed in all open ditches. Headwalls, grouted riprap, soil bioengineering methods, or other stabilization measures will be provided where necessary to prevent erosion.
- iii. Outlets to ditches will be placed at the average low water elevation of the watercourse. Outlet velocities will be non-erosive.
- iv. Ditches with steep grades or unstable soils will be protected by sod, vegetative erosion control, geotextile fabric, riprap or other means to prevent scour.
- v. All detention/retention basins will be permanently stabilized to prevent erosion.

2. OTHER POLLUTION CONTROL

- a. Discharge of runoff that may contain oil, grease, toxic chemicals, or other polluting materials is prohibited. Measures will be employed to reduce and trap pollutants and meet any prevailing federal, state, or local water quality requirements.
- b. In commercial and industrial developments where large amounts of oil and grease may accumulate, appropriate methods for separating pollutants will be required. See **Appendix C, Stormwater Pollutant Hotspots**. When used, oil and grit separators will be installed offline or in locations where flow velocities have been determined to be lower than scouring velocity in a 10-year storm. Where such facilities are proposed, a maintenance program, including an identified method for site and waste disposal is required.
- c. For sites where chemicals may be stored and used (e.g. certain commercial and industrial developments) a spill response plan must be developed that clearly defines the emergency steps to be taken in the event of an accidental release of harmful substances to the stormwater system.
- d. Structures designed to remove trash and other debris from stormwater will be installed as required on stormwater management facilities prior to their outlet.
- e. Additional water quality protection measures may be required depending on the nature and location of the development and receiving waters.