

# **STORMWATER MANAGEMENT ORDINANCE**

ORDINANCE NO. 2025-04

MUNICIPALITY OF  
SOUTH MIDDLETON TOWNSHIP  
CUMBERLAND COUNTY, PENNSYLVANIA

Adopted at a Public Meeting Held on

September 11, 2025

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## ARTICLE I – GENERAL PROVISIONS

### Section 101. Short Title

This Ordinance shall be known and may be cited as the “South Middleton Township 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 (O&M) of all stormwater best management practices (BMPs) that are implemented within the municipality.
- H. Provide standards to meet NPDES permit requirements.
- I. Provide standards to meet Cumberland County Act 167 Stormwater Management Plan<sup>6</sup> requirements.

## **Section 104. Statutory Authority**

### **A. Primary Authority**

The municipality is empowered to regulate land use activities that affect 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.

Hereafter, all land development within South Middleton Township shall be in full compliance with the requirements of the Cumberland County Storm Water Management Plan and shall be conducted in a manner consistent therewith. Any violation of the Cumberland County Storm Water Management Plan shall be considered a violation of this ordinance.

### **B. Secondary Authority:**

The Municipality also is empowered to regulate land use activities that affect runoff by the authority of the Act of July 31, 1968, P.L. 805, No. 247, The Pennsylvania Municipalities Planning Code, as amended.

## **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.

## **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 effective immediately.

## **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 South Middleton Township determines that any requirement under this Ordinance cannot be achieved for a particular regulated activity, South Middleton Township 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 South Middleton Township Board of Supervisors 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 Board of Supervisors 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 purposes 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”, “including”, “for example” “eg” and/or other related words and phrases 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.

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

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

**Applicant** – A landowner, developer, or other person who has filed an application to the municipality for approval to engage in any regulated activity at a project site in the municipality.

**Best Management Practice (BMP) / a.k.a. Stormwater Control Measure (SCM)** – Activities, facilities, designs, measures, or procedures used to manage stormwater impacts from regulated activities, to meet state water quality requirements, to promote groundwater recharge, and to otherwise meet the purposes of this Ordinance. Stormwater BMPs are commonly grouped into one of two broad categories or measures: “structural” or “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.

**Conservation District** – A conservation district, as defined in Section 3(c) of the Conservation District Law (3 P. S. § 851(c)) that has the authority under a delegation agreement executed with DEP to administer and enforce all or a portion of the regulations promulgated under 25 Pa. Code 102.

**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.

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

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

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

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

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

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

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

**Facility, Conveyance** – Any structure or practice that is designed and/or constructed to transmit or otherwise transfer stormwater runoff from one location to another. Typical Conveyance Facilities include but are not limited to: swales and other open channel facilities; storm sewers; and pipe culverts.

**Facility, Erosion and Sediment Control** – Any structure or practice that is designed and/or constructed to capture, reduce, prevent, or otherwise mitigate the effects of stormwater runoff and sedimentation. Typical Erosion and Sediment Control Facilities include but are not limited to: erosion control matting, silt fence, silt sock, inlet protection, temporary seeding, and sediment ponds. **Erosion and Sediment Control Facility** may be designated as **ESC Facility** throughout this Ordinance.

**Facility, Stormwater Management** – Any structure or practice that is designed and/or constructed to store or otherwise attenuate stormwater runoff. Typical stormwater management facilities include but are not limited to: detention and retention basins; rain gardens; and infiltration facilities. **Stormwater Management Facility** may be designated as **SWM Facility** throughout this Ordinance.

**FEMA** – Federal Emergency Management Agency.

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

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

**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<sup>1,2</sup>).

**Impervious Surface (Impervious Area)** – Any natural or man-made material utilized to cover, pave or re-surface any portion or area of a lot whether permeable or impermeable excepting only soil, plants or vegetative coverings. Impervious cover shall include, among other materials, any form or mixture of concrete, stone, asphalt, tar, or other substance designed and intended to alter the natural state of the land. Pervious pavement, stone, and other traditionally-impervious surfaces that are specifically designed to allow for porous infiltration of stormwater are not counted as impervious areas and may be used with proper operation and maintenance provisions in order to provide for the transmission of stormwater runoff to subsurface SWM Facilities.

**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 PA Municipalities Planning Code.

**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.

**Municipality** – South Middleton Township, Cumberland County, Pennsylvania.

**MS4** – The Municipal Separate Storm Sewer System of the Township as regulated by the laws of the Commonwealth and the United States.

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

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

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

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

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

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

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

**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.

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

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

**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.

**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 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.

**Stormwater Permit** – A stormwater permit is required for any regulated activities that result in: the alteration or development of greater than or equal to 5,000 SF of land in a manner that may affect stormwater runoff; earth disturbances of greater than or equal to 43,560 SF; and/or the cumulative increase of greater than or equal to 5,000 SF of impervious area. Regulated activities taking place on sites: 1. with greater than or equal to 5,000 SF of existing impervious area; 2. that are not controlling the runoff from the existing impervious area in a manner consistent with this Ordinance; and 3. whose activities do not qualify for the exemptions listed in Section 302, shall also fall under the category of SWM Permit. “Cumulative” shall include incremental and phased development. All Land Development applications shall require a stormwater permit regardless of size.

**Stormwater Management Report** – The report prepared by the applicant or his or her representative documenting the necessary design computations and data in order to demonstrate that the maximum practicable measures have been taken to meet the requirements of this Ordinance. **Stormwater Management Report** will be designated as **SWM Report** throughout this Ordinance. The SWM Report shall be accompanied by a signature of the licensed professional who performs the work, certifying the accuracy of the Plan and all calculations associated therewith.

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

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

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

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

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

## ARTICLE III – STORMWATER MANAGEMENT STANDARDS

### Section 301. General Requirements

- A. For all regulated activities, unless preparation of an SWM Site Plan is specifically exempted in Section 302:
1. Preparation and implementation of an approved SWM Site Plan is required. As an integral part of the SWM Site Plan, Erosion and Sedimentation Control measures shall be included. SWM Facilities shall be designed, implemented, operated, and maintained to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code, the Clean Streams Law, and the Storm Water Management Act. Various SWM BMPs and their design standards are listed in the *Pennsylvania Stormwater Best Management Practices Manual* (BMP Manual<sup>3</sup>), as amended and updated. The *Pennsylvania Stormwater Best Management Practices Manual*, and all included recommendations within the BMP Manual shall be followed unless otherwise noted within this or other Ordinances or regulations of the Municipality. If proposed SWM BMPs deviate from the recommendations within the BMP Manual, said deviations shall be listed and supported within the SWM Report narrative.
  2. No regulated activities shall commence until the municipality issues written approval of a stormwater permit and all concurrent land use approvals.
  3. SWM Site Plans shall be required for each subdivision or land development plan and for each stormwater permit application.
  4. All SWM Site Plans and SWM Reports shall be prepared and certified by a Professional Engineer.
  5. SWM Site Plans approved by the Municipality shall be on site throughout the duration of the regulated activity.
- B. Township Liability
1. The degree of stormwater management sought by the provisions of this Article is considered reasonable for regulatory purposes. This Article shall not create liability on the part of the Township, any appointed or elected official of the Township, the Cumberland County Conservation District, or any officer, Engineer or employee thereof for any erosion, sediment pollution or flood damages that result from reliance on this Section or any administrative decision lawfully made thereunder.
- 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 do 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 Manual<sup>4</sup>), No. 363-2134-008, as amended and updated.
- E. For land development taking place in stages, the entire proposed new development plan must be used in determining conformance with this Ordinance. The date of adoption of this Article shall be the starting point from which to consider “parent tracts” in which future land development and respective impervious area computations shall be cumulatively considered.
- F. The design of all facilities over Karst shall include an evaluation of measures to minimize adverse effects in accordance with the procedures outlined in Section 7.4 (Special Management Areas – Karst Areas) of the most current version “The Pennsylvania Stormwater Best Management Practices Manual” SWM Manual.
- G. All natural drainage ways and existing contouring of predevelopment drainage patterns shall be preserved to the maximum extent possible. Post-development drainage patterns shall simulate pre-development patterns. Hydraulic capacity analysis shall be provided for all downstream conveyance.

- H. Unless specifically exempted in Section 302: The engineer preparing the calculations shall provide a signed and dated statement indicating that he/she has been to the site for the purpose of conducting a visual inspection in order to determine the existing ground cover. The date of the site inspection shall be included in said statement.
- I. 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.
- J. 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.
- K. 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 this 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<sup>3</sup>).
- L. No stormwater or other related discharges shall discharge directly into a public right-of-way or onto paved surfaces intended for vehicular or pedestrian travel (including but not limited to parking lots, public or private roads, sidewalks, shared driveways, etc.) (collectively herein “**Public Surfaces**”). The term “**directly**” for the purpose of this Ordinance will be dependent upon site conditions, the concentration and volume of the discharge, and intermediary surfaces, but in no case shall a discharge point directed toward a Public Surface be closer than 25 feet to the Public Surface.
- M. Infiltration BMPs should be spread out, made as shallow as practicable, and located to maximize use of natural on-site infiltration features while still meeting the other requirements of this Ordinance.
- N. All stormwater discharges with pipe sizes greater than or equal to 12” shall be provided with either reinforced concrete endwalls or plastic end sections, and shall also include outlet protection consistent with the E&S Manual<sup>4</sup>.
- O. For regulated activities proposing earth disturbances of greater than or equal to 5,000 SF, an approved Erosion and Sediment Control Plan shall be kept onsite at all time. Notification to the Cumberland County Conservation District may be required.

- P. Dry, open top, stabilized storage facilities should completely drain both the volume control and rate control capacities over a period of time not more than 72 hours from the end of the design storm.
- Q. 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 14<sup>5</sup> can be accessed at: <http://hdsc.nws.noaa.gov/hdsc/pfds/>.

PENNDOT's Storm Intensity-Duration-Frequency Curves are based upon the Atlas. The curves for Region 4 are acceptable to use.

### **Section 302. Exemptions**

If any of the following conditions are met, the Applicant shall be exempt from the permit requirements of this Ordinance.

- A. Agricultural activity is exempt provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102.
- B. Forest management and timber operations are exempt provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102.
- C. Exemptions from any provisions of this Ordinance shall not relieve the applicant from the requirements in Sections 301. If any of the requirements in Section 301 are not met, the Municipality at its sole discretion may revoke any exemptions from any provisions of this Ordinance without the necessity of any proceedings for revocation, and the applicant may be required by the Municipality to cease all activities and/or comply with the provisions of this Ordinance.

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

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

- A. The Design Storm Method (see Section 8.7 of the latest version of the Stormwater Management Best Practices Manual) may be used for any size project. 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, calculate existing (pre-development) stormwater runoff and infiltration volumes based on existing site conditions, as verified through design phase soil infiltration testing.
  - 3. Calculations of the post-development peak discharge shall assume that all areas being disturbed during construction will be reduced by one Hydrologic Soil Group category level (e.g. Ha B is reduced to Ha C, etc.)
- B. The Simplified Method (see applicable sections of the latest version of the Stormwater Management Best Practices Manual) provided below is independent of site conditions and should be used if the Design Storm Method is not followed. This method is not applicable to Regulated Activities greater than one (1) acre or for projects that require design of stormwater detention or rate control facilities. For new impervious surfaces:

1. Stormwater facilities shall be sized to capture at least the first two inches (2") of runoff from all new impervious surfaces.
2. At least the first one inch (1.0") 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. Infiltration facilities should be designed to accommodate infiltration of the entire permanently removed runoff; however, in all cases at least the first one-half inch (0.5") of the permanently removed runoff should be infiltrated.
4. The second one inch (1.0") of runoff from new impervious surfaces should be detained using structural and nonstructural BMPs (as outlined in the most current version of the SWM Manual) and released at a controlled rate.
5. Development eligible under this method are exempt from the requirements of Section 304, Rate Controls.

### **Section 304. Rate Controls**

For the 1-, 2-, 5-, 10-, 25-, 50-, and 100-year storms, the post-development peak discharge rates will follow the applicable approved release rate maps contained in the latest version of the Cumberland County Stormwater Management Plan.

### **Section 305. Additional Design Criteria**

- A. Emergency spillways as a minimum shall be set at an elevation to allow discharge from the pond during the 100-year storm. In no case, however, shall the composite outflow from the primary release device(s) and the emergency spillway exceed predevelopment rates. Spillways shall be provided structural stability. As such, locating spillways within the embankment is prohibited unless adequate reinforcing is provided.

Permanent spillway control measures/facilities shall be designed to assure that the peak runoff from the 100-year return-frequency, 24-hour event inches is able to be passed without eroding outfalls and downstream drainage facilities.

Permanent spillway control measures/facilities shall be designed assuming that the primary outfall structures are inoperative during the design flood.

- B. Any stormwater management facility designed to store runoff requires a berm or embankment. The height of the berm or embankment will be set so as to provide a minimum 1 foot of freeboard above the maximum pool elevation for the 100-year post-development flow. Embankment/berm side slopes shall be no steeper than 3:1.
- C. Embankment/berms greater than or equal to 3 feet in height shall:
  1. Have a cross-sectional top width of at least 5 feet
  2. Have emergency spillways capable of providing non-erosive release of the post development 100-year design storm with at least 1 foot of freeboard.
  3. Have cutoff/key trenches of impervious material
- D. Maximum water depth in any open SWM Facility shall be no greater than 6 feet when functioning through the primary outlet structure
- E. SWM Facilities shall not be placed within 10 feet of a property line, public right-of-way, or structure as measured from the nearest point of the facility that may provide water storage.
- F. The bottom elevation of all SWM Facilities shall be located a minimum of 2 feet above the seasonal high groundwater table or other soil limiting zone.

- G. Culverts, pipes, and storm sewers shall be designed for a ten- (10) year storm with a five (5) minute time of concentration (Tc). Designs based upon calculation of actual Tc will be allowed if pipe size exceeds 36" in diameter based upon said five- (5) minute Tc. Supporting documentation verifying the same is required. In the event, however, that a culvert passes beneath a public roadway, it shall be designed in such a manner to prevent the roadway from inundation during a twenty-five (25) year storm.
- H. All pipes shall be consisting of straight runs. There should be no bends in any pipes.
- I. The SWM Site Plans shall include calculations indicating velocities of flow, grades, sizes, and capacities of water carrying structures, debris or sedimentation basins, and retention and detention ponds and sufficient design information to construct such facilities.
- J. Maximum permitted channel velocities are as follows:
  1. Three (3) feet per second where only sparse vegetation can be established.
  2. Four (4) feet per second under normal conditions where vegetation can be established by seeding.
  3. Five (5) feet per second where a dense, vigorous sod can be quickly established or where water can be temporarily diverted during establishment of vegetation.
  4. Six (6) feet per second where well-established sod is in existence.

- K. Maximum permitted channel velocities are as follows:

For lined water carrying channels the following velocities are required:

<b>channel lining</b>	<b>maximum velocity</b>
6-inch rock rip-rap	6 feet per second
9-inch rock rip-rap	8 feet per second
Asphalt	7 feet per second
Durable Bedrock	8 feet per second
12-inch rock rip-rap	9 feet per second
Concrete or steel	12 feet per second

- L. The normal maximum velocity of open channel flows shall not exceed ten (10) feet per second.
- M. Stormwater runoff channels shall be designed to avoid trapping excess sediment, except if structures are so designed to trap sediment. In all instances, the minimum velocity of stormwater through runoff channels shall be one and one-half (1.5) feet per second. The minimum slope on impervious surfaces shall be 1% and 2% on pervious surfaces.
- N. Energy dissipaters/erosion control devices shall be placed at the outlets of all pipes where flow velocities exceed maximum permitted channel velocities.
- O. Vertical pipes, inlets and other surface water receiving structures shall be installed with trash racks, or so designed to control trash accumulation.
- P. All piping used in the stormwater drainage system shall be CMP galvanized steel, aluminum alloy, smooth-lined HDPE plastic or reinforced concrete. A minimum pipe size of eighteen (18) inches in diameter shall be used in all roadway systems proposed for dedication to the Township. A minimum pipe size of twelve (12) inches in diameter is permitted on private facilities that receive no off-site drainage. Pipes shall be designed so as to provide a minimum velocity of two and one-half (2.5) feet per second when flowing full. Arch pipe may be used in lieu of round pipe where cover or utility conflict conditions exist.
- Q. All storm drainage piping discharging to the ground surface shall be provided with either reinforced concrete head walls or metal pipe end sections compatible with the pipe size involved. A rip rap apron of adequate length shall be provided at all surface discharge points in order to minimize erosion. The apron shall extend to the crown of the pipe. Rip-rap size shall be determined by flow velocity leaving the system.

- R. Storm drainage inlets shall be provided at all low points and hydraulically intermediate points on a system. Location spacing of inlets shall be based on the hydraulic capacity of each inlet related to the flow received and the amount of flow bypass from upstream inlets. Inlets shall be placed so street drainage shall not cross intersections or one half the width of the adjacent travel lane.
- S. All street inlet tops shall be a combination curb/gutter inlet referred to as PennDOT type "C" with a ten (10) inch curb reveal to allow an automatic depressed condition to exist when used on an eight (8) inch curb. Weepholes shall be provided on all inlet tops. In private parking areas, streets and yard areas with no curbing, type "M" inlet tops shall be used.
- T. Inlets shall not be placed in front of or within 10 feet of a driveway.
- U. Proposed slopes of all stormpipes shall be greater than or equal to 0.5%.
- V. In all areas involving residential development a typical individual lot Erosion and Sedimentation Control Plan or notation shall be placed on the subdivision or land development plan. The notation shall indicate that compliance with the typical individual lot Erosion and Sedimentation Control Plan is a requirement of land development approval and violators of this requirement may be subject to the Preventative Remedies contained in Section 515.1 of the Pennsylvania Municipalities Planning Code and the penalty provisions of Section 1504 of the South Middleton Township Subdivision and Land Development Ordinance of 2001, as amended.
- W. Wetlands shall be delineated on all subdivision and land development plans that involve construction improvements or earthmoving activities. In those instance where single lots are being accessed from existing public streets, with driveways crossing wetlands, said wetland area must be delineated and a note placed on the plan advising the future lot owner of the requirements to comply with all necessary wetlands regulation. In all other instances, it shall be the responsibility of the developer to investigate the presence of wetlands on his site. A Certification Statement to this effect shall be placed on the plan by the designer preparing the plan.
- X. Storm drain systems adjacent to state highways should be designed such that PENNDOT regulations or policies, as may be amended from time to time, do not require the Township to be the applicant on a highway occupancy permit.

**Section 306. 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 be 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 with 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 a 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. Septic drainfields and sewage disposal systems are prohibited within Riparian Buffer Easements:

- G. 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.
  3. All uses shall comply with the ordinances, provisions, and regulations of the Municipality and any other applicable entities.
  4. Docks, boat ramps, and other similar improvements shall be comprised of stable, non-erosive material(s).

## ARTICLE IV – STORMWATER MANAGEMENT (SWM) SITE PLAN REQUIREMENTS

### Section 401. SWM Site Plan Requirements

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 shall notify the applicant of the deficiencies and require a resubmission, or in the case of minor deficiencies the Municipality may accept submission of modifications

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

- A. Project Information:
  1. Project name
  2. Project address
  3. Name, address, and email address of applicant and, if separate from applicant, property owner
  4. Name, address, and email address of the qualified professional responsible for project design
- B. Date of submission, and the dates of all revisions
- C. Graphical and written scale on all drawings, maps, details, profiles, and other items as necessary
- D. North arrow
- E. Location map at a minimum scale of 1 inch equals 2,000 feet
- F. Metes and bounds of the entire tract perimeter
- G. Existing and proposed contours at intervals of 1 or 2 feet
- H. Location of all existing and propose on-site improvements
- I. Location of all improvements outside of the property boundary that may be affected by the project
- J. Location of all existing and proposed utilities and utility easements, including but not limited to existing and proposed on-lot wastewater facilities, water supply wells, sanitary sewers, water lines, gas lines, and electric lines
- K. Location of all sensitive natural features, including waterways, wetlands, floodplains, significant karst features (including but not limited to sinkholes, rock pinnacles, and closed depressions), and natural slopes over 25%. If no sensitive natural features are present on the site, provide a note as listed in Section 401.V.7 below, and provide evidence of their absence. See Section 403.C below for further requirements on the identifications of wetlands
- L. Location and clear identification of the type of permanent SWM facilities
- M. Proposed limit of disturbance line(s) and disturbed acres

- N. Construction details including data necessary for the proper construction
- O. Plan and profile drawings of all ESC, SWM, and Conveyance Facilities, including but not limited to basins, drainage structures, pipes, open channels, sediment traps and swales
  - 1. All facilities shall be clearly labeled, with labels matching calculations and designations within the SWM Report
  - 2. All plans and profiles shall provide clear labels of applicable data necessary for proper construction, including but not limited to inverts, top of grate elevations, pipe slopes, materials, spillway elevations and widths, outlet structure elevations, orifice sizes and elevations, basin bottom elevations, etc.
  - 3. Plan and profile drawings may take the place of, supplement, or be combined with construction details where desired so long as the above standards and overall design clarity are maintained
- P. A type, location, and number of landscaping plantings specification shall be provided for all stormwater management facilities and be specific for each type of facility.
- Q. An erosion and sediment control plan. Note that further review by the county conservation district/reviewing authority may be required per Section 301.O.
- R. An O&M plan for all existing and proposed physical stormwater management facilities. This plan shall address short-term and long-term responsibilities for O&M as well as schedules for O&M activities. See Article V of this ordinance. The agreement shall include an attachment that outlines the operation and maintenance requirements of the owner for the BMP's utilized. The attachment shall also include responsibility for and details about sinkhole repair.
- S. SWM Conservation Easements for all physical SWM Facilities/BMPs and Conveyance Facilities. When present, provisions for permanent access to SWM Conservation Easements shall also be granted to the Municipality via a note as listed in Section 401.V.8 below.
  - 1. Easements shall be a minimum of 20' in width, and must extend at least 5' beyond the edge of any SWM facility.
  - 2. Where possible, easements should be centered on the facilities within the easement.
  - 3. Nothing shall be placed, stored, erected, constructed over, planted, or otherwise located within an easement other than the SWM facilities within the easement. If SWM conservation easements are required on the site, provide a note stating such as listed in Section 401.V.9 below.
  - 4. Easements shall be identified with metes and bounds. In the case of conveyance facilities such as pipes and swales, and if desired by the applicant, a note as listed in Section 401.V.10 below may be added to the plan in lieu of metes and bounds stating that easements are to be located and offset from the center of the installed conveyance facility.
- T. A list of any permits or authorizations related to stormwater management, erosion and sediment control, waterways and wetlands, or other relevant plan authorizations/permits other than those required by the Municipality, including but not limited to Conservation District adequacy letters; NPDES permits; PADEP/ACOE water obstruction and encroachments permits; FEMA CLOMR/LOMRs; PNDI clearances; PennDOT HOP approvals when the proposed project encroaches into or impacts a PennDOT right-of-way; and other appropriate permits as determined by the Municipality. The reviewing authority for each permit shall also be included in this list. If no outside permits are required, provide a note as listed in Section 401.V.11 below.

U. Reasonable and appropriate plan and drafting requirements from the Municipality's Subdivision and Land Development Ordinance and Zoning Ordinance shall be followed in preparing the SWM Site Plan

V. Notes, signature blocks, and certifications:

1. "(Applicant or owner), on this date, (signature date), acknowledges that SWM and Conveyance Facilities are permanent fixtures and may not be modified, removed, filled, landscaped, or otherwise altered without written approval of South Middleton Township."
2. "(Qualified professional responsible for project design), on this date, (signature date), certifies that this plan complies with the ordinances, provisions, and regulations of the Municipality and any other applicable entities." A seal and dated signature shall accompany this statement.
3. "South Middleton Township is not responsible for the maintenance of any area not dedicated to and accepted for public use."
4. "The Operation and Maintenance Agreement is a part of the plan. If the Owner fails to adhere to the terms of the agreement, the Municipality may perform the services required and charge the owner appropriate fees."
5. If Conveyance Facilities are proposed that require watertight joints, "All stormwater conveyance facilities shall be constructed with watertight joints."
6. If inlets or other structures are proposed, "The knocking out of inlet or other structure corners is prohibited."
7. If no sensitive natural features are present on the site per Section 401.M above, "Qualified professional responsible for project design), on this date, (signature date), certifies that there are no sensitive natural features on the project site, including waterways, wetlands, floodplains, significant karst features, and natural slopes over 25%."
8. If SWM Conservation Easements and/or Riparian Buffer Easements are required on the site per Section 301.J and/or Section 401.S above, "The Landowner hereby grants permission to the Municipality, its authorized agents, and employees access to any and all SWM Conservation Easements and Riparian Buffer Easements on the property."
9. If SWM Conservation Easements are required on the site per Section 401.S above, "Nothing shall be placed, stored, erected, constructed over, planted, or otherwise located within an easement other than the SWM Facilities within the easement."
10. If any easements on the site are to be located based upon the location of conveyance facilities per Section 401.S.2 above, "SWM conservation easements for conveyance facilities shall be located and offset from the center of the respective conveyance facility as installed."
11. If no outside permits are required per Section 401.T above, "Qualified professional responsible for project design), on this date, (signature date), certifies that no stormwater management, erosion and sediment control, waterways and wetlands, and/or other relevant plan authorizations/permits are required other than those of the Municipality."
12. "The SWM Report is part of the plan"

13. If an indemnification statement is required for carbonate site conditions per Section 403.A.1 below, "The Applicant, including its agents, heirs, assigns and anyone on behalf of whom the application is submitted, does hereby indemnify, defend, and hold harmless the Township of South Middleton and its respective assigns, officials, officers, employees, and agents, from and against any and all demands, claims, actions, or causes of action, assessments, losses, damages, liabilities, costs, and expenses, including reasonable fees and expenses of counsel, other expenses of investigation, handling, and litigation, and settlement amounts, together with interest and penalties asserted against, resulting to, imposed upon, or incurred by the Applicant and anyone on behalf of whom the application is submitted or raised against the Township, directly or indirectly, by reason of, resulting from, or arising in connection with any result from carbonate site conditions."
  
14. If an indemnification statement is required for the utilization of infiltration SWM BMPs per Section 403.B.1 below, "The Applicant, including its agents, heirs, assigns and anyone on behalf of whom the application is submitted, does hereby indemnify, defend, and hold harmless the Township of Silver Spring and its respective assigns, officials, officers, employees, and agents, from and against any and all demands, claims, actions, or causes of action, assessments, losses, damages, liabilities, costs, and expenses, including reasonable fees and expenses of counsel, other expenses of investigation, handling, and litigation, and settlement amounts, together with interest and penalties asserted against, resulting to, imposed upon, or incurred by the Applicant and anyone on behalf of whom the application is submitted or raised against the Township, directly or indirectly, by reason of, resulting from, or arising in connection with the utilization of infiltration SWM BMPs."

## **Section 402. SWM Report Requirements**

The following items shall be included in the SWM Report:

- A. Project information:
  1. Project name
  2. Project address
  3. Name, address, and email address of applicant and, if separate from applicant, property owner
  4. Name, address, and email address, seal, and dated signature of the qualified professional responsible for project design
  
- B. A narrative describing the pre-development conditions, post-development conditions, and philosophy of SWM design. If proposed SWM BMPs deviate from the recommendations with the *Pennsylvania Stormwater Best Management Practices Manual* (BMP Manual<sup>3</sup>), said deviations shall be listed and supported within the SWM Report narrative.
  
- C. A determination of Site Conditions in accordance with the Site Assessment procedures outlined in Chapter 4 of the most current version of the Stormwater Management Best Practices Manual. A site assessment shall be completed for projects proposed in areas of carbonate geology or karst topography.
  
- D. The effect of the project (in terms of runoff volumes, water quality, and peak flows) on surrounding properties and adjacent aquatic features and on any existing stormwater conveyance system that may be affected by the project.
  
- E. Stormwater runoff design computations and documentation demonstrating that the requirements of this Ordinance have been met for all watersheds and sub-watersheds, including but not limited to the

recommendations, standards, and calculation methodologies specified in Article III. This information shall also include but not be limited to the following:

1. Summary tables of existing and proposed peak rates, and, where required, relevant Act 167 stormwater release rate reductions
  2. For applicable SWM Facilities, a plotting and tabulation of the storage volumes and discharge curves with corresponding water surface elevations, inflow hydrographs, and outflow hydrographs
  3. For applicable Conveyance Facilities, a tabulation of open or closed channel flow data, including but not limited to shear stress, erosion, provided freeboard, Manning's N values, etc. (open channel conveyance), and hydraulic grade lines, top of grate elevations, pipe sizes, crown and invert elevations, materials, etc. (closed channel flow)
  4. Breakouts of Tc calculation segments and input data for each segment, including but not limited to slope, length, Manning's N values, etc.
  5. Summary tables of curve number (CN) or runoff coefficient (C) calculation averages for all watersheds and/or sub-watersheds
  6. Supporting calculations as necessary for any ESC Facilities
  7. The Municipality has the authority to require that any calculations or modeling be reconciled with field observations, conditions, and site history.
  8. Other data as required by the Township Engineer.
- F. Watershed/sub-watershed maps, which shall include:
1. All points of interests being used in modeling
  2. Existing and proposed watersheds and sub-watersheds, including labeling that matches calculations and designations within the SWM Report
  3. Time of concentration (Tc) paths
  4. Inlet drainage areas with labels corresponding to receiving inlets
  5. Facility labeling that matches calculations and designations within the SWM Site Plan and SWM Report

### **Section 403. Special SWM Site Plan and Report Submission Requirements**

#### **A. Carbonate Assessment**

1. A determination of Site Conditions in accordance with the Site Assessment procedures outlined in Chapter 4 of the most current version of the Stormwater Management Best Practices Manual. A site assessment shall be completed for projects proposed in areas of carbonate geology or karst topography.

B. Infiltration Testing

1. For regulated activities proposing to use infiltration SWM Facilities and requiring SWM Permits, infiltration testing shall be required. Infiltration results shall be included in the SWM Report.

C. Wetland Delineation Report

1. For regulated activities requiring SWM Permits, a wetland delineation report shall be required.

**Section 404. Submission**

- A. One physical copy and one digital copy of the SWM Site Plan and Report ("Submission") shall be submitted to the Municipality.

- B. The Submission shall also include the following components:

1. SWM Permit application with applicable review fees
2. Operation and Maintenance (O&M) Agreement in accordance with Article V of this Ordinance
3. As applicable, financial security and guarantee for all improvements in accordance with the standards of the Subdivision and Land Development Ordinance
4. As applicable, waiver requests in compliance with Section 110 of this Ordinance
5. As applicable, infiltration testing results
6. As applicable, wetland delineation report
7. As applicable, Stormwater Pollution and Prevention Plan
8. As applicable, any permit or authorization copies related to stormwater management, erosion and sediment control, waterways and wetlands, or other relevant plan clearances other than those required by the Municipality, including but not limited to county conservation district adequacy letters, NPDES permits, PADEP/ACOE water obstruction and encroachments permits, FEMA CLOMR/LOMRs, PNDI clearances, PennDOT HOP approvals when the proposed project encroaches into or impacts a PennDOT right-of-way, and other appropriate permits as determined by the Municipality.

**Section 405. Submission Review & SWM Site Plan Approval**

- A. The Submission shall be reviewed by the Municipality for consistency with the provisions of this Ordinance.
- B. The Municipality shall not approve any SWM Site Plan that is deficient in meeting the requirements of this Ordinance or has not received all other permits/authorizations. At its sole discretion, when a Submission is found to be deficient, the Municipality may either disapprove the SWM Site Plan and require a resubmission per Section 407 below, or in the case of minor deficiencies, the Municipality may accept submission of modifications per Section 406 below.

- C. If the Municipality disapproves the SWM Site Plan, the Municipality will state the reasons for the disapproval in writing. The Municipality may also approve the SWM Site Plan with conditions and, if so, shall provide the acceptable conditions for approval in writing.
- D. If the Municipality approves the SWM Site Plan, or all the conditions of an approval per Section 405.D above are met, the Municipality shall promptly issue a SWM Permit to the applicant.

#### **Section 406. Modification of Submission with Minor Deficiencies**

A modification to a Submission with minor deficiencies shall require a resubmission of the modified SWM Site Plan and Report in full in accordance with this Article. If modifications require updates to other components of the Submission as determined by the Municipality, including but not limited to the O&M agreement or further waiver requests, said components shall also be submitted.

#### **Section 407. Resubmission of Disapproved SWM Site Plans**

A disapproved SWM Site Plan may be resubmitted to the Municipality, with the revisions addressing the Municipality's concerns, in accordance with this Article. A resubmitted SWM Site Plan shall include all other Submission components in full, including applicable review fees.

#### **Section 408. Modification of Approved SWM Site Plans**

A request for modification to a SWM Site Plan that has already been approved shall be in writing. The written request shall provide specific details on what portions of the SWM Site Plan are being proposed for modification, and shall be accompanied by Submission components (see Section 404) showing the proposed modifications as required by the Municipality. Any modifications within the updated Submission not matching the written request are considered void.

Requests for modification shall follow the Submission review process per Section 405 above, including the payment of applicable fees. Modifications may not alter stormwater management facilities in a manner which significantly affects the discharge of stormwater to an adjacent property and/or significantly relocates a stormwater management facility within the project site; requests for modifications of this nature shall be treated as new Submissions in accordance with this Article.

The Municipality reserves the sole right to deny requests for modification and require new Submissions in accordance with this Article upon review of the extent of the requested modifications.

#### **Section 409. Operation and Maintenance Agreements**

The owner is responsible for Operation and Maintenance of the SWM BMPs. For stormwater permits, the SWM site plan shall be recorded as an attachment to the O&M agreement. If the owner fails to adhere to the Operation and Maintenance Agreement (see the sample Operations and Maintenance Agreement at the end of this section), the Municipality may perform the services required and charge the owner appropriate fees. Non-payment of fees may result in a lien against the property or other judicial action. See Article V of this ordinance.

#### **Section 410. Authorization to Construct and Term of Validity**

The Municipality's approval of a SWM Site Plan and issuance of a SWM Permit authorizes the regulated activities contained in the SWM Site Plan for a maximum term of validity of 5 years following the date of approval. Terms of validity shall commence on the date the Municipality issues the SWM Permit. If an approved SWM Site Plan is not completed according to Section 410 within the term of validity, then the Municipality may consider the SWM Site Plan disapproved and may revoke any and all permits without the necessity of any proceedings for revocation. SWM Site Plans that are considered disapproved by the Municipality shall be resubmitted in accordance with Section 407 of this Ordinance.

## Section 411. Project Closeout

- A. After completing the improvements listed in the SWM Site Plan, confirming the site has achieved permanent stabilization, and removing or retrofitting any ESC Facilities, the applicant shall notify the Municipality in writing that the work is complete.
- B. In addition to the written notification of completion, As-Built Plans are required by the Subdivision and Land Development Ordinance and shall be submitted for review. The As-Built Plan shall include the following items:
  - 1. Depiction of all items required in the original SWM Site Plan per Section 401, including but not limited to profiles and construction details of improvements
  - 2. Clear identification of all discrepancies alongside their original design criteria, dimensions, specifications, etc.
  - 3. As-Built surveyed contours covering all improvements/changes made to the site at intervals of 1 or 2 feet.
  - 4. Latitude and longitude coordinates at the central location of all permanent SWM BMPs
  - 5. A note stating, "Qualified professional responsible for as-built plan composition, on this date (signature date), certifies that all SWM and Conveyance Facilities have been constructed according to the approved plans and specifications."
  - 6. A note stating, "Qualified professional responsible for as-built plan composition, on this date, (signature date), certifies that all survey, plan, and general data displayed herein are correct and true."
  - 7. A narrative explanation of any discrepancies with the approved SWM Site Plan
- C. After receipt of the written notification of completion and As-Built Plan, the Municipality may: 1. conduct a final inspection for the purposes of determining the extent of project completion and the amount of release of financial security; and 2. review the As-Built Plan for acceptability and accuracy.
- D. If any deficiencies with either the work or the As-Built Plan are noted by the Municipality, they shall be delivered to the Applicant in writing.
- E. After the correction of any deficiencies and determination of final completion, the Municipality shall notify the applicant of said determination in writing.
- F. If the SWM Site Plan was submitted as part of a Subdivision and Land Development Plan, project closeout shall follow the process and requirements in the Subdivision and Land Development Ordinance. The entirety of the SWM Site Plan including but not limited to grading plan, profiles, details, and calculations shall be recorded with the Subdivision and Land Development plan.

## **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 the 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. Prior to recording, the O&M Agreement shall be submitted to the Municipality for review and approval.
  - 1. The owner, successor and assigns shall maintain all facilities in accordance with the approved maintenance schedule in the O&M Agreement.
  - 3. The owner shall convey to the Municipality conservation easements to assure access for periodic inspections by the Municipality and maintenance, as necessary.
  - 4. 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.
  - 5. Other items may be included in the O&M Agreement where determined necessary to guarantee the satisfactory operation and maintenance of all SWM BMP facilities. At a minimum, the agreement needs to include an attachment that outlines the operation and maintenance requirements of the owner for the BMPs utilized. All O&M agreements shall include responsibility for and details about sinkhole repair.
- 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 or other judicial action.

### **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 in accordance with the provisions of Sections 509, 510, and 511 of the Pennsylvania Municipalities Planning Code.

## **ARTICLE VI – FEES AND EXPENSES**

### **Section 601. General**

The Municipality may include all costs incurred in the review fee 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.

### **Section 602. Fees for Modification**

A. All modifications of approved stormwater shall be charged a fee as determined by the Township's approved fee schedule.

## 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 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 drainage 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 discharge.

### 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.

### Section 704. Dumping

“Dumping” and/or unregulated disposal of waste, including but not limited to yard waste, construction refuse, paint, petrochemicals, domestic solid waste, etc., is prohibited. The activity of dumping does not need to directly drain into a concentrated discharge or collection system to be prohibited. Dumping prohibitions do not include incidental, short-term, temporary storage of soon-to-be-used materials that pose a low risk for stormwater runoff pollution (e.g., mulch piles for domestic gardening, stone piles for driveway sub-base, brick pallets for home construction, etc.), nor agricultural activity or forest management and timber operations provided that the activities are performed according to the requirements of 25 Pa. Code Chapter 102.

### Section 705. Open Storage

Open storage of pollutants, including but not limited to uncapped barrels, leaking containers, chemical tank drainage, etc., is prohibited. The activity of openly storing pollutants does not need to directly drain into a concentrated

discharge or collection system to be prohibited. Open storage prohibitions do not include agricultural activity or forest management and timber operations provided that the activities are performed according to the requirements of 25 Pa. Code Chapter 102

## **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 5 years.
2. Once every 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 the inspection. See Appendix B for Inspection Report Form.

### **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, and therefore may not be unreasonably denied.

### **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 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 – 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.nws.noaa.gov/hdsc/pfds/>.
6. Cumberland County, Pennsylvania (CCPA). SWMP358:21 (April 10, 2002), as amended and updated. *Act 167 Stormwater Plan, Upper Yellow Breeches Watershed*. Carlisle, PA. Available from CCPA at: <https://www.ccpa.net/DocumentCenter/View/323/Stormwater-Management-Plan>

Enacted by the Board of Supervisors of South Middleton Township at a public hearing this \_\_\_\_\_ day of \_\_\_\_\_, 2025.

BOARD OF SUPERVISORS  
SOUTH MIDDLETON TOWNSHIP

\_\_\_\_\_  
SHELLY L. CAPOZZI, Chairperson

ATTEST:

\_\_\_\_\_  
WALTER G. REIGHARD, Vice Chairperson

\_\_\_\_\_  
JARRETT A. SWEENEY, Secretary

\_\_\_\_\_  
R. DUFF MANWEILER

\_\_\_\_\_  
RON P. HAMILTON

\_\_\_\_\_  
BRYAN A. GEMBUSIA

## 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 \_\_\_\_\_ (hereinafter the "Landowner"), and South Middleton Township, Cumberland County, Pennsylvania (hereinafter "Municipality");

#### **WITNESSETH**

**WHEREAS**, the Landowner is the owner of certain real property as recorded by deed in the land records of Cumberland County, Pennsylvania, Parcel Identification Number \_\_\_\_\_, (hereinafter "Property").

**WHEREAS**, the Landowner is proceeding to build and develop the Property as depicted on the recorded subdivision and/or land development plan known as \_\_\_\_\_; and

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

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

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

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

1. The Landowner shall construct 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 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 Cumberland 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)  
Township Secretary

\_\_\_\_\_  
Chairperson

**WITNESS**

For the Landowner:

\_\_\_\_\_

\_\_\_\_\_  
Name:  
Title:

COMMONWEALTH OF PENNSYLVANIA

COUNTY OF CUMBERLAND

On this \_\_\_\_ day of \_\_\_\_\_, 202\_\_ before me a notary public personally appeared \_\_\_\_\_, who acknowledged himself/herself to be Chairperson of South Middleton Township, and in that capacity, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the Township by himself/herself as such officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

\_\_\_\_\_  
NOTARY PUBLIC

\_\_\_\_\_  
(SEAL)

COMMONWEALTH OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

On this \_\_\_\_ day of \_\_\_\_\_, 202\_\_ before me a notary public personally appeared \_\_\_\_\_, who acknowledged himself/herself to be the \_\_\_\_\_ of \_\_\_\_\_, and in that capacity, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the company himself/herself.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

\_\_\_\_\_  
NOTARY PUBLIC

\_\_\_\_\_  
(SEAL)

## APPENDIX B

### **LOW IMPACT DEVELOPMENT PRACTICES ALTERNATIVE APPROACH FOR MANAGING STORMWATER RUNOFF**

Natural hydrologic conditions may be altered by development practices, which may create impervious surfaces, destroy drainage swales, construct storm sewers, and change local topography. A traditional approach to drainage has been to remove runoff from sites as quickly as possible and capture it in downstream detention basins. This approach leads to the degradation of water quality as well as additional expenditures for detaining and managing concentrated runoff.

The recommended approach is to promote practices that will minimize post-development runoff rates and volumes and minimize needs for artificial conveyance and storage facilities. To simulate pre-development hydrologic conditions, increased infiltration often is helpful to offset the effects of increasing the area of impervious surfaces. The ability to increase infiltration depends upon the soil types and land use.

Preserving natural hydrologic conditions requires careful site design that includes preservation of natural drainage features, minimization of impervious surfaces, reduction of hydraulic connectivity of impervious surfaces, and protection of natural depression storage areas. A well-designed site will contain a mix of all these features. The following describes various techniques to achieve this:

- A. **Preserve Drainage Features.** Protect natural drainage features, particularly vegetated drainage swales and channels. Locate streets and adjacent storm sewers away from valleys and swales.
- B. **Protect Natural Depression Storage Areas.** Depression storage areas have no surface outlet, or they drain very slowly. Depressions should be protected and the storage capacity should be incorporated into required detention facilities.
- C. **Avoid Creating Impervious Surfaces.** Reduce impervious surfaces to the maximum extent possible. Building footprints, sidewalks, driveways and other features should be minimized.
- D. **Avoid Connecting Impervious Surfaces.** Route roof runoff over lawns and avoid using storm sewers. Grade sites to increase the travel time of stormwater runoff. Avoid concentrating runoff.
- E. **Use Pervious-Paving Materials.** Use pervious materials for driveways, parking lots, access roads, sidewalks, bike trails and hiking trails. Provide pervious strips between streets and sidewalks.
- F. **Reduce Setbacks.** Reduce setbacks for buildings to shorten the driveways and entry walks.
- G. **Construct Cluster Developments.** Construct cluster developments to reduce street length per lot.

Enacted by the Board of Supervisors of South Middleton Township at a public hearing this 11th day of September, 2025.

BOARD OF SUPERVISORS  
SOUTH MIDDLETON TOWNSHIP

[Signature]  
SHELLY L. CAPOZZI, Chairperson

ATTEST:

[Signature]  
WALTER G. REIGHARD, Vice Chairperson

Jarrett A. Sweeney  
JARRETT A. SWEENEY, Secretary

[Signature]  
R. DUFF MANWEILER

[Signature]  
RON P. HAMILTON

[Signature]  
BRYAN A. GEMBUSIA