TOWNSHIP OF PERKIOMEN
MONTGOMERY COUNTY, PENNSYLVANIA

ORDINANCE NO: 239

AN ORDINANCE OF THE TOWNSHIP OF PERKIOMEN, MONTGOMERY COUNTY, PENNSYLVANIA REPEALING ORDINANCE NO. 189 KNOWN AS THE PERKIOMEN TOWNSHIP STORMWATER MANAGEMENT ORDINANCE OF 2005, AND, REPLACING SAME WITH THIS ORDINANCE 239 TO BE KNOW AS THE PERKIOMEN TOWNSHIP STORMWATER MANAGEMENT ORDINANCE OF 2022.

NOW THEREFORE, it is hereby ORDAINED by the Board of Supervisors of the Township of Perkiomen, Montgomery County, Commonwealth of Pennsylvania, and is hereby ENACTED as follows:

PERKIOMEN TOWNSHIP STORMWATER ORDINANCE OF 2022

CHAPTER §247

Adopted at public Meeting Held on

July 5, 2022

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ARTICLE I – GENERAL PROVISIONS

§ 247-101. Short Title.

This chapter shall be known and cited as "The Perkiomen Township Stormwater Management Ordinance of 2022."

§ 247-102. Statement of Findings.

The governing body of Perkiomen Township finds that:

A. Inadequate management of accelerated runoff of stormwater resulting from development throughout a watershed increases runoff volumes, flows and velocities, contributes to erosion and sedimentation, overtaxes the carrying capacity of streams and storm sewers, greatly increases the cost of public facilities to carry and control stormwater, undermines flood plain management and flood control efforts in downstream communities, reduces groundwater recharge, threatens public health and safety, and increases nonpoint source pollution of water resources.

B. A comprehensive program of stormwater management, including reasonable regulation of development and activities causing accelerated runoff, is fundamental to the public health, safety, and welfare and the protection of people of the Commonwealth, their resources, and the environment.

C. Stormwater is an important water resource that provides groundwater recharge for water supplies and supports the base flow of streams.

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

E. Federal and state regulations require certain municipalities to implement a program of stormwater controls. These municipalities are required to obtain a permit for stormwater discharges from their separate storm sewer systems under the National Pollutant Discharge Elimination System (NPDES) program.

F. Through project design, impacts from stormwater runoff can be minimized to maintain the natural hydrologic regime and sustain high water quality, groundwater recharge, stream baseflow and aquatic ecosystems. The most cost-effective and environmentally advantageous way to manage stormwater runoff is through nonstructural project design, minimizing impervious surfaces and sprawl, avoiding sensitive areas (i.e., stream buffers, floodplains, steep slopes), and designing to topography and soils to maintain the natural hydrologic regime.

§ 247-103. Purpose.

The purpose of this Ordinance is to promote health, safety, and welfare within Perkiomen Township and its watershed by minimizing the harms and maximizing the benefits described in §247-102 of this Ordinance, through provisions designed to:

A. Meet legal water quality requirements under state law, including regulations at 25 Pa. Code 93 to protect, maintain, reclaim, and restore the existing and designated uses of the waters of this Commonwealth.

B. Preserve natural drainage systems.

C. Manage stormwater runoff close to the source, reduce runoff volumes and mimic predevelopment hydrology.

D. Provide procedures and performance standards for stormwater planning and management.

E. Maintain groundwater recharge to prevent degradation of surface and groundwater quality and to otherwise protect water resources.

F. Prevent scour and erosion of stream banks and streambeds.

G. Provide proper operation and maintenance of all stormwater best management practices (BMPs) that are implemented within Perkiomen Township.

H. Provide standards to meet National Pollutant Discharge Elimination System (NPDES).

§ 247-104. Statutory Authority.

Perkiomen Township is empowered to regulate land use activities that affect runoff by the Act of July 31, 1968, P.L. 805, No. 247, The Pennsylvania Municipalities Planning Code, as amended, and/or the Act of October 4, 1978, P.L. 864 (Act 167), 32 P.S. Section 680.1, et seq., as amended, The Stormwater Management Act; the Pennsylvania Municipalities Planning Code, Act of July 31, 1968 (Act 247), as reenacted and amended; and Article XXVII of the Second Class Township Code, Act of November 9, 1995 (Act. 60), as amended.

§ 247-105. Applicability.

All regulated activities and all activities that may affect stormwater runoff, including land development and earth disturbance activity, are subject to regulation by this Ordinance.

Phased and incremental project requirements: May 3, 2005 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.

§ 247-106. Repealer.

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

§ 247-107. Severability.

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

§ 247-108. Compatibility with Other Requirements.

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

§ 247-109. Erroneous Permit.

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

§ 247-110. Waivers.

A. If Perkiomen Township determines that any requirement under this Ordinance cannot be achieved for a particular regulated activity, the Township may, after an evaluation of alternatives, approve measures other than those in this Ordinance, subject to §247-110, paragraphs B and C.

B. Waivers or modifications of the requirements of this Ordinance may be approved by Perkiomen Township if enforcement will exact undue hardship because of peculiar conditions pertaining to the land in question, provided that the modifications will not be contrary to the public interest and that the purpose of the Ordinance is preserved. Cost or financial burden shall not be considered a hardship. Modification may be considered if an alternative standard or approach will provide equal or better achievement of the purpose of the Ordinance. A request for modifications shall be in writing and accompany the Stormwater Management Site Plan submission. The request shall provide the facts on which the request is based, the provision(s) of the Ordinance involved and the proposed modification.

C. No waiver or modification of any regulated stormwater activity involving earth disturbance greater than or equal to one acre may be granted by Perkiomen Township unless that action is approved in advance by the Department of Environmental Protection (DEP) or the delegated county conservation district.

ARTICLE II – TERMINOLOGY

§ 247-201. Definitions.

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, firm, association, organization, partnership, trust, company, corporation or any other similar entity.

D. The words "shall" and "must" refers to items which are mandatory; the words "may" and "should" refer to items which are permissive.

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

The definitions in §247-201 do not necessarily reflect the definitions contained in pertinent regulations or statutes, and are intended for this Ordinance only.

AASHTO — American Association of State Highway and Transportation Officials.

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

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

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

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

AS-BUILT DRAWINGS — Drawings maintained by the contractor as he constructs the project and upon which he documents the actual locations of the building components and changes to the original contract documents. These, or a copy of the same, are turned over to the Township and Township Engineer at the completion of the project. As-built drawings are not considered complete until reviewed and approved by the Township, or their designee.

ATTENUATE — To reduce the magnitude of the flow rate by increasing the time it takes to release a specified volume of runoff (for example the one-year, twenty-four-hour storm event). Attenuation is a method of reducing the peak flow rates for post development compared to the peak flow rates in predevelopment.

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

BASEFLOW — The portion of stream flow that is sustained by groundwater discharge.

BERM — Well-compacted earth filled ridge.

BIORETENTION — A stormwater retention area which utilizes woody and herbaceous plants and soils to remove pollutants before infiltration occurs.

BMP (BEST MANAGEMENT PRACTICE) — Activities, facilities, designs, measures, or procedures used to manage stormwater impacts from regulated activities, to meet state water quality requirements, to promote groundwater recharge, and to otherwise meet the purposes of this Ordinance. Stormwater BMPs are commonly grouped into one of two broad categories or measures: "structural" or "non-structural." In this Ordinance, non-structural BMPs or measures refer to operational and/or behavior-related practices that attempt to minimize the contact of pollutants with stormwater runoff, whereas structural BMPs or measures are those that consist of a physical device or practice that is installed to capture and treat stormwater runoff. Structural BMPs include, but are not limited to, a wide variety of practices and devices, from large-scale retention ponds and constructed wetlands, to small-scale underground treatment systems, infiltration facilities, filter strips, low impact design, bioretention, wet ponds, permeable paving, grassed swales, riparian or forested buffers, sand filters, detention basins, and manufactured devices. Structural stormwater BMPs are permanent appurtenances to the project site.

BMP Manual — PA Stormwater Best Management Practices Manual (No. 363-0300-002), prepared by the Department of Environmental protection, dated December 30, 2006, as amended and updated.

CHANNEL EROSION — The widening, deepening and headward cutting of small channels and waterways due to erosion caused by moderate to large floods.

CISTERN — An underground reservoir or tank for storing rainwater.

CODE ENFORCEMENT OFFICER — A Township Staff member appointed by the Perkiomen Township Board of Supervisors to be certified under Township codes and ordinances to engage in the practice of code enforcement. The Code Enforcement Officer shall enforce and administer all of the provisions of this Part and of those other applicable codes and ordinances of the Township. The duties of the Code Enforcement Officer shall include, but not be limited to, the undertaking of such investigations and other activities as may be required to determine compliance with the applicable codes and ordinances of the Township, to issue all necessary notices to abate illegal or unsafe conditions to insure compliance with the Township's Code of Ordinances for the safety, health and general welfare of the public and to make inspections and determine compliance with the applicable codes and ordinances of the Township. The Code Enforcement Officer shall be authorized to initiate, on behalf of the Township, appropriate legal actions against persons or other legal entities for violations of the Township's Code of

Ordinances.

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

CONSERVATION EASEMENT — An easement required at the discretion of Perkiomen Township to preserve and conserve natural areas typically associated with Riparian Buffers, Streams, Wetlands, Surface Waters, and stormwater management BMPs.

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

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

DEP — The Pennsylvania Department of Environmental Protection.

DESIGNEE — The agent of the Montgomery County Planning Commission and/or agent of the governing body involved with the administration, review or enforcement of any provisions of this chapter.

DESIGN PROFESSIONAL (QUALIFIED) — A Pennsylvania registered Professional Engineer (PE), Registered Landscape Architect (RLA), Professional Geologist (PG) or a Professional Land Surveyor (PLS).

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 structure designed to manage stormwater runoff by temporarily storing the runoff and releasing it slowly at a predetermined rate.

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

DEVELOPER — See “Applicant”.

DIFFUSED DRAINAGE DISCHARGE — Drainage discharge not confined to a single point location or channel, such as sheet flow or shallow concentrated flow.

DISCHARGE —

A. (verb) To release water from a project, site, aquifer, drainage basin, or other point of interest;

B. (noun) The rate and volume of flow of water such as in a stream, generally expressed in cubic feet per second (volume per unit of time).

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

DEVELOPMENT SITE — See Project Site.

DOWNSLOPE PROPERTY LINE(S) — That portion of the property line(s) of the lot, tract or parcels of land being developed, located such that all overland or pipe flow from the site would be directed towards it.

DRAINAGE CONVEYANCE FACILITY — A stormwater management facility designed to transmit stormwater runoff and shall include streams, channels, swales, pipes, conduits, culverts, storm sewers, etc.

DRAINAGE EASEMENT — A right granted by a landowner to a grantee, allowing the use of private land for stormwater management purposes.

DRAINAGE PERMIT — See "Stormwater Management Permit".

DRAINAGE PLAN — See "stormwater management site plan".

EARTH DISTURBANCE ACTIVITY — A construction or other human activity which disturbs the surface of land, including, but not limited to, clearing and grubbing, grading, excavations, embankments, land development, agricultural plowing or tilling, timber harvesting activities, road maintenance activities, mineral extraction, and the moving, depositing, stockpiling, or storing of soil, rock or earth materials.

EMERGENCY SPILLWAY — A conveyance area that is used to pass peak discharge greater than the maximum design storm controlled by the stormwater facility.

ENCROACHMENT — A structure or activity that changes, expands or diminishes the course, current or cross section of a watercourse, floodway or body of water.

ENERGY DISSIPATER — A concrete, stone, or other similar structure designed to reduce the velocity and force of a concentrated flow of water.

EPA — Environmental Protection Agency.

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

EROSION AND SEDIMENT POLLUTION CONTROL PLAN (E&S Plan) — A plan that is designed to minimize accelerated erosion and sedimentation. Said plan must be submitted to and approved by the Montgomery County Conservation District before construction can proceed, if the disturbance area exceeds one acre or more in totality.

EXCEPTIONAL VALUE WATERS — Surface waters of high quality which satisfy Pennsylvania Code Title 25, Environmental Protection, Chapter 93, Water Quality Standards, §93.4b(b) (relating to antidegradation).

EXISTING CONDITIONS — The initial condition of a project site prior to a proposed regulated activity.

FEMA — Federal Emergency Management Agency.

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

FLOODPLAIN — Any land area susceptible to inundation by water from any natural source or delineated as a special flood hazard area on the applicable National Flood Insurance Program Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency (FEMA). Also included are areas that comprise Group 13 soils, as listed in Appendix A of the Pennsylvania Department of Environmental Protection (DEP) Technical Manual for Sewage Enforcement Officers (as amended or replaced from time to time by DEP).

FLOODWAY — The channel of the watercourse and those portions of the adjoining floodplains that are reasonably required to carry and discharge the one-hundred-year frequency 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 one-hundred-year frequency floodway, it is assumed – absent evidence to the contrary – that the floodway extends from the stream to 50-feet from the top of the bank of the stream.

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

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

GOVERNING BODY — Board of Supervisors of Perkiomen Township, Montgomery County, Pennsylvania.

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

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

GRASSED WATERWAY — A natural or constructed waterway, usually broad and shallow, covered with erosion-resistant grasses, used to convey surface water.

GROUNDWATER RECHARGE — Replenishment of existing natural underground water supplies.

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

HOT SPOT — Area where land use or activity generates highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater, including but not limited to: vehicle salvage yards and recycling facilities; vehicle fueling stations; vehicle service and maintenance facilities; vehicle and equipment cleaning facilities; fleet storage areas (bus, truck, etc.); industrial sites based on standard industrial codes; marinas (service and maintenance); outdoor liquid container storage; outdoor loading/unloading facilities; public works storage areas; facilities that generate or store hazardous materials; commercial container nurseries; and other land uses and activities as designated by an appropriate review authority.

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

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

HYDROGRAPH — A graphical representation of average rainfall, rainfall excess rates or volumes over specified areas during successive units of time during a storm.

IMPERVIOUS SURFACE (IMPERVIOUS AREA) — A surface that has been compacted or covered with material to the extent that it is resistant to infiltration by water, including, but not limited to, conventional impervious surfaces such as paved streets, roofs, indoor living space, patios, decks, garages, sheds and similar structures, compacted stone, sidewalks and compacted earth or turf. In addition, the following shall be considered impervious surfaces when used by motor vehicles: graveled areas, bricks, and cobblestone. Excludes water surfaces associated with pools.

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

INFILL — Development that occurs on smaller parcels that remain undeveloped but are within or in very close proximity to urban areas. The development relies on existing infrastructure and does not require an extension of water, sewer or other public utilities.

INFILTRATION — The passing of stormwater through the soil from the surface.

INFILTRATION FACILITY — A permanent stormwater management facility designed to direct runoff into the ground.

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

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

KARST — A type of topography or landscape characterized by surface depressions, sinkholes, rock pinnacles/uneven bedrock surface, underground drainage, and caves. Karst is formed on carbonate rocks, such as limestone or dolomite.

LAND DEVELOPMENT —

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 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 Section 503(1.1) of the Pennsylvania Municipalities Planning Code Act of 1968 (Act 247).

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

LAND/EARTH DISTURBANCE — Any activity involving grading, tilling, digging or filling of ground or stripping of vegetation or any other activity that causes an alteration to the natural condition of the land.

LEVEL SPREADER — A stormwater management facility perpendicular to the direction of slope and extending across the width of the slope for the purpose of intercepting surface runoff and spreading it behind the stormwater management facility to enhance infiltration and reduce erosion and runoff from the slope. The purpose of a level spreader is to prevent concentrated erosive flows from occurring and to spread out stormwater runoff uniformly over the ground as sheet flow.

LIMITING ZONE — A soil horizon or condition in the soil profile or underlying strata which 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 soil mottling.

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 which is so slowly permeable that it effectively limits downward passage of effluent.

D. The presence of Karst geologic features which may limit the feasibility of infiltration due to risk of sinkhole activity.

LOADING — The total amount (generally measured in pounds or kilograms per acre per year) of material (sediment, nutrients, oxygen-demanding material, or other chemicals or compounds) brought into a lake, stream, or water body by inflowing streams, runoff, direct discharge through pipes, groundwater, the air (aerial or atmospheric deposition) and other sources over a specific period of time (often annually).

MAINTENANCE — The actions taken to restore or preserve the as-built functional design of any facility or system.

MANNING EQUATION (IN MANNING FORMULA) — A method for calculation of velocity of flow (e.g., feet per second) and flow rate (e.g., cubic feet per second) in open channels based upon channel shape, roughness, depth of flow and slope. "Open channels" may include closed conduits so long as the flow is not under pressure.

MCCD — Montgomery County Conservation District.

MCHD — Montgomery County Health Department.

MS4 — Municipal separate storm sewer system.

MUNICIPALITY — Perkiomen Township, Montgomery County, Pennsylvania.

NATURAL HYDROLOGIC REGIME — See "hydrologic regime."

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

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

NRCS — Natural Resources Conservation Service (previously SCS) of the USDA.

OBSERVATION PORT — A device installed within stormwater BMP’s, which allows for the observation of infiltration below grade which is visible through a cleanout or port which is accessible from the ground surface.

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

OUTFALL — Point where water flows from a conduit, stream or drain.

OUTLET — Points of water disposal from a stream, river, lake, tidewater or artificial drain.

OWNER —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 he is authorized under the lease to exercise the rights of the landowner, or other person having a proprietary interest in land.

PA DOT or PennDOT — Pennsylvania Department of Transportation.

PARKING LOT STORAGE — Involves the use of impervious parking areas as temporary impoundments with controlled release rates during rainstorms.

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

PERENNIAL STREAMS — Streams that flows throughout the majority of the year in a defined channel. Perennial streams derive their flow from both groundwater and runoff, and the groundwater table never drops below the streambed.

PERVIOUS SURFACE (PERVIOUS AREA) — Any area not defined as impervious area.

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

PLANNING COMMISSION — The Planning Commission of Perkiomen Township.

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 §92a.2.

PREDEVELOPMENT — Undeveloped/natural condition.

PRETREATMENT — Techniques employed in stormwater BMPs to provide storage or filtering to help trap coarse materials and other pollutants before they enter the system.

PROJECT SITE — The specific area of land where any regulated activities in Perkiomen Township are planned, conducted, or maintained.

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

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

RATIONAL FORMULA or RATIONAL METHOD —A method for computing quantities of stormwater runoff. The rational formula relates runoff to rainfall by the following equation: Q = c * i * a Where; Q = Peak runoff in cubic feet per second; c = Runoff coefficient which is actually the ratio of the peak runoff rate to the average rainfall rate for a period known as the time of concentration; i = Average rainfall intensity in inches per hour for a period equal to the time of concentration; and a = Drainage area in acres.

RECHARGE AREA — Undisturbed surface area or depression where stormwater collects and a portion of which infiltrates and replenishes the underground and groundwater.

RECONSTRUCTION — The process by which existing developed area is adaptively reused, rehabilitated, restored, renovated and/or expanded. The development relies on existing infrastructure and does not require an extension of water, sewer or other public utilities.

RECORD DRAWINGS — See “As-Built Drawings”.

REGULATED EARTH DISTURBANCE ACTIVITY — Activity involving earth disturbance subject to regulation under 25 Pa. Code 92, 25 Pa. Code 102, or the Clean Streams Law.

A. Including, but not limited to, the following:

(1) Any earth disturbance activity associated with land development and/or redevelopment.

(2) Any earth disturbance activity associated with any subdivision.

(3) Construction of new or additional impervious or semipervious surfaces (driveways, parking lots, patios, tennis courts, etc.) which are not exempt per §247-302.

(4) Construction of new buildings or additions to existing buildings.

(5) Diversion or piping of any natural or man-made stream channel.

(6) Installation of BMPs and/or stormwater management facilities or appurtenances thereto.

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

RETENTION BASIN — An impoundment in which stormwater is stored and not released during the storm event. Stored water may be released from the basin at some time after the end of the storm.

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

RETURN PERIOD — The average interval, in years, within which a storm event of a given magnitude can be expected to recur. For example, the twenty-five-year return period rainfall would be expected to recur on the average of once every 25 years.

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

RIPARIAN BUFFER —A permanent area of land adjoining and immediately up gradient from rivers, streams, lakes, ponds, and wetlands that is vegetated with a combination of trees, shrubs, and herbaceous plants. A riparian buffer functions to maintain the integrity of stream channels to reduce the impact of upland sources of pollution by trapping, filtering and converting sediments, nutrients, and other chemicals, and supply food, cover and thermal protection to fish and other wildlife.

ROOFTOP DETENTION — Temporary ponding and gradual release of stormwater falling directly onto flat roof surfaces by incorporating controlled-flow roof drains into building designs.

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

SALDO — Chapter 264, Subdivision and Land Development, of the Code of the Township of Perkiomen.

SEDIMENT — Soils or other materials transported by surface water as a product of erosion.

SEDIMENT BASIN — A barrier, dam or retention or detention basin located and designed to retain rock, sand, gravel, silt or other material transported by water.

SEDIMENT POLLUTION — The placement, discharge or any other introduction of sediment into the waters of the commonwealth occurring from the failure to design, construct, implement or maintain control measures and control facilities in accordance with the requirements of the DEP Erosion and Sediment Pollution Control Program Manual.

SEDIMENTATION — The process by which mineral or organic matter is accumulated or deposited by the movement of water.

SEEPAGE PIT/SEEPAGE TRENCH — An area of excavated earth filled with loose stone or similar coarse material into which surface water is directed for infiltration into the ground.

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

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

SOURCE WATER PROTECTION AREA (SWPA) — The zone through which contaminants are likely to migrate and reach a drinking water well or surface water intake.

SPECIAL PROTECTION SUBWATERSHEDS — Watersheds for which the receiving waters are exceptional value (EV) or high quality (HQ) waters.

SPILLWAY — A conveyance that is used to pass the peak discharge of the maximum design storm controlled by the stormwater facility.

STATE WATER QUALITY REQUIREMENTS – The regulatory requirements to protect, maintain, reclaim, and restore water quality under Title 25 of the Pennsylvania Code and the Clean Streams Law.

STORAGE INDICATION METHOD — A reservoir-routing procedure based on solution of the continuity equation (inflow minus outflow equals the change in storage), with outflow defined as a function of storage volume and depth.

STORM FREQUENCY — The number of times that a given storm "event" occurs or is exceeded on the average in a stated period of years. See "return period."

STORM SEWER — A system of pipes and/or open channels that conveys intercepted runoff and stormwater from other sources, but excludes domestic sewage and industrial wastes.

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

STORMWATER MANAGEMENT FACILITY — Any structure, natural or man-made, that, due to its condition, design or construction, conveys, stores or otherwise affects stormwater runoff. Typical stormwater management facilities include, but are not limited to, detention and retention basins, open channels, storm sewers, pipes, inlets and infiltration facilities.

STORMWATER MANAGEMENT PERMIT — A permit issued by the Township Code Enforcement Officer after the Stormwater Management Site Plan has been approved. Said permit is issued prior to or with the final municipal approval.

STORMWATER MANAGEMENT SITE PLAN — The plan prepared by the developer or his representative indicating how stormwater runoff will be managed at the development site in accordance with this Ordinance, contents of which are established herein. See Drainage Plan.

STREAM — A body of water that flows in a defined and naturally occurring channel.

SUBAREA — The smallest drainage unit of a watershed for which stormwater management criteria have been established in the stormwater management plan.

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

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

TIMBER OPERATIONS — See "forest management."

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

TOWNSHIP — Perkiomen Township, Montgomery County, Pennsylvania.

TOWNSHIP ENGINEER (MUNICIPAL ENGINEER) — The Township's appointed engineering representative and/or consultant who maintains a Professional Engineering (PE) license in Pennsylvania.

TOWNSHIP MANAGER — The appointed or acting Perkiomen Township Manager by the Board of Supervisors.

TR-55 — A method for determining runoff volumes and rates developed by NRCS. USDA — United States Department of Agriculture.

USDA — United States Department of Agriculture.

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

WATERCOURSE — A river, brook, creek or a channel or ditch for water, whether natural or man-made, with perennial flow.

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

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

WELLHEAD — The point at which a groundwater well bore hole meets the surface of the ground.

WELLHEAD PROTECTION AREA — The surface and subsurface area surrounding a water supply well, well field, spring or infiltration gallery supplying a public water system, through which contaminants are reasonably likely to move towards and reach the water source.

WETLAND — Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas. Development in wetlands is regulated by the U.S. Army Corps of Engineers and the Pennsylvania Department of Environmental Protection. Identification of wetlands should be based upon the Federal Manual for Identifying and Delineating Wetlands, an interagency publication of the United States Army Corps of Engineers, US EPA, United States Fish and Wildlife Service, and USDA Soil Conservation Service, dated January 1989, as amended.

WOODLANDS — Areas, groves or stands of mature or largely mature trees (i.e., greater than six inches in caliper) covering an area greater than 1/4 acre or groves of mature trees (greater than 12 inches in caliper) consisting of more than 10 individuals.

ARTICLE III – REQUIREMENTS AND STANDARDS

§ 247-301. General Requirements.

A. For all regulated activities, unless preparation of a Stormwater Management Site Plan is specifically exempted in §247-302:

(1) Preparation and implementation of an approved Stormwater Management Site Plan is required.

(2) No regulated activities shall commence until Perkiomen Township issues written approval of a Stormwater Management Site Plan, which demonstrates compliance with the requirements of this Ordinance. Written approvals may come from the Township Code Enforcement Officer, and the Township Engineer if requested by the Code Enforcement Officer due to the complexity of the proposed improvements.

B. Stormwater Management Site Plans approved by Perkiomen Township shall be on site throughout the duration of the regulated activity.

C. Perkiomen Township may approve measures for meeting the state water quality requirements other than those in this Ordinance, provided that they meet the minimum requirements of, and do not conflict with, state law including, but not limited to, the Clean Streams Law.

D. For all regulated earth disturbance activities, erosion and sediment control BMPs shall be designed, implemented, operated, and maintained during the regulated earth disturbance activities (e.g., during construction) to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code and the Clean Streams Law. Various BMPs and their design standards are listed in the Erosion and Sediment Pollution Control Program Manual (E&S Manual), No. 363-2134-008, as amended and updated.

E. Impervious areas:

(1) The measurement of impervious areas shall include all of the impervious areas in the total proposed development even if development is to take place in stages.

(2) For development taking place in stages, the entire development plan must be used in determining conformance with this Ordinance.

(3) For projects not exempt under §247-302 that add impervious area to a parcel, the total impervious area on the parcel is subject to the requirements of this Ordinance; except that the volume controls in §247-303 and the peak rate controls of §247-304 do not need to be retrofitted to existing impervious areas that are not being altered by the proposed regulated activity.

F. The flow of stormwater onto adjacent property shall not be created, increased, or otherwise altered without providing written approval from the affected adjacent property owner to the Township, unless the activity meets the exemption criteria set forth in §247-302.

G. If flow is proposed to be concentrated and discharged onto adjacent property, the applicant must document to the Township in accordance with §247-301.F 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.

H. All regulated activities shall include such measures as necessary to:

(1) Protect health, safety, and property.

(2) Meet the water quality goals of this Ordinance by implementing measures to:

(a) Minimize disturbance to floodplains, wetlands, and wooded areas.

(b) Maintain or extend riparian buffers.

(c) Avoid erosive flow conditions in natural flow pathways.

(d) Minimize thermal impacts to waters of this Commonwealth.

(e) Disconnect impervious surfaces by directing runoff to pervious areas, wherever possible.

(3) Incorporate methods described in the Pennsylvania Stormwater Best Management Practices Manual (BMP Manual).

I. The design of all facilities over karst geology shall include an evaluation of measures to minimize adverse effects by a Qualified Professional.

J. Infiltration BMPs should be spread out, made as shallow as practicable, and located to maximize use of natural on-site infiltration features while still meeting the other requirements of this Ordinance.

K. Normally dry, open top, storage facilities should completely drain both the volume control and rate control capacities over a period of time not less than 24 and not more than 72 hours from the end of the design storm, unless otherwise approved.

L. The design storm volumes to be used in the analysis of peak rates of discharge should be obtained from the latest version of the Precipitation-Frequency Atlas of the United States, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Spring, Maryland.

NOAA's Atlas 14 can be accessed at: https://hdsc.nws.noaa.gov/hdsc/pfds/ .

M. For all regulated activities, Stormwater BMPs shall be designed, implemented, operated, and maintained to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code, the Clean Streams Law, and the Storm Water Management Act.

N. Various BMPs and their design standards are listed in the PA BMP Manual and within this ordinance. If the BMP manual and this ordinance have conflicting requirements, the more restrictive requirements shall apply.

O. Areas of existing diffused drainage discharge shall be subject to any 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 that adequate downstream conveyance facilities exist to safely transport the concentrated discharge or otherwise prove that no erosion, sedimentation, flooding or other harm will result from the concentrated discharge.

P. Whenever a watercourse is located within a development site, it shall remain open in its natural state and location and should not be piped, impeded or altered (except for road and driveway crossings). It is the responsibility of the developer to stabilize existing eroded stream/channel banks.

Q. Any stormwater management facilities regulated by this chapter that would be located on or discharge into state highway rights-of-way shall be subject to approval by the Pennsylvania Department of Transportation (PennDOT).

R. Where a development site is traversed by watercourses, conservation easements shall be provided. Conservation Easements shall be measured to be the greater of the limit of the 100 year floodplain, or a minimum of 50-feet from the top of the streambank (on each side), and a minimum of 25-ft surrounding a wetland, or as further required by the Riparian Corridor Conservation District (Article XXVI of Chapter 310, Zoning, as amended), where more strict requirements may apply. The terms of the easement shall prohibit excavation, the placing of fill or structures, and any alterations that may adversely affect the flow of stormwater within any portion of the easement.

Residential Accessory Structures, up to no more 225 square feet in size, are exempt from the limitations associated with a Conservation Easement, subject to the approval of the Code Enforcement Officer.

§ 247-302. Exemptions.

A. Requirements for Exempt Activities

(1) An exemption from any requirement of this Ordinance shall not relieve the Applicant from implementing all other applicable requirements of this Ordinance 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 municipal water quality protection requirements.

(3) An exemption under this Ordinance shall not relieve the Applicant from complying with all other applicable municipal ordinances or regulations.

B. General Exemptions

(1) Involve less than one thousand five hundred (1,500) square feet of new Proposed Impervious Surfaces AND less than five thousand (5,000) square feet of Earth Disturbance in the aggregate since May 3, 2005; or

(2) Are listed in §247-302.C, are exempt from those (and only those) requirements of this Ordinance that are included in the sections and articles listed in Table 302.1. Exemptions are for the items noted in Table 302.1 only, and shall not relieve the Landowner from other applicable requirements of this Ordinance. Exemption shall not relieve the Applicant from implementing such measures as are necessary to protect health, safety, and welfare, property, and water quality.

(3) Any regulated activity that meets the exception criteria in the following table is exempt from the Stormwater Management Site Plan submission requirement of this chapter (Article IV). This criterion shall apply to the total development even if development is to take place in phases. May 3, 2005 shall be the starting point from which impervious area computations shall be cumulatively considered. Impervious areas existing on the subject tract prior to May 3, 2005 shall not be considered in cumulative impervious area calculations for exemption purposes. An exemption shall not relieve the applicant from implementing such measures as are necessary to protect health, safety and property. This exemption shall not relieve the applicant from meeting the special requirements for watersheds drainage to high quality (HQ) or exceptional value (EV) waters (§247-302-A.2).

TABLE 302.1
Thresholds for Regulated Activities that are Exempt from the Provisions of this Ordinance as Listed Below (see Notes below)

Ordinance Article/Section	**Activities Listed in §247-302.D.**	**< 1,500 sq. ft. of Proposed Impervious Surfaces AND < 5,000 sq. ft. of Proposed Earth Disturbance**	**1,500 sq. ft. to 3,000 sq. ft. of Proposed Impervious Surfaces AND < 10,000 sq. ft. of Proposed Earth Disturbance**	**>3,000 sq. ft of Proposed Impervious Surfaces**
Article I	Not Exempt	Not Exempt	Not Exempt	Not Exempt
Article II	Not Exempt	Not Exempt	Not Exempt	Not Exempt
§247-301 and 307 through 309	Not Exempt	Not Exempt	Not Exempt	Not Exempt

§247-303 through 306	Exempt	Exempt	Exempt	Not Exempt
Article IV	Exempt	Exempt	Exempt	Not Exempt
Article V	Exempt	Not Exempt	Not Exempt	Not Exempt
Article VI	Exempt	Not Exempt	Not Exempt	Not Exempt
Article VII	Not Exempt	Not Exempt	Not Exempt	Not Exempt
Article VIII	Not Exempt	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.			

Table 302.1 Notes:

- Specific activities listed in §247-302.D are exempt from the indicated requirements, regardless of size.
- A proposed Regulated Activity must be less than BOTH the Proposed Impervious Surfaces and proposed Earth Disturbance thresholds to be eligible for exemption from the requirements listed in this table.
- "Proposed Impervious Surface" - as defined in this Ordinance.
- "Exempt" – Regulated Activities are exempt from the requirements of listed section(s) only; all other provisions of this Ordinance apply.
- "Modified Requirements" – Regulated Activities listed within the Subsections of this Ordinance noted in Table 302.1 are eligible for exemption only from the indicated sections and subsections of this Ordinance and only if the modified requirements of §247-302.D. are met to the satisfaction of the Township; all other provisions of this Ordinance apply.

C. Exemptions shall be at the discretion of Perkiomen Township upon review of site conditions, topography, soils and other factors as deemed appropriate by Code Enforcement Officer and Township Engineer based upon comprehensive municipal goals and strategies for local development. If a project meets the exemption criteria of this ordinance, it does not guarantee an exemption will be granted by the Township.

D. Exemptions for Specific Activities

The following specific Regulated Activities are exempt, as shown in Table 302.1, 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 Ordinance 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 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 Perkiomen Township within two (2) calendar days of the commencement of the activity. A detailed plan shall be submitted no later than thirty (30) days following commencement of the activity. If Perkiomen Township finds that the work is not an emergency, then the work shall cease immediately and the requirements of this Ordinance shall be addressed as applicable.

(2) Maintenance - Any maintenance to an existing stormwater management system, facility, BMP or Conveyance made in accordance with plans and specifications approved by the Township Engineer or 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.

(6) Forest Management - Forest management operations, which are consistent with a sound forest management plan as filed with 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 §247-301 of this Ordinance.

(7) Maintenance of Existing Paved Surfaces - Replacement of existing paved surfaces shall meet the erosion and sediment control requirements of 25 PA Code Chapter 102 and Article III of this Ordinance, and is exempt from all other requirements of this Ordinance listed in §247-302.D above. Resurfacing of existing paved surfaces is exempt from the requirements of this Ordinance listed above. Construction of new or additional Impervious Surfaces shall comply with all requirements of this Ordinance as indicated in Table 302.1.

(8) Municipal Roadway Shoulder Improvements - Shoulder improvements conducted within the existing roadway cross-section of municipal owned roadways, unless an NPDES permit is required, in which case the proposed work must comply with all requirements of this Ordinance.

(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 Surfaces - The replacement of existing residential patios, decks, driveways, pools, 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.

E. Modified Requirements for Small Projects

(1) Regulated Activities that involve 1,500 to 3,000 square feet of Proposed Impervious Surfaces and 10,000 or less 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 C) to comply with the requirements of Table 302.1. The applicant shall first contact the Township or their designee to confirm that the proposed project is eligible for use of the Simplified Approach and is not otherwise exempt from these Ordinance 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 C 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. All other provisions of this Ordinance shall apply.

(2) Projects that qualify for the "Simplified Approach" will be administered by and may be approved by the Township Code Enforcement Officer, and the Township Engineer if requested by the Code Enforcement Officer due to the complexity of the proposed improvements. The use of the "Simplified Approach" shall be at the discretion of Township Code Enforcement Officer upon review of site conditions, topography, soils and other factors as deemed appropriate based upon comprehensive municipal goals and strategies for local development. If a project meets the criteria of the "Simplified Approach" of this ordinance, it does not guarantee the "Simplified Approach" will be permitted to be used, unless granted by the Township Code Enforcement Officer.

(3) The Board of Supervisors hereby authorizes the Chairperson to execute all agreements, contracts and covenants associated with the small projects set forth in §247-302.E.1, provided same have been reviewed by and approved by the Township Code Enforcement Officer, Township Manager, Township Engineer, and Township Solicitor.

§ 247-303. Volume Controls.

The green infrastructure and low impact development practices provided in the BMP Manual shall be utilized for all regulated activities wherever possible. Water volume controls shall be implemented using the Design Storm Method in §247-303.A or the Simplified Method in §247-

303.B below. For regulated activity areas equal or less than one acre that do not require hydrologic routing to design the stormwater facilities, this Ordinance establishes no preference for either methodology; therefore, the applicant may select either methodology on the basis of economic considerations, the intrinsic limitations on applicability of the analytical procedures associated with each methodology and other factors.

A. The Design Storm Method (CG-1 in the BMP Manual) is applicable to any size of regulated activity. This method requires detailed modeling based on site conditions.

    (1) Do not increase the post-development total runoff volume for all storms equal to or less than the 2-year 24-hour duration precipitation.

    (2) For modeling purposes:

        (a) Existing (predevelopment) non-forested pervious areas must be considered meadow in good condition.

        (b) 20% of existing impervious area, when present, shall be considered meadow in good condition in the model for existing conditions.

B. The Simplified Method (CG-2 in the BMP Manual) provided below is independent of site conditions and should be used if the Design Storm Method is not followed. This method is not applicable to regulated activities greater than one acre or for projects that require design of stormwater storage facilities. For new impervious surfaces:

    (1) Stormwater facilities shall capture at least the first two (2) inches of runoff from all new impervious surfaces.

    (2) At least the first one inch of runoff from new impervious surfaces shall be permanently removed from the runoff flow, i.e., it shall not be released into the surface waters of this Commonwealth. Removal options include reuse, evaporation, transpiration, and infiltration.

    (3) Wherever possible, infiltration facilities should be designed to accommodate infiltration of the entire permanently removed runoff; however, in all cases at least the first 0.5 inch of the permanently removed runoff should be infiltrated.

    (4) This method is exempt from the requirements of §247-304, Rate Controls. In addition to the performance standards and design criteria requirements of this chapter, the applicant shall comply with the following water quality requirements of this chapter:

§ 247-304. Rate Control.

A. Post-development discharge rates shall not exceed the pre-development discharge rates for the 1-, 2-, 5-, 10-, 25-, 50-, and 100-year, 24-hour storm events. If it is shown that the peak rates of discharge indicated by the post-development analysis are less than or equal to the peak rates of discharge indicated by the pre- development analysis for 1-, 2-, 5-,

10-, 25-, 50-, and 100-year, 24-hour storms, then the requirements of this section have been met. Otherwise, the applicant shall provide additional controls as necessary to satisfy the peak rate of discharge requirement.

§ 247-305. Groundwater Recharge.

A. Infiltration BMPs shall meet the following minimum requirements:

(1) Regulated activities will be required to recharge (infiltrate) a portion of the runoff created by the development as part of an overall stormwater management plan designed for the site. The volume of runoff to be recharged shall be determined from §247-305.A.1.b, depending upon demonstrated site conditions.

(a) Infiltration BMPs intended to receive runoff from developed areas 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 limiting zone.

[2] An infiltration and/or percolation rate sufficient to accept the additional stormwater load and drain completely, as determined by field tests conducted by the applicant's design professional.

[3] The recharge facility shall be capable of completely infiltrating the recharge volume within three days (72 hours).

[4] Pretreatment shall be provided prior to infiltration.

[5] The requirements for recharge are applied to all disturbed areas, even if they are ultimately to be an undeveloped land use such as grass, since studies have found that compaction of the soils during disturbance reduces their infiltrative capacity.

(b) The size of the infiltration facility shall be based upon the net Two-Year Volume Approach, where the recharge (infiltration) volume (Rev) to be captured and infiltrated shall be the volume difference between the predevelopment two-year, twenty-four-hour storm event and post-development two-year, twenty-four-hour storm event. The recharge volume calculated using this section is the minimum volume the applicant must control through an infiltration BMP facility.

(2) The recharge values derived from these methods are the minimum volumes the Applicant must control through an infiltration/recharge BMP facility. However, if a site has areas of soils where additional volume of infiltration can be achieved, the applicant is encouraged to recharge as much of the stormwater runoff from the site as possible.

B. The general process for designing the infiltration BMP shall be:

(1) A detailed soils evaluation of the project site shall be required to determine the suitability of recharge facilities. The evaluation shall be performed by a qualified applicant and, at a minimum, address soil permeability, depth to bedrock, and subgrade stability.

(a) Analyze hydrologic soil groups as well as natural and man-made features within the watershed to determine general areas of suitability for infiltration practices.

(b) Provide field tests, such as double-ring infiltration tests at the level of the proposed infiltration surface to determine the appropriate hydraulic conductivity rate.

(c) Design the infiltration facilities for the required storm volume based on field-determined capacity at the level of the proposed infiltration surface.

(d) Where the recharge volume requirement cannot be physically accomplished due to the results of the field soils testing, supporting documentation and justification shall be supplied to Perkiomen Township with the Stormwater Management Site Plan. Alternate methods to address volume control and water quality requirements may be approved by the Township Engineer, or by the PA DEP. Means and methods approved by the PA DEP, such as the "Managed Release Concept" can be utilized to meet volume control requirements.

(e) If on-lot infiltration facilities are proposed by the applicant's design professional, it must be demonstrated to Perkiomen Township that the soils are conducive to infiltrate on the lots identified.

(f) No infiltration should be proposed within 10-ft to a building, structure, or property line.

(g) Infiltration should not be proposed in locations of known hot spots.

(h) Infiltration should not be proposed in areas which contain karst material which may lead to an increased potential for sink-holes to occur. If BMPs are proposed in karst areas, they must contain a bottom impermeable liner, or other approved method to prevent infiltration. The liner shall be sandwiched between two layers of geotextile fabric to prevent puncture of the liner.

C. Perkiomen Township shall require the applicant to provide safeguards against groundwater contamination for uses which may cause groundwater contamination should there be a mishap or spill. Facilities which have a high potential for a contaminated spill shall incorporate a shut off valve within the storm water system such that the spill can be contained and remediated on site, rather than downstream.

§ 247-306. Calculation Methodology.

Stormwater runoff from all development sites shall be calculated using either the Rational Method or a soil-cover-complex methodology.

A. Any stormwater runoff calculations shall use generally accepted calculation technique that is based on the NRCS Soil-Cover-Complex Method. The table below in §247-306.I summarizes acceptable computation methods. It is assumed that all methods will be selected by the applicant based on the individual limitations and suitability of each method for a particular site. Perkiomen Township may allow the use of the Rational Method to estimate peak discharges from drainage areas that contain less than 20 acres.

B. All calculations consistent with this chapter using the Soil-Cover-Complex Method shall use the appropriate design rainfall depths for the various return period storms according to the latest version of the Precipitation-Frequency Atlas of the United States, National Oceanic and Atmospheric Administration (NOAA).

C. Runoff curve numbers (CN) for both existing and proposed conditions to be used in the Soil-Cover-Complex Method shall be obtained from Table B-1 in Appendix B of this chapter.

   For the purposes of modeling, existing conditions (pre-development) non-forested pervious areas must be considered meadow in good condition and 20% of existing impervious area, when present, shall be considered meadow in good condition in the model for existing conditions.

   For the purposes of modeling, proposed conditions (post-development) actual land cover conditions shall be applied, in accordance with the requirements in Appendix B.

D. All calculations using the Rational Method shall use rainfall intensities consistent with appropriate times of concentration for overland flow and return periods from the latest version of the Precipitation-Frequency Atlas of the United States, National Oceanic and Atmospheric Administration (NOAA). Times of concentration for overland flow shall be calculated using the methodology presented in Chapter 3 of Urban Hydrology for Small Watersheds, NRCS, TR-55 (as amended or replaced from time to time by NRCS). Times of concentration for channel and pipe flow shall be computed using Manning's equation.

E. The designer shall consider that the runoff from proposed sites graded to the subsoil will not have the same runoff conditions as the site under existing conditions even if topsoiled and seeded. The designer shall increase their proposed condition CN or "c" value to reflect proposed soil conditions by using CN or "c" value of one HSG lower than existing site soils.

F. Runoff coefficients (c) for both existing and proposed conditions for use in the Rational Method shall be obtained from Table B-2 in Appendix B of this chapter. For the purpose of estimating runoff, a 3:7 ascending/receding limb factor shall be applied.

G. Where uniform flow is anticipated, Manning's equation shall be used for hydraulic computations and to determine the capacity of open channels, pipes and storm sewers. Values for Manning's roughness coefficient (n) shall be consistent with Table B-3 in

Appendix B of this chapter.

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

I. Acceptable computation methodologies for the design and preparation of Stormwater Management Site Plans are indicated the following table:

Acceptable Computation Methodologies for Stormwater Management Plans		
Method	**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 within limitations described in TR-55.
HEC-1, HEC-HMS	U.S. Army Corps of Engineers	Applicable where use of full hydrologic computer model is desirable or necessary.
PSRM	Penn State University	Applicable where use of a hydrologic computer model is desirable or necessary; simpler than TR-20 or HEC-1.
Rational Method (or commercial computer package based on Rational Method)*	Emil Kuichling (1889)	For sites less than 20 acres, or as approved by Perkiomen Township and/or Perkiomen Township Engineer.
Other methods	Varies	Other computation methodologies approved by Perkiomen Township and/or Perkiomen Township Engineer.

* Use of the Rational Method to estimate peak discharges from drainage areas that contain more than 20 acres must be approved by the Perkiomen Township Engineer. The Rational Method shall not be used to satisfy the requirements of Article III without the consent of the Perkiomen Township Engineer.

§ 247-307. Design of Basins, Storm Sewers, Culverts, Bridges and Other Structural Installations.

A. Standards for conventional basins shall meet requirements listed in 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 sedimentation control narrative and on the E&S Plan. 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 where pipes or drainageways discharge from basins. Multiple-outlet structures and multiple-outlet piping from the basin may be required by Perkiomen 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 except with approval of Perkiomen Township, and:

[1] Where maximum water depth will not exceed three feet; or

[2] When a two-inch rainfall in one hour will not exceed the capacity of the basin in one hour; or

[3] Where concrete, stone or brick walls are used with side slopes proposed to be steeper than one foot vertical in three feet horizontal, in which case the basin shall be fenced by a permanent fence 42 inches in height and a ramp of durable, nonslip materials for maintenance vehicles shall be provided for access into the basin.

(c) The maximum bottom slope shall be 3% for grass and 1% percent may be used for grass if an underdrain system is provided.

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

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

(b) Outlet pipes shall have a minimum diameter of 15 inches.

(c) Properly spaced anti-seep collars shall be installed on all basin outlet pipes. Design calculations shall be provided.

(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. Perkiomen 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 within basins which will control peak discharge flows and distribute the flows by pipes to discharge areas shall be constructed of reinforced vegetative or stone material and shall have childproof, nonclogging trash racks overall design openings, except those openings designed to carry perennial stream flows. Trash rack material should be epoxy-coated, galvanized or stainless steel or high density polyethylene. Other materials are subject to the approval of Perkiomen 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 indicating 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 existing grade. Emergency spillways shall be designed to safely convey 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.

(6) Basin inlet and outlet structures should be located at maximum distances from one another. Perkiomen Township may require a rock filter berm or rock-filled gabions between inlet and outlet areas when the distance is deemed insufficient for sediment trappings.

(7) Permanent grasses or stabilization measures shall be established on the sides of all earthen basins within five days of initial construction (or conversion from sediment basin or sediment trap). Perkiomen Township may require 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 riparian buffer area regulations of this chapter and Chapter 310, Zoning) 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) Perkiomen Township may require soil samples from the site to be analyzed to determine if these soils are suitable for berm embankment construction. If in the opinion of Perkiomen Township the soils are found to be unsuitable, the developer shall import suitable soils for constructing the basin.

(10) Where basin storage depths will exceed 2-ft of ponding stormwater, the Township at its discretion may require fencing around the basin.

B. 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 1.0 foot of freeboard. Swale linings shall be designed based on the ten-year velocity. Swales shall have sufficient freeboard to convey the one-hundred-year storm discharge without creating any safety or property hazard.

(2) Swales, when located outside of Perkiomen Township right-of-way, shall be located within an easement not less than 20 feet wide but of sufficient width to allow access for maintenance and to convey all storms up to and including the one-hundred-year storm. A note on the plan shall indicate that the easement allows Perkiomen Township the right, though not the responsibility, to perform needed maintenance and/or repairs and back charge the maintainer or lien the property of the maintainer.

C. Storm sewer design.

(1) Where storm sewer pipe and inlets are required, they shall be placed immediately in front of the curb or road edge within the right-of-way. Any storm sewer pipe which outlets on private residential property may only discharge to the side and rear yards and must be a minimum of 50 feet beyond habitable structures, unless other means and methods such as level spreaders are used. Any discharges in the front yard must be approved by the Township.

(2) Storm sewers shall have a minimum diameter of 15 inches and only reinforced cement concrete pipe or smooth-bore corrugated polyethylene pipe shall be used. The minimum grade of the pipe shall be one-half percent (0.5%). Corrugated metal pipe will not be permitted within Perkiomen Township no matter who has the maintenance responsibility.

(3) All storm sewer within the public right-of-way and/or beneath a paved surface shall be bedded and backfilled with PennDOT No. 2A stone. This backfill shall be placed at a minimum, unless Perkiomen Township approves an adjustment in the field, in six-inch lifts and solidly compacted to the satisfaction of Perkiomen Township.

(4) Watertight pipe connections are required and appropriate specifications shall be specified on the plans.

(5) Headwalls, end walls 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.

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

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

(8) Precast inlet tops and boxes shall meet the requirements of PennDOT Publication 408. PennDOT type "C" precast concrete inlet tops are to be provided with a five-inch by twenty-four-inch cast iron "Dump No Waste – Drains To Waterway" (with 1/2 inch raised lettering) plate with trout logo as manufactured by E. Jordan Iron Works, or approved equal. Bottom of tops (grates) are to be clearly marked with grade of iron (ASTM A48, Class 35B), product number and date of manufacture. All other PennDOT inlets are to be provided with either a painted stenciled logo on the roadway or another acceptable marking approved by Perkiomen Township.

(9) The words "Dump No Waste – Drains To Waterway" in 1 1/4 inch raised letters with bass logo shall be cast or stamped into the storm sewer manhole covers as manufactured by E. Jordan Iron Works, or approved equal. Bottom of covers are to be clearly marked with grade of iron (ASTM A48, Class 35B), product number and date of manufacture.

(10) 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.

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

(a) twenty-five years in all subdivisions or land developments, unless otherwise specified by Perkiomen Township

(12) 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 Perkiomen Township, overflow swales may be provided at low points in streets to safely convey the full one-hundred-year peak flow to the control facility, in lieu of providing the full capacity in the storm sewer.

(13) 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 to a maximum of eight feet where parking is permitted. Perkiomen Township may require that a hydraulic grade line analysis be performed on storm sewer systems.

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

(15) Rainfall intensity curves and other hydraulic design data from NOAA shall be used for design purposes.

(16) 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.

(17) Inlets, manholes, covers and frames shall conform to Pennsylvania Department of Transportation specifications. At street intersections, every attempt should be made to place inlets in the tangent and not in the curved portion of the curbing.

(18) When precast concrete inlets or manholes are used within a street, either concrete adjustment units or rubber ring adjustment units shall be placed to bring the grate or cover to proper elevation.

D. Roof drains.

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

(2) Proposed roof drains and collector locations shall be shown on the storm Stormwater Management Site Plans. Roof drains and collectors shall meet all appropriate Perkiomen Township codes.

(3) Gutters shall have gutter guards or similar devices to prevent debris from entering any underground drains associated with a roof.

(4) Underdrain pipes associated with roof drains or downspouts are permitted to be a diameter no smaller than 4-inches and shall be comprised of smooth lined high-density polyethylene pipe or schedule-40 PVC pipe. All underdrains shall contain an overflow tee or similar outlet at the ground surface.

E. Design of bridges and culverts.

(1) Bridges and culverts shall have ample waterway to carry the design flows, based on a minimum storm frequency of 100 years, unless a larger design flow is required by PA DEP. One-hundred-year water depths shall not exceed six inches above the roadway center-line elevation. Bridge and/or culvert construction shall be in accordance with the PennDOT specifications and shall meet the requirements of the PA DEP. 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 Perkiomen Township determines that the character of the road is expected to change for future planning, 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, and this area may be used to place sidewalks, bike trails, etc.

(3) Permanent easements must be provided to the township for all Bridges or Culverts used for vehicular access. The easements shall include entire bridge or culvert, provide additional areas for future staging which may be necessary for future maintenance, and an access areas no less than 20-ft wide. Easement sizes should be prepared through coordination with the Township and Township Engineer to ensure an adequate sized easement is offer to the Township.

F. Stone and pipe underground infiltration beds.

(1) The plans shall note: Areas proposed for infiltration BMPs shall be protected from sedimentation and compaction during the construction phase so as to maintain their maximum infiltration capacity.

(2) All stormwater runoff shall be pretreated for water quality prior to discharge to an infiltration facility or BMP. This shall consist of a water quality device (i.e., snout, water quality filter, water quality structure, etc.) upstream of the infiltration facility.

(3) Pipes shall be made of perforated high-density polyethylene pipe, or an approved equivalent. Any pipes within the infiltration bed shall be a minimum of 6-inches off of the bed bottom and shall be underlain with clean stone. Pipes may be substituted with ached storm chambers if constructed in accordance with manufacture recommendations.

(4) The minimum pipe separation between parallel pipes and the pipes to the outer limits of the basin bed shall be 18-inches, or as specified by the manufacture.

(5) Infiltration beds shall be wrapped in non-woven geotextile fabric on all sides. Fabric should overlap a minimum of 12-in where applicable. Where pipes puncture the geotextile fabric, a pipe boot, or similar fitting, should be used to secure the pipe to the geotextile fabric. The bottom of the bed may substitute a combination of sand, pea gravel, and fine stone in lieu of a geotextile fabric to create separation.

(6) A minimum of 1-foot of natural cover over the top of the infiltration bed shall be provided in non-vehicular areas. In vehicular areas, a minimum of 12-inch of natural materials shall be provided beneath any pavement (i.e., example: Infiltration bed under a parking lot with a 4-inch pavement section would require top of pipe depth to be 16-inches from paving surface.

(7) Observation ports shall be provided for the underground pipe network, as required by the Township Engineer. For pipe diameters 24-inches and greater, a man-hole shall be provided which would allow access to the pipe network.

(8) All underground infiltration facilities shall contain an overflow pipe outlet such that water can be released if the bed were to become filled with stormwater. Surcharging of any structure, including inlets and outlet structures, is prohibited.

(9) Stone and Pipe underground infiltration beds shall have a flat bottom.

(10) The stone portion of the bed shall be comprised of clean washed stone, typically AASHTO #57 Stone, AASHTO #1 Stone, or AASHTO #3 Stone, which contains a 40% void space, unless otherwise approved.

G. Rain Gardens.

(1) The plans shall note: Areas proposed for infiltration BMPs shall be protected from sedimentation and compaction during the construction phase so as to maintain their maximum infiltration capacity.

(2) Rain gardens shall contain no greater than a 12-in depth ponding depth, unless otherwise approved.

(3) An outlet overflow control device shall be provided within the rain garden which would allow for water to leave the facility in the event the rain garden becomes full. This devise shall be in the form of an outlet structure with grate or domed pipe riser. The riser top elevations shall be 6-in below the top of berm.

(4) Raingarden interior and exterior slopes shall be no steeper than a 3:1 grade.

(5) The max loading ration permitted is 5:1.

(6) The planting soil within the rain garden shall be no less than a depth of 18-inches and be comprised of amended soils.

(7) Native plant species susceptible to increase amounts of water should be utilized to pant the rain garden bottom.

(8) A minimum 3-inch depth of mulch or similar natural material shall be placed at the rain gardens surface.

(9) When underdrain pipes are proposed within a rain garden, they shall be within a stone trench that is a minimum width of 4-ft wide and shall contain a minimum of 6-inch of stone above and below the underdrain pipe. The stone trench shall be lined on all sides with non-woven geotextile fabric. Fabric should overlap a minimum of 12-in where applicable. Where pipes puncture the geotextile fabric, a pipe boot, or similar fitting, should be used to secure the pipe to the geotextile fabric. The bottom of the bed may substitute a combination of sand, pea gravel, and fine stone in lieu of a geotextile fabric to create separation. All pipes should be level. Clean outs and or observation ports shall be included within any underdrain network.

(10) All underground infiltration facilities shall contain an overflow pipe outlet such that water can be released if the bed were to become filled with stormwater. Surcharging of any structure, including inlets and outlet structures, is prohibited.

H. Existing Facilities.

(1) If proposed improvements rely on existing stormwater management facilities, a detailed study and or investigation of the facilities may be required, to the extent necessary by the Township Engineer, to determine the conditions and stormwater capacity of the system. In the event the existing stormwater facility to system is not adequate based on existing conditions, the stormwater facility may be required to be upgraded or replaced, at the applicant's expense, in order to rely on the existing system.

§ 247-308. Other Site Development Requirements.

A. 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 Perkiomen Township, and such areas shall include, at minimum, those underlain by carbonate limestone formations. Perkiomen Township may require pollution control facilities to be provided on existing or proposed stormwater management systems within or adjacent to the project site.

B. Provisions for protecting existing wells or other water supplies shall be established.

C. Any graded slopes shall not be steeper than three horizontal units to one vertical unit.

D. Any approvals required by the Steep Slope Conservation Overlay District (Article XXIV of Chapter 310, Zoning, as amended) shall be secured prior to earthmoving or stripping of vegetation.

E. Any approvals required by the Floodplain Conservation District (Chapter 172, as amended) shall be secured prior to earthmoving or stripping of vegetation.

F. Any approvals required by the Riparian Corridor Conservation District (Article XXVI of Chapter 310, Zoning, as amended) shall be secured prior to earthmoving or stripping of vegetation.

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

H. Mature trees with a 12-inch caliper (i.e. diameter) or greater, and other significant existing vegetation, within the limits of earth disturbance shall be located in the field and on the Stormwater Management Site Plan and shall be retained and protected to the extent feasible. 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.

Where more than five mature trees (i.e. 12-in caliper or greater) are removed, all mature trees removed shall be replaced at a rate of one 2-in caliper tree per 12-in caliper removed, unless otherwise approved by the Township. Replacement trees shall be guaranteed for a period of 18-months from the date of installation, and such guarantee should be in the form of a Financial Security, which should be released after the guaranteed period, upon certification of the Township Engineer or Code Enforcement Officer.

Non-viable and dead trees do not require replacement. Photo evidence of each non-viable and/or dead tree should be provided for review and be certified by a Registered Consulting Arborist or Certified Arborist, or as otherwise approved by the Township or their representatives.

Replacement tree requirements are not applicable to projects that are exempt per §247-302.B, §247-302.D, and projects that qualify for the use of the Simplified Approach via §247-302.E.

§ 247-309. Erosion and Sedimentation Requirements.

A. Whenever the vegetation and topography are to be disturbed, such activity must be in conformance with Pennsylvania Code Title 25, Environmental Protection, Part I, Department of Environmental Protection, Subpart C, Protection of Natural Resources, Article II, Water Resources, Chapter 102, Erosion and Sediment Control, and in accordance with the Montgomery County Conservation District.

B. Additional erosion and sedimentation control design standards and criteria that must be applied where infiltration BMPs are proposed shall include the following:

   (1) Areas proposed for infiltration BMPs shall be protected from sedimentation and compaction during the construction phase so as to maintain their maximum infiltration capacity.

   (2) Infiltration BMPs shall not be constructed nor receive runoff until the entire contributory drainage area to the infiltration BMP has received final stabilization.

C. The applicant shall submit evidence to Perkiomen Township that they have received approval for any project in which the earth disturbance will exceed one acre or more in totality of disturbance from the Montgomery County Conservation District.

ARTICLE IV – STORMWATER SITE PLAN REQUIREMENTS

§ 247-401. Plan Requirements.

The following items shall be included in the Stormwater Management Site Plan:

A. Appropriate sections from the Township's Subdivision and Land Development Ordinance, and other applicable local ordinances, shall be followed in preparing the Stormwater Management Site Plans.

B. The Township shall not approve any Stormwater Management Site Plan that is deficient in meeting the requirements of this Ordinance. At its sole discretion and in accordance with this Article, when a Stormwater Management Site Plan is found to be deficient, the Township may either disapprove the submission and require a resubmission, or in the case of minor deficiencies, the Township may accept submission of modifications.

C. Provisions for permanent access or maintenance easements for all physical Stormwater BMPs, such as ponds and infiltration structures, as necessary to implement the Operation and Maintenance (O&M) Plan discussed in §247-401.D.40 below.

D. The Stormwater Management Site Plan shall provide the following information:

(1) The overall stormwater management concept for the project.

(2) A determination of site conditions in accordance with the BMP Manual, by a Qualified Professional. A detailed site evaluation shall be completed for projects proposed in areas of carbonate geology or karst topography, and other environmentally sensitive areas, such as brownfields or hotspots.

(3) Stormwater runoff design computations and documentation as specified in this Ordinance, or as otherwise necessary to demonstrate that the maximum practicable measures have been taken to meet the requirements of this Ordinance, including the recommendations and general requirements in §247-301.

(4) Expected project time schedule.

(5) An erosion and sediment pollution control plan.

(6) The effect of the project (in terms of runoff volumes, water quality, and peak flows) on surrounding properties and aquatic features and on any existing stormwater conveyance system that may be affected by the project.

(7) Plan and profile drawings of all Stormwater BMPs, including drainage structures, pipes, open channels, and swales.

(8) Stormwater Management Site Plan shall show the locations of existing and proposed on-lot wastewater facilities and water supply wells.

(9) A general description of project.

(10) An erosion and sediment pollution control plan.

(11) The location of the project relative to highways, municipalities or other identifiable landmarks.

(12) Existing and proposed contours at intervals of no more than two feet.

(13) Steep slopes, as defined by the Townships Zoning Ordinance, shall be highlighted or hatched on the plans. A steep slopes summary shall be provided in tabular format which identifies all steep slope area in square feet.

(14) Existing streams, lakes, ponds or other bodies of water within the project area.

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

(16) The locations of all existing and proposed utilities, sanitary sewers and waterlines within 50 feet of property lines, including existing and proposed on-lot wastewater facilities and water supply wells.

(17) An overlay showing soil names and boundaries.

(18) Proposed changes to the land surface and vegetative cover, including limits of earth disturbance and the type and amount of impervious area that would be added. An impervious summary shall be provided in a tabular format identifying various types of impervious area in square feet (i.e., building, pavement, misc., etc.).

(19) Existing and proposed structures, roads, paved areas and buildings.

(20) The name of the development which is consistent with the application submitted (i.e., Land Development; Subdivision and Land Development; Minor Subdivision Plan, Building Permit Plan, Sketch Plan, etc.).

(21) The name, address, phone number and email address of the owner of the property, and of the individual or firm preparing the plan.

(22) The date of the initial submission; and date of any plan revisions or iterations. Plan Revision dates shall be consistent on every sheet of a plan set.

(23) A graphic and written scale of one inch equals no more than 50 feet; for tracts of 20 acres or more, the scale shall be one inch equals no more than 100 feet.

(24) A North arrow.

(25) The total tract boundary and size with distances marked to the nearest foot and bearings to the nearest degree. Metes and Bounds for all property lines shall be provided.

(26) Existing and proposed land use(s).

(27) A key map showing all existing man-made features beyond the property boundary that would be affected by the project.

(28) Overland drainage paths, including time-of concentration (TC) paths.

(29) A pre- and post- construction drainage area plan and inlet drainage area plan.

(30) Stormwater Management Site Plans shall contain a PA One Call Serial Number and reference any utilities who have responded with contact information (i.e., phone and email). If Stormwater Management Site Plans are part of a greater project plan set such as Land Development plans, the required information does not need to be specifically on the Stormwater Management Site Plans but should be included within the greater plan set. The plans shall further note "The Contractor must submit a PA One Call a minimum of 10-days prior to the start of work. Proof that a PA one-call was made shall be provided to the Township."

(31) A note on the plans indicating that the Township shall be notified 72-hours prior to construction of any stormwater management facilities.

(32) The effect of the project (in terms of runoff volumes and peak flows) on adjacent properties and on any existing municipal stormwater collection system that may receive runoff from the project site.

(33) When groundwater recharge methods, such as seepage pits, beds or trenches are used, the locations of existing and proposed septic tank infiltration areas and wells must be shown.

(34) A Zoning Compliance table summarizing the requirements of the site, the existing site compliance information, and the proposed zoning compliance information in accordance with the Township's Zoning Ordinance, Chapter 310.

(35) The Stormwater Management Site Plan shall include a Stormwater Management Operation and Maintenance (O&M) Plan for all existing and proposed physical stormwater management facilities. This plan shall address long-term ownership and responsibilities for O&M as well as schedules and costs for O&M activities. The plan shall contain the following information at a minimum:

(a) The following notes:

[1] Landowner hereby grants and conveys to the Township a blanket easement over the entire property for access at such limited times as the Township reasonably deems necessary, to inspect, operate, maintain, or repair the Stormwater Management Facilities, BMPs, erosion and sedimentation management facilities, and other improvements. The purpose of such easement is to ensure safe and proper function of the facilities and the condition of adjacent areas, all pursuant to the provisions of the Stormwater Management Ordinance. The Township shall have the right, but not the obligation, to conduct such inspections, operations, maintenance, or repairs. When such inspections are conducted, the Township shall give the Landowner copies of the inspection report with findings and evaluations.

[2] Landowner acknowledges that the Stormwater Management Facilities and BMPs are permanent fixtures that cannot be altered or removed. Landowner shall not place any structure, fill, landscaping or vegetation into any Stormwater Management Facility or BMP which would limit or alter the function of the facility, structure, or BMP, unless a revised plan is submitted and approved by the Township. Such revised plan shall be recorded with a new Stormwater Operation & Maintenance Agreement, prior to any alteration being implemented.

[3] Before proceeding with any of the improvements, the Landowner shall give at least seventy-two (72) hour notice to the Township Engineer so that arrangements can be made for the inspection of the work as it progresses.

[4] Before the Township issues a Use and Occupancy Permit, Landowner shall submit an "As-Built" plan prepared and signed by a registered Professional Land Surveyor and/or Professional Engineer. The "As-Built" plan shall show the location of the building(s), the property corner monuments with elevations, rain leaders, utility line locations, building envelope, walkways, driveways, decks, patios, easements, steep slopes, floodplain, riparian corridor, the stormwater management facilities and associated construction details with elevations, the final grade elevations, landscape features (e.g. including walls), and any other information that may be deemed necessary by the Township which shall be consistent with what is shown on the approved plan. The plan shall also contain a chart for each lot listing how much impervious area each stormwater management facility was designed to handle and how much impervious area has been installed to date.

[5] Landowner agrees to provide a copy of any required Stormwater Operation and Maintenance Agreements to its successors and/or assigns, and, agrees to incorporate a reference to the terms of this Agreement in any future deed of conveyance. The failure of Landowner to perform any act required by this paragraph shall not impair the validity of the Agreement, limit its enforceability in any way, or impair any portion of the Stormwater Facilities Maintenance requirements or responsibilities. The term "Landowner" shall include the above-named Landowner and upon the heirs, administrators, executors, successors, and/or assigns, of Landowner whether or not such future owners have signed this Agreement.

[6] The following signature block for the design engineer who is licensed in the Commonwealth of Pennsylvania: ___, "(Design Engineer") on this date____, (date of signature) has reviewed and hereby certifies that the Stormwater Management Site Plan meets all design standards and criteria of Perkiomen Township Stormwater Management Ordinance of 2022."

[7] The Landowner or the owner's designee (i.e., privately hired engineers or qualified professional) shall inspect Stormwater Management Facilities and BMPs installed under Stormwater Management Ordinance according to the following frequencies, at a minimum, to ensure the BMPs, facilities and/or structures continue to function as intended:

(Select based on criteria: (Criteria 1) – Development by an individual homeowner, on a single lot, with stormwater management facilities and BMPs which are located entirely within their property boundaries and which only serve their induvial property; (Criteria 2) Any other type of Development)

(Criteria 1)

- Within 30 days of receiving a written request from the Township for an inspection, unless the Township agrees to a longer period of time.

Or (Criteria 2)

- Annually for the first 5 years after the construction of the stormwater facilities.
- Once every 3 years thereafter.
- During or immediately after the cessation of a 10-year or greater storm.
- Within 30 days of receiving a Township request for inspection (made in writing), unless a greater period of time is accepted by the Township.

A written inspection report with photos shall be created to document each inspection. The inspection report shall contain the date and time of the inspection, the individual(s) who completed the inspection, the location of all stormwater management facilities and BMPs, or structure inspected, observations on performance, and recommendations for improving performance, if applicable. Inspection reports shall be submitted to Perkiomen Township within 30 days following completion of the inspection. The Township shall have the right, but not the obligation to, track the required written inspection reports.

(a) For each Stormwater Management Facility or BMP, a list of applicable maintenances items to be performed should be provided and said maintenance items should be accompanied with a required time related frequency (i.e., annually, quarterly, after large rain events, etc.). The required maintenance items shall be generally consistent with the requirements of the PA BMP Manual, or as required by the Township Engineer.

(b) The plan shall identify the location of each BMP and note the latitude and longitude of its centroid in tabular format on the plans.

(c) The Plan shall identify the location of all Stormwater Management Facilities and BMPs. The technical specifications of all stormwater aspects shall be included on the plans which includes but is not limited to, construction details, profiles, and specifications.

(d) The plans shall include an overall site plan showing the entire property boundary.

E. Supplemental Information

(1) A Stormwater Management Report which includes:

(a) The overall stormwater management concept for the project designed in accordance with Article III of this ordinance.

(b) Stormwater runoff computations as specified in this chapter. Complete hydrologic, hydraulic and structural computations for all stormwater management facilities.

(c) Stormwater management techniques to be applied both during and after development.

(d) Development stages (project phases) if so proposed.

(e) A geologic assessment of the effects of runoff on sinkholes as specified in this chapter.

(f) Infiltration / Geological Testing Report which includes documented infiltration rates and provides a summary of the soil horizons associated with each test pit.

(g) An operation and maintenance plan in accordance with §247-407 of this ordinance.

(h) In the event an existing stormwater management facility has unknown characteristics, it must be studied and documentation of the findings shall be provided to the Township. Stormwater credit for existing facilities may only be utilized, if determined through documented evidence as to be adequate by the Township Engineer.

(2) All plan submissions and supporting documents submitted to and received from the Montgomery County Conservation District (MCCD), the PA DEP, PennDOT, and third party agencies which are involved with the project shall be provided to the Township.

(3) A stormwater Management Permit Application, as provided in Appendix D.

§ 247-402. Plan Submission.

A. One PDF electronic copy of the Stormwater Management Site Plans, and supplemental information, shall be submitted to the Township.

B. Upon request of the Township, five (5) hard copies of all project related files may be required:

(1) Two or more copies to the Township accompanied by the requisite municipal review fee, as specified in this chapter.

(2) One copy to the Perkiomen Township Engineer.

(3) One copy to the Montgomery County Planning Commission.

(4) One copy to the Conservation District, if applicable.

C. The Stormwater Management Site Plan shall be submitted by the applicant to the Township for all regulated activities and be accompanied with applicable fees per the Township's most recently adopted fee schedule and applicable application (i.e., Zoning, SALDO, Building Permit, Construction, etc.). All submission items shall additionally be electronically submitted in PDF format.

§ 247-403. Plan Review.

A. Stormwater Management Site Plans shall be reviewed by the Township for consistency with the provisions of this Ordinance, as well as the Subdivision and Land Development Ordinance, Chapter 264; and Zoning Ordinance, Chapter 310. The Zoning and Subdivision and Land Development provisions are not superseded by this chapter.

B. The Township shall notify the applicant in writing whether the Stormwater Management Site Plan is approved or disapproved. If the Stormwater Management Site Plan involves a Subdivision and Land Development Plan, the notification shall occur within the time period allowed by the Municipalities Planning Code.

C. If the Township disapproves the Stormwater Management Site Plan, the Township will state the reasons for the disapproval in writing. The Township also may approve the Stormwater Management Site Plan with conditions and, if so, shall provide the acceptable conditions for approval in writing.

D. The Code Enforcement Officer shall not issue a building permit for any regulated activity if the Stormwater Management Site Plan has been found to be inconsistent with the Township's stormwater management ordinance.

§ 247-404. Modification of Plans.

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

§ 247-405. Resubmission of Disapproved Plans.

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

§ 247-406. Authorization to Construct and Term of Validity.

The Township's approval of a Stormwater Management Site Plan authorizes the regulated activities contained in the Stormwater Management Site Plan for a maximum term of validity of 5 years following the date of approval. The Township may specify a term of validity shorter than 5 years in the approval for any specific Stormwater Management Site Plan. Terms of validity shall commence on the date of approval when the Township signs the approval for a Stormwater Management Site Plan. If an approved Stormwater Management Site Plan is not completed according to §247-407 within the term of validity, then the Township may consider the Stormwater Management Site Plan disapproved and may revoke any and all permits. Stormwater Management Site Plans that are considered disapproved by the Township shall be resubmitted in accordance with §247-405 of this Ordinance.

§ 247-407. As-Built Plans, Completion Certificate, and Final Inspection.

A. The Township shall determine whether the applicant shall be responsible for providing as-built plans, or a certification of completion, which shall be signed by a qualified professional, or both of all Stormwater BMPs included in the approved Stormwater Management Site Plan. If the as-built plan shows any discrepancies in the constructed Stormwater BMPs with the approved Stormwater Management Site Plan, the applicant shall provide an explanation for the discrepancies. The developer shall be responsible for providing as-built plans of all Stormwater BMPs included in the approved Stormwater Management Site Plan. The as-built plans and an explanation of any discrepancies with the construction plans shall be submitted to the Township. As-Built plans shall include the following items, at a minimum:

    (1) A certification of completion signed by a qualified professional verifying that all permanent Stormwater BMPs have been constructed according to the approved plans and specifications.

(2) The latitude and longitude coordinates for all permanent Stormwater BMPs must also be submitted, at the central location of the BMPs.

(3) Any impervious credit associated with the site based on the difference between the impervious surface design capacity, and actual impervious surfaces in the field. If there is no impervious credit, the plans shall note there is no impervious surface credit within applicable on site stormwater management facilities / BMP's.

(4) Tract boundary with metes and bounds.

(5) Finished grades and elevations: including top and bottom of curb elevations, spot elevations around the building foundations including all building corners, spot elevations along driveways, spot elevations near Township right-of-way, elevations at all property corners from found monuments or pins.

(6) The max width and length of the building.

(7) Stormwater Management Facility / BMP detailed information: pipe sizes, length, type, slope and inverts; elevation of bottom of facility, top of facility; outlet structure dimensions and elevations; structure size, type, and grate, bottom and associated structure inverts, clean outs and inverts, etc. as required by the Township Engineer;

(8) Reference to the approved plans (i.e., plan title, preparer, date of plans, latest revision of plans, recorded deed book and page number of approved plans).

(9) Reference to the recorded Stormwater Facilities Operation & Maintenance and Project Improvement Agreement (i.e., recorded deed book and page number of approved plans).

(10) Additional items required by the Township Engineer.

(11) After receipt of the completion certification by Perkiomen Township, the Township may conduct a final inspection in order to verify as-built conditions.

B. After receipt of the completion certification by the Township, the Township may conduct a final inspection.

ARTICLE V – OPERATION AND MAINTENANCE

§ 247-501. Responsibilities of Developers and Landowners.

A. The Township shall make the final determination on the continuing maintenance responsibilities prior to final approval of the Stormwater Management Site Plan. The Township may require a dedication of such facilities as part of the requirements for approval of the Stormwater Management 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 ownership and operating responsibility for any portion of the stormwater management controls.

B. The Township may take enforcement actions against an owner for any failure to satisfy the provisions of this Article.

§ 247-502. Operation and Maintenance Agreements.

A. Prior to final approval of the Stormwater Management Site Plan, the property owner shall sign and the Township shall record, at the expense of the owner, an Operation and Maintenance (O&M) Agreement (see Appendix A) covering all stormwater control facilities which are to be privately owned.

B. Prior to final approval of a Simplified Approach Plan, the property owner shall sign and the Township shall record, at the expense of the owner, a Simplified Approach – Operation and Maintenance (O&M) Agreement (see Appendix C) covering all stormwater control facilities which are to be privately owned.

C. Owner is responsible for operation and maintenance (O&M) of any and all stormwater management facilities and Stormwater BMPs on their property at owner's sole expense. If the owner fails to adhere to any provisions of the Stormwater O&M Agreement, the Township may perform the services required and charge the owner for any costs it incurs. Nonpayment of may result in a lien against the property and or any other relief available to the Township, under the Second Class Township Code.

§ 247-503. Performance Guarantee.

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

Financial Security may be required by the Township for the proposed development of a property. If so, the Landowner shall be required to provide a financial guarantee to Perkiomen Township to ensure the timely installation and proper construction of all stormwater management facilities and stormwater BMPs required by this Stormwater Management Ordinance.

ARTICLE VI – FEES AND EXPENSES

§ 247-601. Fees.

The Township may include all costs incurred in the review fee charged to an applicant. Fees shall be in accordance with the Township's Annual Fee Schedule, as most recently amended. The review fee may include, but not be limited to, costs for the following:

A. Administrative/clerical processing.

B. Review of the Stormwater Management Site Plan.

C. Attendance at meetings.

D. Inspections, including preconstruction meetings.

E. Any additional work required by the Township to enforce any permit provisions regulated by this chapter, to correct violations and to ensure proper completion of stipulated remedial actions.

ARTICLE VII – PROHIBITIONS

§ 247-701. Prohibited Discharges.

A. Any drain or conveyance, whether on the surface or subsurface, that allows any non-stormwater discharge including sewage, process wastewater, and wash water to enter a regulated small MS4 or to enter the surface waters of this Commonwealth is prohibited.

B. In Perkiomen Township no person shall allow, or cause to allow, discharges into a regulated small MS4, or discharges into waters of this Commonwealth, which are not composed entirely of stormwater, except (1) as provided in §247-701.C below and (2) discharges authorized under a state or federal permit.

C. The following discharges are authorized unless they are determined to be significant contributors to pollution to a regulated small MS4 or to the waters of this Commonwealth:

(1) Discharges or flows from firefighting activities.

(2) Discharges from potable water sources including water line flushing and fire hydrant flushing, if such discharges do not contain detectable concentrations of Total Residual Chlorine (TRC).

(3) Non-contaminated irrigation water, water from lawn maintenance, landscape drainage and flows from riparian habitats and wetlands.

(4) Diverted stream flows and springs.

(5) Non-contaminated pumped ground water and water from foundation and footing drains and crawl space pumps.

(6) Non-contaminated HVAC condensation and water from geothermal systems.

(7) Vehicle wash water where bio-degradable and eco-friendly cleaning agents are utilized.

(8) Non-contaminated hydrostatic test water discharges, if such discharges do not contain detectable concentrations of TRC.

(9) Routine external building wash-down (which does not use detergents or other compounds).

(10) 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.

(11) Dechlorinated swimming pool discharges.

(12) Uncontaminated groundwater.

D. In the event that Perkiomen Township determines that any of the discharges identified in §247-701.B and C significantly contribute to pollution of waters of the commonwealth, or is so notified by the DEP, Perkiomen Township or the PA DEP will notify the responsible person to cease the discharge.

§ 247-702. Prohibited Connections.

A. Roof drains and sump pumps shall discharge to infiltration areas or vegetative BMPs to the maximum extent practicable.

B. Any drain or conveyance, whether on the surface or subsurface, which allows any nonstormwater discharge including sewage, process wastewater and wash water to enter the separate storm sewer system, and any connections to the storm drain system from indoor drains and sinks.

C. Roof drains and sump pumps shall not be connected to sanitary sewers.

D. When it is determined that the promotion of stormwater overland flow and percolation is not advantageous, subject to authorization from Perkiomen Township, roof drains an and sump pumps may connect directly to the streets, storm sewer system or roadside ditches/swales.

§ 247-703. Alteration of BMPs.

No person shall place any structure, fill, landscaping or vegetation into a stormwater BMP or within a conservation easement which would limit or alter the functioning of the BMP without the written approval of the Township

ARTICLE VIII – ENFORCEMENT AND PENALTIES

§ 247-801. Right of Entry.

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

B. BMP owners and operators shall allow persons working on behalf of the Township ready access to all parts of the premises for the purposes of determining compliance with this chapter.

C. Persons working on behalf of the Township shall have the right to temporarily locate on any BMP in the Township such devices as are necessary to conduct monitoring and/or sampling of the discharges from such BMP.

D. Unreasonable delays in allowing the Township access to a BMP is a violation of this chapter.

§ 247-802. Inspection.

A. The Landowner or the owner's designee (i.e., privately hired engineers or qualified professional) shall inspect Stormwater Management Facilities and BMPs installed under the Stormwater Management Ordinance according to the following frequencies, at a minimum, to ensure the BMPs, facilities and/or structures continue to function as intended:

(Select based on criteria: (Criteria 1) – Development by an individual homeowner, on a single lot, with stormwater management facilities and BMPs which are located entirely within their property boundaries and which only serve their induvial property; (Criteria 2) Any other type of Development)

(Criteria 1)

- Within 30 days of receiving a written request from the Township for an inspection, unless the Township agrees to a greater period of time.

Or (Criteria 2)

- Annually for the first 5 years after the construction of the stormwater facilities.
- Once every 3 years thereafter.
- During or immediately after the cessation of a 10-year or greater storm.
- Within 30 days of receiving a Township request for inspection (made in writing) unless a greater period of time is accepted by the Township.

B. A written inspection report with photos shall be created to document each inspection. The inspection report shall contain the date and time of the inspection, the individual(s) who completed the inspection, the location of all stormwater management facilities and BMPs, or structure inspected, observations on performance, and recommendations for improving performance, if applicable. Inspection reports shall be submitted to Perkiomen Township within 30 days following completion of the inspection. The Township shall have the right, but not the obligation to, track the required written inspection reports.

§ 247-803. Enforcement.

Perkiomen Township is hereby authorized and directed to enforce all of the provisions of this chapter.

A. It shall be unlawful for a person to undertake any regulated activity except as provided in an approved Stormwater Management Site Plan, unless specifically exempted in §247-302.

B. It shall be unlawful to violate §247-703 of this Ordinance.

C. The Township shall have the right, but not the obligation, to conduct such inspections regarding compliance with the Stormwater Management Site Plan.

§ 247-804. Suspension and Revocation.

A. Any approval or permit issued by Perkiomen Township pursuant to this Ordinance may be suspended or revoked for:

(1) Non-compliance with or failure to implement any provision of the approved Stormwater Management Site Plan or O&M Agreement.

(2) A violation of any provision of this Ordinance or any other applicable law, ordinance, rule, or regulation relating to the Regulated Activity.

(3) The creation of any condition or the commission of any act during the Regulated Activity which constitutes or creates a hazard, pollution, or endangers the life or property of others.

B. A suspended approval may be reinstated by the Township when:

(1) The Township has inspected and approved the corrections to the violations that caused the suspension.

(2) The Township is satisfied that the violation has been corrected.

C. If a violation causes no immediate danger to life, public health, or property, at its sole discretion, the Township may provide a limited time period for the owner to correct the violation. In these cases, the Township will provide the owner, or the owner's designee, with a written notice of the violation and the time period allowed for the owner to correct the violation. If the owner does not correct the violation within the allowed time period, the Township may revoke or suspend any, or all, applicable approvals and permits pertaining to any provision of this Ordinance.

§ 247-805. Penalties.

A. Any person who violates or permits a violation of this chapter shall, upon conviction in a summary proceeding brought before a Magisterial District Judge under the Pennsylvania Rules of Criminal Procedure, be guilty of a summary offense and shall be punishable by a fine of not more than $1,000 plus costs of prosecution. In default of payment thereof, the defendant may be sentenced to imprisonment for a term not exceeding 90 days. Each day or portion thereof that such violation continues or is permitted to continue shall constitute a separate offense, and each section of this chapter that is violated shall also constitute a separate offense and penalties shall be cumulative.

B. In addition, Perkiomen Township, through its Solicitor, may 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 appropriate forms of remedy or relief.

C. Each day that a violation continues shall constitute a separate violation and may result in an increased penalty.

§ 247-806. Appeals.

A. Any person aggrieved by any action of Perkiomen Township or its designee, relevant to the provisions of this Ordinance, may appeal to the Township Board of Supervisors within 30 days of that action.

B. Any person aggrieved by any decision of the Perkiomen Township Board of Supervisors may appeal to the Court of Common Pleas of Montgomery County within 30 days of the Board of Supervisors' decision.

ARTICLE IX – REFERENCES

§ 247-901. References.

- U.S. Department of Agriculture, National Resources Conservation Service (NRCS). National Engineering Handbook. Part 630: Hydrology, 1969-2001. Originally published as the National Engineering Handbook, Section 4: Hydrology. Available online at: https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/water/manage/hydrology/?cid=stelprdb1043063.

- U.S. Department of Agriculture, Natural Resources Conservation Service. 1986. Technical Release 55: Urban Hydrology for Small Watersheds, 2nd Edition. Washington, D.C. Available online at: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044171.pdf

- Pennsylvania Department of Environmental Protection. No. 363-0300-002 (December 2006), as amended and updated. Pennsylvania Stormwater Best Management Practices Manual. Harrisburg, PA. Available online at: https://pecpa.org/wp-content/uploads/Stormwater-BMP-Manual.pdf

- Pennsylvania Department of Environmental Protection. No. 363-2134-008 (March 31, 2012), as amended and updated. Erosion and Sediment Pollution Control Program Manual. Harrisburg, PA. Available online at: https://pawccd.org/uploads/3/4/8/2/34827270/363-2134-008.pdf

- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, Hydrometeorological Design Studies Center. 2004-2006. Precipitation-Frequency Atlas of the United States, Atlas 14, Volume 2, Version 3.0, Silver Spring, Maryland. Available online at: https://www.weather.gov/media/owp/oh/hdsc/docs/Atlas14_Volume2.pdf
  Current Data: https://hdsc.nws.noaa.gov/hdsc/pfds/

ORDAINED and **ENACTED** by the Board of Supervisors of Perkiomen Township at a public meeting held this 5th day of July, 2022.

PERKIOMEN TOWNSHIP
BOARD OF SUPERVISORS

By: *Vivian G. Schoeller*
Vivian G. Schoeller, Chairperson

Attest: *Cecile M. Daniel*
Cecile M. Daniel, Secretary