

**LOWER CHANCEFORD TOWNSHIP  
STORMWATER MANAGEMENT ORDINANCE**

**YORK COUNTY, PENNSYLVANIA**

**Adopted**

**October 7, 2014**

# Table of Contents

	<u>Page</u>
ARTICLE I - GENERAL PROVISIONS	
Section 101. Short Title .....	1
Section 102. Statement of Findings .....	1
Section 103. Purpose .....	1
Section 104. Statutory Authority .....	2
Section 105. Applicability .....	2
Section 106. Other Ordinance Provision .....	2
Section 107. Severability.....	2
Section 108. Compatibility with Other Requirements.....	2
Section 109. Interpretation.....	2
Section 110. Erroneous Permit.....	3
Section 111. Obligations of Property Owners.....	3
ARTICLE II - DEFINITIONS.....4	
ARTICLE III - STORMWATER MANAGEMENT STANDARDS	
Section 301. General Requirements .....	10
Section 302. Exemptions .....	12
Section 303. Volume Controls .....	13
Section 304. Rate Controls .....	15
Section 305. Design Criteria .....	15
ARTICLE IV - STORMWATER MANAGEMENT (SWM) SITE PLAN REQUIREMENTS	
Section 401. Plan Requirements .....	20
Section 402. Plan Submission .....	24
Section 403. Plan Review and Approval Procedure .....	24
Section 404. Revision of Plans .....	25
Section 405. Re-submission of Disapproved SWM Site Plans .....	26
Section 406. Authorization to Construct and Term of Validity .....	26
Section 407. As-Built Plans, Completion Certificate, and Final Inspection.....	26
Section 408. Modifications.....	27
ARTICLE V - OPERATION AND MAINTENANCE	
Section 501. Responsibilities of Developers and Landowners .....	28
Section 502. Operation and Maintenance Agreements.....	28
Section 503. Performance Guarantee .....	28
ARTICLE VI - FEES AND EXPENSES	
Section 601. General.....	30
ARTICLE VII - PROHIBITIONS	
Section 701. Prohibited Discharges and Connections .....	31
Section 702. Roof Drains .....	31

Section 703. Alteration of SWM BMPs .....	32
ARTICLE VIII - ENFORCEMENT AND PENALTIES	
Section 801. Right-of-Entry .....	33
Section 802. Inspection .....	33
Section 803. Enforcement .....	33
Section 804. Suspension and Revocation .....	33
Section 805. Penalties .....	34
Section 806. Appeals .....	34
ARTICLE IX - REFERENCES.....	36
ARTICLE X - ENACTMENT.....	37
APPENDIX A - Disconnected Impervious Area (DIA) .....	38
APPENDIX B – Typical Section Seepage Trench .....	39
APPENDIX C - Seepage Trench for Gutterless Buildings .....	40

## ARTICLE I - GENERAL PROVISIONS

### Section 101. Short Title

This Ordinance shall be known and may be cited as the "Lower Chanceford Township Stormwater Management Ordinance."

### Section 102. Statement of Findings

The governing body of Lower Chanceford Township finds that:

- A. Inadequate management of accelerated runoff of stormwater resulting from development throughout a watershed increases flows and velocities, contributes to erosion and sedimentation, overtaxes the carrying capacity of streams and storm sewers, greatly increases the cost of public facilities to carry and control stormwater, undermines flood plain management and flood control efforts in downstream communities, reduces groundwater recharge, threatens public health and safety, and increases non-point source pollution of water resources.
- B. A comprehensive program of stormwater management, including reasonable regulation of development and activities causing accelerated runoff, is fundamental to the public health, safety, and welfare and the protection of people of the Commonwealth, their resources, and the environment.
- C. Stormwater is an important water resource, which provides groundwater recharge for water supplies and base flow of streams, which also protects and maintains surface water quality.
- D. Federal and state regulations require certain municipalities to implement a program of stormwater controls. These municipalities are required to obtain a permit for stormwater discharges from their separate storm sewer systems under the National Pollutant Discharge Elimination System (NPDES).

### Section 103. Purpose

The purpose of this Ordinance is to promote health, safety, and welfare within Lower Chanceford Township and its watershed(s) by minimizing the harm and maximizing the benefits described in Section 102 of this Ordinance, through provisions designed to:

- A. Meet legal water quality requirements under state law, including regulations at 25 Pa. Code 93 to protect, maintain, reclaim, and restore the existing and designated uses of the waters of this Commonwealth.
- B. Preserve the natural drainage systems as much as possible.
- C. Manage stormwater runoff close to the source.

- D. Provide procedures and performance standards for stormwater planning and management.
- E. Maintain groundwater recharge to prevent degradation of surface and groundwater quality and to otherwise protect water resources.
- F. Prevent scour and erosion of stream banks and stream beds.
- G. Provide proper operation and maintenance of all SWM BMPs that are implemented within Lower Chanceford Township.
- H. Provide standards to meet NPDES permit requirements.

**Section 104. Statutory Authority**

Lower Chanceford Township is empowered to regulate land use activities that affect stormwater impacts by the authority of the Act of October 4, 1978, P.L. 864 (Act 167), 32 P.S. Section 680.1, et seq., as amended, the "Stormwater Management Act."

**Section 105. Applicability**

All regulated activities and all activities that may affect stormwater runoff are subject to regulation by this Ordinance.

**Section 106. Other Ordinance Provision**

This ordinance supercedes any other ordinance provision or regulation of Lower Chanceford Township inconsistent with any of the provisions of this Ordinance only to the extent of such inconsistency.

**Section 107. Severability**

In the event that a court of competent jurisdiction declares any section, clause or provision of this Ordinance invalid, such decision shall not affect the validity of any of the remaining sections, clauses or provisions of this Ordinance.

**Section 108. Compatibility with Other Requirements**

Approvals issued and actions taken under this Ordinance do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by any other code, law, regulation, or ordinance.

**Section 109. Interpretation**

Unless otherwise expressly stated, the succeeding shall, for the purposes of this Ordinance, be interpreted in the following manner:

- A. Words used in the present tense also imply the future tense.
- B. Words used in the singular imply the plural, and vice versa.
- C. Words of masculine gender include feminine gender, and vice versa.
- D. The words and abbreviation “includes,” “including,” “shall include,” “such as,” and “e.g.” are not limited to the specific example(s) given but are intended to extend the words’s or words’ meaning(s) to all other instances of like kind and character.
- E. The words “person”, “applicant”, or “developer” include, a partnership, corporation, or other legal entity, as well as an individual.
- F. The words “shall”, “required”, or “must” are mandatory; the words “may” and “should” are permissive.

#### **Section 110. Erroneous Permit**

Any permit or authorization issued or approved based on false, misleading or erroneous information provided by an applicant is void without the necessity of any proceedings for revocation. Any work undertaken or use established pursuant to such permit or other authorization is unlawful. No action may be taken by a board, agency or employee of Lower Chanceford Township purporting to validate such a violation.

#### **Section 111. Obligations of Property Owners**

Each property owner is responsible for managing stormwater runoff in a manner consistent with the provisions of this ordinance so as not to create an adverse impact on other properties or cause erosion. The requirements set forth in this Ordinance, if followed, are intended to, but not guaranteed to, enable property owners to properly manage stormwater on their property. In the event stormwater management designs and facilities are approved by the township and installed in accordance with approved design but still fail to manage stormwater flows in such manner that such flows do not adversely affect other properties or cause erosion, the property owner shall install such additional facilities or take other remedial measures as are necessary to properly manage stormwater runoff so that such runoff does not adversely affect other properties or cause erosion.

## ARTICLE II - DEFINITIONS

### Section 201. Terms Defined

As used in this Ordinance, the following terms shall have the following meanings:

**Agricultural Activity** - Activities associated with agriculture such as, but not limited to, agricultural cultivation, agricultural operations, and animal heavy use areas. This includes the work of producing crops including tillage, land clearing, plowing, disking, harrowing, planting, harvesting crops or pasturing and raising of livestock and installation of conservation measures. Construction of new buildings or impervious area is not considered an agricultural activity.

**Applicant** - A landowner, developer, or other person who has filed an application to Lower Chanceford Township for approval to engage in any regulated activity at a project site in Lower Chanceford Township.

**Best Management Practice (BMP)** - Activities, facilities, designs, measures, or procedures used to manage stormwater impacts from regulated activities, to meet state water quality requirements, to promote groundwater recharge, and to otherwise meet the purposes of this Ordinance. Stormwater BMPs are commonly grouped into one of two broad categories or measures: "structural" or "nonstructural". In this Ordinance, nonstructural BMPs or measures refer to operational and/or behavior-related practices that attempt to minimize the contact of pollutants with stormwater runoff whereas structural BMPs or measures are those that consist of a physical device or practice that is installed to capture and treat stormwater runoff. Structural BMPs include, but are not limited to, a wide variety of practices and devices, from large-scale retention ponds and constructed wetlands, to small-scale underground treatment systems, infiltration facilities, filter strips, low impact design, bioretention, wet ponds, permeable paving, grassed swales, riparian or forested buffers, sand filters, detention basins, and manufactured devices. Structural stormwater BMPs are permanent appurtenances to the project site.

**BMP Manual** - Pennsylvania Stormwater Best Management Practices Manual, as amended and updated.

**Conservation District** - The York County Conservation District, which District is as defined in Section 3(c) of the Conservation District Law (3 P. S. § 851(c)) that has the authority under a delegation agreement executed with DEP to administer and enforce all or a portion of the regulations promulgated under 25 Pa. Code Chapter 102.

**County** - York County, Pennsylvania

**Dam** - An impoundment structure regulated by the Pennsylvania DEP promulgated under 25 Pa. Code Chapter 105.

**DEP** - The Pennsylvania Department of Environmental Protection.

**Design Storm** - The magnitude and temporal distribution of precipitation from a storm event measured in probability of occurrence, e.g., a 5-year storm, and duration, e.g., 24 hours, used in the design and evaluation of stormwater management systems. Also see Return Period.

**Developer** - Any person, partnership, association, corporation or other entity, or any responsible person therein or agent thereof, that undertakes any Regulated Activity.

**Detention Basin** - A structure designed to retard stormwater runoff by temporarily storing and releasing the runoff at a predetermined rate.

**Detention Volume** - The volume of runoff that is captured and released into the waters of this Commonwealth at a controlled rate.

**Development Site (Site)** - See Project Site.

**Disconnected Impervious Area (DIA)** - An impervious or impermeable surface that is disconnected from any stormwater drainage or conveyance system and is redirected or directed to a pervious area, which allows for infiltration, filtration, and increased time of concentration as specified in Appendix A. Disconnected Impervious Area of this Ordinance.

**Disturbed Area** - An unstabilized land area where an earth disturbance activity is occurring or has occurred.

**Earth Disturbance Activity** - A construction or other human activity which disturbs the surface of the land, including, but not limited to: clearing and grubbing; grading; excavations; embankments; road maintenance; building construction; and the moving, depositing, stockpiling, or storing of soil, rock, or earth materials.

**Erosion** - The natural process by which the surface of the land is worn away by water, wind, or chemical action.

**E & S Manual** - Erosion and Sediment Pollution Control Manual, as amended and updated.

**Erosion and Sediment Control Plan** - A site specific plan consisting of both drawings and a narrative that identifies BMPs to minimize accelerated erosion and sedimentation before, during and after earth disturbance activity.

**Existing Condition** - The dominant land cover during the 5-year period immediately preceding a proposed regulated activity.

**FEMA** - Federal Emergency Management Agency.

**Floodplain** - Any land area susceptible to inundation by water from any natural source as delineated by applicable FEMA maps and studies as being a special flood hazard area.



**Floodway** - The channel of the watercourse and those portions of the adjoining floodplains that are reasonably required to carry and discharge the 100-year flood. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the 100-year floodway, it is assumed, absent evidence to the contrary, that the floodway extends from the stream to 50 feet from the top of the bank of the stream.

**Forest Management/Timber Operations** - Planning and activities necessary for the management of forest land. These include conducting a timber inventory, preparation of forest management plans, silvicultural treatment, cutting budgets, logging road design and construction, timber harvesting, site preparation, and reforestation.

**Hydrologic Soil Group (HSG)** - Infiltration rates of soils vary widely and are affected by subsurface permeability as well as surface intake rates. Soils are classified into four HSGs (A, B, C, and D) according to their minimum infiltration rate, which is obtained for bare soil after prolonged wetting. The NRCS defines the four groups and provides a list of most of the soils in the United States and their group classification. The soils in the area of the development site may be identified from a soil survey report that can be obtained from local NRCS offices or conservation district offices. Soils become less pervious as the HSG varies from A to D (NRCS 3, 4).

**IWRP** - The York County Integrated Water Resources Plan, which Plan includes Act 167 Plan elements and requirements.

**Impervious Surface (Impervious Area)** - A surface that prevents the infiltration of water into the ground. Impervious surfaces and areas shall include, but not be limited to, roofs, additional indoor living spaces, patios, garages, storage sheds and similar structures, and any new streets, parking pads, driveways and/or sidewalks. However, any surface or area designed, constructed and maintained to permit infiltration as specified herein shall be considered pervious, not impervious. For the purposes of this Ordinance, a surface or area shall not be considered impervious if such surface or area does not diminish the capacity for infiltration of stormwater for storms up to, and including, a two (2)-year 24-hour storm event.

**Infiltration** - The entrance of surface water into the soil, usually at the soil-air interface.

**Karst** - A type of topography or landscape characterized by surface depressions, sinkholes, rock pinnacles/uneven bedrock surface, underground drainage, and caves. Karst landscapes are formed on carbonate rocks, such as limestone or dolomite.

**Lower Chanceford Township** – Lower Chanceford Township, York County, Pennsylvania.

**NPDES** - National Pollution Discharge Elimination System

**NRCS** - USDA Natural Resources Conservation Service (previously SCS).

**O & M** - Operation and Maintenance

**O & M Plan** - Operation and Maintenance Plan

**PCSWMP** - Post-Construction Stormwater Management Plan

**Peak Discharge** - The maximum rate of stormwater runoff from a specific storm event.

**Percolation** - The downward movement, under the influence of gravity, of water under hydrostatic pressure through interstices of the soil or rock.

**Person** – Includes natural person, corporation, partnership and any other entity which may at any time own land or engage in Regulated Activities.

**Pervious Area** - Any area not defined as impervious.

**Project Site** - The specific area of land where any regulated activities in Lower Chanceford Township are planned, conducted, or maintained. Areas of the same tract within two hundred fifty (250) feet of the proposed impervious surface shall be considered a part of the project site excepting such areas which drain in a different direction from the proposed impervious surface shall not be considered as a part of the project site. In the event new impervious surface is proposed to be created by an owner of an easement or right-of-way, the project site shall be considered to include all areas over which the one proposing new impervious surface has an easement or right-of-way that are within two hundred fifty (250) feet of the proposed impervious surface.

**Qualified Person** - Any person licensed by the State of Pennsylvania or otherwise qualified by law to perform the work required by this Ordinance.

**Regulated Activities** - Any earth disturbance activities or any activities that involve the alteration or development of land in a manner that may affect stormwater runoff.

**Regulated Earth Disturbance Activity** - Activity involving earth disturbance subject to regulation under 25 Pa. Code Chapter 92, 25 Pa. Code Chapter 102, or the Clean Streams Law.

**Retention Basin** - An impoundment in which stormwater is stored and not released during a storm event. Stored water may be released from the basin at some time after the end of a storm.

**Retention Volume/Removed Runoff** - The volume of runoff that is captured and not released directly into the surface waters of this Commonwealth during or after a storm event.

**Return Period** - The average interval, in years, within which a storm event of a given magnitude can be expected to occur one time. For example, the 25-year return period rainfall would be expected to occur on average once every 25 years; or stated in another way, the probability of a 25-year storm occurring in any one year is 0.04, i.e., a 4% chance.

**Runoff** - Any part of precipitation that flows over the land.

**Sediment** - Soils or other materials transported by surface water as a product of erosion.

**Sheet Flow** - Water flow with a relatively thin and uniform depth.

**Spillway** - A depression in the embankment of a pond or basin which is used to pass peak discharge greater than the maximum design storm controlled by the pond or basin.

**State Water Quality Requirements** - The regulatory requirements to protect, maintain, reclaim, and restore water quality under Title 25 of the Pennsylvania Code and the Clean Streams Law.

**Storm Frequency** - The number of times that a given storm event occurs on average in a stated period of years.

**Storm Sewer** - A pipe or conduit, or a system of pipes or conduits, which intercepts and carries surface stormwater runoff, but excludes sewage, industrial wastes and similar discharges.

**Stormwater** - Drainage runoff from the surface of the land resulting from precipitation or snow or ice melt.

**Stormwater Management Facility** - Any structure, natural or man-made, that, due to its condition, design, or construction, conveys, stores, or otherwise affects stormwater runoff. Typical stormwater management facilities include, but are not limited to, detention and retention basins, open channels; storm sewers, pipes, and infiltration facilities.

**Stormwater Management Plan** - Parts and/or elements of the York County Integrated Water Resources Plan which incorporate the requirements of the Act of October 4, 1978, P.L. 864, (Act 167), as amended, and known as the "Storm Water Management Act."

**Stormwater Management Best Management Practices** - Is abbreviated as BMPs or SWM BMPs throughout this Ordinance.

**Stormwater Management Site Plan** - The plan prepared by the developer or his representative indicating how stormwater runoff will be managed at the development site in accordance with this Ordinance. Stormwater Management Site Plan will be designated as SWM Site Plan throughout this Ordinance. For all NPDES permitted sites, the Stormwater Management Site Plan shall include, and be consistent with, the Erosion and Sediment Control Plan as submitted to the York County Conservation District (YCCD) and/or DEP.

**Subdivision** - The division or re-division of a lot, tract or parcel of land by any means into two or more lots, tracts or parcels or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership or building or lot development; provided, however, that the subdivision by lease of land for agricultural purposes into parcels of more than ten acres, not involving any new street or easement of access or any residential dwelling, shall be exempted.

**SWM** - Stormwater Management.

**Township** - Lower Chanceford Township

**Tract** - All contiguous land in common ownership at the date of the enactment of this ordinance. Land shall be considered contiguous even though separated by public or private roads or by utility rights-of-way, irrespective of whether the right-of-way is owned in fee or is an easement.

**USDA** - United States Department of Agriculture.

**Waters of this Commonwealth** – Any and all rivers, streams, creeks, rivulets, impoundments, ditches, watercourses, storm sewers, lakes, dammed water, wetlands, ponds, springs, and all other bodies or channels of conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of this Commonwealth.

**Watershed** - Region or area drained by a river, watercourse, or other surface water of this Commonwealth.

**Wetland** - Areas that are inundated or saturated by surface or groundwater 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.

**YCCD** - York County Conservation District

## ARTICLE III - STORMWATER MANAGEMENT STANDARDS

### Section 301. General Requirements

- A. For all regulated activities, unless preparation of an SWM Site Plan is specifically exempted in Section 302:
  - 1. Preparation and implementation of an approved SWM Site Plan is required.
  - 2. No regulated activities shall commence until Lower Chanceford Township issues written approval of an SWM Site Plan which demonstrates compliance with the requirements of this Ordinance.
- B. SWM Site Plans approved by Lower Chanceford Township, in accordance with Section 406, shall be on site throughout the installation or construction of the regulated activity.
- C. Lower Chanceford Township may, after notifying DEP and receiving a favorable response, approve measures for meeting the state water quality requirements other than those in this Ordinance, provided that they meet the minimum requirements of, and do not conflict with, State law including, but not limited to, the Clean Streams Law. Lower Chanceford Township shall maintain a record of correspondence with DEP pursuant to this paragraph. If no response is received from DEP within 45 days of notification, the township may approve such measures without DEP approval and set forth in the permit that the property owner is proceeding at his own risk.
- D. For all regulated earth disturbance activities, erosion and sediment control BMPs shall be designed, implemented, operated, and maintained during the regulated earth disturbance activities, i.e., during construction, to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code and the Clean Streams Law. Various BMPs and their design standards are listed in the Erosion and Sediment Pollution Control Program Manual (E&S Manual) 2, No. 363-2134-008 (April 15, 2000), as amended and updated.
- E. For all regulated activities, implementation of the volume controls in Section 303 is required, unless specifically exempted under Section 301.C or Section 302 or exempted by an approved modification request as specified in Section 408 of this Ordinance.
- F. Impervious areas:
  - 1. The measurement of impervious areas shall include all of the impervious areas in the total proposed development even if development is to take place in phases.
  - 2. For development taking place in phases, the entire development plan must be used in determining conformance with this Ordinance.

3. For projects that add impervious area to a project site, the total impervious area on the project site is subject to the requirements of this Ordinance; except that the volume controls in Section 303 and the peak rate controls of Section 304 do not need to be retrofitted to existing impervious areas that are not being altered by the proposed regulated activity.
- G. All regulated activities shall be performed in such manner as to:
1. Protect health, safety, and property;
  2. Meet the water quality goals of this Ordinance, as stated in Section 103. Purpose, by implementing measures to:
    - a. Minimize disturbance to floodplains, wetlands, wooded areas, and existing vegetation.
    - b. Avoid erosive flow conditions in natural flow pathways.
    - c. Minimize thermal impacts to waters of this Commonwealth.
    - d. Disconnect impervious surfaces by directing runoff to pervious areas, wherever possible.
    - e. Minimize soil disturbance and compaction. If topsoil is removed from the property, it shall be replaced so that there is at least the same depth of topsoil as prior to removal; provided, however, if the depth prior to removal was less than four (4) inches, the replacement depth must be at least four (4) inches and if the depth prior to removal was greater than eight (8) inches, the replacement depth need not exceed eight (8) inches, except when the design requires greater depth.
  3. To the maximum extent practicable, incorporate the techniques for Low Impact Development Practices described in the Pennsylvania Stormwater Best Management Practices Manual (BMP Manual).
- H. The design of all facilities in areas of carbonate geology or karst topography shall include an evaluation of measures to minimize adverse effects, including hydro-geologic studies if required by Lower Chanceford Township.
- I. Infiltration BMPs shall be spread out, made as shallow as practicable, and located to maximize use of natural on-site infiltration features while still meeting the other requirements of this Ordinance. In addition, infiltration BMPs shall include pre-treatment BMPs where appropriate.
  - J. Normally dry, open-top storage facilities, designed as such, shall completely drain both the volume control and rate control capacities over a period of time not more than 96 hours from the end of the design storm. Infiltration facilities shall be designed to infiltrate in not less than 24 hours, however, any designed infiltration at such facilities is exempt from the minimum 24-hour standard, i.e., may infiltrate in a shorter period of time, so long as none of the stormwater flowing into the infiltration facility is discharged directly into the surface waters of the

Commonwealth. (Inordinately rapid infiltration rates may indicate the presence of large fractures or other conditions for which an additional soil buffer may be required.)

- K. The design storm volumes and precipitation intensities to be used in the analysis of discharge or runoff shall be obtained from the Precipitation-Frequency Atlas of the United States, Atlas 14, Volume 2, Version 3.0, U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Spring, Maryland, utilizing the version in effect at the time of the application.
- L. For all regulated activities, SWM BMPs shall be designed, implemented, operated, and maintained to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code, the Clean Streams Law, and the Storm Water Management Act.
- M. Various BMPs and their design standards are listed in the BMP Manual.

### **Section 302. Exemptions**

Any Regulated Activity that meets the following exemption criteria is exempt from the part(s) of this Ordinance as specified herein. However, the requirements of the Ordinance shall otherwise remain in effect. The criteria for exemption in this section apply to the total development proposed in the project site, including instances in which the development is proposed to take place in phases. The date of enactment of this Ordinance shall be the starting point from which future development and the respective proposed impervious surface computations shall be cumulatively considered and regulated; provided, however,

A. Regulated activities which create an impervious surface of less than or equal to two hundred fifty (250) square feet shall be exempt from the volume control, rate control and SWM site plan requirements of this Ordinance and shall not be cumulatively considered if they are at least ten (10) feet from other areas of impervious surface installed after the date of this Ordinance and they do not adversely affect downstream property owners and do not cause erosion. Areas of impervious surface created after the date of this Ordinance pursuant to the two hundred fifty (250) square feet exemption shall not be considered pre-existing in evaluating flows from proposed additional impervious surfaces utilizing all or part of the two hundred fifty (250) square feet or smaller impervious surface ie: if a two hundred fifty (250) square foot patio is installed and later it is proposed to expand it to a four hundred (400) square foot patio, management of additional stormwater flows will be based on evaluation of stormwater flows from the entire four hundred (400) square foot patio.

Exemption shall not relieve an applicant from implementing such measures as necessary to meet the intent of this Ordinance, the Township Building Permit Ordinance, or compliance with an NPDES Permit requirements.

B. New impervious surface creation shall be based on impervious surfaces being created by past and present owners on the project site. New impervious surface created by owners of easements and rights-of-way located on the project site shall not be considered in the calculation.

C. Regulated activities that create impervious areas on a project site less than or equal to one thousand (1,000) square feet (cumulative) but are not exempted by subparagraph A of this section

shall be exempt from the SWM Site Plan Preparation requirements of this Ordinance, provided the activity will not adversely affect downstream property owners and will not cause erosion. The township enforcement office shall make this determination after review of the owner's application which shall include the owner's proposal for managing stormwater runoff and review of the proposed site.

D. Regulated activities that create impervious areas on a project site less than or equal to five thousand (5000) square feet but do not qualify for an exemption from SWM Site Plan Preparation requirements per Section 302C may qualify for submission of a Simplified SWM Site Plan per Section 401.F. Such impervious areas shall not be cumulatively considered if they are at least ten (10) feet from other areas of impervious surface installed after the date of this Ordinance. The township enforcement office shall determine if a Simplified SWM Site Plan may be submitted in lieu of a full SWM Site Plan (per Section 401) after review of the Stormwater Management Permit Application and the proposed site. The Simplified SWM Site Plan must demonstrate that the proposed activity will not adversely affect downstream property owners or cause erosion.

E. Agricultural activity is exempt from the SWM Site Plan Preparation, rate and volume control requirements of this Ordinance, provided the activities are performed with no adverse impacts to downstream property owners due to stormwater runoff and do not cause erosion.

F. Forest management and timber operations are exempt from the SWM Site Plan Preparation requirements, rate and volume control requirements of this Ordinance, provided the activities are performed with no adverse impacts to downstream property owners due to stormwater runoff and do not cause erosion.

G. Domestic gardening and landscaping are exempt from all provisions of this Ordinance so long as those activities are associated with one, and only one, dwelling unit and do not adversely affect adjacent property owners or cause erosion.

H. If the application is to construct a building or structure pursuant to an approved subdivision or land development plan showing stormwater management facilities, such activity shall be exempt provided the facilities proposed by the subdivision or land development plan are in fact installed.

I. Exemptions from the SWM Site Plan Preparation requirements of this Ordinance shall not relieve the applicant from the requirements in Section 301D through M of this Ordinance.

J. Lower Chanceford Township may deny or revoke any exemption pursuant to this Section at any time for any project that poses a threat to public health, safety, property or the environment.

K. Irrespective of other paragraphs of this section, there is no exemption from the SWM site plan requirements of this ordinance if the regulated activity involves one or more acres of earth disturbance or is a part or portion of a larger plan of development which involves one (1) acre or more of earth disturbance.

### **Section 303. Volume Controls**

The low impact development practices provided in the BMP Manual shall be utilized for all regulated



activities to the maximum extent practicable. Water volume controls shall be implemented using the Design Storm Method in Subsection A or the Simplified Method in Subsection B below. For regulated activity areas equal or less than one (1) acre that do not require hydrologic routing to design the stormwater facilities, this Ordinance establishes no preference for either methodology; therefore, the applicant may select either methodology on the basis of economic considerations, the intrinsic limitations on applicability of the analytical procedures associated with each methodology, and other factors.

- A. The Design Storm Method (CG-1 in the BMP Manual) is applicable to any size of regulated activity. This method requires detailed modeling based on site conditions.
  - 1. Do not increase the post-development total runoff volume for all storms equal to or less than the two (2)-year 24-hour duration precipitation to more than the pre-development total runoff volume.
  - 2. For modeling purposes:
    - a. Existing (pre-development) non-forested pervious areas must be considered meadow (good condition).
    - b. Twenty percent (20%) of the existing impervious area of a project site, when present, shall be considered meadow in the model for existing conditions, if the existing impervious area is being altered by the proposed regulated activity provided that the total area of disturbance is less than one (1) acre. If the total area of disturbance is one (1) acre or more, federal and state regulations shall apply.
- B. The Simplified Method (CG-2 in the BMP Manual) provided below is independent of site conditions and should be used if the Design Storm Method is not followed. This method is not applicable to regulated activities greater than one (1) acre or for projects that require design of stormwater storage facilities.

For new impervious surfaces:

- 1. Stormwater facilities shall capture at least the first two (2) inches of runoff from all new impervious surfaces.
- 2. At least the first one (1) inch of runoff from new impervious surfaces shall be permanently removed from the runoff flow, i.e., it shall not be released into the surface waters of this Commonwealth. Removal options for the first one (1) inch of runoff include reuse, evaporation, transpiration and infiltration.
- 3. Wherever possible, infiltration facilities should be designed to accommodate infiltration of the entire permanently removed runoff; however, in all cases at least the first 0.5 inch of the permanently removed stormwater runoff shall be infiltrated.

### Section 304. Rate Controls

- A. For computation of pre-development peak discharge rates, twenty percent (20%) of the existing impervious area of a project site, when present, shall be considered meadow, if the existing impervious area is being altered by the proposed regulated activity, provided the total area of disturbance is less than one (1) acre. If the area of disturbance is one (1) acre or more, federal and state regulations shall apply.
- B. Post-development discharge rates shall not exceed the pre-development discharge rates for the 1-, 2-, 5-, 10-, 25-, 50-, and 100-year 24-hour storms. If it is shown that the peak rates of discharge indicated by the post-development analysis are less than or equal to the peak rates of discharge indicated by the pre-development analysis for 1-, 2-, 5-, 10-, 25-, 50- and 100-year, 24-hour storms, then the requirements of this section have been met. Otherwise, the applicant shall provide additional controls as necessary to satisfy the peak rate of discharge requirement.

### Section 305. Design Criteria

#### A. Stormwater Collection System

The stormwater collection system shall be designed and approved based upon the following criteria:

Peak discharge shall be computed using the Rational Formula:

$$Q = CIA$$

where: Q = Peak discharge in cubic feet per second.

C = Runoff factor expressed as a percent of the total water falling on an area.

I = The rate of rainfall for the time of concentration of the drainage area in inches per hour for a given storm frequency (Rainfall Intensity).

A = The drainage area expressed in acres.

The runoff factor "C" is a percentage factor which represents the proportion of the total quantity of water falling on the area that remains as runoff.

The runoff factors for various types of drainage areas, as presented in the following table, shall be used for design.

### RUNOFF FACTORS FOR THE RATIONAL EQUATION

#### TYPE OF DRAINAGE AREA OR SURFACE RUNOFF FACTOR "C"

Impervious surfaces such as but not limited to roof surface, pavement, concrete or bituminous concrete, gravel	0.95
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Cultivated field	0.40
Lawn	0.25
Meadow	0.20
Wooded	0.15

## NOTES

1. Consideration should be given to future land use changes in the drainage area in selecting the "C" factor.
2. For drainage area containing several different types of ground cover, a weighted value of "C" factor must be used.
3. In special situations where sinkholes, stripped abandoned mines, etc. exist, careful evaluation shall be given to the selection of a suitable runoff factor with consideration given to possible reclamation of the land in the future.

Rainfall Intensity "I" shall be per Section 301.L according to the following:

1. Storm frequency:
  - a. The following storm frequency shall be used for design:
    - i. Local streets - 10 Year, see storm duration
    - ii. Culvert cross drains - 25 Year Rural, 50 Year Suburban, 100 Year Urban
    - iii. Swales - 100 Year
  - b. When a pipe or culvert is intended to convey the discharge from a stormwater management facility, its required capacity shall be computed by the Rational Method and compared to the peak outflow from the stormwater management facility for the 100-year storm. The greater flow shall govern the design of the pipe or culvert.
  - c. A 100-year design storm frequency may be required for design of the stormwater collection system to insure that the resultant stormwater runoff from the post-development design storm is directed into the stormwater management facility.
  - d. In all cases where drainage is collected by means of a head wall or pipe end, the pipe shall be designed as a culvert. The minimum diameter of the culvert shall be 18 inches. The minimum diameter of storm sewer shall be 15 inches, when located in a public right-of-way or easement.
  - e. Where the collection system may be under inlet or outlet control, the Municipal Engineer may request additional calculations, such as but not limited to hydraulic grade lines.
2. Storm Duration:

- a. A five (5) minute storm duration shall be used if this duration does not result in a maximum expected discharge that exceeds the capacity of a 30-inch pipe.
- b. If a five (5) minute storm duration results in a pipe size exceeding 30 inches, the time of concentration approach shall be used in determining storm duration.

3. Inlet Placement:

In general, catch basins shall be placed as required by hydraulic capacity. For design purposes, a capture ratio (intercepted flow / design flow) of 70% or greater is required. However, the width of flow in a street cannot exceed one-half (1/2) of the travel lane. In any event, the maximum distance between conveyed inlets shall not exceed 400 feet.

4. Pipe and Swale Capacity:

Manning's equation shall be used for the design of all storm sewer pipes and for open channel design:

$$V = \frac{1.486 R^{2/3} S^{1/2}}{n}$$

where:

V = Velocity of the water in feet per second.

R = Hydraulic radius which is equal to the net effective areas (A) divided by the wetted perimeter (W.P.):

$$R = \frac{A}{W.P.}$$

The wetted perimeter is the lineal feet of the drainage facility cross-section which is wetted by the water.

S = Slope of the hydraulic gradient (for approximation, use the water surface slope in a wetted stream and the stream bed slope in dry stream or the pipe slope).

n = The roughness coefficient. Roughness coefficients are as follows:

**Value of Manning's Roughness Coefficient – n**

Rip-rap	0.040
Grass-lined channel	0.035
Bare earth channel	0.020
Paved Bituminous channel	0.016
Concrete	0.012
Turf Reinforcement Matting (TRM)	Per manufacturer's recommendation

The maximum permitted velocity in a lined or unlined swale shall be in accordance with the USDA Engineering Field Manual, PA DEP, applicable PA codes and state law, whichever is less.

The maximum permitted velocity in storm sewer pipe is 20 FPS. If 20 FPS is exceeded, the pipe must be anchored in accordance with the following table:

Velocity of Flow (FPS)	Anchor Spacing (FT)
20-24.99	20'
25-30	10'

Under no circumstances shall flow velocity exceed 30 FPS.

#### B. Stormwater Management Facilities

The plan shall be designed and approved based upon the following criteria:

1. General - For drainage areas 320 acres or larger the peak discharge and runoff shall be computed using the soil-cover complex method contained in "Urban Hydrology for Small Water Sheds", Technical Release No. 55 published by the Engineering Division, Soil Conservation Services, United States Department of Agriculture, dated June, 1986 or latest revision, except as modified herein. For drainage areas less than 320 acres the Modified Rational Method may be utilized. Alternate methods of analysis may be considered if approved by the Municipal Engineer.
2. Outflow determination. The maximum permitted stormwater discharge, in cubic feet per second, from any site shall not exceed the calculated peak discharge from the site at pre-development ground cover and soil conditions for all design storms specified in Section 304.B. For the purpose of this ordinance, pre-development ground cover conditions shall be assumed to be "meadow" for all non-forested pervious areas as defined in "Urban Hydrology for Small Water Sheds", Technical Release No. 55 published by Engineering Division, Soil Conservation Service, United States Department of Agriculture, dated June, 1986 or latest revision or if using the Modified Rational Method a "C" factor of 0.20 shall be used for meadow conditions for all non-forested pervious areas. For existing impervious surfaces see section 304.A. The maximum permitted stormwater discharge shall be calculated using the SCS method or alternative method approved by the Municipal Engineer for rainfalls having recurrence intervals of 1, 2, 5, 10, 25, 50 and 100 years. Time of Concentration (Tc) should be calculated using the SCS segmental approach in accordance with the current recommendations by SCS. For the purpose of this Ordinance, the rainfall depths shall be per Section 301.L.

Rainfall intensity shall be per Section 301.L for design if using the Modified Rational Method.

If alternate methods of analysis are utilized, the design storms recurrence interval in years shall be the same as used in the SCS TR-55 Method.

3. Minimum required detention storage. The minimum required detention storage, shall be determined by routing the approved post-development hydrographs through the stormwater management facility, using either manual methods or computerized routing. Routing shall be based upon the modified PULS method; other routing methodologies shall be subject to the approval of the Municipal Engineer.
4. Emergency spillway. Emergency spillways or overflow structures shall be designed to pass the peak flow resulting from a one hundred (100) year recurrence interval design storm computed at post-development conditions, assuming that the principal outlet structure is non-functional. All retention basins and detention basins shall provide an emergency spillway. Emergency spillways shall be located in cut where feasible, if not, adequate permanent stabilization is required. All emergency spillways shall be permanently stabilized for the design peak flow rate and velocity.
5. Minimum bottom slope. All detention basins shall have a minimum bottom slope of 2 percent, if not being utilized for infiltration purposes.
6. Side slopes. The maximum side slopes for detention or retention basins shall be 3 horizontal to 1 vertical in cut and 4 horizontal to 1 vertical in fill.
7. Freeboard. The stormwater management facility shall have a minimum one-half (1/2) foot of freeboard determined after routing the 100-year recurrence interval design storm per section 306.B.4 or a minimum of one (1) foot of freeboard above the normal 100-year storm routing elevation, whichever is greater.
8. Seepage Trench. All stormwater management detention basins shall provide as a minimum a 2' wide by 10' long by 6' deep seepage trench in the bottom of the basin near the outlet control structure in accordance with Figure 1, unless field conditions deem the seepage trench non-functional and concurred by the Municipal Engineer. This seepage trench is not required if the basin is being utilized for infiltration purposes.
9. Fencing, trash racks and installation of child proof facilities may be required by Lower Chanceford Township.
10. If the flow from a stormwater management facility would otherwise damage or interfere with the agriculture or residential use of a property over which it would flow, it shall be piped to a stream with the pipe at such a depth so as not to interfere with the agricultural use of the property through which the water is piped. This requirement shall not apply if the owner of the property which would be adversely affected by the flow refuses to grant to the subdivider or land developer a right-of-way without charge to the subdivider or developer except for damage to growing crops and trees. Any pipeline shall be located so as to minimize surface damage. This requirement also shall not apply if the owner of the property which would be adversely affected by the flow and the owner of the property where the stormwater management facility would be located enter into a written agreement providing for another stabilized form of conveyance.

**ARTICLE IV - STORMWATER MANAGEMENT (SWM)  
SITE PLAN REQUIREMENTS**

**Section 401. Plan Requirements**

Although not a requirement of this Ordinance, prior to proceeding with SWM Site Plan preparation and submission, the applicant is encouraged to request a pre-application meeting with Lower Chanceford Township's Engineer and a staff member of the York County Conservation District to discuss the plan concept and responsibility for submission of required documents and information.

The following items shall be included in the SWM Site Plan:

- A. Appropriate sections of Lower Chanceford Township's Subdivision and Land Development Ordinance, and other applicable ordinances of Lower Chanceford Township regarding subdivision and land development plan preparation and applicable plan requirements shall be followed in preparing all SWM Site Plans, regardless of whether or not a SWM Site Plan involves a subdivision and/or land development plan.
- B. Lower Chanceford Township shall not approve any SWM Site Plan that is deficient in meeting the requirements of this Ordinance. At its sole discretion, and in accordance with this Article, when a SWM Site Plan is found to be deficient, Lower Chanceford Township may either disapprove the submission, or, in the case of minor deficiencies, Lower Chanceford Township may accept the submission of a revised SWM Site Plan as noted in Section 404 of this Ordinance.
- C. Provisions for permanent access and/or maintenance easements for all physical SWM BMPs, such as ponds and infiltration structures, as necessary to implement the Operation and Maintenance (O&M) Plan discussed in Item E.9 below.
- D. The following signature blocks for Lower Chanceford Township and design engineer:  
  

*(Municipal engineer)*, on this date *(date of signature)*, has reviewed the SWM Site Plan and finds it to be consistent with the design standards and criteria of Lower Chanceford Township Stormwater Management Ordinance.”

“*(Design engineer)*, on this date *(date of signature)*, hereby certifies that the SWM Site Plan meets all design standards and criteria of Lower Chanceford Township Stormwater Management Ordinance.”
- E. If not required by the Municipal or York County Subdivision and Land Development Ordinance, as specified in Section 401.A. of this Ordinance, the SWM Site Plan shall also provide the following information where applicable:
  - 1. The overall stormwater management concept for the project, including any additional information required for a Post-Construction Stormwater Management Plan (PCSWMP) as applicable.
  - 2. A determination of site conditions in accordance with the BMP Manual. A detailed site

evaluation shall be completed for projects proposed in areas of carbonate geology or karst topography, as well as for other environmentally sensitive areas, whether natural or manmade, including but not limited to floodplains, streams, lakes, ponds, hydric soils, wetlands, brownfields and wellhead protection zones.

3. Stormwater runoff design computations, and documentation as specified in this Ordinance, or as otherwise necessary to demonstrate that the maximum practicable measures have been taken to meet the requirements of the Ordinance, including the recommendations and general requirements in Section 301.
4. Expected project time schedule.
5. Once the SWM plan and supporting documents are finalized and approved, digital copies shall be provided to Lower Chanceford Township and their Engineer.
6. A soil erosion and sediment control plan in accordance with the following:
  - a. Earth disturbance, 0 to 5000 SQ-FT, implement erosion and sediment control measures on site, a written erosion and sediment control plan and York County Conservation District approval is not required unless required by state and/or federal permit(s) or is deemed necessary by Lower Chanceford Township. If earth disturbance is in a high quality or exceptional value watershed then a written erosion and sediment control plan and YCCD approval is required.
  - b. Earth disturbance, 5001 SQ-FT to less than one (1) acre, a written erosion and sediment control plan and implementation of plan on site is required. YCCD approval may be required by Lower Chanceford Township or state and/or federal permit(s). If earth disturbance is in a high quality or exceptional value watershed then YCCD approval is required.
  - c. Earth disturbance, one (1) acre or greater, a written erosion and sediment control plan, YCCD approval and implementation of plan on site is required.
  - d. In addition, under 25 Pa. Code Chapter 92, an Individual or General, as applicable, DEP "NPDES Construction Activities" permit is required for Regulated Earth Disturbance activities of one (1) acre or greater.
7. The effect of the project in terms of runoff volumes, water quality, and peak flows on surrounding properties and aquatic features, and on any existing stormwater conveyance system that may be affected by the project.
8. Plan and profile drawings of all SWM BMPs, including but not limited to drainage structures, pipes, open channels, and swales.
9. The SWM Site Plan shall show the locations of existing and proposed on-lot wastewater facilities and water supply wells.
10. The SWM Site Plan shall include an Operation and Maintenance (O&M) Plan for all



existing and proposed physical stormwater management facilities. This plan shall address long-term ownership and responsibilities for O&M as well as schedules and costs for O&M activities.

11. A description of permanent stormwater management techniques, including the construction specifications of the materials to be used for stormwater management facilities.
12. A notarized signature of the owner of the parcel for which the SWM Site Plan is proposed.
13. Existing and proposed land uses.
14. The location of the proposed regulated activity relative to streets, municipal boundaries, and other significant manmade features.
15. Significant physical features and associated boundary limits including flood hazard areas, sinkholes, existing drainage courses, and areas of natural vegetation.
16. The location of existing and proposed utilities, stormwater facilities, sanitary sewers, and water lines on the parcel and within 50 feet of property lines.
17. Proposed changes to the land surface and vegetative cover, and the type and amount of existing and proposed impervious area.
18. Existing and proposed features, such as; structures, buildings, streets, driveways, access drives, and parking areas.
19. Contour intervals of two (2) feet or less. Dependent upon site conditions, alternative contour intervals proposed by an applicant or his designee may be accepted by Lower Chanceford Township.
20. The name of the development, the name and address of the owner of the property, and the name and address of the individual or firm preparing the Plan. Also to be included are the name, address, signature and seal of any registered surveyor (attesting the accuracy of the boundary survey), professional engineer, landscape architect, or professional geologist (for geomorphological assessments) contributing to and/or with a responsibility for any aspect of the Plan where applicable.
21. Preferred graphic and written scale of one (1) inch equals no more than 50 feet. Dependent upon site conditions, an alternative scale proposed by the applicant or his designee ay be accepted by Lower Chanceford Township.
22. North point (arrow).
23. A map showing all existing manmade features beyond the subject parcel's boundary lines that will be affected by the proposed regulated activities.

24. Horizontal and vertical cross-sections of all open channels, including hydraulic capacity.
25. A note on the plan indicating the location, and responsibility for maintenance of, SWM facilities and/or easements that would be located on adjoining properties as a result of proposed regulated activities, and the location of such facilities and/or easements.
26. A hydrogeologic assessment of the effects of stormwater runoff on sinkholes where present.
27. The effect of the proposed regulated activity in terms of runoff volumes and peak flows on adjacent properties and/or any existing municipal stormwater collection system that may receive runoff from the project site.
28. Drainage flow pathways.

F. Simplified SWM Site Plan

1. The simplified site plan shall require a drawing showing:
  - a) The location and dimensions of the proposed new impervious surface, property lines, significant natural and manmade features within the project site.
  - b) The approximate location and dimensions of all other impervious surfaces within the project site identifying those placed after the date of the enactment of this ordinance.
  - c) The location of all wells and sewage disposal systems located within the project site
  - d) The direction of storm water flow from the existing impervious surfaces within the project site and the direction of storm water flow from the proposed impervious surface and across the project site.
2. The simplified site plan shall require a proposal to manage the storm water flow from the proposed impervious surface. The proposal may involve
  - a) The maintenance of a pervious flow area constructed consistent with the requirements of Appendix "A" of this ordinance; or
  - b) The construction and maintenance of storm water pits to receive roof water. Such pits shall be sized so that there is at least one (1) cubic foot of retention area for each two (2) square feet of impervious surface and constructed in accordance with Appendix "B" attached hereto; or
  - c) The construction and maintenance of trenches to receive sheet flow roof water. Each trench shall be three (3) feet in width the length of the roof

with one (1) cubic foot of trench area for each 1.8 square feet of roof surface, to be filled with clean AASHTO #57 stone and constructed in accordance with Appendix "C" attached hereto. The depth of the trench may be reduced if percolation tests conducted at the proposed depth of the trench demonstrates a faster infiltration rate as set forth in Appendix "C".

- d) Construction of a detention basin approved by the township engineer as designed and sized to manage proposed increases in storm water flow from the project site brought about by the proposed impervious surface. Prior to approval, there must be probe hole analysis and infiltration tests to establish the size of basins necessary to achieve the required infiltration. Tests shall be performed by a township designee at the depth and location of the proposed basin; or
- d) Any other proposal approved by the township engineer or the township enforcement officer as sufficient to manage the increase in storm water brought about by the proposed impervious surface.

#### **Section 402. Plan Submission**

- A. Three (3) copies of the SWM Site Plan and supporting information shall be submitted as follows:
  - 1. Two (2) copies to Lower Chanceford Township. (one (1) for Lower Chanceford Township and one (1) for the Municipal Engineer).
  - 2. One (1) copy to the York County Planning Commission when a SWM Site Plan accompanies a subdivision/land development plan application.
- B. Additional copies shall be submitted as requested by Lower Chanceford Township or DEP.
- C. Lower Chanceford Township may establish a fee schedule for the review of SWM Plans, the amount of which shall be set by resolution of Lower Chanceford Township's governing body.

#### **Section 403. Plan Review and Approval Procedure**

- A. SWM Site Plans and supporting information shall be reviewed by Lower Chanceford Township for consistency with the provisions of this Ordinance.
- B. SWM Site Plan Review and Approval Procedure:
  - 1. If a SWM Site Plan and supporting information does not involve a subdivision and/or land development, the review of the SWM Site, recommendations, approval, approval with conditions, or disapproval, i.e., the review and decision period, shall occur within forty five (45) days of submission to Lower Chanceford Township. However, Lower Chanceford Township, in its sole discretion, may extend the review and decision period another forty five (45) days due to the nature of the application and/or site conditions.

If an extension of another forty five (45) days is imposed or granted by Lower Chanceford Township beyond the first forty five (45) day review and decision period designated by this paragraph, Lower Chanceford Township shall notify the applicant in writing and deliver such notice to said applicant within fifteen (15) days of the decision to extend the review and decision period by Lower Chanceford Township. If no extension is imposed or granted by Lower Chanceford Township beyond the first forty five (45) day review and decision period, and no decision has been rendered by Lower Chanceford Township within that period, the SWM Site Plan shall be deemed approved. Similarly, if after a forty five (45) day extension of the review and decision period has been imposed or granted by Lower Chanceford Township, and no decision has been rendered by Lower Chanceford Township within that period, the SWM Site Plan shall be deemed approved.

2. If a SWM Site Plan involves a subdivision and/or land development plan, the period of time from the submission to Lower Chanceford Township of the subdivision and/or land development plan application which includes the SWM Plan and the approval, approval with conditions, or disapproval, i.e., review and decision period, shall be in accordance with the procedure for approval of plats in Section 508 of the Pennsylvania Municipalities Planning Code.
3. From the time an application for approval of a plat involving a subdivision or land development plan, whether preliminary or final, which includes a SWM Site Plan, is duly filed with Lower Chanceford Township, no change or amendment of this Ordinance or other governing ordinance or plan shall affect the decision on such application in accordance with the provisions of the governing ordinances or plans as they stood at the time the application was duly filed, as specified in Section 508. (4) of the Pennsylvania Municipalities Planning Code.

C. Decision Notification Procedure:

In all cases, the decision of Lower Chanceford Township to approve or disapprove the SWM Site Plan shall be in writing and shall be delivered to the applicant no later than 15 days following the decision. If the SWM Site Plan is disapproved, the written decision by Lower Chanceford Township shall specify the defects in the application, describe the requirements which were not met, and shall cite the provisions of the Ordinance relied upon. If the SWM Site Plan is approved with conditions, the notification to the applicant shall state the acceptable conditions for approval and the time limit for satisfying such conditions. The time limit for satisfying conditions of approval shall be the time limit prescribed for conditional approval of subdivision and land development plans as stated in Lower Chanceford Township's Subdivision and Land Development Ordinance, or the York County Subdivision and Land Development Ordinance where applicable.

#### **Section 404. Revision of Plans**

A revision to a previously submitted SWM Site Plan that involves a change in SWM BMPs, stormwater management facilities, or changes in analytical techniques, or that involves the relocation or redesign of SWM BMPs, or that is necessary because soil or other conditions are not as stated on the SWM Site Plan, as determined by Lower Chanceford Township, shall require a

re-submission of the revised SWM Site Plan in accordance with this Article, including applicable fees. For NPDES permitted sites, any revised SWM Site Plan shall also be re-submitted to the York County Conservation District for review. In the case of a SWM Site Plan which contains minor deficiencies, such as a missing label, omission of a required note or minor construction detail, as determined by Lower Chanceford Township, Lower Chanceford Township may accept a re-submission of such SWM Site Plan without the requirement of a review fee, or for a lesser fee as provided for in the Municipalities fee schedule.

#### **Section 405. Re-submission of Disapproved SWM Site Plans**

A disapproved SWM Site Plan may be resubmitted, with the revisions addressing Lower Chanceford Township's concerns as stated regarding the original submission, to Lower Chanceford Township in accordance with this Article. The applicable review fee must accompany the submission of a revised SWM Site Plan, unless such fee is waived by Lower Chanceford Township. (See Section 404)

#### **Section 406. Authorization to Construct and Term of Validity**

##### **A. SWM Site Plans Independent of Subdivision and Land Development Plans**

Lower Chanceford Township's approval of a SWM Site Plan, when such Plan is submitted independent of a subdivision and/or land development plan, authorizes the regulated activities contained in the SWM Site Plan for a maximum term of validity of five (5) years following the date of approval. Lower Chanceford Township may, in its sole discretion, specify a term of validity shorter than five (5) years in the approval for any specific SWM Site Plan, particularly if the nature of the proposed SWM facilities require more frequent maintenance and/or short-term replacement of certain components. Terms of validity shall commence on the date Lower Chanceford Township signs the approval for an SWM Site Plan. If an approved SWM Site Plan is not completed according to Section 407 within the term of validity, then Lower Chanceford Township may consider the SWM Site Plan disapproved and may revoke any and all permits. SWM Site Plans that are considered disapproved by Lower Chanceford Township may be resubmitted in accordance with Section 405 of this Ordinance.

##### **B. SWM Site Plans Included in a Subdivision and/or Land Development Plan**

Lower Chanceford Township's approval of a SWM Site Plan, which is a part of a subdivision and/or land development plan, authorizes that plan and the regulated activities therein so that no subsequent change or amendment in this Ordinance or other governing ordinances or plans shall be applied to affect adversely the right of the applicant to commence and to complete any aspect of the approved development in accordance with the terms of such approval within five years from such approval, as specified in Section 508. (4) (ii) - (vii) of the Pennsylvania Municipalities Planning Code.

#### **Section 407. As-Built Plans, Completion Certificate, and Final Inspection**

- A. The developer shall be responsible for providing as-built plans of all SM BMPs included in the approved SWM Site Plan. The as-built plans and an explanation of any discrepancies with the construction plans shall be submitted to Lower Chanceford Township.

- B. The as-built submission shall include a certification of completion signed by a township designee or other qualified person approved by the township verifying that all permanent SWM BMPs have been constructed according to the approved plans and specifications.
- C. After receipt of the completion certification by Lower Chanceford Township, Lower Chanceford Township may conduct a final inspection to verify compliance with, and accuracy of, the as-built plans.
- D. Once the as-built plans are approved by Lower Chanceford Township, digital copies of the as-built plans and executed certification of completion shall be provided to Lower Chanceford Township and their Engineer.

#### **Section 408. Modifications**

Lower Chanceford Township may, after notifying DEP and receiving a favorable response, grant modifications from the strict requirements of this ordinance if the literal enforcement of this ordinance is unreasonable based on the extent and location of the proposed impervious surface and the modification will not adversely affect neighboring properties, cause erosion or be detrimental to the public interest and that the intent and purpose of the ordinance will be observed. If no response is received from DEP with 45 days of notification, the township may approve such measures without DEP approval.

The governing body of Lower Chanceford Township shall keep a written record of all action on requests for modifications. The response of any consultation and/or review by DEP shall be included as an original report if available or otherwise documented in the required written record.

## ARTICLE V - OPERATION AND MAINTENANCE

### Section 501. Responsibilities of Developers and Landowners

- A. The Lower Chanceford Township shall make the final determination on the continuing maintenance responsibilities prior to final approval of the SWM Site Plan. Lower Chanceford Township may require a dedication of such facilities as part of the requirements for approval of the SWM Site Plan. Such a requirement is not an indication that the Lower Chanceford Township will accept the facilities. Lower Chanceford Township reserves the right to accept or reject the ownership, maintenance, and operating responsibility for any portion of the stormwater management facilities and controls.
- B. Lower Chanceford Township may take enforcement actions against an owner for any failure to satisfy the provisions of this Article.

### Section 502. Operation and Maintenance Agreements

- A. Prior to final approval of the SWM Site Plan, the property owner may be required to sign and record an Operation and Maintenance (O&M) Agreement satisfactory to Lower Chanceford Township covering the maintenance or operation of all stormwater control facilities which are to be privately owned.
- B. The owner of the property where stormwater management facilities are located is responsible for operation and maintenance of all stormwater management facilities. If the owner fails to properly maintain such facilities, Lower Chanceford Township may perform the maintenance required and assess the cost of such maintenance upon the owner of the land where such facilities are located and upon failure of the owner to pay such assessment place a municipal lien upon the property in the amount of such assessment together with costs, including reasonable attorney fees.

If the owner of the property where storm water management facilities are located is a homeowners association, that association shall have primary responsibility for the required maintenance and all of the owners of property within the subdivision or development shall have joint and several secondary responsibility. In the event those responsible fail to properly maintain such facilities, Lower Chanceford Township may perform the maintenance required and assess the cost of such maintenance upon one or more of the properties within the subdivision or development with no duty to apportion. Upon failure of the owner or owners of such properties to pay such assessment, Lower Chanceford Township may place a municipal lien upon such property or properties in the amount of such assessment together with cost of collection, including reasonable attorney fees.

- C. Lower Chanceford Township is exempt from the requirement to sign and record an Operation and Maintenance Agreement.

### Section 503. Performance Guarantee

For SWM Site Plans that involve subdivision and land development, the applicant shall provide a financial guarantee to Lower Chanceford Township for the timely installation and proper construction

of all stormwater management controls as required by the approved SWM Site Plan and this Ordinance in accordance with the provisions of Sections 509, 510, and 511 of the Pennsylvania Municipalities Planning Code.



## ARTICLE VI - FEES AND EXPENSES

### Section 601. General

A. Lower Chanceford Township may establish by Resolution a schedule of fees which shall be sufficient to reimburse Lower Chanceford Township for all costs including engineering and legal fees incurred in connection with the project including but not limited to:

1. Administrative/clerical processing.
2. Review of the SWM Site Plan.
3. Attendance at meetings.
4. Inspections.
5. Preparation of necessary agreements.

B. No Certificate of Use and Occupancy shall be granted for any structure whose storm water management needs are provided by the permitted facilities unless and until all required fees have been paid.

**ARTICLE VII – PROHIBITIONS**

**Section 701. Prohibited Discharges and Connections**

- A. Any drain or conveyance, whether on the surface or subsurface, that allows any non-stormwater discharge including sewage, process wastewater, and wash water to enter the waters of this Commonwealth is prohibited.
- B. No person shall allow, or cause to allow, discharges into surface waters of this Commonwealth which are not composed entirely of stormwater, except (1) as provided in Subsection C below and (2) discharges allowed under a state or federal permit.
- C. No person may alter existing drainage or topography in any way so as adversely affect adjoining property by increasing stormwater flow upon such property or otherwise damaging such property.
- D. The following discharges are authorized unless they are determined to be significant contributors to pollution to the waters of this Commonwealth:

- Discharges from firefighting activities	- Flows from riparian habitats and wetlands
- Potable water sources including water line flushing	- Uncontaminated water from foundations or from footing drains
- Irrigation drainage	- Lawn watering
- Air conditioning condensate	- De-chlorinated swimming pool discharges
- Springs	- Uncontaminated groundwater
- Water from crawl space pumps	- Water from individual residential car washing
- Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where	- Routine external building wash-down (which does not use detergents or other compounds)
- Diverted stream flows	- Water discharged in well testing for potable

- E. In the event that Lower Chanceford Township or DEP determines that any of the discharges identified in Subsection C significantly contribute to pollution of the waters of this Commonwealth, Lower Chanceford Township or DEP will notify the responsible person(s) to cease the discharge.

**Section 702. Roof and Driveway Drains and Sump Pump Discharges**

Roof drains, driveway drains and sump pumps shall discharge to infiltration or vegetative BMPs and to the maximum extent practicable satisfy the criteria for DIAs. Where the discharge is not to vegetative BMPs, roof and driveway drain infiltration facilities must be protected by filter fabric, provide for sediment filtering either at the roof or elsewhere above ground level and provide for a cleanout at ground level.

**Section 703. Alteration of SWM BMPs**

No person shall modify, remove, fill, landscape, or alter any SWM BMPs, facilities, areas, or structures in any manner without the written approval of Lower Chanceford Township, with the exception of necessary maintenance activities such as mowing.

## ARTICLE VIII - ENFORCEMENT AND PENALTIES

### Section 801. Right-of-Entry

Upon presentation of proper credentials, Lower Chanceford Township may enter at reasonable times upon any property within Lower Chanceford Township to inspect the condition of the stormwater structures and facilities in regard to any aspect regulated by this Ordinance.

### Section 802. Inspection

- A. Lower Chanceford Township or its designee may inspect all phases of the construction, operation, maintenance and any other implementation of SWM BMPs with the cost of such inspection to be paid by the owner of the land where the SWM BMPs are located. Before commencing the construction of any SWM BMPs, the applicant shall arrange with the township a schedule of progress inspections. Inspection of newly constructed facilities shall be performed as provided by Section 6(E) of the Building Permit Ordinance of Lower Chanceford Township.
- B. SWM BMPs shall be inspected by the landowner, or the owner's designee, including Lower Chanceford Township for dedicated and owned facilities, as needed to insure the SWM BMP is functioning as designed.
- C. Lower Chanceford Township shall be entitled to inspect any SWM BMP upon observation, report, or information, of lack of maintenance, a defect, or a failure, of such SWM BMP, or at such other times as Lower Chanceford Township deems necessary and appropriate. In such instance, the landowner or other responsible party shall pay the cost of such inspections.

### Section 803. Enforcement

- A. It shall be unlawful for a person to undertake any regulated activity except as provided in an approved SWM Site Plan, unless specifically exempted in Section 302.
- B. It shall be unlawful to violate any Section of this Ordinance.
- C. Inspections regarding compliance with the SWM Site Plan are a responsibility of Lower Chanceford Township.

### Section 804. Suspension and Revocation

- A. Any approval or permit issued by Lower Chanceford Township pursuant to this Ordinance may be suspended or revoked for:
  - 1. Non-compliance with or failure to implement any provision of the approved SWM Site Plan or O&M Agreement.

2. A violation of any provision of this Ordinance or any other applicable law, ordinance, rule, or regulation relating to the Regulated Activity.
  3. The creation of any condition or the commission of any act during the Regulated Activity which constitutes or creates a hazard, nuisance, pollution, or endangers the life or property of others.
- B. A suspended approval shall be reinstated by Lower Chanceford Township when:
1. Lower Chanceford Township has inspected and approved the corrections to the violations that caused the suspension.
  2. Lower Chanceford Township is satisfied that the violation has been corrected.
- C. An approval that has been revoked by Lower Chanceford Township cannot be reinstated. The applicant may apply for a new approval under the provisions of this Ordinance.
- D. If a violation causes no immediate danger to life, public health, or property, at its sole discretion, Lower Chanceford Township may provide a limited time period for the owner to correct the violation. In these cases, Lower Chanceford Township will provide the owner, or the owner's designee, with a written notice of the violation and the time period allowed for the owner to correct the violation. If the owner does not correct the violation within the allowed time period, Lower Chanceford Township may revoke or suspend any, or all, applicable approvals and permits pertaining to any provision of this Ordinance.

#### **Section 805. Penalties**

- A. Any person, partnership, corporation, or other entity who or which has violated the provisions of this Ordinance shall commit a summary offense, and shall, upon conviction, pay a penalty in the amount of \$1,000.00. Each day that a violation continues shall constitute a separate violation, unless the district justice determining that there has been a violation further determines that there has been a good faith basis for the person, partnership, corporation or other entity violating the Ordinance to have believed that there was no such violation, in which event there shall be deemed to have been only one such violation.
- B. Lower Chanceford Township may institute civil, injunctive, mandamus, or any other appropriate action or proceeding at law or in equity for the enforcement of this Ordinance. Any court of competent jurisdiction shall have the right to issue restraining orders, temporary or permanent injunctions, mandamus or other appropriate forms of remedy or relief.

#### **Section 806. Appeals**

- A. Any person aggrieved by any action of the township enforcement officer or its designee, relevant to the provisions of this Ordinance, may appeal to Lower Chanceford Township within 30 days of that action.

- B. Any person aggrieved by any decision of Lower Chanceford Township, relevant to the provisions of this Ordinance, may appeal to the York County Court of Common Pleas within 30 days of Lower Chanceford Township's decision.

## ARTICLE IX – REFERENCES

1. Pennsylvania Department of Environmental Protection. No. 363-0300-002 (December 2006), as amended and updated. Pennsylvania Stormwater Best Management Practices Manual. Harrisburg, PA.
2. Pennsylvania Department of Environmental Protection. No. 363-2134-008 (April 15, 2000), as amended and updated. Erosion and Sediment Pollution Control Program Manual. Harrisburg, PA.
3. U.S. Department of Agriculture, National Resources Conservation Service (NRCS). National Engineering Handbook. Part 630: Hydrology, 1969-2001. Originally published as the National Engineering Handbook, Section 4: Hydrology. Available from the NRCS online at: <http://www.nrcs.usda.gov/>.
4. U.S. Department of Agriculture, Natural Resources Conservation Service. 1986. Technical Release 55: Urban Hydrology for Small Watersheds, 2nd Edition. Washington, D.C.
5. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, Hydrometeorological Design Studies Center. 2004-2006. Precipitation-Frequency Atlas of the United States, Atlas 14, Volume 2, Version 3.0, Silver Spring, Maryland. Internet address: <http://hdsc.nws.noaa.gov/hdsc/pfds/>.
6. Act of July 31, 1968, P.L. 85, No.247, The Pennsylvania Municipalities Planning Code, as amended.

ARTICLE X – ENACTMENT

**Lower Chanceford Township Stormwater Management Ordinance**

ENACTED and ORDAINED at a regular meeting of the

**Lower Chanceford Township Supervisors**

on this 7th day of October, 2014.

Attest:

*Yusuf M. Wiley*  
Secretary

BY: *Paul Glan*  
Chairman  
Lower Chanceford Township  
Supervisors



## APPENDIX A

### DISCONNECTED IMPERVIOUS AREA (DIA)

#### B.1. Rooftop Disconnection

Disconnected Impervious Area may be permitted by Lower Chanceford Township upon recommendation by the Municipal Engineer.

When rooftop down spouts are directed to a pervious area, on the applicant's property, that allows for infiltration, filtration, and increased time of concentration, the rooftop may qualify as completely or partially DIA and a portion of the impervious rooftop area may be excluded from the calculation of total impervious area.

A rooftop is considered to be completely or partially disconnected if it meets the requirements listed below:

- The contributing area of rooftop to each disconnected discharge is 500 square feet or less, and
- The soil, in proximity of the roof water discharge area, is not designated as hydrologic soil group "D" or equivalent, and
- The overland flow path from roof water discharge area has a positive slope of five percent (5%) or less.

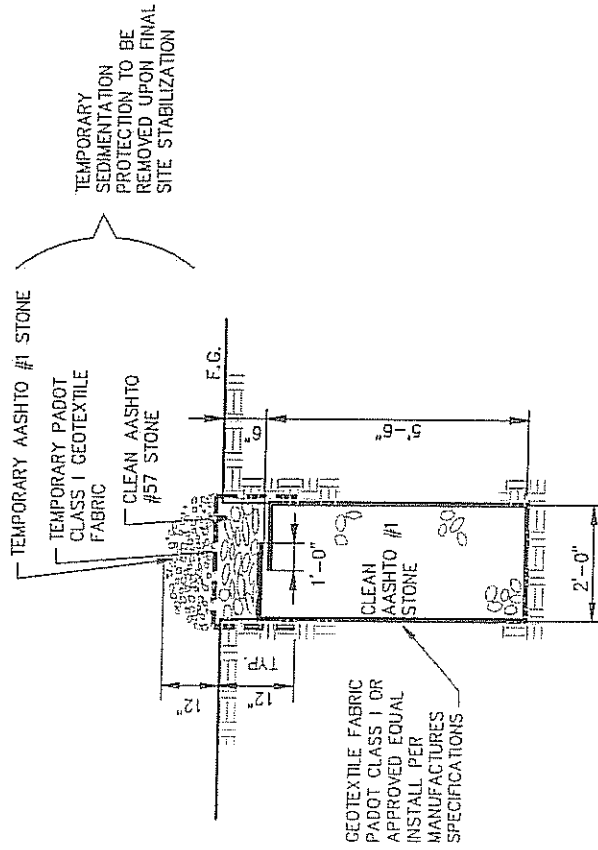
For designs that meet these requirements, the portion of the roof that may be considered disconnected depends on the length of the overland path as designated in Table B.1.

<b>Table B.1: Partial Rooftop Disconnection</b>	
<b>Length of Pervious Flow Path *</b>	<b>Roof Area Treated as Disconnected</b>
(ft)	(% of contributing area)
0 – 14	0
15 – 29	20
30 – 44	40
45 – 59	60
60 – 74	80
75 or more	100

\* Flow path cannot include impervious surfaces and must be at least 15 feet from any impervious surfaces and be contained on the applicant's property.

#### REFERENCE

Philadelphia Water Department. 2006. Stormwater Management Guidance Manual. Section 4.2.2: Integrated Site Design. Philadelphia, PA.



**TYPICAL SECTION SEEPAGE TRENCH**

NOT TO SCALE

**FIGURE 1**

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OWN. BY	DL.	CD. BY	DL.	SCALE	N.T.S.	DATE	8/2011	PROJECT NO.	110201
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DETAIL OF

**TYPICAL SECTION SEEPAGE TRENCH  
FIGURE 1**

LOWER CHANCEFORD TOWNSHIP YORK CO., PA.

X:\Municipal Projects\ACT 167 Information\Stormwater Ordinance - Figure 1 - Seepage Trench Detail.dwg