

**STORMWATER MANAGEMENT ORDINANCE**

**ORDINANCE NO.   1   OF 2011**

**PER**

**LUZERNE COUNTY ACT 167 PHASE II**

**TOWNSHIP OF DENNISON  
LUZERNE COUNTY,  
PENNSYLVANIA**

**ENACTED AT A PUBLIC MEETING HELD ON:**

April 13, 2011

Article I - General Provisions

Section 101.	Short Title
Section 102.	Statement of Findings
Section 103.	Purpose
Section 104.	Statutory Authority
Section 105.	Applicability
Section 106.	Repealer
Section 107.	Severability
Section 108.	Compatibility with Other Requirements

Article II - Definitions

Article III - Stormwater Management Standards

Section 301.	General Requirements
Section 302.	Exemptions
Section 303.	Volume Controls
Section 304.	Rate Controls

Article IV - Stormwater Management (SWM) Site Plan Requirements

Section 401.	Plan Requirements
Section 402.	Plan Submission
Section 403.	Plan Review
Section 404.	Modification of Plans
Section 405.	Resubmission of Disapproved SWM Site Plans
Section 406.	Authorization to Construct and Term of Validity
Section 407.	As-Built Plans, Completion Certificate and Final Inspection

Article V - Operation and Maintenance

Section 501.	Responsibilities of Developers and Landowners
Section 502.	O&M Agreements

Article VI - Fees and Expenses

Section 601.	General
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Article VII - Prohibitions

Section 701.	Prohibited Discharges and Connections
Section 702.	Roof Drains
Section 703.	Alteration of SWM BMPs

Article VIII - Enforcement and Penalties

Section 801.	Right-of-Entry
Section 802.	Inspection
Section 803.	Enforcement
Section 804.	Suspension and Revocation

Section 805.  
Section 806.

Penalties  
Appeals

Article IX - References

Appendix A - Operation and Maintenance (O & M) Agreement

Appendix B – Stormwater Management Permit Application

Appendix C.1 - Disconnected Impervious Area (DIA) and Worksheet

Appendix C.2 - Rainspout Disconnection from Sanitary Sewer Systems

Appendix D - Projects Meeting Requirements in Section 303 Subsection B.

Appendix E - Stormwater Management for Small Projects

Appendix F.1 - Stormwater Management District Maps

Appendix F.2 - Hydrologic Soil Group (HSG) Map



## ARTICLE I - GENERAL PROVISIONS

### Section 101. Short Title

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

### Section 102. Statement of Findings

In accordance with the requirement of Act 167 of 1978, the Pennsylvania Stormwater Management Act, Dennison Township is mandated to enact a Stormwater Management Ordinance. The Township Board of Supervisors of Dennison Township finds that:

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

### Section 103. Purpose

The purpose of this Ordinance is to promote health, safety, and welfare within Dennison Township 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 the natural drainage systems as much as possible.
- C. Manage stormwater runoff close to the source.

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

#### **Section 104. Statutory Authority**

A. Primary Authority:

Dennison Township is empowered to regulate these activities by the authority of the Act of October 4, 1978, P.L. 864 (Act 167), 32 P.S. Section 680.1, et seq., as amended, the "Storm Water Management Act" and the and Act of May 1, 1933, P.L. 103, No. 69, reenacted and amended November 9, 1995, P.L. 350, No. 60 as amended, known as the Second Class Township Code.

B. Secondary Authority:

Dennison Township 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 Dennison Township 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.



## 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" 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.

**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 Dennison Township for approval to engage in any regulated activity at a project site in Dennison Township.

**Best Management Practice (BMP)** - Activities, facilities, designs, measures, or procedures used to manage stormwater impacts from regulated activities, to meet state water quality requirements, to promote groundwater recharge, and to otherwise meet the purposes of this Ordinance. Stormwater BMPs are commonly grouped into one of two broad categories or measures: "structural" or "nonstructural." In this Ordinance, nonstructural BMPs or measures refer to operational and/or behavior-related practices that attempt to minimize the contact of pollutants with stormwater runoff whereas structural BMPs or measures are those that consist of a physical device or practice that is installed to capture and treat stormwater runoff. Structural BMPs include, but are not limited to, a wide variety of practices and devices, from large-scale retention pond 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.

**Capture** - The process of collecting runoff to be managed by a stormwater BMP.

**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; refers to the Luzerne Conservation District unless otherwise noted.

**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 this Commonwealth at a controlled rate.

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

**Development, Land** - Any human-induced change to improved or unimproved real estate, whether public or private, including, but not limited to, land development, construction, installation; or expansion of a building or other structure, land division, street construction, drilling, and site alteration such as embankments, dredging, grubbing, grading, paving, parking or storage facilities, excavation, filling, stockpiling, or clearing.

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

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

**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.

**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.

**Geotextile** - A porous fabric manufactured from synthetic fiber that is used to provide separation between different types of media (i.e., between soil and stone).

**Hotspot** - Areas where land use or activities generate highly contaminated runoff, with concentrations of pollutants that are higher than those that are typically found in stormwater (e.g., vehicle salvage yards and recycling facilities, vehicle fueling stations, fleet storage areas, vehicle equipment and cleaning facilities, and vehicle service and maintenance facilities).

**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>3/4</sup>).

**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 areas if they do not prevent infiltration.

**Infiltration** - Movement of surface water into the soil, where it is absorbed by plant roots, evaporated into the atmosphere, or percolated downward to recharge groundwater.

**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

- (1) 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 residential or nonresidential buildings, whether proposed initially or cumulatively, or a single nonresidential building on a lot or lots regardless of the number of occupants or tenure; or
  - (b) the division or allocation of land or space, whether initially or cumulatively, 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.
- (2) A subdivision of land.
- (3) Development in accordance with section 503(1.1) of the Pennsylvania Municipalities Code, Act 247, as amended.

**Low Impact Development** - A land development and construction approach that uses various land planning, design practices, and technologies to simultaneously conserve and protect natural resource systems, while allowing for necessary infrastructure improvements associated with land development.

**Municipality** - Dennison Township, Luzerne County, Pennsylvania.

**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 Dennison Township 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 the Ordinance.

**Redevelopment** - Any development that requires demolition or removal of existing structures or impervious surfaces at a site and replacement with new impervious surfaces. Maintenance activities such as top-layer grinding and re-paving are not considered to be redevelopment. Interior remodeling projects and tenant improvements are also not considered to be redevelopment.

**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).

**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 Plan** - The Luzerne County Stormwater Management Plan for managing stormwater runoff adopted by the County of Luzerne as required by the Act of October 4, 1978, P.L. 864, (Act 167), as amended, and known as the "Storm Water Management Act."

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

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

**Subdivision** - As defined in The Pennsylvania Municipalities Planning Code, Act of



July 31, 1968, P.L. 805, No. 247, as amended.

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

**Void Ratio** - The ratio of the volume of void space to the total volume of the BMP material (void space plus solid material / media providing structural support to create the storage area).

**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, submission of the Stormwater Management Permit Application provided in Ordinance Appendix B is required. "Level I" projects as described in appendix B, may use Dennison Township "Simplified" Stormwater Management Application.
- B. For all regulated activities, unless preparation of a SWM Site Plan is specifically exempted in Section 302:
  - 1. Preparation and implementation of an approved SWM Site Plan is required.
  - 2. No regulated activities shall commence until Dennison Township issues written approval of a SWM Site Plan, which demonstrates compliance with the requirements of this Ordinance.
- C. SWM Site Plans approved by Dennison Township, in accordance with Section 406, shall be on site throughout the duration of the regulated activity.
- D. Dennison Township may, after consultation with DEP, approve measures for meeting the state water quality requirements other than those in this Ordinance, provided that they meet the minimum requirements of, and do not conflict with, state law including, but not limited to, the Clean Streams Law.
- E. 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>2</sup>, No. 363-2134-008 (April 15, 2000), as amended and updated.
- F. For all regulated activities, implementation of the volume controls in Section 303 is required, unless otherwise exempted by Section 302.
- G. 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, only the proposed impervious area on the parcel must be considered and summed to determine the plan preparation and approval requirements of this Ordinance.
  4. For redevelopment projects in which the existing site is disturbed, the entire proposed site is subject to the plan preparation and approval requirements of this Ordinance. Existing conditions are considered to be the existing site prior to disturbance, and 20% of the existing impervious area must be considered as meadow in good condition for all stormwater calculations. For redevelopment projects in which the existing site is already controlled by a stormwater management facility, the requirement to consider 20% of existing impervious area as meadow is waived, provided the existing facility meets the water quality, volume, and peak rate standards and criteria of this Ordinance.
- H. Stormwater flows onto adjacent property shall not be created, increased, decreased, relocated, or otherwise altered without written notification of the adjacent property owner(s). Such stormwater flows shall be subject to the requirements of this Ordinance.
- I. All regulated activities shall include measures to:
1. Protect health, safety, and property;
  2. Meet the water quality goals of this Ordinance by implementing measures outlined in the *Pennsylvania Stormwater Best Management Practices Manual* (BMP Manual)<sup>1</sup> 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. To the maximum extent practicable, incorporate the techniques for Low Impact Development Practices described in the BMP Manual<sup>1</sup>.
- J. The design of all facilities over karst and mined areas shall include an evaluation of measures to minimize adverse effects.



- K. 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.
- L. Storage facilities, to the greatest extent possible and at the discretion of the Municipal Engineer, shall completely drain both the volume control and rate control capacities over a period of time not less than 24 hours and not more than 72 hours from the end of the design storm.
- M. Storage facilities shall incorporate features to maximize the length of the flow path and increase the travel time through the facility.
- N. The design storm volumes to be used in the analysis of peak: rates of discharge should be obtained from the Precipitation-Frequency Atlas of the United States, Atlas 14, Volume 2, Version 3.0, U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Spring, Maryland. NOAA's Atlas 14 can be accessed at: <http://hdsc.nws.noaa.gov/hdsc/pfds/>.<sup>5</sup>
- O. For all regulated activities, SWM BMPs shall be designed, implemented, operated, and maintained to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code, the Clean Streams Law, and the Storm Water Management Act.
- P. Various BMPs and their design standards are listed in the BMP Manual<sup>1</sup>.

### **Section 302. Exemptions**

- A. Regulated activities that create impervious areas or earth disturbance shall adhere to Table III.1 to meet the requirements of this Ordinance. The larger of the two areas determines the applicable requirements of this Ordinance. (i.e. if only 500 sq. ft. of impervious area is proposed, but 15,000 sq. ft. of earth disturbance, the requirements follow row 3 of Table III.1).

**Table III Stormwater Management Requirements and Exemptions**

Proposed Impervious Area (sq. ft.)	Proposed Total Earth Disturbance (sq. ft.)	Ordinance Exemptions	Stormwater Management Requirements	What is required to submit to Municipality? <sup>2,3</sup>
< 1,000	< 5,000	N/A	N/A	N/A
1,000 to 5,000	5,000 to 10,000	Section 303, Section 304 and Article IV of this Ordinance	Disconnected Impervious Area (DIA) as in Ord. Appendix C.1	Ord. Appendix C.1 Worksheet and Sketch (or equivalent)
			or Capture and control first 1 inch of runoff over proposed impervious areas as in Ord. Appendix E	or Ord. Appendix E Worksheet and Sketch (or equivalent)
5,000 to 10,000	10,000 to 20,000	Section 304 and Article IV of this Ordinance	Capture and permanently remove the two 2 inches of runoff over proposed impervious areas as in Section 303 B. of this Ordinance	Ord. Appendix D Worksheet and Sketch (or equivalent)
> 10,000	> 20,000	None	All requirements of this Ordinance	All requirements of this Ordinance

**\*In addition to the Stormwater Management Permit Application provided in Ordinance Appendix B**

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

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

The low impact development practices provided in the BMP Manual <sup>1</sup> shall be utilized for all regulated activities to the maximum extent practicable. Water volume controls shall be implemented using the *Design Storm Method* in Subsection A or the *Simplified Method* in Subsection B below. For all regulated activities defined by Section 302, Subsection D, both the *Design Storm Method* and the *Simplified Method* shall be calculated; the larger control volume based on the two calculations shall be controlled. Subsection C below provides requirements for mined, karst, or other geologically limiting areas where infiltration shall not occur.



- A. The *Design Storm Method* (CG-1 in the BMP Manual) is applicable to any size of regulated activity. This method requires detailed modeling based on site conditions.
1. Do not increase the post-development total runoff volume for all storms equal to or less than the 2-year 24-hour duration precipitation.
  2. For modeling purposes:
    - a. Existing (predevelopment) non-forested pervious areas must be considered meadow or its equivalent.
    - b. 20% of existing impervious area, when present, shall be considered meadow in the model for existing conditions.
- B. When *Design Storm Method* CG-1 guidelines are not used, the *Simplified Method* (CG-2 in the BMP Manual) has been modified to accommodate 2" of permanently removed runoff volume. This method (provided below) is independent of site conditions and should be used if the *Design Storm Method* is not followed. For new impervious surfaces:
1. The first 2 inches of runoff from new impervious surfaces shall be permanently removed from the runoff flow (i.e., it shall not be released to the surface waters of this Commonwealth). Removal options include reuse, evaporation, transpiration, and infiltration.
  2. Wherever possible, infiltration facilities should be designed to accommodate infiltration of the entire permanently removed runoff; however, in all cases at least the first 0.5 inch of the permanently removed runoff should be infiltrated.
  3. Facilities shall be designed to drain the permanently removed runoff volume in a period no less than 24 hours and no greater than 72 hours.
  4. Runoff volume in excess of 2 inches shall be safely conveyed to existing stormwater collection systems or streams, in the direction of the existing drainage course.
  5. This method is exempt from the requirements of Section 304, Rate Controls.
- C. Before infiltration is proposed on a site, site conditions shall be evaluated by a qualified design professional through subsurface investigation and testing to determine if site conditions are suitable to support proposed infiltration facilities to manage runoff. If it is determined that infiltration is not feasible due to physical constraints of the site, or will adversely impact the environment as demonstrated by the presence of acid mine drainage, sinkhole formation, or other serious environmental issues, then the above volume controls must be achieved through surface BMP mitigation. Reference the BMP Manual<sup>1</sup> for alternative mitigation measures that do not require infiltration.

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

- A. Areas not covered by a Stormwater Management District Map contained in Appendix F.1 of the Ordinance:



Post-development discharge rates shall not exceed the predevelopment discharge rates for the 1- through 100-year, 24-hour storms. If it is shown that the peak rates of discharge indicated by the post-development analysis are less than or equal to the peak rates of discharge indicated by the predevelopment analysis for 1- through 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. Areas not covered by a Stormwater Management District Map contained in Appendix F.1 of the Ordinance:

For the 1- through 100-year storms, the post-development peak discharge rates will follow the applicable approved Stormwater Management District Maps. For any areas not shown on the Stormwater Management District Maps, the post-development discharge rates shall not exceed the predevelopment discharge rates.

## 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 municipal's Subdivision and Land Development Ordinance, and other applicable local ordinances, shall be followed in preparing the SWM Site Plans. In instances where Dennison Township lacks Subdivision and Land Development regulations, the content of SWM Site Plans shall follow the county's Subdivision and Land Development Ordinance.
- B. Dennison Township shall not approve any SWM Site Plan that is deficient in meeting the requirements of this Ordinance. At its sole discretion and in accordance with this Article, when a SWM Site Plan is found to be deficient, Dennison Township may either disapprove the submission and require a resubmission, or in the case of minor deficiencies, Dennison Township 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 Item E.9 below.
- D. The following signature block for Dennison Township:  
  
“(Dennison Township official or designee), on this date (date of signature), has reviewed and hereby certifies that the SWM Site Plan is in compliance with the Municipal Ordinance No. (number assigned to the 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 Manual <sup>1</sup>. A detailed site evaluation shall be completed for projects proposed in areas of carbonate geology or karst topography, mined areas, and other environmentally sensitive areas, such as brownfields; depending on site conditions, more stringent standards than those in this Ordinance may be imposed at the discretion of the municipal engineer.
  - 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; computations are required for all proposed stormwater management facilities.
  - 4. Expected project time schedule.



5. A soil erosion and sediment control plan, where applicable, as prepared for and submitted to the approval authority, and in conformance with 25 Pa. Code 102.
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. The SWM Site Plan shall include the following additional elements:
  - a. Construction details of all proposed stormwater management facilities.
  - b. A stormwater facility design narrative.
  - c. A signature block containing the name, address, and phone number of the individual responsible for the operation and maintenance plan.
  - d. A drainage area map with time of concentration paths shown.
  - e. Existing contour intervals of two feet.
  - f. All existing features on the property and within 50 feet of property.
  - g. Floodplain and floodway limits.
  - h. Proposed structures and proposed grades.
  - i. Soil boundary lines and descriptions.
  - j. Date of submission, north arrow, graphic scale, call before you dig noted reference number, location map, name of development, name and address of property owner, and individual preparing the SWM Site Plan.
  - k. Existing and proposed easements.
  - l. Statement signed by landowner stating that they cannot alter any stormwater management facility without prior permission of Dennison Township.

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

- A. 5 copies of the SWM Site Plan shall be submitted as follows:
  1. 2 copies to Dennison Township.
  2. 1 copy to the municipal engineer (when applicable).
  3. 1 copy to the County Conservation District.



4. 14. 1 copy to the County Planning Commission/Office.

- B. Additional copies shall be submitted as requested by Dennison Township or DEP.

#### **Section 403. Plan Review**

- A. The SWM Site Plan shall be reviewed by a qualified professional for Dennison Township for consistency with the provisions of this Ordinance: After review, - the qualified professional shall provide a written recommendation for the - municipality to approve or disapprove the SWM Site Plan. If it is recommended to disapprove the SWM Site Plan, the qualified professional shall state the reasons for the disapproval in writing. The qualified professional also may recommend approval of the SWM Site Plan with conditions and, if so, shall provide the acceptable conditions for approval in writing. The SWM Site Plan review and recommendations shall be completed within the time allowed by the Municipalities Planning Code for reviewing subdivision plans.
- B. Dennison Township 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 period is 90 days. If a longer notification period is provided by other statute, regulation, or ordinance, the applicant will be so notified by Dennison Township. If Dennison Township disapproves the SWM Site Plan, Dennison Township shall cite the reasons for disapproval in writing.

#### **Section 404. 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 Dennison Township shall require a resubmission of the modified SWM Site Plan in accordance with this Article.

#### **Section 405. Resubmission of Disapproved SWM Site Plans**

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

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

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

#### **Section 407. 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. If any licensed qualified professionals contributed to the construction plans, then a licensed qualified professional must sign the completion certificate.
- C. After the completion certification is received by Dennison Township, Dennison Township or its official designee may conduct a final inspection.



## **ARTICLE V- OPERATION AND MAINTENANCE**

### **Section 501. Responsibilities of Developers and Landowners**

- A. Dennison Township shall make the final determination on the continuing maintenance responsibilities prior to final approval of the SWM Site Plan. Dennison Township may require a dedication of such facilities as part of the requirements for approval of the SWM Site Plan. Such a requirement is not an indication that Dennison Township will accept the facilities. Dennison Township reserves the right to accept or reject the ownership and operating responsibility for any portion of the stormwater management controls. If the facility is rejected by Dennison Township, provisions shall be made to identify the legal owner.
- B. Three options exist for perpetual ownership and responsibility of stormwater management facilities:
  - 1. The developer retains ownership;
  - 2. A Homeowners Association assumes ownership and responsibility;
  - 3. The facility is dedicated to, and accepted by, Dennison Township
- C. Facilities, areas, or structures used as Stormwater Management BMPs shall be numerated as permanent real estate appurtenances and recorded as deed restrictions or conservation easements that run with the land.
- D. The O&M Plan shall be recorded as a restrictive deed covenant that runs with the land.
- E. Dennison Township may take enforcement actions against an owner for any failure to satisfy the provisions of this Article.

### **Section 502. O&M Agreements**

The owner is responsible for O&M of the SWM BMPs. If the owner fails to adhere to the O&M Agreement, Dennison Township may perform the services required and charge the owner appropriate fees. Nonpayment of fees may result in a lien against the property.

## **ARTICLE VI - FEES AND EXPENSES**

### **Section 601. General**

Dennison Township shall include all costs incurred in the review fee charged to an applicant. The application fee and 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

The applicant shall within thirty (30) days from receipt of written notification of costs incurred by Dennison Township, make payment in full to Dennison Township.



## ARTICLE VII – PROHIBITIONS

### Section 701. Prohibited Discharges and Connections

- A. Any drain or conveyance, whether on the surface or subsurface, that allows any non-stormwater discharge including sewage, process wastewater, and wash water to enter the waters of this Commonwealth is prohibited.
- B. No person shall allow, or cause to allow, discharges into surface waters of this Commonwealth which are not composed entirely of stormwater, except (1) as provided in Subsection C below and (2) discharges allowed under a state or federal permit.
- C. The following discharges are authorized unless they are determined to be significant contributors to pollution to the waters of this Commonwealth:

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

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

### Section 702. Roof Drains

Roof drains and sump pumps shall discharge to infiltration or vegetative BMPs and to the maximum extent practicable satisfy the criteria for DIAs consistent with Appendix C.I. of this Ordinance.

### **Section 703 Alteration of SWM BMPs**

No person shall modify, remove, fill, landscape, or alter any SWM BMPs facilities, areas, or structures without the written approval of Dennison Township.



## **ARTICLE VIII - ENFORCEMENT AND PENALTIES**

### **Section 801. Right-of-Entry**

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

### **Section 802. Inspection**

Stormwater structures and facilities may be inspected by the landowner or the landowner's designee (including Dennison Township for dedicated and owned facilities), or governmental agencies using SWM – BMPs:

- A. The frequency of said inspections, shall be determined by the landowner, Dennison Township or governmental agency, as deemed appropriate on a case by case basis;
- B. Such inspections are at the discretion of Dennison Township or governmental agency where the facility is located. The cost of this inspection shall be set by Dennison Township or governmental agency which may include bonding requirements. Such costs or bonding requirements shall be provided to the landowner and/or developer at its request or at any time during the project, however, if bonding is required then all work shall cease until these requirements are met.

### **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 of this Ordinance.
- B. It shall be unlawful to violate Section 703 of this Ordinance.

### **Section 804. Suspension and Revocation**

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

pollution, or endangers the life or property of others.

- B. A suspended approval may be reinstated by Dennison Township when:
  - 1. Dennison Township has inspected and approved the corrections to the violations that caused the suspension.
  - 2. Dennison Township is satisfied that the violation has been corrected.
- C. An approval that has been revoked by Dennison Township cannot be reinstated. The applicant may apply for a new approval under the provisions of this Ordinance.
- D. If a violation causes no immediate danger to life, public health, or property, at its sole discretion, 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 (\$500.00) for each violation, recoverable with costs, including but not limited to, Court costs and attorney fees. Each day that the violation continues shall be a separate offense and penalties shall be cumulative.
- B. In addition, Dennison Township 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 Dennison Township or its designee, relevant to the provisions of this Ordinance, may appeal to Dennison Township within 30 days of that action. The appeal will be heard and decided by the Township Board of Supervisors with recommendation from the Township's Engineer.
- B. Any person aggrieved by any decision of Dennison Township, relevant to the provisions of this Ordinance, may appeal to the Luzerne County Court of Common Pleas in the within 30 days of the decision.



## ARTICLE IX - REFERENCES

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

THE DENNISON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE

APPROVED AND ENACTED BY THE TOWNSHIP BOARD OF SUPERVISORS  
OF THE TOWNSHIP OF DENNISON ON THIS 13 DAY OF April, 2011

THIS ORDINANCE SHALL TAKE EFFECT IMMEDIATELY UPON ITS  
ENACTMENT.

Michael E. Mard  
CHAIRMAN

Shirley Weaver  
VICE -CHAIRMAN

B. Thomas  
SUPERVISOR

ATTEST:

Kathleen Stutz  
TOWNSHIP 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 \_\_\_\_\_, (hereinafter the "Landowner"), and the Township of Dennison, Luzerne County, Pennsylvania;

#### **WITNESSETH**

**WHEREAS**, the Landowner is the owner of certain real property as recorded by deed in the land records of Luzerne County, Pennsylvania, Deed Book \_\_\_\_\_ at page \_\_\_\_\_, (hereinafter "Property").

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

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

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

**WHEREAS**, Dennison Township requires, through the implementation of the SWM Site Plan, that SWM BMPs as required by said 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 Plan in good working order in accordance with the specific maintenance requirements noted on the approved SWM Site Plan.

3. The Landowner hereby grants permission to Dennison Township, 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. Dennison Township 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, Dennison Township 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 Dennison Township 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 Dennison Township.
5. In the event Dennison Township, 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 Dennison Township for all expenses (direct and indirect) incurred within 10 days of receipt of invoice from Dennison Township.
6. The intent and purpose of this Agreement is to ensure the proper maintenance of the onsite BMPs by the Landowner; provided, however, that this Agreement shall not be deemed to create or effect 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 Dennison Township 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. Dennison Township shall 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 Luzerne County, Pennsylvania, and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Landowner, his administrators, executors, assigns, heirs, and any other successors in interests, in perpetuity.

ATTEST:

WITNESS the following signatures and seals:

(SEAL)

For Dennison Township:

For the Landowner:

ATTEST:

\_\_\_\_\_ (Dennison Township)

County of Luzerne, Pennsylvania

I, \_\_\_\_\_, a Notary Public in and for the county and state aforesaid, whose commission expires on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, do hereby certify that \_\_\_\_\_ whose name(s) is/are signed to the foregoing Agreement bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, has acknowledged the same before me in my said county and state.

**GIVEN UNDER MY HAND THIS** \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

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

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

## APPENDIX B

### STORMWATER MANAGEMENT PERMIT APPLICATION

Anyone performing a regulated activity must complete the accompanying Stormwater Management Permit Application, and submit it to Dennison Township. A regulated activity is by this Ordinance as:

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

This includes but is not limited to: the clearing of wooded areas, grading and excavating, placement of pavement (driveways, parking areas, roads), construction of buildings and other structures (homes, sheds, garages, commercial and industrial buildings), and other activities which alter the way stormwater runs off of the landscape. Impervious area is defined by this Ordinance as:

**Impervious Surface (Impervious Area)** - A surface that prevents the infiltration of water into the ground. Impervious surfaces include, but are not limited to, streets, sidewalks, pavements, parking lots, driveways, roofs, stone patios. See definition of "Gravel (Crushed Stone)," for when gravel classifies as impervious area.

**Gravel (Crushed Stone)** - Considered to be impervious when the intended use of the stone is for transportation purposes, parking areas, construction areas, trails, or if the gravel is compacted at any time during or after its placement; landscaping stone is not considered as impervious area.

Depending on the amount of impervious area placed and the amount of earth disturbance to the project site, this Ordinance requires different levels of stormwater management, and correspondingly different levels of design and review. The applicant shall be responsible to reimburse Dennison Township for any review costs incurred by Dennison Township for the services of a qualified professional.

**Level 1:** Proposed impervious area is less than 1,000 sq. ft. and total earth disturbance is less than 5,000 sq. ft.

Submit Level 1 Application documenting the proposed impervious area is less than 1,000 sq. ft. Upon providing such documentation, no further application or plan shall be required.

**Level 2:** Proposed impervious area is between 1,000 sq. ft. and 5,000 sq. ft. or total earth disturbance is between 5,000 sq. ft. and 10,000 sq. ft.

**Stormwater Management Controls:** Utilize Disconnected Impervious Area (DIA) for stormwater controls as outlined in Ordinance Appendix C.1; if DIA cannot be achieved, utilize stormwater management controls for small projects as outlined in Ordinance Appendix E.

**Submission:** Submit the Stormwater Management Permit Application and computations for DIA; the worksheet in this Ordinance Appendix C.1 may be used and submitted as is, or may be modified as Dennison Township sees fit. If DIA cannot be achieved, submit computations for Stormwater Management for Small Projects; the worksheet in this Ordinance Appendix E may be used and submitted as is, or may be modified as Dennison Township sees fit; the easiest mechanism is to include the application with Building Permits.



**Review:** At the sole discretion of Dennison Township the review of the application and computations may require the services of a qualified professional. The application must be approved prior to the issuance of any building permit.

**Level 3:** Proposed impervious area is between 5,000 sq. ft. and 10,000 sq. ft. or total earth disturbance is between 10,000 sq. ft. and 20,000 sq. ft.

**Stormwater Management Controls:** Capture and permanently remove the first 2 inches of runoff over all proposed impervious areas; infiltrate at least the first 0.5 inches.

**Submission:** Submit the Stormwater Management Permit Application and computations for permanently removing the first 2 inches of runoff over all proposed impervious areas; the worksheet in this Ordinance Appendix D may be used and submitted as is, or may be modified as Dennison Township sees fit.

**Review:** Reviewing the application and computations shall be performed by a qualified professional. The application must be approved prior to the issuance of any building permit.

**Level 4:** Proposed impervious area is greater than 10,000 sq. ft. or total earth disturbance is greater than 20,000 sq. ft.

**Stormwater Management Controls:** All requirements of this Ordinance are applicable, including water quality and volume controls as found in Article III Section 303 and peak rate controls as found in Article III Section 304.

**Submission:** Submit the Stormwater Management Permit Application and Stormwater Management (SWM) Site Plan as in Article IV of this Ordinance.

**Review:** Reviewing the application and SWM Site Plan shall be performed by a qualified professional. The application must be approved prior to the issuance of any building permit.



Level 1  
Luzerne County

**Small Project Stormwater Management Application**

Per Dennison Township's Act 167 Stormwater Management Ordinance, a stormwater management plan is required whenever more than 1,000 square feet of impervious surfaces are proposed. Impervious surfaces are areas that prevent the infiltration of water into the ground and shall include, but not be limited to, roofs, patios, garages, storage sheds and similar structures, and any new streets or sidewalks.

To Calculate Impervious Surfaces Please Complete This Table					
Surface Type	Length	X	Width	=	Proposed Impervious Area
Building (area per downspout)		X		=	
		X		=	
		X		=	
		X		=	
Driveway		X		=	
		X		=	
		X		=	
Parking Areas		X		=	
		X		=	
		X		=	
Patios/Walks		X		=	
		X		=	
		X		=	
		X		=	
Other		X		=	
		X		=	
		X		=	
<b>Total Impervious Surface Area to be managed (sum of all areas)</b>					

**If the Total Impervious Surface Area is LESS THAN 1,000 Square Feet, please read, acknowledge and sign below.**

Based Upon the information you have provided a *Stormwater Management Plan IS NOT required* for this regulated activity. Dennison Township] may request additional information and/or SWM for any reason.

Property Owner Acknowledges that submission of inaccurate information may result in a stop work order or permit revocation. Acknowledgement of such is by signature below. I declare that I am the owner or owner's legal representative. I further acknowledge that the information provided is accurate and employees of Dennison Township's are granted access to the above described property for review and inspection as may be required.

OWNER	ADDRESS	DATE

**DENNISON TOWNSHIP  
STORMWATER MANAGEMENT PERMIT APPLICATION  
USE FOR LEVEL 2, 3 & 4 REGULATED ACTIVITIES**

Applicant and Applicant Address:	Nature of Activity (i.e. driveway, single-lot structure, parking lot, road, trail, subdivision, etc.):
----------------------------------	--

Total Proposed Impervious Area (I) (sq. ft.):

Total Proposed Earth Disturbance (ED) (sq. ft.):

Level 2: (I) is between 1,000 sq. ft. and 5,000 sq. ft. or (ED) is between 5,000 sq. ft. and 10,000 sq. ft.

Complete and attach worksheet contained in Ordinance Appendix C.1 or E (or equivalent)	Is worksheet attached? No <input type="checkbox"/> Yes <input type="checkbox"/>
--	---

Level 3: (I) is between 5,000 sq. ft. and 10,000 sq. ft. or (ED) is between 10,000 sq. ft. and 20,000 sq. ft.

Complete and attach worksheet contained in Ordinance Appendix D (or equivalent)	Is worksheet attached? No <input type="checkbox"/> Yes <input type="checkbox"/>
---	---

Level 4: (I) is greater than 10,000 sq. ft. or (ED) is greater than 20,000 sq. ft.

Complete and submit SWM Site Plan in accordance with Ordinance Article IV	Is a SWM Site Plan included? No <input type="checkbox"/> Yes <input type="checkbox"/>
---	---

Show on the accompanying sketch that adverse downstream stormwater impacts are not created or worsened, and that additional stormwater runoff will not discharge towards adjacent property owners.

All requirements of the Ordinance have been met. Applicant Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**FOR REVIEWER ONLY**

This stormwater management permit application has been    **APPROVED**    **DENIED**    (circle one)

Reviewed by (print): \_\_\_\_\_ Reason for Denial: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



## PROJECT SKETCH

- Show direction of proposed stormwater discharges
- Show all structures within 50 feet of site
- If storm sewers are present, show approximate location of inlets

**EXAMPLE**  
**STORMWATER MANAGEMENT PERMIT APPLICATION**

Applicant and Applicant Address:  Joe Homeowner 123 Site Street Anytown, PA 12345	Nature of Activity (i.e. driveway, single-lot structure, parking lot, road, trail, subdivision, etc.):  Construction of single-family home, driveway, and stone patio
Total Proposed Impervious Area (I) (sq. ft.): 3,300 square feet  Total Proposed Earth Disturbance (ED) (sq. ft.): 6,000 square feet	
<div style="border: 1px solid black; padding: 10px;"> <p><b>Level 2:</b> (I) is between 1,000 sq. ft. and 5,000 sq. ft. or (ED) is between 5,000 sq. ft. and 10,000 sq. ft.</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="border: 1px solid black; padding: 5px; width: 45%;">           Complete and attach worksheet contained in Ordinance Appendix C.1 or E (or equivalent)         </div> <div style="border: 1px solid black; padding: 5px; width: 45%;">           Is worksheet attached?            No <input type="checkbox"/>            Yes <input checked="" type="checkbox"/> </div> </div> </div> <p>Level 3: (I) is between 5,000 sq. ft. and 10,000 sq. ft. or (ED) is between 10,000 sq. ft. and 20,000 sq. ft.</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="border: 1px solid black; padding: 5px; width: 45%;">           Complete and attach worksheet contained in Ordinance Appendix D (or equivalent)         </div> <div style="border: 1px solid black; padding: 5px; width: 45%;">           Is worksheet attached?            No <input type="checkbox"/>            Yes <input type="checkbox"/> </div> </div> <p>Level 4: (I) is greater than 10,000 sq. ft. or (ED) is greater than 20,000 sq. ft.</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="border: 1px solid black; padding: 5px; width: 45%;">           Complete and submit SWM Site Plan in accordance with Ordinance Article IV         </div> <div style="border: 1px solid black; padding: 5px; width: 45%;">           Is a SWM Site Plan included?            No <input type="checkbox"/>            Yes <input type="checkbox"/> </div> </div>	
Show on the accompanying sketch that adverse downstream stormwater impacts are not created or worsened, and that additional stormwater runoff will not discharge towards adjacent property owners.	
All requirements of the Ordinance have been met. Applicant Signature <u>Joseph Homeowner</u> Date: <u>6/30/2010</u>	
<div style="border: 1px solid black; padding: 10px;"> <p><b>FOR REVIEWER ONLY</b></p> <p>This stormwater management permit application has been <span style="border: 1px solid black; border-radius: 50%; padding: 2px 10px;">APPROVED</span> DENIED (circle one)</p> <p>Reviewed by (print): <u>Municipal Official</u> Reason for Denial: <u>N/A</u></p> <p>Signature: <u>Municipal Official</u> Date: <u>6/30/2010</u></p> </div>	

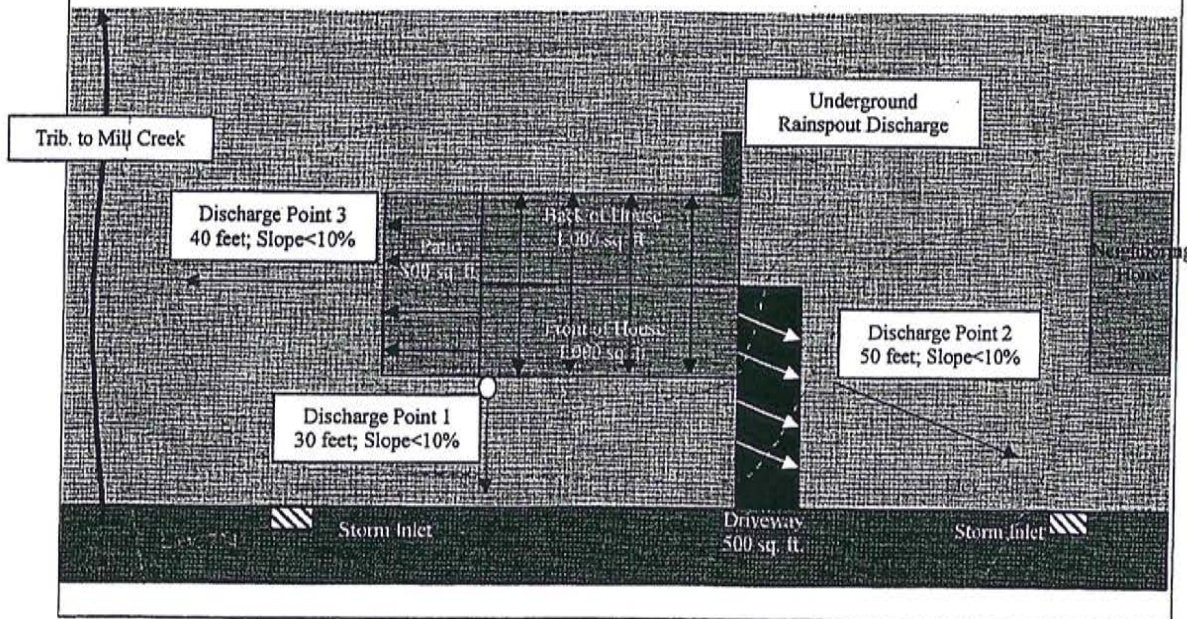


**EXAMPLE 1 PROJECT SKETCH – Homeowner opted to utilize the worksheet provided in Appendix C.1 to show stormwater management for DIA.**

<b>Applicant Address:</b> Joe Homeowner 123 Site Street Anytown, PA 12345	<b>Brief Description of Project:</b> Construction of 2,000 sq. ft. (40' x 50') single-family home with 500 sq. ft. driveway (10' x 50') and 800 sq. ft. stone patio (20' x 40'). The back half of the house discharges to rainspouts underground.				
<b>Nearest waterbody:</b>	No more than 1,000 sq. ft. can discharge to one point on the surface.				
<b>Tributary to Mill Creek</b>	<b>Number of surface discharge points required:</b> 3				
<b>Total Proposed Impervious Area (A):</b> 3,300 sq. ft.	<b>Discharge Point 1:</b>	<b>Discharge Point 2:</b>	<b>Discharge Point 3:</b>	<b>Discharge Point 4:</b>	<b>Discharge Point 5:</b>
<b>Total Earth Disturbance:</b> 6,000 sq. ft.	Front of Home	Driveway	Patio	N/A	N/A
	<b>Area:</b> 1,000 sq. ft.	<b>Area:</b> 500 sq. ft.	<b>Area:</b> 800 sq. ft.	<b>Area:</b> N/A	<b>Area:</b> N/A
<b>Are rainspouts discharged underground? (Y/N)</b> Yes	<b>Impervious Path Length:</b> 20 ft	<b>Impervious Path Length:</b> 10 ft	<b>Impervious Path Length:</b> 20 ft	<b>Impervious Path Length:</b> N/A	<b>Impervious Path Length:</b> N/A
<b>If yes, contributing impervious area (B):</b> 1,000 sq. ft.	<b>Pervious Path Length:</b> 30 ft	<b>Pervious Path Length:</b> 50 ft	<b>Pervious Path Length:</b> 40 ft	<b>Pervious Path Length:</b> N/A	<b>Pervious Path Length:</b> N/A
<b>Total Impervious Area Discharged on Surface (A) – (B):</b> 3,300 – 1,000 = 2,300 sq. ft.	<b>Pervious Path Slope &lt;10%? (Y/N)</b>  Yes	<b>Pervious Path Slope &lt;10%? (Y/N)</b>  Yes	<b>Pervious Path Slope &lt;10%? (Y/N)</b>  Yes	<b>Pervious Path Slope &lt;10%? (Y/N)</b>  N/A	<b>Pervious Path Slope &lt;10%? (Y/N)</b>  N/A

HSG Soil Group from Appendix F.2 Hydrologic Soils Group Map (Cannot be "D" Soils): HSG "C"

**Project sketch:**



**EXAMPLE 2 PROJECT SKETCH – Homeowner opted to utilize the worksheet provided in Appendix C.1 to show stormwater management for DIA.**



<b>Applicant Address:</b> Joe Homeowner 123 Site Street Anytown, PA 12345	<b>Brief Description of Project:</b> Construction of 2,000 sq. ft. (40' x 50') single-family home with 500 sq. ft. driveway (10' x 50') and 800 sq. ft. stone patio (20' x 40'). The back half of the house discharges to rainspouts underground.				
<b>Nearest waterbody:</b>  Tributary to Mill Creek	<b>No more than 1,000 sq. ft. can discharge to one point on the surface.</b>  <b>Number of surface discharge points required: 3</b>				
<b>Total Proposed Impervious Area (A):</b> 3,300 sq. ft. <b>Total Earth Disturbance:</b> 6,000 sq. ft.	<b>Discharge Point 1:</b>	<b>Discharge Point 2:</b>	<b>Discharge Point 3:</b>	<b>Discharge Point 4:</b>	<b>Discharge Point 5:</b>
	Front of Home Area: 1,000 sq. ft.	Driveway Area: 500 sq. ft.	Patio Area: 800 sq. ft.	N/A Area: N/A	N/A Area: N/A
<b>Are rainspouts discharged underground? (Y/N)</b> Yes <b>If yes, contributing impervious area (B):</b> 1,000 sq. ft.	<b>Impervious Path Length:</b> 20 ft	<b>Impervious Path Length:</b> 50 ft	<b>Impervious Path Length:</b> 20 ft	<b>Impervious Path Length:</b> N/A	<b>Impervious Path Length:</b> N/A
	<b>Pervious Path Length:</b> N/A	<b>Pervious Path Length:</b> N/A	<b>Pervious Path Length:</b> 40 ft	<b>Pervious Path Length:</b> N/A	<b>Pervious Path Length:</b> N/A
<b>Total Impervious Area Discharged on Surface (A) - (B):</b> 3,300 - 1,000 = 2,300 sq. ft.	<b>Pervious Path Slope &lt;10%? (Y/N)</b>  N/A	<b>Pervious Path Slope &lt;10%? (Y/N)</b>  N/A	<b>Pervious Path Slope &lt;10%? (Y/N)</b>  Yes	<b>Pervious Path Slope &lt;10%? (Y/N)</b>  N/A	<b>Pervious Path Slope &lt;10%? (Y/N)</b>  N/A

**HSG Soil Group from Appendix F.2 Hydrologic Soils Group Map (Cannot be "D" Soils): HSG "C"**

**Project sketch:**

