

CHAPTER 26

WATER

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PART 1

STORMWATER MANAGEMENT

§ 26-101. **Short Title. [Ord. No. 2108, 12/14/2020¹]**

This Part shall be known and may be cited as the "Scottsdale Borough Stormwater Management Ordinance."

§ 26-102. **Findings. [Ord. No. 2108, 12/14/2020]**

1. The Council of the Borough of Scottsdale finds that:

1. Editor's Note: This ordinance repealed former Part 1, Stormwater Management, adopted by Ord. No. 1194, 9/11/2017.

- A. Stormwater runoff from lands modified by human activities threatens public health and safety by causing decreased infiltration of rainwater and increased runoff flows and velocities, which overtaxes the carrying capacity of existing streams and storm sewers, causes property damage and risk to public safety, and greatly increases the cost to the public to manage stormwater.
- B. Inadequate planning and management of accelerated stormwater runoff resulting from land development and redevelopment throughout a watershed can also harm surface water resources by changing the natural hydrologic patterns, accelerating stream flows (which increase scour and erosion of streambeds and streambanks, thereby elevating sedimentation), destroying aquatic habitat and elevating aquatic pollutant concentrations and loadings such as sediments, nutrients, heavy metals and pathogens. Groundwater resources are also impacted through loss of recharge.
- C. The Borough is located in the Jacobs Creek Watershed and as such will endeavor to cooperate with other municipalities located in the watershed(s) to address issues of stormwater management, water quality, pollution and flooding.
- D. Nonstormwater discharges to municipal separate storm sewer systems can contribute to pollution of waters of the Commonwealth in the Borough.
- E. Stormwater can be an important water resource by providing groundwater recharge for water supplies and base flow of streams, which also protects and maintains surface water quality.
- F. Public education on the control of pollution of stormwater is an essential component in successfully managing stormwater.
- G. A comprehensive program of stormwater management, including reasonable regulation of land development and redevelopment causing loss of natural infiltration, is fundamental to the public health, safety, welfare, and the protection of the residents of the Borough and all the people of the commonwealth, their resources, and the environment.
- H. The use of open space conservation, green infrastructure, low impact development (LID), and riparian buffers is 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, LID, and riparian buffers contribute to the restoration or maintenance of predevelopment hydrology.
- I. Stormwater structures are considered vital infrastructure and can pose a significant hazard.

- J. Outlets and waterways which carry stormwater shall be maintained free of obstructions to allow for nonrestricted flow of stormwater to avoid impoundment of water.
- K. Occupancy and modification of floodplains shall be avoided wherever there is a practicable alternative to reduce long- and short-term adverse impacts in order to reduce the risk of flood loss, minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains.
- L. 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 municipal separate storm sewer systems (MS4) under the National Pollutant Discharge Elimination System (NPDES). The Borough is subject to MS4 requirements by and through those stormwater and storm sewer facilities that will ultimately be conveyed to, owned and operated by the Westmoreland-Fayette Municipal Sewage Authority ("WFMSA")
- M. The Westmoreland Conservation District (WCD) is a recognized regulatory agency with authority in the county and the Borough to regulate erosion and sediment controls and stormwater management related to land development activities. Because the WCD's authority crosses municipal boundaries, they are enabled to oversee environmental issues for the general benefit of all county residents.
- N. The Westmoreland County Integrated Water Resources Plan (2018) addresses all water resources and provides a decision-making tool for development and redevelopment with respect to those resources, including stormwater and its management.²

§ 26-103. Purpose. [Ord. No. 2108, 12/14/2020]

- 1. The purpose of this Part is to promote public health, safety, and welfare within the Borough and its watersheds by minimizing the harm and maximizing the benefits described in this section of this Part, through provisions designed to:
 - A. Manage stormwater runoff impacts at their source by regulating activities that cause the problems, reduce runoff volumes and mimic natural hydrology.
 - B. Maintain existing flows and quality of streams and watercourses.
 - C. Prevent scour and erosion of streambanks and streambeds.

2. Refer to www.paiwrp.com and www.westmorelandstormwater.org.

- D. Utilize and preserve the existing natural drainage systems as much as possible.
- E. Restore and preserve the natural and beneficial values served by streamside and water body floodplains.
- F. Focus on infiltration of stormwater, to maintain groundwater recharge, to prevent degradation of surface water and groundwater quality and to otherwise protect water resources.
- G. Promote stormwater runoff prevention and emphasize infiltration and evapotranspiration through the protection and conservation of natural resource systems and the use of nonstructural BMPs and other creative methods of improving water quality and managing stormwater runoff.
- H. Promote the use of green infrastructure in development and redevelopment where it can also improve stormwater management within the broader watershed in which the project is located.
- I. Meet legal water quality requirements under state law to protect and maintain existing uses and maintain the level of water quality to support those uses in all streams, and to protect and maintain water quality in special protection streams.
- J. Provide review procedures and performance standards for stormwater planning and management.
- K. Provide for proper operations and maintenance of all permanent stormwater management BMPs that are implemented in the Borough.
- L. Provide a mechanism to identify controls necessary to meet the NPDES (and MS4) permit requirements, and to encourage infrastructure improvements that lead to separation of storm sewer systems from sanitary sewer systems.
- M. Assist in detecting and eliminating illicit stormwater discharges originating within the jurisdiction of the Borough and flowing into WFMSA's storm sewer system.

§ 26-104. Statutory Authority. [Ord. No. 2108, 12/14/2020]

The Borough is empowered to regulate activities that affect stormwater runoff by the authority of the Storm Water Management Act of October 4, 1978, P.L. 864 (Act 167), 32 P.S. § 680.1 et seq., as amended, the applicable provisions of the Pennsylvania Municipalities Planning Code³ and the applicable provisions of the Pennsylvania Borough Code.⁴

3. Editor's Note: See 53 P.S. § 10101 et seq.

4. Editor's Note: See 8 Pa.C.S.A. § 101 et seq.

§ 26-105. Applicability. [Ord. No. 2108, 12/14/2020]

1. All regulated activities as defined by this Part are subject to regulation under this Part.
 - A. This Part applies to any land development or regulated earth disturbance activities within the Borough, and all stormwater runoff entering into the separate or combined storm sewer system servicing the Borough from lands within the boundaries of the Borough.
 - B. Earth disturbance activities and associated stormwater management controls are also regulated under existing state law and implementing regulations. This Part is intended to operate in coordination with those parallel requirements; the requirements of this Part shall be no less restrictive in meeting the purposes of this Part than any state law and its implementing regulations.

§ 26-106. Repealer. [Ord. No. 2108, 12/14/2020]

Any other Code provision, ordinance or regulation of the Borough inconsistent with any of the provisions of this Part is hereby repealed to the extent of the inconsistency only. This Part specifically repeals and replaces the provisions of Chapter 26, Part 1, of the Code of Scottsdale Borough in effect prior to December 31, 2020.

§ 26-107. Severability. [Ord. No. 2108, 12/14/2020]

If any word, phrase, section, sentence, clause or part of this Part is for any reason found to be unconstitutional, illegal, void or invalid by a court of competent jurisdiction, such unconstitutionality, invalidity or illegality shall not affect or impair any of the remaining words, phrases, sections, sentences, clauses or parts of this Part, and same shall continue and remain in full force and effect. It is hereby declared to be the intent of the Council of the Borough of Scottsdale that this Part would have been adopted had such unconstitutional, illegal, void or invalid word, phrase, section, sentence, clause or part thereof not been included herein.

§ 26-108. Compatibility with Other Requirements. [Ord. No. 2108, 12/14/2020]

1. Approvals issued and actions taken under this Part do not relieve the applicant of the responsibility to secure other required permits or approvals for activities regulated by any other law, regulation or ordinance. To the extent this Part imposes more rigorous or stringent requirements for stormwater management, the specific requirements contained in this Part shall be followed.
2. In the event the terms or provisions of this Part are deemed or construed to be in conflict with any other term or provision contained within the Code of Scottsdale Borough, the terms or provisions of this Part shall prevail and be applied.

§ 26-109. Wrongfully Obtained or Issued Permits or Authorizations. [Ord. No. 2108, 12/14/2020]

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 Borough purporting to validate such a violation.

§ 26-110. Prohibited and Permitted Discharges and Connections. [Ord. No. 2108, 12/14/2020]

1. All discharges shall be consistent with the requirements of PAG-13 NPDES General Permits for stormwater discharges for MS4 communities and those requirements set forth hereafter.
 - A. Prohibited discharges. No person, entity, corporation or firm shall introduce, permit or allow, or cause to introduce, permit or allow, stormwater discharges into the Borough's separate storm sewer system which are not composed entirely of stormwater, except:
 - (1) As permitted by this Part; or
 - (2) As provided in Subsection 1B below; or
 - (3) Those discharges that may be authorized under a state or federal permit.
 - B. Permissible discharges. Certain discharges are permitted under this Part. Permissible discharges include but are not limited to:
 - (1) Discharges from firefighting activities.
 - (2) Potable water sources, including dechlorinated water line and fire hydrant flushings.
 - (3) Noncontaminated irrigation drainage from agricultural practices.
 - (4) Routine external building washdown (which does not use detergents or other compounds).
 - (5) Noncontaminated air conditioning condensate.
 - (6) Water from individual residential car, boat or other residential vehicle washing that does not use detergents or other compounds.
 - (7) Springs.

- (8) Noncontaminated water from basement or crawl space sump pumps.
 - (9) Noncontaminated water from foundation or from footing drains.
 - (10) Flows from riparian habitats and wetlands.
 - (11) Lawn watering.
 - (12) 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.
 - (13) Splash pad (recreational spray patio with no standing water) discharges.
 - (14) Noncontaminated groundwater.
- C. In the event that the Borough determines that any of the discharges identified in Subsection 1B above significantly contributes to pollution of waters of the commonwealth, or the Borough is notified by the DEP of same, the Borough will notify the landowner and/or the responsible person to cease the discharge and provide a time period in which any required remediation should occur. Upon issuance of this notice by the Borough, the discharger shall, within such period determined by the Borough, cease the discharge and perform any remediation necessary. Nothing in this section shall affect, limit or alleviate any additional responsibility a discharger may have, or which may be imposed, under state or federal law.
- D. Based on a finding by the Borough that the discharges do not significantly contribute to pollution to surface waters of the commonwealth, permissible discharges may be discharged safely to a vegetated area or infiltration BMP, or, with the approval of the Borough, into a public storm sewer system.
- E. Prohibited Connections. Except as set forth above or herein, the following sources, activities or connections are prohibited:
- (1) Any drain or conveyance, whether on the surface or subsurface, which allows any nonstormwater discharge, including, but not limited to, sewage, process wastewater and wash water, and any connections to the storm drain system from indoor drains and sinks, shall not be connected to or enter the separate storm sewer system,
 - (2) Any drain or conveyance connected from a commercial, industrial or other nonresidential land use which has not been documented in plans, maps, or equivalent records, and

approved by the Borough, shall not be connected to or enter the separate storm sewer system.

- (3) Drains carrying stormwater or groundwater shall not be connected to or discharge to any public or private sanitary sewer system or facility.

F. Prohibited Activities.

- (1) A landowner may not alter the natural flow of surface water on their property by concentrating the rate of flow by any means and discharging it upon adjoining property even though the volume of water collected is the same as the volume naturally that would have flowed upon the neighbor's land in a diffused (shallow broad path or sheet flow) condition.
- (2) A landowner may not alter any BMPs, facilities or structures that were installed under this Part without written approval of the Borough.

- G. Roof Drains and Sump Pumps. Roof drains and sump pumps shall discharge to infiltration or vegetative BMPs wherever feasible.

§ 26-111. Liability Disclaimer. [Ord. No. 2108, 12/14/2020]

1. Nothing in the grant of any approval under the stormwater management provisions of this Part, nor compliance with the provisions of this Part or with any condition imposed by Borough or its employees or agents, shall be deemed or construed to relieve any person, corporation, entity or firm from liability for damage to any person or property resulting from the implementation, or lack of implementation, of stormwater management controls under this Part.
2. Nothing in the grant of any approval under the stormwater management provisions of this Part, nor compliance with the provisions of this Part or with any condition imposed by Borough or its employees or agents, shall be deemed or construed impose any liability upon the Borough for damages to any person or property.
3. The grant of a permit including any stormwater management provision does not constitute a representation, guarantee or warranty of any kind by the Borough or WCD, or by any employee or agent of the Borough or WCD, of the practicability or safety of any structure, use or plan proposed or constructed and shall not be deemed or construed to create liability upon or cause of action against the Borough or WCD, or any employee or agent of the Borough or WCD, for any damage resulting from same.

§ 26-112. Interpretations and Word Usage. [Ord. No. 2108, 12/14/2020]

1. For the purposes of this Part, the terms and words used herein shall be interpreted as follows:
 - A. Words used in the present tense include the future tense; the singular includes the plural, and the plural 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.

§ 26-113. Definition of Terms. [Ord. No. 2108, 12/14/2020]

1. When used in this Part, the following terms shall have those meanings set forth hereafter:

ACCELERATED EROSION — The removal of the surface of the land through the combined action of human activities and the natural processes at a rate greater than would occur because of the natural process alone.

ACT 167 — The Storm Water Management Act, Act of October 4, 1978, P. L. 864, No. 167, as amended by the Act of May 24, 1984, No. 63, 32 P.S. § 680.1 et seq., and as may be hereafter amended, empowering the Borough to regulate land use activities that affect runoff and surface water and groundwater quality and quantity by the authority of the Act. See also the "Storm Water Management Act."

AGRICULTURAL ACTIVITY — Activities associated with agriculture, such as agricultural cultivation, agricultural operation, and animal heavy use areas. This includes the work of producing crops and raising livestock, including tillage, land clearing, plowing, disking, harrowing, planting, harvesting crops, or pasturing and raising of livestock and installation of conservation practices. Except for high tunnels that may be exempt pursuant to the provisions of Act 15 of 2018, construction of new buildings or impervious areas are not considered an agricultural activity.

ANIMAL CONCENTRATION (HEAVY USE) AREAS — A barnyard, feedlot, loafing area, exercise lots, or other similar animal confinement areas that will not maintain a growing crop, or where deposited manure nitrogen is in excess of crop needs, but excluding areas managed as pastures or other cropland, and pasture accessways, if they do not cause direct flow of nutrients to surface water or groundwater.

APPLICANT — A landowner, developer or other person who has filed an application for development or for approval to engage in any regulated earth disturbance activity at a project site in the Borough.

BMP (BEST MANAGEMENT PRACTICE) — Activities, facilities, designs, measures or procedures used to manage stormwater impacts from regulated development activities, to meet state water quality requirements, to promote groundwater recharge and to otherwise meet the purposes of this Part. BMPs include, but are not limited to, infiltration, filter strips, low impact design, bioretention, wet ponds, permeable paving, grassed swales, forested buffers, sand filters and detention basins.

CHANNEL — A perceptible natural or artificial waterway which periodically or continuously contains moving water or which forms a connecting link between two bodies of water. It has a definite bed and banks which confine the water.

CHAPTER 102 — 25 Pa. Code Chapter 102, Erosion and Sediment Control.

CHAPTER 105 — 25 Pa. Code Chapter 105, Dam Safety and Waterway Management.

COMBINED SEWER SYSTEM — A sewer system designed to serve as both sanitary sewers and storm sewers.

CONSERVATION DISTRICT — The Westmoreland Conservation District (WCD), as defined in Section 3(c) of the Conservation District Law [3 P.S. § 851(c)] that has the authority under a delegation agreement executed with DEP to administer and enforce all or a portion of the regulations promulgated under 25 Pa. Code Chapter 102.

CONSERVATION PLAN — A plan written by an NRCS or SCS certified planner that identifies conservation practices and includes site-specific BMPs for agricultural plowing or tilling activities and animal concentration areas.

CONSERVATION PRACTICES — Practices installed on agricultural lands to improve farmland, soil and/or water quality which have been identified in a current conservation plan.

CONVEYANCE —

- A. Any structure that carries a flow; and/or
- B. The ability of a pipe, culvert, swale or similar facility to carry the peak flow from the design storm.

CSO, COMBINED SEWER OVERFLOW — An intermittent flow or other untreated discharge from a municipal combined sewer system (including

domestic, industrial and commercial wastewater and stormwater) which results from a flow in excess of the dry-weather carrying capacity of the system.

CULVERT — A closed conduit for the free passage of surface drainage under a highway, railroad, canal or other embankment.

DEMONSTRATED EQUIVALENCY — A stormwater management project on an alternative site or sites within the same watershed as the proposed development that will provide equal or better achievement of the purpose of this Part and will not substantially or permanently impair the appropriate use or development of adjacent property (e.g., streambank stabilization, creation or enhancement of riparian buffers, removal of existing impervious surfaces and establishment of "green" easements, installation of stormwater management and water quality facilities, etc.).

DEP — The Pennsylvania Department of Environmental Protection.

DESIGN CRITERIA —

- A. Engineering guidelines specifying construction details and materials; and/or
- B. Objectives, results or limits that must be met by a facility, structure or process in performance of its intended functions.

DESIGN STORM — See "storm frequency."

DETENTION — The slowing, dampening or attenuating of runoff flows entering the natural drainage pattern or storm drainage system by temporarily holding water on a surface area in a detention basin or within the drainage system.

DETENTION BASIN — A pond, basin, reservoir or underground system constructed to impound or slow surface runoff on a temporary basis.

DEVELOPER — A person that seeks to undertake or undertakes the activities associated with changes in land use or seeks to undertake or undertakes any regulated earth disturbance activities at a project site in the Borough. The term "developer" includes, but is not limited to, the term "subdivider," "owner," "builder" or another person with a similar interest in the project, even though the person involved in successive stages of a project may change or vary.

DEVELOPMENT — An "earth disturbance activity," as herein defined, and any activity, construction, alteration, change in land use or practice that affects stormwater runoff characteristics. The term also includes redevelopment.

DEVELOPMENT SITE — The specific tract of land where any development or earth disturbance activities in the Borough are planned, conducted, undertaken or maintained.

DISCHARGE — The flow or rate of flow from a canal, conduit, channel or other hydraulic structure.

DISTURBED AREA — A land area where an earth disturbance activity is occurring or has occurred.

DRAINAGE — In general, the removal of surface water from a given area commonly applied to surface water and groundwater.

DRAINAGE AREA — Any of the following activities:

- A. The area of a drainage basin or watershed, expressed in acres, square miles or other unit of area (also called "catchment area," "watershed," or "river basin").
- B. The area served by a sewer system receiving stormwater and surface water, or by a watercourse.

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, land development, building construction, oil and gas activities, well drilling, mineral extraction, and the moving, depositing, stockpiling, or storing of soil, rock or earth materials.

ENCROACHMENT — Any structure or activity which in any manner changes, expands or diminishes, the course, current or cross section of any watercourse, floodway or body of water.

EROSION — The process by which land, including channels, is worn away by water, wind, or chemical action.

EROSION AND SEDIMENT CONTROL PLAN — A plan for a project site which identifies BMPs to minimize accelerated erosion and sedimentation of land.

EROSION CONTROL — The application of measures to reduce erosion of land surfaces.

EXISTING CONDITION — The dominant land cover during the five-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. The term "floodplain" also includes areas that comprise Group 13 Soils 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 shall be presumed, absent evidence to the contrary, that the floodway extends a distance of 50 feet from the top of the bank of the stream.

FOREST MANAGEMENT/TIMBER OPERATIONS — Planning and activities necessary for the management of forestland, including, but not limited to, 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.

GROUND COVER — Materials and/or vegetation covering the ground surface.

GROUNDWATER — Subsurface water occupying the saturation zone, from which wells and springs are fed.

GROUNDWATER RECHARGE — Replenishment of existing natural underground water supplies.

HIGH TUNNEL — A structure which:

- A. Is used for the production, processing, keeping, storing, sale or shelter of an agricultural commodity as defined in Section 2 of the Act of December 19, 1974 (P.L. 973, No. 319), known as the "Pennsylvania Farmland and Forestland Assessment Act of 1974,"⁵ or for the storage of agricultural equipment and supplies; and
- B. Is whose construction:
 - (1) Has a metal, wood or plastic frame.
 - (2) When covered, has plastic, woven textile or other flexible covering.

5. Editor's Note: See 72 P.S. § 5490.2.

- (3) Has a floor made of soil, crushed stone, matting, pavers or a floating concrete slab.

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

HYDROLOGIC SOIL GROUP (HSG) — Soils whose infiltration rates vary widely and are affected by subsurface permeability as well as surface intake rates. Soils of this type 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. Soils in the development site may be identified from a soil survey report obtained from local NRCS offices or Conservation District offices. Soils become less permeable as the HSG varies from A to D (NRCS 1, 2).

IMPERVIOUS SURFACE — 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, gravel areas, and driveway areas are counted as impervious areas if they directly prevent infiltration.

INFILTRATION — Any of the following activities:

- A. The flow or movement of water through the interstices or pores of a soil or other porous medium.
- B. The absorption of liquid by the soil.

LAND DEVELOPMENT — Any of the following activities:

- A. The improvement of one lot or two or more contiguous lots, tracts or parcels of land for any purpose involving:
 - (1) A group of two or more residential or nonresidential buildings, whether proposed initially or cumulatively, or a single nonresidential building on a lot or lots regardless of the number of occupants or tenure; or
 - (2) The division or allocation of land or space, whether initially or cumulatively, between or among two or more existing or prospective occupants by means of, or for the purpose of, streets, common areas, leaseholds, condominiums, building groups or other features.
- B. A subdivision of land.

LAND DISTURBANCE — Any activity involving the changing, grading, transportation, fill and any other activity which causes land to be exposed to the danger of erosion.

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.

MAINTENANCE — The upkeep necessary for efficient operation of physical properties.

MS4 (MUNICIPAL SEPARATE STORM SEWER SYSTEM) — A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- A. Owned or operated by a state, city, town, borough, county, parish, district, association, authority or other public body, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the Clean Water Act that discharges into waters of the United States.
- B. Designed or used for collecting or conveying stormwater;
- C. Which is not a combined sewer; and
- D. Which is not part of a publicly owned treatment works (POTW) as defined at 40 CFR 122.2.

MUNICIPALITIES PLANNING CODE — Act 247 of 1968, as amended by Act 170 of 1988, 53 P.S. § 10101 et seq.

MUNICIPALITY — Borough of Scottsdale, Westmoreland County, Pennsylvania.

NATIVE VEGETATION — Plant species that have historically grown in Pennsylvania and are not invasive species, controlled plants or noxious weeds as defined by PA DCNR or the PA Department of Agriculture.

NATURAL STORMWATER RUNOFF REGIME — A watershed where natural surface configurations, runoff characteristics and defined drainage conveyances have attained the conditions of equilibrium.

NPDES — National Pollutant Discharge Elimination System, the federal government's system for issuance of permits under the Clean Water Act, which is delegated to DEP in Pennsylvania.

NRCS — Natural Resources Conservation Service (previously Soil Conservation Service).

OUTFALL — A "point source" as described in 40 CFR 122.2 at the point where the Borough storm sewer system discharges to surface waters of the commonwealth. Also, the point, location or structure where drainage discharges from a sewer, drain or other conduit, as well as the conduit leading to the ultimate discharge point.

OUTLET CONTROL STRUCTURE — The means of controlling the relationship between the head water elevation and the discharge, placed at the outlet or downstream end of any structure through which water may flow.

OVERLAND FLOODING — Flooding that occurs for a variety of reasons all stemming from excessive stormwater runoff, including too much rain in too little time, added impervious development, change in land use, malfunction or clogging of existing stormwater systems.

PEAK DISCHARGE — The maximum rate of stormwater runoff from a specific storm event.

PEAK FLOW — Maximum flow.

PENNSYLVANIA DEP — Pennsylvania Department of Environmental Protection.

PERFORMANCE STANDARD — A standard which establishes an end result or outcome which is to be achieved but does not prescribe specific means for achieving it.

PERSON — An individual, partnership, public or private association or corporation, firm, trust, estate, municipality, governmental unit, public utility or any other legal entity whatsoever which is recognized by law as the subject of rights and duties. Whenever used in any section prescribing or imposing a penalty, the term "person" shall include the members of a partnership, the officers, members, servants and agents of an association, officers, agents and servants of a corporation, and the officers of a municipality or county, but shall exclude any department, board, bureau or agency of the commonwealth.

PERVIOUS AREA — Any material or surface that allows water to pass through at a rate equal to or greater than natural ground cover.

POINT SOURCE — Any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, or conduit from which stormwater is or may be discharged, as defined in state regulations at 25 Pa.Code § 92.1.

POLLUTANT REDUCTION PLAN (PRP) — A plan required by the MS4 permit to calculate existing pollutants of concern and the minimum reduction in loading from stormwater discharges, and to select the best management practices to achieve the minimum reductions.

PROJECT SITE — The specific area of land where any development or regulated earth disturbance activities in the Borough are planned, conducted, undertaken or maintained.

QUALIFIED PROFESSIONAL — Any person licensed by the Pennsylvania Department of State or otherwise qualified under Pennsylvania law to perform the work required by this Part.

RECORD DRAWINGS — Drawings showing the stormwater management system of a site as built, created after the completion of construction and intended for use as a permanent record of the stormwater management system.

REDEVELOPMENT — Earth disturbance activities on land which has previously been disturbed or developed.

REGULATED DEVELOPMENT ACTIVITY — Any earth disturbance activities or any activities that involve the change of land cover, alteration or development of land in a manner that may affect stormwater runoff as listed in the Regulated Development Activity table. This includes earth disturbance on any portion of, part of, or during any stage of, a larger common plan of development. With regard to road maintenance activities, the term only includes activities involving one acre or more of earth disturbance. Refer to the Regulated Development Activity Table hereafter in this Part.

RELEASE RATE — The percentage of existing conditions' peak rate of runoff from a site or subarea to which the proposed condition's peak rate of runoff must be reduced to protect downstream areas.

RELEASE RATE PERCENTAGE — The watershed factor determined by comparing the maximum rate of runoff from a subbasin to the contributing rate of runoff to the watershed peak rate at specific points of interest.

RESOURCE EXTRACTION — Any activity that involves withdrawing materials from the natural environment.

RETENTION BASIN — A pond or basin, usually enclosed by artificial dikes, that is used to slow or impound stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate.

RETENTION VOLUME/REMOVED RUNOFF — The volume of runoff that is captured and not released directly into the surface waters of this commonwealth during or immediately after a storm event.

RETURN PERIOD — The average interval in years over which an event of a given magnitude can be expected to recur.

RIPARIAN BUFFER — A permanent area of native vegetation, including herbaceous material, shrubs and/or trees located adjacent to streams, lakes, ponds and wetlands.

ROAD MAINTENANCE — Earth disturbance activities within the existing road cross section, such as grading and repairing existing unpaved road surfaces, cutting road banks, cleaning or clearing drainage ditches and other similar activities.

RUNOFF — That part of precipitation which flows over the land.

RUNOFF CHARACTERISTICS — The surface components of any watershed which affect the rate, amount and direction of stormwater runoff. These may include, but are not limited to, vegetation, soils, slopes and man-made landscape alterations.

RURAL AREA — All population, housing and territories not included within an urban, or urbanized, area as determined from the latest U.S. Census Bureau data.

SALDO — Subdivision and land development ordinance.

SEDIMENT — Mineral or organic solid material that is being transported or has been moved from its site of origin by air, water or ice and has come to rest.

SEDIMENTATION — The process by which mineral or organic matter is accumulated or deposited by moving water, wind or gravity.

SEPARATE STORM SEWER SYSTEM — A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains) primarily used for collecting and conveying stormwater runoff.

SMALL PROJECT — Regulated development activities that, measured on a cumulative basis from five years prior to the application, create additional impervious areas of more than 650 square feet and less than 3,000 square

feet, or involve earth disturbance activity of an area less than 5,000 square feet and do not involve the alteration of stormwater facilities or watercourses.

STATE WATER QUALITY REQUIREMENTS — As defined under state regulations,⁶ the protection of designated and existing uses, including:

- A. Each stream segment in Pennsylvania that has a designated use, such as cold water fishery or potable water supply, or which is listed in 25 Pa. Code Chapter 93.
- B. Existing uses are those attained and/or existing as of November 1975, regardless of whether they have been designated or identified in 25 Pa. Code Chapter 93, for which regulated earth disturbance activities must be generally designed to protect and maintain, and, in particular, designed to maintain, the level of water quality necessary to protect those uses in all streams, and to protect and maintain water quality in special protection streams.
- C. Water quality which implicates the chemical, biological and physical characteristics of surface water bodies. After regulated earth disturbance activities are complete, these characteristics can be impacted by the addition of pollutants such as sediment, and changes in habitat through increased flow volumes and/or rates as a result of changes in land surface area from those activities. Therefore, permanent discharges to surface waters must be managed to protect the streambank, streambed and structural integrity of the waterway, to prevent these impacts.

STORAGE FACILITY — Any surface or subsurface facility that stores stormwater runoff. See "detention basin" and "retention basin."

STORM FREQUENCY — The average interval in years over which a storm event of a given precipitation volume can be expected to occur. The magnitude and temporal distribution of precipitation from a storm event measured in probability of occurrence (e.g., a five-year storm) and duration (e.g., 24 hours) used in the design and evaluation of stormwater management systems. Also see "return period."

STORM SEWER — A sewer that carries intercepted surface runoff, street water and other drainage but excludes domestic sewage and industrial waste.

STORMWATER — Drainage runoff from the surface of the land resulting from precipitation or snow or ice melt.

STORMWATER COLLECTION SYSTEMS — Natural or man-made structures that collect and transport stormwater through or from a drainage area to the point of final outlet, including, but not limited to, any of the

6. See 25 Pa. Code Chapters 93 and 96.

following conduits and appurtenant features: canals, channels, ditches, streams, culverts, streets and pumping stations.

STORMWATER MANAGEMENT — "SWM."

STORMWATER MANAGEMENT FACILITY — A constructed measure for detention, retention, infiltration and water quality treatment of stormwater runoff.

STORMWATER MANAGEMENT PERFORMANCE DISTRICT — An area designated by the Watershed Stormwater Performance District Map which includes standards for stormwater rate, volume and water quality. Refer to Appendix A.⁷

STORMWATER MANAGEMENT PLAN — The plan for managing stormwater runoff rate, volume and water quality as required by the Storm Water Management Act, 32 P.S. § 680.1 et seq.

SUBDIVISION — As defined in the Pennsylvania Municipalities Planning Code, Act of July 31, 1968, P.L. 805, No. 247, as amended.⁸

SWALE — A low-lying stretch of land which gathers or carries surface water runoff.

URBAN OR URBANIZED AREA — Area that is densely populated and/or is significantly built upon with buildings, pavement, and other man-made features as defined in the U.S. Census Data Figures.

USDA — United States Department of Agriculture.

WATERCOURSE — A channel or conveyance of surface water, such as a run, stream or creek, having defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

WATERS OF THE COMMONWEALTH — Any and all rivers, streams, creeks, rivulets, impoundments, ditches, watercourses, storm sewers, lakes, dammed water, wetlands, ponds, springs, and all other bodies or channels of conveyance of surface water, or parts thereof, whether natural or artificial, within or on the boundaries of this commonwealth.

WATERSHED — The entire region or area drained by a river or other body of water, whether natural or artificial. A "designated watershed" is an area delineated by the Pennsylvania DEP and approved by the Environmental

7. Editor's Note: Said appendix is included as an attachment to this chapter.

8. Editor's Note: See 53 P.S. § 10101 et seq.

Quality Board for which counties are required to develop watershed stormwater management plans.

WATERSHED STORMWATER MANAGEMENT PLAN — The plan for managing stormwater runoff throughout a designated watershed as required by the Pennsylvania Storm Water Management Act (Act 167), 32 P.S. § 680.1 et seq.

WETLAND — Areas that are inundated or saturated by surface water 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.

§ 26-114. Stormwater Management Performance Districts. [Ord. No. 2108, 12/14/2020]

For purposes of stormwater management, the Borough is located in the Jacobs Creek Watershed, which includes the Stormwater Management Performance Districts shown on the maps entitled "Jacobs Creek Performance District Map," all of which are hereby adopted herein by reference thereto. The stormwater release rates for real property located within the Borough are set forth on the Performance District Maps.⁹

§ 26-115. General Requirements. [Ord. No. 2108, 12/14/2020]

1. Preparation and implementation of a stormwater management site plan is required for all regulated activities, unless preparation of an SWM site plan is specifically exempted.
2. Projects that propose greater than one acre of earth disturbance are also subject to NPDES permit requirements and require a stormwater management plan.
3. Unless otherwise specifically exempted, no earth disturbance activity shall commence until the Borough issues written approval of an SWM site plan in compliance with the requirements of this Part.
4. Regulated development activities shall follow those procedures, comply with those performance standards and be administered by the Borough, consistent with the following:

9. For more information, refer to www.westmorelandstormwater.org and the Westmoreland County Conservation District's interactive watershed resource map.

| Regulated Development Activity Table | | | |
|---|--|---|---|
| SWM Plan Requirement | New Impervious Area for New and Redevelopment | Disturbed Area* | Next Steps |
| Exempt | 0 | Less than 1 acre | Comply with Exemption section of this Part (§ 26-116) |
| No Harm | Up to 650 square feet for urban or 2,000 square feet for suburban areas | Less than 1,300 square feet urban or 4,000 square feet for suburban/rural areas | Comply with No-Harm section of this Part (§ 26-117) |
| Waiver/Modification/Demonstrated Equivalency | Less than 1/2 acre, subject to municipal approval | Less than 1 acre | Comply with Waivers/Modification/Demonstrated Equivalency section of this Part (§ 26-118) |
| Small Project (per definition), refer to Appendix C ¹⁰ | 651 (urban) or 2,001 (suburban) square feet to 7,500 square feet | 1,301 (urban) or 4,001 (suburban) square feet to 10,000 square feet | Submit small project site plan complete with all attachments |
| Stormwater Management Plan meeting the ordinance requirements | Greater than 7,500 square feet if exempt and small project criteria are not met, or if improvements do not meet no-harm criteria | Greater than 10,000 square feet | Consult a qualified professional |

* The above table is only applicable to projects with earth disturbance less than one acre and that have not had cumulative impacts, within five years preceding the permit application date, that are in excess of the square foot limits set forth above.

10. Editor's Note: Said appendix is included as an attachment to this chapter.

§ 26-116. Exemption from Performance Standards. [Ord. No. 2108, 12/14/2020]

1. The following regulated activities are specifically exempt from the stormwater management plan preparation and submission requirements set forth in this Part:
 - A. Agricultural activity limited to plowing or tilling activities for animal concentrated (heavy) use areas, provided the activities are performed according to the requirements of 25 Pa Code Chapter 102, or conservation practices being installed as part of the implementation of a conservation plan written by an NRCS- or SCS-certified planner. This exemption does not include any other type of earth disturbance subject to NPDES permit requirements, such as earth disturbance equal to or greater than one acre.
 - B. A high tunnel, if proof is provided that the high tunnel is exempt pursuant to the provisions of Act 15 of 2018. Such an exemption does not exempt high tunnels from other requirements applicable under federal, state or municipal law.
 - C. Forest management and timber operations, provided the activities are performed according to the requirements set forth herein.
 - D. Resource extraction activities, provided they are done in accordance with applicable PADEP regulations.
 - E. Roadway resurfacing and maintenance projects which do not increase impervious area, and underground infrastructure projects, provided the activities meet the requirements of all other municipal, state and federal requirements.
 - F. Domestic landscaping and/or vegetable gardening.
 - G. Voluntary green infrastructure (GI) or the retrofit of stormwater management infrastructure as conversion to green infrastructure BMPs to correct existing problems that are solely intended to better manage runoff from existing development, are not part of new development or redevelopment, and that do not fall under the requirements of this Part or other development ordinances.
2. The Borough may deny or revoke any exemption under this section, at any time, for any project that the Borough believes may pose a threat to public health, safety, or welfare, or cause or threaten to cause damage to any person or property or the environment.

§ 26-117. No-Harm Option. [Ord. No. 2108, 12/14/2020]

1. Applicants may request approval of a no-harm option for stormwater management for their project. Project requests employing a no-harm option

must meet all of the following criteria, as well as any other criteria deemed appropriate by the Borough, and be in compliance with all other commonwealth laws and regulations:

- A. The project is located adjacent to a significantly larger body of water;
 - B. The project is able to discharge directly into an existing flood control feature;
 - C. The project is of a small size (i.e., less than 650 square feet for urban, less than 2,000 square feet for suburban and rural of new impervious surface or less than 1,300 square feet for urban, less than 4,000 square feet for suburban and rural of land use changes) as set forth in the Regulated Development Activity Table in § 26-115 of this Part;
 - D. The project will generate less than 0.5 cubic feet per second for the ten-year storm peak rate increase as compared to the predevelopment peak rate;
 - E. The project is not part of a larger development being "piecemealed" in order to avoid stormwater management regulations;
 - F. The project is not part of a larger development which has grown piecemeal over the past five years without SWM plan approval;
 - G. The project is a small percentage (less than 5%) of a much larger site and is incidental to the much larger site;
 - H. The project is not located in a neighborhood, watershed, or location where known stormwater problems exist, such as overland flooding, like flooding of structures or roadways;
 - I. The project does not discharge to a combined sewer system;
 - J. The project will not degrade water quality of the receiving stream.¹¹
2. To qualify for the no-harm option, the applicant may, at the request of the Borough, be required to submit calculations, drawings, and details sufficient to show that the project meets the above criteria.
 3. Projects approved for the no-harm option may be exempted from constructing all or some of the usual stormwater management practices regularly required for similar projects. For projects not approved for the no-harm option, the applicant will be required to meet one of the other requirements under the Regulated Development Activity Table of § 26-115 of this Part.

11. Refer to the Westmoreland County Integrated Water Resources Plan www.westmorelandstormwater.org for maps of impaired streams to determine if the project area is not within an impaired stream corridor or provide documentation that further degradation will not occur.

4. All no-harm requests must be reviewed and approved by the Borough Engineer and by the WCD; provided, however, that final approval rests with the Borough.

§ 26-118. Waivers/Modifications/Demonstrated Equivalency. [Ord. No. 2108, 12/14/2020]

1. Applicants may request approval of a demonstrated equivalent stormwater activity for their project in lieu of performing traditional stormwater management. Demonstrated equivalent stormwater activity requests will be evaluated by the Borough Engineer and the WCD on a case-by-case basis. Prior approval of a demonstrated equivalent stormwater activity on a site does not set a precedent for future approval of the same or other alternative activities on any other site. The approval of a demonstrated equivalent stormwater activity does not excuse the applicant from following standard E&S and SWM practices as applicable on the original site.
2. Demonstrated equivalent stormwater activities shall only be approved when the following criteria are met:
 - A. Traditional stormwater management activities on the site are precluded by a particular site limitation, such as contaminated soil, steep slopes, existing buildings or infrastructure or a combined sewer;
 - B. Construction of traditional stormwater management activities on the site would require extra permits or lead to excessive permitting activities and delays;
 - C. The site in question does not already have a stormwater management problem; and
 - D. The site in question is not already contributing to water quality problems in the receiving stream.
3. If the Borough, in conjunction with the Borough Engineer, WCD, or DEP, as applicable, determines that any requirement under this Part cannot be achieved for a particular regulated activity, the Borough may, after an evaluation of alternatives, approve measures other than those in this Part, provided same are in compliance with Subsections 4, 5 and 6 hereafter and with all laws and regulations of the commonwealth. The request for a waiver, modification, or demonstrated equivalency shall originate with the landowner, be in writing, include a study of downstream effects, and accompany the stormwater management plan submission to the Borough. The request shall provide the facts on which the request is based, the provision(s) of this Part involved and the proposed modification or demonstrated equivalency. The Borough Engineer and WCD shall review the request to determine if it meets the requirements of this Part, including Subsections 2, 3 and 4 of this section. If acceptable to the Borough and WCD and the regulated stormwater activity involving earth disturbance is less

than one acre, the Borough may grant the waiver or modification. If the regulated stormwater activity involving earth disturbance is equal to or greater than one acre, the plan will be subject to the NPDES requirements of DEP.

4. Waivers, modifications, or the use of demonstrated equivalencies of the requirements of this Part may be approved by the Borough if strict compliance with the terms of this Part will exact undue hardship upon the developer. The burden of proving undue hardship shall rest with the developer. In order to prove undue hardship, the developer must prove to the satisfaction of the Borough: 1) that strict compliance with this Part cannot be achieved because of unique physical circumstances or preexisting site conditions peculiar to the land in question, 2) that the modifications or demonstrated equivalency will not be contrary or detrimental to the public health, safety, welfare and/or interest, shall achieve the intended outcome of this Part, and preserve the purpose of this Part; 3) that the undue hardship is due to such unique physical circumstances or preexisting site conditions and not the circumstances or conditions generally created by the provisions of the Stormwater Management Ordinance; 4) that there is no reasonable possibility that the property can be developed in strict conformity with the provisions of the Stormwater Management Ordinance; and 5) that the hardship has not been created by the landowner or developer.
5. The cost or financial burden of complying with the terms of this Part shall not, in and of itself, be considered a hardship.
6. Any modification or demonstrated equivalency shall not substantially or permanently impair the appropriate use or development of adjacent property not under the landowner's and/or applicant's control. Modifications or a demonstrated equivalency may be considered if an alternative standard or approach will provide equal or better achievement of the purpose of this Part.
7. No waiver, modification or demonstrated equivalency of any regulated stormwater activity involving earth disturbance greater than or equal to one acre may be granted by the Borough unless that action is approved in advance by the Department of Environmental Protection (DEP) or the Westmoreland Conservation District (WCD), as applicable.
8. Approvable demonstrated equivalent stormwater activities may include, but shall not be limited to, the following:
 - A. Restoration of an existing degraded wetland, stream channel, floodplain, or riparian buffer, including daylighting of a stream.
 - B. Restoration, retrofitting or upgrade of an existing stormwater management feature (inadequate detention pond, for example).
 - C. Creation of new stormwater management features, especially green infrastructure, for a previously unmanaged site.

- D. Providing a water-based benefit to the public other than stormwater management (for example, extend a public sewer to an area not already served).
 - E. Treatment of abandoned mine drainage.
9. A proposal for a demonstrated equivalency shall be accompanied by documentation or methodology quantifying the equivalency of the proposed project to what would have been originally required. Acceptable documentation or methodology may include use of the worksheets and checklist found in PADEP NPDES permit application, Appendix D and Appendix E to this Part¹² or other approved method showing the proposed equivalency:
- A. Controls approximately the same amount of runoff volume as what would originally have been proposed;
 - B. Improves approximately the same amount of runoff quality as would have been originally proposed;
 - C. Is located within an impaired watershed or stream segment which will benefit from the proposed project. Impairment may include stream impairment, reduced stream buffer, and pollutant loading.¹³
10. The demonstrated equivalent stormwater activity shall:
- A. Be constructed concurrently with the project for which it is being applied;
 - B. Be constructed according to plans approved by the Borough and the WCD, including any erosion control and stormwater management practices as applicable;
 - C. Be subject to receipt of all necessary permits;
 - D. Be located on land owned by or controlled by the applicant or by a cooperating public or private entity(ies) (school, church, club, Borough, etc.);
 - E. Be protected by a perpetual easement or deed restriction, or landowner agreement;
 - F. Be located in the same general watershed as the project for which it is being applied; and

12. Editor's Note: Said appendices are included as attachments to this chapter.

13. Refer to the Westmoreland County Integrated Water Resources Plan at www.westmorelandstormwater.org.

- G. Have an operation and maintenance plan and operation and maintenance agreement specifying who is responsible for what tasks.

§ 26-119. Small Projects. [Ord. No. 2108, 12/14/2020]

1. When a regulated development activity set forth in the Table in § 26-115 of this Part creates impervious area between 650 (urban) or 2,001 (suburban) and 7,500 square feet, or total earth disturbance between 1,300 (urban) or 4,001 (suburban) and 10,000 square feet, the following stormwater management requirements shall apply.¹⁴ For new impervious surfaces, the first one inch of runoff shall be permanently removed from the runoff flow, and shall not be released to waters of the commonwealth. Removal options include reuse, evaporation, transpiration and infiltration.
2. Facilities, to the greatest extent possible, shall be designed to drain the permanently removed runoff volume in a period no greater than 72 hours. Runoff volumes in excess of one inch shall be safely conveyed to a stable vegetated area, natural watercourse, the curb or gutter line of roadway or existing storm collection/conveyance/control system as applicable. These facilities are subject to Borough approval.
3. A small project stormwater management plan must be submitted to the Borough and the WCD and shall consist of the following items and related support material needed to determine compliance with this Part.¹⁵
4. A project narrative containing a general description of proposed stormwater management techniques, including calculations, assumptions and criteria used in the design of the stormwater management facilities and BMPs, and construction specifications of the materials to be used for stormwater management facilities and BMPs must be submitted to the Borough.
5. A stormwater management plan showing locations of all stormwater management facilities and BMPs, especially green infrastructure, the limits of disturbance, including the type and amount of proposed impervious area, structures, roads, paved areas and buildings, must be submitted to the Borough.
6. A small project stormwater management worksheet must also be submitted.
7. A signed agreement for the operation and maintenance of proposed stormwater facilities and BMPs must be obtained.
8. An erosion and sediment control plan, including all reviews and letters of adequacy from the Conservation District, must be obtained.

14. Refer also to Appendix D.

15. The applicant can also use protocols listed in Appendix D and Appendix E.

§ 26-120. General Standards. [Ord. No. 2108, 12/14/2020]

1. Proposed land development must consider avoiding, minimizing, and mitigating impacts to the site that may increase stormwater runoff from the proposed project. Applied sequentially, the low impact development strategies set forth hereafter should be used as an overall guide as a project is planned and carried out. The Westmoreland County Integrated Water Resources Plan also provides an online decision-making tool to assist developers, designers and property owners in addressing all water resources during development and redevelopment and should be consulted.¹⁶
2. All stormwater management plans shall be designed and evaluated using the following standards:
 - A. Any landowner and any person engaged in the alteration or development of land which may affect stormwater runoff characteristics shall implement such measures as are reasonably necessary to prevent injury to health, safety or other property. For alteration or development taking place in stages, the cumulative development must be used in determining conformance with this Part. Such measures shall include actions necessary and reasonable:
 - (1) To assure that the maximum rate of stormwater runoff is no greater after development than prior to development activities for the one-, two-, five-, ten-, twenty-five-, fifty-, and 100-year storms having rainfall durations of 24 hours. Calculations shall be based on rainfall data obtained from NOAA Atlas 26 or other source approved by the Borough.
 - (2) To manage the water quality, rate, volume and direction of resulting stormwater runoff in a manner which otherwise adequately protects health and property from possible injury.
 - (3) To notify adjacent property owners or owners of affected properties of any alteration or increase of stormwater flows.
 - B. Runoff treatment BMPs must be employed where necessary to ensure the water quality, rate and volume requirements are met.
 - C. Volume control BMPs shall be used to maintain existing hydrologic conditions for small storm events by promoting groundwater recharge and/or evapotranspiration. Runoff volume controls shall be implemented using the PADEP Stormwater BMP Manual 2006, or other approved method such as those listed in the following chart:

16. Refer to www.paiwrp.com and www.westmorelandstormwater.org.

| Acceptable Computation Methodologies for Stormwater Management Plans | | |
|---|------------------------------|--|
| Method: | Developed By: | Applicability: |
| Win TR-20 (or commercial computer package based on TR-20) | USDA NRCS | Applicable where use of full hydrologic computer model is desirable or necessary |
| Win TR-55 (or commercial computer package based on TR-55, i.e., VT/PSUHM) | USDA NRCS | Applicable for land development plans within limitations described in TR-55 |
| HEC-1, HEC-HMS | U.S. Army Corps of Engineers | Applicable where use of full hydrologic computer model is desirable or necessary |
| PennDOT 584 (based on Rational Method) | PennDOT | Applicable under standards established by PennDOT. Not to be used for runoff volume and pond sizing computations |
| EFH2 | USDA NRCS | Applicable in agricultural areas subject to the program limits |
| SWMM | EPA | Applicable in urban and suburban areas subject to limits established by EPA |
| PADEP BMP Manual 2006 | PADEP | Applicable under standards established by PADEP |
| Other Methods | Varies | Other methodologies approved by the Borough |

3. The project plan shall specify permanent stormwater BMPs to be implemented, operated and maintained to meet legal water quality, rate and volume requirements. If methods other than low impact development (LID) and green infrastructure methods are proposed to achieve the volume and rate controls required under this Part, the SWM site plan must include a detailed justification demonstrating that the use of LID and green infrastructure is not practicable.

4. In order to protect and maintain water quality, additional stormwater runoff created by the development project must be captured, stored and treated. In addition, post-construction stormwater infiltration of runoff must replicate preconstruction infiltration of runoff to the maximum extent possible, with the exception of hot spots. At a minimum, a hot spot shall be a volume of additional runoff generated by a two-year, twenty-four-hour storm. Preferred BMPs for a hot spot include storm inlet filters, proprietary stormwater quality devices, underground detention tanks, detention ponds with forebays, tree planting, and green roofs. Permeable pavement, infiltration BMPs, and rain gardens are not recommended for hot spots.
5. In addition to the provisions set forth above, all regulated development activities within the Borough shall be designed, implemented, operated, and maintained and contain provisions necessary to meet the purposes of this Part, through:
 - A. The implementation of measures for erosion and sediment control during earth disturbance activities (e.g., during construction); and
 - B. The implementation of water quality, rate and volume protection measures after completion of earth disturbance activities (e.g., post-construction stormwater management), including provisions for continuing operations and maintenance of those measures.
6. All best management practices (BMPs) used to meet the requirements of this Part shall conform to Pennsylvania water quality requirements, and any more stringent requirements as determined by the Borough.
7. LID and green infrastructure techniques described in the PADEP Stormwater BMP Manual 2006 or most current edition are encouraged.
8. Proposed projects must comply with the Borough's approved MS4 permit, including compliance with the six minimum control measures (MCMs) and with the Borough's pollutant reduction plan (PRP) as same exists at the time the project is subject to permitting.
9. No regulated development activities within the Borough shall commence until the requirements of this Part are met.

§ 26-121. Watershed Standards. [Ord. No. 2108, 12/14/2020]

1. The stormwater management performance standards in this Part are intended to implement the provisions, standards and criteria contained in the Pennsylvania Storm Water Management Act (Act 167), 32 P.S. § 680.1 et seq. If there is any discrepancy between the provisions of this Part and the provisions, standards and criteria of the Act, or if a stormwater management plan is subsequently approved and adopted by the appropriate governmental agency or body, then the provisions, standards and criteria of the current watershed plan shall be controlling and implemented.

2. Management of stormwater runoff is key objective of 25 Pa. Code Chapter 93 of the DEP Regulations, because runoff can change the physical, chemical and biological integrity of water bodies, thereby impacting rate, volume and water quality. The project plan shall describe how these rate, volume and water quality protection requirements will be met. Infiltration BMPs shall be evaluated and utilized to the maximum extent possible to manage the net change in stormwater runoff generated so that post-construction discharges do not degrade the physical, chemical or biological characteristics of the receiving waters. These BMPs may be used to satisfy all or part of the requirements found within this Part.¹⁷
3. The project plan shall describe how the proposed project will address performance standards, impairments, and pollutant loading found in the IWRP. For areas not covered by a stormwater performance district, the release rate shall be 80% of the predevelopment peak flow as set by the Borough.

**§ 26-122. Design Criteria for Stormwater Management Facilities and BMPs.
[Ord. No. 2108, 12/14/2020]**

1. The stormwater management practices to be used in developing a stormwater management plan for a particular site shall be selected giving consideration to those factors set forth hereafter in the following order of preference:
 - A. Site planning for locating proposed buildings, impervious areas and grading which minimizes disruption of the natural site characteristics especially utilizing low impact development techniques.
 - B. Minimization of impervious areas and promotion of retentive grading.
 - C. Implementation of nonstructural measures (refer to the PADEP Stormwater BMP Manual 2006 or current edition).
 - D. Implementation of innovative/green infrastructure structural measures (refer to the PADEP Stormwater BMP Manual 2006 or current edition).
 - E. Stormwater detention/retention structures.
2. General Design Criteria.
 - A. Applicants may select runoff control techniques, or a combination of techniques, which are most suitable to control stormwater runoff from the development site.¹⁸ All controls must be subject to approval of the

¹⁷ Refer to the Stormwater Performance Districts outlined in Appendix A, and the Westmoreland County Integrated Water Resources Plan (IWRP) at www.westmorelandstormwater.org.

¹⁸ Refer to the Acceptable Computation Methodologies table of this Part.

Borough Engineer and the WCD. The Borough Engineer may request specific information on design and/or operating features of the proposed stormwater controls in order to determine their suitability and adequacy in terms of the standards of this Part.

- B. If the proposed development site is located in an impaired watershed according to Category 4 of the PA Integrated Water Quality Monitoring and Assessment Report, or in a watershed with a TMDL according to Category 5 of the same report, the applicant shall identify the source and cause of impairment and shall propose, if required or applicable, the use of BMPs to mitigate any impacts to the waters.
- C. The applicant must consider the effect of the proposed stormwater management techniques on any special soil conditions or geological hazards which may exist on the development site. In the event such conditions are identified on the site, the Borough Engineer may require in-depth studies by a competent geotechnical engineer. Not all stormwater control methods may be advisable or allowable at a particular development site.
- D. The applicant shall consider the effect of the proposed stormwater management techniques on existing stream impairments and pollutant loading.¹⁹
- E. The applicant shall consider existing conditions on the site for the prior five years to determine prevailing land use and impervious cover, and shall consider 20% of existing impervious cover as meadow for preexisting conditions on redevelopment sites.
- F. The hydrologic soil group (HSG) used for existing soils shall be assumed to be for drained conditions. As an example, a soil identified in the USDA NRCS soil survey as HSG B/D shall be assumed to be HSG B soil unless information, such as infiltration testing, is presented that justifies the use of HSG D soil.
- G. For post-development conditions for undeveloped sites, the HSG for each disturbed soil shall be reduced by one HSG level relative to its HSG reported in the USDA NRCS soil survey.
- H. Any BMP which is a dam, culvert, stream obstruction or encroachment or outfall, as defined in 25 Pa. Code Chapter 105, shall be designed according to the requirements in those regulations.
- I. Drainage easements shall be provided for all stormwater conveyance and BMPs serving multiple properties and not located within a public right-of-way. Easements shall include ingress and egress to a public

¹⁹. Refer to the Westmoreland County Integrated Water Resources Plan (IWRP) at www.westmorelandstormwater.org.

right-of-way, and shall be recorded at the county with the final plan. Terms of any easement provided shall prohibit excavation or placement of fill or structures and any alteration that may adversely affect the flow of stormwater within any portion of the easement.

- J. No person shall design or create a design which installs, creates, modifies, removes, fills, landscapes or otherwise alters or places any structure, soil, rock, material or vegetation in or on, or otherwise adversely affect, any stormwater management facility or any area within a stormwater easement without the written approval of the Borough and approval of the WCD.
 - K. Persons engaged in land development activities shall provide the required financial security and O&M agreements to the Borough as outlined in this Part.
3. Specific Criteria for Stormwater Management Facilities and BMPs.
- A. If stormwater management facilities and BMPs are required for the development site, same shall be designed so that post-development peak runoff rates from the developed site are controlled to those rates defined by a stormwater management performance district for the one-, two-, five-, ten-, twenty-five-, fifty-, and 100-year storm frequencies having rainfall durations of 24 hours. Rainfall data shall be obtained from NOAA Atlas 26 or other source as approved by the Borough.
 - B. All stormwater management facilities and BMPs shall be equipped with outlet/overflow structures to provide rate discharge control for the designated storm frequencies. Provision shall also be made to safely pass the entire post-development 100-year storm without breaching or otherwise damaging the facilities or downstream or neighboring properties.
 - C. Release of stormwater flow from a development site must be to an existing stormwater conveyance or easement, whether natural or man-made, that has defined bed and banks. Calculations and information shall be included sufficient to identify the ownership, responsible party, capacity, and stability of such conveyance. Release of sheet flow as from a level spreader may be permitted on a case-by-case basis as approved by the Borough Engineer and the WCD.
 - D. All stormwater management facilities and BMPs shall be designed to control volume and water quality as defined by the Stormwater Management Performance District.²⁰
 - E. Shared stormwater management facilities and BMPs which provide control of runoff for more than one development site within a single

²⁰. Refer to Appendix A.

subarea may be considered and are encouraged. Such facilities shall meet the criteria contained in this section. In addition, runoff from the development sites involved shall be conveyed to the facility in a manner that avoids adverse impacts (such as flooding or erosion) to channels and properties located between the development site and the shared storage facilities.

- F. Where stormwater management facilities and BMPs will be utilized, multiple-use facilities, such as wetlands, lakes, ballfields or similar recreational/open space uses are encouraged wherever feasible, subject to the approval of the Borough.
- G. In addition to the foregoing, the following items shall be incorporated into the design of stormwater management facilities and BMPs:
- (1) Inflow and outflow structures designed and installed to prevent erosion and embankments, cuts, fills and bottoms of impoundment type structures should be protected from soil erosion.
 - (2) Devices for the control and removal of debris both in the storage structure and in inlet or outlet devices.
 - (3) Inflow and outflow structures, pumping stations and other structures designed and protected, using safety benches, trash racks, energy dissipaters and other means to minimize safety hazards.
 - (4) Access restrictions include fencing, with at least one lockable ingress and egress gate, in a minimum height of six feet.
 - (5) Interior slopes of storage ponds not to exceed a ratio of 3:1 horizontal to vertical dimension with a combination of interior and exterior slopes not exceeding five. Steeper slopes may be approved by the Borough Engineer if documented to be stable by a geotechnical analysis prepared by, or under the direction of, and sealed by a licensed geotechnical engineer.
 - (6) Pond principal spillways consisting of a solid reinforced concrete box (riser) designed and constructed to control the flow rate out of the detention facility. Noncorrugated plastic pipe may be used for the riser where the riser height is less than three feet and the plastic pipe is properly anchored to prevent horizontal or vertical displacement. The riser shall be joined by a watertight connection to a horizontal reinforced concrete pipe or high-performance polypropylene pipe (barrel) extending through the embankment and outletting beyond the downstream toe of the fill. The maximum capacity of the barrel will be the twenty-five-year post-development flow. The

construction materials must be approved by the Borough Engineer.

- (7) Pond dam embankments consisting of all excavation on the project, except such material as may be determined unsuitable by the Borough Engineer. This includes, but is not limited to, frozen material, organic material, rock in excess of three inches in diameter, construction debris, sandy or other coarse grained soils, noncompactable soils and excessively wet or dry material. Acceptable material shall conform to the current PennDOT Publication 408 section on embankment material or shall be as approved by the Borough Engineer. The pond dam embankment shall be compacted to a minimum 95% standard proctor maximum dry density as per ASTM D698. The embankment shall be constructed and compacted in maximum eight-inch lifts and the principal spillway outfall barrel and anti-seep collar(s) shall be constructed integral with the dam embankment construction.
- (8) Landscaping provided for the facility which stabilizes disturbed areas and preserves the natural and beneficial values of the surrounding area. Landscaping shall consist of plant species native to southwestern Pennsylvania. No trees or other woody vegetation shall be planted on the fill areas of the pond dam embankment that may result in loosening of the compacted soils of the embankment. Detention basin bottoms shall be vegetated with a diverse native planting mix and may include trees, woody shrubs and meadow/wetland herbaceous plants. Noxious and invasive plants that inhibit plant species diversity shall not be included in the plant mix. PennDOT seed mix Formulas B, C, D and L as per PennDOT Publication 408, latest revision, or approved equivalent mix shall be used for revegetation of embankment areas. Crown vetch and birdsfoot trefoil shall not be used due to their interference with performance of inspections of the dam embankment.²¹
- (9) Facilities designed and located to facilitate maintenance, giving consideration to the frequency and type of equipment that will be required.
- (10) Underground detention/retention/infiltration facilities equipped with open grate inlet(s), inspection ports and/or manhole access to facilitate visual inspections and maintenance.
- (11) Other considerations which should be incorporated into the design of the detention facilities include the following:

21. For other suitable landscape plant species, reference may be made to Appendix B of the Pennsylvania Stormwater Best Management Practices Manual, latest edition.

- (a) Inflow and outflow structures designed and installed to prevent erosion, and bottoms of impoundment-type structures, should be protected from soil erosion.
- (b) All inflow structures into detention/retention ponds must discharge into a pond forebay designed in accordance with the Pennsylvania Stormwater Best Management Practices Manual.
- (c) Control and removal of debris both in the storage structure and in all inlet or outlet devices.
- (d) Inflow and outflow structures, pumping stations and other structures must be designed and protected to minimize safety hazards.
- (e) The water depth at the perimeter of a storage pond should be limited to that which is safe for children. This is especially necessary if bank slopes are steep or if ponds are full and recirculating in dry periods. Restrictions of access (fence, walls, etc.) shall be necessary, depending on the location of the facility.
- (f) A safety bench with a minimum width of eight feet shall be provided around the entire interior perimeter of the pond at an elevation of six inches minimum above the two-year peak water surface elevation in the pond.
- (g) An anti-vortex device and trash rack shall be attached to the top of the principal spillway to improve the flow of water into the spillway and prevent floating debris from being carried out of the basin.
- (h) The base of the principal spillway must be firmly anchored to prevent its floating. Computations must be made to determine the anchoring requirements. As a minimum, a factor of safety of 1.25 shall be used (downward forces = 1.25 x upward forces).
- (i) The barrel of the principal spillway, which extends through the embankment, shall be designed to carry the twenty-five-year predevelopment flow provided by the riser of the principal spillway with the water level at the crest of the emergency spillway. The barrel shall consist of a reinforced concrete pipe or high-performance polypropylene pipe and shall be fully supported along its entire length by a concrete cradle extending to the center line of the pipe and projecting horizontally a minimum of six inches beyond the outside wall of the pipe and vertically six inches below the bottom of the pipe. The

connection between the riser and the barrel must be watertight. The outlet of the barrel must be protected to prevent erosion or scour of downstream area. This will include an end section or end wall with a designed riprap apron. For principal spillway barrels that pass through compacted fill pond dam embankments, the barrel, cradle and anti-seep collar(s) shall be constructed integral with the dam embankment construction as opposed to cutting into the completed dam embankment to construct the barrel, etc.

(j) Anti-Seep Collars.

1) Anti-seep collars shall be used on the barrel of the principal spillway within the normal saturation zone of the embankment to increase the seepage length by at least 10% if either a) the settled height of the embankment exceeds 10 feet, or b) the embankment has a low silt clay content and the barrel is greater than 10 inches in diameter.

2) Anti-seep collars shall be installed within the saturated zone. The maximum spacing between collars shall be 26 times the projection of the collar above the barrel. Collars shall not be closer than two feet to a pipe joint. Collars should be placed sufficiently far apart to allow space for hauling and compacting equipment. Collars shall consist of reinforced concrete with a minimum thickness of eight inches. Connections between the collars and the barrel shall be watertight.

(k) The emergency spillway shall consist of an open channel having a control section at least 20 feet in length. The control section is a level portion of the spillway channel at the highest elevation in the channel. The emergency spillway shall be designed to carry the peak rate of runoff expected from the entire post-development 100-year storm to the stormwater facility. The spillway channel shall be located so as to avoid sharp turns or bends. The channel shall return the flow of water to a defined channel downstream from the embankment. At the discretion of the Borough Engineer and/or WCD, the emergency spillway shall include a reinforced concrete grade control wall extending perpendicular to the flow through the spillway with the top of the wall flush with the spillway crest. This control wall shall have a minimum width of eight inches, extend a minimum of 18 inches below the spillway crest and have a length no less

than the width of the emergency spillway opening at the top of the dam. The emergency spillway shall provide a minimum one foot of freeboard between the water surface of the full 100-year post-development discharge through the spillway and the top of the dam embankment.

4. Criteria for Collection/Conveyance Facilities.

A. All stormwater runoff collection or conveyance facilities, whether storm sewers or other open or closed channels, shall be designed in accordance with the following basic standards:

- (1) All building sites shall use measures to provide drainage away from and around the structure in order to prevent any potential flooding damage as much as practical. Such measures shall include grading the surrounding lawn or pavement area so that it slopes away from the structure by a minimum of 5% slope over a minimum distance of six feet; raising the floor of the structure so that it is a minimum of six inches above the predominant surrounding land elevation and above the designated floodplain elevation for those located within a floodplain; eliminating or waterproofing penetrations through the structure's walls or foundation; constructing berms, curbs, or swales to divert surface water around the structure; arranging roof and area drains to carry water away from the structure.
- (2) Developers proposing a land development or subdivision shall arrange internal drainage within the subdivision so that surface water is safely directed and channeled away from all structures within and adjacent to the development site.
- (3) Developers shall provide to all persons constructing a structure within a land development site standards, including drawings and specifications, to ensure that those persons adhere to the general site plans and stormwater management plans for the development. Persons constructing a structure within a land development site shall submit to the Borough Engineer and WCD drawings, calculations, and other information to show how they will meet the stormwater management requirements of the development site.
- (4) Lots located on the high side or low side of streets shall extend roof, trench and area drains to a stable vegetated area, natural watercourse, the curb or gutter line of roadway or storm collection/conveyance/control system (if applicable) in accordance with the approved stormwater management plan for the development site.

- (5) For all building sites and lots, the inclusion of rain barrels, rain gardens, drywells and other strategies for infiltration of roof runoff close to its source is encouraged.
 - (6) Collection/conveyance facilities should not be installed parallel and less than 10 feet from the top or bottom of an embankment, greater than or equal to 15 feet in height, to avoid the possibility of failing or causing the embankment to fail, unless documented to be stable by a geotechnical analysis.
 - (7) All collection/conveyance facilities shall be designed to convey the twenty-five-year storm peak flow rate from the contributing drainage area to the nearest suitable outlet such as a stormwater control facility, curbed street, storm sewer or natural watercourse. However, the 100-year design storm may be required by the Borough Engineer where it is necessary for the storm system to convey the 100-year design storm to the stormwater management facility.
 - (8) Where drainage swales or open channels are used, they shall be suitably lined to prevent erosion and designed to avoid erosive velocities.
- B. Wherever storm sewers are proposed to be utilized, they shall comply with the following additional criteria:
- (1) Where practical, designed to traverse under seeded and planted areas. If constructed within 10 feet of road paving, walks or other surfaced areas, drains shall have a narrow trench and maximum compaction of backfill to prevent settlement of the superimposed surface or development.
 - (2) Where able, same shall be installed after excavating and filling in the area to be traversed is completed, unless the drain is installed in the original ground with a minimum of three feet cover and/or adequate protection during the fill construction.
 - (3) Storm sewers shall be designed:
 - (a) With cradle when traversing fill areas of indeterminate stability.
 - (b) With anchors when the gradient exceeds 20%.
 - (c) With encasement or special backfill requirements when crossing under a paved area.
 - (d) To adequately handle the anticipated stormwater flow and be economical to construct and maintain. The minimum pipe size shall be 15 inches in diameter, with

the exception of roof drains, foundation drains, internal french drains and/or sump pumps, or similar conveyances.

- (e) With drain pipe, trenching, bedding and backfilling requirements and appropriate grates, catch basins, stormwater inlets, manholes and other appurtenances in conformance with the requirements of the Borough and/or applicable PennDOT specifications, Publication 408.
- (f) With corrugated metal pipe that is polymer coated, and with paved inverts where prone to erode. Pipe within a Borough right-of-way shall be reinforced concrete pipe or high-performance polypropylene pipe with a diameter sufficient to accept existing and reasonably anticipated future stormwater capacity and in no event less than the minimum diameter of 15 inches.
- (g) With storm inlets and structures designed to be adequate, safe, self-cleaning and unobtrusive and consistent with Borough standards with sufficient capture and conveyance capacity and spacing of inlets and cleanouts for maintenance.
- (h) Where a proposed sewer or conveyance connects with an existing storm sewer or conveyance system, the applicant shall demonstrate that sufficient capacity exists in the downstream system to handle the additional flow.
- (i) With storm sewer outfalls equipped with energy dissipation devices to prevent erosion and conform with applicable requirements of the Pennsylvania DEP for stream encroachments (Section 7 of the Dam Safety and Encroachments Act, 32 P. S. § 693.1 et seq., and the rules and regulations promulgated thereunder at 25 Pa. Code §§ 105.441 through 105.449). Exit velocities of the design storm for the stormwater conveyance systems must be considered in the design of the energy dissipation devices. With storm inlets that include castings with the message "Dump No Waste. Drains to Stream," or similar message as approved by the Borough Engineer, cast into or permanently affixed to the casting and positioned in a manner that is legible to pedestrian traffic.

5. Criteria for Riparian Buffers.

- A. If a riparian buffer is required by PADEP as part of an NPDES permit, then DEP regulations will be implemented and controlling.

- B. If a riparian buffer is used to meet stormwater management requirements and/or MS4 pollutant load reduction credits, it shall meet the following requirements:
- (1) In order to protect and improve water quality, a riparian buffer easement must be created and recorded as part of any subdivision or land development that encompasses a riparian buffer. The riparian buffer easement shall be enforceable by the Borough and shall be recorded in the Westmoreland 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 of the land and shall count toward the minimum lot area required by the Borough's Zoning Code, unless specified otherwise in the Borough Code.
 - (2) Except as required by 25 Pa. Code Chapter 102, the riparian buffer easement shall may be measured to a minimum of 35 feet measured from the top of the nearest bank (on each side), or an average of 35 feet with no distance from top of bank less than 25 feet.
 - (3) Existing native vegetation shall be protected and maintained within the riparian buffer easement.
 - (4) 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.
 - (5) There shall be no earth disturbance beyond which is necessary to establish or maintain a planted buffer.
 - (6) 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.
 - (7) Stormwater drainage pipes and all other linear utility lines as approved by the Borough shall be permitted within the riparian buffer easement, but shall cross the easement in the shortest practical distance. Other stormwater management facilities and BMPs are not permitted within the riparian buffer easement.
 - (8) Where public and/or private recreation trails are permitted within riparian buffers, i) trails shall be for nonmotorized use only, and ii) the trails shall be designed to have the least

impact on native plant species and other sensitive environmental features.

- (9) Septic drain fields and sewage disposal systems shall not be permitted within the riparian buffer easement and shall comply with setback requirements established under 25 Pa. Code Chapter 73.

6. Criteria for Stream Restoration Projects.

A. A stream restoration project may, at the discretion of the Borough, be eligible for stormwater management and/or MS4 load reduction credits if it is designed to meet, and in fact meets, the following qualifying criteria:

- (1) Existing conditions, such as channel or streambank erosion and an actively enlarging or incising urban stream condition, shall be documented prior to restoration.
- (2) Projects should be located on first to third order (small) streams to be effective.
- (3) Projects should address a minimum of 100 linear feet of stream channel and both sides of the stream where the need to do so is evident.
- (4) Upstream impervious area should be sufficiently treated to address peak flows that may exceed engineering design thresholds or compromise channel form and function.
- (5) The project utilizes a comprehensive approach employing a mix of techniques appropriate to the site, creating long-term stability of the streambed, streambanks and floodplain.
- (6) Armored length of streams (i.e., using riprap or gabions) may be used to maintain channel stability, but the same length shall not be included in the load reduction calculation.
- (7) The project shall maximize floodplain reconnection, with minimal channel invert elevation increase (i.e., bank height ratio equals 1.0 or less) to achieve the objective.
- (8) The project shall include a minimum 35 feet permanent riparian buffer.
- (9) The project shall include an O&M plan identifying O&M activities, frequencies and responsible parties.

§ 26-123. Erosion and Sedimentation Controls. [Ord. No. 2108, 12/14/2020]

1. No regulated development activities within the Borough shall commence until an erosion and sedimentation control plan for construction activities is received and approved by the Borough and WCD.
2. Any earth disturbance activity of 5,000 square feet or more requires an erosion and sediment control plan under 25 Pa. Code § 102.4(b).²²
3. A DEP NPDES construction activities permit is required for regulated development activities under 25 Pa. Code Chapter 92a.
4. Evidence of any necessary permit or permits for regulated development activities from the appropriate DEP regional office or Westmoreland Conservation District must be provided to the Borough. The issuance of an NPDES construction permit [or permit coverage under the Statewide General Permit (PAG-2)] may satisfy the requirements under Subsection 1, if approved by the Borough.
5. A copy of the erosion and sediment control plan and any permit required by DEP or the Borough shall be available at the project site at all times.

§ 26-124. Water Obstructions and Encroachments. [Ord. No. 2108, 12/14/2020]

1. No regulated development activities which require a Chapter 105 (Water Obstructions and Encroachment) permit from either PADEP or the WCD shall commence until all permits have been received from the PADEP or WCD approval. Evidence of the receipt of any necessary Chapter 105 permit from PADEP/WCD shall be provided to the Borough.
2. Proposed development shall avoid the long- and short-term adverse impact associated with the occupancy and modification of floodplains as designated by FEMA and, to the extent possible and wherever there is a practicable alternative to reduce the risk of flood loss, minimize the impact of floods on human safety, health and welfare, and restore and preserve the natural and beneficial values served by floodplains.
3. Any proposed development found to be within the base floodplain of a waterway shall be designed and constructed in compliance with the Borough's Floodplain Management Ordinance in effect at the time the permit for same is issued, and shall include the identification of potential impacts, an evaluation of practicable alternatives outside the floodplain and, when impacts cannot be avoided, the development of alternative measures to minimize those impacts and restore and preserve the floodplain as appropriate.

22. Refer to the PADEP Erosion and Sediment Pollution Control Manual 2012 or most recent version.

4. Any proposed stormwater management plan should be consistent with the provisions of the PA Flood Plain Management Act 166 of 1978²³ and applicable municipal floodplain ordinances.

§ 26-125. Stormwater Management Plans: General Guidelines and Requirements. [Ord. No. 2108, 12/14/2020]

1. No development plan, subdivision plat or land development plan shall be approved, and no permit authorizing construction or development issued, nor shall any earth disturbance activity subject to this Part be initiated or undertaken unless and until a stormwater management plan for such activity is reviewed and approved in accordance with the provisions of this Part.
2. No regulated development activities within the Borough shall commence until a stormwater management plan in compliance with state post-construction water quality requirements is completed²⁴ and is approved by the Borough.
3. The stormwater management plan must be designed, implemented and maintained to meet state water quality requirements and any other more stringent requirements as deemed necessary by the Borough.
4. To control the post-construction stormwater impact of regulated development activities, state water quality requirements can be met by BMPs, including site design and green infrastructure, which provide for replication of preconstruction stormwater infiltration and runoff conditions to ensure that post-construction stormwater discharges do not degrade the physical, chemical or biological characteristics of the receiving waters.²⁵ This may be achieved by:
 - A. Infiltration: replication of preconstruction stormwater infiltration conditions.
 - B. Treatment: use of water quality treatment BMPs to ensure filtering out of the chemical and physical pollutants from stormwater runoff.
 - C. Streambank and Streambed Protection: management of volume and rate of post-construction stormwater discharges, using detention/retention and other means, to prevent physical degradation of receiving waters (e.g., from scouring).
5. Where an existing stormwater conveyance method or easement, whether natural or man-made, for release of stormwater flow from a development site

23. Editor's Note: See 32 P.S. § 679.101 et seq.

24. Refer to the Regulated Development Activity Table located in § 26-115 of this Part.

25. As described in the DEP Comprehensive Stormwater Management Policy (#392-0300-002, September 28, 2002).

does not exist, an easement for the off-site conveyance must be provided. Information shall be presented as to the ownership, sufficient for the Borough to identify the owner of the property and the person responsible for the construction and/or maintenance of same. A copy of an executed agreement and recorded deed for the conveyance of said easement must be provided to the Borough.

6. The stormwater management plan must meet DEP regulations requiring municipalities to ensure design, implementation and maintenance of best management practices ("BMPs") to control runoff from both new development and redevelopment after regulated development activities are complete. These requirements include the need to implement post-construction stormwater facilities and BMPs along with assurances for the long-term operation and maintenance of those BMPs.
7. Evidence of the issuance of necessary third-party permits, such as Chapter 102 erosion and sedimentation control or Chapter 105 stream encroachment, for regulated development activities from WCD or the appropriate DEP regional office, must be provided to the Borough. The issuance of an NPDES construction permit [or permit coverage under the Statewide General Permit (PAG -2)] may be deemed by the Borough to satisfy all or portions of the stormwater management plan requirements of this Part.
8. The Borough's Subdivision and Land Development Ordinance (SALDO), and other applicable local ordinances, shall be followed in preparing the SWM plans.
9. The Borough shall not approve any SWM plan that does not meet the requirements of this Part. At its sole discretion and in accordance with this Part, when an SWM plan is found to be deficient, the Borough may either disapprove the submission and require a resubmission, or in the case of minor deficiencies, the Borough may accept submission of modifications.
10. The stormwater management plan (including all calculations) must be prepared, certified and sealed by a qualified professional with training and expertise in hydrology and hydraulics. Documentation of qualifications of the qualified professional may be required by the Borough.

§ 26-126. Stormwater Management Plan Contents. [Ord. No. 2108, 12/14/2020]

1. The stormwater management plan shall contain a narrative describing the overall stormwater management concept for the project and shall include, at a minimum:
 - A. A determination and identification of site conditions in accordance with the PADEP Stormwater BMP Manual. A detailed site evaluation shall also be completed for projects proposed for environmentally sensitive areas, such as brownfields.

- B. Stormwater runoff design calculations for determining predevelopment and post-development discharge rates, used to design the proposed stormwater control facilities and to demonstrate that the maximum practicable measures have been taken to meet the requirements of this Part, must be submitted with the stormwater management plan. All calculations shall be prepared using the methods and data prescribed by general requirements in this Part.
 - C. Runoff volume and rates shall be calculated according to generally accepted methods such as those listed under General Standards.²⁶
 - D. Detention/retention requirements, including volume, routing, etc., for BMPs shall be calculated using commonly acceptable standard methods.
 - E. Water quality calculations shall be determined by using the PADEP Stormwater BMP Manual 2006 or current edition, Worksheets 12 and 13.
 - F. The expected project time schedule for the installation of all temporary and permanent stormwater control measures and devices. If the development is to be constructed in stages, the applicant must describe how stormwater facilities and BMPs will be sequentially installed to manage stormwater runoff safely during each stage of development.
 - G. The effect of the project (in terms of runoff rate, volumes, and water quality) on surrounding properties and aquatic features and on any existing stormwater conveyance system that may be affected by the project.
 - H. If appropriate, the narrative should provide justification as to why any preferred stormwater management techniques, such as LID and green infrastructure, as listed in this Part, are not proposed for use.²⁷
 - I. A statement concerning the operation and maintenance program for permanent stormwater facilities and BMPs and the responsible party or parties for same.
2. The stormwater management plan shall be submitted along with plan drawings, drawn to a scale of not less than one inch equals 100 feet, and shall, at a minimum, comply with the following:
 - A. All sheets shall contain a title block with the name and address of the applicant and designer, scale, North arrow, legend and date of preparation.

26. Editor's Note: See § 26-120.

27. Refer to the PADEP Stormwater BMP Manual 2006 or most recent edition for list of acceptable management techniques.

- B. The plan shall identify and show the following existing and proposed features:
- (1) **The Watershed Location.** A key map (using USGS topo maps) showing the location of the development site within the watershed(s) and watershed subarea(s) must be provided. On all site drawings, the boundaries of the watershed(s) and subarea(s) as they are located on the development site must be shown and the watershed name(s) and subarea number(s) must be identified.²⁸
 - (2) **Floodplain Boundaries.** The 100-year floodplains on the development site (as appropriate), based on the Borough's Flood Insurance Study maps, must be shown on the plan.
 - (3) **Natural Features.** All bodies of water (natural or artificial), watercourses (permanent and intermittent), swales, wetlands and other natural drainage courses on the development site, or which will be affected by runoff from the development, must be shown on the plan.
 - (4) **Soils.** An overlay showing soil types and boundaries within the development site (consult WCD, SCS and U.S. Geological Survey for information) must be provided.
 - (5) **Contours.** Existing and final contours at intervals of two feet (in areas with slopes greater than 15%, five-foot contour intervals may be used) must be shown on the plan.
 - (6) **Land Cover.** Existing and final land cover classifications, including existing and proposed improvements, as necessary to support and illustrate the runoff calculations performed, must be shown on the plan.
 - (7) **Drainage Area Delineations.** The boundaries of the drainage areas and points of interest employed in the runoff calculations performed must be identified.
 - (8) **Time of Concentration Flow Paths.** Flow paths used for all time of concentration calculations must be provided. Identification of the different segments of flow path used for travel time calculations for sheet flow, shallow concentrated flow and channel flow regimes should appear on the plan.
 - (9) **Utilities and Easements.** Any existing utilities, stormwater management or drainage controls and/or structures, such as sanitary sewers, water, gas, electric, telecommunications, storm sewers, swales, culverts, and any easements, which are located

28. Refer to Appendix A, Stormwater Management Performance District Maps.

on the development site, or which are off site but may be affected by runoff from the development, must be identified and shown on the plan.

- (10) Proposed Stormwater Facilities and BMPs. All proposed stormwater runoff control measures must be shown on the plan, including methods for collecting, conveying and storing stormwater runoff on site, which are to be used both during and after construction. Erosion and sedimentation controls shall be shown in accordance with applicable Borough and WCD requirements. The plan shall provide information on the exact type, location, sizing, design and construction of all proposed facilities and relationship to the existing watershed drainage system.
- (11) If the development is to be constructed in stages, the applicant must demonstrate that stormwater facilities will be installed to manage stormwater runoff safely during each stage of development.
- (12) A schedule for the installation of all temporary and permanent stormwater control measures and devices shall be included in the narrative and shown on the site plan. This schedule shall include all stages of construction identified as critical for the proper short-term and long-term operation and performance of these control measures that will need to be inspected by the stormwater design engineer, the Borough Engineer and/or the WCD.
- (13) Easements; Rights-of-Way; Deed Restrictions. BMPs and stormwater management facilities that provide control for more than one lot shall be located on a separate dedicated lot or identified through an easement. All existing and proposed easements for any BMPs and stormwater management facilities and controls for access, inspections, maintenance, repair, preservation and use shall be shown on the plan and, if required, dedicated to the entity, association or person responsible for the care and maintenance of same. The easement and the purpose for the same shall be set forth on the plan and in the agreement required by this Part as set forth hereafter.

§ 26-127. Other Permits/Approvals. [Ord. No. 2108, 12/14/2020]

A list of any approvals/permits relative to stormwater management required from other governmental agencies (e.g., Chapter 102 erosion and sedimentation control, PennDOT HOP, Chapter 105 water obstruction and encroachment permit from PADEP) and anticipated dates of submission/receipt should be included with the stormwater plan submission. Copies of permit applications may be requested by the Borough where they may be helpful for the plan review.

§ 26-128. Operation and Maintenance Plan. [Ord. No. 2108, 12/14/2020]

1. The application shall contain a proposed operation and maintenance plan (O&M) for all stormwater control facilities in accordance with this Part. Such O&M plan shall, at a minimum:
 - A. Identify the responsible party and their responsibilities with the operation and maintenance of the plan (e.g., the Borough, property owner, private corporation, homeowners' association or other entity).
 - B. Outline the routine maintenance actions and schedules necessary to ensure proper operation of the stormwater control facilities as described in this Part.
 - C. Identify any legal agreements required to implement the maintenance program and copies of the maintenance agreement as required by this Part.
 - D. Identify the method of financing or bonding continuing operation and maintenance if the facility is to be owned by other than the Borough or a governmental agency.

§ 26-129. Financial Guarantees. [Ord. No. 2108, 12/14/2020]

Financial guarantees, in a form acceptable to the Borough, shall be submitted by the developer for the construction and maintenance of the project as well as the construction, operation and maintenance of any stormwater management BMPs, regardless of whether the stormwater management BMPs or other stormwater management facilities are dedicated to the Borough as a public facility or retained privately. In requiring financial guarantees for privately held facilities, the Borough acknowledges that private ownership, and the responsibility for the continuing operation and maintenance of stormwater management facilities, may be compromised by bankruptcy, death or neglect of the person or persons initially charged with the responsibility for same. In that event, the Borough acknowledges and finds that it is necessary to require long-term financial guarantees to be posted by the developer to offset the Borough's costs and expenses it may incur in the event of bankruptcy, death or neglect of the person or persons initially charged with the responsibility for such facilities and the protection of the public health, safety and welfare.

§ 26-130. Stormwater Management Plan: Preliminary Submission and Review Procedures. [Ord. No. 2108, 12/14/2020]

1. The Westmoreland County Integrated Water Resources Plan provides an online decision-making tool to assist developers, designers, and property owners in addressing all water resources during development and redevelopment and should be consulted.²⁹

29. See: www.paiwrp.com for the decision-making tool and www.westmorelandstormwater.org.

2. Applicants should refer to the Westmoreland County Integrated Water Resources Plan (IWRP) located at www.westmorelandstormwater.org, for mapping of impaired streams, riparian buffers and pollutant loading to determine appropriate BMPs to address sources of impairments.
3. Before submitting the stormwater management plan, and any other plan required by a reviewing agency, applicants are urged to consult with the Borough, Westmoreland County Department of Planning and Development and Westmoreland Conservation District, and PennDOT where applicable, on the requirements for safely managing the development site in a manner consistent with the Borough's requirements, the applicable watershed stormwater management plan and federal and state requirements. These agencies may also be helpful in providing necessary data for the stormwater management plan.
4. Applicants are encouraged to submit a sketch plan with a narrative description of the proposed stormwater management controls for general guidance and discussion with the Borough and other agencies.
5. The pre-application phase is not mandatory. Any review comments provided by the Borough or other agencies are advisory only and will not constitute legally binding action or direction on the part of the Borough or any county agency.

§ 26-131. Stormwater Management Plan: Submission and Review. [Ord. No. 2108, 12/14/2020]

1. A stormwater management plan application shall be submitted along with any subdivision/land development application, or if no subdivision or land development is involved, then with the application for development.
2. At the discretion of the Borough, copies of the SWM site plan may be required to be submitted to the following agencies for review, comment and/or approval:
 - A. One paper and one digital copy to Borough, in a digital format acceptable to the Borough;
 - B. One copy to the Borough Engineer;
 - C. One copy to the Westmoreland Conservation District;
 - D. One copy to the local Sanitary Authority;
 - E. One copy to the Westmoreland County Department of Planning and Development;
 - F. One copy to the Westmoreland County Department of Public Safety/ local emergency management coordinator;

G. One copy to DEP.

3. Notification of Affected Municipalities. The Borough may notify municipalities upstream and downstream of the development site which, in the Borough's judgment, may be affected by the stormwater runoff and proposed controls for the site. Copies of the plans will be made available to the affected municipalities upon request. Comments received from any affected municipalities will be considered by the Borough Engineer and county agencies in their reviews.
4. Review by the Borough Engineer and Westmoreland Conservation District (WCD). Stormwater management plans shall be reviewed by the Borough Engineer and WCD. BMPs shall be shown on all stormwater management plans and erosion and sedimentation control plans, as applicable. At its discretion, the Borough and/or WCD may also engage other specialists in hydrology or hydraulics to assist with the stormwater management plan review. The costs of such specialist review shall be borne by the applicant and shall be paid prior to the issuance of any permits. The WCD will review the plan for general compliance with the watershed plan standards and criteria and watershed-wide impacts and, where appropriate, may consult with adjacent municipalities and counties for their comments. If the WCD review identifies the improper application of the watershed standards and criteria or the possibility of harmful impacts downstream from the development site's proposed stormwater management system, the applicant and Borough Engineer will be notified so that necessary modifications can be made to promote safe stormwater management. The Borough and the WCD shall notify the applicant in writing within 45 days whether the SWM site plan is approved or disapproved. If the SWM site plan involves a subdivision and land development plan, the notification shall occur within 90 days, unless the applicant is notified that a longer notification period is provided by other statute, regulation or ordinance. If modifications are required, the review period may be extended by the Borough and the WCD, in order for the applicant to address inadequacies.
5. A disapproved stormwater management plan may be resubmitted, with the revisions addressing the Borough's and/or WCD's concerns, to the Borough and the WCD in accordance with this Part.
6. Borough Engineer Review. The Borough Engineer shall approve or disapprove the stormwater management plan based on the requirements of this Part, the standards and criteria of the watershed plan, applicable state and federal requirements and good engineering practice. The Borough Engineer shall submit a written report, along with supporting documentation, stating the reasons for approval or disapproval to the applicant.
7. Status of the Engineer's Determination. The approval/disapproval of the site's stormwater management plan by the Borough Engineer shall be submitted to the Borough. In the event the applicant's project is part of a

subdivision or land development requiring Borough Council approval, the approval of the stormwater management plan shall be addressed as part of the preliminary or final approval of the overall subdivision or land development plan. If no subdivision or land development application is filed, the approval of the site's stormwater management plan by the Borough Engineer and WCD shall be considered final, and the Borough's Building Code Official may issue building permits in reliance upon same.

8. Permits Required from Other Governmental Agencies. Where the proposed development requires a permit from the Pennsylvania DEP, PennDOT, or an erosion/sedimentation permit or Part 105 permit from the Westmoreland Conservation District, then final stormwater management plan approval shall be conditional upon receipt of such permits. However, no building permit shall be issued, nor construction or development started, until all requisite permits are received and copies filed with the Borough.
9. Reviews by the Borough and WCD shall be subject to fees as set forth hereafter.

§ 26-132. Status of Stormwater Management Plan After Approval. [Ord. No. 2108, 12/14/2020]

1. Upon final stormwater management plan approval and receipt of all necessary permits, financial guarantees and agreements, the applicant may commence to install or implement the approved stormwater management plan, BMPs plan, or erosion and sedimentation plan controls.
2. If site development or building construction does not begin within two years of the date of final approval of the stormwater management plan, then before beginning construction, the applicant shall resubmit the stormwater management plan, BMPs plan and/or erosion and sedimentation control plan to verify that no condition has changed on the property, on property adjacent to the site or within the watershed that would affect the feasibility or effectiveness of the previously approved stormwater management controls. If for any reason development activities are suspended for two years or more, and less than 25% of the development activities are completed, then the same requirement for resubmission of the stormwater management plan shall apply. There shall be no vested interest in stormwater management plans where work does not commence within two years or if development activities are suspended for two years and less than 25% of the development activities are completed, and in such case, upon resubmission, the applicant shall comply with the stormwater standards in effect at the time of resubmission.

§ 26-133. Modification of Stormwater Management Plan. [Ord. No. 2108, 12/14/2020]

1. If the request for a plan modification is initiated before construction begins, the stormwater management plan must be resubmitted and reviewed

according to the procedures contained in this Part in effect at the time of resubmission.

2. If the request for a plan modification is initiated after construction is underway, the Borough Engineer and/or the WCD shall have the authority to approve or disapprove the modification based on field conditions, provided:
 - A. The requested changes in stormwater controls do not result in any modifications to other approved Borough land use/development requirements (e.g., building setbacks, yards, etc.).
 - B. The performance standards in this Part are met.
3. Notification of any action taken by the Borough Engineer and/or WCD shall be sent to the Borough, which, at the discretion of Borough Council, may 1) issue an immediate stay of the plan modification, and/or 2) require the permittee to resubmit the plan modification for full stormwater management plan review in accordance with this Part.
4. It shall be unlawful to, and no person shall hereafter take action to, alter, replace, modify, landscape or remove, or otherwise adversely affect, any permanent stormwater management facilities, BMP controls, or any area within a stormwater easement or dedicated or designated area for stormwater facilities and BMPs required by an approved stormwater management plan or BMP operations and maintenance plan, or to allow the property to remain in a condition which does not conform to an approved stormwater management plan or BMP operations and maintenance plan, unless an exception is granted in writing by the Borough and/or approval is secured from all relevant agencies of the commonwealth.

§ 26-134. Inspection of Stormwater Management Facilities and BMPs. [Ord. No. 2108, 12/14/2020]

1. The Borough Engineer or a designated representative shall inspect the implementation, construction, condition, operation and maintenance of the temporary and permanent stormwater management system and controls for the development site. The Borough or a designated representative shall have the right to temporarily locate and/or install on any BMP in the Borough such devices as are necessary to conduct monitoring and/or sampling any discharges from such BMP.
2. The permittee shall provide the Borough Engineer and the WCD at least 48 hours' advance notice of the completion of the following development phases to facilitate the inspection of same:
 - A. The completion of preliminary site preparation, including stripping of vegetation, stockpiling of topsoil and construction of temporary stormwater management control facilities.

- B. The completion of rough grading, but prior to placing topsoil, permanent drainage or other site development improvements and ground cover.
 - C. During construction of the permanent stormwater facilities and BMPs at such times as may be specified by the Borough Engineer.
 - D. The completion of permanent stormwater management facilities and BMPs, including established ground covers and plantings.
 - E. The completion of final grading, vegetative control measures or other site restoration work done in accordance with the approved plan and permit.
3. The Borough and/or WCD may conduct other inspections during construction as it deems necessary and appropriate.
 4. No work shall commence on any subsequent phase until the preceding one has been inspected and approved. If there are deficiencies in any phase, the Borough Engineer and/or WCD shall issue a written description of the required corrections and set the time frame in which they must be made.
 5. If, during construction, the contractor or permittee identifies any site condition, such as subsurface soil conditions or alterations in surface or subsurface drainage, which could affect the feasibility of the approved stormwater facilities or erosion and sedimentation controls, he/she shall notify the Borough Engineer and/or WCD within 24 hours of the discovery of such condition and request a field inspection. The Borough Engineer and/or WCD shall determine if the condition requires a modification of the stormwater management plan, BMPs plan or erosion and sedimentation control plan.
 6. In cases where stormwater facilities or erosion and sedimentation controls are to be installed in areas of landslide-prone soils or other special site conditions exist, the Borough may require special precautions such as a geotechnical study, soil tests and core borings, full-time inspectors and/or similar measures. All costs of any such measures shall be borne by the permittee.
 7. The permittee, their employees, agents, workmen and assigns shall make the property available to the Borough and WCD for inspections in general, and those inspections set forth herein in particular throughout the course of construction. The failure to provide notice to the Borough and WCD of the completion of any phase of construction to enable inspections, the failure to make the property available for inspections, or the interference by permittee, or the permittee's employees, agents, workmen and assigns, with any inspection being performed shall constitute a violation of this Part and be punishable as set forth hereafter.

§ 26-135. Drawings, Completion Certificate, and Final Inspection. [Ord. No. 2108, 12/14/2020]

1. The developer shall be responsible for providing preconstruction and as-built drawings of all stormwater management facilities and BMPs for the approved stormwater management plan. To the extent any required drawing is to be recorded with the Recorder of Deeds of Westmoreland County, the developer shall provide a copy of the recorded plans. Any recorded drawing for a subdivision or land development plan must identify any and all lots that are to have individual on-lot controls (i.e., dry wells, et al.), provide a description of the type of on-lot control and its location, provide a typical detail of that control and the basis for their individual design (i.e., storage volume per impervious area), as identified in the approved stormwater management plan for the overall plan. The drawings and an explanation of any discrepancies with the construction plans shall be submitted to the Borough and WCD.
2. All drawings submitted shall include a certification of completion signed by a qualified professional verifying that all permanent stormwater management facilities and BMPs have been constructed according to the approved plans and specifications. The latitude and longitude coordinates for all permanent stormwater management facilities and BMPs must also be submitted at the central location of the BMPs. If any licensed qualified professionals contributed to the construction plans, then a licensed qualified professional must sign the completion certificate.
3. After receipt of the completion certification by the Borough, the Borough and/or WCD may conduct a final inspection prior to issuing any final approvals.

§ 26-136. Operation and Maintenance Responsibilities. [Ord. No. 2108, 12/14/2020]

1. The stormwater management plan for the development site shall contain an operation and maintenance plan prepared by the developer and approved by the Borough of Scottdale and/or the WCD. The operation and maintenance plan shall outline the responsible party(ies) and describe the required maintenance actions, protocols and schedules that must be followed in order to insure the proper functioning of the stormwater control facility(ies).
2. The stormwater management plan for the development site shall establish responsibilities for the continuing operation and maintenance (O&M) of all stormwater facilities and BMPs, consistent with the following:
 - A. If a development consists of structures or lots which are to be separately owned and in which streets, sewers and other public improvements are to be dedicated to the Borough, stormwater facilities and BMPs should be dedicated to and maintained by the

WFMSA, except for those individual on-lot facilities and BMPs for privately owned structures.

- B. If a development site is to be held in private ownership, or if sewers and other public improvements are to be privately owned, operated and maintained, then the operation and maintenance of stormwater facilities and BMPs shall be the responsibility of the owner or private management entity.
 - C. Persons responsible for operation and maintenance of stormwater facilities and BMPs shall be named with contact information provided.
3. The Borough, in its sole discretion, may accept or reject the ownership and operating responsibility for any or all stormwater management facilities and/or BMPs, and the Borough is not obligated to accept the facilities and BMPs. Any stormwater facilities accepted by the Borough may be transferred to the WFMSA or assigned to the Authority for continuing operation and maintenance purposes.
 4. If the development site involves land located in more than one municipality, the plan will be reviewed by the Borough and/or WCD to determine whether those activities outside the Borough meet the requirements of this Part. The Borough may only approve stormwater management plans, facilities and BMPs and development activities located within the Borough, unless the Borough and the other municipality(ies) enter into an intergovernmental cooperation agreement authorizing the Borough to approve the same in the other municipality(ies).
 5. Stormwater facilities and BMPs shall be inspected by the owner/responsible party named in the O&M plan, or the Borough, on a regular basis as determined by the Borough or as approved in the O&M plan. Inspections may include the taking of photographs, the issuance of written reports, and the preparation of measured drawings as necessary to document conditions of the facility or facilities. Any report shall be provided to the Borough upon request.

§ 26-137. Stormwater Facility and BMP Operations and Maintenance Plan Requirements. [Ord. No. 2108, 12/14/2020]

1. No regulated development activities within the Borough will be considered complete until the Borough approves a BMP operations and maintenance plan detailing how the permanent (i.e., post-construction) stormwater facilities and BMPs will be properly operated and maintained.
2. The following items shall be included in the BMP operations and maintenance plan:
 - A. Map(s) of the project area:

- (1) Clearly identifying the location and nature of permanent stormwater facilities and BMPs.
 - (2) Showing the location of the project site with respect to highways, Borough boundaries or other identifiable landmarks.
 - (3) Showing existing and final contours at intervals of two feet if the general slope of the site is less than 15%, and at vertical intervals of five feet if the general slope is equal to or greater than 15%.
 - (4) Showing existing streams, lakes, ponds, or other bodies of water within the project site area.
 - (5) Identifying physical features, including flood hazard boundaries, sinkholes, streams, existing drainage courses, and areas of natural vegetation to be preserved.
 - (6) Providing the locations of all existing and proposed utilities, sanitary sewers, and water lines within 50 feet of property lines of the project site.
 - (7) Identifying proposed final changes to the land surface and vegetative cover, including the type and amount of impervious area that would be added.
 - (8) Identifying the locations of proposed final structures, roads, paved areas, and buildings.
 - (9) Establishing a fifteen-foot wide access easement around all stormwater facilities and BMPs to provide ingress to and egress to and from a public right-of-way.
 - (10) Providing a brief description of how each permanent stormwater facility, and all BMPs, will be operated and maintained, and identifying the person(s) responsible for their operations and maintenance.
 - (11) Setting forth the name of the project site, the name and address of the owner of the property, and the name of the individual or firm preparing the plan.
 - (12) Provide a statement, signed by the landowner, acknowledging that the stormwater facilities and BMPs are fixtures that can be altered or removed only after approval by the Borough.
3. Each stormwater facility and BMP shall be and become a permanent appurtenance to the real estate upon which same are located, and shall constitute deed restrictions or conservation easements that run with the land. Prior to final approval of the stormwater plan, the property owner shall

sign and record an O&M agreement for those facilities and BMPs which shall be recorded with the Recorder of Deeds of Westmoreland County.

4. If the person responsible for their operations fails, refuses or neglects to maintain any stormwater facility and/or BMP, such failure shall constitute a violation of this Part, be punishable as set forth herein and subject such person to those remedial actions set forth hereafter.

§ 26-138. Operations and Maintenance Agreement for Privately Owned Stormwater Facilities and BMPs. [Ord. No. 2108, 12/14/2020]

1. Prior to the issuance of any permit for the construction of the site's stormwater management plan, the property owner shall sign, and comply with the terms of, an operations and maintenance agreement for all stormwater facilities and BMPs which are to be privately owned. Such agreement shall:
 - A. Require the owner, as well as the owner's successors and assigns, to maintain all facilities in accordance with the approved maintenance schedule and shall keep all facilities in a safe and functional manner and consistent with the surrounding natural area.
 - B. Require the owner, successors and assigns to convey to the Borough, its successors and assigns, all necessary easements and/or rights-of-way to assure access for periodic inspections by the Borough and maintenance, if required.
 - C. Provide the Borough with the name, address and telephone number of the person or company responsible for maintenance activities; and in the event of a change, require updated information to be submitted to the Borough within 10 days of the change.
 - D. Restate the penalties that may be imposed upon the owner, or owner's successors and assigns, for failure to maintain the stormwater facilities and BMPs and the remedies the Borough may pursue for breaches of the agreement or the terms of this Part.
 - E. Establish the form, amount and posting requirements for any financial security required for the construction and maintenance of the stormwater maintenance facilities and BMPs.
 - F. Establish the amount to be deposited with the Borough for inspection fees as set forth hereafter.
 - G. Include terms necessary to advise the public and any subsequent purchaser or possessor of the property of the requirement to maintain the stormwater management facilities and BMPs as covenants running with the land.

- H. Include such other terms deemed necessary by the Borough to guarantee the satisfactory inspection and maintenance of all stormwater facilities and BMPs for a ten-year period.
2. The maintenance agreement shall be subject to the review and approval of the Borough Solicitor and be recorded in the Office of the Recorder of Deeds of Westmoreland County.

§ 26-139. Stormwater Facility and BMP Operation and Maintenance Fees. [Ord. No. 2108, 12/14/2020]

Persons installing stormwater facilities or BMPs shall be required to deposit with the Borough amounts necessary to cover the costs of the Borough's inspection fees. The amount of the fees shall be determined by the Borough Engineer based on a reasonable estimate of the time, effort, cost and expenses to be incurred by the Borough Engineer and/or the WCD for inspections of the construction, maintenance and repair of the stormwater management facilities over the life of the agreement. Such deposit shall be held in escrow by the Borough and billed against as inspections occur. In the event the amount deposited is insufficient to cover the estimated cost of such inspections, the Borough may require owner or developer to make additional deposits. In the event the amount deposited is less than the actual inspection fees imposed, any unused balance shall be refunded to the owner or developer.

§ 26-140. Completion and Maintenance Guarantees. [Ord. No. 2108, 12/14/2020]

1. The completion guarantees or financial security referenced in §§ 26-126 through 26-128 above shall be in the form of a bond, cash deposit, cashier's check or other negotiable securities, or other form acceptable to the Borough. Such security shall provide for and secure to the Borough the completion and maintenance of such improvements. The guarantee or security shall cover any and all stormwater management facilities, BMPs, erosion and sedimentation controls and other required improvements (collectively, "improvements") and shall be equal to 110% of the cost of completion of the improvements. The Borough may require the developer to post additional security in order to assure that the financial security equals said 110% in the event the Borough determines that such security is insufficient to cover the costs of completing the improvements. Any additional security shall be posted by the developer in accordance with this subsection.
2. A proposed amount of the financial security shall be prepared on behalf of the owner or developer by a professional engineer licensed in this commonwealth, and be certified by said engineer to be a fair and reasonable estimate of such cost of completion. The Borough may refuse to accept such estimate for good cause shown. In the event that the parties cannot agree upon a sum for the guarantee or financial security, the parties shall mutually agree upon a third-party professional engineer licensed in this commonwealth to determine a fair and reasonable estimate for completion,

which shall be binding upon the parties. The parties shall equally split the cost of the third-party determination.

3. The Borough shall also require the owner to post financial security in a form acceptable to the Borough, in an amount equal to 15% of the cost of completing the improvements, as long-term maintenance security to ensure the stormwater facilities are properly operated, maintained and repaired. Such maintenance security shall be in place for not more than 10 years following the completion of construction of the stormwater facilities.
4. Notwithstanding the expiration of any maintenance security, the responsibility for the upkeep, maintenance, repair and operation of privately owned stormwater management facilities shall be and remain the sole and exclusive responsibility of the property owner.

§ 26-141. Release of Completion Guarantee. [Ord. No. 2108, 12/14/2020]

Once the project is complete, the developer shall notify the Borough of the same. The Borough Engineer shall conduct an inspection of the improvements within 10 days of receipt of such notice and thereafter prepare and deliver a report to the developer stating whether the improvements are accepted or rejected. In the event all or any portion of the improvements are rejected, the report shall specify how the rejected improvements may be remedied to become acceptable and provide the owner or developer with a reasonable period of time to perform such remediation. The completion guarantee or financial security shall be returned or released upon written certification by the Borough Engineer or a designated agent that improvements and facilities have been installed and completed in accordance with the approved plan and specifications.

§ 26-142. Dedication of Public Improvements. [Ord. No. 2108, 12/14/2020]

1. When streets, sanitary sewers, stormwater management facilities, BMPs, erosion and sedimentation controls or other required improvements in the development have been completed in accordance with the final plans, such improvements shall be deemed private until such time as they have been offered for dedication to the Borough and accepted by separate resolution of Council or until they have been condemned for use as a public facility. The Borough shall be under no obligation to accept such facilities or controls unless and until the Borough so determines that it is in the best interest of the Borough to do so.
2. Prior to acceptance of any improvements or facilities, the Borough Engineer shall inspect the same to ensure that the same are constructed in accordance with the approved plans and are functioning properly.
3. The owner shall submit as-built plans for all facilities proposed for dedication.

4. Prior to acceptance of any improvements or facilities, the applicant shall provide financial security to secure the structural integrity and functioning of the improvements consistent with the provisions in § 26-140 above.

§ 26-143. Fee Schedule. [Ord. No. 2108, 12/14/2020]

Borough Council may adopt by resolution a reasonable schedule of fees to cover the cost of presubmitted and preconstruction meetings, plan reviews, inspections and other activities necessary to administer, monitor and enforce the provisions of this Part. The fee schedule may be amended from time to time by resolution of Council.

§ 26-144. Right of Entry. [Ord. No. 2108, 12/14/2020]

Upon presentation of proper credentials, duly authorized representatives of the Borough may enter at reasonable times upon any property to inspect, investigate or ascertain the condition of the subject property in regard to an aspect related to stormwater management regulated by this Part. Prohibitions and unreasonable delays in allowing the Borough access to a stormwater management facility pursuant to this Part is a violation of this Part. The failure of any person or entity to grant entry or to undertake any action which impedes or prevents entry is prohibited and constitutes a violation of this Part. Unless in the event of an emergency, the Borough shall notify the property owner and/or developer not less than 24 hours prior to entry.

§ 26-145. Violations Generally. [Ord. No. 2108, 12/14/2020]

1. It shall be unlawful and a violation of this Part for a person to undertake any regulated activity except as provided in an approved SWM site plan, unless specifically exempted in this Part.
2. It shall be unlawful and a violation of this Part for a person to alter any BMPs, facilities or structures that were installed under this Part without written approval of the Borough.
3. It shall be unlawful and a violation of this Part to fail to perform any act, fulfill any obligation or carry out any responsibility under this Part, or as required by the terms of any submitted and approved plan, any permit or approval issued by the Borough or any other governmental entity issuing a permit for the project, or any agreement entered with the Borough.
4. In the event that the applicant, developer, owner or his/her agent fails to comply with the requirements of this Part, fails to conform to the requirements of any permit or otherwise is in violation under this Part, a written notice of violation shall be issued. For the purpose of this section and all other provisions of this Part, notices shall be sent via first-class mail to the address(es) of the property owner and applicant (if different than the owner) as identified in the permit application and plan materials. Such notification shall set forth the nature of the violation(s) and establish a time limit for correction of the violation(s).

5. Such notice may further advise, where applicable, should the violator fail to take the required action within the established deadline, the violation may, at the sole discretion of the Borough, be done by the Borough or its designee and that the expense thereof shall be charged to the violator, plus a 10% administrative fee.
6. Such notice may further advise, where applicable, that the failure to comply within the time specified shall also subject such person to the penalty and enforcement provisions of this Part.

§ 26-146. Suspension and Revocation of Permits, Approvals and other Remedies. [Ord. No. 2108, 12/14/2020]

1. Any approval or permit issued by the Borough pursuant to this Part may be suspended or revoked for:
 - A. Noncompliance with or failure to implement any provision of the approved SWM site plan or O&M agreement.
 - B. A violation of any provision of this Part or any other applicable law, ordinance, rule, or regulation related to the regulated activity.
 - C. The creation of any condition or the commission of any act during the regulated activity which constitutes or creates a hazard, nuisance, or pollution, or endangers the life or property of others.
2. A suspended approval may be reinstated by the Borough if and when:
 - A. The Borough has inspected and approved the corrections to the violations that caused the suspension; and
 - B. The Borough is satisfied that the violation has been corrected.
3. An approval that has been revoked by the Borough cannot be reinstated. The applicant may apply for a new approval under the provisions of this Part. The Borough may also refuse to issue any permit or grant approval to further improve or develop any property which has been developed in violation of this Part.
4. Any person who has violated or knowingly permitted the violation of the provisions of this Part, or has refused, neglected or failed to perform any of the actions required pursuant to any notice set forth in this section, upon conviction thereof in an action brought before a Magisterial District Judge in the manner provided for the enforcement of summary offenses under the Pennsylvania Rules of Criminal Procedure, shall be guilty of a summary offense, and be sentenced to pay a fine of not less than \$300 nor more than \$1,000 for each violation, plus costs, together with reasonable attorney fees; and, in default or failure of full and timely payment of such fine, costs and fees, to a term of imprisonment not to exceed 90 days or to a term of imprisonment to the extent permitted by law for the punishment of

violations of summary offenses, whichever is less. Each day that a violation of this Part continues or each section of this Part which shall be found to have been violated shall constitute a separate offense. No judgment shall commence or be imposed, levied or be payable until the date of the determination of a violation by the Magisterial District Judge. If the defendant neither pays nor timely appeals the judgment, the Borough may, at its sole discretion, elect to enforce the judgment pursuant to applicable rules of civil procedure.

5. The proper management of stormwater is necessary for the protection of persons, property and the public health, safety and welfare, and any failure to comply with the provisions of this Part constitutes a public nuisance. Accordingly, in addition to those remedies associated with the revocation or suspension of permits and approvals set forth herein, the Borough may institute and maintain actions at law or in equity to restrain, correct or abate a violation, to prevent unlawful construction, to compel the performance of obligations, including, but not limited to, the completion of required improvements or the reconstruction of improperly installed improvements, to abate any nuisance, to recover damages and to prevent the occupancy or use of a building or premises where improvements required under this Part have not been installed or have been improperly installed. Accordingly, the Borough may institute any appropriate action or proceeding at law to exact any penalty provided herein for any act, failure to act or action taken in violation of this Part. In addition, the Borough may also proceed with any action, at law or in equity, against the person responsible for the violation for the purpose of ordering or directing that person:
 - A. To restrain, correct or remove the violation or refrain from any further alteration or work upon any stormwater management facility hereunder;
 - B. To restrain or correct the erection, installation, maintenance, repair or alteration of such stormwater management facility hereunder;
 - C. To require the removal or abatement of any violation of this Part; or
 - D. To prevent the occupancy or use of any structure that is not in compliance with the provisions of this Part; and
 - E. To abate, repair or correct conditions on the property which constitute violations of this Part, and to raze and/or demolish any structure or facility thereupon and restore the remaining property to a safe condition.
 - F. To obtain an order directing the violator to deposit financial security with the Borough in an amount estimated by the Borough to abate, repair or correct conditions on the property which constitute violations of this Part, and/or to raze and/or demolish any structure thereupon and restore the remaining property to a safe condition in advance of the Borough's performance of same.

6. In addition to the above remedies, the Borough may also seek and pursue all available remedies and penalties under applicable Pennsylvania statutes, or regulations adopted pursuant thereto, including, but not limited to, the Storm Water Management Act, 32 P.S. § 693.1 et seq., and the erosion and sedimentation regulations, 25 Pa. Code Chapter 102. Any activity conducted in violation of this Part or any Pennsylvania approved watershed stormwater management plan may be declared a public nuisance by the Borough and abatable as such.
7. If improvements are not installed in accordance with the approved final plans, the Borough may, at its sole discretion, proceed to install, cause the installation or cause the proper installation or repair of any improvements, and take action against any financial security posted by the owner or developer by appropriate legal and equitable remedies to pay or reimburse the Borough for the payment of same. If the amount of any financial security is insufficient to pay the cost of installing or making repairs or corrections to all the improvements covered by said security, the Borough may, at its sole option, institute appropriate legal or equitable action to recover the monies necessary to complete the remainder of the improvements or make repairs to same. All proceeds, whether resulting from the security or from any legal or equitable action brought against the developer, or both, shall be used solely for the installation of the improvements covered by such security and not for any other Borough purpose.
8. In the event litigation is initiated by the Borough to enforce any agreement, correct any violation, address any violation of this Part or pursue any remedy, the Borough shall be entitled to recover reasonable counsel fees, costs and expenses, including any engineering or other professional fees, incurred in such litigation.
9. All judgments, costs and reasonable attorney fees collected for the violation of this Part shall be paid over to the Borough.
10. Nothing contained in this section shall be construed or interpreted to grant to any person or entity other than the Borough the right to commence any action for enforcement pursuant to this section.
11. The remedies afforded the Borough under this Part are cumulative, and the selection of one remedy or course of action shall not preclude the Borough from seeking other remedies, or pursuing other actions, at law or in equity.

§ 26-147. Appeals. [Ord. No. 2108, 12/14/2020]

1. Any person aggrieved by a decision or determination of the Council of Scottsdale Borough, or any of its authorized persons or agencies, under this Part may appeal such determination or decision to the Council of Scottsdale Borough within 30 days of being advised by the Borough, in writing, of same. Any appeal must be filed with the Council of Scottsdale Borough, be in writing, be signed by the owner of the property, include a copy of the

- determination or decision appealed from and provide a detailed explanation of the reason why such decision or determination is contested. If a decision appealed is from an authorized person or agency of the Borough, a copy of the written appeal must be served upon such person or agency by such appellant contemporaneous with the filing of the appeal.
2. The appellant shall pay to the Borough, at the time of filing the appeal, any and all fees and charges determined by the Borough, by resolution, to be applicable to the proceeding.
 3. Procedure. Any appeal filed pursuant to this section shall be governed by the Local Agency Law of the Commonwealth of Pennsylvania (2 Pa.C.S.A. § 105 et seq.; specifically 2 Pa.C.S.A. §§ 551 through 555).
 4. Hearing. The Borough shall schedule a hearing within 60 days of receipt of said appeal. Written notice of the hearing shall be given to the party filing the appeal and any authorized person or agency of the Borough involved, not less than 15 days prior to said hearing.
 5. Hearing Procedure:
 - A. The Council of Scottdale shall maintain a stenographic record of the proceedings. The appearance fee for a stenographer shall be shared equally by the appealing party and the Borough. The cost of the original transcript shall be paid by the person appealing from the decision of the Borough Council if such appeal is made, and the cost of any additional copies shall be paid by the person requesting such copy or copies. In other cases, the party requesting the original transcript shall bear the cost thereof.
 - B. The Council of Scottdale Borough shall not be bound by technical rules of the evidence at the aforesaid hearing, and all relevant evidence of reasonably probative value may be received. Reasonable examination and cross-examination shall be permitted.
 6. Adjudication. The adjudication of Council shall be made in writing, shall contain findings and the reasons for the adjudication, and shall be served upon all parties to the appeal or their counsel personally, or by mail.
 7. Appeal from Adverse Adjudication. Pursuant to 2 Pa.C.S.A. § 751 et seq., any person aggrieved by the adjudication of the Council of Scottdale Borough who has a direct interest in such adjudication shall have the right to appeal therefrom to the Court vested with jurisdiction of such appeals by or pursuant to Title 42 (relating to judiciary and judicial procedure).

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nor more than \$1,000 for each violation, recoverable with all costs, expenses, enforcement agency and attorney's fees incurred in the prosecution thereof. Each day that the violation continues shall be a separate offense and penalties shall be cumulative.

2. 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 Part. 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. The Borough shall be entitled to recover all costs, expenses, enforcement agency and attorney's fees incurred in the prosecution of any such action.

§ 26-151. Appeals. [Ord. No. 1194, 9/11/2017]

Any person aggrieved by any decision of the Borough, or any agent or representative thereof, relevant to the provisions of this Part, may appeal to the County Court of Common Pleas of Westmoreland County within 30 days of the municipality's decision.

I. References.

§ 26-156. List of References. [Ord. No. 1194, 9/11/2017]

1. United States 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. United States 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. United States 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/>.

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26 Attachment 1

Borough of Scottsdale

APPENDIX A

STORMWATER MANAGEMENT PERFORMANCE DISTRICT MAPS

**Refer to the Watershed Performance District (Release Rate) Maps at
www.westmorelandstormwater.org**

NOTE: For areas not covered by current recommended Performance District (release rate) Maps, municipalities are authorized to establish performance standards / release rates as discussed in the Stormwater Management Ordinance.

NOTE: Municipalities are authorized to establish release rates stricter than those established by the recommended Performance District Maps upon consultation with WCD and their municipal engineer.

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26 Attachment 2

Borough of Scottdale

APPENDIX B

LANDOWNER LETTER OF ACKNOWLEDGEMENT FOR SMALL PROJECTS

Project Name: _____ Date: _____
Location: _____

1. New impervious areas can potentially increase stormwater runoff from this site and the use of proposed stormwater facilities and/or best management practices (BMPs) can manage those impacts by mimicking natural processes to provide groundwater recharge and stream base flow.
2. Regulated development activities on this site shall not begin until the Borough has issued an approval for a Small Project Stormwater Management Plan.
3. If stormwater management facilities and/or BMPs included on the approved Small Project Stormwater Site Plan require revisions or changes, the applicant shall submit a revised plan to the Borough for approval. If a problem arises, the applicant may need to seek the assistance of a qualified professional.
4. Installed stormwater facilities and/or BMPs shall not adversely affect any property, septic systems, or drinking water wells on this or any other property.
5. The applicant acknowledges that the installed stormwater management facilities and/or BMPs will be a permanent fixture of the property, shall be inspected and maintained regularly to retain the original function, and cannot be altered or removed without the approval of _____ the _____ Borough.

The undersigned hereby acknowledge they are the owners of the Property upon which the above Project is located and agree to assume full responsibility for the implementation, construction, operation, and maintenance of the proposed stormwater management facilities and/or BMPs. Furthermore, the undersigned acknowledge that the steps, assumptions, and guidelines provided in the Borough's Small Project Stormwater Management Worksheet will be adhered to.

Signature: _____ Date: _____

Signature: _____ Date: _____

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26 Attachment 3

Borough of Scottsdale

APPENDIX "C"

**SCOTTDALE BOROUGH, WESTMORELAND COUNTY, PA
STORMWATER BEST MANAGEMENT PRACTICES OPERATIONS
AND MAINTENANCE AGREEMENT**

THIS AGREEMENT, made and entered into this _____ day of _____, 20____, by and between _____ having a property address at _____ (hereinafter the "**Landowner**"), and The Borough of Scottsdale, Westmoreland County, Pennsylvania, (hereinafter the "**Borough**")

WITNESSETH

WHEREAS, the Landowner is the owner of those certain parcels or tracts of land located at _____ and bearing Westmoreland County Parcel No(s) _____ (hereinafter the "**Property**"); and

WHEREAS, the Landowner is proceeding to build and develop a portion of the Property for the construction of _____; and

WHEREAS, a Storm Water Management BMP Operations and Maintenance Plan has been approved by the Borough (hereinafter referred to as the "**Plan**") for the Property, a copy of same being attached hereto, made a part hereof and marked Exhibit "A"; and

WHEREAS, the Borough's Storm Water Management Ordinance as set forth in the Code of Borough, and as amended from time to time, provides for the construction and management of storm water facilities within the confines of the Property through the use of Best Management Practices ("**BMP's**"); and

WHEREAS, the Borough, and the Landowner, their successors and assigns, agree that the health, safety, and welfare of the residents of the Borough and the protection and maintenance of water quality require that on-site storm water Best Management Practices be constructed and maintained on the Property; and

WHEREAS, the Borough requires, through the implementation of the Plan, that Storm Water Management BMP's as required by said Plan and the Borough's Storm Water Management Ordinance be constructed and adequately operated and maintained by the Landowner, his 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. **Construction of BMP Facility by Landowner.** The BMPs shall be constructed by the Landowner in accordance with the plans and specifications identified in the Plan and the Borough shall, upon the payment of all fees, including inspection and review fees, as

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may be required by Resolution of the Borough.

- 2. **Duty of Operation & Maintenance of Facility.** The Landowner shall operate and maintain the BMP(s) as shown on the Plan in good working order acceptable to the Borough and in accordance with the specific maintenance requirements noted on the Plan.
- 3. **Right of Entry on Premises.** The Landowner hereby grants permission to the Borough, its authorized agents and employees, to enter upon the property, at reasonable times and upon presentation of proper identification, to inspect the BMP(s) whenever it deems necessary. Whenever possible, the Municipality shall notify the Landowner prior to entering the property.
- 4. **Options if Landowner fails to Maintain.** In the event the Landowner fails to operate and maintain the BMP(s) as shown on the Plan in good working order acceptable to the Borough, the Borough or its representatives may enter upon the Property and take whatever action is reasonably necessary to maintain said BMP(s), and to take any other action, at law or in equity, to enforce the provisions of the Code of Scottsdale Borough. This provision shall not be construed to allow the Borough to erect any permanent structure on the land of the Landowner. It is expressly understood and agreed that the Borough 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 Borough.
- 5. **Financial Security for Construction.** Based on an estimate of _____ AND ___/100 (\$ _____) DOLLARS for the construction of the BMP's and other facilities subject to construction and permitting, LANDOWNER agrees to post and shall post, or have posted on its behalf, financial security with the Borough in an amount equal to 110% of such costs in the total sum of _____ AND ___/100 (\$ _____) DOLLARS (rounded) to secure the performance of the LANDOWNER'S obligations hereunder to construct those facilities referenced in the Plan. In conformance with same, USER has executed and delivered to the Borough the following type(s) of security in the amounts indicated below:

- 1. Irrevocable Letter of Credit \$ _____
- 2. Certified Check \$ _____
- 3. Cashier's Check \$ _____
- 4. Bank Account \$ _____
- 5. Certificate of Deposit (Cash Value) \$ _____
- 6. Security Agreement \$ _____
- 7. Escrow Agreement \$ _____
- 8. Performance Bond \$ _____
- 9. OTHER \$ _____

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The parties hereto agree that the amount of the performance bond under this Agreement (i.e. \$ _____) shall be combined with those amounts required as financial security in that "Site Development Agreement" (i.e. \$ _____) entered between the parties, into a single bond in the amount of \$ _____.

6. **Post-Construction Financial Security.** Upon completion of construction of those facilities subject to construction and permitting, LANDOWNER agrees to and shall post, or have posted on its behalf, financial security with the Borough in an amount equal to 15% of the aforesaid costs determined to complete the construction of such facilities [i.e. here, security in the total sum of _____ AND ____/100 (\$ _____) DOLLARS (rounded) as Maintenance Security to guarantee the stability of those newly constructed facilities and re-vegetation, such security to remain in effect for a period of one year. In conformance with same, USER will execute and deliver to the Borough the following type(s) of security in the amounts indicated hereafter:

- 1. Irrevocable Letter of Credit \$ _____
- 2. Certified Check \$ _____
- 3. Cashier's Check \$ _____
- 4. Bank Account \$ _____
- 5. Certificate of Deposit (Cash Value) \$ _____
- 6. Security Agreement \$ _____
- 7. Escrow Agreement \$ _____
- 8. Performance Bond \$ _____
- 9. OTHER \$ _____

The parties agree that the "Post-Construction Financial Security" required by this paragraph may be posted by reducing the amount of the Performance Bond required in Paragraph 5 above.

7. **Post-Construction Financial Security.** Following the expiration of the Maintenance Security set forth above, LANDOWNER agrees to post and shall post financial security with the Borough as Long-Term Maintenance Security, in the form of a Cashier's Check and in an amount to be agreed upon by the Borough, to guarantee the stability of those newly constructed facilities and re-vegetation, such security to remain in effect for a period of ten (10) years. The amount of Long Term Maintenance Security required under this paragraph shall not exceed 15% of the construction costs unless LANDOWNER either (a) fails or refuses to perform necessary maintenance and/or make repairs to the BMP's, the Borough is required to perform such maintenance or make such repairs, and the costs incurred by the Borough exceed the amount of the Long Term Maintenance Security posted, or (2) the BMP's fail to function as intended and the costs of redesigning and/or replacing the BMP's exceeds the amount of Long Term Maintenance Security posted. In the event the BMP's are maintained and functioning as designed, nothing in this paragraph shall prevent the Borough, at its discretion, from reducing the amount of Long-Term Maintenance Security below the

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15% amount referenced herein. The parties agree that the "Post-Construction Financial Security" required by this paragraph may be posted by reducing the amount of the Performance Bond required in Paragraph 5 or 6 above.

8. **Reimbursement by Landowner.** In the event the Borough, 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 Borough for all expenses (direct and indirect) incurred within 10 days of receipt of invoice from the Borough.
9. **Purpose of Agreement.** The intent and purpose of this Agreement is to ensure the proper maintenance of the onsite BMP(s) by the Landowner; provided, however, that this Agreement shall not be deemed to create or effect any additional liability to any other person for damage alleged to result from or caused by storm water runoff.
10. **Release and Indemnification of Borough.** The Landowner, for themselves and for their executors, administrators, assigns, and other successors in interests, shall release, and hereby release, the Borough, its agents, employees and designated representatives from all claims or causes of action, of any nature or kind, which arise, could arise or may be asserted against the Borough, its agents, employees and representatives from the construction, presence, existence, or maintenance of the BMP(s) by the Landowner or Borough. In the event that a claim is asserted against the Borough, its elected officials, Borough Officers, designated representatives, agents or employees, the Borough shall promptly notify the Landowner and the Landowner shall hold harmless, indemnify and defend the Borough, its designated representatives, agents or employees upon same.
11. **Duty to Inspect by Borough and Inspection Fees.** The Borough shall inspect the BMP(s) during and after the completion of construction and, thereafter, consistent with the terms of the Scottsdale Borough Stormwater Management Ordinance, to ensure their continued functioning. Landowner shall deposit the amount of _____ AND /100 (\$ _____) DOLLARS with the Borough in payment of all inspections required under this Agreement. The Borough may require Landowner to make, and Landowner shall make, additional deposits in the event the initial deposit for inspection fees is exhausted.
12. **Recording.** This Agreement shall be recorded at the Office of the Recorder of Deeds of Westmoreland 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.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed the day and date first above written.

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26 Attachment 4

Borough of Scottdale

APPENDIX "D"

SMALL PROJECT STORMWATER MANAGEMENT PLAN

This small project stormwater management plan has been developed to assist those proposing residential projects to meet the requirements of the *Westmoreland County Model Stormwater Management Ordinance* (SWO) without having to draft a formal stormwater management plan. This small project stormwater management plan is only permitted for projects which qualify under the earth disturbance requirements set forth in the Regulated Development Activity Table of the SWO and by using the recommendations in this Appendix for Volume Control. Additional information can be found in Chapter 6 of the PA SW BMP Manual 2006 or most recent version.

A. What is an applicant required to submit?

All requirements of the Scottdale Borough Stormwater Management Ordinance, including:

1. A narrative including a brief description of the proposed stormwater facilities and BMPs, types of materials to be used, total square footage of proposed impervious areas, volume calculations;
2. A sketch plan showing location of existing and proposed structures, driveways, or other paved areas with approximate surface area in square feet; location of any existing or proposed utilities, especially onsite septic system and/or potable water wells showing proximity to infiltration facilities, location and dimensions of all proposed stormwater facilities and BMPs;
3. Small Project Stormwater Management Worksheet;
4. Signed agreement page for installation, operation and maintenance of stormwater facilities and BMPs (Refer to Appendix B and Appendix C); and
5. Conservation District erosion and sediment control "Adequacy" letter as required by Municipal, County or State regulations;

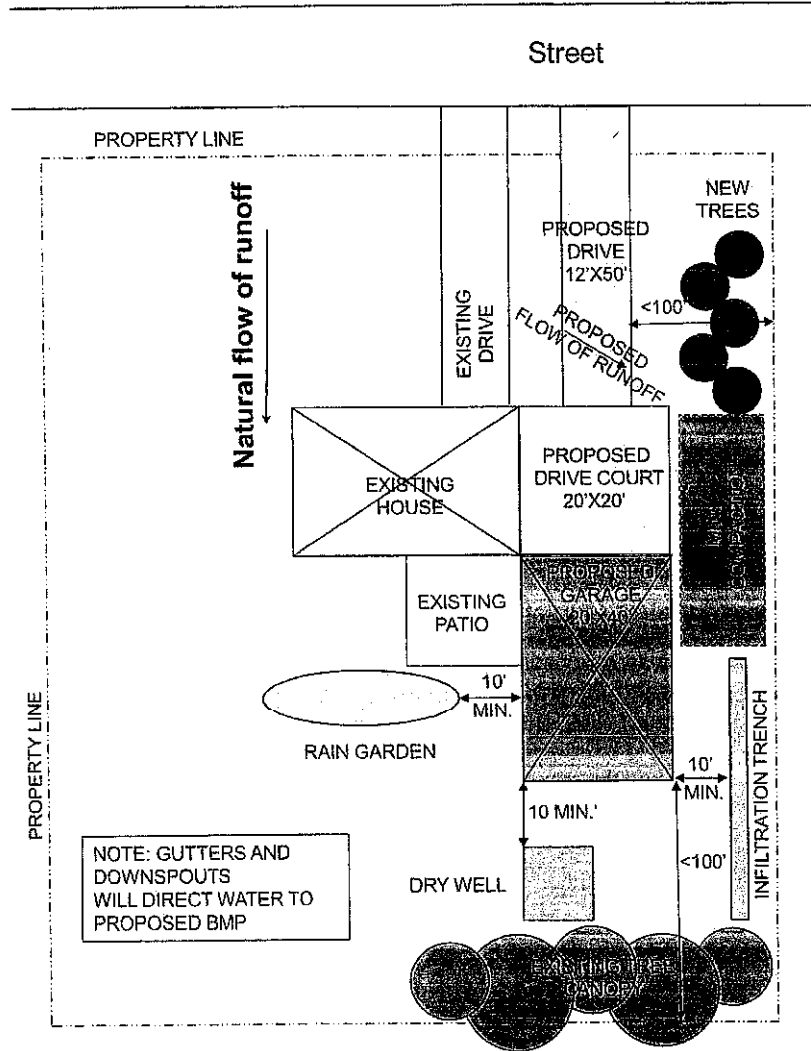
B. Determination of Required Control Volume and Sizing Stormwater Facilities and BMPs

By following the simple steps outlined below in the provided example and Small Project Stormwater Management Worksheet, an applicant can determine the runoff volume that is required to be controlled and how to choose the appropriate stormwater facility or BMP to permanently remove the runoff volume from the site. Impervious area calculations must include all areas on the lot proposed to be covered by roof area or pavement which would prevent rain from naturally percolating into the ground, including proposed impervious surfaces such as sidewalks, driveways, parking areas, patios or swimming pools. **NOTE: Sidewalks, driveways or patios that are designed and constructed to allow for infiltration (permeable paving systems) are not included in this calculation.**

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Small Project Sketch Plan: Example

Project Name: _____ Date: _____
Location: _____



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Step 1: Determine Total Impervious Surfaces and Required Control Volume:

TABLE 1: Example

| New Impervious Surface | Dimensions (width x length) (FT) | Area in SF | 1" storm Multiplier (0.083) | Required Control Volume 1" in CF |
|------------------------|----------------------------------|---------------|-----------------------------|----------------------------------|
| <i>Garage Roof</i> | <i>20'x40'</i> | <i>800 SF</i> | <i>0.167</i> | <i>133 CF</i> |
| <i>Driveway Court</i> | <i>20'x20'</i> | <i>400 SF</i> | <i>0.167</i> | <i>67 CF</i> |
| <i>Driveway</i> | <i>12'x50'</i> | <i>600 SF</i> | <i>0.167</i> | <i>100 CF</i> |
| | | SF | | CF |
| | | SF | | CF |
| | | SF | | CF |

Total Required Control Volume (enter in Table 2): **300 CF**

In Table 1, as in the example above and as shown on the Figure 1 example sketch plan, list each of the new improvements that create impervious area on the property along with their dimensions and total area in square feet in the first three columns. Then, depending on the design storm required by the municipality, multiply the area in square feet by the design storm multiplier to determine required control volume and list in the last column. Add each of the required control volumes together to equal the Total Required Control Volume and enter in Table 2.

Step 2: Sizing the Selected Volume Control BMP(s)

Several Best Management Practices (BMPs) are suitable for small stormwater management projects. However, their application depends on the volume required to be controlled, how much land is available, and the site constraints. Proposed residential development activities can apply both nonstructural and structural BMPs to control the volume of runoff from the site. A number of these different volume control BMPs are described below. Note that Figure 1 is an example of how these BMPs can be utilized on a property to control the total required control volume.

Credit can be taken for non-structural best management practices (BMPs) on a site to reduce the total volume required to be controlled. Credits must follow the requirements listed in this Appendix. Fill out Table 2 with proposed non-structural BMP credits and structural BMP control volumes entered in Tables 6 and 10 to meet the total required control volume.

TABLE 2: Example

| | |
|---|---------------|
| Required Control Volume (Table 1) | 300 CF |
| Non-structural BMP Credit (Table 6) | 137 CF |
| Adjusted Required Control Volume (after credits) (Table 1 - Table 6) | 163 CF |
| Structural BMP Control Volume (Table 10) | 202 CF |
| TOTAL Volume Controlled (Table 6 + Table 10) | 338 CF |

NOTE: Total Volume Controlled shall be **greater than or equal to** Required Control Volume.

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Step 3: Choosing and Measuring Non-Structural BMPs

1. Tree Planting and Preservation

Trees and forests reduce stormwater by capturing, storing and evapotranspiring rainfall through their roots and leaves. Tree roots and leaf litter also create soil conditions that promote infiltration of rainwater into the soil and that breakdown excessive nutrients and pollutants. For more information refer to the PA DEP BMP Manual 5.6.3.

Considerations for credit:

- New tree plantings must be at least 6 feet in height and have at least a 2 inch caliper trunk, and the quantity entered in Table 3
- New tree plantings must be native to Pennsylvania. Refer to <http://www.dcnr.pa.gov/Conservation/WildPlants/Pages/default.aspx>
- Existing trees must have at least a 4" caliper trunk, and must be located within 100 feet of impervious surfaces
- Measure existing tree canopy by determining the square foot area covered within the drip line of the tree(s), and enter the area in Table 4
- Site runoff should be directed via sheet flow to the area(s) of trees being used for volume control

TABLE 3: New Tree(s)

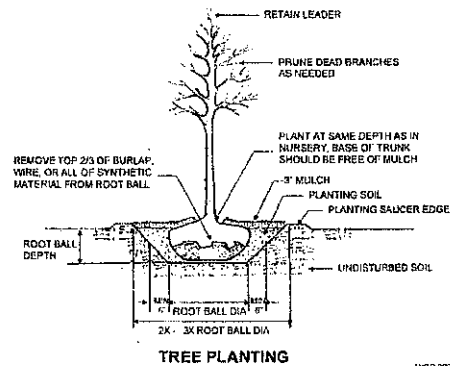
| New Trees | Volume Control Multiplier | Tree Quantity | Volume Controlled (CF) |
|---|---------------------------|---------------|------------------------|
| Deciduous | 6 CF | 2 | 12 CF |
| Evergreen | 10 CF | 3 | 30 CF |
| Total Volume Control Credit (new trees) enter in Table 6: | | | 42 CF |

TABLE 4: Existing Tree Canopy

| Existing Tree Canopy (SF) | Distance of Impervious to Canopy (FT) | Volume Control Multiplier | Volume Controlled (CF) |
|---|---------------------------------------|---------------------------|------------------------|
| SF | 0 FT to 20 FT | 0.0833 | CF |
| 2000 SF | 20 FT to 100 FT | 0.0416 | 83 CF |
| Total Volume Control Credit (ex. trees) enter in Table 6: | | | 83 CF |



Remove all synthetic material from the root ball before planting



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2. Minimize Soil Compaction and Revegetate (lawn or meadow seeding)

When soil is overly compacted during construction it can cause a drastic reduction in the permeability of the soil and rarely is the soil profile completely restored. Runoff from overly compacted vegetated areas can resemble increased runoff from impervious areas. Minimizing soil compaction during the construction process, or restoring and amending compacted soils and revegetating them after construction can greatly increase natural infiltration on a site. For more information refer to the PA DEP BMP Manual 5.6.2 and 5.6.3.

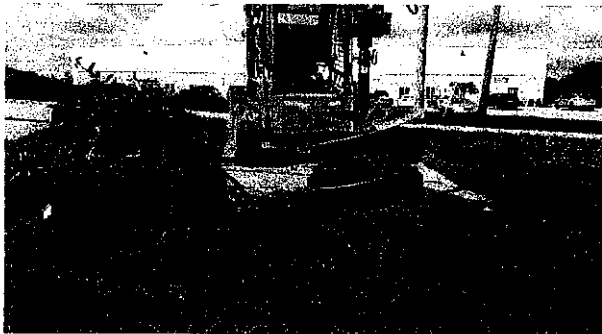
Considerations for credit:

- Area(s) shall not be stripped of topsoil and areas shall be protected from construction vehicles and lay down space with construction fencing or mats. Enter square foot area in Table 5.
- Soil ripping and soil amendments can be used to restore the soils
- Vegetation should be used, especially native plants and meadow mixes as an alternative to lawn

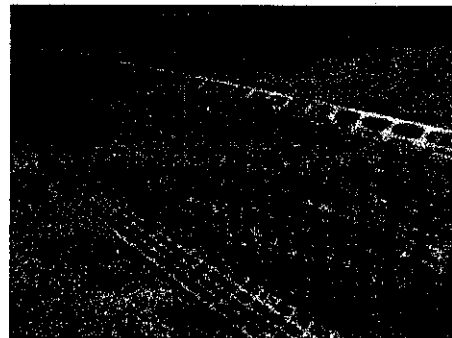
TABLE 5: Minimize Soil Compaction Example

| Type of stabilization | Area of minimal compaction (SF) | Volume Control Multiplier | Volume Controlled (CF) |
|-----------------------|---------------------------------|---------------------------|------------------------|
| Meadow | SF | 0.0275 | CF |
| Lawn | 600 | 0.0208 | 12 |
| | | | CF |

Total Volume Control Credit (min. compaction) **enter in Table 6:** 12 CF



Plywood sheets protect lawn from compaction



Fencing protects areas from compaction

Step 4: Determining Non-Structural BMP Credit:

TABLE 6: Non-Structural BMP Credit Summary: Example

| Non- structural BMP | Storage Volume Credit (CF) |
|---------------------------------|----------------------------|
| New Tree | 42 CF |
| Existing Tree Canopy | 83 CF |
| Minimized Soil Compaction | 12 CF |
| TOTAL (enter in Table 2) | 137 CF |

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Step 5: Choosing and Sizing Structural BMPs

1. Infiltration Trench

An infiltration trench is a linear stormwater management BMP consisting of a continuously perforated pipe at a minimum slope in a stone-filled trench. During small storm events, infiltration trenches can significantly reduce volume and serve in the removal of fine sediments and pollutants. Runoff is stored in the pipe and between the stones and infiltrates through the bottom of the facility and into the surrounding soil matrix. Runoff should be pretreated using vegetative buffer strips or swales to limit the amount of coarse sediment entering the trench which can clog and render the trench ineffective. In all cases, an infiltration trench should be designed with a positive overflow to a stable outlet point. For more information refer to the PA DEP BMP Manual 6.4.4.

Design Considerations:

- Continuously perforated pipe (min 4" diameter) set at a minimum slope (1%) in a stone filled, nearly level-bottomed trench on un-compacted soils.
- The trench width and depth can vary, but it is recommended that infiltration trenches be no wider than four (4) feet, and a minimum of thirty (30) inches and maximum six (6) feet in depth.
- Stone fill should be clean, angular stone, separated from soil layers by four (4) inches of straw (top and bottom) or a nonwoven geotextile (top, sides, and bottom).
- A minimum of 6" of topsoil can be placed over trench and vegetated.
- Cleanouts or inlets should be installed at both ends and at intersections of the infiltration trench and at appropriate intervals to allow access to the perforated pipe.
- The discharge or outlet from the infiltration trench should be safely conveyed to a stable vegetated area, natural watercourse, the curb or gutter line of roadway or existing storm collection/conveyance/control system as applicable.
- Volume of facility = Depth x Width x Length x Void Space of the gravel bed (assume 40%).

Maintenance:

- Cleanouts, catch basins and inlets should be inspected at least two times a year and cleaned out as necessary to maintain function of the system.
- The vegetation along the surface of the infiltration trench should be maintained in good condition and any bare spots should be re-vegetated as soon as possible.
- Vehicles should not be parked or driven on the trench and care should be taken to avoid soil compaction by lawn mowers.

TABLE 7 - Determining size of infiltration trench for volume control: Example

| Required Control Volume (CF) From Table 2 | Storage Volume Divider | Trench Volume (CF) | Trench Depth (FT) | Trench Width (FT) | Trench Length (FT) | Volume Controlled |
|---|------------------------|--------------------|-------------------|-------------------|--------------------|-------------------|
| 163 | 0.4 | 413 CF | 3FT | 3FT | 46FT | 165 CF |

Total Volume Control Credit (Inf. trench) enter in Table 10: 165 CF

WATER

2. Rain Garden

A rain garden is a landscaped shallow depression that uses mulch, soil mix, and deep rooted plants to capture, adsorb and infiltrate stormwater runoff from roofs, and pavement. For more information refer to the PA DEP BMP Manual 6.4.5.

Design considerations:

- A rain garden should be located on nearly level to gently sloping ground and no closer than 10 feet to a building foundation and 25 feet from septic field or wellhead.
- A rain garden can vary in length, width and depth, but should have a ponding depth of 6 to 12 inches, and a total surface depth of no greater than 18 inches.
- Side slopes within the garden should not exceed 3:1 horizontal to vertical.
- The rain garden should be constructed in layers with a (min 4") perforated underdrain in a clean angular stone envelope, separated from soil layers by four (4) inches of straw (top and bottom) or a nonwoven geotextile (top, sides, and bottom), covered with 12 inches to 36 inches of 50-30-20 topsoil-sand-compost mix or as approved by the municipality, and 3 inches of shredded bark mulch or vegetated cover. Soil depth should be determined by plant choices and control volume requirements.
- Vegetation should be deep rooted and tolerant of wet and dry conditions, salts and environmental stress.
- An emergency overflow should be set in the rain garden such as a vertical pipe or inlet box, with basket type grate set even with the ponding depth, below the surrounding ground elevation and connected to the perforated underdrain and an outlet pipe.
- The outlet from the rain garden should be safely conveyed to a stable vegetated area, natural watercourse, the curb or gutter line of roadway or existing storm collection/conveyance/control system as applicable.

Maintenance:

- Cleanouts, catch basins and inlets should be inspected at least two times a year and cleaned out as necessary to maintain function of the system. Detritus should be removed from the rain garden as necessary to prevent clogging of the overflow outlet.
- The vegetation should be maintained in good condition and replaced as necessary. Rain garden plants may need to be watered during dry spells.
- Rain garden should be weeded and shredded bark mulch should be amended as necessary to prevent volunteer weeds.

TABLE 8 – Determining Size of Rain Garden for volume control: Example

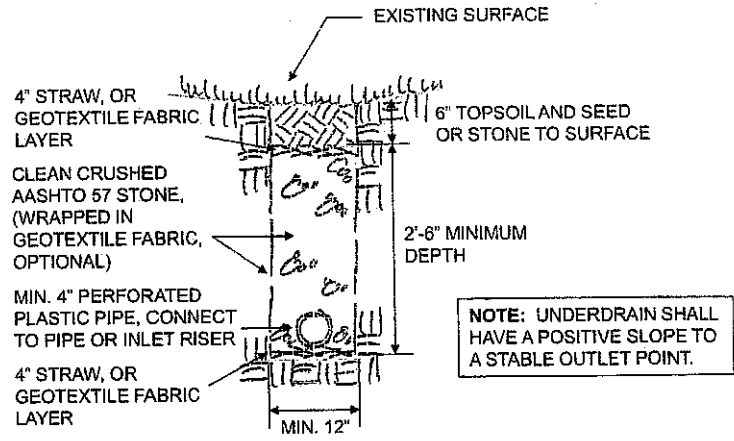
(surface volume, soil storage volume should each be greater than or equal to required control volume)

| Required Control Volume (CF) from Table 2 | Ponding Depth (0.5 FT to 1.0 FT) Divider | Rain Garden Surface Area (SF) | Rain Garden Width (FT) | Rain Garden Length (FT) | Soil Mix Depth (1 FT to 3 FT) Multiplier | Soil Storage Volume Multiplier | Soil Storage Volume (<= RCV) | Volume Controlled (soil) |
|---|--|-------------------------------|------------------------|-------------------------|--|--------------------------------|------------------------------|--------------------------|
| 165 CF | 0.5 | 330 SF | 12 FT | 28FT | 2 FT | 0.3 | 202 CF | 202 CF |
| | | | | | | | | |

Total Volume Control Credit (rain garden) enter in Table 10: 202 CF

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Infiltration Trench Construction:



Perforated pipe covered with stone and wrapped in fabric



Perforated pipe covered in stone with straw separation layers

WATER

3. Dry Well / Seepage Pit

A dry well or seepage pit is a subsurface storage facility that temporarily stores stormwater runoff from roofs and infiltrates it into the surrounding soils. Roof downspouts connect directly to a dry well or seepage pit that is an excavated pit filled with clean angular stone with an overflow pipe to ensure the system will not be overwhelmed. Prefabricated chamber systems or perforated pipe sections are commercially available for use as dry wells and should be designed, constructed and maintained according to the manufacturer's recommendations. For more information on dry wells and seepage pits refer to the PA DEP BMP Manual 6.4.6.

Design considerations:

- A dry well / seepage pit should be located on nearly level to gently sloping ground and no closer than 10 feet to a building foundation and 25 feet from septic field or wellhead.
- A dry well / seepage pit can vary in length, width and depth, but should be a minimum depth of 3 feet.
- A downspout should direct water to the surface, a system of perforated pipes should distribute the water throughout the system with an inspection/cleanout pipe to the surface, and an over flow pipe should outlet excess water during intense storms.
- The storage system can be clean angular stone, separated from soil layers by four (4) inches of straw (top and bottom) or a nonwoven geotextile (top, sides, and bottom).
- The outlet from the dry well / seepage pit should be safely conveyed to a stable vegetated area, natural watercourse, the curb or gutter line of roadway or existing storm collection/conveyance/control system as applicable.

Maintenance:

- Drywells and seepage pits should be inspected at least 4 times a year, and after each storm event exceeding 1 inch.
- Remove sediment, debris, detritus and any other waste material from the system as necessary.
- Regularly clean out gutters and downspouts to ensure proper connections and to maintain effectiveness of the system.
- Replace any filter screen or clean out any sump box that may intercept roof runoff as necessary.

Table 9: Determining Size of Dry Well (stone filled) for volume control: Example

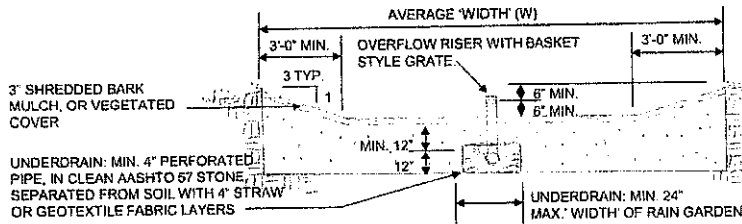
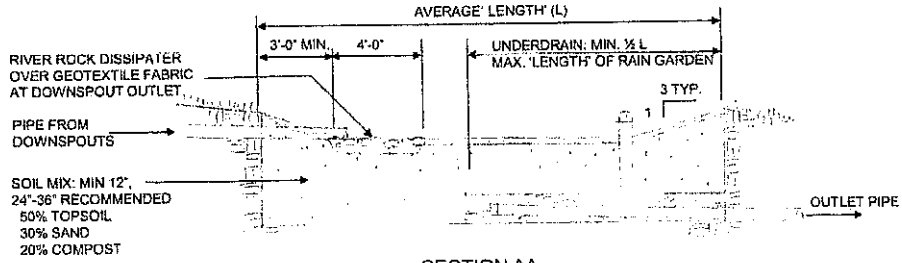
| Required Control Volume (CF) from Table 2 | Storage Volume Divider | Dry Well Volume (CF) | Dry Well Depth (FT) | Dry Well Width (FT) | Dry Well Length (FT) | Volume Controlled (CF) |
|---|------------------------|----------------------|---------------------|---------------------|----------------------|------------------------|
| 165 | 0.4 | 413 CF | 5 FT | 9 FT | 9.2 FT | 165 CF |

Total Volume Control Credit (dry well) enter in Table 10: 165 CF

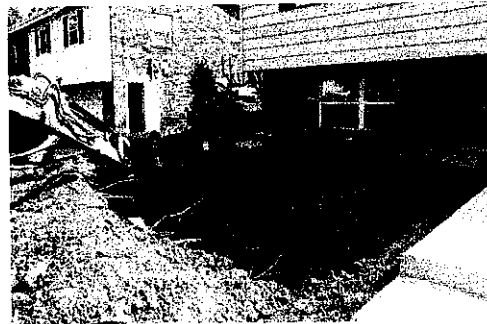
NOTE: Applicants are required to utilize the manufacturer's recommendations for sizing proprietary stormwater infiltration systems, and to submit supporting documentation for meeting the required control volume and maintenance requirements.

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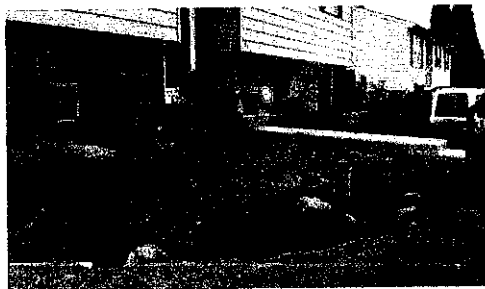
Rain Garden Construction:



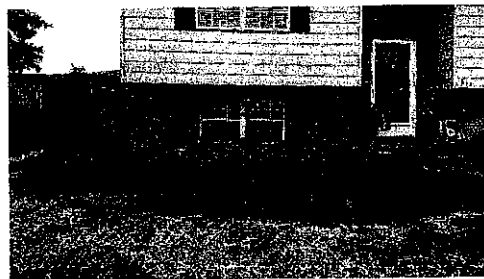
Mark rain garden location to avoid utilities



Excavate rain garden at least 10' from foundation



Separate underdrain layer from soil with fabric or straw



Use decorative but tolerant plants for seasonal interest

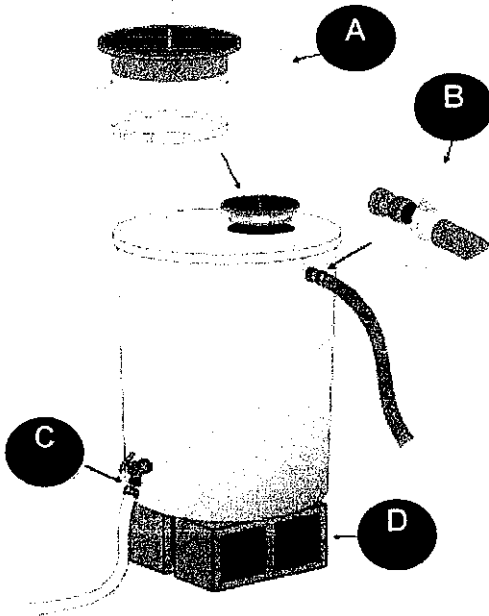
WATER

4. Alternative BMP Capture and Re-Use (rain barrel / cistern)

Rain barrels and cisterns are above or below ground containers used for temporary storage of rainwater, to be used for landscape irrigation and other similar uses after the rain has ended. A rain barrel or cistern **cannot be used** as a volume control because infiltration is not guaranteed after a storm event, but they are viable alternative method to capture and reuse stormwater.

Considerations:

- Rain barrels and cisterns should be directly connected to a downspout with a mosquito screen
- There should be a means to release the water after a storm event to provide storm volume for the next event
- An overflow, near the top of the container should direct water to a vegetated area away from any structures
- Barrels can be connected in series to provide more volume collection



ANATOMY OF A RAIN BARREL

A – hole in top for downspout connection, with screen for mosquitoes

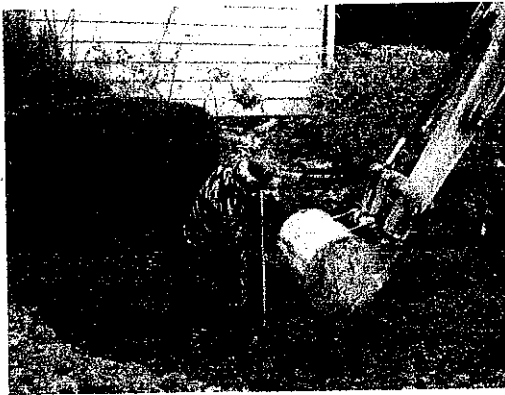
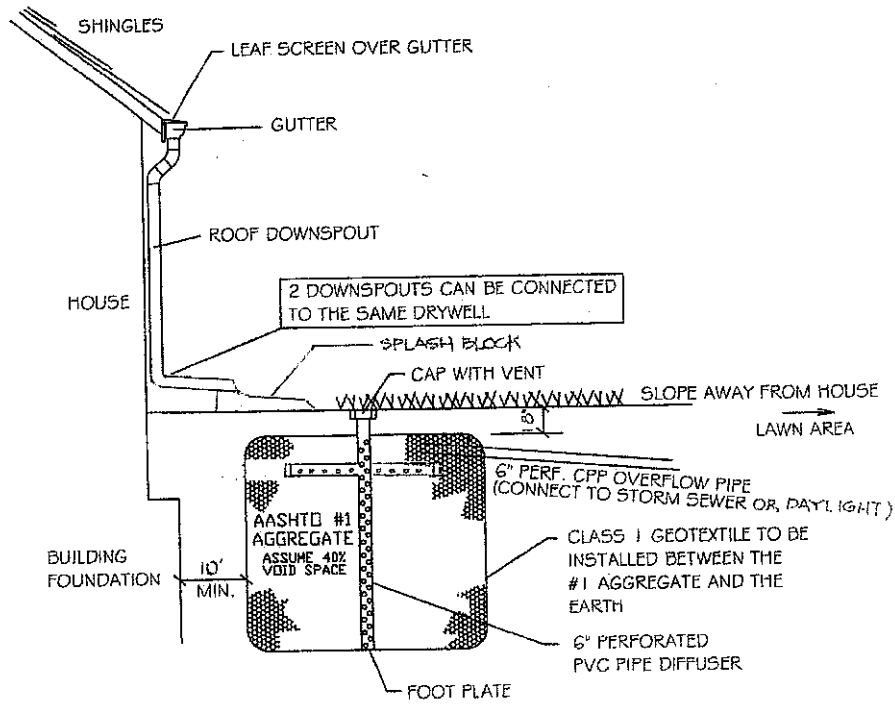
B – hole on side near top for overflow hose

C – hole on side near bottom for draining

D – blocks to elevate barrel as needed for draining

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Dry Well (stone filled) Construction:



Excavate a drywell at least 10' from foundation



Separate stone fill from soil with straw layers or fabric

WATER

Step 6: Determining BMP Volume Control

TABLE 10: Structural BMP Volume Control Summary:

| Structural BMP | Storage Volume (CF) |
|---------------------------------|---------------------|
| Infiltration Trench | CF |
| Rain Garden | 202 CF |
| Dry Well | CF |
| TOTAL (enter in Table 2) | 202 CF |

Use Small Project Stormwater Management Worksheet

Step 7: Post-Installation Operation and Maintenance Requirements

It is the property owner's responsibility to properly maintain any stormwater facilities and BMPs in accordance with the minimum maintenance requirements listed in this Appendix. The property owner shall submit a signed agreement, and declaration of easement to the Scottsdale Borough Council for installation, and maintenance of any proposed stormwater management facilities and BMPs. It is also the property owner's responsibility to inform any future owners of the function, operation and maintenance needed for any BMPs on the property prior to the purchase of the property. *See Appendix B*

C

C

C

WATER

26 Attachment 5

Borough of Scottsdale

APPENDIX "E"

SMALL PROJECT STORMWATER MANAGEMENT WORKSHEET

Project Name: _____ Date: _____
 Location: _____

TABLE 1: Determination of Control Volume Requirements:

| New Impervious Surface | Area in SF | 1" storm Multiplier (0.083) | Required Control Volume 1" in CF |
|------------------------|------------|-----------------------------|----------------------------------|
| | SF | | CF |
| | SF | | CF |
| | SF | | CF |
| | SF | | CF |
| | SF | | CF |
| | SF | | CF |

Total Required Control Volume (enter in Table 2): _____ CF

TABLE 2: Determination of Volume Controlled:

| | |
|--|-----------|
| Required Control Volume (Table 1) | CF |
| Non-structural BMP Credit (Table 6) | CF |
| Adjusted Required Control Volume (after credits) (Table 1 – Table 6) | CF |
| Structural BMP Control Volume (Table 10) | CF |
| TOTAL Volume Controlled (Table 6 + Table 10) | CF |

NOTE: Total Volume Controlled shall be greater than or equal to Required Control Volume.

Determining Non-Structural BMP Credit:

TABLE 3: New Tree(s)

| New Trees | Volume Control Multiplier | Tree Quantity | Volume Controlled (CF) |
|-----------|---------------------------|---------------|------------------------|
| Deciduous | 6 CF | | CF |
| Evergreen | 10 CF | | CF |

Total Volume Control Credit (new trees) enter in Table 6: _____ CF

TABLE 4: Existing Tree Canopy

| Existing Tree Canopy (SF) | Distance of Impervious to Canopy (FT) | Volume Control Multiplier | Volume Controlled (CF) |
|---------------------------|---------------------------------------|---------------------------|------------------------|
| SF | 0 FT to 20 FT | 0.0833 | CF |
| SF | 20 FT to 100 FT | 0.0416 | CF |

Total Volume Control Credit (ex. trees) enter in Table 6: _____ CF

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TABLE 5: Minimize Soil Compaction

| Type of stabilization | Area of minimal compaction (SF) | Volume Control Multiplier | Volume Controlled (CF) |
|-----------------------|---------------------------------|---------------------------|------------------------|
| Meadow | SF | 0.0275 | CF |
| Lawn | SF | 0.0208 | CF |

Total Volume Control Credit (min. compaction) enter in Table 6: _____ CF

TABLE 6: Non-Structural BMP Credit Summary:

| Non- structural BMP | Storage Volume Credit (CF) |
|---------------------------------|----------------------------|
| New Tree | CF |
| Existing Tree Canopy | CF |
| Minimized Soil Compaction | CF |
| TOTAL (enter in Table 2) | CF |

Sizing of Structural BMPs:

TABLE 7: Infiltration Trench (stone filled)

| Required Control Volume (CF) | Storage Volume Divider | Trench Volume (CF) | Trench Depth (FT) | Trench Width (FT) | Trench Length (FT) | Volume Controlled |
|------------------------------|------------------------|--------------------|-------------------|-------------------|--------------------|-------------------|
| CF | 0.4 | CF | FT | FT | FT | CF |

Total Volume Control Credit (Inf. trench) enter in Table 10: _____ CF

TABLE 8: Rain Garden (surface & soil storage volume should be greater than or equal to required control vol.)

| Required Control Volume (CF) | Ponding Depth (0.5 FT to 1.0 FT) Divider | Rain Garden Surface Area (SF) | Rain Garden Width (FT) | Rain Garden Length (FT) | Soil Mix Depth (1 FT to 3 FT) Multiplier | Soil Storage Volume Multiplier | Soil Storage Volume (<= RCV) | Volume Controlled (soil) |
|------------------------------|--|-------------------------------|------------------------|-------------------------|--|--------------------------------|------------------------------|--------------------------|
| CF | FT | SF | FT | FT | FT | 0.3 | CF | CF |

Total Volume Control Credit (rain garden) enter in Table 10: _____ CF

TABLE 9: Dry Well (stone filled)

| Required Control Volume (CF) | Storage Volume Divider | Dry Well Volume (CF) | Dry Well Depth (FT) | Dry Well Width (FT) | Dry Well Length (FT) | Volume Controlled (CF) |
|------------------------------|------------------------|----------------------|---------------------|---------------------|----------------------|------------------------|
| CF | 0.4 | CF | FT | FT | FT | CF |

Total Volume Control Credit (dry well) enter in Table 10: _____ CF

TABLE 10: Structural BMP Volume Control Summary:

| Structural BMP | Volume Controlled (CF) |
|---------------------------------|------------------------|
| Infiltration Trench | CF |
| Rain Garden | CF |
| Dry Well | CF |
| TOTAL (enter in Table 2) | CF |

WATER

APPENDIX E

Stormwater Management Plan Checklist

See Scottsdale Borough Stormwater Management Ordinance for complete requirements

Project Name: _____ Date: _____ Location: _____

Contact Information: _____ Plan Preparer: _____

Contact Information: _____ Submission Requirements

- Checklist
- Application
- Fees and
- Location map (USGS)
- [x] sets completed plans, narrative
- E&S plan, as submitted for approval
- Operation and maintenance agreement
- Municipal notification(s)
- Financial guarantees, maintenance fund

General Requirements

Narrative:

- Project description, including Watershed Performance District, existing and proposed features and improvements, soils and limitations, landform, land cover, drainage areas, utilities, proposed SWM facilities and BMPs, easements and other information required by the Scottsdale Borough Stormwater Management Ordinance
- Stormwater calculations
- Project schedule
- Construction sequence, including phases if applicable
- Justification for SWM facilities and/or BMPs
- Operation and Maintenance requirements and responsible party(s) Plan:
- Location map (USGS)
- Watershed Performance District
- Existing natural features
- Soils; and limitations
- Landform; existing and proposed contours at 2' intervals, or 5' intervals for slopes >15%
- Land cover; existing and proposed improvements
- Drainage areas; existing and proposed
- Utilities; existing and proposed
- SWM facilities and BMPs; existing and proposed
- Easements, including offsite easements for drainage
- Stormwater construction details and sections (as applicable)
- Stormwater construction notes and sequence
- Operation and Maintenance requirements and responsible party(s)

