

STORMWATER MANAGEMENT ORDINANCE

Ordinance No. 2022-174

**Hamilton Township, Franklin County
1270 Crottestown Road
Chambersburg, Pennsylvania 17202**

Adopted OCTOBER 19, 2022

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ARTICLE I – GENERAL PROVISIONS

Section 101. Short Title

This Ordinance shall be known and may be cited as the “Hamilton Township, Franklin County, Pennsylvania Stormwater Management Ordinance.”

Section 102. Statement of Findings

The governing body of the municipality finds that:

- A. Inadequate management of accelerated runoff of stormwater resulting from development throughout a watershed increases runoff volumes, flows and velocities, contributes to erosion and sedimentation, overtaxes the carrying capacity of streams and storm sewers, greatly increases the cost of public facilities to carry and control stormwater, undermines flood plain management and flood control efforts in downstream communities, reduces groundwater recharge, threatens public health and safety, and increases nonpoint source pollution of water resources.
- B. A comprehensive program of stormwater management (SWM), including reasonable regulation of development and activities causing accelerated runoff, is fundamental to the public health, safety, and welfare and the protection of people of the Commonwealth, their resources, and the environment.
- C. Stormwater is an important water resource that provides groundwater recharge for water supplies and supports the base flow of streams.
- D. The use of green infrastructure and low impact development (LID) are intended to address the root cause of water quality impairment by using systems and practices which use or mimic natural processes to: 1) infiltrate and recharge, 2) evapotranspire, and/or 3) harvest and use precipitation near where it falls to earth. Green infrastructure practices and LID contribute to the restoration or maintenance of pre-development hydrology.
- E. Federal and state regulations require certain municipalities to implement a program of stormwater controls. These municipalities are required to obtain a permit for stormwater discharges from their separate storm sewer systems under the National pollutant Discharge Elimination System (NPDES) program.

Section 103. Purpose

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

- A. Meet legal water quality requirements under state law, including regulations at 25 Pa. Code 93 to protect, maintain, reclaim, and restore the existing and designated uses of the waters of this Commonwealth.
- B. Preserve natural drainage systems.
- C. Manage stormwater runoff close to the source, reduce runoff volumes and mimic predevelopment hydrology.
- 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 streambeds.
- G. Provide proper operation and maintenance of all stormwater best management practices (BMPs) 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 effect runoff by the authority of the Act of July 31, 1968, P.L. 805, No. 247, The Pennsylvania Municipalities Planning Code, as amended, and/or the Act of October 4, 1978, P.L. 864 (Act 167), 32 P.S. Section 680.1, et seq., as amended, The Stormwater Management Act.

Section 105. Applicability

All regulated activities and all activities that may affect stormwater runoff, including land development and earth disturbance activity, are subject to regulation by this Ordinance. The following activities are defined as "Regulated Activities" and shall be regulated by this Ordinance:

- A. Land development.
- B. Subdivision.

- C. Construction of new or additional impervious or semi-pervious surfaces (driveways, parking lots, etc.).
- D. Construction of new buildings or additions to existing buildings.
- E. Diversion or piping of any natural or man-made stream channel.
- F. Installation of stormwater management facilities or appurtenances thereto.

Section 106. Repealer

Any other ordinance provision(s) or regulation of the municipality inconsistent with any of the provisions of this Ordinance is hereby repealed to the extent of the inconsistency only.

Section 107. Severability

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

Section 108. Compatibility with Other Requirements

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

Section 109. 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 the Municipality purporting to validate such a violation.

Section 110. Waivers

- A. If the Municipality determines that any requirement under this Ordinance cannot be achieved for a particular regulated activity, the Municipality may, after an evaluation of alternatives, approve measures other than those in this Ordinance, subject to Section 110, paragraphs B and C.
- B. Waivers or modifications of the requirements of this Ordinance may be approved by the Municipality if enforcement will exact undue hardship because of peculiar conditions pertaining to the land in question, provided that the modifications will not be contrary to the public interest and that the purpose of the Ordinance is preserved. Cost or financial burden shall not be considered a hardship. Modification may be considered if an alternative standard or approach will provide equal or better achievement of the purpose of the Ordinance. A request for modifications shall be in writing and accompany the Stormwater Management Site Plan submission. The request shall provide the facts on which the request is based, the provision(s) of the Ordinance involved and the proposed modification.
- C. No waiver or modification of any regulated stormwater activity involving earth disturbance greater than or equal to one acre may be granted by the Municipality unless that action is approved in advance by the Department of Environmental Protection (DEP) or the delegated County Conservation District.

ARTICLE II – DEFINITIONS

For the purpose of this Ordinance, certain terms and words used herein shall be interpreted as follows:

- A. Words used in the present tense include the future tense; the singular number includes the plural, and the plural number includes the singular; words of masculine gender include feminine gender; and words of feminine gender include masculine gender.
- B. The word “includes” or “including” shall not limit the term to the specific example but is intended to extend its meaning to all other instances of like kind and character.
- C. The words “shall” and “must” are mandatory; the words “may” and “should” are permissive.
- D. The word “person” includes an individual, firm, association, organization, partnership, trust, company, corporation, or any other similar entity.
- E. The words “used or occupied” include the words “intended, designed, maintained, or arranged to be used, occupied or maintained”.

These definitions do not necessarily reflect the definitions contained in pertinent regulations or statutes, and are intended for this Ordinance only.

Accelerated Erosion – The removal of the surface of land through the combined action of man’s activity and the natural processes at a rate greater than would occur because of the natural process alone.

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 livestock and installation of conservation measures. Construction of new buildings or impervious area is not considered an agricultural activity.

Alteration – As applied to land, a change in topography as a result of the moving of soil and rock from one location or position to another; also the changing of surface conditions by causing the surface to be more or less impervious; land disturbance.

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.

As-Built Drawing – A set of blueprints which show design or construction changes which were approved by the Township in a non-erasable red ink.

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 purpose of this Ordinance. Stormwater BMPs are commonly grouped into one of two broad categories or measures: “structural” or “non-structural”. In this Ordinance, non-structural BMPs or measures refer to operational and/or behavior-related practices that attempt to minimize the contact of pollutants with stormwater runoff, whereas structural BMPs or measures are those that consist of a physical device or practice that is installed to capture and treat stormwater runoff. Structural BMPs include, but are not limited to, a wide variety of practices and devices, from large-scale retention ponds and constructed wetlands, to small-scale underground treatment systems, infiltration facilities, filter strips, low impact design, bioretention, wet ponds, permeable paving, grassed swales, riparian or forested buffers, sand filters, detention basins, and manufactured devices. Structural stormwater BMPs are permanent appurtenances to the project site.

Channel Erosion – The widening, deepening, and headward cutting of small channels and waterways due to erosion caused by moderate to large floods.

Cistern – An underground reservoir or tank for storing rainwater.

Conservation District – A conservation district, as defined in Section 3© of the Conservation District Law (3 P. S. § 851c) 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. In this Ordinance, Conservation District shall refer to the Franklin County Conservation District.

County – Franklin County, Pennsylvania

Culvert – A structure with appurtenant works which carries a stream under or through an embankment or fill.

Dam – An artificial barrier, together with its appurtenant works, constructed for the purpose of impounding or storing water or another fluid or semifluid, or a refuse bank, fill or structure for highway, railroad or other purposes which does or may impound water or another fluid or semifluid.

DEP – The Pennsylvania Department of Environmental Protection.

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

Designee – The agent of the Hamilton Township Board of Supervisors involved with the administration, review or enforcement of any provisions of this Ordinance by contract or memorandum of understanding.

Detention Basin – An impoundment structure designed to manage stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate. A vegetated basin, swale, or other structure designed to drain completely after storing runoff only for a given storm event and release it at a predetermined rate. Also known as a dry pond.

Detention District – Those subareas in which some type of detention is required to meet the plan requirements and the goals of Act 167.

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

Developer – A person, partnership, association, corporation, or other entity, or any responsible person therein or agent thereof, that undertakes any Regulated Activity of this Ordinance.

Development Site (Site) – See Project Site.

Diffused Drainage Discharge – Drainage discharge not confined to a single point location or channel, such as sheet flow or shall concentrated flow.

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

Downslope Property Line – That portion of the property line of the lot, tract, or parcels of land being developed located such that all overland or pipe flow from the site would be directed towards it.

Drainage Conveyance Facility – A Stormwater Management Facility designed to transmit stormwater runoff and shall include streams, channels, swales, pipes, conduits, culverts, storm sewers, etc.

Drainage Easement – A right granted by a landowner to a grantee, allowing the use of private land for stormwater management purposes.

Drainage Permit – A permit issued by the Hamilton Township Board of Supervisors after the Drainage Plan has been approved. Said permit is issued prior to or with the final approval.

Drainage Plan – The documentation of the stormwater management system, if any, to be used for a given development site, the contents of which are established in § 404 of this Ordinance.

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

Easement – A right-of-way granted for limited use of land for public or quasi-public purpose.

Energy Dissipater – A device used to slow the velocity of stormwater, particularly at point of concentrated discharge such as pipe outlets.

Engineer, Registered Professional – An individual licensed and registered as a Professional Engineer by the Commonwealth of Pennsylvania.

Engineer, Township – The Township Engineer or any consultant designated by the Board of Supervisors to review a subdivision plan, drainage plan, and to perform the duties of the Township Engineer on behalf of the Township.

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

Erosion and Sediment Pollution Control Plan – A plan that is designed to minimize accelerated erosion and sedimentation.

Exceptional Value Waters – Surface waters of high quality which satisfy Pennsylvania Code Title 25 Environmental Protection, Chapter 93 Water Quality Standards, § 93.4b(b) (relating to degradation).

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

FEMA – Federal Emergency Management Agency.

Finished Floor – Any part of a dwelling except a totally below ground basement. Builds which have exposed basements shall include the basement as a finished floor.

Flood – A general but temporary condition of partial or complete inundation of normally dry land areas from the overflow of streams, rivers, and other waters of the Commonwealth.

Flood Study – A computer model or manual calculation of the hydraulic surface elevation (floodplain) of a flood.

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. Also includes areas that comprise Group 13 Soils, as listed in Appendix A of the Pennsylvania DEP Technical Manual for Sewage Enforcement Officers (as amended or replaced from time to time by DEP).

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

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

Freeboard – A vertical distance between the elevation of the design high-water and the top of a dam, levee, tank, basin, or diversion ridge. The space is required as a safety margin in a pond or basin. Also, the difference between the design flow elevation in the emergency spillway of a basin and the top of the basin embankment after settlement occurs; and the difference between the design flow elevation of a swale and the top of the swale embankment.

Governing Body – Hamilton Township Board of Supervisors.

Grade – A slope, usually of a road, channel or natural ground, specified in percent and shown on plans as specified herein. (To) Grade – to finish the surface of a roadbed, top of embankment or bottom of excavation.

Grassed Waterway – A natural or constructed waterway, usually broad and shallow, covered with erosion-resistant grasses, used to conduct surface water from cropland.

Green Infrastructure – Systems and practices that use or mimic natural processes to infiltrate, evapotranspire, or reuse stormwater on the site where it is generated.

Groundwater Recharge – Replenishment of existing natural underground water supplies.

High Quality Waters – Surface waters having quality which exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water by satisfying Pennsylvania Code Title 25 Environmental Protection, Chapter 93 Water Quality Standards, § 93.4b(a).

Holding Pond – A retention or detention basin.

Hydrologic Soil Group (HSG) – Infiltration rates of soils vary widely and are affected by subsurface permeability as well as surface intake rates. Soils are classified into four HSGs (A, B, C, and D) according to their minimum infiltration rate, which is obtained for bare soil after prolonged wetting. The NRCS defines the four groups and provides a list of most of the soils in the United States and their group classification. The soils in the area of the development site may be identified from a soil survey report that can be obtained from local NRCS offices or conservation district offices. Soils become less pervious as the HSG varies from A to D (NRCS^{1,2}).

Impervious Surface (Impervious Area) – A surface that prevents the infiltration of water into the ground. Impervious surfaces (or areas) shall include, but not be limited to: roofs; additional indoor living spaces, patios, garages, storage sheds and similar structures; and any new streets or sidewalks. Decks, parking areas, and driveway areas are not counted as impervious if they do not prevent infiltration.

Impoundment – A retention or detention basin designed to retain stormwater runoff and release it at a controlled rate.

Improvements – Physical additions and changes to the land, necessary to produce useable and desirable lots.

Infiltration Structures – A structure designed to direct runoff into the ground (e.g., French drains, seepage pits, seepage trench).

Inlet – A surface connection to a closed drain. A structure at the diversion end of a conduit. The upstream end of any structure through which water may flow.

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 (Development) – Inclusive of any or all of the following meanings: (i) the improvement of one lot or two or more contiguous lots, tracts, or parcels of land for any purpose involving (a) a group of two or more buildings or (b) the division or allocation of land or space between or among two or more existing or prospective occupants by means of, or for the purpose of, streets, common areas, leaseholds, condominiums, building groups, or other features; (ii) any subdivision of

land; (iii) development in accordance with Section 503(1.1) of the Pennsylvania Municipalities Planning Code.

Land Earth Disturbance – Any activity involving grading, tilling, digging, or filling of ground or stripping of vegetation or any other activity that causes an alteration to the natural condition of the land.

Land Disturbance Activity – The use of land defined as an Earth Disturbance Activity as follows:

Minor Land Disturbance – The use of land involving:

1. Installation of new impervious that is more than 1,000 square feet, but less than 5,000 square feet.
2. Land Disturbance greater than 10,000 square feet but less than one (1) acre.

Major Land Disturbance – The use of land involving:

1. Installation of new impervious that is 5,000 square feet or greater.
2. Land disturbance greater than one (1) acre.
3. Encroachment into Waters of the Commonwealth.

Landowner – The legal or beneficial owner of land, including the holder of an option or contract to purchase (whether or not such option or contract is subject to any conditions), a lessee if he is authorized under the lease to exercise the rights of the landowner, or other person having a proprietary interest in the land.

Landscape Architect, Registered – An individual licensed and registered as a landscape architect by the Commonwealth of Pennsylvania.

Land Surveyor, Registered Professional – An individual licensed and registered as a professional land surveyor by the Commonwealth of Pennsylvania.

Low Impact Development (LID) – Site design approaches and small-scale stormwater management practices that promote the use of natural systems for infiltration, evapotranspiration, and reuse of rainwater. LID can be applied to new development, urban retrofits, and revitalization projects. LID utilizes design techniques that infiltrate, filter, evaporate, and store runoff close to its source. Rather than rely on costly large-scale conveyance and treatment systems, LID addresses stormwater through a variety of small, cost-effective landscape features located on-site.

Main Stem (Main Channel) – Any stream segment or other runoff conveyance facility used as a reach in the Conococheague Creek hydrologic model.

Manning Equation (in Manning formula) – A method for calculation of velocity of flow (e.g., feet per second) and flow rate (e.g., cubic feet per second) in open channels based upon channel shape, roughness, depth of flow and slope. “Open channels” may include closed conduits so long as the flow is not under pressure.

Municipality – Hamilton Township, Franklin County, Pennsylvania.

Nonpoint Source Pollution – Pollution that enters a watery body from diffuse origins in the watershed and does not result from discernible, confined, or discrete conveyances.

NRCS – USDA Natural Resources Conservation Service (formerly SCS).

Open Channel – A drainage element in which stormwater flows with an open surface. Open channels include, but shall not be limited to, natural and man-made drainageways, swales, streams, ditches, canals, and pipes flowing partly full.

Ordinance – This Ordinance shall be cited as the “Hamilton Township Stormwater Management Ordinance”.

Outfall – Point where water flows from a conduit, stream, or drain.

Outlet – Points of water disposal from a stream, river, lake, tidewater or artificial drain.

PADOT (PennDOT) – Pennsylvania Department of Transportation.

Parking Lot Storage – Involves the use of impervious parking areas as temporary impoundments with controlled release rates during rainstorms.

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

Penn State Runoff Model (calibrated) – The computer-based hydrologic modeling technique adapted to the Conococheague Creek watershed for the Act 167 Plan. The model has been “calibrated” to reflect actual recorded flow values by adjoining key model input parameters.

Pervious Area – Any area not defined as impervious.

Pipe – A culvert, closed conduit, or similar structure (including appurtenances) that conveys stormwater.

Phreatic Line – The slope line of the hydraulic path of water through saturated soil.

Project Site – The specific area of land where any regulated activities in the municipality are planned, conducted, or maintained.

Proposed Site – Site conditions as they are designed to exist after development.

Planning Commission – Hamilton Township Planning Commission

PMF – Probably Maximum Flood. The flood that may be expected from the most severe combination of critical meteorologic and hydrologic conditions that are reasonably possible in any area. The PMF is derived from the probable maximum precipitation (PMP) as determined based on data obtained from the National Oceanographic and Atmospheric Administration (NOAA).

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

Rational Formula – A rainfall-runoff relation used to estimate peak flow.

Receiving Stream – A defined channel that carries water in a non-intermittent flow.

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

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

Release Rate – The percentage of pre-development peak rate of runoff from a site or subarea to which the post development peak rate of runoff must be reduced to protect downstream areas.

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

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

Riparian Buffer – A permanent area of trees and shrubs located adjacent to streams, lakes, ponds and wetlands.

Riser – A vertical pipe extending from the bottom of a pond that is used to control the discharge rate from the pond for a specified design storm.

Rooftop Detention – Temporary ponding and gradual release of stormwater falling directly onto flat roof surfaces by incorporating controlled-flow roof drains into building designs.

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

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

Sediment Basin – A barrier, dam, retention or detention basin located and designed to retain rock, sand, gravel, silt, or other material transported by water.

Seepage Pit/Seepage Trench – An area of excavated earth filled with loose stone or similar coarse material, into which surface water is directed for infiltration into the ground.

Sheet Flow – Runoff that flows over the ground surface as a thin, even layer, not concentrated in a channel.

Site Improvements – Physical additions or changes to the land that may be necessary to provide usable and desirable lots, including but not limited to, utilities, streets, curbing, sidewalks, street lights and stormwater facilities.

Soil-Cover Complex Method – A method of runoff computation developed by the NRCS that is based on relating soil type and land use/cover to a runoff parameter called Curve Number (CN).

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

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

Storm Frequency – The number of times that a given storm event occurs or is exceeded on the average in a stated period of years. See Return Period.

Storm Sewer – A system of pipes and/or open channels that convey intercepted runoff and stormwater from other sources, but excludes domestic sewage and industrial waste.

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

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

Stormwater Management Plan – The plan for managing stormwater runoff in the Conococheague Creek Watershed adopted by Franklin County as required by the Act of October 4, 1978, P.L. 864, (Act 167), and known as the “Conococheague Creek Watershed Action Act 167 Stormwater Management Plan”.

Stormwater Management Site Plan – The plan prepared by the developer or his representative indicating how stormwater runoff will be managed at the development site in accordance with this Ordinance. **Stormwater Management Site Plan** will be designated as **SWM Site Plan** throughout this Ordinance.

Stream Enclosure – A bridge, culvert or other structure in excess of 100 feet in length upstream to downstream which encloses a regulated water of this Commonwealth.

Subarea – The smallest drainage unit of a watershed for which stormwater management criteria have been established in the Stormwater Management Plan.

Subdivision – As defined in The Pennsylvania Municipalities Planning Code, Act of July 31, 1968, P.L. 805, No. 247.

Supervisors – The governing body of Hamilton Township, Franklin County, Pennsylvania.

Swale – A low lying stretch of land which gathers or carries surface water runoff.

Timber Operations – See Forest Management

Time-of-Concentration (T_c) – The time for surface runoff to travel from the hydraulically most distant point of the watershed to a point of interest within the watershed. This time is the combined total of overland flow time and flow time in pipes or channels, if any.

Township – Hamilton Township, Franklin County, Pennsylvania.

USDA – United States Department of Agriculture.

Watercourse – A stream of water; river, brook; creek; or a channel or ditch for water, whether natural or man-made.

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

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

Wetland – Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas.

ARTICLE III – STORMWATER MANAGEMENT STANDARDS

Section 301. General 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 meeting the following:

Minor Land Disturbance

An application for a Stormwater Management Permit for a Minor Land Disturbance, as defined in this Ordinance, shall include:

- a. One (1) completed copy of the application for a Stormwater Management Permit (see Appendix C).
- b. Two (2) paper copies and one (1) electronic PDF of the Stormwater Management Plan (see Section 401 for Plan Contents).
- c. Filing fee in the amounts specified in the fee schedule as established by resolution or ordinance of the Board of Supervisors.

In the event the review of the Minor Land Disturbance Permit Application reveals the potential for impacts to downstream properties, the Township may require the Applicant to submit additional information to demonstrate compliance with the requirements of this Ordinance. Such information may include portions or all of the requirements for a major land disturbance.

Major Land Disturbance

An Application for a Stormwater Management Permit for a Major Land Disturbance, as defined in this Ordinance, shall include:

- a. One (1) completed copy of the application for a Stormwater Management Permit (see Appendix D).
 - b. Two (2) paper copies and one (1) electronic PDF of the Stormwater Management Plan and Report (see Section 401 for Plan Contents).
 - c. Filing fee in the amount specified in the fee schedule as established by resolution or ordinance of the Board of Supervisors.
 - d. Performance Bond, when applicable (see Section 503).
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. SWM Site Plans approved by the municipality, in accordance with Section 406, shall be on site throughout the duration of the regulated activity.

- C. The municipality 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 to not conflict with, state law including, but not limited to, the Clean Streams Law.
- D. For all regulated earth disturbance activities, erosion and sediment control BMPs shall be designed, implemented, operated, and maintained during the regulated earth disturbance activities (e.g., during construction) to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code and the Clean Streams Law. Various BMPs and their design standards are listed in the *Erosion and Sediment Pollution Control Program Manual* (E&S Manual³), No. 363-2134-008, as amended and updated.
- E. Impervious areas:
1. The measurement of impervious areas shall include all of the impervious areas in the total proposed development even if development is to take place in stages.
 2. For development taking place in stages, the entire development 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 303 and the peak rate controls of Section 304 do not need to be retrofitted to existing impervious areas that are not being altered by the proposed regulated activity.
- F. Stormwater flows onto adjacent property shall not be created, increased, decreased, relocated, or otherwise altered without written notification to the adjacent property owner(s). Such stormwater flows shall be subject to the requirements of this Ordinance.
- G. All regulated activities shall include such measures as necessary to:
1. Protect health, safety and property.
 2. Meet the water quality goals of this Ordinance by implementing measures to:
 - a. Minimize disturbance to floodplains, wetlands, and wooded areas.
 - 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, wherever possible.
 3. Incorporate methods described in the *Pennsylvania Stormwater Best Management Practices Manual* ("BMP Manual"). If methods other than green infrastructure and LID methods are proposed to achieve the volume and rate controls required under this Ordinance, the SWM Site Plan must include a detailed justification demonstrating that the use of LID and green infrastructure is not practicable.

- H. The design of all facilities over karst shall include an evaluation of measures to minimize adverse effects.
- I. Infiltration BMPs should be spread out, made as shallow as practicable, and located to minimize use of natural on-site infiltration features while still meeting the other requirements of this Ordinance.
- J. Normally dry, open top, storage facilities should completely drain both the volume control and rate control capacities over a period of time not less than 24 and not more than 72 hours from the end of the design storm.
- K. The design storm volumes to be used in the analysis of peak rates of discharge should be obtained from the latest version of the Precipitation-Frequency Atlas of the United States, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Spring, Maryland.

NOAA's Atlas 14⁵ can be accessed at: <http://hdsc.nws.noaa.gov/hdsc/pfds/>.
- L. For all regulated activities, SWM BMPs shall be designed, implemented, operated, and maintained to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code, the Clean Streams Law, and the Stormwater Management Act.
- M. Various BMPs and their design standards are listed in the BMP Manual⁴.

Section 302. Exemptions

- A. All of the following criteria must be met to be exempt from the requirements in Section 303, Section 304, and Article IV of this Ordinance.

Parcel Size (Acre)	Land Disturbance Area	New Impervious
0.25 – 0.5	<10,000 S.F.	<1,500 sq. ft.
0.5 – 1.0 acre	<10,000 S.F.	<2,000 sq. ft.
1.0 acre or greater	<43,560 S.F.	<2,500 sq. ft.*

*The proposed discharge from the downspouts from the building is setback 40 ft. from the property line and/or public right-of-way.

- B. Agricultural activity is exempt from the SWM Site Plan preparation requirements of this Ordinance provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102.
- C. Forest management and timber operations are exempt from the SWM Site Plan preparation requirements of this Ordinance provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102.
- D. Exemptions from any provisions of this Ordinance shall not relieve the applicant from the requirements in Sections 301.D through K.

- E. The Municipality may deny or revoke any exemption pursuant to this Section at any time for any project that the Municipality believes may pose a threat to public health and safety or the environment.

Section 303. Volume Controls

The green infrastructure and low impact development practices provided in the BMP Manual⁴ shall be utilized for all regulated activities wherever possible. Water volume controls shall be implemented using the *Design Storm Method* in Subsection A or the *Simplified Method* in Subsection B below. For regulated activity areas equal or less than one acre that do not require hydrologic routing to design the stormwater facilities, this Ordinance establishes no preference for either methodology; therefore, the applicant may select either methodology on the basis of economic considerations, the intrinsic limitations on applicability of the analytical procedures associated with each methodology and other factors.

- A. The *Design Storm Method* (CG-1 in the BMP Manual⁴) is applicable to any size of regulated activity. This method requires detailed modeling based on site conditions.
 - 1. Do not increase the post-development total runoff volume for all storms equal to or less than the 2-year 24-hour duration precipitation.
 - 2. For modeling purposes:
 - a. Existing (predevelopment) non-forested pervious areas must be considered meadow in good condition.
 - b. Twenty percent (20%) of existing impervious area, when present, shall be considered meadow in good condition in the model for existing conditions.
- B. The *Simplified Method* (CG-2 in the BMP Manual⁴) provided below is independent of site conditions and should be used if the *Design Storm Method* is not followed. This method is not applicable to regulated activities greater than one acre or for projects that require design of stormwater storage facilities. For new impervious surfaces:
 - 1. Stormwater facilities shall capture at least the first two (2) inches of runoff from all new impervious surfaces.
 - 2. At least the first one inch of runoff from new impervious surfaces shall be permanently removed from the runoff flow, i.e., it shall not be released into the surface waters of this Commonwealth. Removal options include reuse, evaporation, transpiration, and infiltration.
 - 3. Whenever possible, infiltration facilities should be designed to accommodate infiltration of the entire permanently removed runoff; however, in all cases at least the first 0.5 inch of the permanently removed runoff should be infiltrated.
 - 4. This method is exempt from the requirements of Section 304, Rate Controls.

Section 304. Rate Controls

- A. For areas not covered by a release rate map from an approved Act 167 Stormwater Management Plan:

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 storm events. 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 areas covered by a release rate map from an approved Act 167 Stormwater management Plan:

For the 1-, 2-, 5-, 10-, 25-, 50-, and 100-year, 24-hour storm events, the post-development peak discharge rates will follow the applicable approved release rate maps. For any areas not shown on the release rate maps, the post-development discharge rates shall not exceed the pre-development discharge rates.

- C. Stormwater Management Districts

1. In addition to the requirements specified below, the ground water recharge (Section 308) requirements shall be implemented.
2. Standards for managing runoff in the Municipality are shown below. Development sites located in the Municipality must control post-development runoff rates to pre-development runoff rates for the design storms as follows:

<u>District</u>	<u>Design Storm</u>	
	<u>Post-Development</u>	<u>Pre-Development</u>
A	2-year	1-year
	5-year	5-year
	10-year	10-year
	25-year	25-year
	100-year	100-year
B	2-year	1-year
	5-year	2-year
	10-year	5-year
	25-year	10-year
	100-year	100-year

Section 305. Stormwater Management District Implementation Provisions (Performance Standards)

- A. General – Post-development rates of runoff from any regulated activity shall meet the peak release rates of runoff prior to development for the design storms specified in Section 304.C of this Ordinance.
- B. District Boundaries – The boundaries of the Stormwater Management Districts are shown on an official map that is available for inspection at the Municipal Office. A copy of the official map at a reduced scale is included in this Ordinance as Appendix C. The exact location of the Stormwater Management District boundaries as they apply to a given development site shall be determined by mapping the boundaries using the two-foot topographic contours (or most accurate data required) provided as part of the Drainage Plan.
- C. Sites Located in More Than One District – For a proposed development site located within two or more stormwater management district category subareas, the peak discharge rate from any subarea shall be the pre-development peak discharge for that subarea as indicated in Section 304.C. The calculated peak discharges shall apply regardless of whether the grading plan changes for the drainage area by subarea. An exception to the above may be granted if discharges from multiple subareas recombine in proximity to the site. In this case, peak discharge in any direction may be a 100% release rate provided that the overall site discharge meets the weighted average release rate.
- D. Off-Site Areas – Off-site areas that drain through a proposed development site are not subject to release rate criteria when determining allowable peak runoff rates. However, on-site drainage facilities shall be designed to safely convey off-site flows through the development site.
- E. Site Areas – Where the site area to be impacted by a proposed development activity differs significantly from the total site area, only the proposed impact area utilizing stormwater management measures shall be subject to the Management District criteria. In other words, unimpacted areas bypassing the stormwater management facilities would not be subject to the Management District criteria.
- F. “Downstream Hydraulic Capacity Analysis” – Any downstream capacity hydraulic analysis conducted in accordance with this Ordinance shall use the following criteria for determining adequacy for accepting increased peak flow rates:
 - 1. Natural or man-made channels or swales must be able to convey the increased runoff associated with a 2-year return period event within their banks at velocities consistent with protection of the channels from erosion. Acceptable velocities shall be based upon criteria included in the DEP Erosion and Sediment Pollution Control Program Manual.
 - 2. Natural or man-made channels or swales must be able to convey increased 25-year return period runoff without creating any hazard to persons or property.

3. Culverts, bridges, storm sewers or any other facilities which must pass or convey flows from the tributary area must be designed in accordance with DEP Chapter 105 regulations (if applicable) and, at minimum, pass the increased 25-year return period runoff.

- G. Regional Detention Alternatives –For certain areas within the Municipality, it may be more cost-effective to provide one control facility for more than one development site than to provide an individual control facility for each development site. The initiative and funding for any regional runoff control alternatives are the responsibility of prospective developers. The design of any regional control basins must incorporate reasonable development of the entire upstream watershed. The peak outflow of a regional basin would be determined on a case-by-case basis using the hydrologic model of the watershed consistent with protection of the downstream watershed areas. “Hydrologic model” refers to the calibrated model as developed for the Stormwater Management Plan.

Section 306. Design Criteria for Stormwater Management Facilities

- A. Any stormwater facility located on State highway right-of-way shall be subject to approval by the Pennsylvania Department of Transportation (PADOT).

- B. Any stormwater management facility (i.e., detention basin) designed to store runoff and requiring a berm or earthen embankment required or regulated by this Ordinance shall be designed to provide an emergency spillway to handle flow up to and including the 100-year post-development conditions. The height of embankment must be set as to provide a minimum 1.0 foot of freeboard above the maximum pool elevation computed when the facility functions for the 100-year post-development inflow. Should any stormwater management facility require a dam safety permit under PaDEP Chapter 105, the facility shall be designed in accordance with Chapter 105 and meet the regulations of Chapter 105 concerning dam safety which may be required to pass storms larger than 100-year event.

- C. Any facilities that constitute water obstructions (e.g., culverts, bridges, outfalls, or stream enclosures), and any work involving wetlands as directed in PaDEP Chapter 105 regulations (as amended or replaced from time to time by PaDEP), shall be designed in accordance with Chapter 105 and will require a permit from PaDEP. Any other drainage conveyance facility that does not fall under Chapter 105 regulations must be able to convey, without damage to the drainage structure or roadway, runoff from the 25-year design storm with a minimum 1.0 foot of freeboard measured below the lowest point along the top of the roadway. Roadway crossings located within designated floodplain areas must be able to convey runoff from a 100-year design storm with a minimum 1.0 foot of freeboard measured below the lowest point along the top of roadway. Any facility that constitutes a dam as defined in PaDEP Chapter 105 regulations may require a permit under dam safety regulations. Any facility located within a PaDOT right-of-way must meet PaDOT minimum design standards and permit submission requirements.

- D. Any drainage conveyance facility and/or channel that does not fall under Chapter 105 Regulations must be able to convey, without damage to the drainage structure or roadway, runoff from the 10-year design storm. Conveyance facilities to, or existing from, stormwater management facilities

(i.e., detention basins) shall be designed to convey the design flow to or from that structure. Roadway crossings located within designated floodplain areas must be able to convey runoff from a 100-year design storm. Any facility located within a PaDOT right-of-way must meet PaDOT minimum design standards and permit submission requirements.

E. Retention and Detention Basins

1. Retention and detention basins shall be designed to discharge the proposed two-, ten-, twenty-five, and fifty-year storms through a principal spillway and the proposed one-hundred-year storm through a surface water emergency spillway. The use of inlets and pipes are prohibited for the emergency spillway. Basin berm protection shall be provided for the passage of the one-hundred-year storm through the emergency spillway.
2. Basins shall be designed in accordance with soil conservation practices to accommodate sediment during construction.
3. Detention basins shall be designed to dewater within 24 hours after a two-year storm event and within 96 hours after a fifty-year storm event.
4. Percolation rates may be used in Township approved areas to offset basin discharge rates as groundwater recharge. Percolation tests shall be performed at the site for each soil type.
5. The minimum top width of basin berms shall be five (5) feet.
6. Basin berm side slopes shall be a minimum of 3:1.
7. Basin berms shall include a cutoff trench from a depth of one foot below the toe of the interior basin berm to the fifty-year stormwater elevation constructed of materials having a coefficient of permeability less than or equal to 1×10^7 cm/sec. This requirement is waived for berms using undisturbed existing soils. The discharge pipe shall also be backfilled with relatively impervious soil. No stone backfill will be allowed unless anti-seep collars are provided.
8. Concrete anti-seep collar shall be placed around all basin discharge pipes to increase the seepage length along the pipe by 15% within the saturated zone of the pipe based on a 4:1 phreatic line. The connection of the anti-seep collar to the discharge pipe shall be completely water tight.
9. Basin principal spillway outlet structures shall consist of stainless steel orifice plates and mounting hardware, reinforced concrete riser and discharge pipe, and welded structural steel inlet grates with a bituminous coating. Principal spillways with riser pipes where the designed water depth is deeper than 0.4 times the diameter of the riser, the riser shall have an anti-vortex device to prevent reduced capacity of the riser. (Example: if the top of an eighteen-inch riser

is 100.00, the riser shall have an anti-vortex device if the water is higher than $100.00 + [18'' \cdot 0.4/12] = 100.60$). Materials used for design shall be specified on the plans.

10. Lots adjacent to basins shall have a finished floor elevation of two (2) feet above the one-hundred-year storm elevation. The plans shall indicate the minimum allowable finished floor elevations.
11. Basins located on property of separate ownership and serving another property(ies) shall have a drainage easement placed around them that encloses the one-hundred-year storm elevation.

F. Swales

1. Swales shall be designed using the Manning's Equation with the following n values and maximum allowable velocities:

Surface Cover	Manning's n Value	Permissible Velocity
Concrete	n = 0.014	12 fps
Asphalt	n = 0.016	8 fps
Rip-Rap 3"	n = 0.025	6 fps
Rip-Rap 6"	n = 0.025	9 fps
Rip-Rap 9"	n = 0.030	11 fps
Rip-Rap 12"	n = 0.030	13 fps
Rip-Rap 15"	n = 0.035	14 fps
Seeded grass swales	n = 0.030	4 fps
Sod grass swales	n = 0.040	5 fps
Existing grass swales	n = 0.050	6 fps

2. Swales shall be designed for a twenty-five year storm and include six inches of freeboard.
3. Swale side slopes shall be 2:1 minimum. Side slopes for grass covered swales which will be mowed shall be 3:1 minimum.
4. Bends in swales shall have adequate protection to avoid erosion and channel meandering.
5. Swales shall have a twenty-foot-wide easement minimum. The swale shall be centered in the easement.
6. All vegetative swales should have a minimum slope of 1%.

G. Storm Sewer Pipes and Culverts

1. Storm sewer pipes and culverts shall have a minimum diameter of 15 inches, except single-family on-lot systems shall have a minimum diameter of four inches.

2. Storm sewer pipes and culverts shall have sufficient slope to provide a minimum velocity of two feet per second for the ten-year storm.
3. Storm sewers and culverts shall be designed using the Manning's Equation with the following allowable pipe types and n values. The pipe types used for design shall be specified on the plans.

Pipe Type	Manning's n Value
Smooth lined polyethylene	0.012
Reinforced concrete	0.013

4. All pipes shall be laid with a minimum cover on top of the crown of the pipe of one foot below the proposed finished grade in unpaved areas or below the stone subgrade for paved areas. All pipes within the cartway, including the shoulder areas, shall be bedded and backfilled with 2A stone. In other areas, pipes shall be bedded and backfilled with fine graded, highly compactable soil or stone.
5. Storm sewers shall run in a straight line. Bends in the system shall contain a manhole or inlet.
6. All pipe ends shall have either head walls or end walls and shall be PennDOT Type "D" or "DW" or galvanized metal flared end sections. Polyethylene flared end sections are prohibited.
7. All pipe ends shall have erosion protection which meets the velocities of the end pipe discharge for the design storm.
8. Head walls and end walls of pipes shall be protected for child entry by placing removable steel bars and mounting hardware, spaced eight inches apart, across the openings.
9. Roof gutters shall not be used to divert water away from a surface drainage area. Roof drains shall not discharge directly into road rights-of-way or storm sewers unless they are being directly conveyed to a detention basin. Pipes from downspouts may be constructed of flexible or rigid plastic pipe of any diameter and shall be installed to prevent erosion.
10. Storm sewers and culverts shall have a twenty-foot-wide easement minimum, unless they are within a street or other public right-of-way. The pipe shall be centered in the easement.
11. The use of multiple pipe installations will not be permitted, unless a request for such use is made in accordance with Article II and only if approved by the Hamilton Township Board of Supervisors.

H. Roadside gutters and inlets

1. Inlets shall be placed on both sides of the road at low points, spaced no more than 600 feet apart, at every abrupt change in horizontal or vertical direction of the storm sewer, at points

where necessary to prevent gutter flow depths from exceeding three inches for the twenty-five-year storm, and at all curb and road tangent intersections.

2. The depths of flow across a street intersection shall not exceed one inch for the twenty-five-year storm.
3. Inlets shall be depressed two inches below proposed finished grades.
4. Manholes may be substituted for inlets at locations where inlets are not necessary.
5. Inlet capacities shall be per the most restrictive prevailing manufacturer design information. The manufacturer used for design shall be specified on the plans.
6. Inlets shall be concrete and the inlets and grates shall meet design loads. Steel inlet grates shall be bituminous coated.

I. Floodplain Delineation

1. Sites with streams, intermittent channels, water impounding areas, or low to slow draining areas shall have the one-hundred-year floodplain established.
2. The Federal Emergency Management Agency, National Flood Insurance Program, Detailed Flood Areas may serve as the principal means of establishing the one-hundred-year floodplain for an existing site.
3. Where detailed flood area information is not available or a more detailed analysis is desired for an existing site, the U.S. Army Corps of Engineers, Hydrology Engineering Center method 2 (HEC2) flood study shall be performed. Other standard step methods for natural channels to determine water surface profiles for flows through a natural river or stream may be used with Township approval.
4. Proposed sites, where improvements or changes are made in the existing one-hundred-year floodplain, shall be analyzed for the one-hundred-year floodplain using the HEC2 or other standard step methods with Township approval.
5. All flood studies shall be signed and sealed by a Pennsylvania registered professional engineer, a registered landscape architect or a registered professional land surveyor.

Section 307. Calculation Methodology

Stormwater runoff from all development sites shall be calculated using a soil-cover-complex methodology.

- A. Any stormwater runoff calculations shall use generally accepted calculation technique that is based on the NRCS soil cover complex method.
- B. For the purposes of pre-development flow rate determination, undeveloped land shall be considered as “meadow” in good condition, unless the natural ground cover generates a lower curve number or Rational “c” value (i.e., forest), as listed in Table B-2 or B-3 in Appendix B of this Ordinance.
- C. Runoff Curve Numbers (CN) for both existing and proposed conditions to be used in the soil cover complex method shall be obtained from Table B-2 in Appendix B of this Ordinance.
- D. Where uniform flow is anticipated, the Manning equation shall be used for hydraulic computations, and to determine the capacity of open channels, pipes, and storm sewers. Values for Manning’s roughness coefficient (n) shall be consistent with Table B-4 in Appendix B of this Ordinance.

Outlet structures for stormwater management facilities shall be designed to meet the performance standards of this Ordinance using any generally accepted hydraulic analysis technique or method.

E. Time of Concentration Method

Time of concentration shall be calculated based on three patterns:

- 1. Sheet flow shall be a minimum of 150 feet using the equation:

$$T_c = (0.667 L n/S^{0.5})^{0.467}$$

Where:

- T_c = Time of concentration in minutes
- L = Length of flow path in feet
- n = 0.02 for smooth paved surfaces
- 0.1 for bare packed soil or stone areas
- 0.3 for poor grass cover or cultivated fields
- 0.4 for average grass or light brush cover
- 0.8 for dense grass or thick brush cover
- S = Average slope of the path in feet/foot

- 2. Shallow concentrated flow shall be calculated using the equations:

Paved areas	$T_c = L/1220 S^{0.5}$
Unpaved areas	$T_c = L/968 S^{0.5}$

Where:

- T_c = Time of concentration in minutes
- L = Length of flow path in feet
- S = Average slope of the path in feet/foot

3. Concentrated flow in depressions, swales, gutters, curbs and pipes shall be calculated using the Manning's Equation and/or other acceptable engineering practices.
 4. Time of concentrations based on computer models which use the Rational Method as a basis of design may be used with prior approval of the Township.
- F. The design of any stormwater detention facilities intended to meet the performance standards of this Ordinance shall be verified by routing the design storm hydrograph through these facilities.

Section 308. Groundwater Recharge (infiltration/recharge/retention)

- A. A detailed soils evaluation of the project site may be required to determine the suitability of recharge facilities. The evaluation shall be performed by a qualified design professional, and at a minimum, address soil permeability, depth to bedrock, susceptibility to sinkhole formation, and subgrade stability. The general process for designing the infiltration BMP shall be:
1. Analyze hydrologic soil groups as well as natural and man-made features within the watershed to determine general areas of suitability for infiltration practices.
 2. Provide field test to determine appropriate percolation rate and/or hydraulic conductivity.
 3. Design infiltration structure for required storm volume based on field determined capacity at the level of the proposed infiltration surface.
- B. Extreme caution shall be exercised where infiltration is proposed in geologically susceptible areas such as strip mine or limestone areas. Extreme caution shall also be exercised where salt or chloride would be a pollutant since soils do little to filter this pollutant and it may contaminate the groundwater. It is also extremely important that the qualified design professional evaluate the possibility of groundwater contamination from the proposed infiltration/recharge facility and recommend a hydrogeologic justification study be performed if necessary. Whenever a basin will be located in an area underlain by limestone, a geological evaluation of the proposed location shall be conducted to determine susceptibility to sinkhole formations. The design of all facilities over limestone formations shall include measures to prevent ground water contamination and, where necessary, sinkhole formation. The infiltration requirement in the High Quality/Exceptional Waters shall be subject to the Department's Chapter 93 and Antidegradation Regulations. The Township may require the installation of an impermeable liner in detention basins. A detailed hydrogeologic investigation may be required by the Township. It shall be the developer's responsibility to verify if the site is underlain by limestone. The following note shall be attached to all drainage plans and signed and sealed by the developer's engineer/surveyor/geologist:

I, _____, certify that the proposed detention basin
(circle one) is/is not underlain by limestone.

- C. The Township may require the developer to provide safeguards against groundwater contamination for uses which may cause groundwater contamination should there be a mishap or spill.
- D. Where pervious pavement is permitted for parking lots, recreational facilities, non-dedicated streets, or other areas, pavement construction specifications and maintenance schedules shall be noted on the plan.
- E. Recharge/infiltration facilities may be used in conjunction with other innovative or traditional BMPs, stormwater management facilities, and nonstructural stormwater management alternatives.

Section 309. Riparian Buffers

- A. In order to protect and improve water quality, a Riparian Buffer Easement shall be created and recorded as part of any subdivision or land development that encompasses a Riparian Buffer.
- B. Except as required by Chapter 102, the Riparian Buffer Easement shall be measured to the greater of the limit of the 100-year floodplain or a minimum of 35 feet from the top of the streambank (on each side).
- C. Minimum Management Requirements for Riparian Buffers:
 - 1. Existing native vegetation shall be protected and maintained within the Riparian Buffer Easement.
 - 2. Whenever practicable, invasive vegetation shall be actively removed and the Riparian Buffer Easement shall be planted as native trees, shrubs and other vegetation to create a diverse native plant community appropriate to the intended ecological context of the site.
- D. The Riparian Buffer Easement shall be enforceable by the municipality and shall be recorded in the appropriate County Recorder of Deeds Office, so that it shall run with the land and shall limit the use of the property located therein. The easement shall allow for the continued private ownership and shall count toward the minimum lot area as required by Zoning, unless otherwise specified in the municipal Zoning Ordinance.
- E. Any permitted use within the Riparian Buffer Easement shall be conducted in a manner that will maintain the extent of the existing 100-year floodplain, improve or maintain the stream stability, and preserve and protect the ecological function of the floodplain.
- F. The following conditions shall apply when public and/or private recreation trails are permitted within Riparian Buffers:
 - 1. Trails shall be for non-motorized use only.
 - 2. Trails shall be designed to have the least impact on native plant species and other sensitive environmental features.

G. Septic drainfields and sewage disposal systems shall not be permitted within the Riparian Buffer Easement and shall comply with setback requirements established under 25 Pa. Code Chapter 73.

ARTICLE IV – STORMWATER MANAGEMENT (SWM) SITE PLAN REQUIREMENTS

Section 401. Plan Requirements

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

- A. Appropriate sections from the municipality's Subdivision and Land Development Ordinance, and other applicable local ordinances, shall be followed in preparing the SWM Site Plans. In instances where the Municipality lacks Subdivision and Land Development regulations, the content of SWM Site Plans shall follow the County's Subdivision and Land Development Ordinance.
- B. The municipality shall not approve any SWM Site Plan that is deficient in meeting the requirements of this Ordinance. At its sole discretion and in accordance with this Article, when a SWM Site Plan is found to be deficient, the municipality may either disapprove the submission and require a resubmission, or in the case of minor deficiencies, the Municipality may accept submission of modifications.
- C. Provisions for permanent access or maintenance easements for all physical SWM BMPs, such as ponds and infiltration structures, as necessary to implement the Operation and Maintenance (O&M) Plan discussed in paragraph E.9 below.
- D. The following signature block for the municipality:
“(Municipal official or designee), on this date (insert signature date), has reviewed and hereby certifies that the SWM Site Plan meets all design standards and criteria of the Hamilton Township Ordinance No. _____ (number assigned to this Ordinance).”
- E. The SWM Site Plan shall provide the following information:
 1. The overall stormwater management concept for the project.
 2. A determination of site conditions in accordance with the BMP Manual⁴. A detailed site evaluation shall be completed for projects proposed in areas of carbonate geology or karst topography, and other environmentally sensitive areas, such as brownfields.
 3. Stormwater runoff design computations and documentation as specified in this Ordinance, or as otherwise necessary to demonstrate that the maximum practicable measures have been taken to meet the requirements of this Ordinance, including the recommendations and general requirements in Section 301.
 4. Expected project time schedule.
 5. A soil erosion and sediment control plan, where applicable, as prepared for and submitted to the approval authority.

6. 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.
7. Plan and profile drawings of all SWM BMPs, including drainage structures, pipes, open channels, and swales.
8. SWM Site Plan shall show the locations of existing and proposed on-lot wastewater facilities and water supply wells.
9. The SWM Site Plan shall include an O&M Plan for all existing and proposed physical stormwater management facilities. This plan shall address long-term ownership and responsibilities for O&M as well as schedules and costs for O&M activities.
10. A justification must be included in the SWM Site Plan if BMPs other than green infrastructure methods and LID practices are proposed to achieve the volume, rate and water quality controls under this Ordinance.

Section 402. Plan Submission

Four copies of the SWM Site Plan shall be submitted as follows:

1. Two copies to the municipality: one hard copy, one copy in .pdf format.
2. One copy to the municipal engineer in .pdf format (when applicable).
3. One copy to the County Conservation District.

Section 403. Drainage Plan to Consist of Two Parts

The Drainage Plan shall consist of two parts, a plan showing the stormwater facilities construction and a design narrative including the design calculations.

Section 403.A Drainage Plan Content

- A. Plans shall be submitted on sheet sizes of 18 inches by 24 inches, or 24 inches by 36 inches, blueprints or black line prints or photocopies. Reproducible Mylars may be submitted for Township approval and signature upon final plan approval.
- B. Project name, sheet titles and drawing numbers and index.
- C. Name(s) and address(es) of landowner, land developer/subdivider, existing topographic surveyor and the plan designer.
- D. Names of landowners adjacent to the property.

E. Plan date and date of the latest plan revision.

F. Certificate signature blocks for:

1. The Township Engineer

2. A certification of design signed and sealed by a registered professional engineer, a registered landscape architect or a registered professional land surveyor. The certification shall state:
I, _____, a registered professional Engineer/Landscape Architect/Professional Land Surveyor, hereby certify that the Drainage Plan meets all the requirements of the Hamilton Township Stormwater Management Ordinance.

3. Developer and Landowner

G. Project location map at a minimum of one inch equals 2,000 feet showing the project site property line, limits of development, streets, street names and bodies of water within 1,000 feet of the project boundary and the downstream drainage path from the proposed site to the nearest stream or the Hamilton Township boundary (whichever occurs first).

H. North arrow, graphic scale and written scale. Plans shall be to a scale of one inch equal to 10, 20, 30, 40, or 50. General site layout plans which will not be used for construction detail may be at one inch equal to 100 feet.

I. The total tract boundary and size with distances marked to the nearest foot and bearings to the nearest degree.

J. Other physical features including flood hazard boundaries, sinkholes, streams, existing drainage courses, areas of natural vegetation to be preserved, and the total extent of the upstream areas draining through the site.

K. The locations of all existing and proposed utilities, sanitary sewers, and water lines within 50 feet of property lines.

L. Proposed changes to the land surface and vegetative cover, including the type and amount of impervious area that would be added.

M. Proposed structures, roads, paved areas, and buildings.

N. Clearly show existing and proposed drainage patterns, overland drainage paths, outlines of existing and proposed drainage areas and subareas and the paths for calculating the times of concentration (as an alternative, information regarding existing and proposed drainage areas, subareas and paths may be included in the design narrative), existing and proposed elevation contours at intervals of at least one foot for plans at scale of one inch equal to 10 or 20 feet, at

least two feet for all other scales. Where land is sloped more than 15%, contour intervals may be every five feet. Show spot elevations at high points and low points and critical areas which cannot be interpolated between contours. Indicate the location and elevation of the benchmark. Provide the date the existing topography was surveyed and the method of survey (aerial or field).

- O. Existing and proposed land use(s).
- P. A key map showing all existing man-made features beyond the property boundary that would be affected by the project.
- Q. Horizontal and vertical profiles of all open channels, including hydraulic capacity.
- R. A fifteen-foot wide access easement around all stormwater management facilities that would provide ingress to and egress from a public right-of-way.
- S. A note on the plan indicating the location and responsibility for maintenance of stormwater management facilities that would be located off-site. All off-site facilities shall meet the performance standards and design criteria specified in this Ordinance.
- T. A construction detail of any improvements made to sinkholes and the location of all notes to be posted, as specified in this Ordinance.
- U. A statement, signed by the landowner, acknowledging the stormwater management system to be a permanent fixture that can be altered or removed only after approval of a revised plan by the Hamilton Township Board of Supervisors.
- V. Provide an outline of soil type limits and list soil types as shown in the Soil Survey of Franklin County. Provide a table listing the soil map symbol and soil name abbreviations for applicable on-site soil types.
- W. Existing features and proposed improvements, existing and final land covers, existing and proposed storm drainage facilities. Provide a drawing legend of the unidentified or undesignated existing and proposed features.
- X. Profiles of stormwater piping systems using a horizontal scale the same scale as the plan and a vertical scale 1/10th of the horizontal scale. Identify pipe sizes, types, lengths, slopes and inverts. Identify pertinent elevations for inlets, manholes and all other profiled facilities.
- Y. Construction details, sections and specifications of facilities with sufficient information and dimensions for construction interpretation which will provide the contractor with sufficient information to meet the requirements of this Ordinance. Provide a note which states the materials

and details specified shall not be altered during construction without written approval by the Hamilton Township Board of Supervisors.

- Z. When groundwater recharge methods such as seepage pits, beds or trenches are used, the locations of existing and proposed septic tank infiltration areas and wells must be shown.
- AA. All stormwater management facilities must be located on a plan and described in detail.
- BB. Describe maintenance responsibilities and the responsible party(ies). Provide a note prohibiting drainage easement areas from being obstructed with trees, shrubbery and structures. Provide a plan note allowing Township officials access to easement areas for inspection or correction of stormwater facilities.
- CC. Existing and proposed 100-year stormwater elevation and finished floor elevations for lots adjacent to the 100-year stormwater elevation in areas with streams, intermittent channels, water impounding areas and low or slow drainage areas. Show FEMA information where applicable.
- DD. The location of all erosion and sedimentation control facilities required by Pa. DEP Chapter 102.
- EE. Limits of construction phases and a narrative describing the construction sequence.

Section 403.B. Design Narrative Content

- A. An introductory section describing the existing site and drainage area features, the existing points of discharge from the site, proposed site improvements, description of major drainage improvements and how they impact downstream areas. Identify and describe any unusual existing conditions at the site that affect the existing stormwater drainage. Provide a statement with the name of the individual who visited the site and the date or dates of the site visit of both on-site and downstream facilities.
- B. A summary table listing existing and proposed discharge points' identification, acreage, storm event frequency and runoff flows/discharges.
- C. Drainage area maps with outlines of existing and proposed drainage areas and subareas and the paths for calculating the times of concentration (alternate is to show this information on the plan). Off-site drainage areas may be shown on USGS maps at a scale of one inch equals 2,000 feet or less.
- D. Existing and proposed stormwater detailed calculations of runoff, facility designs and erosion and sedimentation control designs meeting the requirements of §307. All calculations, assumptions and criteria used in the design of stormwater management facilities must be provided.

- E. Areas which are subject to flooding shall have a floodplain study provided in the narrative which meets the requirements of § 604 of this Ordinance and the floodplain management regulations of Chapter 85, Subdivision and Land Development.
- F. The design narrative shall be signed and sealed by a registered professional engineer, a registered landscape architect or a registered professional land surveyor.
- G. A written description containing the following information shall be included:
 - 1. The overall stormwater management concept for the project.
 - 2. Stormwater runoff computations as specified in this Ordinance.
 - 3. Stormwater management techniques to be applied both during and after development.
 - 4. Expected project time schedule.
- H. A geologic assessment of the effects of runoff on sinkholes as specified in this Ordinance.
- I. The effect of the project (in terms of runoff volumes and peak flows) on adjacent properties and on any existing municipal stormwater collection systems that may receive runoff from the project site.
- J. A Declaration of Adequacy and Highway Occupancy Permit from the PADOT District Office when utilization of a PADOT storm drainage system is proposed.

Section 404. Plan Review

- A. SWM Site Plans shall be reviewed by the municipality for consistency with the provisions of this Ordinance.
- B. The municipality shall notify the applicant in writing within 45 days whether the SWM Site Plan is approved or disapproved. If the SWM Site Plan involves a Subdivision and Land Development Plan, the notification shall occur within the time period allowed by the Municipalities Planning Code (90 days). If a longer notification period is provided by other statute, regulation, or ordinance, the applicant will be so notified by the municipality.
- C. For any SWM Site Plan that proposes to use any BMPs other than green infrastructure and LID practices to achieve the volume and rate controls required under this Ordinance, the municipality will not approve the SWM Site Plan unless it determines that green infrastructure and LID are not practicable.
- D. If the municipality disapproves the SWM Site Plan, the municipality will state the reasons for the disapproval in writing. The municipality also may approve the SWM Site Plan with conditions, and, if so, shall provide the acceptable conditions for approval in writing.

Section 405. Modification of Plans

A modification to a submitted SWM Site Plan that involves a change in SWM BMPs or techniques, or that involves the relocation or redesign of SWM BMPs, or that is necessary because soil or other conditions are not as stated on the SWM Site Plan as determined by the municipality, shall require a resubmission of the modified SWM Site Plan in accordance with this Article.

Section 406. Resubmission of Disapproved SWM Site Plans

A disapproved SWM Site Plan may be resubmitted, with the revisions addressing the municipality's concerns, to the municipality in accordance with this Article. The applicable review fee must accompany a resubmission of a disapproved SWM Site Plan.

Section 407. Authorization to Construct and Term of Validity

The municipality's approval of a SWM Site 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. The municipality may specify a term of validity shorter than five (5) years in the approval for any specific SWM Site Plan. Terms of validity shall commence on the date the municipality signs the approval for a SWM Site Plan. If an approved SWM Site Plan is not completed according to Section 407 within the term of validity, then the municipality may consider the SWM Site Plan disapproved and may revoke any and all permits. SWM Site Plans that are considered disapproved by the Municipality shall be resubmitted in accordance with Section 405 of this Ordinance.

Section 408. As-Built Plans, Completion Certificate, and Final Inspection

- A. The developer shall be responsible for providing as-built plans of all SWM BMPs included in the approved SWM Site Plan. The as-built plans and an explanation of any discrepancies with the construction plans shall be submitted to the municipality.
- B. The as-built submission shall include a certification of completion signed by a qualified professional verifying that all permanent SWM BMPs have been constructed according to the approved plans and specifications. The latitude and longitude coordinates for all permanent SWM BMPs must also be submitted, at the central location of the BMPs. If any licensed qualified professionals contributed to the construction plans, then a licensed qualified professional must sign the completion certificate.
- C. After receipt of the completion certificate by the municipality, the municipality may conduct a final inspection.

ARTICLE V – OPERATION AND MAINTENANCE

Section 501. Responsibilities of Developers and Landowners

- A. The Municipality shall make the final determination on the continuing maintenance responsibilities prior to final approval of the SWM Site Plan. The Municipality may require a dedication of such facilities as part of the requirements for approval of the SWM Site Plan. Such a requirement is not an indication that the Municipality will accept the facilities. The Municipality reserves the right to accept or reject the ownership and operating responsibility for any portion of the stormwater management controls.
- B. Facilities, areas, or structures used as SWM BMPs shall be enumerated as permanent real estate appurtenances and recorded as deed restrictions or conservation easements that run with the land.
- C. The O&M Plan shall be recorded as a restrictive deed covenant that runs with the land.
- D. The Municipality may take enforcement actions against an owner for any failure to satisfy provisions of this Article.

Section 502. Operation and Maintenance Agreements

- A. Prior to final approval of the SWM Site Plan, the property owner shall sign and record an Operation and Maintenance (O&M) Agreement (see Appendix A) covering all stormwater control facilities which are to be privately owned.
 - 1. The owner, successor and assigns shall maintain all facilities in accordance with the approved maintenance schedule in the O&M Agreement.
 - 2. The owner shall convey to the Municipality conservation easements to assure access for periodic inspections by the Municipality and maintenance, as necessary.
 - 3. The owner shall keep on file with the Municipality 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 owner to the Municipality within ten (10) working days of the change.
- B. The owner is responsible for operation and maintenance (O&M) of the SWM BMPs. If the owner fails to adhere to the O&M Agreement, the Municipality may perform the services required and charge the owner appropriate fees. Nonpayment of fees may result in a lien against the property.

Section 503. Performance Guarantee

For SWM Site Plans that involve subdivision and land development, the applicant shall provide a financial guarantee to the Municipality for the timely installation and proper construction of all stormwater management controls as required by the approved SWM Site Plan and this Ordinance accordance with the provisions of Section 509, 510 and 511 of the Pennsylvania Municipalities Planning Code.

ARTICLE VI – FEES AND EXPENSES

Section 601. General

The Municipality may include all costs incurred in the review fees charged to an applicant. The review fee may include, but not be limited to, costs for the following:

- A. Administrative/clerical processing.
- B. Review of the SWM Site Plan.
- C. Attendance at meetings.
- D. Inspections.

ARTICLE VII – PROHIBITIONS

Section 701. Prohibited Discharges and Connections

- A. Any drain or conveyance, whether on the surface or subsurface, that allows any non-stormwater discharge including sewage, process wastewater, and wash water to enter a regulated small MS4 or to enter the surface waters of this Commonwealth is prohibited.
- B. No person shall allow, or cause to allow, discharges into a regulated small MS4, or discharges into waters of this Commonwealth, which are not composed entirely of stormwater, except (1) as provided in paragraph C below and (2) discharges authorized under a state or federal permit.
- C. The following discharges are authorized unless they are determined to be significant contributors to pollution of a regulated small MS4 or to the waters of this Commonwealth.
 1. Discharges or flows from firefighting activities.
 2. Discharges from potable water sources including water line flushing and fire hydrant flushing, if such discharges do not contain detectable concentrations of Total Residual Chlorine (TRC).
 3. Non-contaminated irrigation water, water from lawn maintenance, landscape draining and flows from riparian habitats and wetlands.
 4. Diverted stream flows and springs.
 5. Non-contaminated pumped ground water and water from foundation and footing drains and crawl space pumps.
 6. Non-contaminated HVAC condensation and water from geothermal systems.
 7. Residential (i.e., not commercial) vehicle wash water where cleaning agents are not utilized.
 8. Non-contaminated hydrostatic test water discharges, if such discharges do not contain detectable concentrations of TRC.
- D. In the event that the Municipality or DEP determines that any of the discharges identified in Subsection C significantly contribute pollutants to a regulated small MS4 or to the waters of this Commonwealth, the Municipality or DEP will notify the responsible person(s) to cease the discharges.

Section 702. Roof Drains and Sump Pumps

Roof drains and sump pumps shall discharge to infiltration or vegetative BMPs wherever feasible.

Section 703. Alteration of SWM BMPs

No person shall modify, remove, fill, landscape, or alter any SWM BMPs, facilities, areas, or structures that were installed as a requirement of this Ordinance without the written approval of the Municipality.

ARTICLE VIII – ENFORCEMENT AND PENALTIES

Section 801. Right-of-Entry

Upon presentation of proper credentials, the Municipality or its designated agent may enter at reasonable times upon any property within the Municipality to inspect the condition of the stormwater structures and facilities in regard to any aspect regulated by this Ordinance.

Section 802. Inspection

The landowner or the owner's designee (including the Municipality for dedicated and owned facilities) shall inspect SWM BMPs, facilities and/or structures installed under this Ordinance according to the following frequencies, at a minimum, to ensure the BMPs, facilities and/or structures continue to function as intended:

1. Annually for the first five (5) years.
2. Once every three (3) years thereafter.
3. During or immediately after the cessation of a 10-year or greater storm.

Inspections should be conducted during or immediately following precipitation events. A written inspection report shall be created to document each inspection. The inspection report shall contain the date and time of the inspection, the individual(s) who completed the inspection, the location of the BMP, facility or structure inspected, observations on performance, and recommendations for improving performance, if applicable. Inspection reports shall be submitted to the Municipality within 30 days following completion of that inspection.

Section 803. Enforcement

- A. It shall be unlawful for a person to undertake any regulated activity except as provided in an approved SWM Site Plan, unless specifically exempted in Section 302.
- B. It shall be unlawful to violate Section 703 of this Ordinance.
- C. Inspections regarding compliance with the SWM Site Plan are a responsibility of the Municipality

Section 804. Suspension and Revocation

- A. Any approval or permit issued by the Municipality pursuant to this Ordinance may be suspended or revoked for:
 1. Non-compliance with or failure to implement any provision of the approved SWM Site Plan or O&M Agreement.
 2. A violation of any provision of this Ordinance or any other applicable law, ordinance, rule or regulation relating to the Regulated Activity.
 3. The creation of any condition or the commission of any act during the Regulated Activity which constitutes or creates a hazard, nuisance, pollution, or endangers the life or property of others.

- B. A suspended approval may be reinstated by the Municipality when:
1. The Municipality has inspected and approved the corrections to the violations that caused the suspension.
 2. The Municipality is satisfied that the violation has been corrected.
- C. An approval that has been revoked by the Municipality cannot be reinstated. The applicant may apply for a new approval under the provisions of this Ordinance.
- D. If a violation causes no immediate danger to life, public health, or property, at its sole discretion, the Municipality may provide a limited time period for the owner to correct the violation. In these cases, the Municipality 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 805. 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 \$1,000.00 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 806. Appeals

- A. Any person aggrieved by any action of the Municipality or its designee, relevant to the provisions of this Ordinance, may appeal to the Municipality within 30 days of that action.
- B. Any person aggrieved by any decision of the Municipality, relevant to the provisions of this Ordinance, may appeal to the County Court of Common Pleas in the County where the activity has taken place within 30 days of the Municipality's decision.

ARTICLE IX – IMPROVEMENT AND PERFORMANCE GUARANTEES

Section 900. Guarantees Required, Cost Estimates, Release

- A. Improvement and performance guarantees shall be provided to the Township in the amounts and forms consistent with Chapter 85 Subdivision and Land Development.
- B. Itemized cost estimates for the stormwater facilities shall be signed and sealed by a registered professional engineer, a registered landscape architect or a registered professional land surveyor. Costs of materials and installation shall be based upon prevailing municipal wage rates as approved by the Township.
- C. Improvement performance guarantees will be released upon satisfaction of the following requirements:
 - 1. Completion of the site stormwater management facilities or phases.
 - 2. Submission of a letter of certification of completion from a registered professional engineer, a registered landscape architect or a registered professional land surveyor stating that the stormwater management facilities were constructed in accordance with the approved plans.
 - 3. Submission of an as-built drawing signed and sealed by a registered professional engineer, a registered landscape architect or a registered professional land surveyor showing the elevations and locations of all of the constructed stormwater facilities.
 - 4. Submission of detention or retention basin as-built at a minimum of one inch equals 50 feet and a stage/storage calculation and tabulation showing the volume of the completed basin.
 - 5. A site visit by the Township Engineer which indicates that all stormwater facilities are operating in accordance with the design.
 - 6. Correction of any stormwater facilities as required by the Township.

ARTICLE X – REFERENCES

1. U.S. Department of Agriculture, National Resources Conservation Service (NRCS). *National Engineering Handbook*. Part 630: Hydrology, 1969-2001. Originally published as the *National Engineering Handbook*, Section 4: Hydrology. Available from the NRCS online at: <http://www.nrcs.usda.gov/>.
2. U.S. Department of Agriculture, Natural Resources Conservation Service. 1986. *Technical Release 55: Urban Hydrology for Small Watersheds*, 2nd Edition, Washington, D.C.
3. Pennsylvania Department of Environmental Protection. No. 363-0300-002 (December 2006), as amended and updated. *Pennsylvania Stormwater Best Management Practices Manual*, Harrisburg, PA.
4. Pennsylvania Department of Environmental Protection. No. 363-2134-008 (March 31, 2012), as amended and updated. *Erosion and Sediment Pollution Control Program Manual*. Harrisburg, PA.
5. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, Hydrometeorological Design Studies Center. 2004-2006. *Precipitation-Frequency Atlas of the United States, Atlas 14*, Volume 2, Version 3.0, Silver Spring, Maryland, Internet address: <http://hdsc.mws.noaa.gov/hdsc/pfds/>.

STORMWATER MANAGEMENT ORDINANCE

ORDINANCE NO. 2022-174

ENACTED and ORDAINED at a regular meeting of the

Hamilton Township Board of Supervisors
Franklin County, Pennsylvania

on this 19th day of October, 2022.

This Ordinance shall take effect immediately.


**HAMILTON TOWNSHIP BOARD
OF SUPERVISORS**



Jeffrey T. Rockwell, Chairman

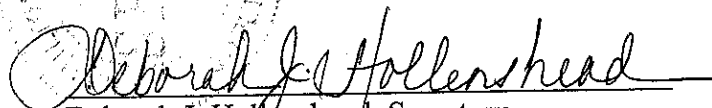


Richard K. Troup, Vice Chairman



Ronald R. Yeager, Member

ATTEST:



Deborah J. Hollenshead, Secretary

APPENDIX A

**OPERATION 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 _____ (hereafter the "Landowner"), and Hamilton Township, Franklin County, Pennsylvania (hereafter the "Municipality");

WITNESSETH

WHEREAS, the Landowner is the owner of certain real property as recorded by deed in the land records of Franklin County, Pennsylvania, Deed Book _____ at Page _____, or Instrument No. _____ (hereafter "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 (hereafter 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 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 Site Plan in good working order in accordance with the specific operation and maintenance requirements noted on the approved O&M Plan.
3. 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 necessary. Whenever possible, the Municipality shall notify the Landowner prior to entering the property.
4. In the event the Landowner fails to operate and maintain the BMPs per paragraph 2, 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.

5. 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.
6. The intent and purpose of this Agreement is to ensure the proper maintenance of the on-site BMPs by the Landowner; provided, however, that this Agreement shall not be deemed to create any additional liability of any party for damage alleged to result from or be caused by stormwater runoff.
7. 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.
8. The Municipality intends to inspect the BMPs at a minimum of once every three years to ensure their continued functioning.

This Agreement shall be recorded at the Office of the Recorder of Deeds of Franklin 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:

For the Municipality:

(SEAL)

For the Landowner:

ATTEST:

(City, Borough, Township)

County of Franklin, 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____.

(SEAL)

Notary Public

APPENDIX B

DRAINAGE PLAN APPLICATION

(To be attached to the "land subdivision plan or development plan review application or "minor land subdivision plan review application")

Application is hereby made for review of the Stormwater Management and Erosion and Sedimentation Control Plan and related data as submitted herewith in accordance with the Hamilton Township Stormwater Management Ordinance.

_____ Final Plan _____ Preliminary Plan _____ Sketch Plan
Date of Submission _____ Submission No. _____

1. Name of subdivision or development _____
2. Name of applicant _____ Telephone No. _____
(if corporation, list the corporation's name and the names of two officers of the corporation)
_____ Officer 1
_____ Officer 2

Address _____
Zip _____

Applicants interest in subdivision or development
(if other than property owner give owners name and address)

3. Name of property owner _____ Telephone No. _____
Address _____
Zip _____

4. Name of engineer or surveyor _____ Telephone No. _____
Address _____
Zip _____

5. Type of subdivision or development proposed:
- | | | |
|---------------------------------------|-------------------------|------------------------------|
| _____ Single-Family Lots | _____ Townhouses | _____ Commercial (Multi-Lot) |
| _____ Two Family Lots | _____ Garden Apartments | _____ Commercial (One-Lot) |
| _____ Multi-Family Lots | _____ Mobile-Home Park | _____ Industrial (Multi-Lot) |
| _____ Cluster Type Lots | _____ Campground | _____ Industrial (One-Lot) |
| _____ Planned Residential Development | _____ Other (_____) | |

6. Lineal feet of new road proposed? _____ L.F.

7. Area of proposed and existing impervious area on entire tract.

a. Existing (to remain) _____ S.F. _____ % of Property
b. Proposed _____ S.F. _____ % of Property

8. Stormwater

a. Does the peak rate of runoff from proposed conditions exceed that flow which occurred for pre-development conditions for the designated design storm?

b. Design storm utilized (on-site conveyance systems) (24 hr.)
No. of Subarea _____
Watershed Name _____

Explain: _____

c. Does the submission and/or district meet the release rate criteria for the applicable subarea?

d. Number of subarea(s) from Ordinance Appendix D of the Conococheague Creek Watershed Stormwater Management Plan. _____

e. Type of proposed runoff control _____

f. Does the proposed stormwater control criteria meet the requirement/guidelines of the Stormwater Ordinances? _____

If not, what variances/waivers are requested? _____

Reasons _____

g. Does the plan meet the requirements of Article III of the Stormwater Ordinances? _____

If not, what variances/waivers are requested? _____
Reasons Why _____

h. Was TR-55, June 1986 utilized in determining the time of concentration? _____

- i. What hydrologic method was used in the stormwater computations? _____

- j. Is a hydraulic routing through the stormwater control structure submitted? _____

- k. Is a construction schedule or staging attached? _____
- l. Is a recommended maintenance program attached? _____

9. Erosion and Sediment Pollution Control (E&S):

- a. Has the stormwater management and E&S plan, supporting documentation and narrative been submitted to the Franklin County Conservation District? _____
- b. Total area of earth disturbance _____ S.F.

10. Wetlands

- a. Have the wetlands been delineated by someone trained in wetland delineation? _____
- b. Have the wetland lines been verified by a state or federal permitting authority? _____
- c. Have the wetland lines been surveyed? _____
- d. Total acreage of wetland within the property _____
- e. Total acreage of wetland disturbed _____
- f. Supporting documentation _____

11. Filing

- a. Has the required fee been submitted? _____
Amount _____
- b. Has the proposed schedule of construction inspection to be performed by the applicant's engineer been submitted? _____
- c. Name of individual who will be making the inspections _____
- d. General comments about stormwater management at development _____

CERTIFICATE OF OWNERSHIP AND ACKNOWLEDGMENT OF APPLICATION:

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF Franklin

On this the _____ day of _____, 20____, before me, the undersigned officer, personally appeared _____ who being duly sworn, according to law, deposes and says that _____ owners of the property described in this application and that the application was made with _____ knowledge and/or direction and does hereby agree with the said application and to the submission of the same.

Property Owner
My Commission Expires _____ 20____
Notary Public _____

THE UNDERSIGNED HEREBY CERTIFIES THAT TO THE BEST OF HIS KNOWLEDGE AND BELIEF THE INFORMATION AND STATEMENTS GIVEN ABOVE ARE TRUE AND CORRECT.

SIGNATURE OF APPLICANT _____



(Information Below This Line To Be Completed By Hamilton Township)

Hamilton Township official submission receipt:

Date complete application received _____ Plan Number _____

Fees _____ date fees paid _____ received by _____

Official submission receipt date _____

Received by _____

Hamilton Township

APPENDIX C

APPLICATION FOR A STORM WATER MANAGEMENT PERMIT
MINOR LAND DISTURBANCE

Hamilton Township
Franklin County, Pennsylvania

Application is hereby made to Hamilton Township for the issuance of a Storm Water Management pursuant to the plans and specifications herewith submitted:	
1. Project Location:	
2. Name of Property Owner(s):	
Address:	
Telephone No.:	Email Address:
3. Name of Applicant (if other than Owner):	
Address:	
Telephone No.:	Email Address:
4. Subdivision/Land Development Plan Name:	
5. Brief Description of Work to be Performed: _____ _____	
6. Proposed Impervious and/or Semi-Impervious Area (S.F.):	
7. Storm Water Management Plan Prepared By:	
Address:	
Telephone No.:	Email Address:
The undersigned hereby represents that to the best of their knowledge and belief, all information listed above and on the reverse side of this page is true, correct, and complete.	
Date:	Signature of Owner:
Date:	Signature of Applicant:
File No:	For Township Use Only Date of Receipt/Filing:

NOTICE TO PROPERTY OWNERS
(Executed Document to Accompany Permit Submission)

Pursuant to the Hamilton Township Stormwater Management Ordinance, a property owner that makes application for a Stormwater Management Permit is responsible for certain aspects of the installation, operation and long-term maintenance of proposed stormwater Best Management Practices (BMPs). This notice is intended to outline the most common Owner's responsibilities, and how failure to comply may result in a delay in the project schedule, the denial for the request of a Certificate of Occupancy, or a requirement for the posting of financial security prior to the release of a Certificate of Occupancy.

THE PROPERTY OWNER IS ULTIMATELY RESPONSIBLE TO ENSURE THEIR OBLIGATIONS ARE MET, EVEN IF AN ENGINEER AND/OR CONTRACTOR ARE ENGAGED TO DESIGN AND PERFORM THE WORK. IN THE EVENT ENFORCEMENT ACTIONS ARE NECESSARY, THE TOWNSHIP WILL PURSUE THE PROPERTY OWNER AND NOT THE CONTRACTOR. CONSTRUCTION CONTRACT LANGUAGE TO MINIMIZE THE OWNER'S RISK IS RECOMMENDED.

Owner(s) shall initial each section below:

_____ The Owner shall ensure one (1) acre of disturbed area is not exceeded at any one time. In the event this disturbed area exceeds one (1) acre, an additional NPDES permit will be required. NPDES permits typically cost several thousand dollars to prepare and implement, and take three (3) months or more to obtain, potentially delaying the Owner's ability to occupy the house.

_____ The Township does not typically require financial security (cash, letter of credit or bond equal to the cost of the proposed stormwater BMPs, typically several thousand dollars) be posted at the time a permit is issued, subject to the permitted BMPs being installed, inspected and functional PRIOR to a request for Certificate of Occupancy. The Owner should be actively involved in understanding the Contractor's schedule and sequence of construction so that there is no delay in permission to occupy the house. For example, if construction is scheduled to be complete in November after the growing season is over, the Township will require financial security to be posted if the BMPs are not installed and stabilized (grass growing) at the time a Certificate of Occupancy is requested.

_____ The Township engineer will be required to inspect that construction of the stormwater BMPs are installed per the approved plan. This approval of construction is required to be submitted PRIOR to a request for a Certificate of Occupancy, or the Township will require that financial security be posted.

_____ Date: _____
Property Owner Signature

_____ Date: _____
Property Owner Signature

MINOR SWM PERMIT APPLICATION CHECKLIST
(Completed Checklist to Accompany Submission)

No.	Description	Check if Enclosed
1	Minor SWM Permit Application	
2	Stormwater Management Plan (1 hard copy and 1 PDF)	
	- Existing features on and within 200' of subject property	
	- Existing topographic contours and/or spot elevations	
	- Existing items to be removed	
	- Proposed impervious/semi-impervious improvements	
	- Proposed grading and finished floor elevations	
	- Construction details and profiles/sections for all proposed BMPs	
	- Permanent easements around proposed BMPs	
	- Temporary construction fencing around infiltration BMPs	
	- Operations and maintenance program	
	- General notes and Owner Acknowledgement*	
	- Schedule of required inspections**	
3	Stormwater Management Narrative/Report (1 hard copy and 1 PDF)	
	- Evaluation of any potential impacts to downstream properties	
	- Existing and proposed drainage areas with TOC paths	
	- Karst area evaluation	
	- Existing and proposed SWM volume calculations	
	- Dewatering calculations	
	- Schedule of proposed construction***	
	- Written description of E&S controls and sequence of construction	
4	Professional Engineer's seal, signature and certification (as applicable)	
5	Executed Operation & Maintenance Agreement (SWMO Appendix A)	
6	Financial Security for Performance and Maintenance Guarantees***	

The Stormwater Management Plan shall include the following General Notes:

1. Performance and Maintenance financial guarantees will be required in the event stormwater facilities have not been constructed, inspected and the certificate of completion submitted prior to a request for a Certificate of Occupancy.
2. As-built plans and/or inspection of construction by the Township Engineer is required. Performance guarantee will be held until the certificate of completion is complete and approved.
3. Temporary construction fencing is required around the limits of any proposed infiltration facilities to protect areas from compaction during construction. Fencing shall be installed prior to the start of earth-moving activities.
4. Any earth disturbance activities which exceed one (1) acre in area will require the Owner to obtain an NPDES Permit issued by the Franklin County Conservation District. A certificate of occupancy and/or performance guarantee will be held until an NPDES permit is obtained, improvements are installed, and the permit terminated.

The Stormwater Management Plan shall include the following Owner's Certification, which shall be executed by the Owner(s) prior to final plan approval:

I/We _____ hereby certify that I/we am/are the Owner(s) of record of the property subject to this Stormwater Management Plan shown herein and that this plan has been prepared at my request. I/We acknowledge that the stormwater Best Management Practices are fixtures that cannot be altered or removed without prior approval by Hamilton Township. I/We further acknowledge that any earth disturbance in excess of one (1) acre will require an NPDES permit issued by the Franklin County Conservation District at our own expense and may result in delays to the project. In the event that Performance and Maintenance Guarantees have not been posted, the posting of such guarantees will be required as a condition of issuance of the Certificate of Occupancy for the proposed construction.

***General Notes**

****Schedule of Required Inspections**

The following schedule of inspections will be required at a minimum:

1. After infiltration facility excavation is complete to subgrade, with geotextile fabric in place and stone is on-site (as applicable).
2. Final inspection, prior to request for a Certificate of Occupancy. After roof laterals and infiltration facility piping have been installed, prior to backfill.

*****Construction Schedule and Financial Security**

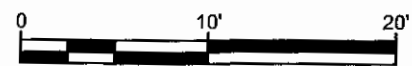
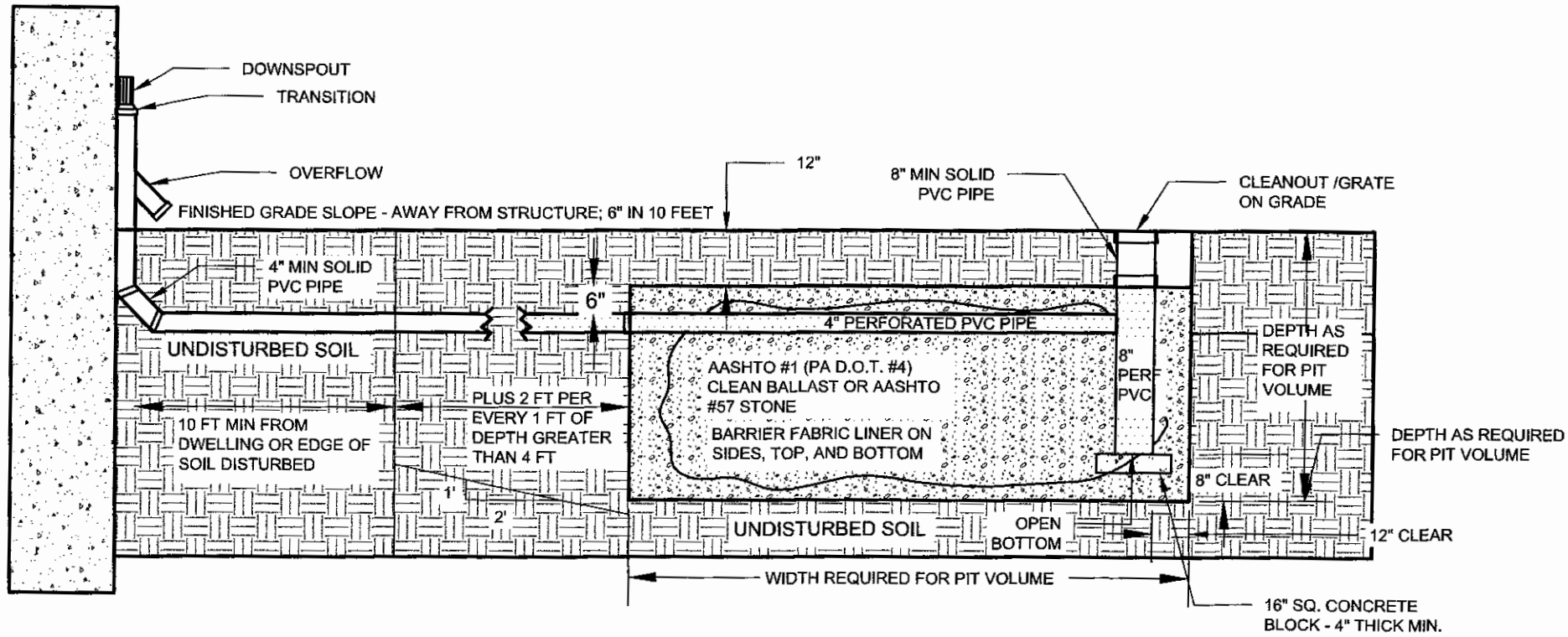
Schedule of installation shall address proposed completion and stabilization of lawn areas during accepted planting seasons. Construction sequence shall address the timing of construction of infiltration facilities as it relates to the sequence of construction. Infiltration facilities shall be installed after bulk grading is complete and contributing drainage areas are graded and established. Performance and Maintenance Guarantees will be required in the event stormwater facilities have not been constructed, inspected, and a certificate of completion submitted prior to a request for a Certificate of Occupancy.

INFILTRATION BED SIZING WORKSHEET

PROPOSED IMPERVIOUS/SEMI-IMPERVIOUS AREA CALCULATION

1	Building Roof Area			
2	Length (L)		FEET	
3	Width (W)		FEET	
4	Area (L * W)		SQ. FEET	Area = Line 2 + Line 3
5	Driveways			
6	Length		FEET	
7	Width		FEET	
8			SQ. FEET	Area = Line 6 + Line 7
9	Patios, Sidewalks, Etc.			
10	Length		FEET	
11	Width		FEET	
12			SQ. FEET	Area = Line 10 + Line 11
13				
14	TOTAL AREA		SQ. FEET	Area = Line 4 + Line 8 + Line 12
15				
16	RUNOFF VOLUME CALCULATION			
17	First 1.0" of Runoff		CU. FEET	Volume = 0.0833 * Area (Line 14)
18	Second 1.0" of Runoff		CU. FEET	Volume = 0.0833 * Area (Line 14)
19	Total Required Volume Capture		CU. FEET	Total Volume = Line 17 + Line 18
20				
21	INFILTRATION BED SIZING			
22	Stone Depth		FEET	3' Maximum
23	Depth to Bottom of Pit	1	FEET	Pit Depth = Line 22 + 1
24	Desired Width of Pit		FEET	
25	Required Pit Length		FEET	Length = Line 19 / (Line 22 * Line 24 * 0.4)
26				(Assumes 40% Void Ratio for Stone)
27	DEWATERING CALCULATION			
28	Infiltration Rate	0.25	IN/HR	Based on Testing or Assume 0.25 in/hr
29	Time to Dewater		HOURS	= (12 * Line 19 / (Line 24 * Line 25)) / Line 28
30				
31	LOADING RATIO (5:1 Maximum)		:1	= Line 14 / (Line 24 * Line 25))

U:\ACCOUNTS\HATWP\RESOURCES\STORMWATER\HATWP_DRAINAGE_SHEET\TYPICAL_ROOF_DRAIN_SEEPAGE_PIT_SHEET.DWG
 PLOTTED: 8/24/2022 12:03 PM BY: RYAN JONGEZON PLOTSTYLE: PENNONI NOS.STB, PROJECT STATUS:



PENNONI ASSOCIATES INC.
 5072 Ritter Road, Suite 102
 Mechanicsburg, PA 17055
 T 717.975.6481 F 717.975.6480

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

**GENERAL CONSTRUCTION DETAIL FOR
 UNDERGROUND SEEPAGE PITS**

Hamilton Township
 1270 Crottestown RD
 Chambersburg, PA 17202

PROJECT	HATWP00104
DATE	2022-08-24
DRAWING SCALE	N/A
DRAWN BY	RDJ
APPROVED BY	WJR

DETAIL

SHEET 1 OF 1

APPENDIX D

APPLICATION FOR A STORM WATER MANAGEMENT PERMIT
MAJOR LAND DISTURBANCE

HAMILTON TOWNSHIP
Franklin County, Pennsylvania

Application is hereby made to Hamilton Township for the issuance of a Storm Water Management Permit pursuant to the plans and specifications herewith submitted:	
1. Project Location:	
2. Name of Property Owner(s):	
Address:	
Telephone No.:	Email Address:
3. Name of Applicant (if other than Owner):	
Address:	
Telephone No.:	Email Address:
4. Subdivision/Land Development Plan Name:	
5. Brief Description of Work to be Performed: _____ _____	
6. Proposed Impervious and/or Semi-Impervious Area (S.F.):	
7. Storm Water Management Plan Prepared By:	
Address:	
Telephone No.:	Email Address:
The undersigned hereby represents that to the best of their knowledge and belief, all information listed above and on the reverse side of this page is true, correct, and complete.	
Date:	Signature of Owner:
Date:	Signature of Applicant:
For Township Use Only	
File No:	Date of Receipt/Filing:

Rev 2020

MAJOR SWM PERMIT APPLICATION CHECKLIST
(Completed Checklist to Accompany Submission)

No.	Description	Check If Enclosed
1	Major SWM Permit Application	<input type="checkbox"/>
2	Stormwater Management Plan (4 Hard Copies and 1 PDF)	<input type="checkbox"/>
	- Existing Features on and within 200' of Subject Property	<input type="checkbox"/>
	- Existing Topographic Contours and Spot Elevations	<input type="checkbox"/>
	- Existing Items to Be Removed	<input type="checkbox"/>
	- Proposed Impervious/Semi-Impervious Improvements	<input type="checkbox"/>
	- Proposed Grading and Finished Floor Elevations	<input type="checkbox"/>
	- Construction Details and Profiles/Sections for all Proposed BMP's	<input type="checkbox"/>
	- Permanent Easements around Proposed BMP's	<input type="checkbox"/>
	- Temporary Construction Fencing around Infiltration BMP's	<input type="checkbox"/>
	- Operations & Maintenance Program	<input type="checkbox"/>
	- General Notes and Owner Acknowledgement	<input type="checkbox"/>
	- Schedule of Required Critical Inspections	<input type="checkbox"/>
3	Stormwater Management Narrative/Report (3 Hard Copies and 1 PDF)	<input type="checkbox"/>
	- Evaluation of any potential impacts to downstream properties	<input type="checkbox"/>
	- Existing and Proposed Drainage Areas with TOC paths	<input type="checkbox"/>
	- Peak Rate Control	<input type="checkbox"/>
	- Volume Controls and Infiltration Test Results	<input type="checkbox"/>
	- Karst Area Evaluation	<input type="checkbox"/>
	- SWM Management and Conveyance Calculations	<input type="checkbox"/>
	- Written Description of E&S Controls and Sequence of Construction	<input type="checkbox"/>
	- NPDES General or Individual Permit Application (as applicable)	<input type="checkbox"/>
4	Professional Engineer's seal, signature and certification	<input type="checkbox"/>
5	Executed Operations & Maintenance Agreement (SWMO Appendix 6)	<input type="checkbox"/>
6	Financial Security for Performance & Maintenance Guarantees	<input type="checkbox"/>

HAMILTON TOWNSHIP
FRANKLIN COUNTY, PENNSYLVANIA

ORDINANCE NO. 2023- 175

AN ORDINANCE REVISING AND AMENDING HAMILTON TOWNSHIP
STORMWATER MANAGEMENT ORDINANCE NUMBER 2022-174, RELATING TO
APPLICATION FEES.

SECTION 1. APPENDIX C of Ordinance No. 2022-174 is hereby revised as follows:

Minor SWM Permit Application Checklist on page C.3, Item No. 7 is removed in its entirety.

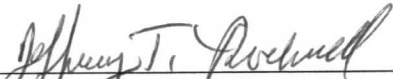
SECTION 2. APPENDIX D of Ordinance No. 2022-174 is hereby revised as follows:

Major SWM Permit Application Checklist on page D.2, Item No. 7 is removed in its entirety.


SECTION 3. This Ordinance shall take effect five (5) days after the date of its enactment.

ENACTED by the Board of Supervisors of Hamilton Township, Franklin County, Pennsylvania
this 1st day of March, 2023.

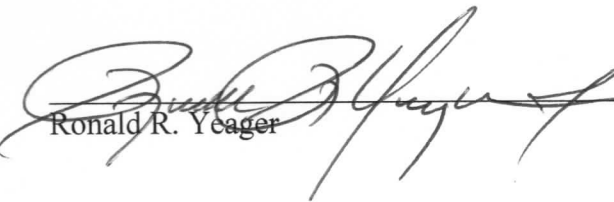
BOARD OF SUPERVISORS OF
HAMILTON TOWNSHIP,
FRANKLIN COUNTY, PENNSYLVANIA



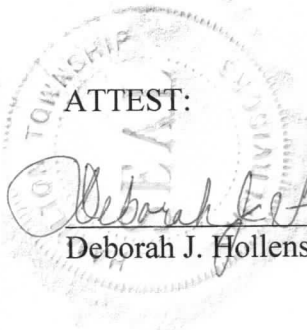
Jeffrey T. Rockwell, Chairman



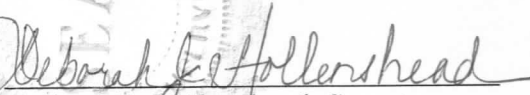
Richard K. Troup



Ronald R. Yeager



ATTEST:

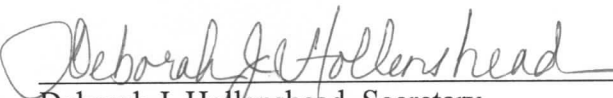


Deborah J. Hollenshead, Secretary

CERTIFICATE

I, the undersigned, Secretary of the Township of Hamilton, Franklin County, Pennsylvania (the "Township") certify that the foregoing is a true and correct copy of an Ordinance of the Board of Supervisors of Hamilton Township which was duly enacted by affirmative vote of a majority of the members of the Board of Supervisors of Hamilton Township at a meeting duly held on March 1, 2023; that said Ordinance has been duly recorded in the Ordinance Book of Hamilton Township; that said Ordinance remains in effect, unaltered, and unamended, as of the date of this Certificate.

IN WITNESS WHEREOF, I set my hand and affix the official seal of the Township this 1st day of March, 2023.

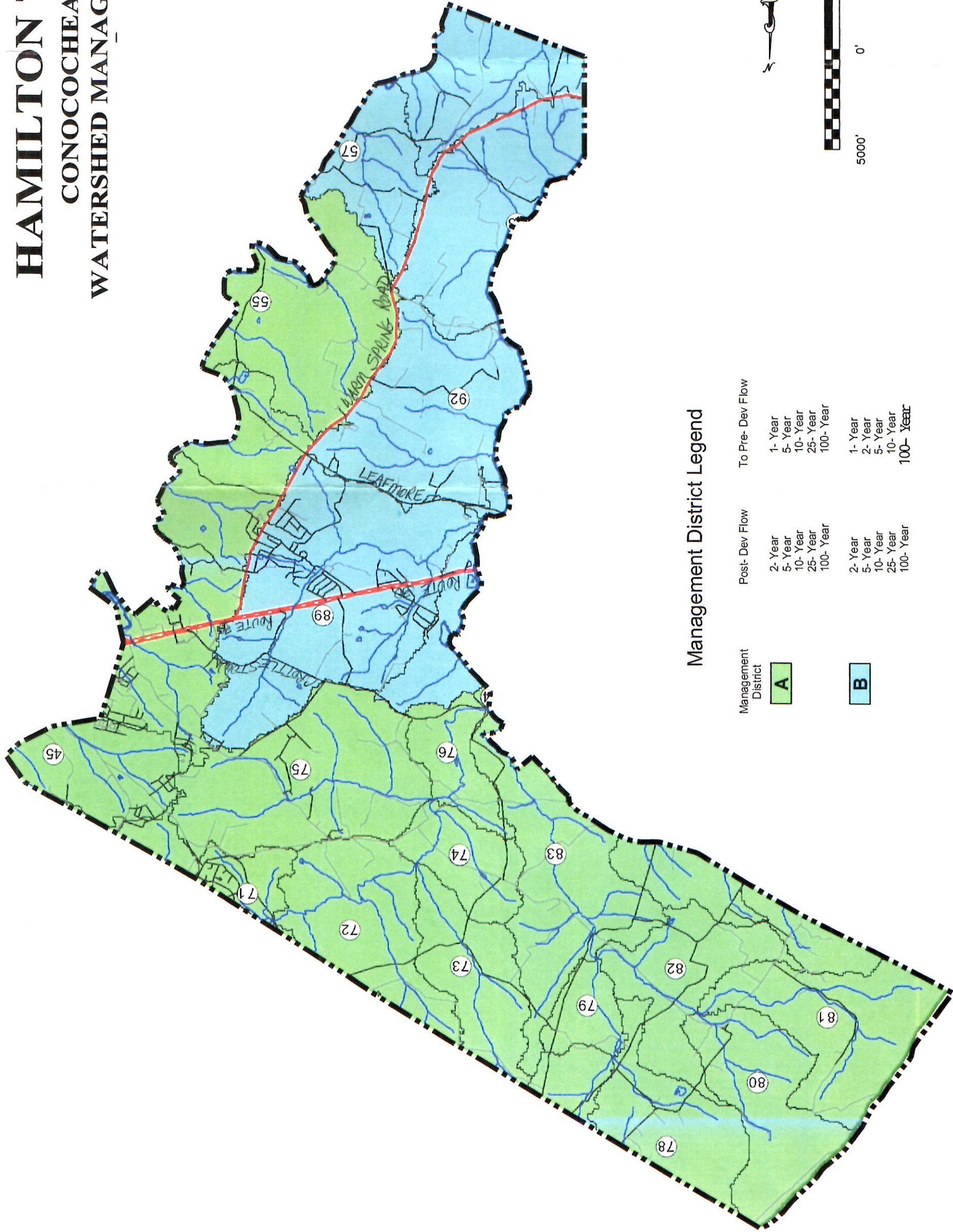


Deborah J. Hollenshead, Secretary

HAMILTON TOWNSHIP

CONOCOCHEAQUE CREEK

WATERSHED MANAGEMENT DISTRICTS



Management District Legend

Management District	Post-Dev Flow	To Pre-Dev Flow
A	2- Year 5- Year 10- Year 25- Year 100- Year	1- Year 5- Year 10- Year 25- Year 100- Year
B	2- Year 5- Year 10- Year 25- Year 100- Year	1- Year 2- Year 5- Year 10- Year 100- Year

