

October 1, 2003

*Phase II Communities and Construction Site Owners Must Meet Post Construction Requirements: Ohio EPA's NPDES Small MS4 General Permit and Construction General Permit, require erosion and sediment control and post-construction storm water management. This model ordinance ONLY addresses the construction site erosion and sediment control portion of these NPDES requirements. As a result, Phase II communities must implement separate post-construction storm water management regulations under their Phase II Storm Water Management Programs and construction site owners must comply with Ohio EPA's Construction General Permit.*

## PHASE II COMPLIANT MODEL ORDINANCE FOR EROSION AND SEDIMENT CONTROL

Whereas, soil is most vulnerable to erosion by wind and water during soil disturbing activities and this eroded soil necessitates repair of sewers and ditches and dredging of rivers, harbors, and lakes; accelerates downstream bank erosion and damage to public and private property; endangers water resources and wetlands by reducing water quality; and causes the siltation of aquatic habitat; and,

Whereas, communities throughout the Tuscarawas River watershed have experienced and continue to experience costs associated with inadequate erosion and sediment control and increased state and federal regulation; and,

Whereas, there are watershed-wide efforts to reduce sedimentation in the Tuscarawas River watershed and to protect and enhance the unique water resources and wetlands of the Tuscarawas River, and City of Barberton recognizes its obligation as part of these watersheds to reduce sedimentation and to protect water quality by controlling soil disturbing activities within its borders; and,

Whereas, 40 C.F.R. Parts 9, 122, 123, and 124, referred to as NPDES Storm Water Phase II, require designated communities, including City of Barberton to develop a Storm Water Management Program to address, among other components, erosion and sediment control during soil disturbing activities; and,

Whereas, Article XVIII, Section 3 of the Ohio Constitution grants municipalities the legal authority to adopt rules to abate soil erosion and water pollution by soil sediments; and,

NOW, THEREFORE, BE IT ORDAINED by the Council of the City of Barberton, County of Summit, State of Ohio, that:

CHAPTER 1XXX  
EROSION AND SEDIMENT CONTROL

1XXX.01 PURPOSE & SCOPE

- A. The purpose of this regulation is to establish technically feasible and economically reasonable standards to achieve a level of erosion and sediment control that will minimize damage to property and degradation of water resources and wetlands, and will promote and maintain the health and safety of the citizens of City of Barberton:
- B. This regulation will:
  - 1. Allow development while minimizing increases in downstream flooding, erosion, and sedimentation.
  - 2. Reduce water quality impacts to receiving water resources and wetlands that may be caused by new development or redevelopment activities.
- C. This regulation applies to land used or being developed, either wholly or partially, for new or relocated projects involving highways, underground cables, or pipelines; subdivisions; industrial, commercial, institutional, or residential projects; building activities on farms; redevelopment activities; general grading; and all other uses that are not specifically exempted in Section 1XXX.01(D).
- D. This regulation applies to, but does not require Erosion and Sediment Control Plan for single-family home construction or general clearing activities for home construction disturbing areas of less than one (1) acre of land. These minimal areas shall be protected in accordance with an approved site plan specifying erosion and sediment control measures and meeting all other provisions of this regulation.
- E. This regulation does not apply to general soil disturbing activities of less than one fourth (1/4<sup>th</sup>) of an acre, unless required by the City of Barberton Engineer/Building Commissioner.

F. XXX.02 WORDS & TERMS DEFINED

*October 1, 2003*

For the purpose of this regulation, the following terms shall have the meaning herein indicated:

- A. ACRE: A measurement of area equaling 43,560 square feet.
- B. BEST MANAGEMENT PRACTICES (BMPs): Structural or nonstructural facilities or activities that control soil erosion and/or storm water runoff at a development site. Includes treatment requirements, operating and maintenance procedures, and other practices to control site runoff, leaks, or waste disposal.
- C. CONSTRUCTION ENTRANCE: The permitted points of ingress and egress to development areas regulated under this regulation.
- D. CUT: An excavation that reduces an existing elevation, as in road or foundation construction.
- E. DEVELOPMENT AREA: A parcel or contiguous parcels owned by one person or persons, or operated as one development unit, and used or being developed for commercial, industrial, residential, institutional, or other construction or alteration which changes runoff characteristics.
- F. DISTURBED AREA: An area of land subject to erosion due to the removal of vegetative cover and/or soil disturbing activities.
- G. DRAINAGE: The removal of excess surface water or groundwater from land by surface or subsurface drains.
- H. EROSION: The process by which the land surface is worn away by the action of wind, water, ice, gravity, or any combination of those forces.
- I. EROSION AND SEDIMENT CONTROL: The control of soil material, both mineral and organic, to minimize the removal of soil material from the land surface and to prevent its transport out of a disturbed area by means of wind, water, ice, gravity, or any combination of those forces.
- J. EROSION AND SEDIMENT CONTROL PLAN (ESC Plan): The written document meeting the requirements of this regulation that sets forth the plans and practices to be used to minimize soil erosion and prevent off-site disposal of soil sediment by containing sediment on-site or by passing sediment-laden runoff through sediment control measures during and after development.
- K. FINAL STABILIZATION: All soil disturbing activities at the site have been completed and a uniform perennial vegetative cover with a density of at

*October 1, 2003*

least 80% cover for the area has been established or equivalent stabilization measures, such as the use of mulches or geotextiles, have been employed.

- L. LANDSCAPE ARCHITECT: A Professional Landscape Architect registered in the State of Ohio.
- M. LARGER COMMON PLAN OF DEVELOPMENT OR SALE: A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan.
- N. MAXIMUM EXTENT PRACTICABLE: The level of pollutant reduction that site owners of small municipal separate storm sewer systems regulated under 40 C.F.R. Parts 9, 122, 123, and 124, referred to as NPDES Storm Water Phase II, must meet.
- O. NPDES: National Pollutant Discharge Elimination System. A regulatory program in the Federal Clean Water Act that prohibits the discharge of pollutants into surface waters of the United States without a permit.
- P. PERSON: Any individual, corporation, firm, trust, commission, board, public or private partnership, joint venture, agency, unincorporated association, municipal corporation, county or state agency, the federal government, other legal entity, or an agent thereof.
- Q. PHASING: Clearing a parcel of land in distinct sections, with the stabilization of each section before the clearing of the next.
- R. PROFESSIONAL ENGINEER: A Professional Engineer registered in the State of Ohio.
- S. RAINWATER AND LAND DEVELOPMENT: Ohio's standards for storm water management, land development, and urban stream protection. The most current edition of these standards shall be used with this regulation.
- T. RUNOFF: The portion of rainfall, melted snow, or irrigation water that flows across the ground surface and is eventually conveyed to water resources or wetlands.
- U. SEDIMENT: The soils or other surface materials that are or have been transported or deposited by the action of wind, water, ice, gravity, or any combination of those forces, as a product of erosion.
- V. SEDIMENTATION: The deposition or settling of sediment.

*October 1, 2003*

- W. SETBACK: A designated transition area around water resources or wetlands that is left in a natural, usually vegetated, state so as to protect the water resources or wetlands from runoff pollution. Construction activities in this area are restricted or prohibited as required in this regulation.
- X. SOIL DISTURBING ACTIVITY: Clearing, grubbing, grading, excavating, filling, or other alteration of the earth's surface where natural or human made ground cover is destroyed and which may result in, or contribute to, erosion and sediment pollution.
- Y. SOIL & WATER CONSERVATION DISTRICT: An entity organized under Chapter 1515 of the Ohio Revised Code referring to either to the Soil and Water Conservation District Board or its designated employee(s). Hereafter referred to as the Summit SWCD.
- Z. STABILIZATION: The use of Best Management Practices, such as seeding and mulching, that reduce or prevent soil erosion by water, wind, ice, gravity, or a combination of those forces.
- AA. UNSTABLE SOILS: A portion of land surface or area which is identified by the City of Barberton Engineer as prone to slipping, sloughing, or landslides, or is identified by the U.S. Department of Agriculture Natural Resource Conservation Service methodology as having a low soil strength.
- BB. WATER RESOURCE: Any public or private body of water including lakes and ponds, as well as streams, gullies, ditches, swales, or ravines that have banks, a defined bed, or a definite direction of flow, either continuously or intermittently flowing.
- CC. WETLAND: Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas (40 CFR 232, as amended).
- DD. CITY OF BARBERTON: Throughout this regulation, this shall refer to the City of Barberton, its designated representatives, boards, or commissions.

### **1XXX.03 DISCLAIMER OF LIABILITY**

Compliance with the provisions of this regulation shall not relieve any person from responsibility from damage to any person otherwise imposed by law. The provisions of this regulation are promulgated to promote the health and safety of the public

October 1, 2003

and are not designed for the benefit of any individual or for the benefit of any particular parcel of property.

#### **1XXX.04: CONFLICTS, SEVERABILITY, NUISANCES & RESPONSIBILITY**

- A. Where this regulation is in conflict with other provisions of law or ordinance, the most restrictive provisions shall prevail.
- B. If any clause, section, or provision of this regulation is declared invalid or unconstitutional by a court of competent jurisdiction, the validity of the remainder shall not be affected thereby.
- C. This regulation shall not be construed as authorizing any person to maintain a private or public nuisance on their property, and compliance with the provisions of this regulation shall not be a defense in any action to abate such a nuisance.
- D. Failure of City of Barberton to observe or recognize hazardous or unsightly conditions or to recommend corrective measures shall not relieve the owner from the responsibility for the condition or damage resulting therefrom, and shall not result in City of Barberton, its officers, employees, or agents being responsible for any condition or damage resulting therefrom.

#### **1XXX.05 APPLICATION PROCEDURES**

- A. DEVELOPMENT AREAS OF ONE (1) ACRE OR MORE OR LESS THAN ONE (1) ACRE AND PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE: Erosion and Sediment Control Plans (ESC Plan) are required for all development areas of one (1) acre or more, or less than one (1) acre if part of a larger common plan of development or sale. For development areas of one (1) acre or more, ESC plans are to be submitted to Summit Soil and Water Conservation District and a letter confirming delivery of said plan to the City of Barberton. For development areas of one (1) acre or less, the ESC plans are to be submitted to the City of Barberton. The following requirements apply:
  - 1. The site owner may submit a Storm Water Pollution Prevention Plan (SWP3) prepared in accordance with Ohio EPA's NPDES Permit No. OHC000002, or the most recent version thereof, in lieu of a separate ESC Plan. In situations of conflict between OEPA requirements and City of Barberton requirements, the most restrictive shall prevail.
  - 2. Two (2) sets of the ESC Plan, or SWP3, and supporting data required by

October 1, 2003

this regulation shall be submitted to the City of Barberton for development areas of one (1) acre or less and to Summit Soil and Water Conservation District for development areas greater than one (1) acres as follows:

- a. For subdivisions: After the approval of the preliminary plans and with submittal of the improvement plans.
- b. For other construction projects: After issuance of a zoning permit by the Zoning Inspector.
- c. For general clearing projects: Fifteen (15) working days prior to any soil disturbing activities.

➤ *Owners of construction sites meeting the criteria in Section 1XXX.05(A) must develop a SWP3 for Ohio EPA's Construction General Permit. To ensure clarity and consistency, this model includes the same requirements as the Construction General Permit for erosion and sediment control and allows site owners to develop ONE plan for both Ohio EPA and the Phase II community.*

B. DEVELOPMENT AREAS OF LESS THAN ONE ACRE AND NOT PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE: Site plans specifying erosion and sediment control measures are required for all development areas of less than one (1) acre that are not part of a larger common plan of development. Exhibit A explains the required erosion and sediment control best management practices for these sites. Sections 1XXX.07 and 1XXX.08 of this regulation shall not apply to these sites. All other sections shall apply. Two (2) sets of these site plans shall be submitted to the City of Barberton for development areas of one (1) acre or less or to Summit Soil and Water Conservation District for development areas greater than one (1) acre as follows:

1. For general clearing projects disturbing more than 1/4<sup>th</sup> of an acre: Fifteen (15) working days prior to any soil disturbing activities.

C. The City of Barberton or Summit Soil and Water Conservation District as appropriate shall review the plans submitted under 1XXX.05(A) or (B) and approve or return for revisions with comments and recommendations for revisions within twenty-one (21) working days after receipt of the plan.

A plan rejected because of deficiencies shall receive a narrative report stating specific problems and the procedures for filing a revised plan. At the time City of Barberton receives a revised plan, another twenty-one (21) day review period shall begin.

*October 1, 2003*

- D. Soil disturbing activities shall not begin and building permits shall not be issued without an ESC Plan or a Site Plan approved by the City of Barberton or Summit Soil and Water Conservation District, when appropriate.
- E. ESC Plans for individual sublots will not be approved by the City of Barberton or Summit Soil and Water Conservation District, as appropriate unless the larger common plan of development or sale containing the subplot is in compliance with these regulations.
- F. Approvals issued in accordance with this regulation shall remain valid for one (1) year from the date of approval.

### **1XXX.06 CONFORMANCE WITH STATE AND FEDERAL REGULATIONS**

- A. Approvals issued in accordance with this regulation do not relieve the site owner of responsibility for obtaining all other necessary permits and/or approvals from federal, state, and/or county agencies. If requirements vary, the most restrictive requirement shall prevail.
- B. Soil-disturbing activities regulated under this regulation shall not begin until all necessary state and federal permits have been granted to the site owner. These permits may include, but are not limited to, the following:
  - 1. Ohio EPA NPDES Permits authorizing storm water discharges associated with construction activity or the most current version thereof. Proof of conformance with these requirements shall be a copy of the Ohio EPA Director's Authorization Letter for the NPDES Permit, or a letter from the site owner explaining why the NPDES Permit is not applicable.
  - 2. Section 401 of the Clean Water Act: Proof of conformance shall be a copy of the Ohio EPA Water Quality Certification application, public notice, or project approval, or a letter from the site owner verifying that a qualified professional has surveyed the site and found no waters of the United States. Such a letter shall be noted on site plans submitted to the City of Barberton Engineer. Wetlands, and other waters of the United States, shall be delineated by protocols accepted by the Ohio EPA at the time of application of this regulation.
  - 3. Ohio EPA Isolated Wetland Permit. Proof of conformance shall be a copy of Ohio EPA's Isolated Wetland Permit application, public notice, or project approval, or a letter from the site owner verifying that a

October 1, 2003

qualified professional has surveyed the site and found no isolated wetlands. Such a letter shall be noted on site plans submitted to the City of Barberton Engineer. Isolated wetlands shall be delineated by protocols accepted by the Ohio EPA at the time of application of this regulation.

4. Section 404 of the Clean Water Act: Proof of conformance shall be a copy of the U.S. Army Corps of Engineers Individual Permit application, if an Individual Permit is required for the development project, public notice, or project approval. If an Individual Permit is not required, the site owner shall submit proof of conformance with the U.S. Army Corps of Engineer's Nationwide Permit Program. This shall include one of the following:
  - a. A letter from the site owner verifying that a qualified professional has surveyed the site and found no waters of the United States. Such a letter shall be noted on site plans submitted to the City of Barberton Engineer.
  - b. A site plan showing that any proposed fill of waters of the United States conforms to the general and specific conditions specified in the applicable Nationwide Permit. Wetlands, and other waters of the United States, shall be delineated by protocols accepted by the US Army Corps of Engineers at the time of application of this regulation.
5. Ohio Dam Safety Law: Proof of conformance shall be a copy of the ODNR Division of Water permit application, a copy of the project approval letter from the ODNR Division of Water, or a letter from the site owner explaining why the Ohio Dam Safety Law is not applicable.

#### **1XXX.07 EROSION & SEDIMENT CONTROL PLAN**

- A. In order to control sediment pollution of water resources and wetlands, the site owner shall submit an ESC Plan in accordance with the requirements of Section 1XXX.05.
- B. If the site is subject to Ohio EPA's NPDES Permit No. OHC000002, or the most recent version thereof, a copy of all the required inspection sheets shall be submitted to the City of Barberton Engineer within two (2) working days of the date that the inspection was conducted.
- C. The ESC Plan shall be certified by a professional engineer, a registered surveyor, certified professional erosion and sediment control specialist, or a

*October 1, 2003*

landscape architect registered in the State of Ohio.

- D. The ESC Plan shall incorporate measures as recommended by the most current edition of Rainwater and Land Development and shall include the following information:
1. Site description: The ESC Plan shall provide:
    - a. A description of the nature and type of the construction activity (e.g. residential, shopping mall, highway, etc.).
    - b. Total area of the site and the area of the site that is expected to be disturbed (i.e., grubbing, clearing, excavation, filling or grading, including off-site borrow areas).
    - c. An estimate of the impervious area and percent imperviousness created by the soil-disturbing activity.
    - d. Existing data describing the soil and, if available, the quality of any known pollutant discharge from the site such as that which may result from previous contamination caused by prior land uses.
    - e. A description of prior land uses at the site.
    - f. An implementation schedule which describes the sequence of major soil-disturbing operations (i.e., grubbing, excavating, grading, utilities and infrastructure installation) and the implementation of erosion and sediment controls to be employed during each operation of the sequence.
    - g. The location and name of the immediate receiving stream or surface water(s) and the first subsequent receiving water(s).
    - h. The area extent and description of wetlands or other special aquatic sites at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project.
    - i. For subdivided developments where the ESC Plan does not call for a centralized sediment control capable of controlling multiple individual lots, a detail drawing of a typical individual lot showing standard individual lot erosion and sediment control practices.

*October 1, 2003*

- j. Location and description of any storm water discharges associated with dedicated asphalt and dedicated concrete plants associated with the development area and the best management practices to address pollutants in these storm water discharges.
- k. Site map showing:
  - i. Limits of soil-disturbing activity of the site, including off site spoil and borrow areas.
  - ii. Soils types should be depicted for all areas of the site, including locations of unstable or highly erodible soils.
  - iii. Existing and proposed contours. This must include a delineation of drainage watersheds expected during and after major grading activities as well as the size of each drainage watershed in acres.
  - iv. Surface water locations including springs, wetlands, streams, lakes, water wells, etc., on or within 200 feet of the site, including the boundaries of wetlands or stream channels and first subsequent named receiving water(s) the site owner intends to fill or relocate for which the site owner is seeking approval from the Army Corps of Engineers and/or Ohio EPA.
  - v. Existing and planned locations of buildings, roads, parking facilities, and utilities.
  - vi. The location of all erosion and sediment control practices, including the location of areas likely to require temporary stabilization during the course of site development.
  - vii. Sediment ponds, including their sediment settling volume and contributing drainage area.
  - viii. Areas designated for the storage or disposal of solid, sanitary and toxic wastes, including Dumpster areas, areas designated for cement truck washout, and vehicle fueling.
  - ix. The location of designated stoned construction

*October 1, 2003*

entrances where the vehicles will ingress and egress the construction site.

- x. The location of any in-stream activities including stream crossings.
2. A soils engineering report. The City of Barberton Engineer or Summit Soil and Water Conservation District may require the ESC Plan to include a Soils Engineering Report based upon his/her determination that the conditions of the soils are unknown or unclear so that additional information is required to protect against erosion or other hazards. This report shall be based on adequate and necessary test borings, and shall contain all the information listed below. Recommendations included in the report and approved by the City of Barberton Engineer or Summit Soil and Water Conservation District, as appropriate, shall be incorporated in the grading plans and/or other specifications for site development.
- a. Data regarding the nature, distribution, strength, and erodibility of existing soils.
  - b. If applicable, data regarding the nature, distribution, strength, and erodibility of the soil to be placed on the site.
  - c. Conclusions and recommendations for grading procedures.
  - d. Conclusions and recommended designs for interim soil stabilization devices and measures, and for permanent soil stabilization after construction is completed.
  - e. Design criteria for corrective measures when necessary.
  - f. Opinions and recommendations covering the stability of the site.

#### **1XXX.08 PERFORMANCE STANDARDS**

The ESC Plan must contain a description of the controls appropriate for each construction operation and the site owner must implement such controls. The ESC Plan must clearly describe for each major construction activity the appropriate control measures; the general sequence during the construction process under which the measures will be implemented; and the contractor responsible for implementation (e.g., contractor A will clear land and install perimeter controls and

contractor B will maintain perimeter controls until final stabilization).

The controls shall include the following minimum components:

- A. **NON-STRUCTURAL PRESERVATION MEASURES:** The ESC Plan must make use of practices that preserve the existing natural condition to the maximum extent practicable. Such practices may include preserving riparian areas, preserving existing vegetation and vegetative buffer strips, phasing of construction operations in order to minimize the amount of disturbed land at any one time, and designation of tree preservation areas or other protective clearing or grubbing practices.

The site owner shall leave undisturbed a minimum of 50 feet, or the required setback whichever is larger, on either side of water resources and wetlands, except for crossings and other riparian area and wetland impacts approved by the City of Barberton Engineer.

- B. **EROSION CONTROL PRACTICES:** The ESC Plan must make use of erosion controls that are capable of providing cover over disturbed soils. A description of control practices designed to restabilize disturbed areas after grading or construction shall be included in the ESC Plan. The ESC Plan must provide specifications for stabilization of all disturbed areas of the site and provide guidance as to which method of stabilization will be employed for any time of the year. Such practices may include: temporary seeding, permanent seeding, mulching, matting, sod stabilization, vegetative buffer strips, phasing of construction operations, the use of construction entrances, and the use of alternative ground cover.

Erosion control practices must meet the following requirements:

- 1. Stabilization. Disturbed areas must be stabilized as specified in Tables 1 and 2 below.

**Table 1: Permanent Stabilization**

Area requiring permanent stabilization	Time frame to apply erosion controls
Any area that will lie dormant for one year or more	Within 7 days of the most recent disturbance.
Any area within 50 feet of a stream and at final grade (for disturbances allowed within 50 feet of stream see Section 1XXX.08(A).)	Within 2 days of reaching final grade.

Any other area at final grade	Within 7 days of reaching final grade within that area.
-------------------------------	---

**Table 2: Temporary Stabilization**

Area requiring temporary stabilization	Time frame to apply erosion controls
Any disturbed area within 50 feet of a stream and not at final grade (for disturbances allowed within 50 feet of a stream see Section 1XXX.08(A).)	Within 2 days of the most recent disturbance if that area will remain idle for more than 21 days
For all construction activities, any disturbed area, including soil stockpiles, that will be dormant for more than 21 days but less than one year, and not within 50 feet of a stream.	Within 7 days of the most recent disturbance within the area
Disturbed areas that will be idle over winter	Prior to onset of winter weather
<b>Note:</b> Where vegetative stabilization techniques may cause structural instability or are otherwise unobtainable, alternative stabilization techniques must be employed. These techniques may include mulching or erosion matting	

2. Permanent stabilization of conveyance channels. Site owners shall undertake special measures to stabilize channels and outfalls and prevent erosive flows. Measures may include seeding, dormant seeding, mulching, erosion control matting, sodding, riprap, natural channel design with bioengineering techniques, or rock check dams, all as defined in the most recent edition of Rainwater and Land Development or the Field Office Technical Guide available at [www.nrcs.usda.gov/technical/efotg/](http://www.nrcs.usda.gov/technical/efotg/)
- C. **RUNOFF CONTROL PRACTICES.** The ESC Plan shall incorporate measures that control the flow of runoff from disturbed areas so as to prevent erosion. Such practices may include rock check dams, pipe slope drains, diversions to direct flow away from exposed soils and protective grading practices. These practices shall divert runoff away from disturbed areas and steep slopes where practicable.
- D. **SEDIMENT CONTROL PRACTICES.** The ESC Plan shall include a description of structural practices that shall store runoff, allowing sediments to settle and/or

*October 1, 2003*

divert flows away from exposed soils or otherwise limit runoff from exposed areas. Structural practices shall be used to control erosion and trap sediment from a site remaining disturbed for more than 14 days. Such practices may include, among others: sediment settling ponds, silt fences, storm drain inlet protection, and earth diversion dikes or channels which direct runoff to a sediment settling pond. All sediment control practices must be capable of ponding runoff in order to be considered functional. Earth diversion dikes or channels alone are not considered a sediment control practice unless used in conjunction with a sediment settling pond.

Sediment control practices must meet the following requirements:

1. Timing. Sediment control structures shall be functional throughout the course of earth disturbing activity. Sediment basins and perimeter sediment barriers shall be implemented prior to grading and within seven days from the start of grubbing. They shall continue to function until the up slope development area is restabilized. As construction progresses and the topography is altered, appropriate controls must be constructed or existing controls altered to address the changing drainage patterns.
2. Sediment settling ponds. Concentrated storm water runoff and runoff from drainage areas that exceed the design capacity of silt fence or inlet protection, as determined in Table 3 below, shall pass through a sediment settling pond or equivalent best management practice upon approval from City of Barberton Engineer.

The sediment-settling pond shall be sized to provide at least 67 cubic yards of storage per acre of total contributing drainage area. When determining the total contributing drainage area, off-site areas and areas which remain undisturbed by construction activity must be included unless runoff from these areas is diverted away from the sediment settling pond and is not co-mingled with sediment-laden runoff. The depth of the sediment-settling pond must be less than or equal to five feet. The configuration between the inlets and the outlet of the basin must provide at least two units of length for each one unit of width (> 2:1 length:width ratio). Sediment must be removed from the sediment-settling pond when the design capacity has been reduced by 40 percent. This limit is typically reached when sediment occupies one-half of the basin depth. When designing sediment settling ponds, the site owner must consider public safety, especially as it relates to children, as a design factor for the sediment basin and alternative sediment controls must be used where site limitations would preclude a safe design. The use of a combination of sediment

*October 1, 2003*

and erosion control measures in order to achieve maximum pollutant removal is encouraged.

3. Silt Fence and Diversions. Sheet flow runoff from denuded areas shall be intercepted by silt fence or diversions to protect adjacent properties, water resources, and wetlands from sediment transported via sheet flow. Where intended to provide sediment control, silt fence shall be placed on a level contour and shall be capable of temporarily ponding runoff. The relationship between the maximum drainage area to silt fence for a particular slope range is shown in Table 3 below. Storm water diversion practices shall be used to keep runoff away from disturbed areas and steep slopes. Such devices, which include swales, dikes or berms, may receive storm water runoff from areas up to 10 acres.

**Table 3: Maximum Drainage Area to Silt Fence**

Maximum drainage area (in acres) to 100 linear feet of silt fence	Range of slope for a particular drainage area (percent)
0.5	<2%
0.25	≥ 2% but < 20%
0.125	≥ 20% but < 50%

4. Inlet Protection. Erosion and sediment control practices, such as boxed inlet protection, shall be installed to minimize sediment-laden water entering active storm drain systems. Straw or hay bales are not acceptable forms of inlet protection.
5. Off site tracking of sediment and dust control: Best management practices must be implemented to ensure sediment is not tracked off-site and that dust is controlled. These best management practices must include, but are not limited to, the following:
  - a. Construction entrances shall be built and shall serve as the only permitted points of ingress and egress to the development area. These entrances shall be built of a stabilized pad of aggregate stone or recycled concrete or cement sized greater than 2" in diameter, placed over a geotextile fabric, and constructed in conformance with specifications in the most recent edition of the Rainwater and Land Development Manual.

October 1, 2003

- b. Streets directly adjacent to construction entrances and receiving traffic from the development area, shall be cleaned weekly to remove sediment tracked off-site. If applicable, the catch basins on these streets nearest to the construction entrances shall also be cleaned weekly.

Based on site conditions, the City of Barberton Engineer may require additional best management practices to control off site tracking and dust. These additional BMPs may include:

- c. Silt fence or snow fence installed around the perimeter of the development area to ensure that all vehicle traffic adheres to designated construction entrances.
  - d. Designated wheel-washing areas. Wash water from these areas must be directed to a designated sediment trap, the sediment-settling pond, or to a sump pump for dewatering in conformance with Section 1XXX.08(G) of this regulation.
  - e. City of Barberton Engineer may require dust controls including the use of water trucks to wet disturbed areas, tarping stockpiles, temporary stabilization of disturbed areas, and regulation of the speed of vehicles on the site.
6. Stream Protection. Construction vehicles shall avoid water resources and wetlands. If the site owner is permitted, under Section 1XXX.08(A), to disturb areas within 50 feet of a water resource or wetland, the following conditions shall be addressed in the ESC Plan:
- a. All Best Management Practices and stream crossings shall be designed as specified in the most recent edition of the Rainwater and Land Development Manual.
  - b. Structural practices shall be designed and implemented on site to protect water resources or wetlands from the impacts of sediment runoff.
  - c. No structural sediment controls (e.g., the installation of silt fence or a sediment settling pond in-stream) shall be used in a water resource or wetland.
  - d. Where stream crossings for roads or utilities are necessary and permitted, the project shall be designed such that the number

October 1, 2003

of stream crossings and the width of the disturbance within 50 feet of the water resource or wetland is minimized.

- e. Temporary stream crossings shall be constructed if water resources or wetlands will be crossed by construction vehicles repeatedly during construction.
- f. Construction of bridges, culverts, or sediment control structures shall not place soil, debris, or other particulate material into or close to the water resources or wetlands in such a manner that it may slough, slip, or erode.

7. Modifying Controls. If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the site owner shall replace or modify the control for site conditions.

E. NON-SEDIMENT POLLUTANT CONTROLS: Other than sediment, no solid or liquid waste, including building materials, shall be discharged in storm water runoff. The site owner must implement site best management practices to prevent toxic materials, hazardous materials, or other debris from entering City of Barberton water resources or wetlands. These practices shall include but are not limited to the following:

- 1. Construction Site Waste Materials: A covered Dumpster shall be made available for the proper disposal of construction site waste materials, garbage, plaster, drywall, grout, or gypsum.
- 2. Concrete Truck Wash Out: The washing of excess concrete material into a street, catch basin, or other public facility or natural resource shall not occur. A designated area for concrete washout shall be made available.
- 3. Fuel Tank Storage: All fuel tanks and drums shall be stored in a marked storage area. A dike shall be constructed around this storage area with a minimum capacity equal to 110% of the volume of the largest container in the storage area.
- 4. Toxic or Hazardous Waste Disposal: Any toxic or hazardous waste shall be disposed of properly.
- 5. Contaminated Soils Disposal and Runoff: Contaminated soils from redevelopment sites shall be disposed of properly. Runoff from contaminated sites shall not be discharged from the site. Proper permits shall be obtained for development projects on solid waste

landfill sites

- F. COMPLIANCE WITH OTHER REQUIREMENTS. The ESC Plan shall be consistent with applicable State and/or local waste disposal, sanitary sewer, or septic system regulations, including provisions prohibiting waste disposal by open burning, and shall provide for the proper disposal of contaminated soils located within the development area.
- G. TRENCH AND GROUND WATER CONTROL. There shall be no sediment-laden or turbid discharges to water resources or wetlands resulting from dewatering activities. If trench or ground water contains sediment, it must pass through a sediment-settling pond or other equally effective sediment control device, prior to being discharged from the construction site. Alternatively, sediment may be removed by settling in place or by dewatering into a sump pit, filter bag or comparable practice. Ground water dewatering which does not contain sediment or other pollutants is not required to be treated prior to discharge. However, care must be taken when discharging ground water to ensure that it does not become pollutant-laden by traversing over disturbed soils or other pollutant sources.
- H. INSPECTIONS. All controls on the site shall be inspected at least once every seven calendar days and within 24 hours after any storm event greater than one-half inch of rain per 24 hour period. The site owner shall assign qualified inspection personnel to conduct these inspections to ensure that the control practices are functional and to evaluate whether the ESC Plan is adequate, or whether additional control measures are required. Qualified inspection personnel are individuals with knowledge and experience in the installation and maintenance of sediment and erosion controls.

These inspections shall meet the following requirements

1. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of or the potential for, pollutants entering the drainage system.
2. Erosion and sediment control measures identified in the ESC Plan shall be observed to ensure that they are operating correctly.
3. Discharge locations shall be inspected to determine whether erosion and sediment control measures are effective in preventing significant impacts to the receiving waters.
4. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site vehicle tracking.

October 1, 2003

The site owner shall maintain for three (3) years following the final stabilization of the site a record summarizing the results of these inspections, names(s) and qualifications of personnel making the inspections, the date(s) of inspections, major observations relating to the implementation of the ESC Plan and a certification as to whether the facility is in compliance with the ESC Plan and identify any incidents of non-compliance.

- I. MAINTENANCE. All temporary and permanent control practices shall be maintained and repaired as needed to ensure continued performance of their intended function. All sediment control practices must be maintained in a functional condition until all up slope areas they control reach final stabilization, as determined by the City of Barberton Engineer. The ESC Plan shall be designed to minimize maintenance requirements. The applicant shall provide a description of maintenance procedures needed to ensure the continued performance of control practices and shall ensure a responsible party and adequate funding to conduct this maintenance, all as determined by the City of Barberton Engineer.

When inspections required in Section 1XXX.08(H) reveal the need for repair, replacement, or installation of erosion and sediment control best management practices, the following procedures shall be followed:

1. When practices require repair or maintenance. If an inspection reveals that a control practice is in need of repair or maintenance, with the exception of a sediment-settling pond, it must be repaired or maintained within three days of the inspection. Sediment settling ponds must be repaired or maintained within 10 days of the inspection.
2. When practices fail to provide their intended function. If an inspection reveals that a control practice fails to perform its intended function as detailed in the ESC Plan and that another, more appropriate control practice is required, the ESC Plan must be amended and the new control practice must be installed within 10 days of the inspection.
3. When practices depicted on the ESC Plan are not installed. If an inspection reveals that a control practice has not been implemented in accordance with the schedule, the control practice must be implemented within 10 days from the date of the inspection. If the inspection reveals that the planned control practice is not needed, the record must contain a statement of explanation as to why the control practice is not needed.

### **1XXX.09 BOND AND PERMIT**

- A. Funds shall be deposited with the City of Barberton or Summit Soil and Water Conservation District as appropriate prior to review to cover the professional services of City of Barberton Engineer, Summit Soil and Water Conservation District and/or other experts as the City of Barberton Engineer may require.
- B. No soil disturbing activities shall be permitted until a insurance/cash bond has been deposited with the City of Barberton to the satisfaction of the City of Barberton Engineer sufficient for City of Barberton to perform the obligations otherwise to be performed by the owner of the development area as stated in this regulation and to allow all work to be performed as needed in the event that the site owner fails to comply with the provisions of this regulation. The insurance/cash bond shall be returned after all work required by this regulation has been completed to the satisfaction of the City of Barberton Engineer.
- C. No project subject to this regulation shall commence without an ESC Plan approved by the City of Barberton Engineer.

### **1XXX.10 VIOLATIONS**

- A. No person shall violate or cause or knowingly permit to be violated any of the provisions of this regulation, or fail to comply with any of such provisions or with any lawful requirements of any public authority made pursuant to this regulation, or knowingly use or cause or permit the use of any lands in violation of this regulation or in violation of any permit granted under this regulation.
- B. Upon notice, the City of Barberton Engineer may suspend any active soil disturbing activity for a period not to exceed ninety (90) days, and may require immediate erosion and sediment control measures whenever he or she determines that such activity is not meeting the intent of this regulation. Such notice shall be in writing, shall be given to the owner or site owner, and shall state the conditions under which work may be resumed. In instances, however, where the City of Barberton Engineer finds that immediate action is necessary for public safety or the public interest, he or she may require that work be stopped upon verbal order pending issuance of the written notice.

### **1XXX.99 PENALTY**

- A. Whoever violates or fails to comply with any provision of this regulation is guilty of a misdemeanor of the third degree and shall be fined no more than five hundred dollars (\$500.00) or imprisoned for no more than sixty (60) days,

*October 1, 2003*

or both, for each offense. A separate offense shall be deemed committed each day during or on which a violation or noncompliance occurs or continues.

- B. The imposition of any other penalties provided herein shall not preclude City of Barberton from instituting an appropriate action or proceeding in a Court of proper jurisdiction to prevent an unlawful development, or to restrain, correct, or abate a violation, or to require compliance with the provisions of this regulation or other applicable laws, ordinances, rules, or regulations, or the orders of the City of Barberton Engineer.

H:\2002\02082\EMPSDIV\LEGISLATION\Draft Erosion and Sediment Control Ordinance - General.doc