BOARD OF SUPERVISORS
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PENNSYLVANIA

ORDINANCE NO. 475

AN ORDINANCE REPEALING AND REPLACING IN ITS ENTIRETY CHAPTER 270, "STORMWATER MANAGEMENT," OF THE WEST WHITELAND TOWNSHIP CODE OF ORDINANCES.

BE IT HEREBY ENACTED AND ORDAINED by the Board of Supervisors of West Whiteland Township, Chester County, Commonwealth of Pennsylvania as follows:

Section 1. Chapter 270 "Stormwater Management," of the West Whiteland Township Code of Ordinances is hereby repealed and replaced with the following:

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APPENDICES

ARTICLE I – GENERAL PROVISIONS

§270-1. Short title.

This chapter shall be known as the "West Whiteland Township Stormwater Management Ordinance of 2023, as amended."

§270-2. Statement of findings.

The Board of Supervisors of the Township finds that:

A. Inadequate management of accelerated stormwater runoff resulting from land disturbance and development throughout a watershed increases flooding, flows and velocities, contributes to erosion and sedimentation, overtaxes the capacity of streams and storm sewers, greatly increases the cost of public facilities to convey and manage stormwater, undermines floodplain management and flood reduction efforts in upstream and downstream communities, reduces infiltration and groundwater recharge, increases nonpoint source pollution to waterways, and threatens public health and safety.

B. Inadequate planning and management of stormwater runoff resulting from land disturbance and development throughout a watershed can harm surface water resources by changing the natural hydrologic patterns, accelerating stream flows (which increase scour and erosion of stream beds and stream banks, 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. A comprehensive program of stormwater management, including minimization of impacts of new development, redevelopment, and other earth disturbance activities causing accelerated runoff and erosion and loss of natural infiltration, is fundamental to the public health, safety, and general welfare of the people of the Township and all of the people of the commonwealth, their resources, and the environment.

D. Stormwater is an important water resource that provides infiltration and groundwater recharge for water supplies and baseflow of streams, which also protects and maintains surface water quality.

E. Impacts from stormwater runoff can be minimized by reducing the volume of stormwater generated and by using project designs that maintain the natural hydrologic regime and sustain high water quality, infiltration, stream baseflow, and aquatic ecosystems. Cost-effective and environmentally sensitive stormwater management can be achieved through the use of nonstructural site design techniques that minimize impervious surfaces, reduce disturbance of land and natural resources, avoid sensitive areas (i.e., riparian buffers, floodplains, steep slopes, wetlands, etc.), and consider topography and soils to maintain the natural hydrologic regime.

F. Public education on the control of pollution from stormwater is an essential component in successfully addressing stormwater.

G. Federal and state regulations require the Township to implement a program of stormwater controls. The Township is required to obtain a permit and comply with its provisions for stormwater discharges from its separate storm sewer system under the National Pollutant Discharge Elimination System (NPDES).

H. Nonstormwater discharges to Township or other storm sewer systems can contribute to pollution of the Waters of the Commonwealth.

I. The use of green infrastructure, low impact development (LID), and Conservation Design (CD) are intended to address the root cause of water quality impairment by using systems and practices which use or mimic natural processes to: 1) infiltrate and recharge, 2) evapotranspire, and/or 3) harvest and use precipitation near where it falls to earth. Green infrastructure practices, LID, and CD contribute to the restoration or maintenance of pre-development hydrology.

§270-3. Purpose.

The purpose of this chapter is to protect public health, safety and general welfare, property and water quality by implementing drainage and stormwater management practices, criteria, and provisions included herein for land development, construction and earth disturbance activities, to achieve the following throughout the Township:

A. Reduce the frequency and magnitude of flooding and stormwater impacts affecting people, property, infrastructure and public services.

B. Sustain or improve the natural hydrologic characteristics and water quality of groundwater and surface waters.

C. Protect natural resources, including riparian and aquatic living resources and habitats.

D. Maintain the natural hydrologic regime of land development sites and their receiving watersheds.

E. Minimize land disturbance and protect and incorporate natural hydrologic features, drainage patterns, infiltration, and flow conditions within land development site designs.

F. Reduce and minimize the volume of stormwater generated, and manage and release stormwater as close to the source of runoff as possible.

G. Provide infiltration and maintain natural groundwater recharge to protect groundwater supplies and stream baseflows, prevent degradation of surface water and groundwater quality, and to otherwise protect water resources.

H. Reduce stormwater pollutant loads to protect and improve the chemical, physical, and biological quality of ground and surface waters.

I. Reduce scour, erosion and sedimentation of stream channels.

J. Reduce flooding impacts and preserve and restore the natural flood-carrying capacity of streams and their floodplains.

K. Protect adjacent and down gradient lands from adverse impacts of direct stormwater discharges.

L. Minimize impervious surfaces and connected impervious surfaces to promote infiltration and reduce the volume and impacts of stormwater runoff.

M. Provide proper long-term operation and maintenance of all permanent stormwater management facilities, BMPs and conveyances that are implemented within the Township.

N. Reduce the impacts of runoff from existing developed land undergoing redevelopment.

O. Implement an illicit discharge detection and elimination program that addresses non-stormwater discharges.

P. Provide stormwater management performance standards and design criteria a on watershed basis.

Q. Provide standards to meet certain NPDES stormwater permit requirements.

R. Meet legal water quality requirements under state law, including regulations at 25 Pa. Code Chapter 93, to protect, maintain, reclaim and restore the existing and designated uses of the Waters of the Commonwealth and to protect and maintain water quality in special protection areas.

S. Implement the requirements of Total Maximum Daily Load (TMDLs) where applicable to waters within or impacted by the Township.

T. Provide review procedures and performance standards for stormwater planning and management.

U. Implement the requirements of the county-wide Act 167 Stormwater Management Plan for Chester County, PA, and the Chester Creek Stormwater Management Plan.

V. Fulfill the purpose and requirements of Storm Water Management Act (PA Act 167, §3):

(1) Encourage planning and management of stormwater runoff in each watershed which is consistent with sound water and land use practices.

(2) Authorize a comprehensive program of stormwater management designated to preserve and restore the flood-carrying capacity of commonwealth streams; to preserve to the maximum extent practicable natural stormwater runoff regimes and

natural course, current and cross section of water of the commonwealth; and to protect and conserve groundwaters and groundwater recharge areas.

(3) Encourage local administration and management of stormwater consistent with the commonwealth's duty as trustee of natural resources and the people's constitutional right to the preservation of natural, economic, scenic, aesthetic, recreational and historic values of the environment."

§270-4. Statutory authority.

A. The Township is empowered to regulate land use activities that affect runoff and surface and groundwater quality and quantity by the authority of the Act of October 4, 1978, P.L. 864 (Act 167), 32 P.S. §680.1 et seq., as amended, the "Stormwater Management Act"; the Pennsylvania Municipalities Planning Code, Act of July 31, 1968 (Act 247), as reenacted and amended;[1] and the Second Class Township Code, Act of November 5, 1995 (Act 60), 53 P.S. §65101 et seq. ***[1. Editor's Note: See 53 P.S. §10101 et seq.]***

B. Furthermore, the Township is a Municipal Separate Storm Sewer System Community under Phase II of the National Pollution Discharge Elimination System (NPDES) Stormwater Program of the Environmental Protection Agency (EPA) and is thereby empowered to regulate stormwater by the authority of the Clean Streams Law, 35 P.S. §691.1 et seq. and the Clean Water Act, 33 U.S.C. §1251 et seq.

§270-5. Applicability.

A. The following activities are regulated by this chapter:

(1) All regulated activities as defined in this chapter including, but not limited to, new development, redevelopment, and earth disturbance activities that are located within the Township shall be subject to regulation by this chapter.

(2) When a building and/or grading permit is required for any regulated activity on an existing parcel or approved lot created by a subdivision and/or improved as a land development project, issuance of the permit shall be conditioned upon adherence to the terms of this chapter.

(3) This chapter contains the stormwater management performance standards and design criteria that are necessary from a watershed-based perspective. The Township's stormwater management conveyance and system design criteria (e.g., inlet spacing, inlet type, collection system design and details, outlet structure design, etc.) shall continue to be regulated by the applicable Township ordinance(s) and applicable state regulations or as included elsewhere in this chapter.

B. Duty of persons engaged in a regulated activity. Notwithstanding any provision(s) of this chapter, including exemptions, any landowner or any person engaged in a regulated

activity, including but not limited to the alteration or development of land, which may affect stormwater runoff characteristics, shall implement such measures as are reasonably necessary to prevent injury to health, safety, or other property. Such measures also shall include actions as are required to manage the rate, volume, direction, and quality of resulting stormwater runoff in a manner which otherwise adequately protects health, property, and water quality of Waters of the Commonwealth.

C. Phased and incremental project requirements.

(1) Any regulated activity (including but not limited to new development, redevelopment, or earth disturbance) that is to take place incrementally or in phases, or occurs in sequential projects on the same parcel or property, shall be subject to regulation by this chapter if the regulated impervious surface or earth disturbance exceeds the corresponding threshold for exemption (as presented in Table 6.1 "Thresholds for Regulated Activities Exempt from Chapter Provisions").

(2) The date of adoption of the West Whiteland Township Stormwater Ordinance of 2004, March 10, 2004, shall be the starting point from which to consider tracts as parent tracts relative to future subdivisions, and from which impervious surface and earth disturbance computations shall be cumulatively considered.

D. This chapter shall apply to all areas of the Township.

E. The provisions of Article VIII, Prohibitions, shall apply to all persons and properties within the Township.

§270-6. Exemptions and modified requirements.

A. Requirements for exempt activities.

(1) An exemption from any requirement of this chapter shall not relieve the applicant from implementing all other applicable requirements of this chapter, including but not limited to the provisions of Article VIII, Prohibitions, or from implementing such measures as are necessary to protect public health, safety, and welfare, property and water quality.

(2) An exemption shall not relieve the applicant from complying with the requirements for state-designated special-protection waters designated by PADEP as high-quality (HQ) or exceptional-value (EV) waters, or any other current or future state or Township water quality protection requirements.

(3) An exemption under this chapter shall not relieve the applicant from complying with all other applicable Township ordinances or regulations.

B. General exemptions. Regulated activities that involve less than 1,000 square feet of regulated impervious surfaces and less than 5,000 square feet of earth disturbance, or are

listed in §270-6.C are exempt from those (and only those) requirements of this chapter that are included in the sections and articles listed in Table 6.1. Exemptions are for the items noted in Table 6.1 only, and shall not relieve the landowner from other applicable requirements of this chapter. Exemption shall not relieve the applicant from implementing such measures as are necessary to protect health, safety, and welfare, property, and water quality.

Table 6.1
Thresholds for Regulated Activities Exempt from Chapter Provisions

Ordinance Article/Section	**Activities Listed in Subsection 106.C.**	**< 1,000 sq. ft. of Regulated Impervious Surfaces AND < 5,000 sq. ft. of Proposed Earth Disturbance**	**≥ 1,000 sq. ft. of Regulated Impervious Surfaces OR ≥ 5,000 sq. ft. of Proposed Earth Disturbance**
Article I	Not Exempt	Not Exempt	Not Exempt
Article II	Not Exempt	Not Exempt	Not Exempt
Article III §270-16, §270-17, & §270-25	Not Exempt	Not Exempt	Not Exempt
Article III §270-15, §270-18, §270-19, §270-20, §270-21, §270-22, §270-23, & §270-24	Exempt	Exempt	Not Exempt
Article IV	Exempt	Exempt	Not Exempt
Article V	Exempt	Exempt	Not Exempt
Article VI	Exempt	Exempt	Not Exempt
Article VII	Exempt	Exempt	Not Exempt
Article VIII	Not Exempt	Not Exempt	Not Exempt
Article IX	Not Exempt	Not Exempt	Not Exempt
Other Erosion, Sediment and Pollution Control Requirements	Must comply with Title 25, Chapter 102 of the PA Code and other applicable State and municipal codes, including the Clean Streams Law[2]. ***[2. Editor's Note: See 35 P.S. §691.1 et seq.]***		

TABLE 6.1 NOTES:

1. **Specific activitics listed in §270-6.C are exempt from the indicated requirements, regardless of size.**
2. **A proposed regulated activity must be less than both the regulated impervious surfaces and proposed earth disturbance thresholds to be eligible for exemption from the requirements listed in this table.**
3. **"Regulated impervious surface" - as defined in this chapter.**
4. **"Exempt" - regulated activities are exempt from the requirements of listed section(s) only; all other provisions of this chapter apply. These exemptions have no bearing on other municipal regulations or ordinances.**

C. Exemptions for specific activities. The following specific regulated activities are exempt from the requirements of §270-15, §270-18, §270-19, §270-20, §270-21, §270-22, §270-23, and §270-24, and Articles IV, V, VI and VII of this chapter (as shown in Table 6.1), unless otherwise noted below. All other conveyance and system design standards established by the Township in other codes or ordinances shall be required, and all other provisions of this chapter shall apply.

(1) Emergency exemption: emergency maintenance work performed for the protection of public health, safety and welfare. This exemption is limited to repair of the existing stormwater management facility; upgrades, additions or other improvements are not exempt. A written description of the scope and extent of any emergency work performed shall be submitted to the Township within two calendar days of the commencement of the activity. A detailed plan shall be submitted no later than 30 days following commencement of the activity. If the Township finds that the work is not an emergency, then the work shall cease immediately and the requirements of this chapter shall be addressed as applicable.

(2) Maintenance: any maintenance to an existing stormwater management facility, facility, BMP or conveyance made in accordance with plans and specifications approved by the Township Engineer or the Township.

(3) Existing landscaping: use of land for maintenance, replacement, or enhancement of existing landscaping.

(4) Gardening: use of land for gardening for home consumption.

(5) Agricultural-related activities:

(a) Agricultural activities (as defined in Article II).

(b) Conservation practices (as defined in Article II) that do not involve construction of any new or expanded impervious surfaces.

(c) High Tunnel if:

[1] The High Tunnel or its flooring does not result in an impervious surface

exceeding 25% of all structures located on the Landowner's total contiguous land area; and

[1] The High Tunnel meets one of the following:

[a] The High Tunnel is located at least 100 feet from any perennial stream or watercourse, public road, or neighboring property line.

[b] The High Tunnel is located at least 35 feet from any perennial stream or watercourse, public road or neighboring property line and located on land with a slope not greater than 7%.

[c] The High Tunnel is supported with a buffer or diversion system that does not directly drain into a stream or other watercourse by managing stormwater runoff in a manner consistent with the requirements of Pennsylvania Act 167.

(6) Forest management: forest management operations, which are consistent with a sound forest management plan prepared by a registered forester in accordance with all applicable federal and state laws and regulations and approved by the Board of the Township and which comply with the Pennsylvania Department of Environmental Protection's management practices contained in its publication "Soil Erosion and Sedimentation Control Guidelines for Forestry" (as amended or replaced by subsequent guidance). Such operations are required to have an erosion and sedimentation control plan, which meets the requirements of 25 Pa. Code Chapter 102 and meets the erosion and sediment control standards of §270-17 of this chapter.

(7) Maintenance of existing gravel and paved surfaces: Replacement of existing gravel and paved surfaces shall meet the erosion and sediment control requirements of 25 Pa. Code Chapter 102 and §270-17 of this chapter, and is exempt from all other requirements of this chapter listed in §270-6.C above. Resurfacing of existing gravel and paved surfaces is exempt from the requirements of this chapter listed above. Paving of existing gravel surface is exempt from the requirements of this Chapter listed above. Construction of new or additional impervious surfaces shall comply with all requirements of this chapter as indicated in Table 6.1.

(8) Township roadway shoulder improvements: shoulder improvements conducted within the existing roadway cross section of Township-owned roadways, unless an NPDES permit is required, in which case the proposed work must comply with all requirements of this chapter.

(9) In-place replacement of residential dwelling unit: the replacement in the exact footprint of an existing one- or two-family dwelling unit.

(10) In-place replacement, repair, or maintenance of residential impervious surface: the replacement of existing residential patios, driveways, garages, and/or sidewalks that are accessory to an existing one- or two-family dwelling unit in the exact footprint of the existing impervious surface.

D. Modified requirements for small projects. Regulated activities that involve 1,000 square feet to 2,000 square feet of regulated impervious surfaces and 5,000 square feet to 10,000 square feet of proposed earth disturbance may apply the modified requirements presented in the "Simplified Approach to Stormwater Management for Small Projects" (Simplified Approach) (Appendix A[3]) to comply with the requirements of §270-15, §270-18, §270-19, §270-20, §270-21, §270-22, §270-23 and §270-24, and Articles IV, V, VI and VII of this chapter (as shown in Table 6.2). The applicant shall first contact the Township to confirm that the proposed project is eligible for use of the Simplified Approach and is not otherwise exempt from these chapter provisions; to determine what components of the proposed project are to be considered as impervious surfaces; and to determine if other known site or local conditions exist that may preclude the use of any techniques included in the Simplified Approach. Appendix A includes instructions and procedures for preparation, submittal, review and approval of documents required when using the Simplified Approach and shall be adhered to by the applicant.[3] Infiltration testing for projects using the Simplified Approach is recommended but is not required by this Ordinance. All other provisions of this chapter shall apply. ***[3. Editor's Note: Appendix A is included as an attachment to this chapter.]***

TABLE 6.2
Thresholds for Regulated Activities that are Eligible for "Modified" Requirements

Ordinance Article/Section	**Activities Listed in §270-6.D**
Article I	All Provisions Apply
Article II	All Provisions Apply
Article III §270-16, §270-17, & §270-25	All Provisions Apply
Article III §270-15, §270-18, §270-19, §270-20, §270-21, §270-22, §270-23, & §270-24	Exempt if Modified Requirements of §270-6.D are Applied
Article IV	Exempt if Modified Requirements of §270-6.D are Applied
Article V	Exempt if Modified Requirements of §270-6.D are Applied
Article VI	Exempt if Modified Requirements of §270-6.D are Applied
Article VII	Exempt if Modified Requirements of §270-6.D are Applied
Article VIII	All Provisions Apply

Article IX	All Provisions Apply
Other Erosion, Sediment and Pollution Control Requirements	Must comply with Title 25, Chapter 102 of the PA Code and other applicable State and municipal codes, including the Clean Streams Law[4]. *[4. Editor's Note: See 35 P.S. §691.1 et seq.]*

TABLE 6.2 NOTES:

1. **"Modified Requirements" - regulated activities listed within the sections of this chapter noted in Table 6.2 are eligible for exemption only from the indicated sections and subsections of this chapter and only if the modified requirements of §270-6.D are met to the satisfaction of the Township; all other provisions of this chapter apply.**

§270-7. Reserved.

§270-8. Reserved.

§270-9. Compatibility with other ordinances or legal requirements.

A. Approvals issued and actions taken pursuant to this chapter do not relieve the applicant of the responsibility to secure and comply with other required permits or approvals for activities regulated by any other applicable code, rule, act, law, regulation or ordinance.

B. To the extent that this chapter imposes more rigorous or stringent requirements for stormwater management than any other code, rule, act, law, regulation or ordinance, the specific requirements contained in this chapter shall take precedence.

C. Nothing in this chapter shall be construed to affect any of the Township's requirements regarding stormwater matters that do not confliet with the provisions of this chapter, such as local stormwater management design criteria (e.g., inlet spacing, inlet type, collection system design and details, outlet structure design, etc.). The requirements of this Ordinance shall supersede any conflicting requirements in other municipal ordinances or regulations.

§270-10. Financial security.

For all activities requiring submittal of a stormwater management (SWM) site plan that involve subdivision or land development, the applicant shall post financial security to the Township for the timely installation and proper construction of all stormwater management facilities as required by the approved SWM site plan and this chapter, and such financial security shall:

A. Be equal to or greater than the full construction cost of the required facilities, except to the extent that financial security for the cost of any of such improvements is required to be and is posted with the Pennsylvania Department of Transportation in connection with a highway occupancy permit application; and

B. Be determined, collected, applied and enforced in accordance with §509 through §511 of the MPC and the provisions of the Township's Subdivision and Land Development Ordinance (SALDO).[5] ***[5. See 53 P.S. §10509 through §10511 and Ch. 281, Subdivision and Land Development, respectively.]***

§270-11. Waivers.

A. The Township may grant a full or partial waiver from the requirements of §270-19 or other provisions of this chapter if the applicant demonstrates that the literal enforcement of the provision will adversely affect an historic resource or exact undue hardship because of peculiar conditions pertaining to the land in question, provided that such waiver will not be contrary to the public interest and that the purpose and intent of this chapter is observed. The applicant for a waiver shall have the burden of complying with each of the following criteria in order to justify the grant of a waiver:

(1) In the case of a requested waiver of the requirements of §270-19, the site conditions of the property in question are such that control of stormwater in compliance with §270-19 of this chapter is not possible;

(2) There would be no predictable or apparent negative impact on adjoining property, either short-term or long-term, or no predictable or apparent impact on any water resources of the Township, either short-term or long-term, should a waiver be granted;

(3) The applicant presents evidence including but not limited to engineering data, geotechnical reports, and/or soil and geological studies, which adequately document that literal enforcement of the standards of this chapter are not achievable; and

(4) The applicant demonstrates that alternative design provisions shall achieve the objectives set forth in this chapter.

B. In granting waivers, additional protective measures and conditions shall be imposed:

(1) To meet the purposes of this chapter as set forth in §270-3 herein;

(2) In situations in which a "high-quality stream" or "exceptional-value waters" is involved, as defined by the most current list from the PADEP; or

(3) In situations in which any resultant sedimentation will have an adverse impact on the property in question or on other property(ies).

C. The applicant shall submit all requests for waivers in writing and shall include such

requests as a part of the application for development, or during the plan review and approval process. The applicant shall state in full the facts of unreasonableness or hardship on which the request is based, the provision or provisions of the chapter that are involved, and the minimum waiver or relief that is necessary. The applicant shall state how the requested waiver and how the applicant's proposal shall result in an equal or better means of complying with the intent of §270-3, §270-19 and §270-22 of this chapter. **[Amended 10-8-2014 by Ord. No. 418]**

D. The Board of Supervisors may grant applications for waivers when all of the following are demonstrated by the applicant to the satisfaction of the Township:

(1) That the waiver shall result in an equal or better means of complying with the intent of §270-3, §270-19 and §270-22 of this chapter.

(2) That the waiver is the minimum necessary to provide relief.

(3) That the applicant is not requesting a waiver based solely on cost considerations.

(4) That existing off-site stormwater problems will not be exacerbated.

(5) That runoff is not being diverted to a different drainage area.

(6) That increased flooding or ponding on off-site properties or roadways will not occur.

(7) That potential safety or liability hazards due to icing conditions will not occur.

(8) That increase of peak flow or volume from the site will not occur.

(9) That erosive conditions will not occur.

(10) That adverse impact to water quality will not result.

(11) That increased one-hundred-year floodplain levels will not result.

(12) That increased Township maintenance expenses will not result from the waiver.

(13) That the amount of stormwater generated has been minimized to the greatest extent possible.

(14) That infiltration of runoff throughout the proposed site cannot be accomplished as required by this chapter.

(15) That peak flow attenuation of runoff has been provided.

(16) That long-term operation and maintenance activities are established by execution of a stormwater facilities maintenance agreement.

(17) That the receiving streams and/or water bodies will not be adversely impacted in flood-carrying capacity, aquatic habitat, channel stability, and erosion and

sedimentation.

E. DEP approval required. No waiver or modification of any regulated stormwater activity involving Earth Disturbance greater than or equal to one (1) acre may be granted by the Municipality unless that action is approved in advance by PADEP or the Chester County Conservation District.

§270-12. Erroneous permit.

Any permit or authorization issued or approved based on false, misleading or erroneous information provided by an applicant is void without the necessity of any proceedings for revocation. Any work undertaken or use established pursuant to such permit or other authorization is unlawful. No action may be taken by a board, agency, or employee of the Municipality purporting to validate such a violation.

§270-13. Interpretation.

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

A. Words used in the present tense include the future tense; the singular number includes the plural, and the plural number includes the singular; words of masculine gender include feminine gender; and words of feminine gender include masculine gender.

B. The word "includes" or "including" shall not limit the term to the specific example, but is intended to extend its meaning to all other instances of like kind and character.

C. The word "person" includes 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.

D. The words "shall" and "must" are mandatory; the words "may" and "should" are permissive.

E. The words "used" or "occupied" include the words "intended, designed, maintained, or arranged to be used, occupied, or maintained."

F. The definitions in this chapter are for the purposes of enforcing the provisions of this chapter and have no bearing on other Township regulations or ordinances.

ARTICLE II – DEFINITIONS

§270-14. Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

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

APPLICANT — A landowner, developer, or other person who has filed an application to the Township for approval to engage in any regulated activity as defined in this chapter.

AS-BUILT PLANS (DRAWINGS) — Engineering or site plans or drawings that document the actual locations, dimensions and elevations of the improvements, and building components, and changes made to the original design plans. The final version of these documents, or a copy of same, are signed and sealed by a qualified licensed professional and submitted to the Township at the completion of the project, as per the requirements of §270-34.I of this chapter as "final as-built plans."

BANKFULL — The channel at the top-of-bank or point from where water begins to overflow onto a floodplain.

BASEFLOW — Portion of stream discharge derived from groundwater; the sustained discharge that does not result from direct runoff or from water diversions, reservoir releases, piped discharges, or other human activities.

BMP (BEST MANAGEMENT PRACTICE) — Activities, facilities, designs, measures, or procedures used to manage stormwater impacts from regulated activities, to provide water quality treatment, infiltration, volume reduction, and/or peak rate control, to promote groundwater recharge, and to otherwise meet the purposes of this chapter. Stormwater BMPs are commonly grouped into one of two broad categories or measures: "structural" or "nonstructural." In this chapter, nonstructural BMPs or measures include certain low impact development and conservation design practices used to minimize the contact of pollutants with stormwater runoff. These practices aim to limit the total volume of stormwater runoff and manage stormwater at its source by techniques such as protecting natural systems and incorporating existing landscape features. Nonstructural BMPs include, but are not limited to, the protection of sensitive and special value features such as wetlands and riparian areas, the preservation of open space while clustering and concentrating development, the reduction of impervious cover, and the disconnection of rooftops from storm sewers. Structural BMPs are those that consist of a physical system that is designed and engineered to capture and treat stormwater runoff. Structural BMPs include, but are not limited to, a wide variety of practices and devices from large-scale retention ponds and constructed wetlands to small-scale underground treatment systems, infiltration facilities, filter strips, , bioretention, wet ponds,

permeable paving, grassed swales, riparian buffer, sand filters, detention basins, and manufactured devices. Structural and nonstructural stormwater BMPs are permanent appurtenances to the site. [See also Stormwater Management Facility and Stormwater Control Measure (SCM)].

BOARD — The Board of Supervisors of West Whiteland Township. BUFFER - See "riparian buffer."

CARBONATE GEOLOGY or CARBONATE ROCK FORMATIONS — See "karst."

CFS — Cubic feet per second.

CHANNEL — A natural or artificial open drainage feature that conveys, continuously or periodically, flowing water and through which stormwater flows. Channels include, but shall not be limited to, natural and man-made drainageways, swales, streams, ditches, canals, and pipes flowing partly full.

CN — Curve number.

COMMONWEALTH — Commonwealth of Pennsylvania.

CONSERVATION DISTRICT — The Chester County Conservation District.

CONSERVATION DESIGN - A series of holistic land development design goals that maximize protection of key land and environmental resources, preserve significant concentrations of open space and greenways, evaluate, and maintain site hydrology, and ensure flexibility in development design to meet community needs for complimentary and aesthetically pleasing development. Conservation design encompasses the following objectives: conservation/enhancement of natural resources, wildlife habitat, biodiversity corridors, and greenways (interconnected open space); minimization of environmental impact resulting from a change in land use (minimum disturbance, minimum maintenance); maintenance of a balanced water budget by making use of site characteristics and infiltration; incorporation of unique natural, scenic and historic site features into the configuration of the development; preservation of the integral characteristics of the site as viewed from adjoining roads; and reduction in maintenance required for stormwater management practices. Such objectives can be met on a site through an integrated development process that respects natural site conditions and attempts, to the maximum extent possible, to replicate or improve the natural hydrology of a site.

CONSERVATION PLAN — A plan written by a planner certified by NRCS that identifies conservation practices and includes site-specific BMPs for agricultural plowing or tilling activities and animal heavy use 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 natural or man-made, existing or proposed stormwater management facility, feature or channel used for the transportation or transmission of stormwater from one place to another. For the purposes of this chapter, conveyance shall include pipes, drainage

ditches, channels and swales (vegetated and other), gutters, stream channels, and like facilities or features.

DESIGN STORM — 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."

DETENTION BASIN — An impoundment designed to collect and retard stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate. Detention basins are designed to drain completely shortly after any given rainfall event.

DETENTION or TO DETAIN — Capture and temporary storage of runoff in a stormwater management facility for release at a controlled rate.

DETENTION VOLUME — The volume of runoff that is captured and released into the waters of the commonwealth at a controlled rate.

DEVELOPER — A person, company or organization who seeks to undertake any regulated activities at a site in the Township.

DIAMETER AT BREAST HEIGHT (DBH) — The outside bark diameter of a tree at breast height which is defined as 4.5 feet (1.37 meters) above the forest floor on the uphill side of the tree.

DISTURBED AREA — Land area disturbed by or where an earth disturbance activity is occurring or has occurred.

DRAINAGE AREA — That land area contributing runoff to a single point (including but not limited to the point/line of interest used for hydrologic and hydraulic calculations) and that is enclosed by a natural or man-made ridgeline.

EARTH DISTURBANCE or 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; and the moving, depositing, stockpiling, or storing of soil, rock, or earth materials.

EASEMENT — A right of use granted by a landowner to allow a grantee the use of the designated portion of land for a specified purpose, such as for stormwater management or other drainage purposes.

EROSION — The process by which the surface of the land, including water/stream channels, is worn away by water, wind, or chemical action.

EROSION AND SEDIMENT (E&S) CONTROL PLAN — A plan required by the Conservation District or the Township to minimize accelerated erosion and sedimentation, and that must be

prepared and approved per the applicable requirements.

EVAPOTRANSPIRATION (ET) – The combined processes of evaporation from the water or soil surface and transpiration of water by plants.

FEMA — Federal Emergency Management Agency.

FLOOD — A temporary condition of partial or complete inundation of land areas from the overflow of streams, rivers, and other waters of this commonwealth.

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.

FLOODWAY — The channel of the watercourse and those portions of the adjoining floodplains that are reasonably required to carry and discharge the one-hundred-year flood (also called the base flood or one percent (1%) annual chance 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 floodway, it is assumed, absent evidence to the contrary, that the floodway extends from the center line of the stream and to 50 feet beyond the top of the bank of the stream on both sides.

FOREST MANAGEMENT/TIMBER OPERATIONS — Planning and activities necessary for the management of forest lands. These include timber inventory, preparation of forest management plans, silvicultural treatment, cutting budgets, logging road design and construction, timber harvesting, site preparation, and reforestation.

FREEBOARD — A vertical distance between the design high-water elevation and the elevation of the top of a dam, levee, tank, basin, swale, or diversion berm. The space is required as a safety margin in a pond or basin.

GEOTEXTILE — A fabric manufactured from synthetic fiber that is used to achieve specific objectives, including infiltration, separation between different types of media (i.e., between soil and stone), or filtration.

GOVERNING BODY — The Board of Supervisors of West Whiteland Township.

GRADE/GRADING — 1. (noun) A slope, usually of a road, channel, or natural ground, specified in percent and shown on plans as specified herein. 2. (verb) To finish the surface of a roadbed, the top of an embankment, or the bottom of an excavation.

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

GROUNDWATER — Water that occurs in the subsurface and fills or saturates the porous openings, fractures and fissures of underground soils and rock units.

GROUNDWATER RECHARGE — The replenishment of existing natural groundwater supplies from infiltration of rain or overland flow.

HEC-1 — The U.S. Army Corps of Engineers, Hydrologic Engineering Center (HEC) hydrologic runoff model.

HEC-HMS — The U.S. Army Corps of Engineers, Hydrologic Engineering Center (HEC) - Hydrologic Modeling System (HMS).

HIGH TUNNEL - A structure which meets the following:

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 Forest Land Assessment Act of 1974," or for the storage of agricultural equipment or supplies; and

B. is constructed with all the following:

(1) has a metal, wood, or plastic frame;

(2) when covered, has a plastic, woven textile, or other flexible covering; and

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

HOTSPOT — Area where prior or existing land use or activities can potentially generate highly contaminated runoff with concentrations of pollutants in excess of those typically found in stormwater.

HYDROLOGIC REGIME — The hydrologic system, cycle or balance that sustains the quality and quantity of stormwater, stream baseflow, storage, and groundwater supplies under natural conditions.

HYDROLOGIC SOIL GROUP (HSG) — A classification of soils by the Natural Resources Conservation Service (NRCS) into four runoff potential groups. The groups range from A soils, which are very permeable and produce little runoff, to D soils, which are not very permeable and produce much more runoff.

IMPERVIOUS SURFACE — A surface that has been compacted or covered with a layer of material so that it prevents or is resistant to infiltration of water, including but not limited to: structures such as roofs, buildings, storage sheds; other solid, paved or concrete areas such as streets, driveways, sidewalks, parking lots, patios, tennis or other paved courts; or athletic playfields comprised of synthetic turf materials. For the purposes of determining compliance with this chapter, compacted soils or stone surfaces used for vehicle parking and movement shall be considered impervious. Surfaces that were designed to allow infiltration (i.e., pavers and areas of porous pavement) will be considered on a case-by-case basis by the Township as advised by the Township Engineer. For the purposes of this Chapter, swimming pool water surfaces shall not be considered impervious.

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

INFILTRATION FACILITY — A stormwater BMP designed to collect and discharge runoff into the subsurface in a manner that allows infiltration into underlying soils and groundwater (e.g., french drains, seepage pits, or seepage trenches, etc.).

INTERMITTENT STREAM — A defined channel in which surface water is absent during a portion of the year, in response to seasonal variations in precipitation or groundwater discharge.

INVERT — The lowest surface, the floor or bottom of a culvert, pipe, drain, sewer, channel, basin, BMP or orifice.

KARST — A type of topography that is formed over limestone or other carbonate rock formations by dissolving or solution of the rock by water, and that is characterized by closed depressions, sinkholes, caves, a subsurface network of solution conduits and fissures through which groundwater moves, and no perennial surface drainage features.

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;

C. Development in accordance with §503(1.1) of the Pennsylvania Municipalities Planning Code (as amended);[7]

D. Development of additional paved areas greater than 2,000 square feet in area; development of any additional paved area not in compliance with or resulting in noncompliance with the impervious cover limits of Chapter 325, Zoning; and development of any additional paved area in excess of the maximum permissible under a previously approved stormwater management plan;

E. Any earthmoving activity, clearing, grubbing, cutting or removal of mature trees, or grading for the purpose of layout, construction, or opening to public or common use of or in connection with any street, driveway, path or trail, parking area, utility main or facility, stormwater management facility, buffer screening or landscaping, or other common private, public, or quasi-public improvement(s).

LANDOWNER — The legal or beneficial owner or owners of land including the holder of an option or contract to purchase (whether or not such option or contract is subject to any

condition), a lessee if they are authorized under the lease to exercise the rights of the landowner, or other person having a proprietary interest in the land.

LICENSED PROFESSIONAL — A Pennsylvania registered professional engineer, or registered professional geologist, or any other person licensed by the Pennsylvania Department of State and qualified by law to perform the work required by the chapter within the Commonwealth of Pennsylvania.

LIMITING ZONE — A soil horizon or condition in the soil profile or underlying strata that includes one of the following:

A. A seasonal high-water table, whether perched or regional, determined by direct observation of the water table or indicated by other subsurface or soil conditions.

B. A rock with open joints, fracture or solution channels, or masses of loose rock fragments, including gravel, with insufficient fine soil to fill the voids between the fragments.

C. A rock formation, other stratum, or soil condition that is so slowly permeable that it effectively limits downward passage of water.

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, provide evapotranspiration 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 action taken to restore or preserve the as-built functional design of any stormwater management facility or system.

MFEMP — Mushroom Farm Environmental Management Plan.

MPC — Act of July 31, 1968, P.L. 805, No. 247, 53 P.S. §10101 et seq., as amended, the Pennsylvania Municipalities Planning Code, Act 247.

MS4 — Municipal separate storm sewer system.

MUNICIPAL ENGINEER or TOWNSHIP ENGINEER — A professional engineer licensed as such in the Commonwealth of Pennsylvania, duly appointed as the engineer for a municipality, planning agency, or joint planning commission.

MUNICIPALITY — West Whiteland Township, Chester County, Pennsylvania.

NEW DEVELOPMENT – Any Regulated Activity involving placement or construction of new Impervious Surface or grading over existing pervious land areas not classified as Redevelopment as defined in this Ordinance.

NOAA — National Oceanic and Atmospheric Administration.

NONPOINT SOURCE POLLUTION — Pollution that enters a water body from diffuse origins in the watershed and does not result from discernible, confined, or discrete conveyances.

NONSTORMWATER DISCHARGES — Water flowing in stormwater collection facilities, such as pipes or swales, which is not the result of a rainfall event or snowmelt.

NONSTRUCTURAL BEST MANAGEMENT PRACTICE (BMP) — See "best management practice (BMP)."

NPDES — National Pollutant Discharge Elimination System, the federal government's system for issuance of permits under the Clean Water Act [6], which is delegated to PADEP in Pennsylvania. ***[6. Editor's Note: See 33 U.S.C. §1251 et seq.]***

NRCS — Natural Resource Conservation Service (previously Soil Conservation Service, SCS), an agency of the U.S. Department of Agriculture.

PADEP — Pennsylvania Department of Environmental Protection.

PARENT TRACT — The parcel of land from which a land development or subdivision originates, determined from the date of Township adoption of this chapter.

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

PennDOT — Pennsylvania Department of Transportation.

PENNSYLVANIA STORMWATER BEST MANAGEMENT PRACTICES MANUAL

(PABMP MANUAL) — Document Number 363-0300-002 (December 2006, and as subsequently amended).

PERVIOUS SURFACE or PERVIOUS AREA — Any area not defined as impervious surface.

PLANNING COMMISSION — The Planning Commission of West Whiteland Township, Chester County, Pennsylvania.

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. [7] ***[7. Editor's Note: See Chapter 92 of the Pa. Code was reserved 10-8-2010. Defined terms can now be found at 25 Pa. Code §92a.2.]***

POST-CONSTRUCTION — Period after construction during which disturbed areas are stabilized, stormwater controls are in place and functioning, and all proposed improvements approved by the Township are completed.

PREDEVELOPMENT — Land cover conditions assumed to exist within the proposed disturbed area prior to commencement of the regulated activity for the purpose of calculating the

predevelopment water quality volume, infiltration volume, and peak flow rates as required in this chapter.

PRETREATMENT — Techniques employed in stormwater BMPs to provide storage or filtering, or other methods to trap or remove coarse materials and other pollutants before they enter the stormwater system, but may not necessarily be designed to meet the entire water quality volume requirements of this chapter.

PROPOSED IMPERVIOUS SURFACE — All new, additional, and replacement impervious surfaces.

RAINFALL INTENSITY — The depth of accumulated rainfall per unit of time.

RECHARGE — The replenishment of groundwater through the infiltration of rainfall, other surface waters, or land application of water or treated wastewater.

REDEVELOPMENT — Any regulated activity that involves demolition, removal, reconstruction, or replacement of existing impervious surface(s).

REGULATED ACTIVITY — Any earth disturbance activity(ies) or any activity that involves the alteration or development of land in a manner that may affect stormwater runoff.

REGULATED EARTH DISTURBANCE ACTIVITY — Any activity involving earth disturbance subject to regulation under 25 Pennsylvania Code Chapters 92 [8] ,102, or the Clean Streams Law[9]. ***[8. Chapter 92 of Title 25 of the Pennsylvania Code was reserved 10-8-2010, effective 10-9-2010. It was replaced by Chapter 92a, National Pollutant Discharge Elimination System (NPDES) Permitting, Monitoring and Compliance.] [9. Editor's Note: See 35 P.S. §691.1 et seq]***

REGULATED IMPERVIOUS SURFACE - Proposed impervious surface as part of a current proposed activity and all existing impervious surfaces installed after October 8, 2014 as part of previous activity.

RETENTION BASIN — An impoundment that is designed to temporarily detain a certain amount of stormwater from a catchment area and which may be designed to permanently retain stormwater runoff from the catchment area; retention basins always contain water.

RETENTION or TO RETAIN — The prevention of direct discharge of stormwater runoff into surface waters or water bodies during or after a storm event by permanent containment in a pond or depression; examples include systems which discharge by percolation to groundwater, exfiltration, and/or evaporation processes and which generally have residence times of less than three days.

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

RETURN PERIOD — The average interval, in years, within which a storm event of a given magnitude can be expected to occur one time. For example, the twenty-five-year- return-period

rainfall would be expected to occur on average once every 25 years; or, stated in another way, the probability of a twenty-five-year storm occurring in any one year is 0.04 (i.e., a four-percent chance).

RIPARIAN — Pertaining to anything connected with or immediately adjacent to the banks of a stream or other body of water.

RIPARIAN BUFFER — An area of land adjacent to a body of water and managed to maintain vegetation to protect the integrity of stream channels and shorelines, to reduce the impact of upland sources of pollution by trapping, filtering, and converting sediments, nutrients, and other chemicals, and to supply food, cover and thermal protection to fish and other aquatic species and wildlife.

RUNOFF — Any part of precipitation that flows over the land surface.

SALDO — See "Subdivision and Land Development Ordinance." [10] ***[10. Editor's Note: See Ch. 281, Subdivision and Land Development.]***

SCS — Soil Conservation Service, now known as the Natural Resources Conservation Service.

SEDIMENT — Soil or other materials transported by, suspended in or deposited by surface water as a product of erosion.

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.

SHEET FLOW — A flow process associated with broad, shallow water movement on sloping ground surfaces that is not channelized or concentrated.

SITE — Total area of land in the Township where any proposed regulated activity, as defined in this chapter, is planned, conducted, or maintained or that is otherwise impacted by the regulated activity.

SOIL COVER COMPLEX METHOD — A method of runoff computation developed by NRCS that is based on relating soil type and land use/cover to a runoff parameter called "curve number (CN)."

STATE WATER QUALITY REQUIREMENTS — The regulatory requirements to protect, maintain, reclaim, and restore water quality under Pennsylvania Code Title 25 and the Clean Streams Law. [11] ***[11. Editor's Note: See 35 P.S. §691.1 et seq.]***

STORM FREQUENCY — See "return period."

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

STORMWATER CONTROL MEASURE - Physical features used to effectively control,

minimize, and treat stormwater runoff. [See Best Management Practice (BMP)].

STORMWATER MANAGEMENT FACILITY — Any feature, natural or man-made, that, due to its condition, design, or construction, conveys, stores, or otherwise affects stormwater runoff quality, rate or quantity, including Best Management Practices and Stormwater Control Measures. Typical stormwater management facilities include, but are not limited to, detention and retention basins, open channels, storm sewers, pipes, and infiltration facilities.

STORMWATER MANAGEMENT PERMIT — A permit issued by the Township after the SWM site plan has been approved.

STORMWATER MANAGEMENT (SWM) SITE PLAN — The plan prepared by the applicant or its representative, in accordance with the requirements of Article IV of this chapter, indicating how stormwater runoff will be managed at a particular site in accordance with this chapter, and including all necessary design drawings, calculations, supporting text, and documentation to demonstrate that chapter requirements have been met, herein referred to as "SWM site plan." All references in this chapter to "final" or "approved" SWM site plans shall incorporate the approved SWM site plan and all subsequent approved revisions thereto.

STREAM — A natural watercourse.

STRUCTURAL BEST MANAGEMENT PRACTICES — See "BMP (best management practices)."

SUBDIVISION — The division or redivision of a lot, tract, or parcel of land as defined in The Pennsylvania Municipalities Planning Code, Act of July 31, 1968, P.L. 805, No. 247, as amended [12]. ***[12. Editor's Note: See 53 P.S. §10101 et seq.]***

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE or SALDO — The

Subdivision and Land Development ordinance of West Whiteland Township, Chester County, PA, as amended [13]. ***[13. Editor's Note: See Ch. 281, Subdivision and Land Development.]***

SWALE — An artificial or natural waterway or low-lying stretch of land that gathers and conveys stormwater or runoff, and is generally vegetated for soil stabilization, stormwater pollutant removal, and infiltration.

SWM SITE PLAN — See "stormwater management site plan." TIMBER OPERATIONS — See "forest management."

TOP-OF-BANK — Highest point of elevation of the bank of a stream or channel cross section at which a rising water level just begins to flow out of the channel and into the floodplain.

TOWNSHIP — West Whiteland Township, Chester County, Pennsylvania. USDA — United States Department of Agriculture.

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

WATERSHED — Region or area drained by a river, watercourse, or other body of water, whether natural or artificial.

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

WATER TABLE — The uppermost level of saturation of pore space or fractures by groundwater. "Seasonal high-water table" refers to a water table that rises and falls with the seasons due either to natural or man-made causes.

WETLAND — Those areas that are inundated or saturated by surface- or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, fens, and similar areas.

WOODS — Any land area of at least one-quarter acre with a natural or naturalized ground cover (excluding manicured turf grass) and that has an average density of two or more viable trees per 1,500 square feet with a DBH of six inches or greater and where such trees existed at any time within three years of the time of land development application submission of the proposed project. The land area to be considered woods shall be measured from the outer driplines of the outer trees.

ARTICLE III – STORMWATER MANAGEMENT STANDARDS

§270-15. General requirements.

A. Any person or entity intending to engage in a regulated activity shall, prior to commencing the regulated activity, apply for and obtain a stormwater management permit and comply with the requirements of this chapter. An application for stormwater management permit shall be submitted on a form prescribed by the Township accompanied by the required fee. Applicants proposing regulated activities in the Township which are not exempt under §270-6 shall submit a stormwater management site plan (SWM site plan) to the Township for review and approval in accordance with Articles III and IV. SWM site plans approved by the Township shall be on site throughout the duration of the regulated activity.

B. The stormwater management and runoff control criteria and standards in this chapter shall apply to the total proposed regulated activity, even if it is to take place in stages. The measurement of impervious surfaces shall include all of the impervious surfaces in the total proposed regulated activity even if the development is to take place in stages.

C. No regulated activity within the Township shall commence until:

(1) The Township issues the stormwater management permit and approval of a SWM site plan, which demonstrates compliance with the requirements of this chapter; and

(2) The applicant has received a letter of adequacy or approval for the erosion and sediment control plan reviewed by the Township and the Conservation District (if required), and has received all other local, state and federal permit approvals required for the project involving the regulated activity.

D. Neither submission of a SWM site plan under the provisions herein nor compliance with the provisions of this chapter shall relieve any person from responsibility for damage to any person or property otherwise imposed by law.

E. The applicant shall design the site to minimize disturbances to land, site hydrology, and natural resources, and to maintain the natural hydrologic regime, drainage patterns and flow conditions. The applicant shall apply the procedures set forth in §270-18 for the overall site design and for selection, location and design of features and BMPs to be used to comply with the requirements of this chapter.

F. To the maximum extent practicable, post-construction stormwater shall be discharged within the drainage area of the same stream or water body receiving the runoff prior to construction of the proposed regulated activity.

G. For regulated activities with one acre or more of proposed earth disturbance, existing drainage peak rate discharges up to and including the one-hundred-year storm and the volume of runoff up to and including the two (2)-year storm onto or through adjacent property(ies) or downgradient property(ies), including diffuse drainage discharge, shall not be altered in any manner by Regulated Activities under this chapter without written permission from, and, where applicable as determined by the Township an easement and agreement with, the affected landowner(s) for conveyance of discharges onto or through their property(ies). Altered stormwater discharges shall be subject to any applicable discharge criteria specified in this chapter.

H. Areas located outside of the site (i.e., areas outside of the regulated activity) that drain through a proposed site are not subject to water quality and volume control, infiltration, stream channel protection, or peak flow rate control requirements (as presented in §270-19, §270-20, §270-21 and §270-22). Drainage facilities located on the site shall be designed to safely convey flows from outside of the site through the site.

I. If site conditions preclude capture of runoff from limited portions of the disturbed area for achieving water quality volume control standards, stream channel protection standards, and the ten-year storm event peak runoff rate reduction standards for new development required by this chapter, the applicant shall propose alternate methods to mitigate the bypass of the BMPs, subject to the approval of the Township. In no case shall resulting peak rate be greater than the predevelopment peak rate for the equivalent design storm.

J. For all regulated activities, erosion and sediment control BMPs shall be designed, implemented, operated, and maintained during the regulated activities (i.e., during construction) as required to meet the purposes and requirements of this chapter, to meet the

erosion and sediment control requirements of the Township, if applicable, and to meet all requirements under Title 25 of the Pa. Code and the Clean Streams Law [14]. ***[14. Editor's Note: See 35 P.S. §691.1 et seq.]***

K. For all regulated activities, permanent BMPs and conveyances shall be designed, implemented, operated, and maintained to meet the purposes and requirements of this chapter and to meet all requirements under Title 25 of the Pennsylvania Code, the Clean Streams Law, and the Stormwater Management Act [15]. ***[15. Editor's Note: See 35 P.S. §691.1 et seq. and 32 P.S. §680.1 et seq., respectively.]***

L. The design of all BMPs and conveyances shall incorporate sound engineering principles and practices in a manner that does not aggravate existing stormwater problems as identified by the Township. The Township reserves the right to disapprove any design that would result in construction in an area affected by existing stormwater problem(s) or continuation of an existing stormwater problem(s).

M. Existing wetlands, either on the site or on an adjacent property, shall not be used to meet the minimum design requirements for stormwater management or stormwater runoff quality treatment. Stormwater discharges to existing wetlands shall not degrade the quality or hydrologic integrity of the wetland.

N. Hotspot runoff controls. Specific structural or pollution prevention practices may be required, as determined to be necessary by the Township Engineer, to pretreat runoff from hotspots prior to infiltration. Following is a list of examples of hotspots:

(1) Vehicle salvage yards and recycling facilities;

(2) Vehicle fueling stations;

(3) Vehicle service and maintenance facilities;

(4) Vehicle and equipment cleaning facilities;

(5) Fleet storage areas (bus, truck, etc.);

(6) Industrial sites based on Standard Industrial Classification Codes;

(7) Marinas (service and maintenance areas);

(8) Outdoor liquid container storage;

(9) Outdoor loading/unloading facilities;

(10) Public works storage areas;

(11) Facilities that generate or store hazardous materials;

(12) Commercial container nursery;

(13) Contaminated sites/brownfields;

(14) Other land uses and activities as designated by the Township.

O. Contaminated and brownfield sites. Where BMPs may contribute to the migration of contaminants in groundwater, the water quality and runoff volume, stream channel protection, and peak rate control standards shall be met; however, at the Township Engineer's discretion, the minimum infiltration requirement may be reduced or eliminated commensurate with the contaminated area and the required water quality and runoff control measures may be increased to mitigate the reduced infiltration requirement for the contaminated area.

P. Additional water quality requirements. The Township may require additional stormwater control measures for stormwater discharges to special management areas including, but not limited to:

(1) Water bodies listed as "impaired" by PADEP.

(2) Any water body or watershed with an approved total maximum daily load (TMDL).

(3) Areas of known existing flooding problems.

(4) Critical areas with sensitive resources (e.g., state-designated special-protection waters, cold-water fisheries, carbonate geology or other groundwater recharge areas that may be highly vulnerable to contamination, drainage areas to water supply reservoirs, etc.).

Q. Applicants shall utilize the Pennsylvania Stormwater Best Management Practices Manual (PA BMP Manual), as amended, or other sources acceptable to the Township for soil testing and design standards for BMPs, and where there is a conflict with the provisions of this chapter, the most restrictive applies as determined by the Township.

R. For areas underlain by karst or carbonate geology that may be susceptible to the formation of sinkholes and other karst features, the location, type, and design of infiltration BMPs shall be based on a site evaluation conducted by a qualified licensed professional and based on the PA BMP Manual (as amended) or other design guidance acceptable to the Township.

S. All regulated activities located within a special flood hazard area designated by the Federal Emergency Management Agency (FEMA) shall comply with Chapter 325, Article XIII, Floodplain Conservation, and shall be designed to maintain the flood- carrying capacity of the floodway such that the base flood elevations are not increased, either upstream or downstream. The natural conveyance characteristics of the site and the receiving floodplain shall be incorporated into the stormwater management practices proposed for the site.

T. Riparian Buffer Area (RBA).

(1) Areas immediately adjacent to the Township's perennial streams, intermittent streams,

and waterways are defined as the Riparian Buffer Areas (RBA). In the RBA, special requirements as set forth in this section shall apply for the purpose of maintaining natural functions. These requirements are established due to:

(a) The environmental sensitivity of the RBA and the potential for adverse impact when disturbed by construction and other earthmoving activity; and

(b) The potential of the RBA to mitigate the negative effects of development on lands adjacent to the stream.

(2) The RBA includes three subzones, Zones 1 through 3, extending landward from the top of the stream bank where different requirements are imposed.

(a) Zone 1: a minimum twenty-five-foot setback, plus wetlands, measured from the top of the stream bank. No disturbance of vegetation or soil shall be permitted except for restoration or reforestation activities. The purpose of this limitation is to promote shading of the stream with natural vegetation, to provide a source of organic inputs to the aquatic system, to anchor the stream bank and floodplain area, and to remove nitrogen, sediment, and other substances that can adversely affect stream systems. Where prohibitive slopes (25% and steeper) are located within 35 feet of the stream bank, Zone 1 shall extend the entire distance of this sloped area.

(b) Zone 2: a one-hundred-twenty-five-foot buffer zone extending outward from Zone 1; the combined width of Zone 1 and Zone 2 shall not be less than 150 feet. Within Zone 2, disturbance of natural vegetative cover shall be limited to selective logging (not to exceed 25%) and other activities that minimally disrupt the existing tree and soil cover. The purpose of this limitation is to maximize filtering and overall physical removal of particulate-form pollutants from runoff generated upgradient and to promote subsurfance vegetative uptake of nitrogen and other nonparticulate elements from stormwater generated upgradient.

[1] Where the Zone 2 riparian buffer is not wooded, it shall be maintained as a filter strip of dense grass and forbs or other features that will provide sediment filtering, nutrient uptake, and will convert concentrated flow to uniform, shallow, sheet flow. When a land development is proposed where there is no established vegetated or wooded buffer (such as in areas previously cultivated for agriculture), Zone 1 and Zone 2 combined shall be not less than 150 feet wide and shall be established and maintained in accordance with the following guidelines:

[a] Forested and unforested vegetation shall be established through natural succession. Selective planting shall be incorporated on sites devoid of vegetation to stimulate native species and to discourage invasive species.

[b] Plant selection and planting shall be consistent with Chester

County Conservation District, PADEP, or USDA riparian forested buffer guidance.

[2] Reforestation is a natural BMP and is encouraged; it may be considered in the stormwater design calculations for stormwater quantity and quality control.

(c) Zone 3: a zone of varying width extending outward from Zone 2, defined as upslope areas adjacent to Zone 2 that are being disturbed during the land development process and where direct discharge of stormwater would otherwise occur. Zone 3 is intended to include level spreading or similar devices as necessary to ensure that any direct discharge flows are properly distributed as sheet flow and channelization and point source discharges are avoided. Zone 3 shall include a minimum twenty-five-foot setback, measured from Zone 2, from impervious surfaces.

(3) The RBA may be included in net density calculations with uses permitted in the West Whiteland Township Zoning Ordinance of 1998 [16], unless this RBA is required to be subtracted out as the result of other applicable regulations of the said ordinance, such as regulation of the floodplain. ***[16. Editor's Note: See 35 P.S. §691.1 et seq. and 32 P.S. §680.1 et seq., respectively.]***

(4) An RBA adjacent to "high-quality waters" and "exceptional-value waters" designated under PADEP, Chapter 93, Rules and Regulations, shall be subject to the provisions of the PADEP Special Protection Waters Implementation Handbook and its amendments.

(5) RBAs shall be restricted to the following uses:

(a) Zone 1 (very restricted): flood control; utility rights-of-way; pervious footpaths.

(b) Zone 2 (restricted): pervious surfaces; passive recreational uses; natural stormwater BMPs; tree removal by permit.

(c) Zone 3 setback (limited restrictions): lawn and garden areas; sheds and similar structures covering less than 150 square feet; composting of yard wastes; nonstructural stormwater BMPs.

(6) RBAs shall be preserved or restored with native vegetation that can be maintained through the delineation, plan review, construction, and occupancy stages of development.

§270-16. Permit requirements by other governmental entities.

The following permit or other regulatory requirements may apply to certain regulated activities and shall be met prior to (or as a condition of) final approval by the Township of the SWM site

plan and prior to commencement of any regulated activities, as applicable:

A. All regulated activities subject to permit or regulatory requirements by PADEP under regulations at Title 25 Pennsylvania Code Chapter 102, or erosion and sediment control requirements of the Township.

B. Work within natural drainageways subject to permit by PADEP under Title 25 Pennsylvania Code Chapter 105.

C. Any BMP or conveyance that would be located in or adjacent to surface waters of the commonwealth, including wetlands, subject to permit by PADEP under Title 25 Pennsylvania Code Chapter 105.

D. Any BMP or conveyance that would be located on or discharge to a state highway right-of-way, or require access to or from a state highway and be subject to approval by PennDOT.

E. Culverts, bridges, storm sewers, or any other facilities which must pass or convey flows from the tributary area and any facility which may constitute a dam subject to permit by PADEP under Title 25 Pennsylvania Code Chapter 105.

§270-17. Erosion and sediment control.

A. No regulated activity within the Township shall commence until:

(1) The Township receives documentation that the applicant has received:

(a) A "letter of adequacy" from the Conservation District or other approval from PADEP in compliance with Title 25 Chapter 102 of the Pennsylvania Code of an erosion and sediment control plan for construction activities, if applicable;

(b) A PADEP NPDES Construction Activities Permit as required under Title 25 Pennsylvania Code Chapter 92 [17], if applicable; ***[17. Editor's Note: Chapter 92 of Title 25 of the Pennsylvania Code was reserved 10-8-2010, effective 10-9-2010. It was replaced by Chapter 92a, National Pollutant Discharge Elimination System (NPDES) Permitting, Monitoring and Compliance.]***

(c) Evidence of any other permit(s) or approvals required for the regulated activities; and

(2) An erosion and sediment control plan has been approved by the Township, if required.

B. A copy of the erosion and sediment control plan and any required permit(s), as required by PADEP regulations, shall be available on the site at all times.

C. Additional erosion and sediment control measures shall be applied where infiltration BMPs are proposed, at a minimum including those required in §270-

§270-18. Site design process.

The applicant shall design the site to minimize the disturbances to land, site hydrology, and natural resources, and to maintain the natural hydrologic regime, drainage patterns and flow conditions. For regulated activities with 10,000 or more square feet of proposed earth disturbance or 2,000 or more square feet of proposed impervious surfaces, the applicant shall demonstrate in its SWM site plan (as required in §270-32.C) that the design sequence, objectives and techniques described below were applied to the maximum extent practicable in the site design of the regulated activity while complying with all other requirements of this chapter. The site design shall:

A. First, identify and delineate all existing natural resources and natural and man-made hydrologic features listed in §270-32.B(8) that are located within the site, or receive discharge from, or may be impacted by the proposed regulated activity.

B. Second, provide a prioritized listing of these resources and features to identify:

(1) Those to be incorporated into the site design in a manner that provides protection from any disturbance or impact from the proposed regulated activity;

(2) Those to be protected from further disturbance or impact but for which the proposed regulated activity will provide improvement to existing conditions;

(3) Those that can be incorporated into and utilized as components of the overall site design in a manner that protects or improves their existing conditions while utilizing their hydrologic function within the limits of their available capacity (e.g., for infiltration, evapotranspiration, or reducing pollutant loads, runoff volume or peak discharge rates, etc.) to reduce the need for or size of constructed BMPs; and

(4) Those that may be considered for alteration, disturbance or removal.

C. Third, develop the site design to achieve the following:

(1) Recognize and incorporate the priorities identified in §270-18.B as the basis for the proposed site layout, grading, construction, and permanent ground cover design;

(2) Minimize earth disturbance (both surface and subsurface);

(3) Maximize protection of or improvement to natural resources and special management areas;

(4) Minimize the disturbance of natural site hydrology, in particular natural drainage features and patterns, discharge points and flow characteristics, natural infiltration patterns and characteristics, and natural channel and floodplain conveyance capacity;

(5) Incorporate natural hydrologic features and functions identified in §270-18.B into the site design to protect and utilize those features and their hydrologic functions to reduce the need for or size of constructed BMPs;

(6) Maximize infiltration and the use of natural site infiltration features, patterns and conditions, and evapotranspiration features;

(7) Apply selective grading design methods to provide final grading patterns or preserve existing topography in order to evenly distribute runoff and minimize concentrated flows;

(8) Minimize the cumulative area to be covered by impervious surfaces and:

(a) Minimize the size of individual impervious surfaces;

(b) Separate large impervious surfaces into smaller components;

(c) Disconnect runoff from one impervious surface to another; and

(d) Utilize porous materials in place of impervious wherever practicable;

(9) Minimize the volume and peak discharge rates of stormwater generated;

(10) Avoid or minimize stormwater runoff pollutant loads and receiving stream channel erosion;

(11) Locate infiltration and other BMPs:

(a) At or as near to the source of generation as possible; and

(b) At depths that are as shallow as possible;

(12) Prioritize the selection and design of BMPs as follows:

(a) Nonstructural and vegetation BMPs; then

(b) Structural (surface and subsurface) BMPs;

(13) For flow volumes requiring conveyance from the source of generation to a BMP for management, give preference to open-channel conveyance techniques that provide infiltration and water quality benefits, and landscaped- based management in common open space areas, where practicable; and

(14) Consider additional guidance for incorporating natural hydrology into the site and BMP designs, methods and techniques that support the objectives of §270-18.B and C. Appendix B[18] presents additional discussion of natural hydrology site design and sources of information for conservation design, low- impact development , and sustainable design. ***[18. Editor's Note: Appendix B is included as an attachment to this chapter.]***

D. The procedures set forth above shall be utilized to the maximum extent practicable for the overall site design and selection, location and design of features and BMPs to be used to comply with the requirements of §270-19, §270-20, §270-21 and §270-22.

§270-19. Water quality and runoff volume requirements.

To control post construction stormwater impacts from regulated activities and meet state water quality requirements, BMPs shall be provided in the site design that replicate predevelopment stormwater infiltration and runoff conditions, such that post construction stormwater discharges do not degrade the physical, chemical, or biological characteristics of the receiving waters. The green infrastructure and Low Impact Development (LID) practices provided in the PA BMP Manual, as well as the guidance on green infrastructure, LID and Conservation Design (CD) provided in Appendix B, shall be utilized for all regulated activities wherever possible. The applicant shall comply with the following water quality and runoff volume requirements for all regulated activities, including all new development and redevelopment activities:

A. The post construction total runoff volume shall not exceed the predevelopment total runoff volume for all storms equal to or less than the two-year, twenty-four-hour- duration precipitation (design storm). The water quality and runoff volume to be managed shall consist of any runoff volume generated by the proposed regulated activity over and above the predevelopment total runoff volume and shall be captured and permanently retained or infiltrated on the site. Permanent retention options may include, but are not limited to, reuse, evaporation, transpiration, and infiltration.

B. For modeling purposes, the predevelopment ground cover conditions shall be determined using the corresponding ground cover assumptions presented in §270-23.D of this chapter.

C. The design of the stormwater management facility outlet shall provide for protection from clogging and unwanted sedimentation.

D. BMPs that moderate the temperature of stormwater shall be used to protect the temperature of receiving waters. The applicant shall fulfill the requirements of the PADEP "Thermal Impact Analysis" for the "PAG-02 Stormwater Discharges Associated with Construction Activities, NOI for Coverage under General or Individual Permit" if they cannot meet the volume control requirements. The Applicant shall fulfill the requirements of the PADEP "Thermal Impact Analysis" for the "PAG-02 Stormwater Discharges Associated with Construction Activities, NOI for Coverage under General or Individual Permit if they cannot meet the volume control requirements."

E. Water quality improvement shall be achieved in conjunction with achieving the infiltration requirements of §270-20. The infiltration volume required under §270-20 may be included as a component of the water quality volume. If the calculated water quality and runoff volume is greater than the volume infiltrated, then the difference between the two volumes shall be managed for water quality and runoff volume control through other techniques or practices but shall not be discharged from the site.

F. Runoff from the disturbed area shall be treated for water quality prior to entering existing waterways or water bodies. If a stormwater management practice does not provide water quality treatment, then water quality BMPs shall be utilized to provide pretreatment prior to the runoff entering the stormwater management practice.

G. The Township may require additional water quality and runoff control measures for stormwater discharging to special management areas such as those listed in §270-15.P.

H. When the regulated activity contains or is divided by multiple drainage areas, the water quality and runoff volume shall be separately addressed for each drainage area.

I. Weighted averaging of runoff coefficients shall not be used for manual computations or input data for water quality and runoff volume calculations.

J. Areas located outside of the site (i.e., areas outside of the regulated activity) may be excluded from the calculation of the water quality and runoff volume requirements.

K. Water quality and volume control practices shall be selected and designed to meet the criteria of §270-18.C that apply to water quality and volume control.

L. Evapotranspiration may be quantified and credited towards meeting volume requirements according to the PADEP Post Construction Stormwater Management (PCSM) Spreadsheet and Instructions (December 2020) or the most recent guidance from PADEP.

§270-20. Infiltration requirements.

Providing for infiltration consistent with the natural hydrologic regime is required to compensate for the reduction in the recharge that occurs when the ground surface is disturbed or impervious surface is created or expanded. The applicant shall achieve the following infiltration requirements:

A. For Regulated Activities involving both New Development and Redevelopment, infiltration should be designed to accommodate the entire water quality and runoff volume required is §270-19.

Infiltration BMPs should be consistent with the design and infiltration period guidelines included in the PA BMP Manual, other PADEP design guidance or as noted elsewhere in this chapter. If the runoff volume required by Section 305 cannot be infiltrated, then alternative methods consistent with the PA BMP Manual (as amended) or other PADEP guidance, such as the Managed Release Concept, may be used to manage this volume with approval from the Municipal Engineer.

B. For regulated activities involving both new development and redevelopment, the volume of a minimum of one inch of runoff from all regulated impervious surfaces shall be infiltrated.

C. If the requirements of §270-20.A or B cannot be physically accomplished, then the applicant shall be responsible for demonstrating with data or calculations to the satisfaction of the Township Engineer why this infiltration volume cannot be physically accomplished on the site (e.g., shallow depth to bedrock or limiting zone, open voids, steep slopes, etc.) and what alternative volume can be infiltrated; however in all cases at least the first 0.5 inch of runoff volume shall be infiltrated.

D. Only if a minimum infiltration of the first one half (0.5) inch of runoff volume cannot be physically accomplished on the site shall a waiver from §270-20 be considered by the Township in accordance with §270-11.

E. If site conditions preclude capture of runoff from portions of the impervious surfaces, the infiltration volume for the remaining area shall be increased an equivalent amount to offset the loss.

F. When a project contains or is divided by multiple watersheds, the infiltration volume shall be separately addressed for each watershed.

G. Existing impervious surfaces located in areas outside of the site (i.e., outside of the regulated activity) may be excluded from the calculation of the required infiltration volume.

H. A detailed soils evaluation of the site shall be conducted by a qualified licensed professional and at a minimum shall address soil permeability, depth to bedrock, and subgrade stability. The general process for designing the infiltration BMP shall be conducted by a qualified licensed professional and shall be consistent with the PA BMP Manual (as amended) (or other guidance acceptable to the Township Engineer) and in general shall:

(1) Analyze hydrologic soil groups as well as natural and man-made features within the site to determine general areas of suitability for infiltration practices. In areas where development on fill material is under consideration, conduct geotechnical investigations of subgrade stability; infiltration may not be ruled out without conducting these tests.

(2) Provide field tests such as double ring infiltrometer or other hydraulic conductivity tests (at the elevation of the proposed infiltration surface) to determine the appropriate hydraulic conductivity rate. Standard septic/sewage percolation tests are not acceptable for design purposes.

(3) Design the infiltration facility for the required retention (infiltration) volume based on field-determined infiltration capacity (and apply safety factor as per applicable design guidelines) at the elevation of the proposed infiltration surface.

(4) On-lot infiltration features are encouraged; however, it shall be demonstrated to the Township Engineer that the soils are conducive to infiltration on the identified lots.

I. Infiltration BMPs shall be selected based on suitability of soils and site conditions and shall be constructed on soils that have the following characteristics:

(1) A minimum depth of 24 inches between the bottom of the BMP and the top of the limiting zone. Additional depth may be required in areas underlain by karst or carbonate geology (see §270-20M).

(2) An infiltration rate sufficient to accept the additional stormwater volume and drain completely as determined by field tests conducted by the applicant.

(3) The infiltration facility shall completely drain the retention (infiltration) volume within three days (72 hours) from the end of the design storm.

J. All infiltration practices shall:

(1) Be selected and designed to meet the criteria of §270-18.C that are applicable to infiltration;

(2) Be set back at least 20 feet from all buildings and features with subgrade elements (e.g., basements, foundation walls, etc.) and 20 feet from all property lines or right-of-way boundaries unless otherwise approved by the Township;

(3) For any infiltration practice that collects runoff from shared or multiple features and that is located within 20 feet of a building or feature with subgrade elements (e.g., basements, foundation walls, etc.), the bottom elevation shall be set below the elevation of the subgrade element.

K. Infiltration facilities shall, to the maximum extent practicable, be located to avoid introducing contaminants to groundwater:

(1) When a hotspot is located in the area draining to a proposed infiltration facility, an evaluation of the potential of groundwater contamination from the proposed infiltration facility shall be performed, including a hydrogeologic investigation (if necessary) by a qualified licensed professional to determine what, if any, pretreatment or additional design considerations are needed to protect groundwater quality.

(2) When located within a "wellhead protection area" of a public water supply well, infiltration practices shall be in conformance with the applicable approved source water protection assessment or source water protection plan.

(3) The applicant shall provide appropriate safeguards against groundwater contamination for land uses that may cause groundwater contamination should there be a mishap or spill.

L. During site construction, all infiltration practice components shall be protected from compaction due to heavy equipment operation or storage of fill or construction material. Infiltration areas shall also be protected from sedimentation. Areas that are accidentally compacted or graded shall be remediated to restore soil composition and porosity. Adequate documentation to this effect shall be submitted to the Township Engineer for review. All areas designated for infiltration shall not receive runoff until the contributory drainage area has achieved final stabilization.

M. Consideration of infiltration BMPs for areas underlain by karst or carbonate geology is encouraged, but only where the design, supporting calculations, results of soils or other site investigations or other documentation are provided to the Township demonstrating that the potential or likelihood of subsidence or sinkholes is minimal. Evaluation of site conditions and infiltration design shall rely on guidance in the PA BMP Manual (as amended) or other guidance acceptable to the Township.

N. Groundwater quality of the carbonate aquifer shall be protected from infiltration of pollutants. Stormwater runoff from hotspots (i.e., sources of significant pollutant runoff) shall first be discharged through a water quality BMP(s) to remove pollutants prior to infiltration. Where soil characteristics are insufficient to provide removal of pollutants from sources other than hotspots, stormwater runoff shall first be discharged through a water quality BMP(s) to remove pollutants prior to infiltration.

O. Where sediment transport in the stormwater runoff is anticipated to reach the infiltration system, appropriate permanent measures to prevent or collect sediment shall be installed prior to discharge to the infiltration system.

P. Where roof drains are designed to discharge to infiltration practices, they shall have appropriate measures to prevent clogging by unwanted debris (for example, silt, leaves and vegetation). Such measures shall include but are not limited to leaf traps, gutter guards and cleanouts.

Q. All infiltration practices shall have appropriate positive overflow controls.

R. No sand, salt or other particulate matter may be applied to a porous surface material for winter ice conditions.

S. The following procedures and materials shall be required during the construction of all subsurface facilities:

(1) Excavation for the infiltration facility shall be performed with equipment that will not compact the bottom of the seepage bed/trench or like facility.

(2) The bottom of the bed and/or trench shall be scarified prior to the placement of aggregate.

(3) Only clean aggregate with documented porosity, free of fines, shall be allowed.

(4) The tops, bottoms and sides of all seepage beds, trenches, or like facilities shall be covered with drainage fabric. Fabric shall be nonwoven fabric acceptable to the Township Engineer.

(5) Stormwater shall be distributed throughout the entire seepage bed/trench or like facility and provisions for the collection of debris shall be provided in all facilities.

§270-21. Stream channel protection requirements.

For regulated activities involving new development with one or more acres of earth disturbance, the applicant shall comply with the following stream channel protection requirements to minimize stream channel erosion and associated water quality impacts to the receiving waters:

A. The peak flow rate of the post construction two-year, twenty-four-hour design storm shall be reduced to the predevelopment peak flow rate of the one-year, twenty-four- hour-duration precipitation, using the SCS Type II distribution.

B. To the maximum extent practicable, and unless otherwise approved by the Township Engineer, the post construction one-year, twenty-four-hour storm flow shall be detained for a minimum of 24 hours and a maximum not to exceed 72 hours from a point in time when the maximum volume of water from the one-year, twenty-four-hour storm is stored in a proposed BMP (i.e., when the maximum water surface elevation is achieved in the facility). Release of water can begin at the start of the storm (i.e., the invert of the orifice is at the invert of the proposed BMP).

C. For modeling purposes, the predevelopment ground cover conditions shall be determined using the corresponding ground cover assumptions presented in §270-23.D of this chapter.

D. The minimum orifice size in the outlet structure to the BMP shall be three inches in diameter unless otherwise approved by the Township Engineer, and a trash rack shall be installed to prevent clogging. For sites with small drainage areas contributing to the BMP that do not provide enough runoff volume to allow a twenty-four-hour attenuation with the three-inch orifice, the calculations shall be submitted showing this condition.

E. When the calculated orifice size is below three inches, gravel filters (or other methods) are recommended to discharge low-flow rates subject to the Township Engineer's satisfaction. When filters are utilized, maintenance provisions shall be provided to ensure filters meet the design function.

F. All proposed stormwater facilities shall make use of measures to extend the flow path and increase the travel time of flows in the facility.

G. When a regulated activity contains or is divided by multiple drainage areas, the peak flow rate control shall be separately addressed for each drainage area.

§270-22. Stormwater peak rate control requirements.

The applicant shall comply with the following peak flow rate control requirements for all regulated activities including those that involve new development and redevelopment.

A. Post-construction peak flow rates from any regulated activity shall not exceed the predevelopment peak flow rates as shown for each of the design storms specified in Table

22.1.

Table 22.1
Peak Rate Control Standards
The limits of each district (watershed) are illustrated on the Official Stormwater Management Release Rate Map, provided in Appendix D.[19]

[Amended 10-8-2014 by Ord. No. 418]
[19. Editor's Note: Appendix D is included as attachment to this chapter.]

For the Chester Creek District, the peak post-development runoff rates for the two-, five-, ten-, twenty-five-, fifty-, and one-hundred-year design storms shall be no greater than 50% of the predevelopment peak discharges. For all other districts, the peak flow rate of the post-construction design storm shall be reduced to the peak flow rate of the corresponding predevelopment design storm as shown in the table below.

POST-CONSTRUCTION DESIGN STORM FREQUENCY (24-Hour Duration)	PREDEVELOPMENT DESIGN STORM	
	New Development Regulated Activities	Redevelopment Regulated Activities
2-Year	1-Year	2-Year
5-Year	5-Year	5-Year
10-Year	10-Year	10-Year
25-Year	25-Year	25-Year
50-Year	50-Year	50-Year
100-Year	100-Year	100-Year

B. For modeling purposes, the predevelopment ground cover conditions shall be determined using the corresponding ground cover assumptions presented in §270-23.D of this chapter.

C. For regulated activities involving only redevelopment, no peak flow rate controls are required when and only if the total regulated impervious surface area is at least 20% less than the total existing impervious surface area to be disturbed by the regulated activity. In all cases where this requirement is not met, the redevelopment regulated activity shall achieve the peak flow rate controls presented in Table 22.1, using the redevelopment ground cover assumptions presented in §270-23.D. This design criterion for Redevelopment is only permitted with approval of Municipal Engineer. It shall result in no impact on downstream properties.

D. Only the area of the proposed regulated activity shall be subject to the peak flow rate

control standards of this chapter. Undisturbed areas for which the discharge point has not changed are not subject to the peak flow rate control standards.

E. Areas located outside of the site (i.e., areas outside of the regulated activity) that drain through a proposed site are not subject to peak flow rate control requirements. Drainage facilities located on the site shall be designed to safely convey flows from outside of the site through the site.

F. When a regulated activity contains or is divided by multiple drainage areas, the peak flow rate controls shall be separately addressed for each drainage area.

G. The effect of structural and nonstructural stormwater management practices implemented as part of the overall site design may be taken into consideration when calculating total storage volume and peak flow rates.

§270-23. Calculation methodology.

A. Stormwater runoff from all regulated activity sites with a drainage area of greater than five acres shall be calculated using a generally accepted calculation technique(s) that is based on the NRCS Soil Cover Complex Method. Table 23.1 summarizes acceptable computation methods. The method selected for use shall be based on the individual limitations and suitability of each method for a particular site. The use of the Rational Method to estimate peak discharges for drainage areas greater than five acres shall be permitted only upon approval by the Township Engineer.

Table 23.1
Acceptable Computation Methodologies for SWM Site Plan

METHOD	DEVELOPED BY	APPLICABILITY
TR-20 (or commercial computer package based on TR-20)	USDA NRCS	Applicable where use of full hydrology computer model is desirable or necessary.
TR-55 (or commercial computer package based on TR-55)	USDA NRCS	Applicable for land development plans where limitations described in TR-55 are met.
HEC-1/ HEC-HMS	US Army Corps of Engineers	Applicable where use of a full hydrologic computer model is desirable or necessary.
Rational Method(or commercial computer package based on Rational Method)	Emil Kuichling (1889)	For Sites up to five (5) acres, or as approved by the Municipality.

Other Methods	Varies	Other computation methodologies approved by the Municipality.

B. All calculations using the Soil Cover Complex Method shall use the appropriate design rainfall depths for the various return period storms consistent with this chapter. Rainfall depths used shall be obtained from the latest version of the Precipitation-Frequency Atlas of the United States, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Spring, Maryland (NOAA Atlas 14) values consistent with a partial duration series. When stormwater calculations are performed for routing procedures or infiltration, water quality and runoff volume functions, the duration of rainfall shall be 24 hours.

C. All calculations using the Rational Method shall use rainfall intensities consistent with appropriate times of concentration (duration) and storm events with rainfall intensities obtained from NOAA Atlas 14 partial duration series estimates, or the latest version of the PennDOT Drainage Manual (PDM Publication 584). Times of concentration shall be calculated based on the methodology recommended in the respective model used. Times of concentration for channel and pipe flow shall be computed using Manning's equation.

D. The applicant shall utilize the following ground cover assumptions for all predevelopment water quality and runoff volume, infiltration volume and peak flow rate calculations:

(1) For regulated activities involving new development, the following ground cover assumptions shall be used:

(a) For areas that are woods (as defined in Article II of this chapter), predevelopment calculations shall assume ground cover of "woods in good condition."

(b) For all other areas (including all impervious surfaces), predevelopment calculations shall assume ground cover of "meadow."

(2) For regulated activities involving redevelopment, the following ground cover assumptions shall be used:

(a) For areas that are woods (as defined in Article II of this chapter), predevelopment calculations shall assume ground cover of "woods in good condition."

(b) For areas that are not woods or not impervious surfaces, predevelopment calculations shall assume ground cover of "meadow."

(c) For areas that are impervious surfaces, predevelopment calculations shall assume at least 20% of the existing impervious surface area to be disturbed as "meadow" ground cover.

(3) The applicant shall determine which stormwater standards apply to the proposed regulated activity as follows:

(a) Stormwater standards for new development shall apply to all proposed regulated activities that involve only new development activities as defined in this chapter.

(b) Stormwater standards for redevelopment shall apply to all proposed regulated activities that involve only redevelopment activities as defined in this chapter.

(c) Stormwater standards for new development shall apply to regulated activities that involve a combination of both new development and redevelopment activities, as defined in this chapter.

E. All calculations using the Soil Cover Complex Method shall use the appropriate design rainfall depths for the various return period storms consistent with this chapter. Rainfall depths used shall be obtained from the latest version of the Precipitation-Frequency Atlas of the United States, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Spring, Maryland (NOAA Atlas 14) values consistent with a partial duration series. When stormwater calculations are performed for routing procedures or infiltration, water quality and runoff volume functions, the duration of rainfall shall be 24 hours.

F. All calculations using the Rational Method shall use rainfall intensities consistent with appropriate times of concentration (duration) and storm events with rainfall intensities obtained from NOAA Atlas 14 partial duration series estimates, or the latest version of the PennDOT Drainage Manual (PDM Publication 584). Times of concentration shall be calculated based on the methodology recommended in the respective model used. Times of concentration for channel and pipe flow shall be computed using Manning's equation.

G. The applicant shall utilize the following ground cover assumptions for all predevelopment water quality and runoff volume, infiltration volume and peak flow rate calculations:

(1) For regulated activities involving new development, the following ground cover assumptions shall be used:

(a) For areas that are woods (as defined in Article II of this chapter), predevelopment calculations shall assume ground cover of "woods in good condition."

(b) For all other areas (including all impervious surfaces), predevelopment calculations shall assume ground cover of "meadow."

(2) For regulated activities involving redevelopment, the following ground cover assumptions shall be used:

(a) For areas that are woods (as defined in Article II of this chapter), predevelopment calculations shall assume ground cover of "woods in good

condition."

(b) For areas that are not woods or not impervious surfaces, predevelopment calculations shall assume ground cover of "meadow."

(c) For areas that are impervious surfaces, predevelopment calculations shall assume at least 20% of the existing impervious surface area to be disturbed as "meadow" ground cover.

(3) The applicant shall determine which stormwater standards apply to the proposed regulated activity as follows:

(a) Stormwater standards for new development shall apply to all proposed regulated activities that involve only new development activities as defined in this chapter.

(b) Stormwater standards for redevelopment shall apply to all proposed regulated activities that involve only redevelopment activities as defined in this chapter.

(c) Stormwater standards for new development shall apply to regulated activities that involve a combination of both new development and redevelopment activities, as defined in this chapter.

H. Runoff Coefficients and Curve Numbers shall be consistent with those provided in Appendix C, or as otherwise approved by the Township Engineer.

§270-24. Other requirements.

A. Any BMP intended to hold standing water for four days or longer shall be designed to incorporate biologic controls consistent with the West Nile Guidance found in PADEP document 363-0300-001 "Design Criteria — Wetlands Replacement/ Monitoring" (as amended), or contact the Penn State Cooperative Wetland Center or the Penn State Cooperative Extension Office for design information. **[Amended 10-8-2014 by Ord. No. 418]**

B. Any stormwater basin required or regulated by this chapter designed to store runoff and requiring a berm or earthen embankment shall be designed to provide an emergency spillway to safely convey flow up to and including the one-hundred- year proposed conditions. The height of embankment shall provide a minimum one foot of freeboard above the maximum pool elevation computed when the facility functions for the one-hundred-year proposed conditions inflow. Should any BMP require a dam safety permit under PA Chapter 105 regulations,[20] the facility shall be designed in accordance with and meet the regulations of PA Chapter 105 concerning dam safety. PA Chapter 105 may require the safe conveyance of storms larger than one-hundred-year event. ***[20. Editor's Note: See 25 Pa. Code Chapter 105.]***

C. Any drainage Conveyance facility and/or channel not governed by PA Chapter 105 regulations shall be designed to convey, without damage to the drainage facility or roadway, runoff from the twenty-five (25)-year storm event. Larger storm events (fifty (50)-year and one hundred (100)-year storms) shall also be safely conveyed in the direction of natural flow without creating additional damage to any drainage facilities, nearby structures, or roadways.

D. Roadway crossings or structures located within designated floodplain areas shall be able to convey runoff from a one-hundred-year design storm consistent with Federal Emergency Management Agency National Flood Insurance Program — Floodplain Management Requirements.

E. Any stormwater management facility located within a PennDOT right-of-way shall comply with PennDOT minimum design standards and permit submission and approval requirements.

F. Adequate erosion protection and energy dissipation shall be provided along all open channels and at all points of discharge. Design methods shall be consistent with the Federal Highway Administration Hydraulic Engineering Circular Number 11 (Publication No. FHWA-IP-89-016, as amended) and the PADEP Erosion and Sediment Pollution Control Program Manual (Publication No. 363-2134-008, as amended), or other design guidance acceptable to the Municipal Engineer.

§270-25. Design criteria for stormwater management facilities.

A. Any stormwater management facility (i.e., detention basin) designed to store runoff regulated by this chapter shall be designed to provide an emergency spillway to handle flow up to and including the one-hundred-year post development conditions. The height of the embankment (top of berm) must be set so as to provide a minimum one foot of freeboard above the maximum pool elevation computed when the facility functions for the one- hundred-year post development inflow. Should any stormwater management facility require a dam safety permit under PADEP Chapter 105, the facility shall be designed in accordance with Chapter 105[21] and meet the regulations of Chapter 105 concerning dam safety which may be required to pass storms larger than the one- hundred-year event. Any inspections of this dam required by any regulatory agency shall be prepared by competent consultants and at the cost of the maintainer of the facility. ***[21. Editor's Note: See 25 Pa. Code Chapter 105.]***

B. Any facilities that constitute water obstructions (e.g., culverts, bridges, outfalls, or stream enclosures) and any work involving wetlands as directed in PADEP Chapter 105 regulations (as amended or replaced from time to time by PADEP) shall be designed in accordance with Chapter 105[22] and will require a permit from PADEP. Any other drainage conveyance facility that does not fall under Chapter 105 regulations shall be designed to convey, without damage to the drainage structure or roadway, runoff from a minimum twenty-five-year design storm. The Township may require design based on a larger storm event. Any

facility that constitutes a dam as defined in PADEP Chapter 105 regulations may require a permit under dam safety regulations. Any facility located within a PennDOT right-of-way must meet PennDOT minimum design standards and permit submission requirements. If the primary drainage facilities do not have capacity for future flows, then a safe drainage path must be provided to convey up to the one-hundred-year design storm without impacting structures. ***[22. Editor's Note: See 25 Pa. Code Chapter 105.]***

C. Storm sewers must be able to convey post development runoff from a minimum twenty-five-year design storm without surcharging inlets.

D. Adequate erosion protection shall be provided along all open channels and at all points of discharge.

E. The design of all stormwater management facilities shall incorporate sound engineering principles and practices. The Township shall reserve the right to reject any design that would result in the occurrence or continuation of an adverse hydrologic, hydraulic, or water quality condition within the watershed.

F. Stormwater drainage systems shall be provided in order to permit unimpeded flow along natural watercourses, except as modified by stormwater management facilities or open channels consistent with this chapter.

G. The existing points of concentrated drainage that discharge onto adjacent property shall not be altered without permission of the adjacent property owner(s) and shall be subject to applicable discharge criteria specified in this chapter.

H. Areas of existing diffused drainage discharge shall be subject to applicable discharge criteria in the general direction of existing discharge, whether proposed to be concentrated or maintained as diffused drainage areas, except as otherwise provided by this chapter. If diffused flow is proposed to be concentrated and discharged onto adjacent property, the applicant must document to the Township in accordance with §270-25.I that adequate downstream conveyance exists to safely transport the concentrated discharge, or the applicant must obtain drainage easements from affected downstream property owners and provide the facilities to safely convey the flow.

I. Downstream hydraulic capacity analysis. Any downstream capacity hydraulic analysis conducted in accordance with this chapter shall use the following criteria for determining adequacy for accepting increased peak flow rates:

(1) Natural or man-made channels or swales must be able to convey the increased runoff associated with a two-year return period event within their banks at velocities consistent with protection of the channels from erosion. Acceptable velocities shall be based upon criteria included in the PADEP Erosion and Sediment Pollution Control Program Manual.

(2) Natural or man-made channels or swales must be able to convey the increased twenty-five-year return period runoff without creating any hazard or adverse effects to adjacent or downstream persons or property.

(3) Culverts, bridges, storm sewers, and all other facilities that must pass or convey flows from the tributary area must be designed in accordance with PADEP Chapter 105 regulations (if applicable) and, at a minimum, pass the increased twenty-five-year return period runoff.

J. Where a development site is traversed by watercourses, riparian buffers shall be provided conforming to the line of such watercourses. The width of the buffers shall be determined as set forth in §270-15.T, here above. Excavating, placing of fill, building structures, or making any alterations that may adversely affect the flow of stormwater within any portion of the riparian buffer shall be prohibited unless the proposed work is associated with a regulated wetlands mitigation program. The buffer must be defined and restricted by a restrictive covenant.

K. When it can be shown that, due to topographic conditions, natural drainage ways on the site cannot adequately provide for drainage, open channels may be constructed conforming substantially to the line and grade of such natural drainage ways. Work within natural drainage ways shall be subject to approval by PADEP through the joint permit application process, or, where deemed appropriate by PADEP, through the general permit process.

L. Any stormwater management facilities regulated by this chapter that would be located in wetlands or within the floodway (as determined by FEMA or 50 feet from top of bank) of waters of the commonwealth shall be subject to approval by PADEP through the joint permit application process, or, where deemed appropriate by PADEP, the general permit process. When there is a question as to whether wetlands may be involved, it is the responsibility of the applicant or his agent to show that the land in question cannot be classified as wetlands; otherwise, approval to work in the area must be obtained from PADEP.

M. Any stormwater management facilities regulated by this chapter located on or flowing into state highway rights-of-way or stormwater systems shall be subject to approval by PennDOT.

N. Minimization of impervious surfaces and infiltration of runoff through seepage beds, infiltration trenches, or other BMPs are required, where soil conditions permit, to reduce the size or eliminate the need for detention facilities.

O. In order to promote overland flow and infiltration/percolation of stormwater, roof drains must discharge into an accepted BMP providing infiltration and filtering of the stormwater.

§270-26. Floodplain methodology.

A. All existing and proposed one-hundred-year floodplains shall be delineated on the drainage plan (see §270-32). If the one-hundred-year floodplain is not mapped by the Federal Emergency Management Agency as part of the National Flood Insurance Program, the horizontal and vertical limits of the floodplain shall be determined utilizing the standard step method (i.e., HEC-RAS or similar approved computer model). If the HEC-RAS model

is used, the applicant shall submit a computer disc containing all input files for the calculations, in order to expedite the floodplain review. If the drainage area is less than 100 acres, the Manning's equation shall be used.

B. The methods below shall be used to compute the design flow(s) in the drainage course although other methods may be used with approval of the Township. A conservative average of two methods shall be used, and the design flow is subject to approval by the Township.

(1) The graphical and tabular methods in TR-55. The graphical method may be used for streams whose drainage area at the point of interest is no larger than 2,000 acres, and the tabular hydrograph method may be used for drainage areas up to 20 square miles (12,800 acres).

(2) The Rational Method may be used for streams whose drainage area at the point of interest is no larger than 320 acres.

(3) The method in Water Resources Bulletin Number 13, Floods in Pennsylvania, issued by the Pennsylvania Department of Environmental Resources (now PADEP), may be used for streams whose drainage area at the point of interest is larger than two square miles.

(4) The Procedure PSU-IV for Estimating Design Flood Peaks on Ungaged Pennsylvania Watersheds.

(5) The Penn State Runoff Model (PSRM).

C. All development activity within a special flood hazard area designated by the Federal Emergency Management Agency shall comply with Article XIII of the West Whiteland Township Zoning Ordinance [23] and this subsection. All development shall be designed to maintain the flood-carrying capacity of the floodway such that the base flood elevations are not increased, either upstream or downstream. The natural conveyance characteristics of the site and the receiving floodplain shall be incorporated into the stormwater management practices proposed for the site. ***[23. Editor's Note: See Ch. 325, Zoning.]***

§270-27. Additional stormwater management system design criteria for selected BMPs.

A. Infiltration devices shall be selected based on suitability of soils and site conditions. Suitability of soils shall be determined by soil infiltration testing, with suitability defined as having minimum percolation rates of 0.5 inch per hour at the elevation of the bottom of the facility; lower rates may be acceptable if approved by the Township.

Soil infiltration testing shall be performed for all proposed infiltration areas; soil testing shall include evaluation of appropriate soil horizons with deep pits and percolation measurements, making sure to assess percolation rates at the proposed infiltration device

bed bottom. Soil testing, including the methodology, frequency, and locations of the tests, shall be based on the type of proposed BMP and on the known geology of the area and be reviewed and approved by the Township as advised by the Township Engineer. The design soil infiltration rate shall be the average infiltration rate measured at each proposed area. Soil infiltration tests shall be performed within the soil horizon in which the bottom elevation of the proposed infiltration areas lie. The location and number of test pits and percolation holes shall be determined based on the type(s) of stormwater management practices being designed in consultation with and guidance from the Township Engineer.

The Township Engineer shall be given a minimum of three working days' notice of when the testing will be completed.

B. The lowest elevation of the infiltration area shall be at least two feet above the seasonal high-water table ("SHWT") and bedrock, except in areas of carbonate geology, in which case the distance shall be four feet.

C. All roof drains that discharge to infiltration systems shall have appropriate measures to prevent clogging by vegetation and to prevent sinkhole formation.

D. All infiltration systems shall have appropriate positive overflow controls within one foot of the finished surface or grade.

E. All infiltration systems shall have a setback of 15 feet from all residential structures and property lines. Negative impact to below-ground structures shall be prevented.

F. All infiltration systems shall be designed to infiltrate the stored volume within 48 hours or whatever longer period may be specified by the Township.

G. All surface inflows shall be designed to minimize the discharge of sediment into the infiltration system in order to prevent sediment accumulation, which reduces stormwater storage capacity and ultimately clogs the infiltration mechanism.

H. Special provisions are required when using infiltration BMPs in carbonate areas in order to avoid groundwater contamination and the formation of solution channels and sinkholes.

(1) Because the potential for these problems to develop increases as soil thickness decreases, the soil mantle should be determined to be a minimum of four feet in thickness, in order both to remove pollutants and to disperse uniformly groundwater movement, which is important to avoid the formation of solution channels.

(2) In carbonate areas, BMPs that disperse stormwater over the largest feasible area shall be used (e.g., subtle berms and level spreaders) so as not to modify the natural hydrologic regime significantly. Use of infiltration BMPs that result in significant increases (more than 100%) in the predevelopment rate of infiltration per unit area shall be avoided in carbonate areas, unless a detailed geologic evaluation (see below) demonstrates that the potential for sinkhole formation is minimal.

(3) Stormwater runoff from significant pollutant-producing sources ("hotspots," as

defined in §270-15.N) shall be filtered and/or pretreated using a water quality BMP before being discharged in carbonate areas.

(4) In these cases, the Township may require that a detailed geologic evaluation of the project site be performed to determine the suitability for recharge, including both the potential for groundwater contamination and potential for sinkhole formation. The evaluation shall be performed by a registered professional geologist licensed in the Commonwealth of Pennsylvania and/or any other Township-approved professional, and shall, at a minimum, address soil permeability, depth to bedrock, susceptibility to sinkhole formation, and subgrade stability.

I. The following procedures and materials shall be required during the construction of all subsurface facilities and shall be noted on the plans:

(1) The area of the subsurface facilities shall be protected by orange safety fence prior to the start of construction; equipment and traffic shall be prohibited from traveling over the proposed location(s) of the facilities.

(2) Excavation shall be performed with equipment that will not compact the bottom of the bed. Construction equipment shall not be allowed on excavated areas of the seepage beds at any time during its construction.

(3) The bottom of the bed shall be scarified immediately prior to the placement of the geotextile fabric on the bottom of the bed.

(4) The bed shall be protected during construction. Sediment shall not be allowed to be washed back into the bed both during the time when the bottom of the bed is open and once the stone is in place.

(5) Only uniformly graded, clean aggregate, free of fines, slate, shale, clay, silt, and vegetative material shall be used. The porosity of the stone must meet the plan specification, and the supplier of the stone shall provide certification of such for the stone delivered to the site. The design engineer shall verify that the porosity meets or exceeds the requirements of the design and submit such verification to the Township.

(6) Compaction of the infiltration bed is prohibited. Excavation of the final two feet of the bed shall be completed from outside the bed or by other means approved by the Township to prevent compaction of the bed floor.

(7) Construction equipment no heavier than light-tracked vehicles shall be allowed on the top of the stone only after it has been placed to its full depth and solely for the purpose of completion of the placement of the stone and backfill.

(8) Drainage filter fabric shall be placed in accordance with manufacturer's directions, including pipe penetrations, and shall overlap a minimum of 18 inches.

(9) During site construction, all facility components shall be protected from sedimentation using storm inlet protection in conformance with the PADEP Chapter

102 regulations, as amended, and the Erosion and Sediment Pollution Control Manual, as amended. Inlet protection shall remain until the contributory drainage area has achieved full stabilization. If sediment enters the system, the contractor shall be required to clean out the sediment to the satisfaction of the Township; this may require the reconstruction of the infiltration facility in whole or in part.

(10) The geotextile fabric around the infiltration bed shall be PennDOT nonwoven Class 1 and shall completely enclose the stone (all sides, top and bottom). Other materials may be used if approved by the Township; documentation supporting the use of such other materials shall be submitted to the Township for review.

(11) Upon completion, the applicant shall be responsible for post-construction testing of the facilities sufficient to demonstrate that such facilities function as intended, such testing shall be coordinated with the Township Engineer and shall be included in any developer agreement required for a land development.

J. BMP design.

(1) The applicant shall submit designs for water quality facilities to the Township for review and approval. Such designs shall achieve the water quality objectives through a combination of BMPs. The use of multiple, small, unconnected BMPs on a site, rather than one large stormwater management facility, shall be required.

(2) All BMPs, including structural and nonstructural BMPs, shall be designed to assure that they function in accordance with the standards set forth in the latest version of the Pennsylvania Stormwater BMP Manual. The specifications and construction of BMPs shall be in accordance with the 2000 Maryland Stormwater Design Manual

(3) In selecting the appropriate BMPs or combinations thereof, the applicant shall consider the following:

(a) A Total contributing area.

(b) Permeability and infiltration rate of the site soils.

(c) Slope and depth to bedrock.

(d) Seasonal high-water table.

(e) Proximity to building foundations and wellheads.

(f) Erodibility of soils.

(g) Land availability and configuration of the topography.

(h) Consistency with approved watershed and stormwater management plans or regulations.

(i) Impact on neighboring and downstream properties and facilities.

(4) The following additional factors shall be considered when evaluating the suitability of BMPs used to control water quality at a given development site:

Peak discharge and required volume control.

(a) Peak discharge and required volume control.

(b) Stream bank erosion.

(c) Efficiency of the BMPs to mitigate potential water quality problems.

(d) The volume of runoff that will be effectively treated.

(e) The nature of the pollutant being removed.

(f) Maintenance requirements.

(g) Creation or protection of aquatic and wildlife habitat.

(h) Recreational value.

(i) Enhancement of aesthetic and property value.

(j) Impact on neighboring and downstream properties and facilities.

§270-28. Need for basins, storm sewers, culverts, bridges and other structural installations.

Basins, storm sewers, culverts, bridges and other structural installations shall be provided to accommodate stormwater safely where natural nonstructural practices are not feasible and where stormwater flows otherwise would have adverse impact on the environment and the general welfare of the Township and its citizens in order to:

A. Maintain natural hydrologic regimes of streams and watercourses. Such flows may be redirected as required, subject to the approval of PADEP.

B. Promote drainage of all low points along the line of streets. Overflow swales shall be designed to convey the full one-hundred-year storm flows away from all street low points. These swales shall be located to prevent flooding of the downslope lots.

C. Intercept stormwater runoff along streets at intervals reasonably related to the extent and grade of the area drained, and to prevent substantial flow of water across intersections or flooding of intersections during the design storm stipulated elsewhere in this section.

D. Insure adequate and unimpeded flow of stormwater under driveways in, near, or across natural watercourses or drainage swales. Suitable pipes or other waterway openings shall be provided as necessary.

§270-29. Design of basins (detention and retention), storm sewers, culverts, bridges and other structural installations.

A. All detention and retention basins shall meet the requirements of this section.

(1) Basins shall be installed prior to any earthmoving or land disturbances that they will serve. The phasing of their construction shall be noted in the erosion and sediment pollution control ("E&S") plan and accompanying narrative. Permanent vegetation shall be established prior to denuding any other land, unless the basin functions as an E&S device.

(2) Energy dissipaters and/or level spreaders shall be installed at points approved by the Township where pipes or drainageways discharge from basins. Multiple outlet structures and multiple outlet piping from the basin may be required by the Township to reduce the impact of point discharges.

(3) The following slope restrictions shall apply to basins.

(a) Exterior slopes of compacted soil shall not exceed one foot vertical for three feet horizontal, and may be further reduced if the soil has unstable characteristics.

(b) Interior slopes of the basin shall not exceed one foot vertical in three feet horizontal.

(c) Concrete, stone, and brick walls are prohibited as elements of a basin.

(4) Basins shall also be designed to satisfy the following requirements:

(a) The minimum top of berm width shall be eight feet.

(b) Outlet pipes shall have a minimum diameter of 12 inches. For pipe lengths exceeding 100 feet, the minimum diameter shall be 15 inches.

(c) Properly spaced anti-seep collars shall be installed on all basin outlet pipes. Design calculations shall be provided, which shall demonstrate the adequacy of the design.

(d) All basins shall be constructed with a compacted relatively impervious (Unified Soil Classification CL-ML or CL) key trench and core. The key trench shall extend at least two feet into undisturbed subsoil (below topsoil layer). The minimum bottom width of the trench shall be six feet and the minimum top

width of the core shall be four feet. The side slopes of the compacted core and trench shall not exceed one horizontal to one vertical, and the top elevation of the core shall be set at or above the twenty-five-year design water elevation. The Township may require an impermeable liner to be installed up to the one-hundred-year design water surface elevation.

(5) Basin outlet structures and emergency spillways.

(a) Outlet structures designed to control peak discharge flows and to distribute the flows by pipes to discharge areas shall be constructed primarily of concrete or masonry material and shall have childproof, nonclogging trash racks over all design openings, except those openings designed to carry perennial stream flows. The preferred trash rack material shall be epoxy-coated, or stainless steel; other materials may be permitted if approved by the Township.

(b) Six inches of freeboard shall be provided between the crest of the primary outlet structure and the invert of the emergency spillway.

(c) Emergency spillways shall be constructed in undisturbed earth wherever possible. When constructed in fill, sod, precast concrete paving blocks, concrete, or permanent erosion control matting shall be used. Design calculations shall be submitted demonstrating that the specified material can withstand velocities based on the one-hundred-year design storm event. When using sod, it shall be applied along the inside slope above the twenty-five-year water surface elevation, along the face and sides of the spillway, and down the outside slope to the existing grade. Emergency spillways shall be designed to convey safely the one-hundred-year basin inflow hydrograph through the basin assuming the principal outlet is completely blocked and the basin water surface elevation is equal to the spillway invert elevation.

(d) Emergency spillways shall be designed with a minimum of one foot of freeboard and shall be designed to convey the 100-year storm event considering that the stormwater management facility is full up to the spillway invert elevation.

(e) All principal outlet structures shall be built using reinforced concrete with watertight construction joints.

(f) Facilities shall be both functional and harmonious in design with the surrounding environment. The use of architecturally treated concrete, stucco, or stone facade treatment shall be utilized for enhancing the outlet structure.

(6) An earthen berm between inlet and outlet areas shall be required when the distance is deemed by the Township to be insufficient for sediment trappings.

(7) Permanent grasses or stabilization measures shall be established on the sides of all earthen basins by hydroseeding within five days of initial construction (or conversion from sediment basin or sediment trap). The Township may require jute or erosion control matting to be installed inside the basin or on the basin embankment.

(8) Stormwater runoff shall discharge to a suitable natural drainage course (except where prohibited by the riparian buffer area regulations of §270-15.T, hereinabove) or storm sewer system. Where not possible or not permitted, level spreading devices or other suitable facilities (i.e., swale) shall be designed with sufficient capacity to convey the one-hundred-year storm event without creating any safety, flooding, or property hazard. Securing of necessary drainage easements for this purpose shall be the sole responsibility of the developer.

(9) The developer shall test soil samples from the site to determine if the soils are suitable for berm embankment construction. If in the opinion of the Township the soils are found to be unsuitable, the developer shall import suitable soils for constructing the basin berm.

(10) Basin inlet and outlet structures shall be located at maximum distances from one another.

(11) In residential areas, ponds shall be equipped with management practices that reduce the potential for unauthorized entry and use of the pond by the general public. Preference shall be given to split rail fences equipped with mesh wire or other such practices that are both functional and attractive. A securable gate shall be provided to allow for periodic access by maintenance equipment. Such barriers shall have a minimum height of 42 inches.

(12) The minimum distance between a proposed basin discharge point (including the energy dissipater) and a downstream property boundary shall in no case be less than 20 feet. Where there is discharge onto or through adjacent properties prior to release to a stream, designers shall demonstrate how downstream properties are to be protected. The Township may require that the setback distance be increased based upon factors such as topography, soil conditions, the size of structures, the location of structures, and discharge rates. A drainage easement shall also be required.

B. Detention basins shall also meet the following requirements. The minimum bottom slope shall be 2% unless the basin is designed to allow for infiltration or with an underdrain system. Slight variation in elevation (6"-12") is encouraged to promote plant diversity.

C. Retention basins shall also meet the following requirements:

(1) The retention basin depth shall average three feet to six feet with no area shallower than three feet.

(2) An aquatic bench or shelf at least 10 feet wide and with a gentle slope not exceeding 10H:1V shall be provided along the entire perimeter of the retention basin.

(3) Any side slopes below the permanent water surface level shall not exceed 5H:1V.

D. Swale design.

(1) Grass swales not specifically designed as BMP devices shall have a minimum bottom

slope of 2% and their depth shall be deep enough to convey the twenty- five-year storm event with a minimum of one foot of freeboard. Swale linings shall be designed based on the ten-year velocity. Swales shall have sufficient capacity to convey the one-hundred-year storm discharge without creating any safety or property hazard.

(2) Swales, when located outside of the Township right-of-way, shall be located within an easement of sufficient width to allow access for maintenance and to convey all storms up to and including the one-hundred-year storm; in no case shall such a right-of-way be less than 20 feet wide. A note on the plan shall indicate that the easement allows the Township the right, though not the responsibility, to perform needed maintenance and/or repairs and to invoice the property owner for such work. The note shall further state that, in the event that the property owner fails to pay such invoice, the Township shall have the right to lien the subject property.

(3) Cross country swales shall be designed as bio-swales and include check dams to remove sediment.

E. Storm sewer design.

(1) Where storm sewer pipe and inlets are required, they shall be placed immediately in front of the curb within the right-of-way. Any storm sewer pipe which outlets on private residential property shall only discharge to the rear yard and must be a minimum of 50 feet from habitable structures.

(2) When storm sewers are placed outside of the right-of-way of a street, they shall be placed within an easement not less than 20 feet unless otherwise approved by the Township. Larger easements may be required if site conditions dictate additional area is required as determined by the Township. Open ditches shall be avoided. Diversion terraces and swales can be considered if conditions are warranted (soil erodibility, slope and liner type) and approved by the Township Engineer and/or Conservation District, as applicable.

(3) Storm sewers shall have a minimum diameter of 15 inches and only reinforced concrete or smooth lined corrugated polyethylene pipe shall be used. The minimum grade of the pipe shall be 1/2%. Smooth bore corrugated polyethylene pipe up to a maximum diameter of 48 inches may be used. Smaller diameter storm sewers may be permitted for BMPs in accordance with DEP guidelines if approved by the Township Engineer.

(4) All storm sewer utilities beneath a paved surface shall be bedded and backfilled with PennDOT No. 2A stone. This backfill shall be placed in six- inch lifts and solidly compacted to the satisfaction of the Township.

(5) In carbonate areas, watertight pipe connections are required and appropriate specifications shall be indicated on the plans.

(6) Headwalls, endwalls, or end sections shall be required on all open pipes, shall be of concrete construction, and shall be set on a minimum of 12 inches of AASHTO No.

57 (PennDOT 2B) coarse aggregate.

(7) All storm sewers shall be constructed per PennDOT specifications as outlined in Publication 408 Design Manual, Part 2, Highway Design and Standards for Roadway Construction, RC-Series unless otherwise dictated by the Township Code.

(8) Any changes in alignment shall be straight sections connected by inlets or manholes.

(9) When there is a change in pipe size through an inlet, the top inside elevation of the outlet pipe shall be at or below the top inside elevations of all incoming pipes.

(10) Storm sewer sizes shall be determined based upon the following design storm frequencies:

(a) Twenty-five years, unless otherwise specified by the Township.

(b) The design of storm sewer systems within the drainage area of detention or retention facilities must be analyzed for adequacy during the one- hundred-year storm, including the effects of the control facility tailwater. This may require a hydraulic grade line analysis. When approved by the Township, overflow swales may be provided at low points in streets to convey safely the full one-hundred-year peak flow to the control facility, in lieu of providing the full capacity in the storm sewer.

(11) Storm sewer design shall be based upon PennDOT design methods. Inlet efficiency and bypass flow shall be determined for all inlets, and the gutter flow spread shall not exceed 1/2 the travel lane width or, where on-street parking is permitted, a maximum of eight feet. The Township may require that a hydraulic grade line analysis be performed on storm sewer systems.

(12) Culverts shall be evaluated for inlet and outlet control restrictions.

(13) Rainfall intensities shall be obtained from the latest version of the Precipitation-Frequency Atlas of the United States, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Spring, Maryland (NOAA Atlas 14)

(14) Manholes and/or inlets shall not be more than 300 feet apart on pipe sizes up to 24 inches and not more than 400 feet apart on larger sizes.

(15) Inlets, manholes, covers, and frames shall conform to PennDOT specifications. At street intersections, inlets shall be placed along the tangent and not in the curved portion of the curbing.

(16) When precast concrete inlets or manholes are used within a street, a minimum of two courses of brick masonry or a grade ring shall be placed to bring the grate or cover to proper elevation. If brick is used, every third vertical joint shall be left open; if grade ring(s) are used, the horizontal joint(s) shall be left open to facilitate drainage of the

base course. Geotextile fabric shall be wrapped around the outside of the brick masonry or grade ring(s) to prevent fines from washing into the structure.

F. Roof drains.

(1) Stormwater roof drains shall not discharge water directly over a sidewalk or into any sanitary sewer line.

(2) Except for single-family homes, proposed roof drains and collector locations shall be shown on the storm drainage plans. Roof drains and collectors shall meet all appropriate Township Code requirements.

G. Design of bridges and culverts.

(1) Bridges and culverts shall have ample waterway opening to carry the design flows, based on a minimum storm frequency of 100 years. One-hundred-year water depths shall not exceed six inches above the roadway center line elevation. Bridge and culvert construction shall be in accordance with PennDOT specifications and shall also meet PADEP requirements. The appropriate permits and approvals must be acquired by the applicant prior to final plan approval.

(2) Culverts shall be provided with wing walls and constructed for the full width of the right-of-way. If the Township determines that the character of the road is expected to change in the future, the cartway of the bridge shall be made to anticipate this condition. On each side of the bridge cartway, the bridge railing must be set back from the edge of the final cartway for the accommodation of sidewalks, and/or bicycle trails.

§270-30. Other site development requirements.

A. Grading shall not redirect or concentrate surface water onto an adjacent property.

B. Lots shall be laid out and graded to provide positive drainage away from buildings.

C. Procedures for protecting soils or geologic structures with water supply potential from contamination by surface water or other disruption by construction activity shall be established in consultation with the Township. Such areas shall include, at minimum, those underlain by carbonate formations. The Township shall require pollution control facilities to be provided on existing or proposed stormwater management systems within or adjacent to the project site.

D. Provisions for protecting existing wells and other water supplies shall be established.

E. Graded slopes shall not be steeper than three horizontal units to one vertical unit.

F. Any approvals required by the steep slope provisions in Article XIV of the West Whiteland

Township Zoning Ordinance[24] shall be secured prior to earthmoving or stripping of vegetation. ***[24. Editor's Note: See Ch. 325, Zoning.]***

G. A minimum of four inches of topsoil shall be provided on all disturbed areas prior to final seeding and mulching.

H. Mature healthy trees of at least six inches diameter at breast height along with other significant existing vegetation within the limits of earth disturbance shall be located in the field and on the storm drainage plan and shall be retained and protected. Such trees shall not be removed except as provided on the approved subdivision or land development plan. The filling of soil over the roots of trees to be preserved is prohibited. Roots are presumed to extend out from the tree as far as the tree's branches extend outward.

I. Landscaping requirements.

(1) Stormwater management facilities shall be landscaped in accordance with the following standards. Landscape plans shall be prepared by a professional landscape architect licensed in the Commonwealth of Pennsylvania.

(2) Landscaping shall be required in and around all constructed stormwater management facilities having a surface area of 1,000 square feet or more for the purposes of:

(a) Assisting in the management of stormwater;

(b) Stabilizing the soil within such facilities to minimize and control erosion;

(c) Enhancing the visual appearance of such facilities; and

(d) Mitigating maintenance problems commonly associated with such facilities.

(3) A planting plan and planting schedule shall be submitted in accordance with the following:

(a) For wet meadows, including floors of stormwater management basins:

[1] Wet meadows and the floors of stormwater management basins shall be planted with native wildflowers and native warm season grasses, the intent being to create a mixed meadow of such plantings, where appropriate. Selection of plantings shall be based on whether the area in question is usually well drained or permanently wet and whether the area will be used for recreation purposes. No woody plants shall be planted within the saturated zone (phreatic line) of a stormwater management basin or on a berm constructed for impounded water.

[2] Seeding by drills, corrugated rollers, cyclone or drop seeders, or hand seeding is preferred for these areas; however, hydroseeding followed by hydromulching may be used on wet ground and steep slopes.

[3] Fertilizers, as a nutrient supplement, shall not be used unless it is documented that soil conditions warrant such use and the nutrient applied does not exceed plant uptake. Soil for planting of wildflowers shall contain not less than 3% nor more than 10% organic matter, as determined by an agricultural chemist, with certification of the test before planting.

[4] Seeding shall take place between April 1 and May 15 or between September 1 and October 15. Planting areas shall be soaked to maintain a consistent level of moisture for at least four to six weeks after planting.

[5] Once established, only a single annual mowing when plants are dormant is required to maintain the landscaping described hereinabove. Maintenance practices shall include eradication of invasive species as identified by the Pennsylvania Department of Conservation and Natural Resources ("DCNR").

(b) Wet edges that remain wet all or most of the year shall be planted with wildflowers, grasses, shrubs, or an appropriate combination of these elements. Plants to be located on rims or banks, which remain dry most of the year, shall be planted with species tolerant of dry soil conditions.

(c) Wooded areas.

[1] Where stormwater management facilities adjoin wooded areas, native trees and shrubs shall be selected and planted outside the facility so as to blend with existing surroundings.

[2] Plantings in such areas shall be of sufficient density to eliminate the need for mowing.

[3] Clusters of trees and shrubs should be planted around stormwater management facilities but well away from outfalls and constructed berms to provide for wildlife habitat, wind control, buffering, and visual screening.

[4] Vegetation shall be planted during appropriate times of the year, predominantly between late March and mid-May or from early October until evidence of ground freezing, depending upon the species selected. Most deciduous trees and shrubs may be planted in either spring or fall; evergreens are best planted in late summer or early fall.

[5] Maintenance practices shall include eradication of invasive species as identified by the DCNR.

(d) Slopes.

[1] Where slopes are gentle 10H:1V or flatter, a mixture of native meadow

grasses and wildflowers (for wet meadows) shall be planted.

[2] On steep slopes (as defined by the West Whiteland Township Zoning Ordinance[29]), native dense spreading shrubs (tolerant of dry soils) shall be planted. Heavy mat mulch shall be used during the period of establishment.

[3] No woody plant materials or trees shall be located on a berm acting as an impoundment structure for a stormwater management facility. Trees shall be located downstream of an impoundment berm a sufficient distance from the toe of the constructed slope to assure that the toe of the slope is outside the dripline of the species planted at maturity, but in no case less than 15 feet.

[4] Maintenance practices shall include eradication of invasive species as identified by the DCNR.

(e) In cases where stormwater management facilities are to be located in proximity to wetlands or waterways, the applicant shall consider such conditions and the planting plan and schedule and shall reflect consideration of existing flora.

(f) Stormwater management facilities shall be screened in a manner that complements the existing landscape and provides sufficient access for maintenance.

ARTICLE IV – STORMWATER MANAGEMENT (SWM) SITE PLAN REQUIREMENTS

§270-31. General Requirements.

For any regulated activity, unless exempt per the provisions of §270-6:

A. Preparation and implementation of an approved SWM site plan is required.

B. No regulated activity shall commence until the Township issues written approval of a SWM site plan, which demonstrates compliance with the requirements of this chapter and, if required, a letter of adequacy has been issued by the Conservation District for an erosion and sediment control plan.

C. The preliminary or final approval of subdivision and/or land development plans, the issuance of the stormwater management permit under this chapter, and the issuance of any building or occupancy permit shall not proceed until the applicant has received written approval of a SWM site plan from the Township.

D. The SWM site plan approved by the Township shall be on site throughout the duration of the regulated activity.

§270-32. SWM site plan contents.

The SWM site plan shall consist of a general description of the project including items described in §270-18, calculations, maps, and plans. All SWM site plan materials shall be submitted to the Township in a format that is clear, concise, legible, neat, and well organized; otherwise, the SWM site plan shall not be accepted for review and shall be returned to the applicant. The following items shall be included in the SWM site plan:

A. General.

(1) A general description of the proposed project;

(2) A listing of all regulatory approvals required for the proposed project and the status of the review and approval process for each. Final approval or adequacy letters must be submitted to the Township prior to (or as a condition of) the Township's issuing final approval of the SWM site plan. Proof of application or documentation of required permit(s) or approvals for the programs listed below shall be part of the SWM site plan, if applicable:

(a) NPDES Permit for Stormwater Discharges associated with Construction Activities;

(b) PADEP permits as needed:

[1] PADEP Joint Permit Application;

[2] Chapter 105[25] (Dam Safety and Waterway Management); ***[25. Editor's Note: See 25 Pa. Code Chapter 105.]***

[3] Chapter 106[26] (Floodplain Management); ***[26. Editor's Note: See 25 Pa. Code Chapter 106.]***

(c) PennDOT Highway Occupancy Permit;

(d) Erosion and sediment control plan letter of adequacy; and

(e) Any other permit under applicable state or federal regulations.

(3) A statement, signed by the applicant, acknowledging that any revision to the approved SWM site plan shall be submitted to and approved by the Township, and that a revised erosion and sediment control plan shall be submitted to, and approved by, the Conservation District or Township (as applicable) for a determination of adequacy prior to construction of the revised features.

(4) The following signature block signed and sealed by the qualified licensed professional responsible for the preparation of the SWM site plan:

"I (name), on this date (date of signature), hereby certify that the SWM site plan meets all design standards and criteria of Chapter 270 of the West Whiteland Township Code of Ordinances, Stormwater Management." [Note: include signature, name, discipline of professional license, and license stamp or seal here]

(5) A note on the maps shall refer to the associated computations and erosion and sediment control plan by title and date. The cover sheet of the computations and erosion and sediment control plan shall refer to the associated maps by title and date.

B. Maps or plan sheets. Map(s) or plan sheets of the site shall be submitted on minimum twenty-four-inch-by-thirty-six-inch sheets and shall be prepared in a form that meets the requirements for recording at the Chester County Office of the Recorder of Deeds and the requirements of the operation and maintenance (O&M) plan and O&M agreement (Article VII). If the SALDO has additional or more stringent criteria than this chapter, then the SALDO criteria shall also apply[27] unless otherwise approved by the Township, the contents of the maps or plan sheets shall include, but not be limited to: ***[27. Editor's Note: See Ch. 281, Subdivision and Land Development.]***

(1) A location map, with a scale of one inch equals 2,000 feet or greater, showing the site location relative to highways, municipal boundaries, or other identifiable landmarks.

(2) The name of the project, tax parcel number(s), and the names, addresses and phone numbers of the owner of the property, the applicant, and firm preparing the plan.

(3) Signature and seal of the qualified licensed professional(s) responsible for preparation of the maps and plan sheets.

(4) The date of SWM site plan submission and revision dates, as applicable.

(5) A graphic and written scale of one inch equals no more than 50 feet.

(6) A North arrow.

(7) Legal property boundaries, including:

(a) The total project property boundary and size with distances marked to the nearest foot and bearings to the nearest degree.

(b) Boundaries, size and description of purpose of all existing easements and deed-restricted areas of the project property, with distances marked to the nearest foot and bearings to the nearest degree.

(8) Existing natural resources and natural or man-made hydrologic features that are located within the site or receiving discharge from, or that may otherwise be impacted by, the proposed regulated activity, including but not limited to:

(a) All existing natural resources, hydrologic features and drainage patterns including natural waterways, water bodies, wetlands, streams (intermittent and

perennial), ponds, lakes, vernal pools, etc., natural infiltration areas and patterns, areas of significant natural evapotranspiration, and other water features and aquatic resources.

(b) Any existing man-made drainage features, BMPs, conveyances, facilities, open channels, swales, drainage patterns, or other flood, stormwater or drainage control features.

(c) For the site, discharge points and locations of concentrated flows and their drainage areas.

(d) For named waters, show names and their watershed boundaries within the site.

(e) Special management areas (as per §270-15.P).

(f) For the water bodies, streams and wetlands identified in §270-32.B(8)(a), label or otherwise show the following attributes, if applicable:

[1] The designated use as determined by PADEP (25 Pa. Code Chapter 93);

[2] Impairments listed on the PADEP "Integrated List" (as updated) and the listed source and cause of impairment;

[3] Name, date, and target pollutant(s) for any approved total maximum daily load (TMDL); and

[4] Drainages to water supply reservoirs.

(g) Areas that are part of the Pennsylvania Natural Diversity Inventory (PNDI) and a list of potential impacts and clearances received (for regulated activities involving one acre or more proposed earth disturbance).

(h) Woods, vegetated riparian buffers and other areas of natural vegetation.

(i) Existing topography using contours (with elevations based on established bench marks) at intervals of two feet, less if additional detail is required to properly identify existing drainage patterns. In areas of slopes (greater than 15%), five-foot contour intervals may be used. The datum used and the location, elevation and datum of any bench marks used shall be shown.

(j) Areas classified by the Township as steep (over 25%) slopes and precautionary (15% to 25%) slopes.

(k) Soil names and boundaries, general type of soils with hydrologic soil group noted, and in particular note areas most conducive to infiltration BMPs, such as Groups A and B, etc., estimated permeabilities in inches per hour, and location and other results of all soil tests and borings.

(l) If present, areas with underlying carbonate geologic units, existing sinkholes, subsidence or other karst features, and any associated groundwater recharge areas with increased vulnerability to contamination.

(m) Any contaminated surface or subsurface areas of the site.

(n) Water supply wells.

[1] Location of existing well(s) on the project property and delineation of the(ir) recharge area(s) (if known), or a fifty-foot-diameter assumed recharge area;

[2] Location of existing well(s) within 50 feet beyond the boundary of the project property boundary (if public water supply is proposed for the regulated activity); and

(o) Current FEMA one-hundred-year floodplain boundaries, elevations, and floodway boundaries for any special flood hazard areas on or within 100 feet of the property.

(p) Boundaries of riparian buffer(s) as required by §270-15T.

(9) Location of the proposed regulated activity, limits of earth disturbance (disturbed area), and BMPs and conveyances relative to the location of existing natural resources and hydrologic features and special management areas resulting from the site design process of §270-18.

(10) Description of existing and proposed ground cover and land use including the type and total area.

(11) Existing and proposed man-made features including roads, paved areas, buildings, and other impervious and pervious surfaces on the project property (or an appropriate portion of the property as determined in consultation with the Township Engineer) and within the proposed disturbed area, and including the type and total area of the following:

(a) Existing impervious surfaces; Existing Impervious Surfaces installed after December 11, 2013

(b) Existing impervious surfaces proposed to be replaced;

(c) Existing impervious surfaces to be permanently removed and replaced with pervious ground cover;

(d) New or additional impervious surfaces; and

(e) Percent of the site covered by impervious surfaces for both the existing and proposed post-construction conditions.

(12) The total extent of the upstream area draining through the site.

(13) All BMPs, conveyances and other stormwater management facilities shall be located on the plan sheets, including design drawings, profile drawings, construction details, materials to be used, description of function, etc.

(14) Complete delineation of the flow paths used for calculating the time of concentration for the predevelopment and post-construction conditions shall be included.

(15) The locations of all existing and proposed utilities, sanitary sewers, on-lot wastewater facilities (including subsurface tanks and leach fields), and water supply lines within the site and within 50 feet beyond the proposed limits of earth disturbance.

(16) A grading plan, including all areas of proposed earth disturbance and the proposed regulated activity and delineating the boundary or limits of earth disturbance of the site. The total disturbed area of the site shall be noted in square feet and acres.

(17) Proposed final grade elevations and contours at intervals of two feet or less if additional contours are necessary to identify drainage accurately. In areas of steep slopes (greater than 15%), five-foot contour intervals may be used.

(18) For each proposed BMP and conveyance included in the SWM site plan (including any to be located on any property other than the property being developed by the applicant), the following shall be included on the SWM site plan map or plan sheets:

(a) Identification of the person responsible for ongoing inspections, operation, repair, and maintenance of the BMP or conveyance after completion of construction.

(b) Delineation of the land area, structures, impervious surfaces, and conveyances draining to and from the BMP or conveyance.

(c) Easements, as per the requirements of Article VII, that shall include:

[1] Boundaries labeled with distances shown in feet and bearings to the nearest degree;

[2] Notes or other documentation, as needed, to grant the Township the right of access to all BMPs and conveyances for the purposes of inspection and enforcement of the requirements of this chapter, and any applicable O&M plans and O&M agreements;

[3] Notes or other documentation, as needed, to grant the Township the right of access to all roadways necessary to access all BMPs and conveyances, where roadways are not to be dedicated to the Township;

[4] Notes or other documentation as needed to grant the owner of any BMP or conveyance the right of access for the purpose of inspection, operation,

maintenance, and repair of the BMP or conveyance that is to be owned, operated and maintained by a person other than the Township, and other than the owner of the property on which the BMP or conveyance is located;

[5] A minimum ten-foot-wide perimeter (or greater width as determined in consultation with the Township) around all BMPs and conveyances;

[6] Sufficient vehicular ingress to and egress from a public right-of-way or roadway, as determined in consultation with the Township; and

[7] Accompanying notes or other documentation as needed, and in accordance with Article VII describing the type, purpose and total area of easements, who the easement is granted to, and the rights, duties and obligations of the parties with respect to every BMP or conveyance.

(d) Boundaries of land areas (if any) for which deed restrictions are required for the purpose of protecting and prohibiting disturbance to a BMP or conveyance, indicating the area to which the restriction applies with distances shown in feet and bearings to the nearest degree, and a written description of the type, purpose and nature of the restriction.

(e) Other items that may be needed to comply with all other requirements of Article VII.

C. A written description of the following information shall be included in the SWM site plan:

(1) Existing features, conditions, natural resources, hydrologic features, and special management areas [as listed in §270-32B(8)];

(2) How the site design achieves the requirements of §270-18, and, if applicable, where they could not be achieved and why;

(3) The overall stormwater management design concept for the project and how the site design achieves the requirements of §270-15 through §270-25 of Article III;

(4) Proposed features and conditions, proposed erosion and sediment control features, proposed BMPs, conveyances, and any other stormwater facilities;

(5) A description of the effect of the project (in terms of flow alteration and runoff volumes, water quality and peak flows, etc.) on existing natural resources, hydrologic features and special management areas, adjacent and downgradient properties, and any existing municipal or other stormwater conveyance system(s), that may be affected by or receive runoff from the regulated activity (whether located within or outside of the area of the regulated activity), and specifics of how erosion, water quality and flow impacts will be avoided or otherwise mitigated;

(6) Proposed nonpoint source pollution controls and justification and confirmation that the

proposed project will not result in any increased pollutant loadings to any existing stream or stream impairment identified by PADEP, or to any receiving water body;

(7) Expected project time schedule; and

(8) Description of construction stages or project phases, if so proposed.

D. A detailed site evaluation conducted by a qualified licensed professional for projects proposed in areas of carbonate geology or karst topography, and other environmentally sensitive areas, such as contaminated sites and brownfields, as described in §270-15.O and R of this chapter.

E. Stormwater runoff design computations and documentation, such as hydrologic, hydraulic, and structural computations, assumptions, BMP loading ratios, etc., consistent with the guidelines and criteria presented in the PA BMP Manual (as amended) or other guidance acceptable to the Township Engineer, and used in the design of the BMPs, conveyances and other features proposed to be utilized for stormwater management, or as otherwise necessary to demonstrate that the requirements of this chapter have been met, specifically including the requirements in §270-15 and §270-18 through §270-23.

F. Inspections, operation and maintenance requirements. The following documents shall be prepared and submitted to the Township for review and approval as part of the SWM site plan, in accordance with the requirements of Article VII, for each BMP and conveyance included in the SWM site plan (including any to be located on any property other than the property being developed by the applicant):

(1) An O&M plan;

(2) An O&M agreement;

(3) Any easement agreements that are needed to ensure access, inspection, maintenance, operation, repair and permanent protection of any permanent BMP(s) and conveyances associated with the regulated activity;

(4) Any written deed, deed amendment or equivalent document (if needed) to be recorded against a subject property, as shown on the SWM site plan maps or plan sheets, or recorded plan sheets for the purpose of protecting and prohibiting disturbance to a BMP or conveyance; and

(5) Written approval, easement agreements, or other documentation for discharges to adjacent or downgradient properties when required to comply with §270-15.G and Article VII of this chapter.

G. An erosion and sediment control plan, where applicable, as prepared for and submitted to the Conservation District and/or Township. A letter of adequacy from the Conservation District, if applicable, must be submitted to the Township prior to (or as a condition of) the Township's final approval of the SWM site plan.

H. A highway occupancy permit from the Pennsylvania Department of Transportation (PennDOT) District Office must be submitted to the Township prior to (or as a condition of) the Township's final approval of the SWM site plan when utilization of a PennDOT storm drainage system is proposed.

§270-33. SWM site plan submission.

A complete SWM site plan that complies with all applicable provisions of §270-32 shall be submitted to the Township for review and approval, as follows:

A. The SWM site plan shall be coordinated with the applicable state and federal permit process and the Township SALDO review process. All permit approvals or letters of adequacy not yet received by the applicant at the time of submittal of the SWM site plan to the Township must be submitted to the Township prior to (or as a condition of) the Township's final approval of the SWM site plan.

B. For projects that require SALDO approval, the SWM site plan shall be submitted by the applicant as part of the preliminary plan submission where applicable for the regulated activity.

C. For regulated activities that do not require SALDO approval, the SWM site plan shall be submitted by the applicant for review in accordance with instructions from the Township.

D. The number of copies of the SWM site plan to be submitted by the applicant for review shall be in accordance with instructions from the Township.

E. The corresponding review fee shall be submitted to the Township simultaneously with the SWM site plan, per the Township's fee schedule.

F. Any submissions to the Township that are found to be incomplete shall not be accepted for review and shall be returned to the applicant within 15 calendar days with a notification in writing of the specific manner in which the submission is incomplete.

G. Financial security, per the requirements of §270-10, shall be submitted to the Township prior to approval of the SWM site plan.

§270-34. SWM site plan review.

A. The SWM site plan shall be submitted to the Township for review by the Township Engineer for consistency with this chapter and the respective PA Act 167 stormwater management plan(s). The Township Engineer will review the SWM site plan for any subdivision or land development for compliance with this chapter and the Township SALDO provisions not otherwise superseded by this chapter.

B. If applicable, the applicant shall have received a letter of adequacy from the Conservation District or other PADEP approval for the proposed regulated activity prior to (or as a

condition of) final approval by the Township.

C. The Township Engineer will notify the applicant and the Township in writing, within 30 calendar days, whether the SWM site plan is consistent with the requirements of this chapter. If the SWM site plan involves a subdivision and land development plan, the notification shall occur within the time period allowed by the MPC (as amended).[28] If a longer notification period is provided by other statute, regulation, or ordinance, the applicant will be so notified by the Township. ***[28. Editor's Note: See 53 P.S. §10101 et seq.]***

(1) If the Township Engineer determines that the SWM site plan is consistent with this chapter, the Township Engineer shall forward a letter of consistency to the Township, who shall then forward a copy to the applicant.

(2) The Township may approve the SWM site plan with conditions reasonably defined to make the SWM site plan compliant with the terms of this chapter, and, if so, shall provide the conditions for approval in writing.

(3) If the Township Engineer determines that the SWM site plan is inconsistent or noncompliant with this chapter, the Township Engineer will forward a letter to the Township, with a copy to the applicant citing the reason(s) and specific chapter sections for the inconsistency or noncompliance. Inconsistency or noncompliance may be due to inadequate information to make a reasonable judgment as to compliance with this chapter. Any SWM site plans that are inconsistent or noncompliant may be revised by the applicant and resubmitted in accordance with §270-36 when consistent with this chapter. Resubmission will commence a new municipal review and notification time period.

D. The Township will not grant final approval to any proposed subdivision, land development, or regulated activity specified in this chapter if the SWM site plan has been found to be inconsistent with this chapter.

E. All required permits from PADEP shall be obtained and submitted to the Township prior to (or as a condition of) final approval of any proposed subdivision, land development, or other regulated activity by the Township.

F. No building permits for any regulated activity will be approved by the Township if the SWM site plan has been found to be inconsistent with this chapter, as determined by the Township Engineer. All required permits from PADEP shall be obtained prior to issuance of a building permit.

G. The Township's approval of a SWM site plan shall be valid for a period not to exceed five years commencing on the date that the Township approved the SWM site plan. If stormwater management facilities included in the approved SWM site plan have not been constructed, or if constructed, as-built plans of these facilities have not been approved within this five-year time period, then the applicant may seek reinstatement of approval of the expired SWM site plan. If the Township determines that the expired SWM site plan is consistent and compliant with current regulations and requirements, then the expired SWM

site plan will be reinstated; otherwise, it will be rejected. The applicant will be prohibited from conducting any regulated activity until a reinstated or newly approved SWM site plan is obtained in accordance with §270-36 of this chapter.

H. All or portions of the final approved SWM site plan shall be recorded (as "record plans") per the instructions of the Township.

I. Upon completion of construction, the applicant shall be responsible for completing final as-built plans of all BMPs, conveyances, or other stormwater management facilities included in the approved SWM site plan as per the requirements of §270-38 of this chapter.

§270-35. Revision of SWM site plans.

A. A submitted SWM site plan under review by the Township shall be revised and resubmitted for any of the following reasons. The revised SWM site plan shall be resubmitted in accordance with §270-33 and subject to review as specified in §270-34 of this chapter.

(1) A change in stormwater management BMPs, conveyances, facilities or techniques;

(2) Relocation or redesign of stormwater management BMPs, conveyances, or facilities; or

(3) Soil or other site conditions are not as stated on the SWM site plan as determined by the Township Engineer, and the new conditions necessitate design changes.

B. A revision to an approved SWM site plan shall be submitted to the Township, accompanied by the applicable municipal review fee.

§270-36. Resubmission of inconsistent or noncompliant SWM site plans.

Any SWM site plan deemed inconsistent or noncompliant may be revised and resubmitted with the revisions documented in writing addressing the Township Engineer's concerns. The submission shall be addressed to the Township in accordance with §270-33 of this chapter, distributed accordingly, and be subject to review as specified in §270-34 of this chapter. The applicable municipal review fee shall accompany a resubmission of a SWM site plan previously determined to be inconsistent or noncompliant.

ARTICLE V – PERFORMANCE AND INSPECTION OF REGULATED ACTIVITIES; FINAL AS-BUILT PLANS

§270-37. Performance and inspection of regulated activities.

A. All regulated activities shall be conducted, operated and maintained in accordance with the requirements set forth in Articles III, VII and VIII of this chapter. When a SWM site plan is required by this chapter, all regulated activities shall be performed in accordance with the requirements of the final approved SWM site plan.

B. The Township Engineer or other Township designee shall be provided access to the site to inspect all phases of the erosion and sediment control measures and installation of the permanent BMPs and conveyances at such times as deemed appropriate by the Township Engineer or other Township designee.

C. Periodic inspections may be made by the Township Engineer or other designee during construction. A set of design plans approved by the Township shall be on file and available for viewing at the site throughout the duration of the construction activity.

D. Inspections, including but not limited to a final inspection, of all constructed BMPs, conveyances, or other stormwater facilities, and related improvements may be conducted by the Township Engineer or other designee to confirm compliance with this chapter and with the final approved SWM site plan prior to the issuance of any occupancy permit, use permit, or other form of final approval of the project by the Township. During any stage of the work, the Township may pursue enforcement for violations consistent with the provisions of Article IX.

E. If an NPDES Permit for Stormwater Discharges Associated with Construction Activities was required for the Regulated Activity, a Notice of Termination (NOT) approval must be obtained upon completion of construction prior to final approval of the project by the Municipality.

F. Upon completion of construction, every permanent stormwater BMP, conveyance or other stormwater management facility constructed or used as part of the regulated activity shall be operated, maintained and inspected by the landowner, or other designated person, in accordance with the O&M plan and O&M agreement approved by the Township.

G. The Township or its designee may periodically inspect any permanent stormwater BMP, conveyance or stormwater management facility for compliance with this chapter, an approved O&M plan, or an approved O&M agreement, per the provisions of Article IX. The Township may inspect at any time it has reason to believe a violation exists. The Township may pursue enforcement for violations consistent with the provisions of Article IX.

§270-38. Final as-built plans.

A. For regulated activities involving one acre or more of earth disturbance, the applicant shall provide to the Township final as-built plans (signed and sealed by a qualified licensed professional) of all BMPs, conveyances, other stormwater facilities, and related improvements shown in the final approved SWM site plan.

B. The final as-built plans shall include the following for all BMPs, conveyances, other stormwater facilities and related improvements:

(1) The location, elevations, dimensions, and as-built conditions of all BMPs, conveyances, other stormwater facilities, and related improvements including topographic contours and all typical details for storm drainage and conveyance systems, stormwater management facilities and impervious surfaces (existing, proposed, or constructed) included in the approved SWM site plan. The latitude and longitude coordinates for all permanent SWM BMPs must also be submitted at the central location of the BMPs; and

(2) Explanation of any discrepancies or variations from the final approved SWM site plan, other related approved construction plans, calculations and specifications (and approved revisions thereto).

C. The final as-built plans shall include a certification of completion signed and sealed by a qualified licensed professional verifying that all permanent BMPs and conveyances have been constructed according to the final approved SWM site plan and related approved construction plans, calculations and specifications.

D. All areas of the regulated activity draining to BMPs must be stabilized prior to submittal of the as-built plans.

E. After receipt of the as-built plans by the Township, the Township or its designee may review the as-built plans for consistency with this chapter, the final approved SWM site plan, other related approved construction plans, and subsequent approved revisions thereto, as well as actual conditions at the site, and the Township may conduct a final inspection, as per §270-37.D.

F. The as-built plans must be received, reviewed and determined to be acceptable by the Township prior to:

(1) Close out of the drainage permit or other close out of the project by the Township;

(2) Release of the financial security or other performance guarantee; and

(3) Conveyance to a homeowners' association or other person responsible for operation, maintenance and repair.

G. Final occupancy permit(s) or use permit or other final approval to use or operate the constructed improvement may not be issued by the Township until the final as-built plans have been accepted.

H. Upon final acceptance of the final as-built plans by the Township, the applicant shall review and, if required by the Township, revise and re-record the O&M plan and the O&M agreement to reflect the final as-built conditions and information for each permanent BMP or conveyance, in accordance with the requirements of Article VII.

I. All or portions of the final as-built plans shall be recorded if required by the Township.

ARTICLE VI – FEES AND EXPENSES

§270-39. Site plan review and inspection fees established.

A. Fees shall be established by the Board by resolution, which may be amended from time to time to cover the expenses incurred by the Township listed in §270-40.A. The fee schedule may include an escrow deposit to secure the payment of the expenses. All fees shall be paid by the applicant, and the required escrow shall be deposited by the applicant, at the time of SWM site plan submission.

B. The fee schedule shall be based on the size of the regulated activity and based on the Township's costs for reviewing SWM site plans, O&M plans and agreements, and as-built plans, and conducting inspections pursuant to §270-37. The Township shall periodically update the review and inspection fee schedule to ensure that review costs are adequately reimbursed.

§270-40. Expenses covered by fees and escrow deposit.

A. The fees and escrow deposit required of the applicant by this chapter shall at a minimum cover:

(1) Administrative costs;

(2) The review of the SWM site plan by the Township, the Township Engineer, the Solicitor and other municipal consultants;

(3) Coordination and meetings with the applicant;

(4) The inspection of erosion and sediment control measures, BMPs, conveyances and other related improvements during construction;

(5) Review of project communications, reports, and additional supporting information;

(6) Other site inspections;

(7) The final inspection upon completion of the BMPs, conveyances, and other stormwater management facilities and related improvements presented in the SWM site plan; and

(8) Review of final as-built plan submission and revised calculations, and inspections as needed.

B. The applicant shall also reimburse all expenses incurred by the Township for any additional

work or Township Solicitor or consultant fees in the course of reviewing the SWM site plan, or required to enforce any permit provisions regulated by this chapter, correct violations, and ensure proper completion of remedial actions.

ARTICLE VII – OPERATION AND MAINTENANCE (O&M) RESPONSIBILITY AND EASEMENTS

§270-41. General requirements for protection, operation and maintenance of stormwater BMPs and conveyances.

The following shall apply to all regulated activities in accordance with the requirements of the subsequent sections of this Article VII.

A. Continuing operations and maintenance responsibilities of all permanent BMPs, conveyances, or other stormwater management facilities shall be reviewed and approved by the Township along with the SWM site plan. The Township may require an offer of a dedication of such facilities as part of the requirements for approval of the SWM site plan. Such a requirement is not an indication that the Township will accept the facilities. The Township reserves the right to accept or reject the operations and maintenance responsibility for any portion of or all of the BMPs, conveyances or other stormwater controls and facilities.

B. An operation and maintenance (O&M) plan shall be submitted to the Township for review and approval for all existing and proposed permanent BMPs and man-made conveyances or other stormwater facilities identified in the SWM site plan. Multiple BMPs or conveyances may be addressed by a combined O&M plan where all such facilities are similar in O&M requirements and ownership.

C. The O&M plan(s) and O&M agreement(s) shall name the person identified in the SWM site plan who shall be the owner of and be responsible for ongoing inspections, operation, repair, and maintenance of each BMP or conveyance following completion of construction.

D. For any BMP or man-made conveyance (including any to be located on any property other than the property being developed by the applicant) to be owned by a person other than the Township:

   (1) An O&M agreement shall be submitted to the Township for review and approval; and

   (2) The O&M plan shall be attached to, incorporated within, and recorded as a public record along with a fully executed O&M agreement, all of which shall be recorded as a restrictive covenant that runs with the land and shall be binding upon the landowner and any heirs, administrators, successors in interest or assigns of the landowner.

E. The following shall be provided for all BMPs and conveyances (including any to be located on any property other than the property being developed by the applicant) by an O&M or other agreement or by otherwise establishing covenants, easements, deed restrictions, or by

dedication to the Township:

(1) Permanent protection of the BMP or conveyance from disturbance or alteration;

(2) Right of entry and access for the Township for inspection and enforcement of this chapter (including §270-53.G) and any applicable O&M plan or O&M agreement; and

(3) Right of entry and access for the person owning the BMP or conveyance and responsible for fulfilling the O&M requirements when that person is not the Township and is different from the owner of the property on which the BMP or conveyance is located (such as may be applicable for §270-15.G of this chapter).

F. All O&M and other agreements, covenants, easements and deed restrictions shall:

(1) Be submitted to the Township for review and approval;

(2) Be recorded as a public record, upon approval, against each parcel(s) which is part of the SWM site plan or otherwise contains any BMP or conveyance comprising part of the regulated activity which is the subject of an O&M agreement; and

(3) Run with the land and be binding upon the landowner, its heirs, administrators, successors in interest, and assigns.

G. The materials, documents and content required by this Article VII may be prepared in conjunction with and incorporated with similar materials, documents and content required for other permit or approval applications, such as those required by PADEP for the post-construction stormwater management plan.

§270-42. Operation and maintenance plans.

The following items shall be included in the O&M plan, unless otherwise approved by the Township Engineer:

A. A plan sheet(s) or map(s) showing each BMP and man-made conveyance and which shall include, but not be limited to:

(1) Property(ies) identification (owner name and address; and property address and/or lot and/or tax parcel number, etc.), property boundaries and tax parcel number of the land parcel on which the BMP or conveyance is located.

(2) Name, address, phone number, date prepared, signature and seal of the licensed professional responsible for preparation of the plan sheet or map.

(3) Clear identification of the location, dimensions, and function of each BMP or conveyance covered by the O&M plan.

(4) The location of each BMP and conveyance relative to roadways, property boundaries, or other identifiable landmarks and existing natural drainage features such as streams, lakes, ponds, or other bodies of water within the immediate vicinity of, or receiving discharge from, the BMP or conveyance.

(5) Delineation of the land area, structures, impervious surfaces and conveyances draining to and from the BMP.

(6) Representative elevations and/or topographic contours at intervals of two feet, or other as acceptable to the Township Engineer.

(7) Other features including FEMA floodplain and floodway boundaries, sinkholes, etc., located within the immediate proximity of each BMP and conveyance.

(8) Locations of areas of vegetation to be managed or preserved that function as a BMP or conveyance.

(9) The locations of all surface and subsurface utilities, on-lot wastewater facilities, sanitary sewers, and waterlines within 20 feet of each BMP or conveyance.

(10) The following as it pertains to any easements, covenants and deed restrictions established for each applicable BMP or conveyance:

(a) Boundaries delineated with bearings and distances shown that encompass the BMP or conveyance and that includes a ten-foot perimeter area surrounding these features and sufficient vehicular ingress to and egress from a public right-of-way and roadway;

(b) Labels specifying the type and purpose of the easement, covenant, or deed restriction and who it benefits; and

(c) Labels with reference to any corresponding easement agreement, covenant, deed restriction or other document to be recorded.

(11) The plan sheet or map shall be prepared at sufficient scale for Township review, and ultimately for the use by the person responsible for operation and maintenance, and shall also be prepared at a legible scale that meets the requirements for recordation along with (and as an attachment to) the O&M agreement and O&M plan at the Chester County Office of the Recorder of Deeds.

B. The following information shall be included in the O&M plan and written in a manner consistent with the knowledge and understanding of the person who will be responsible for the maintenance activities:

(1) The name and address of the following:

(a) Property(ies) on which each BMP or conveyance is located;

(b) Owner of the property;

(c) Owner of each stormwater BMP or conveyance who is responsible for implementation of the O&M plan;

(d) Person responsible for maintaining adequate liability insurance and payment of taxes; and

(e) Person preparing the O&M plan.

(2) A description of each BMP and conveyance and how the BMPs and conveyances are intended to function.

(3) A description of actions necessary to operate, inspect, and maintain each BMP or conveyance, including but not limited to:

(a) Lawn care, vegetation maintenance, landscaping and planting;

(b) Clean out of accumulated debris and sediment (including from grates, trash racks, inlets, etc.); and

(c) Other anticipated periodic maintenance and repair.

(4) The following statement shall be included:

"The landowner acknowledges that, per the provisions of the Township's Stormwater Management Ordinance, it is unlawful to modify, remove, fill, landscape, alter or impair the effectiveness of, or place any structure, other vegetation, yard waste, brush cuttings, or other waste or debris into any permanent stormwater management BMP or conveyance described in this O&M plan or to allow the BMP or conveyance to exist in a condition which does not conform to this O&M plan, without written approval from the Township."

(5) Inspection and maintenance schedules.

(6) Explanation of the purpose and limitations of any easements, covenants, or deed restrictions associated with any BMP or conveyance that are to be recorded against the property.

C. A statement that no BMP or man-made conveyance may be used by the owner or others for any purpose other than its intended stormwater control function, or, if approved by the Township Engineer, a statement of specific allowable uses of the BMP (i.e., recreational benefits that may be associated with certain BMPs owned by a homeowners' association, or allowable uses by an individual residential landowner).

D. A statement that establishes a reasonable time frame for remedy of deficiencies found by the owner during his or her inspections.

E. Language needed to fulfill the requirements of §270-45.B, C and D of this chapter.

§270-43. Operation and maintenance agreements.

A. An O&M agreement shall be required for any BMP or man-made conveyance to be owned by a person other than the Township, and the agreement shall:

(1) Be between the owner of the BMP or conveyance and the Township, and shall be substantially the same as the O&M agreement in Appendix E;[34]

(2) Incorporate the approved O&M plan(s) for all BMPs or conveyances to be covered by the O&M agreement;

(3) Set forth the rights, duties and obligations of the owner of the BMP or conveyance and the Township, and be consistent with the approved O&M plan(s);

(4) Be recorded as a deed restriction or restrictive covenant that runs with the land and shall be binding upon the landowner, its heirs, administrators, successors in interest, and assigns;

(5) Be submitted to the Township for review prior to approval of the SWM site plan;

(6) Upon approval by the Township, be signed by the designated owner of the BMP or conveyance and submitted for signature by the Township; and

(7) When fully executed, be recorded by the landowner at the Chester County Office of the Recorder of Deeds following Township approval of the O&M plan and prior to the start of construction.

B. Other items or conditions may be required by the Township to be included in the O&M agreement where determined necessary by the Township to guarantee the satisfactory operation and maintenance of all permanent BMPs and conveyances.

C. After approval of the final as-built plans per the requirements of Article V, the applicant shall review and, if necessary and if required by the Township, revise and re-record the O&M plan and O&M agreement to reflect the final as-built conditions of each BMP and conveyance if different from the information included in the original recorded documents.

§270-44. Easements and deed restrictions.

A. Easements shall be established in connection with any regulated activity for all permanent BMPs and conveyances that will not be dedicated to or otherwise owned by the Township (including any to be located on any property other than the property being developed by the applicant) and shall:

(1) Include all land area occupied by each BMP or conveyance;

(2) Include ten-foot-wide perimeter (or other width as determined in consultation with the Township Engineer) surrounding the feature(s);

(3) Provide sufficient vehicular ingress and egress from a public right-of-way and roadway;

(4) Permanently protect every BMP and conveyance from disturbance or alteration where not otherwise protected by a recorded O&M agreement, covenant, deed restriction or other means;

(5) Grant the Township the right, but not the duty, to access every BMP and conveyance from a public right-of-way or public roadway to conduct periodic inspections and to undertake other actions that may be necessary to enforce the requirements of this chapter, or of any applicable O&M plan or O&M agreement; where roadways will not be dedicated to the Township, the Township shall be granted access to the private roadways as necessary to access every BMP and conveyance;

(6) Grant the owner of each BMP and conveyance the right to access, inspect, operate, maintain, and repair the BMP or conveyance when the feature is to be owned, operated and maintained by a person other than the Township and other than the owner of the parcel on which it is located;

(7) Be shown, with bearings and distances noted, on the SWM site plan map/plan sheets, O&M plan map/plan sheets, final as-built plans, and be signed and sealed by a qualified licensed professional;

(8) Include language legally sufficient to ensure that the easement shall run with the land and bind the landowner granting the easement, its heirs, administrators, successors in interest and assigns, into perpetuity; and

(9) Be recorded at the Chester County Office of the Recorder of Deeds following Township approval and prior to the start of construction.

B. For any BMP or conveyance to be owned by a person other than the Township or the landowner owning the parcel upon which a BMP or conveyance is located, an easement agreement shall be prepared and executed between the landowner and the owner of the BMP or conveyance which shall:

(1) Describe the ownership interests of all parties to the easement agreement, including the ownership of the BMP or conveyance;

(2) Include a written legal (metes and bounds) description of the easement area, with reference to a recorded plan sheet showing the legal boundaries of the easement area (or an accompanying plan sheet/map), signed and sealed by a qualified licensed professional;

(3) Grant an easement from the landowner to the owner of each BMP and conveyance, establishing the right and obligation to occupy, access, inspect, operate, maintain, and repair the BMP or conveyance;

(4) Include a description of the purpose of the easement and the responsibilities of the parties involved;

(5) Incorporate by reference or be recorded with the corresponding O&M plan and O&M agreement;

(6) Restrict the landowner's use of the easement area of the parcel on which the BMP or conveyance is located, consistent with the rights granted to the owner of the BMP or conveyance;

(7) Be submitted to the Township for review and approval prior to approval of the SWM site plan;

(8) Upon approval by the Township, be signed by the owner of the BMP(s) or conveyance(s) and the landowner and submitted for signature by the Township;

(9) Include language legally sufficient to ensure that the easement will run with the land affected by the easement and that the easement agreement is binding upon the parties to the easement agreement, their heirs, administrators, successors in interest and assigns, into perpetuity;

(10) Contain additional provisions or information as required by the Township; and

(11) When fully executed, be recorded by the landowner at the Chester County Office of the Recorder of Deeds against all parcels affected by the terms of the easement agreement, within 30 days of the Township's approval of the corresponding O&M plan.

C. For any BMP or conveyance which is designed to receive runoff from another parcel or parcels and which is owned by the landowner of the parcel upon which the BMP or conveyance is located, in addition to any easement or easement agreement required pursuant to §270-44.A or B, an easement agreement shall be prepared and executed between the landowner of the parcel or parcels draining to the BMP or conveyance and the owner of the BMP or conveyance. This easement agreement shall:

(1) Describe the ownership interests of all parties to the easement agreement, including the ownership of all affected parcels and of the BMP or conveyance;

(2) Provide for the grant of a drainage easement from the owner of the BMP or conveyance to the landowner of the parcel(s) draining to the BMP, which shall extend from the shared parcel boundary(ies) to the receiving BMP and shall include the connecting flow path(s) or conveyance;

(3) Include a written legal (metes and bounds) description of the easement area, with

reference to a recorded plan sheet showing the legal boundaries of the easement area (or an accompanying plan sheet/map), signed and sealed by a licensed professional.

(4) Incorporate by reference or be recorded with the corresponding O&M plan and O&M agreement;

(5) State that the purpose of the easement agreement is to ensure the continuous right of the discharging parcel to discharge onto the parcel containing the BMP and into the BMP or conveyance;

(6) Restrict the BMP or conveyance owner's use of the easement area of the parcel upon which the BMP or conveyance is located, consistent with the purpose of the easement granted;

(7) Establish the duty and responsibility of the landowner of the parcel or parcels draining to the BMP or conveyance to maintain the existing drainages on the discharging parcel or parcels as designed and constructed to discharge to the receiving BMP;

(8) Include language legally sufficient to ensure that the easement will run with the land and will bind all parties to the easement agreement, their heirs, administrators, successors in interest and assigns, into perpetuity;

(9) Be submitted to the Township for review and approval prior to approval of the SWM site plan;

(10) Contain all additional provisions or information as the Township may require upon review; and

(11) Be executed by the parties to the easement agreement and recorded at the Chester County Recorder of Deeds Office against the draining parcel(s) and the parcel upon which the BMP or conveyance is located within 30 days of the Township's approval of the corresponding O&M plan.

D. For any area(s) shown on the SWM site plan maps/plan sheets or as-built plan sheets as requiring, or area(s) that is otherwise determined to require, deed restriction(s) for the purpose of protecting and prohibiting disturbance to a BMP or conveyance, such deed restrictions will be incorporated into a written deed, restrictive covenant, or equivalent document. The deed or other document shall:

(1) Include a clear and understandable description of the purpose, terms and conditions of the restricted use;

(2) Include the written legal description (metes and bounds description) of the area to which the restrictions apply that is consistent with the boundary shown on the O&M plan sheets and SWM site plan maps/plan sheets;

(3) Make reference to any corresponding O&M plan(s) and O&M agreement(s);

(4) Include language legally sufficient to ensure that the terms of the restriction run with the land and shall be binding upon the landowner, its heirs, administrators, successors in interest, and assigns;

(5) Be submitted to the Township for review and approval prior to approval of the SWM site plan;

(6) Upon approval by the Township, be signed by the landowner and owner of the BMP or conveyance and submitted to the Township; and

(7) Be fully executed and recorded at the Chester County Office of the Recorder of Deeds within 30 days of the Township's approval of the O&M plan.

§270-45. Other post-construction responsibilities.

A. The provisions of §270-50 of this chapter shall apply to any permanent BMP or conveyance that is constructed as part of an approved SWM site plan or covered by an approved O&M plan.

B. The person responsible for the operation and maintenance of a BMP or conveyance shall make records of the installation and of all maintenance and repairs, and shall retain the records for at least 10 years. These records shall be submitted to the Township.

C. Post-construction maintenance inspections.

(1) Each BMP and conveyance shall be inspected by a registered professional engineer licensed in the Commonwealth of Pennsylvania on behalf of the applicant or responsible entity (including the Township Engineer for dedicated facilities) on the following basis:

(a) Annually for the first five years; and

(b) Once every three years thereafter.

(2) The Township reserves the right, but not the responsibility, to conduct such inspections as well as to execute such actions as may be necessary to eliminate any immediate threat to the public health, safety, or welfare without prior notice to the property owner. The Township further reserves the right to charge the property owner for such inspections and actions in accordance with the duly enacted fee schedule.

(3) The professional engineer conducting the inspection shall be required to submit a written report to the Township within one month of the completion of the inspection. The report will present documentation and include pictures regarding the condition of the facility and recommend necessary repairs, if any are needed. Any such repairs shall be completed by the owner within one month of the date of the issue of the report.

D. The owner of each BMP and conveyance shall keep on file with the Township the name, address, and telephone number of the person responsible for maintenance activities and implementation of the O&M plan. In the event of a change, new information shall be submitted by the BMP or conveyance owner to the Township within 30 calendar days of the change.

§270-46. Township Stormwater Control and BMP Operation and Maintenance Fund.

A. Persons installing stormwater controls or BMPs may be required to pay a specified amount to the Township Stormwater Control and BMP Operation and Maintenance Fund to help cover the costs of periodic inspections and maintenance expenses. The amount of the deposit shall be determined as follows:

(1) If the BMP or conveyance is to be privately owned and maintained, the deposit shall cover the cost of periodic inspections performed by the Township, as estimated by the Township Engineer, for a period of 10 years. This is to be paid in a manner specified by the Township. After that period of time, inspections will be performed at the expense of the Township.

(2) If the BMP or conveyance is to be owned and maintained by the Township, the deposit shall cover the estimated costs for maintenance and inspections for 10 years. The Township will establish the estimated costs utilizing information submitted by the applicant.

(3) The amount of the deposit to the fund shall be converted to present worth of the annual series values. The Township shall determine the present worth equivalents, which shall be subject to the approval of the Board.

B. If a BMP or conveyance is proposed that also serves as a recreational facility (e.g., ball field or lake), the Township may reduce or waive the amount of the maintenance fund deposit based upon the value of the land for public recreational purpose.

C. If at some future time, a BMP or conveyance (whether publicly or privately owned) is eliminated due to the installation of storm sewers or other storage facility, the unused portion of the maintenance fund deposit will be applied to the cost of abandoning or demolishing the facility and connecting to the storm sewer system or other facility. Any amount of the deposit remaining after the costs of abandonment or demolition will be used for inspection, maintenance, and operation of the receiving stormwater management system.

D. If a BMP or conveyance is accepted by the Township for dedication, the Township may require persons installing the BMP or conveyance to pay a specified amount to the Township Stormwater Control and BMP Operation and Maintenance Fund to help cover the costs of operations and maintenance activities. The amount may be determined as follows:

(1) The amount shall cover the estimated costs for operations and maintenance for 10 years, as determined by the Township; and

(2) The amount shall then be converted to present worth of the annual series values.

E. The Township may require applicants to pay a fee to the Township Stormwater Control and BMP Operation and Maintenance Fund to cover:

(1) Long-term maintenance of BMP(s) or conveyance(s); and

(2) Stormwater-related problems which may arise from the land development and earth disturbance.

ARTICLE VIII – PROHIBITIONS

§270-47. Prohibited discharges.

A. Any drain or conveyance, whether on the surface or subsurface, that allows any nonstormwater discharge including sewage, process wastewater, and wash water to enter the Township's separate storm sewer system or the waters of the commonwealth is prohibited.

B. No person shall allow, or cause to allow, discharges into the Township's separate storm sewer system or the waters of the commonwealth that are not composed entirely of stormwater, except:

(1) As provided in §270-47.C below; and

(2) Discharges allowed under a state or federal permit.

C. The following discharges are authorized unless they are determined by the Township to be significant contributors to pollution to the Township's separate storm sewer system or to the waters of the commonwealth:

(1) Discharges from fire-fighting activities;

(2) Potable water sources including waterline and fire hydrant flushings, if such discharges do not contain detectable concentrations of Total Residual Chlorine (TRC);

(3) Non-contaminated irrigation drainage water;

(4) Non-contaminated HVAC condensation and water from geothermal systems;

(5) Springs;

(6) Water from crawl space pumps;

(7) 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;

(8) Diverted stream flows;

(9) Flows from riparian habitats and wetlands;

(10) Uncontaminated water from foundations or from footing drains;

(11) Lawn watering;

(12) Uncontaminated groundwater;

(13) Residential (i.e., not commercial) vehicle wash water where cleaning agents are not utilized;

(14) Routine external building washdown (which does not use detergents or other compounds); and

(15) Non-contaminated hydrostatic test water discharges, if such discharges do not contain detectable concentrations of TRC.

D. In the event that the Township determines that any of the discharges identified in §270-47.C significantly contribute pollutants to the Township's separate storm sewer system or to the waters of the commonwealth, or is notified of such significant contribution of pollution by PADEP, the Township will notify the responsible person to cease the discharge.

E. Upon notice provided by the Township under §270-47.D, the discharger shall, within a reasonable time period, as determined by the Township consistent with the degree of pollution caused by the discharge, cease the discharge.

F. Nothing in this section shall affect a discharger's responsibilities under state law.

§270-48. Prohibited connections.

The following connections are prohibited, except as provided in §270-47.C above:

A. Any drain or conveyance, whether on the surface or subsurface, that allows any nonstormwater discharge, including sewage, process wastewater, and wash water to enter a separate storm sewer system, and any connections to the separate storm sewer system from indoor drains and sinks. Any drain or Conveyance that delivers non-stormwater discharges directly into wetlands, Riparian Buffers, or other Waters of the Commonwealth is prohibited.

B. Any drain or conveyance connected from a commercial or industrial land use to a separate storm sewer system, which has not been documented in plans, maps, or equivalent records and approved by the Township.

§270-49. Roof drains and sump pumps.

A. Roof drains and sump pump discharges shall not be connected to sanitary sewers.

B. Roof drain, sump pump, foundation and footing drain discharges:

(1) To the maximum extent practicable, shall discharge to infiltration or vegetative BMPs, or to vegetated or other areas with adequate capacity;

(2) May be connected to streets, storm sewers, or roadside ditches only if determined necessary or acceptable by the Township Engineer; and

(3) Shall be considered in stormwater management calculations to demonstrate that conveyance and receiving facilities have adequate capacity.

§270-50. Alteration of BMPs.

A. No person shall modify, remove, fill, landscape, alter, or impair the effectiveness of any stormwater BMPs, conveyances, facilities, areas or structures unless the activity is part of an approved maintenance program, without the written approval of the Township.

B. No person shall place any structure, fill, landscaping, additional vegetation, yard waste, brush cuttings, or other waste or debris into a BMP or conveyance, or within a stormwater easement, that would limit or alter the functioning of the stormwater BMP or conveyance, without the written approval of the Township.

ARTICLE IX – ENFORCEMENT; VIOLATIONS AND PENALTIES

§270-51. Public nuisance.

A. Any regulated activity conducted in the violation of any provision of this chapter is hereby deemed a public nuisance.

B. Each day that a violation continues shall constitute a separate violation.

C. A separate violation will be found to exist for each section of this chapter found to have been violated.

D. To the extent that the Township does not enforce any provision of this chapter, such action or inaction shall not constitute a waiver by the Township of its rights of future enforcement hereunder.

§270-52. Right of entry.

A. Upon presentation of proper credentials, duly authorized officers or agents of the Township may enter at reasonable times upon any property within the Township to inspect the implementation, condition, or operation and maintenance of all erosion and sediment controls and permanent stormwater BMPs, conveyances, or other stormwater management facilities both during and after completion of a regulated activity, or for compliance with any requirement of this chapter.

B. Persons working on behalf of the Township shall have the right to temporarily locate on or in any BMP, conveyance or other stormwater management facility in the Township such devices as are necessary to conduct monitoring and/or sampling of the discharges from such BMP or conveyance, or other stormwater facilities.

C. Failure of the landowner or representative to grant access to the Township within 48 hours of notification, verbal or written, is a violation of this chapter.

§270-53. Enforcement.

A. The Township Engineer or other designee is hereby authorized and directed to enforce all of the provisions of this chapter. The Board may delegate enforcement duties, including the initial determination of chapter violation and service of notice, if notice is given, to such other officers or agents as the Township shall deem qualified for that purpose.

B. It shall be the responsibility of the landowner of the real property on which any regulated activity is proposed to occur, is occurring, or has occurred to comply with the applicable terms and conditions of this chapter.

C. All Township inspections for compliance with the approved SWM site plan shall be the responsibility of the Township or its designee.

D. During any stage of the work of any regulated activity, if the Township Engineer or other designee determines that the erosion and sediment control measures, permanent BMPs, conveyances or other stormwater facilities are not being installed or maintained in accordance with the approved SWM site plan, the Township may suspend or revoke any existing permits or other approvals or issue a stop- work order until the deficiencies are corrected or until a revised SWM site plan is submitted and approved, if and as determined to be necessary by the Township Engineer or other designee

E. In the event that the Township Engineer or other designee finds that a person has violated a

provision of this chapter, or fails to conform to the requirements of any permit or approval issued by the Township, or any O&M plan or O&M agreement approved by the Township, the Township may order compliance by written notice of the violation to the landowner.

F. Such notice may, without limitation, require the following remedies:

(1) Performance of monitoring, analyses, and reporting;

(2) Elimination of prohibited connections or discharges;

(3) Cessation of any violating discharges, practices, or operations;

(4) Abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;

(5) Payment of a fine to cover administrative and remediation costs and/or forfeiture of financial security;

(6) Implementation of stormwater controls, BMPs, and conveyances; and

(7) Operation, maintenance or repair of BMPs, conveyances or other stormwater facilities.

G. Such notice shall set forth the nature of the violation(s), citing to specific sections of this chapter which have not been met, and establish a time limit for commencement of correction and completion of correction of the violation(s). The notice shall provide for a right of the landowner's appeal to the Board in accordance with §270-56 of this chapter. Said notice shall further advise that, if applicable, should the violator fail to take the required action within the established deadline, possible sanctions, clearly described, may be imposed, or the work may be done by the Township or designee, and the expense thereof shall be charged to the violator.

H. Failure to comply within the time specified in such notice shall also subject such person to the penalty provisions of this chapter. All such penalties shall be deemed cumulative and shall not prevent the Township from pursuing any and all other remedies available in law or equity.

§270-54. Suspension and revocation of permits and approvals.

A. Any building, land development, stormwater management or other permit or approval issued by the Township may be suspended or revoked by the Township for;

(1) Noncompliance with or failure to implement any provision of the permit or approved SWM site plan or O&M agreement;

(2) A violation of any provision of this chapter or any other law or regulation applicable

to the regulated activity;

(3) The creation of any condition or the commission of any act during the regulated activity that constitutes or creates a hazard or nuisance, or endangers the life, health, safety, or property of others; or

(4) Failure to correct a violation within the allowed time period allowed per notice given by the Township.

B. Prior to revocation or suspension of a permit, unless there is immediate danger or threat of such danger to life, public health or property, at the request of the applicant, the Township's Board shall schedule a hearing on the violation and proposed revocation or suspension, pursuant to public notice. The expense of a hearing shall be the applicant's responsibility.

C. A suspended permit or approval may be reinstated by the Township when:

(1) The Township Engineer or other designee has inspected and approved the corrections to the BMPs, conveyances or other stormwater management facilities, or the elimination of the hazard or nuisance; and

(2) The Township is satisfied that the violation has been corrected.

D. A permit or approval that has been revoked by the Township cannot be reinstated. The applicant may apply for a new permit or approval in accordance with this chapter.

§270-55. Violations and penalties.

A. Any person violating or permitting the violation of the provisions of this chapter shall be subject to a fine of not more than $1,000 for each violation, recoverable with costs. The establishment of a violation for purposes of setting fines or penalties for such violation shall be in accordance with a citation to a magisterial district judge with jurisdiction and venue over the location of the violation and such an action will be subject to the procedures provided for the enforcement of summary offenses under the Pennsylvania Rules of Criminal Procedure. A separate offense shall arise for each day or portion thereof a violation is found to exist and may be determined for each section of this chapter which is found to have been violated.

B. In addition, the Township may, through its Solicitor, institute injunctive, mandamus, or any other appropriate action or proceeding at law or in equity for the enforcement of this chapter. Any court of competent jurisdiction shall have the right to issue restraining orders, temporary or permanent injunctions, mandamus, or other legal or equitable forms of remedy or relief. Such relief may include costs, fees, and charges, including the Township's attorney's fees (charged at the hourly rate approved by the Board of the Township) and costs, as may be permitted by law.

C. Notwithstanding any other provision of this chapter, the Township shall have the right at

any or all times deemed necessary by the Township Engineer or designee to enter upon any property within the Township to inspect and, upon determination of a violation of this chapter, to correct the violation, with all expenses associated with correcting the violation to be charged to the property owner responsible for the violation.

§270-56. Appeals.

A. Any person aggrieved by any action of the Township Engineer or other designee relative to the provisions of this chapter may appeal to the Board within 30 days of that action.

B. Any person aggrieved by any decision of the Board relative to the provisions of this chapter may appeal to the Chester County Court of Common Pleas within 30 days of the date of the Board's written decision.

Section 2. The provisions of this Ordinance are severable, and if any section, sentence, clause, part, or provision thereof shall be held illegal, invalid, or unconstitutional by any court of competent jurisdiction, such decision of the court shall not affect or impair the remaining sections, sentences, clauses, parts, or provisions of this Ordinance.

Section 3. This Ordinance shall take effect and be in force five (5) days from the date of enactment.

ENACTED AND ORDAINED this 26th day of April, 2023.

BOARD OF SUPERVISORS

WEST WHITELAND TOWNSHIP

Brian Dunn, Chair

Rajesh Kumbhardare, Vice Chair

Theresa Santalucia, Supervisor
Member

ATTEST:

Pamela Gural-Bear, Township Manager