

Public Hearing held 9/5/07  
Public Hearing held 10/23/07  
1<sup>st</sup> reading 1/7/08  
2<sup>nd</sup> reading 1/22/08 – amended

Requested by the  
Public Works Committee

ORDINANCE NO: 2008-1

INTRODUCED BY: Pelunis

AN ORDINANCE AMENDING CHAPTER 1254 OF  
THE SOLON CODIFIED ORDINANCES,  
EROSION AND SEDIMENTATION IN VACANT LAND DEVELOPMENT

**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; damages water resources and wetlands by reducing water quality; and causes the siltation of aquatic habitat; and

**WHEREAS**, communities throughout the watershed(s) in which the City of Solon is located 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 Chagrin and Cuyahoga Rivers and to protect and enhance the unique water resources and wetlands of the Chagrin and Cuyahoga River watersheds; and

**WHEREAS**, the City of Solon is a member of the Chagrin River Watershed Partners, Inc. and recognizes its obligation as a part of the Chagrin and Cuyahoga 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 Stormwater Phase II, require designated communities, including the City of Solon to develop and implement a Stormwater 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 Solon, county of Cuyahoga, State of Ohio, that:

**SECTION 1:** Codified Ordinance Chapter 1254 Erosion and Sedimentation in Vacant Land Development, is hereby repealed and replaced in total as follows:

CHAPTER 1254  
~~Erosion and Sedimentation in Vacant Land Development~~

~~1254.01 PLAN REQUIRED:~~

~~In the event that any owner, developer or builder intends to make changes in the contour of any land proposed to be subdivided, developed or changed in use by grading, excavating or by the removal or destruction of natural vegetation and its topsoil, trees or other vegetation covering thereon, the same shall only be accomplished after the owner of such land, or his or her agent, has~~

submitted to the City Engineer for approval a plan for erosion and sedimentation controls, to be reviewed by the Engineer in accordance with the standards set forth in the Urban Sediment Pollution Abatement Rules of the Ohio Department of Natural Resources, Division of Soil and Water Districts, subject to the following deletions:

— (a) Section 1501:15-1-05(B) delete in lines 6 and 7 the words "of five acres or more" and delete the last sentence entirely.

— (b) Section 1501:15-1-06(C)(1) delete entire subsection after first semicolon in first line.

— (c) Section 1501:15-1-08 delete in its entirety.

— The foregoing rules, as amended, are hereby adopted by the City of Solon pursuant to Ohio R.C. 731.231.

— Such plan shall contain adequate measures for the control of erosion and siltation where necessary, including plans for immediate reseeded or other approved controls of disturbed ground with quick-growing vegetation or other controls to provide erosion control and prevent siltation.

— The Engineer shall review these plans as submitted and shall take necessary steps to insure compliance by the developer with these plans as finally approved during and after construction of all phases of the subdivision.

— 1254.02 — CITY ENGINEER TO APPROVE.

— The City Engineer, in his or her consideration of each preliminary plan or extension of a previously approved plan, or plans for the development of an industrial or commercial property, shall condition his or her approval upon the execution by the developer of erosion and sediment control measures as required by the Engineer pursuant to Section 1254.01, and to be required by the Engineer after receiving comments and recommendations from the Cuyahoga Soil and Water Conservation District pursuant to Section 1254.03.

— 1254.03 — REVIEW BY CUYAHOGA SOIL AND WATER CONSERVATION DISTRICT.

— One copy of each approved preliminary plan, or extension of a previously approved plan requiring erosion and sediment control measures, shall be referred to the Cuyahoga Soil and Water Conservation District for review and recommendation as to adequate erosion and sediment control measures to prevent damage to streams, lakes, ponds, sewers, drainageways, culverts and to other properties.

## **“CHAPTER 1254 EROSION AND SEDIMENT CONTROL**

### **1254.01 PURPOSE AND 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 the City of Solon:
- (b) This regulation will:
  - (1) Allow development while minimizing increases in 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 all parcels used or being developed, either wholly or partially, for new or relocated projects involving highways, underground cables, or pipelines; subdivisions or larger common plans of development; industrial, commercial, institutional, or residential projects;

building activities on farms; redevelopment activities; general clearing; and all other uses that are not specifically exempted in Section 1254.01 (d).

- (d) This regulation does not apply to activities regulated by, and in compliance with, the Ohio Agricultural Sediment Pollution Abatement Rules.

## **1254.02 DEFINITIONS**

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

- (a) **ABBREVIATED STORMWATER POLLUTION PREVENTION PLAN (ABBREVIATED SWP3):** The written document that sets forth the plans and practices to be used to meet the requirements of this regulation during and after land development.
- (b) **ACRE:** A measurement of area equaling 43,560 square feet.
- (c) **BEST MANAGEMENT PRACTICES (BMPs):** Schedule of activities, prohibitions of practices, maintenance procedures, and other management practices (both structural and non-structural) to prevent or reduce the pollution of water resources and wetlands. BMPs also include treatment requirements, operating procedures, and practices to control facility and/or construction site runoff, spillage, or leaks; sludge or waste disposal; or drainage from raw material storage.
- (d) **CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC):** A specialist in erosion and sediment control best management practices for soil disturbing activities in good standing with CPESC, Inc.
- (e) **COMMUNITY:** Throughout this regulation, this shall refer to the City of Solon, its designated representatives, boards, or commissions.
- (f) **CONCRETE WASHOUT:** The washing of concrete material from its delivery or installation device in such a manner as to allow such material to enter the City of Solon's municipal separate storm sewer system or water resources.
- (g) **CONSTRUCTION ENTRANCE:** The permitted points of ingress and egress to development areas regulated under this regulation.
- (h) **CONVEYANCE CHANNEL:** A water resource that carries water or a ditch excavated for the flow of water.
- (i) **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 that changes the runoff characteristics of a parcel or parcels of land.
- (j) **DISTURBED AREA:** An area of land subject to erosion due to the removal of vegetative cover and/or soil disturbing activities.
- (k) **DRAINAGE:** (1) The area of land contributing surface water to a specific point. (2) The removal of excess surface water or groundwater from land by surface or subsurface drains.
- (l) **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.

- (m) **EROSION AND SEDIMENT CONTROL:** The control of earthly materials, both mineral and organic, to minimize the removal of said materials from the land surface and to prevent its transport from a disturbed area by means of wind, water, ice, gravity, or any combination of those forces.
- (n) **FINAL STABILIZATION:** All soil disturbing activities at the site have been completed and a uniform perennial vegetative cover with a density of at least 80% coverage for the area has been established or equivalent stabilization measures, such as the use of mulches or geotextiles, have been employed.
- (o) **LANDSCAPE ARCHITECT:** A Professional Landscape Architect registered in the State of Ohio.
- (p) **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.
- (q) **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 Stormwater Phase II, must meet.
- (r) **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.
- (s) **PARCEL:** Means a tract of land occupied or intended to be occupied by a use, building or group of buildings and their accessory uses and buildings as a unit, together with such open spaces and driveways as are provided and required. A parcel may contain more than one contiguous lot individually identified by a "Permanent Parcel Number" assigned by the Cuyahoga County Auditor's Office.
- (t) **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.
- (u) **PHASING:** Clearing a parcel of land in distinct sections, with the stabilization of each section before the clearing of the next.
- (v) **PROFESSIONAL ENGINEER:** A Professional Engineer registered in the State of Ohio.
- (w) **RAINWATER AND LAND DEVELOPMENT:** Ohio's standards for stormwater management, land development, and urban stream protection. The most current edition of these standards shall be used with this regulation.
- (x) **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.
- (y) **SEDIMENT:** The soils or other surface materials that are transported or deposited by the action of wind, water, ice, gravity, or any combination of those forces, as a product of erosion.
- (z) **SEDIMENTATION:** The deposition or settling of sediment.

- (aa) **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. Soil disturbing activities in this area are restricted by this regulation.
- (bb) **SOIL DISTURBING ACTIVITY:** Clearing, grading, excavating, filling, or other alteration of the earth's surface where natural or human made ground cover is destroyed and that may result in, or contribute to, erosion and sediment pollution.
- (cc) **SOIL & WATER CONSERVATION DISTRICT:** An entity organized under Chapter 1515 of the Ohio Revised Code referring to either the Soil and Water Conservation District Board or its designated employee(s). Hereafter referred to the Cuyahoga SWCD.
- (dd) **STABILIZATION:** The use of BMPs, such as seeding and mulching, that reduce or prevent soil erosion by water, wind, ice, gravity, or a combination of those forces.
- (ee) **STORMWATER POLLUTION PREVENTION PLAN (SWP3):** The written document that sets forth the plans and practices to be used to meet the requirements of this regulation during and after land development.
- (ff) **SURVEYOR:** A Professional Surveyor registered in the State of Ohio.
- (gg) **UNSTABLE SOILS:** A portion of land that is identified by the City of Solon 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.
- (hh) **WATER RESOURCE:** Any public or private body of water including lakes and ponds, as well as any brook, creek, river, or stream having banks, a defined bed, and a definite direction of flow, either continuously or intermittently flowing.
- (ii) **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).

**1254.03           DISCLAIMER OF LIABILITY**

Compliance with the provisions of this regulation shall not relieve any person from responsibility for damage to any person otherwise imposed by law. The provisions of this regulation are promulgated to promote the health, safety, and welfare of the public and are not designed for the benefit of any individual or for the benefit of any particular parcel of property.

**1254.04           CONFLICTS, SEVERABILITY, NUISANCES AND 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 the City of Solon to observe or recognize hazardous or unsightly conditions or to recommend corrective measures shall not relieve the site owner from the responsibility for the condition or damage resulting therefrom, and shall not result in the City of Solon, its officers, employees, or agents being responsible for any condition or damage resulting therefrom.

**1254.05 DEVELOPMENT OF STORMWATER POLLUTION PREVENTION PLANS**

- (a) This regulation requires that a Stormwater Pollution Prevention Plan be developed and implemented for all parcels of one (1) acre or more and on which any regulated activity of Section 1254.01(c) is proposed, except as detailed below.
- (b) The following activities shall submit an Abbreviated Stormwater Pollution Prevention Plan:
  - (1) New single family, two family or multi-family residential construction regardless of parcel size. If such activities disturb one (1) acre or more, or are part of a larger common plan of development or sale disturbing one (1) acre or more, an Ohio EPA Construction Site General Permit and a Stormwater Pollution Prevention Plan may be required.
  - (2) Additions one thousand (1,000) square feet and larger for single family, two family or multi-family residential construction regardless of parcel size. If such activities disturb one (1) acre or more, or are part of a larger common plan of development or sale disturbing one (1) acre or more, an Ohio EPA Construction Site General Permit and a Stormwater Pollution Prevention Plan may be required.
  - (3) All non-residential construction on parcels of less than one (1) acre.
  - (4) General clearing activities not related to construction and regardless of parcel size. If such activities disturb one (1) acre or more, or are part of a larger common plan of development or sale disturbing one (1) acre or more, an Ohio EPA Construction Site General Permit and a Stormwater Pollution Prevention Plan may be required. All tree clearing activities must also comply with City of Solon Ordinance Section 1488.
- (c) Activities disturbing 1/10<sup>th</sup> (one tenth) or less of an acre are not required to submit a Stormwater Pollution Prevention Plan or an Abbreviated Stormwater Pollution Prevention Plan, unless required by the City of Solon Engineer. These activities must comply with all other provisions of this regulation.
- (d) Soil disturbing activities undertaken by the City of Solon, associated with public highway, transportation improvements, drainage improvements, or the maintenance thereof, and disturbing less than one (1) acre of land are not required to submit a Stormwater Pollution Prevention Plan or an Abbreviated Stormwater Pollution Prevention Plan, unless required by the City of Solon Engineer. These activities must comply with all other provisions of this regulation.

**1254.06 APPLICATION PROCEDURES**

- (a) **SOIL DISTURBING ACTIVITIES SUBMITTING A STORMWATER POLLUTION PREVENTION PLAN:** The applicant shall submit three (3) sets of the SWP3 and the applicable fees for site plan review to the City of Solon as follows:
  - (1) For new subdivisions: After the approval of the preliminary plans and with submittal of the improvement plans.
  - (2) For other construction projects: Before issuance of a permit by the Chief Building

Official.

- (3) For general clearing projects: Prior to issuance of a permit by the Chief Building Official.
- (b) SOIL DISTURBING ACTIVITIES SUBMITTING AN ABBREVIATED STORMWATER POLLUTION PREVENTION PLAN: The applicant shall submit three (3) sets of the Abbreviated SWP3 and the applicable fees for site plan review to the City of Solon as follows:
  - (1) For new single family, two family or multi-family residential construction: Before issuance of a permit by the Chief Building Official.
  - (2) For other construction projects: Before issuance of a permit by the Chief Building Official.
  - (3) For general clearing projects: Prior to issuance of a permit by the Chief Building Official.
- (c) The City of Solon, and/or the Cuyahoga Soil Water Conservation District, if authorized by the City of Solon, shall review the plans submitted under 1254.06 (a) or (b) for conformance with this regulation and approve, or return for revisions with comments and recommendations for revisions. A plan rejected because of deficiencies shall receive a narrative report stating specific problems and the procedures for filing a revised plan.
- (d) Soil disturbing activities shall not begin and building permits shall not be issued without an approved SWP3 or Abbreviated SWP3.
- (e) SWP3 for individual sublots in a subdivision will not be approved unless the larger common plan of development or sale containing the subplot is in compliance with this regulation.
- (f) Approvals issued in accordance with this regulation shall remain valid for one (1) year from the date of approval.

#### **1254.07 ISSUANCE OF BUILDING PERMITS FOR RESIDENTIAL PROJECTS**

Two building permits shall be issued for all single family, two family or multi-family residential construction regulated by the Residential Code of Ohio and similar types of construction as determined by the City of Solon Chief Building Official as follows:

- (a) Building Permit A: Shall allow the construction of footing(s) and foundation wall(s) and/or lowest level floor. No additional construction shall be performed and no additional building materials shall be allowed on the site until Building Permit B has been issued. The City of Solon Chief Building Official may approve the stockpiling of additional construction materials on the site prior to the issuance of Building Permit B if a suitable location is identified, as determined by the City of Solon Chief Building Official. Best management practices necessary to ensure soil erosion and sediment control shall be maintained within the stockpile area prior to, during, and after the area is used for stockpiling of construction materials. Building Permit A shall be issued following approval of the permit application by the Building Department and the Engineering Department.
- (b) Building Permit B: Shall allow the delivery of the remaining building materials to the site and the completion of construction activities. Building Permit B shall not be issued until the City Engineer certifies that the best management practices identified in the approved Stormwater Pollution Prevention Plan or Abbreviated Stormwater Pollution Prevention Plan, and any other

best management practices the City Engineer shall deem necessary, have been properly installed, operated, and maintained.

## **1254.08 COMPLIANCE WITH STATE AND FEDERAL REGULATIONS**

Approvals issued in accordance with this regulation do not relieve the applicant of responsibility for obtaining all other necessary permits and/or approvals from the Ohio EPA, the US Army Corps of Engineers, and other federal, state, and/or county agencies. If requirements vary, the most restrictive requirement shall prevail. These permits may include, but are not limited to, those listed below. All submittals required to show proof of compliance with these state and federal regulations shall be submitted with Stormwater Pollution Prevention Plans or Abbreviated Stormwater Pollution Prevention Plans.

- (a) Ohio EPA NPDES Permits authorizing stormwater discharges associated with construction activity or the most current version thereof: Proof of compliance with these requirements shall be the applicant's Notice of Intent (NOI) number from Ohio EPA, a copy of the Ohio EPA Director's Authorization Letter for the NPDES Permit, or a letter from the site owner certifying and explaining why the NPDES Permit is not applicable.
- (b) Section 401 of the Clean Water Act: Proof of compliance shall be a copy of the Ohio EPA Water Quality Certification application tracking number, public notice, project approval, or a letter from the site owner certifying that a wetland scientist/specialist has surveyed the site and determined that Section 401 of the Clean Water Act is not applicable. Wetlands, and other waters of the United States, shall be delineated by protocols accepted by the U.S. Army Corps of Engineers at the time an application is made under this regulation.
- (c) Ohio EPA Isolated Wetland Permit: Proof of compliance shall be a copy of Ohio EPA's Isolated Wetland Permit application tracking number, public notice, project approval, or a letter from the site owner certifying that a wetland scientist/specialist has surveyed the site and determined that Ohio EPA's Isolated Wetlands Permit is not applicable. Isolated wetlands shall be delineated by protocols accepted by the U.S. Army Corps of Engineers at the time an application is made under this regulation.
- (d) Section 404 of the Clean Water Act: Proof of compliance shall be a copy of the U.S. Army Corps of Engineers Individual Permit, if an Individual Permit is required for the project, showing project approval and any restrictions that apply to site activities. If an Individual Permit is not required, the site owner shall submit proof of compliance with the U.S. Army Corps of Engineer's Nationwide Permit Program. This shall include one of the following:
  - (1) A letter from the site owner certifying that a wetland scientist/specialist has surveyed the site and found no waters of the United States.
  - (2) A letter from the site owner certifying and demonstrating compliance with the applicable Nationwide Permit, and any applicable State of Ohio conditions, through a post construction notification.
  - (3) A letter from the U.S. Army Corps of Engineers certifying that the proposed work is authorized by a Nationwide Permit and a site plan showing that any proposed fill of waters of the United States conforms with 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 U.S. Army Corps of Engineers at the time an application is made under this regulation.

- (e) Ohio Dam Safety Law: Proof of compliance shall be a copy of the ODNR Division of Water permit application tracking number, a copy of the project approval letter from the ODNR Division of Water, or a letter from the site owner certifying and explaining why the Ohio Dam Safety Law is not applicable.

**1254.09            STORMWATER POLLUTION PREVENTION PLAN**

- (a) In order to control sediment pollution of water resources and wetlands, the applicant shall submit a SWP3 in accordance with the requirements of this regulation.
- (b) The SWP3 shall be certified by a professional engineer, registered surveyor, certified professional in erosion and sediment control, or a registered landscape architect and shall be assembled in a manner that the respective plan sheet(s) could be removed from the detailed construction plans and still function as intended.
- (c) The SWP3 shall incorporate measures as recommended by the most current edition of Rainwater and Land Development as published by the Ohio Department of Natural Resources and, at a minimum, include the following information:
  - (1) Site description: The SWP3 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 of 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 aerial (plan view) extent and description of wetlands or other water resources or special aquatic sites at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project. This shall include submission, where applicable, delineations of water resources approved by the U.S. Army Corps of Engineers.
    - I. For subdivided developments where the SWP3 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.

J. Location and description of any stormwater discharges associated with dedicated asphalt and dedicated concrete plants associated with the development area and the best management practices to address pollutants in these stormwater 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 one-foot (1') 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. This plan must be to a scale so that the contours are legible.
- 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 applicant intends to fill or relocate for which the applicant 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 entrances where the vehicles will ingress and egress the construction site.
- x. The location of any in-stream activities including stream crossings.

(2) Soils Engineering Report. The City of Solon Engineer may require the SWP3 to include a Soils Engineering Report based on his/her determination that the conditions of the soils are unknown or unclear to the extent that additional information is required to protect against erosion or other hazards. Recommendations included in the report and approved by the City of Solon Engineer shall be incorporated in the grading plans and/or other specifications for site development. This report shall be based on adequate and necessary test borings, and shall contain the following information:

- 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.

**1254.10 PERFORMANCE STANDARDS**

The SWP3 must contain a description of the controls appropriate for each construction operation and the applicant must implement such controls. The SWP3 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 SWP3 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.
- (b) **EROSION CONTROL PRACTICES:** The SWP3 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 SWP3. The SWP3 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	Timeframe 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	Within 2 days of reaching final grade
Any area at final grade	Within 7 days of reaching final grade within that area

**Table 2: Temporary Stabilization**

Area Requiring Temporary Stabilization	Timeframe to Apply Erosion Controls
Any disturbed area within 50 feet of a stream and not at final grade	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 November 1 <sup>st</sup>
<b>Note:</b> Where vegetative stabilization techniques may cause structural instability or are otherwise inappropriate, as determined by the City of Solon Engineer, alternative stabilization techniques may be employed. These techniques may include mulching or erosion control matting. This includes areas that will be idle over the winter and stabilization prior to November 1 <sup>st</sup> is not possible.	

- (2) Permanent stabilization of conveyance channels. Applicants 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, step pools, 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 SWP3 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 and shall at the same time not divert runoff to an adjacent property per Section 1250.20.
- (d) **SEDIMENT CONTROL PRACTICES.** The SWP3 shall include a description of, and detailed drawings for, all structural practices that shall store runoff, allowing sediments to settle and/or 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 (7) 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 stormwater 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 the City of Solon Engineer.

The sediment-settling pond shall be sized to provide a minimum of 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 (5) feet. The configuration between the inlets and the outlet of the basin must provide at least three units of length for each one unit of width (> 3:1 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 applicant 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 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. Stormwater 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 stormwater runoff from areas up to 10 acres.

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

Maximum Drainage Area (acres) to 100 linear feet of silt fence	Range of Slope for a drainage area (%)
0.50	<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, unless directed by the City of Solon Engineer or if conditions warrant it.
- (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. One construction entrance shall be built and shall serve as the only permitted point of ingress and egress to the development area. This entrance 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.

- B. Streets directly adjacent to a construction entrance and receiving traffic from the development area, shall be cleaned daily to remove sediment tracked off-site. If applicable, the catch basins on these streets nearest to the construction entrance shall also be cleaned weekly.
  - C. Applicants shall take all necessary measures to comply with applicable regulations regarding fugitive dust emissions, including obtaining necessary permits for such emissions. The City of Solon 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) Additional off-site tracking of sediment. Based on site conditions, the City of Solon Engineer may require additional best management practices to control off site tracking and dust. These additional BMPs may include:
- A. Silt fence or construction fence installed around the perimeter of the development area to ensure that all vehicle traffic adheres to designated construction entrances.
  - B. Designated wheel-washing areas. Washwater 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 1254.10 (g) of this regulation.
- (7) Stream protection. Construction vehicles shall avoid water resources and wetlands. If the applicant is permitted to disturb areas within 50 feet of a water resource or wetland, the following conditions shall be addressed in the SWP3:
- A. All BMPs 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 designated 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 in-stream sediment settling pond) 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 of stream crossings and the width of the disturbance are minimized.
  - E. Temporary stream crossings shall be constructed if water resources or wetlands will be crossed by construction vehicles 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.
- (8) Modifying controls. If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the applicant shall replace or modify the control for site conditions.

- (e) **NON-SEDIMENT POLLUTANT CONTROLS:** No solid or liquid waste, including building materials, shall be discharged in stormwater runoff. The applicant must implement site best management practices to prevent toxic materials, hazardous materials, or other debris from entering water resources or wetlands. These practices shall include but are not limited to the following:
- (1) Waste Materials: A covered dumpster shall be made available for the proper disposal of garbage, plaster, drywall, grout, gypsum, and other waste materials.
  - (2) Concrete Truck Washout: The washing of concrete material into a street, catch basin, or other public facility or natural resource is prohibited. A designated area for concrete washout shall be made available.
  - (3) Fuel/Liquid Tank Storage: All fuel/liquid 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 all containers 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 soils shall not be discharged from the site. Proper permits shall be obtained for development projects on solid waste landfill sites or redevelopment sites.
- (f) **COMPLIANCE WITH OTHER REQUIREMENTS.** The SWP3 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) **INTERNAL 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 applicant shall assign qualified inspection personnel to conduct these inspections to ensure that the control practices are functional and to evaluate whether the SWP3 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. A copy of all reports shall be forwarded to the City of Solon Engineering Department. All inspection reports shall be kept on file for a period of three (3) years following final stabilization of the site.

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 SWP3 shall be observed to ensure that they are operating correctly. The applicant shall utilize an inspection form provided by the City of Solon or an alternate form acceptable to the City of Solon Engineer.
  - (3) Discharge locations shall be inspected to determine whether erosion and sediment control measures are effective in preventing significant impacts to the receiving water resource or wetlands.
  - (4) Locations where vehicles enter or exit the site shall be inspected for evidence of off-site vehicle tracking.
  - (5) The applicant shall maintain for three (3) years following final stabilization the results of these inspections, the names and qualifications of personnel making the inspections, the dates of inspections, major observations relating to the implementation of the SWP3, a certification as to whether the facility is in compliance with the SWP3, and information on any incidents of non-compliance determined by these inspections.
- (i) **MAINTENANCE.** The SWP3 shall be designed to minimize maintenance requirements. All control practices shall be maintained and repaired as needed to ensure continued performance of their intended function until final stabilization. All sediment control practices must be maintained in a functional condition until all up slope areas they control reach final stabilization. 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 Solon Engineer.

When inspections reveal the need for repair, replacement, or installation of erosion and sediment control BMPs, the following procedures shall be followed:

- (1) When practices require repair or maintenance. If an internal 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 (3) days of the inspection. Sediment settling ponds must be repaired or maintained within ten (10) days of the inspection.
  - (2) When practices fail to provide their intended function. If an internal inspection reveals that a control practice fails to perform its intended function as detailed in the SWP3 and that another, more appropriate control practice is required, the SWP3 must be amended and the new control practice must be installed within ten (10) days of the inspection.
  - (3) When practices depicted on the SWP3 are not installed. If an internal inspection reveals that a control practice has not been implemented in accordance with the schedule, the control practice must be implemented within ten (10) days from the date of the inspection. If the internal 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.
- (j) **FINAL STABILIZATION.** Final stabilization shall be determined by the City of Solon Engineer.

**1254.11 ABBREVIATED STORMWATER POLLUTION PREVENTION PLAN.**

- (a) In order to control sediment pollution of water resources and wetlands, the applicant shall submit an Abbreviated SWP3 in accordance with the requirements of this regulation.
- (b) The Abbreviated SWP3 shall be certified by a professional engineer, certified professional erosion and sediment control specialist, or a registered landscape architect.
- (c) The Abbreviated SWP3 shall include a minimum of the following BMPs. The City of Solon may require other BMPs as site conditions warrant.
  - (1) Construction Entrance: A construction entrance shall be built and shall serve as the only permitted point of ingress and egress to the development area. This entrance 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.
  - (2) Concrete Truck Wash Out: The washing of concrete material into a street, catch basin, or other public facility or natural resource is prohibited. A designated area for concrete washout shall be made available.
  - (3) Street Sweeping: Streets directly adjacent to construction entrances and receiving traffic from the development area, shall be cleaned daily to remove sediment tracked off-site. If applicable, the catch basins on these streets nearest to the construction entrances shall be cleaned weekly.
  - (4) Stabilization. The development area shall be stabilized as detailed in Table 4.

**Table 4: Stabilization**

Area Requiring Stabilization	Timeframe to Apply Erosion Controls
Any disturbed area within 50 feet of a stream and not at final grade	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 November 1
<b>Note:</b> Where vegetative stabilization techniques may cause structural instability or are otherwise unusable as determined by the City of Solon Engineer, alternative stabilization techniques must be employed. These techniques may include mulching or erosion control matting. This includes areas that will be idle over the winter and stabilization prior to November 1 <sup>st</sup> is not possible.	

- (5) 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.
- (6) Internal Inspection and Maintenance. All controls on the development area shall be inspected at least once every seven (7) calendar days and within 24 hours after any storm event greater than one-half inch of rain per 24 hour period. Maintenance shall occur as detailed below. The applicant is required to make an inspection and maintenance report for each inspection and maintain a log of reports. A copy of all reports shall be forwarded to the City of Solon Engineering Department.
  - A. When practices require repair or maintenance. If the internal 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 (3) days of the inspection. Sediment settling ponds must be repaired or maintained within ten (10) days of the inspection.
  - B. When practices fail to provide their intended function. If the internal inspection reveals that a control practice fails to perform its intended function and that another, more appropriate control practice is required, the Abbreviated SWP3 must be amended and the new control practice must be installed within ten (10) days of the inspection.
  - C. When practices depicted on the Abbreviated SWP3 are not installed. If the internal inspection reveals that a control practice has not been implemented in accordance with the schedule, the control practice must be implemented within ten (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.
- (7) Final Stabilization: Final stabilization shall be determined by the City of Solon Engineer.

**1254.12 FEES**

The City of Solon’s costs for review, filing, and inspections associated with Stormwater Pollution Prevention Plans or Abbreviated Stormwater Pollution Plans are part of a complete site plan review fee. This site plan review fee is required to be submitted to the City of Solon before the review process begins. Please refer to the City of Solon Codified Ordinance 1424 for current fee schedule.

**1254.13 BOND**

- (a) If a Stormwater Pollution Prevention Plan is required by this regulation for a new subdivision, bond requirements shall be in accordance with City of Solon Codified Ordinance 1242.02(e)
- (b) If a Stormwater Pollution Prevention Plan or Abbreviated Stormwater Pollution Prevention Plan is required by this regulation for any other type of soil disturbing activity not referenced in section 1254.13(a), soil disturbing activities shall not be permitted until a cash bond has been deposited with the City of Solon Finance Department. The bond amount shall be a \$3000.00 minimum, and an additional \$3,000.00 paid for each subsequent acre or fraction thereof. The bond will be used for the City of Solon 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 applicant fails to comply with the provisions of this regulation. The cash bond shall be returned after all work required by this regulation has been

completed and final stabilization has been reached, all as determined by the City of Solon Engineer.

1. No project subject to this regulation shall commence without a SWP3 or Abbreviated SWP3 approved by the City of Solon Engineer.

**1254.14 ENFORCEMENT**

- (a) All development areas may be subject to external inspections at any time by the City of Solon to ensure compliance with the approved SWP3 or Abbreviated SWP3.
- (b) No applicant, contractor, builder, site manager, etc. shall limit access to the site to any City, State, County or Federal inspector.
- (c) After each external inspection, the City of Solon shall prepare and distribute a status report to the applicant.
- (d) If an external inspection determines that operations are being conducted in violation of the approved SWP3 or Abbreviated SWP3 or if the practices in place do not provide their intended functions, the City of Solon may take action as detailed in Section 1254.15 and Section 1254. 99 of this regulation.

**1254.15 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 Solon 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 applicant, and shall state the conditions under which work may be resumed. In instances, however, where the City of Solon 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.

**1254.16 APPEALS**

Any person aggrieved by any order, requirement, determination, or any other action or inaction by the City of Solon in relation to this regulation may appeal to the court of common pleas. Such an appeal shall be made in conformity with ORC Chapter 2506.

**1254.99 PENALTY**

- (a) Any person, firm, entity or corporation; including but not limited to, the owner of the property, his agents and assigns, occupant, property manager, and any contractor or subcontractor who violates or fails to comply with any provision of this regulation is guilty of a misdemeanor of the first degree and shall be fined no more than one thousand dollars (\$1000.00) or imprisoned for no more than one hundred and eight (180) days, 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 the City of Solon 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 Solon.”

SECTION 2. That Chapter 1254 Erosion and Sedimentation in Vacant Land Development as it existed prior to the effective date of this Ordinance is hereby repealed.

SECTION 3. That all other Ordinances and Resolutions inconsistent herewith be, and the same hereby are, repealed.

SECTION 4. This Ordinance shall take effect and be in force from and after the earliest period allowed by law.

Passed: February 4, 2008

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Mayor

ATTEST:

\_\_\_\_\_  
Clerk of Council