

**TYRONE TOWNSHIP
STORMWATER MANAGEMENT
ORDINANCE**

ORDINANCE NO. 2012-1

**MUNICIPALITY OF
TYRONE TOWNSHIP
ADAMS COUNTY, PENNSYLVANIA**

Adopted at a Public Meeting Held on

July 25, 2012

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ARTICLE I - GENERAL PROVISIONS

Section 101. Short Title

This Ordinance shall be known and may be cited as the “Tyrone Township Stormwater Management Ordinance.”

Section 102. Statement of Findings

The governing body of Tyrone Township finds that:

- A. 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.
- B. 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 floodplain management and flood control efforts in downstream communities, reduces groundwater recharge, threatens public health and safety, and increases nonpoint source pollution of water resources.
- C. 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 Tyrone Township, their resources, and the environment.

Section 103. Purpose

The purpose of this Ordinance is to promote health, safety, and welfare within Tyrone Township and its watersheds by minimizing the harm and maximizing the benefits described in Section 102 of this Ordinance, through provisions designed to:

- A. Meet 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 the 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 stormwater management Best Management Practices that are implemented within the municipality.
- H. Provide standards to meet NPDES permit requirements.

Section 104. Statutory Authority

The Municipality is empowered to regulate land use activities that affect stormwater impacts by the authority of the Second Class Township Code, Section 2704, 53 P.S. Section 67704, and 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

- A. All Regulated Activities, as defined in Article II, and all activities that may affect stormwater runoff, including land development and earth disturbance activity, are subject to regulation by this Ordinance.
- B. Any submission that does not require a stormwater management plan at the time of subdivision or land development will still be required to address stormwater management at the time the individual lots are developed or construction commences, unless said subdivision proposes infrastructure features, such as a cul-de-sac street, for which stormwater management controls are ordinarily required. All subdivisions proposing five (5) or more new lots shall provide stormwater management for the proposed lots at the time of the subdivision, unless otherwise approved by the Township.
- C. Development of the individual lots is subject to stormwater management as defined within the ordinance.

Section 106. Repealer

Any other ordinance provision or regulation of the Municipality inconsistent with any of the provisions of this Ordinance is hereby repealed to give this Ordinance full force and effect to the extent of the inconsistency only.

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. In the event of a conflict, between this Ordinance and any other ordinance, the more restrictive ordinance shall apply.

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 include 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 or words’ meaning(s) to all other instances of like kind and character.
- E. 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 Tyrone Township purporting to validate such a violation.

Section 111. Duty of Persons Engaged in the Development of Land

Notwithstanding any provision(s) of this Ordinance, including exemptions, any landowner or any person engaged in the alteration or development of land which may affect stormwater runoff characteristics shall implement such measures as are reasonably necessary to prevent injury to health, safety, or other property. Such measures shall include actions as are required to manage the rate, volume, direction, and quality of resulting stormwater runoff in a manner which adequately protects health, property and water quality.

Section 112. Municipal Liability Disclaimer

A. Neither the granting of any approval under this Ordinance, nor the compliance with the provisions of this Ordinance, or with any condition imposed by a municipal official hereunder, shall relieve any person from any responsibility or damage to persons or property resulting there from, or as otherwise imposed by law nor impose any liability upon the Municipality for damages to persons or property.

B. The granting of a permit which includes any stormwater management facilities shall not constitute a representation, guarantee, or warranty of any kind by the Municipality, or by an official or employee thereof, of the practicability or safety of any structure, use or other plan proposed, and shall create no liability upon or cause of action against such public body, official or employee for any damage that may result pursuant thereto.

ARTICLE II – DEFINITIONS

Adams County Conservation District – 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 102.

Agricultural Activity - Activities associated with agriculture such as agricultural cultivation, agricultural operation, 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 the municipality for approval to engage in any Regulated Activity at a project site in the Municipality.

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.

Best Management Practice, Nonstructural – Operational and/or behavior-related practices that attempt to minimize the contact of pollutants with stormwater runoff.

Best Management Practice, Structural – Measures consisting 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, Pennsylvania Department of Environmental Protection, December 2006 (Document #363-0300-002), as amended and updated.

Culvert - A structure which carries surface water through an obstruction.

Dam - An impoundment structure regulated by the Pennsylvania DEP Chapter 105 regulations.

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.

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 the Commonwealth at a controlled rate.

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/ or increased time of concentration.

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

Drainage Plan (also Stormwater Management Site Plan) – The documentation of the stormwater management system, if any, to be used for a given project site.

Earth Disturbance Activity - A construction or other human activity which disturbs the surface of the land, including land clearing and grubbing, grading, excavations, embankments, land development, agricultural plowing or tilling, operation of animal heavy use areas, timber

harvesting activities, road maintenance activities, oil and gas activities, well drilling, mineral extraction, 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 – The Pennsylvania DEP Erosion and Sedimentation Control Manual, as amended and updated.

Erosion and Sedimentation Control Plan (E&S 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 activities.

Evapotranspiration - The combined process of water surface evaporation, soil moisture evaporation, and plant transpiration.

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 or delineated by applicable FEMA maps and studies as being a special flood hazard area.

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

Hydrologic Soil Group (HSG) - A group of soils having similar runoff potential under similar storm and cover conditions. HSGs range from A to D, with A soils being the most pervious and D soils being the least pervious.

Impervious Surface (Impervious Area) - A surface that prevents the infiltration of water into the ground. Impervious surfaces and areas include but are not limited to roofs, additional indoor living spaces, patios and decks, garages, storage sheds and similar structures, streets, driveways, access drives, parking areas, and sidewalks. Any areas designed to be covered by loose surfacing materials such as gravel, stone and/or crushed stone, and intended for storage of and/or travel by vehicles, or pedestrians shall be considered impervious. Surfaces or areas designed, constructed and maintained to permit infiltration may be considered pervious.

Infiltration - Water flowing downward through the ground surface.

In-Kind Repair/ Replacement – Repair or replacement which uses the same or similar materials in the same location.

Invasive/ Exotic Plants – Plant species on the “Invasive Exotic Plants in Pennsylvania List” published by the PA Department of Conservation and Natural Resources, as amended.

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

Land Development - Shall include any of the following activities:

A. the improvement of one lot or two or more contiguous lots, tracts, or parcels of land for any purpose involving:

1. a group of two (2) or more residential or nonresidential buildings, whether proposed initially or cumulatively, or a single nonresidential building on a lot or lots regardless of the number of occupants or tenure; or

2. the division or allocation of land or space, whether initially or cumulatively, between or among two (2) or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups, or other features.

B. A subdivision of land.

Limit of Disturbance – A line provided on the E&S Plan or SWM Plan that indicates the total area to be disturbed over the life of the project.

Loading Ratio – The ratio of impervious area draining to a stormwater management facility to the area of the stormwater management facility itself.

Municipality – Tyrone Township, Adams County, Pennsylvania.

Noxious Plant – Those species as listed in the PA Noxious Weed Control Law (3 P.S. § § 255.1—255.11), as amended and/or recodified.

NPDES - National Pollution Discharge Elimination System, as authorized by the Clean Water Act (33 U.S.C. §1251 *et seq.* [1972], as amended).

NPDES Permit – A permit required for stormwater discharges associated with construction activities, as required by the Clean Water Act (33 U.S.C. §1251 *et seq.* [1972], as amended).

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

O&M - Operation and Maintenance.

O&M Plan - Operation and Maintenance Plan.

PCSM - Post-Construction Stormwater Management.

PCSM Plan – Post Construction Stormwater Management Plan.

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

Pervious Area - Any area not defined as impervious.

Pennsylvania Municipalities Planning Code - Act of 1968, P.L.805, No. 247, as reenacted and amended.

Point Source - Any discernible, confined, or discrete conveyance, including, but not limited to: any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, CAAP, CAFO, landfill leachate collection system, or vessel or other floating craft from which pollutants are or may be discharged.

Project Site (Site) - The specific area of land where any Regulated Activity in the municipality is planned for, conducted on, constructed, or maintained.

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

Reduction Factor – A form of safety factor that, when multiplied by the site tested infiltration rate, is used to help determine the design infiltration rate for a stormwater management facility.

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.

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

Retention Basin - An impoundment in which stormwater is stored and not released to surface waters of the Commonwealth.

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.

Riparian Forest Buffer - A type of riparian buffer that consists of permanent vegetation that is predominantly native trees and shrubs along surface waters that is maintained in a natural state or sustainably managed to protect and enhance water quality, stabilize stream channels and banks, and separate land use activities from surface waters.

Road Maintenance Activities – See definition as found in Title 25, Chapter 102.1.

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

Safety Factor – An adjustment applied to a site-tested infiltration rate to ensure that the designed infiltration rate for a stormwater management facility is less than that shown under tested conditions.

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

Simplified Approach (SA) – A process that property owners proposing certain types of projects may utilize to prepare a stormwater management plan without having to conduct the detailed technical analysis and design required for larger projects.

Special Management Areas – Those areas outlined in Chapter 7 of the BMP Manual. Special Management Areas include: brownfields, highways and roads, karst areas, mined lands, water supply well areas, surface water supplies and special protection waters.

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 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, snow melt 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 (The Plan) - The Adams County Stormwater Management Plan of November, 2011, which incorporates 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 Site Plan (SWM Site Plan) – A plan prepared by the developer or his representative indicating how stormwater runoff will be managed at the development site in accordance with this Ordinance.

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 of an area of more than ten acres, not

involving any new street or easement of access or any residential dwelling, shall not be considered a subdivision.

Swale - A low-lying stretch of land which gathers and/or carries surface water runoff.

SWM - Stormwater Management.

Township – Tyrone Township

USDA - United States Department of Agriculture.

Waters of the 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 the 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.

ARTICLE III - STORMWATER MANAGEMENT STANDARDS

Section 301. General SWM Site Plan Requirements

- A. For all regulated activities, unless preparation of a 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 the Municipality issues written approval of a SWM Site Plan which demonstrates compliance with the requirements of this Ordinance.
- B. All SWM Site Plans for Regulated Activities shall include such measures as necessary to:
1. Protect health, safety, and property.
 2. Meet the water quality goals of this Ordinance, as stated in Section 103, by including measures that:

- a. Minimize disturbance to floodplains, wetlands, wooded areas, and existing vegetation.
 - b. Maintain or extend riparian buffers.
 - c. Avoid erosive flow conditions in natural flow pathways.
 - d. Minimize thermal impacts to waters of the Commonwealth.
 - e. Disconnect impervious surfaces by directing runoff to pervious areas.
 - f. Minimize soil disturbance and compaction.
3. Incorporate the techniques for Low Impact Development Practices described in the Pennsylvania Stormwater Best Management Practices Manual (BMP Manual) which is hereby incorporated by reference.
- C. Stormwater flows onto adjacent property shall not be created, increased, significantly decreased, relocated, or otherwise altered without the written notification of the adjacent property owner(s) by the developer. Copies of all such notifications shall be included in the SWM Site Plan submission.
- D. For all Regulated Activities where erosion and sediment control is required in accordance with Title 25 of the Pennsylvania Code and the Clean Streams Law, the SWM Site Plan shall include the required erosion and sedimentation control measures. Necessary E&S BMPs shall be designed in accordance with the Erosion and Sediment Pollution Control Program Manual (E&S Manual) 2, No. 363-2134-008 (April 15, 2000), as amended and updated which is hereby incorporated by reference. Approval of the SWM Site Plan by Tyrone Township shall be conditioned on the applicant obtaining erosion and sedimentation control approval from the appropriate agency(ies), when applicable .
- E. For all Regulated Activities where NPDES permitting is required in accordance with the Clean Water Act (33 U.S.C. §1251 *et seq.* [1972], as amended), the SWM Site Plan shall include the information required in the applicant's NPDES Permit application. Approval of the SWM Site Plan by Tyrone Township shall be conditioned on the applicant obtaining NPDES Permit approval from the appropriate agency(ies), when applicable.
- F. For all regulated activities, implementation of the volume controls in Section 304 is required, unless the project is determined to be exempt within Section 302.
- G. Special Management Areas – SWM Site Plans involving Regulated Activities within Special Management Areas shall be prepared in a manner consistent with the guidance provided in Chapter 7 of the BMP Manual. The SWM Site Plan submission shall include design details for SWM BMPs within said Special Management Area.

- H. A SWM Site Plan may propose that stormwater related to the proposed Regulated Activities be accommodated by existing stormwater management facilities on adjoining or nearby properties provided that the SWM Site Plan documents the following.
1. The use of the stormwater management facilities located on said adjoining or nearby property is approved in writing by the owner of the property.
 2. The stormwater management facilities located on said adjoining or nearby property are designed in a manner that can accommodate the stormwater management needs of the Regulated Activity in a manner consistent with all requirements of this Ordinance. The SWM Site Plan shall include all documentation necessary for Tyrone Township to confirm such compliance.
- I. The design storm volumes to be used in the analysis of peak rates of discharge shall be obtained from the Precipitation-Frequency Atlas of the United States, Atlas 14, Volume 2, Version 3.0, as amended and updated, U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydro meteorological Design Studies Center, Silver Spring, Maryland. NOAA's Atlas 14 can be accessed at: <http://hdsc.nws.noaa.gov/hdsc/pfds/>.
- J. SWM Site Plans, once approved by Tyrone Township, shall remain on site throughout the duration of the Regulated Activity and be available for review as may be necessary by representatives of Tyrone Township.
- K. The design of all facilities over karst shall include an evaluation of measures to minimize adverse effects.
- L. Tyrone Township may, after consultation with DEP, 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. The municipality shall maintain a record of consultations with DEP pursuant to this paragraph.

Section 302. Exemptions

A. A property owner or developer of any Regulated Activity that meets the following exemption criteria is, upon approval from Tyrone Township, exempt from the formal SWM site plan submission requirements of this Ordinance as specified herein. However, the property owner or developer shall be subject to all other requirements of this Ordinance other than the formal SWM site plan submission requirements for which an exemption or exemptions have been authorized. The criteria for exemption in this Section apply to the total development proposed, 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 exemption criteria shall be cumulatively considered and regulated.

1. Regulated Activities that involve equal to or less than one thousand (1,000) square feet of impervious surface may be exempted from the peak rate control, volume control and the SWM Site Plan preparation and submission requirements of this Ordinance. The applicant shall complete and submit Worksheet A and a Sketch Plan as described in the Stormwater Management Design Assistance Manual.
2. Regulated Activities that involve greater than one thousand (1,000) square feet and equal to or less than ten thousand (10,000) square feet of impervious area, and where the all the proposed impervious area can be entirely disconnected, may be exempted from the peak rate control, volume control, and the SWM Site Plan preparation and submission requirements of this Ordinance. The applicant in this instance shall complete and submit the Stormwater Management Worksheets (A&B) from the Stormwater Management Design Assistance Manual, a Minor Stormwater Site Plan, and an executed Owner's Acknowledgement.
3. Regulated Activities that involve greater than one thousand (1,000) square feet and equal to or less than five thousand (5,000) square feet of impervious area may be exempted from the peak rate control and volume control preparation and submission requirements of this Ordinance. The applicant shall complete and submit the Stormwater Management Worksheets (A&B) from the Stormwater Management Design Assistance Manual, a Minor Stormwater Site Plan showing BMP facilities, an executed Owner's Acknowledgement or Operation and Maintenance Agreement (as required).
4. Agricultural Activities shall be exempt from the rate control, volume control and SWM Site Plan preparation and submission requirements of this Ordinance provided the agricultural activities are performed in accordance with the requirements of 25 Pa. Code 102. Further, such activities shall not be subject to the exemption approval process of Section 302.B of this ordinance.
5. Forest management and timber operations are exempted from the rate control, volume control and SWM Site Plan preparation and submission requirements of this Ordinance provided the forest management and timber operations are performed in accordance with the requirements of 25 PA Code 102 which shall include preparation of an erosion control plan for submission to the Adams County Conservation District.
6. Regulated Activities involving domestic gardening for single-family consumption shall be exempted from volume control, rate control, and SWM Site Plan preparation and submission requirements of this Ordinance, and shall not be subject to the exemption approval process of Section 302.B of this Ordinance.
7. In Kind Repair, In Kind Replacement, and maintenance of existing surfaces, and structures shall be exempted from volume control, rate control, and SWM Site Plan preparation and submission requirements of this Ordinance, and shall not be subject to the exemption approval process of Section 302.B of this Ordinance.

- B. Authorization of Exemptions: Tyrone Township shall determine, in accordance with the following requirements and process, whether a proposed Regulated Activity may be exempted from any of the requirements of this Ordinance.
1. The property owner or developer proposing the Regulated Activity shall submit materials as required by the Design Assistance Manual.
 2. Upon receipt of said materials, the Township or its designee shall either approve or deny the exemption request. If the exemption request is denied, the Township or its designee shall direct the property owner or developer to submit the information required to demonstrate that the proposed Regulated Activity complies with the requirements of this Ordinance or meets the exemption criteria.
 3. Exemption request approval shall be at the discretion of Tyrone Township, and shall be subject to the following:
 - a. Tyrone Township may deny any exemption request or suspend or revoke any approved exemption request at any time for any project where Tyrone Township believes that the proposed Regulated Activity poses a threat to public health, safety, property, or the environment.
 - b. Approval of an exemption request does not relieve the property owner or developer from other applicable requirements of this Ordinance or of other Tyrone Township ordinance or regulations.
 - c. Tyrone Township reserves the right to deny an exemption request if a pre existing drainage problem is known or has been identified or if a drainage problem is expected to exist downstream from the proposed Regulated Activity.

Section 303. General Design Standards

A. Impervious Area.

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 total proposed impervious area within the SWM Site Plan must be used in determining conformance with this Ordinance.
3. For projects that add impervious area to a parcel, the total impervious area on the parcel is subject to the requirements of this Ordinance; except that the volume controls in Section 304 and the peak rate controls of Section 305 do not need to be retrofitted to existing impervious areas that are not being altered by the proposed Regulated Activity.

- B. 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 less than 24 hours and not more than 72 hours from the end of the design storm. However, any designed infiltration volume 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 intended for infiltration is discharged into the surface waters of the Commonwealth.
- C. 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.
- D. A stormwater management plan shall be submitted for all subdivisions and/or land developments. The plan shall show all drainage within the area affecting the subject property, all existing and proposed drainage facilities and all grading proposed for the subject property, as well as the additional plan information required in this section.
- E. All land areas shall be graded to secure proper drainage away from buildings, on-lot sewage disposal facilities and the like and to prevent the collection of stormwater in pools. Drainage provisions shall be of such design as to carry surface waters to the nearest practical natural drainage channel, storm sewer system detention basin or other drainage facilities. The landowner or developer shall construct and/or install such drainage structures and/or pipes as are determined necessary by the Township to prevent soil erosion, damage and siltation and to satisfactorily carry off surface water. In the design of storm drainage facilities, special consideration must be given to preventing excess runoff onto adjacent developed or undeveloped properties. In no case may any slope exceeding the normal angle of slippage of the material involved. All slopes must be protected against erosion. In no case may a change be made in the existing topography which would alter the existing drainage or topography in a way so as to adversely affect adjoining properties.
- F. Storm sewers, culverts, bridges and related drainage installations shall be provided to:
- a. Permit unimpeded flow of natural watercourses. Such flow may be redirected as required, subject to the approval of the Pennsylvania Department of Environmental Protection.
 - b. Ensure adequate drainage of all low points as may be related to streets.
 - c. Intercept stormwater runoff along streets at intervals reasonably related to the extent and grade of the area drained to prevent flow of stormwater across intersections and to prevent the flooding of intersections during the design storm.
 - d. Ensure adequate and impeded flow of stormwater under driveways in, near or across natural watercourses or drainage swales. Properly sized pipes or other conduits shall be provided as necessary.
 - e. Prevent excessive flow on or across streets, sidewalks, drives, parking areas and any other paved surface or access way.
 - f. Lead stormwater away from springs.
 - g. Provide adequate drainage away from on-site sewage disposal systems.

G. The stormwater management plan for each subdivision and/or land development shall take into account and provide for upstream areas within the entire watershed in computing discharge quantities, sizing of pipes, inlets and other structures. The runoff from any proposed development shall be subject to evaluation which includes the anticipated runoff from other existing or proposed developments within the same watershed. Stormwater management facilities designed to serve more than one property or development in the same watershed are encouraged, in which case consultation with the Township is required prior to design.

H. All natural streams, channels, swales, drainage systems and/or areas of concentration of surface water shall be maintained in their existing condition unless alteration is approved by the Township. In any event, all encroachment activities shall comply with Chapter 105 of the Commonwealth of Pennsylvania Department of Environmental Protection, Dam Safety and Waterway Management Rules and Regulations.

I. Man-made structures shall be kept to a minimum and bridges, culverts, or rip-rap shall be constructed to maintain the natural characteristics of the stream and shall meet the approval of the Township.

J. Retention/detention basins shall be designed to utilize the natural contours of the land. When such design is impracticable, the construction of the basin shall utilize slopes as shallow as possible to blend the structures into the existing terrain.

K. Any subdivision and/or land development within a flood hazard district shall comply with all of the provisions of the Tyrone Township Zoning Ordinance, and the rules and regulations of the Pennsylvania Department of Environmental Protection.

L. All lots, tracts or parcels shall be graded to provide proper drainage away from buildings and dispose of the runoff without ponding, and all land within a development shall be graded to drain and dispose of surface water without ponding, except where other arrangements are approved by the Township. Grading shall not be done in such a way so as to divert water onto the property of another landowner without the expressed consent of the Township and the affected landowner.

Section 304. Volume Controls

The low impact development practices provided in the BMP Manual shall be utilized for all Regulated Activities. Water volume controls shall be implemented using the Design Storm Method (CG 1) in Section 304.A or the Simplified Method (CG 2) in Section 304.B. For Regulated Activity involving less than one (1) acre of impervious coverage that does not require hydrologic routing to design the stormwater facilities, 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/ or other factors. The Design

Storm Method in Section 304.A shall be used for all Regulated Activity involving greater than one (1) acre of impervious coverage.

A. The Design Storm Method (CG-1 in the BMP Manual) may be used for any size of Regulated Activity. This method requires detailed modeling to achieve the following standards.

1. The post-development total runoff volume shall not increase for all storms equal to or less than the two (2)-year 24-hour duration precipitation.
2. For modeling purposes:
 - a. Existing (pre-development), non-forested, pervious areas must be considered meadow.
 - b. Twenty percent (20%) of existing impervious area, when present, shall be considered meadow in the model for existing conditions. The Township may require a greater percentage be considered as meadow where the Township has identified a pre existing drainage problem for a site in which storm water management was not previously incorporated.

B. The Simplified Method (CG-2 in the BMP Manual) is independent of site conditions and may be used for projects involving Regulated Activities proposing equal to or less than one (1) acre of impervious coverage and that do not require design of stormwater storage facilities. When the Simplified Method is used to address stormwater management needs of new impervious surfaces, the following design standards shall be achieved:

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 and shall not be released into the surface waters of the Commonwealth. Removal options for the first one (1) inch of runoff include, but are not necessarily limited to, reuse and infiltration.
3. Infiltration facilities shall be designed to accommodate infiltration of as much of the permanently removed runoff as site conditions will allow. If the soils within the project area do not allow for infiltration of the entire first one (1) inch of runoff from new impervious surfaces, other forms of runoff volume control shall be used to achieve the required removal volume. Such measures may include, but are not limited to vegetated roofs, bioretention, and capture-and-reuse systems. In addition, the Infiltration Alternative authorized in Section 304.C may be employed.
4. This method is exempt from the requirements of Section 305, Rate Controls.

C. Infiltration Alternative: Where infiltration is not possible due to soil characteristics or is not desirable given other characteristics, water quality control may be proposed as an alternative to strict adherence to the volume control standards of Section 304 of this Ordinance. Where water quality control is proposed, the following standards shall be achieved.

1. At a minimum, the following documentation shall be provided to justify the proposal to reduce the infiltration requirements:
 - a. Description of and justification for field infiltration/ permeability testing with respect to the type of test and test locations.
 - b. An interpretive narrative describing existing soils of the site and their structure as these relate to the interaction between soils and water characteristics of the site. In addition to providing soil and soil profile descriptions, this narrative shall identify depth to seasonal water tables and depth to bedrock and provide a description of all subsurface elements (restrictive layers, geology, etc.) that influence the direction and rate of subsurface water movement.
 - c. A qualitative assessment of the site’s contribution to annual aquifer recharge shall be made, along with the identification of any restrictions or limitations associated with the use of designed infiltration facilities.
 - d. The provided documentation must be signed and sealed by a professional engineer or geologist.
2. Water Quality BMPs shall be implemented on all permanent stormwater discharges from the proposed project site to achieve pollutant removal efficiencies in accordance with the Table 304.1.

Table 304.1 Required Pollutant Removal Efficiencies for Infiltration Alternatives

Pollutant Load	Units	Required Removal Efficiency (%)
Total Suspended Solids (TSS)	Pounds	85%
Total Phosphorus (TP)	Pounds	85%
Total Nitrate (NO ₃)	Pounds	50%

3. Design guidance from the most current version of the Pennsylvania Stormwater Best Management Practices Manual, or equivalent resource as pre-coordinated with Tyrone Township, shall be consulted when choosing design criteria for water quality BMPs.

Section 305. Rate Controls

- A. 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.
- B. For computation of pre-development peak discharge rates, twenty percent (20%) of existing impervious areas, when present, shall be considered meadow.

Section 306. – Riparian Buffers/ Riparian Forest Buffers

Where an applicant proposes to utilize riparian buffers as the means to meet the requirements of this Ordinance, said riparian buffers shall be established and/or maintained in accordance with the BMP Manual or the publication *Riparian Forest Buffer Guidance*, published November, 2010 by the Pennsylvania Department of Environmental Protection, and as may be amended or updated.

Section 307. 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 the Commonwealth is prohibited.
- B. No person shall allow, or cause to allow, discharges into surface waters of the 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. The following discharges are authorized unless they are determined to be significant contributors to pollution to the waters of the Commonwealth:

- Discharges from Firefighting Activities
- Potable water sources including water line flushing
- Irrigation drainage
- Air conditioning condensate
- Springs
- Water from crawl space pumps
- Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents are not used
- diverted stream flows
- Flows from riparian habitats and wetlands
- Uncontaminated water from foundations or from footing drains

- Uncontaminated water from foundations or from footing drains
- Lawn watering
- De-chlorinated swimming pool discharges
- Uncontaminated groundwater
- Water from individual residential car washing
- Routine external building wash-down (which does not use detergents or other compounds)
- Water discharged in well testing for potable water supplies

D. In the event that the municipality or DEP determines that any of the discharges identified in Subsection C significantly contribute to pollution of the waters of the Commonwealth, the municipality or DEP will notify the responsible person(s) to cease the discharge.

Section 308. Roof Drains, Sump Pumps and Footer Drains

Roof drains, sump pumps, and footer drains should discharge to infiltration or vegetative BMPs and, to the maximum extent practicable, satisfy the criteria for DIAs. Discharges of each should be conveyed in such a manner as to not cause water problems for adjoining property owners. Roof drains, sump pumps, and footer drains shall not discharge to roadways, curb lines, or storm sewer systems without approval by the Municipality.

Section 309. 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 Tyrone Township, with the exception of necessary maintenance activities such as mowing.

Section 310. Stormwater Management Design Standards

A. Standards and criteria.

1. Storm drainage system.

a. Design flow rate.

[1] The storm sewer system shall be designed to carry a twenty five-year peak flow rate without surcharging inlets. The peak flow rate into each inlet shall be indicated on the stormwater drainage plan. The design flow rate shall be determined by the rational formula, $Q=CIA$.

Where:

- Q = Peak runoff rate, cubic feet per second (CFS).
- C = Runoff coefficient equal to the ratio of the peak runoff rate to the average rate of rainfall over a time period equal to the time of concentration.
- I = Average rainfall intensity in inches per hour for a time equal to the time of concentration.

A = Drainage area in acres.

- [2] Appropriate values for the runoff coefficient and rainfall intensity shall be taken from the following source, unless otherwise approved by the Township:

Commonwealth of Pennsylvania
Department of Transportation
Publication 584, PennDOT Drainage Manual
2010 Edition (or the latest revision thereto)

b. Storm sewer system design.

- [1] The storm sewer system shall be designed to the more restrictive of the following: to collect stormwater at any point where three to five cubic feet per second is accumulated during the design storm; and/or inlets/manholes shall not be spaced more than 300 feet apart on pipe sizes up to 24 inches in diameter and not more than 400 feet apart on greater sizes.

- [2] Inlets, manholes, grates, covers, frames and the like shall conform to the Pennsylvania Department of Transportation Roadway Construction Standards and Form No. 408 specifications and all amendments, revisions or updates thereto.

[a] All inlets and manholes shall be precast concrete, unless approved otherwise by the Township.

[b] Sump areas below inlet piping shall not be permitted unless approved otherwise by the Township.

c. Bridge/culvert/channel design.

- [1] Bridges and culverts shall have ample waterway to carry expected flows, based on a minimum storm frequency of 100 years or as required by the Pennsylvania Department of Environmental Protection. Bridge and/or culvert design shall be in accordance with the Pennsylvania Department of Transportation and/or the Pennsylvania Department of Environmental Protection requirements. All culverts shall be provided with concrete end walls.

- [2] All drainage channels shall be designed to carry a flow rate equal to a one-hundred-year, twenty-four-hour storm.

- [3] All drainage channels shall be designed to prevent the erosion of the stream bed and stream bank areas. The flow velocity in all vegetated drainage channels shall not exceed the maximum permissible velocity to prevent soil erosion. Suitable bank stabilization shall be provided where required to

prevent soil erosion of the drainage channels. Where storm sewers discharge into existing drainage channels at an angle greater than 30° from parallel with the downstream channel flow, the far side bank shall be stabilized by the use of rip-rap and masonry and/or concrete walls. The stabilization shall be designed to prevent soil erosion and front heave under and behind the stabilizing media.

[4] Any vegetated drainage channel requiring mowing of the vegetation shall have a maximum slope of four horizontal to one vertical on those areas to be mowed.

[5] In all instances where a proposed driveway culvert will cross a drainage channel/swale, a minimum 15 inch diameter driveway culvert must be provided that will be adequate to convey the design flows of the drainage channel.

[6] The design of all channels shall, as a minimum, conform to the design procedures outlined with the Pennsylvania Department of Transportation standards, Pennsylvania Stormwater Best Management Practices Manual, and Pennsylvania Department of Environmental Protection Erosion and Sediment Pollution Control Program Manual.

d. Overflow system. An overflow system shall be provided to carry flow to the detention basin when the capacity of the storm drain pipe system is exceeded. The overflow system shall have sufficient capacity to carry the difference between the one-hundred-year and the twenty five-year peak flow rates.

e. Inlet capacity.

[1] All inlets must be designed to accommodate the twenty five-year peak flow rate. The capacity of Type C, M, or S inlets shall be determined from the following source:

Commonwealth of Pennsylvania
Department of Transportation
Publication 584, PennDOT Drainage Manual
2010 Edition (or the latest revision thereto)

[2] The capacity of each inlet shall be indicated within the SWM Site Plan narrative. All stormwater management plans shall indicate that inlet grates be installed in such a manner that the roadway stormwater will be directed into the inlet and away from the roadway. All inlets shall be designed to create a one-inch sump condition below finished road surface unless approved otherwise by the Township. At curbed street/driveway intersections, inlets

shall be placed on the tangent section and not in the curved portion of the curbing.

- f. Straight pipe sections. All storm sewers shall be designed to follow straight courses. No angular deflections of storm sewer pipe sections in excess of 5° shall be permitted. No vertical curves shall be permitted in the storm sewer system.
- g. Horizontal pipe deflections. A manhole or inlet shall be provided at all horizontal deflections in the storm pipe system exceeding 5°.
- h. Minimum grade and size. All storm drain pipes shall be designed to maintain a minimum grade that will result in a full flow velocity of at least two feet per second. All storm sewer pipes shall have a minimum inside diameter of 15 inches.
- i. Pipe capacity. The capacity of all pipe culverts shall, as a minimum, provide the required carrying capacity to meet current Pennsylvania Department of Transportation standards and criteria.
- j. Pipe arches. Where headroom is restricted, equivalent pipe arches may be used in lieu of circular pipes.
- k. Pipe material and gauge thickness. All storm sewers shall be either reinforced cement concrete, corrugated aluminum, corrugated polyethylene pipe, smooth lined corrugated polyethylene pipe, or aluminized Type II steel pipe. Storm sewers shall be of the proper class and thickness to support the above fill material. Pipe class and gauge or thickness shall be noted on the plans. All pipe shall conform to Pennsylvania Department of Transportation specifications.
- l. Allowable headwater depth. At all inlets or manholes, the maximum allowable headwater depth shall be one foot below the top of the inlet grate or the manhole.
- m. Minimum and maximum cover. In lawn areas, a minimum of 12 inches of cover shall be maintained over all storm drain pipes or as specified by the pipe manufacturer. Under streets, the top of storm drain pipes shall be a minimum of six inches below sub grade elevation or as specified by the pipe manufacturer. The maximum cover over storm drain pipes shall be 10 feet unless otherwise approved by the Township.
- n. Storm sewer system outlets. Storm sewer system outlet pipes shall extend to proposed stormwater management facilities, natural watercourses and the like. A concrete end wall shall be required on all storm sewer system inlet and outlet pipes. All storm/sewer outlets 24 inches in diameter or greater shall be equipped with a galvanized child-proof horizontal bar rack, bolted to the end wall.
- o. Drainage easements.

- [1] All storm sewer easements through undedicated land shall be a minimum of 20 feet in width.
 - [2] Where a site is traversed by a watercourse, a drainage easement or right-of-way conforming substantially with the line of such watercourse and of such width as will be adequate to preserve natural drainage and provide sufficient width for maintenance shall be created, as determined by the Township.
- p. Diversion of surface water runoff. All storm sewers and/or drainage swales shall be designed to carry such runoff into a detention basin or similar facility utilized to control the rate of runoff, unless approved otherwise by the Township.

2. Detention/retention basins.

- a. Detention basins shall be designed in accordance with the Soil Cover Complex Method and the procedures developed by the United States Department of Agriculture, Soil Conservation Service, as outlined in their Technical Release No. 55, Urban Hydrology for Small Watersheds, with specific attention given to antecedent moisture conditions, flood routing and peak discharge and Hydrology National Engineering Handbook Section 4, or other method as approved by the Township Engineer.

b. Basin design criteria (SCS).

- [1] Basins shall be designed to safely convey the quantity of water resulting from a one-hundred-year, twenty-four-hour storm under full development conditions. Stormwater management calculations shall ensure that the predevelopment discharge from the site meets conforms with Section 305.

c. Outlet control structures.

- [1] All outlet control structures shall be constructed of concrete, properly anchored to prevent flotation and equipped with child-proof, nonclogging removable trash racks over all design openings 12 inches or greater in diameter, except those openings designed to carry perennial stream flows.
- [2] Temporary sedimentation controls shall be provided during construction to prevent the flow of sediment through the basin outlet pipe. Such measures may include temporary riser pipes, rock-filled gabions, plywood standboxes, silt fences and the like.

- d. Emergency spillways. Whenever possible, the emergency spillway for basins shall be constructed on undisturbed ground. Emergency spillways shall be constructed of reinforced concrete, concrete moundslabs or vegetated earth. All emergency spillways shall be constructed so that the basin berm is protected

emergency spillways shall be constructed so that the basin berm is protected against soil erosion. The minimum capacity of the emergency spillway shall be designed to pass the one-hundred-year post development flow neglecting the capacity of the principal outlet structure. Emergency spillways shall extend along the upstream and downstream berm embankment slopes. The emergency spillway shall not discharge stormwater over earthen fill and/or easily erodible material without adequate protection against soil erosion.

- e. Freeboard. The minimum freeboard shall be one foot. (Freeboard is the difference between the design flow elevations in the emergency spillway and the top of the settled basin embankment.)
- f. Basin outlet pipes. Basin outlet pipes shall be equipped with watertight joints.
- g. Antiseep collars. Antiseep collars shall be installed around the principal pipe barrel within the normal saturation zone of the basin berms. The antiseep collars and their connections to the pipe barrel shall be watertight. The antiseep collars shall be designed in accordance with USDA SCS criteria. Design calculations for antiseep collars must be submitted with the basin calculations.
- h. Basin outlets. Energy dissipating devices (concrete aprons and the like) shall be placed at all basin outlets. Concrete end walls shall be placed at all basin outlets. All basin outlet pipes 24 inches in diameter or greater shall be equipped with child-proof devices to deter entry by pedestrians or animals. Design calculations for proposed energy dissipaters must be submitted with basin calculations.
- i. Slope of detention basin embankment.
 - [1] The maximum slope of earthen basin embankments shall be four to one (4:1), unless otherwise approved by the Township. The top or toe of any slope shall be located a minimum of 15 feet from adjacent property lines with the exception of the downstream property line where the toe of the embankment shall be placed a sufficient distance to allow for energy dissipating devices but in no case less than 40 feet unless approved otherwise by the Township.
 - [2] Whenever possible, the side slopes and basin shape shall blend with the natural topography. Straight side slopes and rectangular basins shall be avoided whenever possible.
- j. Width of berm. The minimum top width of detention basin berms shall be six feet.
- k. Construction specifications. The plans shall indicate the construction specifications and compaction requirements for all detention/retention basins.
- l. Cut-off trench. A cut-off trench shall be excavated along the center line of dam on earth fill embankments. The minimum depth shall be three feet. The minimum

bottom width shall be 10 feet or wide enough to permit operation of compaction equipment. The side slopes shall be no steeper than 1:1. The trench shall be kept free from standing water during the backfilling operations.

- m. Grading and landscaping of basins; cuts and fills. No excavation or fill shall be made with a cut and fill slope steeper than four feet horizontal to one foot vertical unless otherwise approved by the Township Engineer. A written statement shall be required from a civil engineer licensed by the Commonwealth of Pennsylvania having experience in soils engineering certifying that he has inspected the site and that any proposed deviation from the slope specified above should not endanger any property or result in personal injury. Retaining walls will be required if a stable slope cannot be maintained. Any retaining wall design must be designed by an experienced structural engineer licensed by the Commonwealth of Pennsylvania. The toe of any cut or fill slope must be located a minimum of 15 feet from adjacent property lines.
- n. Landscaping.
 - [1] A minimum of four inches of topsoil shall be placed on all areas affected by the basin construction (bottom of basin, side slopes, top of berm and the like).
 - [2] All earthen basins shall be seeded with a standard seed mix containing temporary and permanent grasses capable of providing a minimum uniform 70% perennial ground cover, or other approved ground covers, within seven days after final grading. Application rate shall be in accordance with the seed supplier's guidelines and recommendations.
 - [3] Fencing may be required around detention/retention basins where the Township determines that circumstances warrant the fencing.
 - [4] All detention/retention basins shall be landscaped.
- o. Permanent pond.
 - [1] A five-foot-wide bench sloping at 4% shall be provided for all detention/retention basins designed to contain a permanent pond of water. The toe of the bench shall begin at the permanent water surface elevation. Alternate designs may be submitted for review to the Township and its Engineer.
 - [2] When a permanent pond is proposed, a report prepared by a certified geotechnical specialist must be provided certifying that the water will not become stagnant. The basin side slopes below the water line must not exceed 4:1.
- p. Positive drainage. Detention basins must be designed to eliminate standing water or swampy conditions after the basin has drained. This must be accomplished either by the installation of stone-trenched underdrains or by providing a minimum basin bottom slope of 2% to the basin outlet. Other arrangements may

be presented for review and approval by the Township provided the facility is entirely dewatered in accordance Section 303.B.

3. Subsurface Infiltration / Disposal / Retention Basin Systems - The following procedures and materials shall be required for all subsurface stormwater management facilities:

- [1] Prior to starting any excavation for subsurface facilities, the contractor must notify the Township's Engineer forty-eight (48) hours in advance for inspection of said facilities. Inspection is required for all subsurface stormwater management facilities at the time of installation and prior to backfilling.
- [2] Excavation for all subsurface facilities shall be performed in a manner that will minimize compaction of the subsurface facility floor and surrounding areas as well as minimize smearing of the sidewalls of the subsurface facility.
- [3] The floor and sidewalls of the subsurface stormwater management facility shall be roughened prior to placement of the geofabric and aggregate.
- [4] Only clean, open graded aggregate, free of fines, shall be used in subsurface stormwater management facilities.
- [5] The top, sides, and floor of all subsurface stormwater management facilities shall be covered with a drainage filtration fabric which meets the requirements of the Pennsylvania Department of Transportation, Publication 408 for Class I Geofabrics.
- [6] All pipes leading into subsurface stormwater management facilities shall be equipped with screening or water quality devices to prevent debris from entering the system.
- [7] The floor of all subsurface stormwater management facilities shall be located a minimum of twelve (12) inches above the seasonal high water table or bedrock limiting zone as established by a soil test pit and site specific soil profile. Depths of less than twelve (12) inches above the limiting zone will only be allowed where it is certified by a registered professional engineer, geologist, or hydrogeologist that the proposed facility will not create an environmental hazard.
- [8] For all subsurface stormwater management facilities that propose to use infiltration as a means to manage stormwater runoff, infiltration testing must be performed at the same elevation of the invert of the proposed facility to determine a design infiltration rate and dewatering time for the proposed facility. The proposed facility dewatering time must be in accordance with Section 303.B.
- [9] Inspection points, cleanouts, and overflow facilities shall be provided for all subsurface stormwater management facilities. All inspection points and cleanouts must be located in a configuration that will allow for cleaning and maintenance of the entire subsurface facility.

[10] Detailed maintenance instructions and a proposed maintenance schedule must be provided on the plan drawings and provided to the property owner prior to plan approval.

[11] All subsurface stormwater management facilities must be located a minimum of one hundred (100) feet from any potable water wells.

4. Alternative stormwater management BMPs not mentioned above may be utilized provided that all applicable design criteria within Section 310 has been met and that the design is in conformance with the current edition of the Pennsylvania Best Management Practices Manual.

ARTICLE IV - STORMWATER MANAGEMENT (SWM) SITE PLAN REQUIREMENTS

Section 401. SWM Site Plan Submission

- A. When a property owner or developer proposes a Regulated Activity, said property owner or developer shall submit a SWM Site Plan to demonstrate compliance with the stormwater management provisions of this Ordinance. Said submission shall be required by Tyrone Township unless said Regulated Activity is exempted from SWM Site Plan submission in accordance with the exemption criteria and exemption approval process established in Section 302 of this Ordinance. Where Tyrone Township determines that the property owner or developer proposing the Regulated Activity is eligible to employ the process established in the Stormwater Management Design Assistance Manual to address the stormwater management needs of a site, the submission of the required documentation from said Manual shall substitute for the SWM Site Plan requirements of this Article.
- B. Copies of the SWM Site Plan shall be distributed as follows:
 1. _____ Two (2) copies to the Municipality.
 2. _____ One (1) copy to the Tyrone Township Engineer, when applicable.
 3. _____ One (1) copy to the Adams County Conservation District (if an NPDES permit is required).
 4. _____ One (1) copy to the Adams County Planning Commission (only if submitted as a component of a subdivision and land development plan in accordance with the Tyrone Township Subdivision and Land Development Ordinance.
- C. Additional copies shall be submitted as requested by Tyrone Township.
- D. The property owner or developer shall submit a review fee in accordance with Article VI. Payment of the required fee shall be considered a component of the SWM Site Plan

submission. The SWM Site Plan submission shall not be considered to be complete until such time that any required fee is paid.

Section 402. Plan Requirements

- A. The SWM Site Plan shall include the following information. Where the Regulated Activity for which a SWM Site Plan is being submitted is also subject to subdivision and/or land development plan review in accordance with the Township's Subdivision and Land Development Ordinance, the SWM Site Plan shall be submitted as a component of the subdivision or land development plan submission for the project and shall include the following information. Where the submission requirements of this section conflict with the submission requirements of the Township's Subdivision and Land Development Ordinance, the more restrictive provisions shall control.
1. 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 SWM Site 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 responsible for any aspect of the SWM Site Plan.
 2. A graphic and written plan scale of one (1) inch equals no more than fifty (50) feet. For parcels of twenty (20) acres or more, the scale shall be one (1) inch equals no more than one hundred (100) feet.
 3. North point (arrow).
 4. Property boundary information, including building setback limits.
 5. Existing and final contours at intervals of no more than two (2) feet. In areas of slopes in excess of fifteen percent (15%), five (5) foot contour intervals may be used.
 6. Existing and proposed land uses within the project boundary plus twenty-five (25) feet outside the project boundary. This shall include all existing manmade features beyond the subject parcel's boundary lines that may be affected by the proposed Regulated Activities.
 7. The location of existing and proposed utilities, stormwater facilities, sanitary sewers, and water lines within the project boundary and for the entire area within the first twenty-five (25) feet beyond the project boundary.
 8. Significant physical features and associated boundary limits, including flood hazard areas, sinkholes, existing drainage courses, and areas of natural vegetation.

9. Existing and proposed structures, buildings, streets, driveways, access drives, and parking areas.
10. Location of existing and proposed on-lot wastewater facilities and water supply wells.
11. The location of the proposed Regulated Activity relative to streets, municipal boundaries, and other significant manmade features for the entire area within the first 25 feet beyond the project boundary.
12. 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 floodplains, streams, lakes, ponds, hydric soils, wetlands, brownfields, and wellhead protection zones.
13. A hydrogeologic assessment of the effects of stormwater runoff on sinkholes, where present.
14. Soil type boundaries and the location of any soil test pits or infiltration tests.
15. Plan and profile drawings of all SWM BMPs, including drainage structures, storm sewers, pipes, open channels, and swales
16. The location, construction details, specifications, and materials used for all stormwater management facilities.
17. Sequence of construction for all earthmoving activities.
18. The SWM Site Plan shall include an O&M Plan for all existing and proposed physical stormwater management facilities. The plan shall address long-term ownership and maintenance responsibilities as well as schedules and estimated costs for maintenance activities. The O&M Plan shall be prepared in accordance with the requirements of Article V of this Ordinance.
19. Provisions for permanent access or maintenance easements for all physical SWM BMPs, as necessary to implement the O&M Plan and for municipal inspections of any facilities.
20. A note on the SWM Site 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.
21. The following signature blocks shall be provided:

This Stormwater Management Site Plan has been reviewed and approved as meeting all design standards and criteria of the Tyrone Township Stormwater Management Ordinance.

Secretary

Its

I, _____, hereby acknowledge that the stormwater management system as depicted within this Plan is a permanent fixture that can be altered or removed only after approval of a revised Plan by the Township.

Landowner

Date

22. A narrative shall be provided with the SWM Site Plan to demonstrate compliance with the requirements of this Ordinance. The narrative shall contain the following information, at a minimum:
- a. General description of project.
 - b. Stormwater runoff design computations and documentation as specified in this Ordinance.
 - c. Pre Development and Post Development drainage area mapping depicting drainage area boundaries and drainage flow pathways.
 - d. Proposed changes to the land surface and vegetative cover and the type and amount of existing and proposed impervious area.
 - e. The overall stormwater management concept for the project, including any additional information required for a PCSM Plan as applicable
 - f. A description of permanent stormwater management techniques.
 - g. Calculations and computation for all stormwater detention or retention BMPs.
 - h. Hydraulic capacity design information for all stormwater conveyance systems, including storm sewers, culverts, inlets, and open channels.
 - i. 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.
 - j. 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.
 - k. Estimated project time schedule.
 - l. Brief description of soils and their characteristics.
23. An E&S plan, where applicable, as approved by the Adams County Conservation District. In cases where E&S Plan approval by the Adams County Conservation District

is not required, all erosion and sedimentation control measures and BMP's must be depicted within the SWM Site Plan.

24. An NPDES Permit application, including PCSM Plan, where applicable, as administratively reviewed and approved by the Adams County Conservation District.

Section 403. Plan Review and Approval Procedure

A. Pre-Application Meeting: Prior to proceeding with SWM Site Plan preparation and submission, the applicant is encouraged to request a pre-application meeting with Tyrone Township to discuss the plan concept and responsibility for submission of required documents and information. If the project requires an E&S plan or an NPDES permit, the applicant is encouraged to meet with a staff member of the Adams County Conservation District as well.

B. SWM Site Plan Review and Approval Procedure:

1. If a SWM Site Plan is not submitted as a component of a subdivision and/or land development plan, the review of the SWM Site Plan, recommendations, approval, approval with conditions, or disapproval shall occur within 45 calendar days of a complete submission to Tyrone Township. Where the applicant submits revisions to a previously submitted SWM Site Plan, either because the applicant has elected to revise the SWM Site Plan or as a result of a determination by Tyrone Township that a revision is necessary to meet the requirements of this Ordinance, this 45-day period shall be restarted at the time of acceptance of a revised plan submission by Tyrone Township. Should Tyrone Township fail to render a decision on the SWM Site Plan within this 45 day time period, the application shall be deemed approved. The review process shall include the following components:

- a. All plans will undergo an initial staff review before being considered as a complete submission. During this initial review, plans will not be released to the Township designee for formal review. In the event that the application is deemed incomplete, the Township shall notify the applicant, in writing, within 10 business days of the receipt of the application.

- b. Should the applicant fail to provide a written withdrawal of an incomplete submission, or fail to provide missing items, within 10 days, formal written disapproval of the plan will occur.

- c. A complete submission shall consist of the specified number of copies of plans, reports and applications including the following items. The specific number of copies may be modified where authorized by the Township office.

- 1) Completed Application form (provided by the Township) signed by the owner or owner's agent.

- 2) Three (3) copies to Tyrone Township of the plan, report calculation and/or other required documentation.
 - 3) A filing/application fee as established in the fee resolution.
2. If a SWM Site Plan is submitted as a component of a subdivision and/or land development plan, the SWM Site Plan shall be reviewed in accordance with the review process and time frame established in the Tyrone Township Subdivision and Land Development Ordinance and in accordance with Section 508 of the Pennsylvania Municipalities Planning Code.
 3. NPDES Permit Technical Coordination: Where the project for which a SWM Site Plan is submitted is subject to NPDES permitting, Tyrone Township shall notify the Adams County Conservation District when the applicant has achieved technical compliance with the requirements of this Ordinance with respect to SWM Site Plan requirements. Tyrone Township may address this requirement through the completion of the Technical Review Checklist for NPDES Sites or comparable process as determined by Tyrone Township. Upon receipt of this notification, the Adams County Conservation District will acknowledge a General NPDES permit provided that all other NPDES permit criteria are met. In the case of an Individual NPDES permit, the Adams County Conservation District will coordinate municipal reviews with the DEP Regional Office.
 4. NPDES Permits and E&S Plans: Where the project for which a SWM Site Plan is submitted is subject to NPDES permitting or the submission of an E&S Plan, or both, any final approval of the SWM Site Plan by Tyrone Township shall be conditioned on the applicant's receipt of the required NPDES Permit or E&S Plan approval, as appropriate.
 5. Approvals from regulating agencies. All appropriate approvals from regulating agencies including, but not limited to, the Pennsylvania Department of Transportation, Pennsylvania Department of Environmental Protection, Adams County Conservation District, and/or the U.S. Army Corps of Engineers, with regards to storm drainage and stormwater management, shall be followed, and evidence of approvals by those agencies shall be submitted to the Township.
 6. Decision Notification Procedure: In all cases, the decision of Tyrone Township, or its agent, to approve, approve with conditions, or disapprove the SWM Site Plan shall be in writing and shall be delivered to the applicant no later than fifteen (15) calendar days following the decision. If the SWM Site Plan is disapproved, the written decision by Tyrone 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. Should Tyrone Township fail to notify the applicant of the decision within this fifteen (15) calendar day period, the application shall be deemed approved.

C. Waiver Requests:

1. If a SWM Site Plan is not submitted as a component of a subdivision and/or land development plan, Tyrone Township may accept a request for waiver of one or more of the requirements of this Ordinance. Any such waiver requests shall comply with the following requirements.
 - a. Tyrone Township may accept a request for waiver of the requirements of one or more provisions of this Ordinance if the literal enforcement will enact undue hardship because of peculiar conditions pertaining to the land in question, provided that Tyrone Township determines that such waiver will not be contrary to the public interest and that the purpose and intent of the Ordinance is observed. In review of the request Tyrone Township may consider the recommendations of the Township Engineer.
 - b. All requests for waivers from an applicant shall be in writing and shall accompany and be a part of the application for approval of a SWM Site Plan. The request shall state in full the grounds and facts of unreasonableness or hardship on which the request is based, the provision or provisions of the Ordinance involved, and the minimum waiver necessary to afford relief.
2. Tyrone Township shall act to accept or reject requests for waivers within the context of its SWM Site Plan decision-making process established in Section 403.B.1 of this Ordinance. The decision of Tyrone Township regarding acceptance of each request for waiver shall be incorporated into the written decision of Tyrone Township for the overall SWM Site Plan as required in Section 403.B.3 of this Ordinance. Tyrone Township shall keep a written record of all action on requests for waivers.
3. If a SWM Site Plan is submitted as a component of a subdivision and land development plan, requests for waiver to obtain relief from one or more of the requirements of this Ordinance shall be handled in accordance with the modification process established in the Tyrone Township Subdivision and Land Development Ordinance and Section 512.1 of the Pennsylvania Municipalities Planning Code.
4. The final decision to approve or disapprove all accepted requests for waivers shall be made in accordance with Section 301.L.

Section 404. Revision of Plans

- A. SWM Site Plan not Submitted as a Component of a Subdivision and/or Land Development Plan: Revisions to a previously approved SWM Site Plan to incorporate a change in SWM BMPs or techniques, or the relocation or redesign of SWM BMPs, or different information about soil or other conditions from what was stated in the SWM Site Plan, shall be submitted by the applicant to Tyrone Township. Tyrone Township, at its sole discretion may require a

re-submission of the revised SWM Site Plan in accordance with this Ordinance, including applicable review fee. For NPDES permitted sites, any revised SWM Site Plan shall be re-submitted to the Adams County Conservation District for its 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). At its sole discretion, Tyrone Township may accept a re-submission of such SWM Site Plan without the requirement of a full review fee, or a lesser fee, as determined by Tyrone Township.

- B. SWM Site Plan Submitted as a Component of a Subdivision and/or Land Development Plan: A revision of an SWM Site Plan approved as a component of a subdivision and/or land development plan shall be treated as a revision of the subdivision and/or land development plan and shall be subject to the review process established in the Tyrone Township Subdivision and Land Development Ordinance.

Section 405. Re-submission of Disapproved SWM Site Plans

- A. SWM Site Plan not Submitted as a Component of a Subdivision and/or Land Development Plan. A previously disapproved SWM Site Plan may be resubmitted with the revisions addressing the defects of the original submission as listed in Tyrone Township Decision Notification provided in accordance with Section 403.B.5. The re-submitted SWM Site Plan shall be reviewed and acted upon in accordance with Section 403.B.1 of this Ordinance. The applicable review fee must accompany the submission of a revised SWM Site Plan, unless such fee is waived by Tyrone Township.
- B. SWM Site Plan Submitted as a Component of a Subdivision and/or Land Development Plan: The resubmission of the SWM Site Plan originally submitted as a component of a subdivision and/or land development plan shall be treated as resubmission of said subdivision and/or land development plan and shall be subject to the review process established in the Tyrone Township Subdivision and Land Development Ordinance.

Section 406. Authorization to Construct and Term of Validity

- A. SWM Site Plans not Submitted as a Component of a Subdivision and/or Land Development Plan – Tyrone Township approval of a SWM Site Plan, when such Plan is not submitted as a component 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. Tyrone Township may specify a term of validity shorter than five (5) years in the Decision Notification for any specific SWM Site Plan, particularly if the nature of the proposed SWM facilities requires more frequent maintenance and/or short-term replacement of certain components. Terms of validity shall commence on the date Tyrone Township signs the Decision Notification for an SWM Site Plan. If an approved SWM Site Plan is not completed according to Section 407 within the term of validity, Tyrone Township, and if a request to extend the permit has not been submitted to Tyrone Township by the applicant, the permit terminates and Tyrone Township may revoke any and all permits

applicable to the project. SWM Site Plans for projects with expired permits may be resubmitted in accordance with Section 405 of this Ordinance.

- B. SWM Site Plans Submitted as a Component of a Subdivision and/or Land Development Plan – Tyrone Township approval of a SWM Site Plan as a component of a subdivision and/or land development plan is subject to the term of validity as specified in the Tyrone Township Subdivision and Land Development Ordinance.

Section 407. Construction Inspection, Completion Certificate, and As-Built Plans

- A. Prior to commencing construction of stormwater management facilities, the applicant or its agent shall contact the Township’s Engineer a minimum of seven (7) days prior to the start of construction to determine at which stages of construction the facilities shall be inspected. No facilities or portion thereof shall be constructed, buried, or otherwise permanently covered unless and until the inspection of that stage, as determined by the Township Engineer, has been performed and that stage of construction has been approved.
- B. During inspections, if it is found that the soil or other conditions are not as stated or shown in the application and plans approved, the Township may refuse to approve further work and revoke any or all permits and/or agreements until approval is obtained for a revised soil erosion and sedimentation control plan conforming to existing conditions.
- C. If, at any stage of the work, the Township shall determine by inspection that the nature of the work is such that further work as authorized by an existing permit is likely to endanger property or streets or create hazardous conditions, the Township may require as a condition to allowing the work to be done that such reasonable safety precautions be taken as the Township considers advisable to avoid such likelihood of danger.
- D. No person shall interfere with or obstruct the ingress or egress to or from any such site or premises by an authorized representative or agent of the Township of Tyrone engaged in the inspection of work for compliance with the approved plans.
- E. The stormwater management facilities constructed in accordance with a SWM Site Plan not submitted as a component of a subdivision and/or land development plan (including any time a structural BMP is proposed) shall be subject to the following process upon the completion of construction of said facilities.
 - 1. The property owner or developer shall contact the Tyrone Township Engineer 48 hours prior to the beginning SWM site work to schedule necessary inspections. The Final Inspection shall be conducted by a Tyrone Township designee.

2. Tyrone Township may inspect the completed improvements to confirm consistency with the approved SWM Site Plan. Following the inspection, Tyrone Township may take one of the following two actions.
 - a. Issue a Completion Certificate: The Township Engineer may issue a Completion Certificate when it is a pre requisite of receipt of a Use and Occupancy Permit provided the stormwater management facilities have been constructed in conformance with the approved SWM Site Plan.
 - b. Issue Correspondence Regarding Discrepancies: If it is determined that the stormwater management facilities have not been constructed in accordance with the approved SWM Site Plan, Tyrone Township shall issue correspondence addressed to the property owner or developer summarizing the discrepancies from the approved SWM Site Plan. Such correspondence does not by itself constitute an extension of any applicable SWM Permit.
3. Upon receipt of correspondence summarizing discrepancies in the constructed stormwater facilities, the property owner or developer shall, apply for permit extensions when necessary, and take one of the following two actions.
 - a. Reconstruct the required stormwater management facilities in a manner that complies with the approved SWM Site Plan. Upon completion of the reconstruction work, the property owner or developer shall contact the municipality for a subsequent Final Inspection in accordance with the process established in Section 407.A.1.
 - b. Submit a revised SWM Site Plan in accordance with the process established in Section 404.A. The revised SWM Site Plan shall be consistent with the improvements as constructed. Upon receipt, Tyrone Township may review the revised SWM Site Plan in accordance with the review and approval process of Section 403. If the revised SWM Site Plan is approved Tyrone Township shall issue the Completion Certificate. If the revised SWM Site Plan fails to demonstrate that the constructed stormwater management facilities can comply with the requirements of this Ordinance, Tyrone Township may then require the property owner or developer to reconstruct the required stormwater facilities in accordance with the originally approved SWM Site Plan. If the revised SWM Site Plan is approved, Tyrone Township shall then issue the Completion Certificate.
4. Where required by the Township, within fifteen (15) days of the Completion Certificate, the property owner or developer shall submit an As-Built Plan depicting the stormwater management facilities as constructed specific requirements of the as built plan shall be as outlined in the Township Subdivision and Land Development Ordinance. If requested by the applicant, the Township may grant an extension of the deadline to submit As-Built Plans.

- F. The stormwater management facilities constructed in accordance with a SWM Site Plan submitted as a component of a subdivision and/or land development plan shall be subject to the completion of improvements requirements of the Tyrone Township Subdivision and Land Development Ordinance and Sections 509 through 511 of the Pennsylvania Municipalities Planning Code.

ARTICLE V - OPERATION AND MAINTENANCE

Section 501. Determination of Ownership and Maintenance Responsibility

- A. Tyrone Township shall make the final determination on the continuing operation and maintenance responsibilities prior to final approval of the SWM Site Plan. Tyrone Township may require a dedication of such facilities as part of the requirements for approval of the SWM Site Plan. Tyrone Township shall not be obligated to accept the facilities if offered for dedication. Tyrone 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. If Tyrone Township accepts dedication of any or all stormwater management facilities associated with a project, Tyrone Township shall operate and maintain said facilities in accordance with the approved O&M Plan.
- C. If Tyrone Township does not accept dedication of some or all of the stormwater management facilities associated with a project, the property owner shall execute and record an O&M Agreement in accordance with Section 502 of this Ordinance. The Township will not approve the SWM Site Plan before the owner signs the O&M Agreement.

Section 502. Operation and Maintenance Agreements

- A. Prior to the signing of the SWM Site Plan after final approval of the SWM Site Plan, or for any projects which propose or are required to construct structural BMP's, the property owner shall sign, have notarized and record an O&M Agreement binding the property owner to conduct all maintenance activities identified in the approved O&M Plan for all stormwater control facilities which are to be privately owned.
1. The property owner, heirs, successors and assigns shall maintain all facilities in accordance with the approved maintenance schedule in the O&M Plan.
 2. The property owner shall provide to Tyrone Township easements to ensure access for periodic inspections and maintenance by Tyrone Township, as necessary.
 3. The property owner shall keep on file with Tyrone Township the name, address, and telephone number of the person or company responsible for maintenance activities. In the event of a change, new information shall be submitted by the property owner to Tyrone Township within ten (10) working days of the change.

4. The O&M Plan shall be notarized then recorded with the Adams County Recorder of Deeds. A recording receipt shall be provided to the Township.
- B. The owner is responsible for operation and maintenance of the SWM BMPs. If the owner fails to adhere to the O&M Agreement or the O&M Plan, Tyrone Township may perform the services required and charge the owner appropriate fees. Nonpayment of fees, costs and other expenses incurred in the performance of services required may result in a municipal lien against the property, in addition to reasonable attorney fees incurred by the Township in the imposition of the lien.

Section 503. Performance Guarantee

For SWM Site Plans submitted as a component of a subdivision and/or land development plan, the property owner or developer shall provide a financial guarantee to Tyrone 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 completion of improvements requirements of the Tyrone Township Subdivision and Land Development Ordinance and the provisions of Sections 509 through 511 of the Pennsylvania Municipalities Planning Code.

For Stormwater Management Site Plans that are not submitted as part of a Subdivision and Land Development Plan, the work and installation of BMP's must be completed and inspected by the Township prior to receipt of a Use and Occupancy Permit. In the instance where the work does not involve any improvements which will require a Use and Occupancy Permit, the Township may require financial security in accordance with the procedure outlined above in this section.

ARTICLE VI - FEES AND EXPENSES

Section 601. General

- A. Fees associated with the administration, enforcement, review of plans and inspection of improvements of this Ordinance shall be based upon a schedule established by the Township and adopted by resolution.
- B. The applicant shall be responsible for the payment of all fees, costs, and other expenses incurred in the submission, review, decision and inspections on SWM Site Plans and/ or other submissions pursuant to this ordinance.

Section 602. Expenses Covered by Fees

The fee(s) may include, but are not limited to, costs for the following:

- A. Administrative, clerical, and legal costs.

- B. Engineer and technical review of the SWM Site Plan and reports by Tyrone Township and representatives or counselors of the Township.
- C. Attendance at meetings by Tyrone Township and representatives and counselors of the Township, as may be necessary.
 - 1. Various Inspections (such as during construction and after construction) by Tyrone Township or its representatives.
 - 2. Review of As-built plans.
- F. Any additional work required to enforce any provision(s) regulated by this Ordinance, correct violations, and ensure proper completion of stipulated remedial actions.

ARTICLE VII - ENFORCEMENT AND PENALTIES

Section 701. Municipal Inspection

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

B. Inspections regarding compliance with the SWM Site Plan may be conducted by the Municipality at any time when there may be a question of compliance with the approved SWM Site Plan, the approved O&M Plan, or when any condition exists that may threaten public health, safety, or welfare.

C. If, at any time, the Township or its designee discovers any violation or condition not conforming with those designs and plans filed with the Township in regard to the operation of a stormwater management facility, it shall notify the responsible owners of the violation, informing them of the nature of such violation and the manner in which it can be corrected.

D. Under no circumstances shall any person be allowed to remove any previously approved stormwater management facility unless an approved alternate facility is approved by the Township.

E. Under no circumstances shall any person be allowed to modify, alter or change a previously approved stormwater management facility unless approved by the Township.

F. In the event that the landowner, developer or homeowners' association, as the case may be, shall refuse or neglect to comply with the provisions of this section as interpreted by the Township, the Township may direct the work to correct any violation or noncompliance with the terms of this chapter and all other ordinances and

codes of the Township of Tyrone and institute action for payment of cost incurred.

Section 702. Owner Inspection

- A. SWM BMPs shall be inspected by the landowner, or landowner's designee (which shall include Tyrone Township where such facilities have been dedicated to Tyrone Township), or the owner's designee, according to the following list of minimum frequencies:
 - 1. Annually for the first five (5) years.
 - 2. Once every three (3) years thereafter.
 - 3. During or immediately after the cessation of a ten (10)-year or greater storm, i.e., a storm of an estimated frequency of recurrence of ten (10) years or greater (a rainfall total of 4.5 inches in a 24 hour period) interval of time.
 - 4. At any other interval as may be specified in the approved O&M Agreement as may be required by the Township.
 - 5. Owners shall maintain reasonable records of inspections including where maintenance is required. Those records should be available for review upon request of the Township.

Section 703. Suspension or Revocation of SWM Site Plan Approval

- A. Any SWM Site Plan approval issued by Tyrone Township pursuant to this Ordinance may be suspended or revoked for any of the following reasons.
 - 1. Non-compliance with or failure to implement any provision of the approved SWM Site Plan or O&M Plan.
 - 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 conduct of any Regulated Activity which constitutes or creates a hazard, nuisance, pollution, or endangers life or property.
- B. A suspended SWM Site Plan approval may be reinstated by Tyrone Township when the following conditions are met.
 - 1. Tyrone Township officials or their designee(s) have inspected and approved the corrections to the violations that caused the suspension.
 - 2. Tyrone Township is satisfied that the violation has been corrected.

- C. An SWM Site Plan approval that has been revoked by Tyrone Township shall not be reinstated. The applicant may apply for a new SWM Site Plan approval under the provisions of this Ordinance.
- D. If a violation causes no immediate danger to life, public health, or property, Tyrone Township may, at its sole discretion, provide a limited time period for the owner to correct the violation. In these cases, Tyrone 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, the municipality may revoke or suspend any, or all, applicable approvals and permits pertaining to any provision of this Ordinance.

Section 704. Enforcement

Tyrone Township may institute injunctive, mandamus, or any other appropriate action or proceeding at law or in equity for the enforcement of this Ordinance when Tyrone Township determines that a property owner or developer has initiated a Regulated Activity without receiving SWM Site Plan approval, that a property owner or developer has failed to comply with an approved SWM Site Plan or approved O&M Plan, or that a property owner or developer has violated any other provision 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 705. Penalties

- A. Anyone violating the provisions of this Ordinance shall be guilty of a summary offense, and upon conviction, shall be subject to a fine of not more than \$1000.00 for each violation, recoverable with costs. Each day that the violation continues shall be a separate offense and penalties shall be cumulative.
- B. In addition, the municipality may institute 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 706. Appeals

- A. Any person aggrieved by any action of Tyrone Township or its designee, relevant to the enforcement of the provisions of this Ordinance, may appeal said action to the Township within thirty (30) days of that action.
- B. Any person aggrieved by any decision of the Township regarding the appeal of any action of Tyrone Township or its designee, may appeal the decision to the Adams County Court of Common Pleas within thirty (30) days of the decision of the Township.

ARTICLE VIII: ENACTMENT

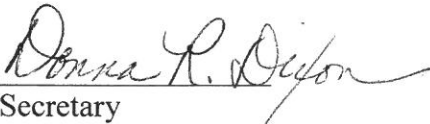
The Tyrone Township Stormwater Management Ordinance

ENACTED and ORDAINED at a regular meeting of the Tyrone Township Board of Supervisors

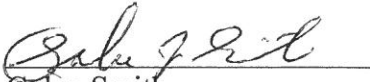
On this 26th day of July, 2012.

This Ordinance shall take effect immediately.

ATTEST:


Secretary

Tyrone Township
Board of Supervisors:


Galen Smith
Chairman

APPENDIX A

OPERATIONS AND MAINTENANCE (O&M) AGREEMENT STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES (SWM BMPs)

THIS AGREEMENT, made and entered into this ___ day of _____, 20_____, by and between _____, (hereinafter the “Landowner”), and Tyrone Township, Adams County, Pennsylvania, (hereinafter “Municipality”);

WITNESSETH

WHEREAS, the Landowner is the legal or equitable owner of certain real property as recorded by deed in the land records of Adams County, Pennsylvania, Deed Book at page __, (hereinafter “Property”).

WHEREAS, the Landowner is proceeding to build and develop the Property; and

WHEREAS, the SWM BMP Operation and Maintenance (O&M) Plan approved by the Municipality (hereinafter referred to as the “O&M Plan”) for the property identified herein, which is attached hereto as Appendix A and made part hereof, as approved by the Municipality, provides for management of stormwater within the confines of the Property through the use of BMPs; and

WHEREAS, the Municipality, and the Landowner, his successors and assigns, agree that the health, safety, and welfare of the residents of the Municipality and the protection and maintenance of water quality require that on-site SWM BMPs be constructed and maintained on the Property; and

WHEREAS, the Municipality requires, through the implementation of the SWM Site Plan, that SWM BMPs as required by said SWM Site Plan and the Municipal Stormwater Management Ordinance be constructed and adequately operated and maintained by the Landowner, successors, and assigns.

NOW, THEREFORE, in consideration of the foregoing promises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. The Landowner shall construct, or cause the construction of, the BMPs in accordance with the plans and specifications identified in the SWM Site Plan.
2. The Landowner shall operate and maintain the BMPs as shown on the SWM Plan in good working order in accordance with the specific operation and maintenance requirements noted on the approved O&M Plan.
3. The Landowner shall inspect the system at intervals outlined on the approved plans or as described in Article VII Section 702 of the Stormwater Management Ordinance.
4. The Landowner hereby grants permission to the Municipality, its authorized agents and employees, to enter upon the property, at reasonable times and upon presentation of proper credentials, to inspect the BMPs whenever the Municipality deems it appropriate. Whenever possible, the Municipality shall notify the Landowner prior to entering the property.
5. The Township may inspect the BMPs at reasonable intervals or following major storm events to ensure their continued functioning.
6. In the event the Landowner fails to operate and maintain the BMPs as provided in the O&M Plan, the Municipality or its representatives may enter upon the Property and take whatever action is deemed necessary to maintain said BMP(s). It is expressly understood and agreed that the Municipality is under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the Municipality.
7. In the event the Municipality, pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Landowner shall reimburse the Municipality for all expenses (direct and indirect) incurred within ten (10) days of receipt of invoice from the Municipality.
8. The intent and purpose of this Agreement is to ensure the proper maintenance of the onsite BMPs by the Landowner; provided, however, that this Agreement shall not be deemed to create or affect any additional liability of any party for damage alleged to result from or be caused by stormwater runoff.
9. The Landowner, its executors, administrators, assigns, and other successors in interests, shall release the Municipality from all damages, accidents, casualties, occurrences, or claims which might arise or be asserted against said employees and representatives from the construction, presence, existence, or maintenance of the BMP(s) by the Landowner or Municipality.

This Agreement shall be recorded at the Office of the Recorder of Deeds of Adams

County, Pennsylvania, and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Landowner, his administrators, executors, assigns, heirs, and any other successors in interests, in perpetuity.

ATTEST:

WITNESS the following signatures and seals:

(SEAL) For the Municipality:

For the Landowner:

ATTEST:

_____(City, Borough, Township)
County of Adams, Pennsylvania
I, _____, a Notary Public in and for the county and state
aforesaid, whose commission expires on the _____ day of _____, 20____, do hereby certify
that

whose name(s) is/are signed to the foregoing Agreement bearing date of the _____ day of
_____, 20____ has acknowledged the same before me in my
said county and state.

GIVEN UNDER MY HAND THIS _____ day of _____, 20____.

NOTARY PUBLIC

(SEAL)