



City of Pittsburgh

510 City-County Building
414 Grant Street
Pittsburgh, PA 15219

Text File

Introduced: 2/1/2019

Bill No: 2019-1353, **Version:** 1

Committee: Committee on Land Use and
Economic Development

Status: Passed Finally

Ordinance amending and supplementing the Pittsburgh Code, by creating Title 13 entitled "Stormwater Management", and by deleting Stormwater Management text from Title 10, Building, Chapter 1003.
(Public Hearing held 3/6/19)

The Council of the City of Pittsburgh hereby enacts as follows:

Section 1. Amending and Supplementing the Pittsburgh Code, by creating Title 13 entitled "Stormwater Management."

The Pennsylvania Storm Water Management Act (Act of Oct. 4, 1978, P.L. 864, No. 167) requires municipalities within Allegheny County to review and amend existing stormwater management ordinances to conform to Allegheny County's adopted Act 167 Stormwater Management Plan and Model Ordinance, with provisions that are the stricter of either the County's Act Model Ordinance or existing ordinances.

This ordinance will satisfy regulatory requirements for both Act 167 and the City of Pittsburgh's MS4 requirements as implemented through National Pollutant Discharge Elimination System (NPDES) permits. Moreover, this ordinance will improve effective stormwater management at both the watershed and site-specific scale, which is critical to control flooding, prevent soil and streambank erosion and sedimentation, promote groundwater recharge, reduce pollutants from stormwater runoff, reduce overflows from combined sanitary and storm sewer systems, and improve the overall quality of receiving waterbodies.

SEE ATTACHMENT

TITLE 13: STORMWATER MANAGEMENT

ARTICLE I - GENERAL PROVISIONS

13101. Short Title

This Ordinance shall be known and may be cited as the "City of Pittsburgh Stormwater Management Ordinance."

13102. Statement of Findings

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The governing body of the City 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, combined sewers, 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, contributes to and increases basement sewage backups and surface flooding, threatens public health and safety, and increases nonpoint source pollution of water resources.
- b. A comprehensive program of stormwater management (SWM), including 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 (GI) and low impact development (LID) are intended to address the root cause of water quality impairment by using systems and practices which use or mimic natural processes to: 1) infiltrate and recharge, 2) evapotranspire, and/or 3) harvest and use precipitation near where it falls to earth. Green infrastructure practices and LID contribute to the restoration or maintenance of pre-development hydrology.
- e. Federal and state regulations require certain municipalities to implement a program of stormwater controls. These municipalities are required to obtain a permit for stormwater discharges from their separate storm sewer systems and combined sewer systems under the National Pollutant Discharge Elimination System (NPDES) program, CSO Control Policy, and Clean Water Act.
- f. Local combined sewer systems can convey stormwater so long as the peak flows are stored and released to the Combined Sewers over a period of time. This approach optimizes the treatment of urban stormwater by the ALCOSAN treatment works.

13103. Purpose

The purpose of this Ordinance is to promote health, safety, and welfare within the City and its watersheds by minimizing the harms and maximizing the benefits described in Section 102 of this Ordinance, through provisions designed to:

- a. Meet legal water quality requirements under state law, including regulations in PA Code Title 25, Chapter 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.

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- 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. Reduce basement sewage backups and surface flooding
- h. Provide proper operation and maintenance of all stormwater best management practices (BMPs) that are implemented within the City.
- i. Provide standards to meet NPDES permit requirements.

13104. Statutory Authority

The City is empowered to regulate land use activities that affect runoff by the authority of the Act of July 31, 1968, P.L. 805, No. 247, The Pennsylvania Municipalities Planning Code, as amended, and/or the Act of October 4, 1978, P.L. 864 (Act 167), 32 P.S. Section 680.1, et seq., as amended, The Stormwater Management Act.

13105. 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.

13106. Repealer

Any other ordinance provision(s) or regulation of the City inconsistent with any of the provisions of this Ordinance is hereby repealed to the extent of the inconsistency only, to the extent permitted by law.

13107. 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.

13108. 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.

13109. Erroneous Permit

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

13110. Version of Regulations and Standards

Any reference to a statute, regulation or standard, shall be interpreted to refer to the latest or most current version of that document.

ARTICLE II - DEFINITIONS

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

- a. Words used in the present tense include the future tense; the singular number includes the plural, and the plural number includes the singular; words of masculine gender include feminine gender; and words of feminine gender include masculine gender.
- b. The word “includes” or “including” shall not limit the term to the specific example but is intended to extend its meaning to all other instances of like kind and character.
- c. The words “shall” and “must” are mandatory; the words “may” and “should” are permissive.

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

- a. **95th Percentile Rainfall Event** - The measured precipitation depth accumulated over a twenty-four-hour period for the period of record that ranks as the 95th percentile rainfall depth based on the range of all daily event occurrences during this period. As of 2018, the precipitation volume of the 95th Percentile Rainfall Event shall be one and a half (1.5) inches, based on the Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act (2009) prepared by the United States Environmental Protection Agency. Beginning on January 1, 2020 and every five (5) years thereafter, the Review Body may recalculate the volume of the 95th Percentile Rainfall Event, which must be calculated based on a minimum of thirty (30) years of precipitation data.
- b. **Act 167** - The City is empowered to regulate land use activities that affect runoff and surface and groundwater quality and quantity by the authority of the Commonwealth of Pennsylvania’s Act of October 4, 1978, P.L. 864 (Act 167), 32 P.S. Section 680.1, et seq., as amended, the “Storm Water Management Act.”
- c. **Agricultural Activity** - Activities associated with agriculture such as agricultural cultivation, agricultural operation, and animal heavy use areas. This includes the work of producing crops including tillage, land clearing, plowing, disking, harrowing, planting, harvesting crops or pasturing and raising of livestock and installation of conservation measures. Construction of new buildings or impervious area is not considered an agricultural

activity.

- d. **Applicant** - A landowner, developer, or other person who has filed an application to the City for approval to engage in any regulated activity at a project site in the City.
- e. **Best Management Practice (BMP)** - Activities, facilities, designs, measures, or procedures used to manage stormwater impacts from regulated activities, to meet state water quality requirements, to promote groundwater recharge, and to otherwise meet the purposes of this Ordinance. Stormwater BMPs are commonly grouped into one of two broad categories or measures: “structural” or “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.
- f. **BMP Manual³** - The Pennsylvania Department of Environmental Protection’s Stormwater Best Management Practices Manual, version 3.
- g. **Channel** - A natural stream that conveys water; a ditch or open channel excavated for the flow of water.
- h. **City** - The City of Pittsburgh, Allegheny County, Pennsylvania, and any related city agency, department, or authority.
- i. **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 PA Code Title 25, Chapter 102.
- j. **Design Storm** - The magnitude and temporal distribution of precipitation from a storm event measured in probability of occurrence (e.g., a 5-year storm) and duration (e.g., 24 hours) used in the design and evaluation of stormwater management systems. Also see Return Period.
- k. **Design Storm Method** - A method of calculating stormwater management needs, also known as Volume Control-Guideline 1 (CG-1) in the BMP Manual³, requiring detailed modeling based on site conditions.
- l. **Designated Plan Reviewer** - A Qualified Professional as defined herein, that has been designated by the City to be the reviewer of SWM Site Plans for the City, and shall be understood to be the reviewer where indicated as the City within this ordinance.
- m. **Detention Basin** - An impoundment designed to collect and retard stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate. Detention basins are designed to drain completely in a designed period after a rainfall event, and to become dry until the next rainfall event.
- n. **Detention Volume** - The volume of runoff that is captured and released into the waters of the Commonwealth at a controlled rate.

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- o. **DEP** - The Pennsylvania Department of Environmental Protection.
- p. **Developer** - Any landowner, agent of such landowner or tenant with the permission of such landowner, who seeks to make or makes or causes to be made a subdivision or land development or to undertake any regulated activities at a site in the city.
- q. **Development** - For the purposes of this ordinance: any activity, construction, alteration, change in land use or similar action that affects stormwater runoff characteristics.
- r. **Development Site (Site)** - See Project Site.
- s. **Diameter Breast Height (DBH)** - The diameter of the trunk of a tree, measured 4.5 feet above ground level. For trees with co-dominant (forked) stems, the trunk is measured below the fork and above the trunk flare, at the point of the smallest diameter. For multi-stemmed trees, the diameter is considered to be the sum of the diameters of all of the stems that contribute significantly to the crown.
- t. **Discharge** - A volume of fluid flowing from a conduit or channel, or being released from detention storage, per unit of time, commonly expressed as cubic feet per second (cfs), million gallons per day (mgd), gallons per minute (gpm), or cubic meters per second (cms).
- u. **Disturbance Activity** - A construction or other human activity which disturbs the surface of the land, including, but not limited to: clearing and grubbing; grading; demolition; excavations; embankments; road construction or repair; building construction; and the moving, depositing, stockpiling, or storing of soil, rock, or earth materials.
- v. **Disturbed Area** - An unstabilized land area where a disturbance activity is occurring or has occurred.
- w. **Drainage** - Interception and removal of excess surface water or groundwater from land by artificial or natural means.
- x. **Encroachment** - Any structure or activity which in any manner changes, expands or diminishes the course, current or cross section of any watercourse, floodway or body of water.
- y. **Erosion** - The natural process by which the surface of the land is worn away by water, wind, or chemical action.
- z. **Existing Condition** - The dominant land cover during the 5-year period immediately preceding a proposed regulated activity.
- aa. **FEMA** - Federal Emergency Management Agency.
- bb. **Floodplain** - Any land area susceptible to inundation by water from any natural source or delineated by applicable FEMA maps and studies as being a special flood hazard area, as identified per the Floodplain Overlay District in Title 9. Also includes areas that comprise Group 13 Soils, as listed in Appendix A of the Pennsylvania DEP Technical Manual for Sewage Enforcement Officers (as amended or replaced from time to time by DEP).
- cc. **Floodway** - The channel of the watercourse and those portions of the adjoining floodplains that are reasonably required to carry and discharge the 100-year flood. Unless otherwise specified, as identified per the Floodplain Overlay District in Title 9. In an area where no FEMA maps or studies have defined the boundary of the 100-year floodway, it is assumed--absent evidence to the contrary--that the floodway extends from the stream to 50 feet

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from the top of the bank of the stream.

- dd. **Green Infrastructure** - Systems and practices that use or mimic natural processes to infiltrate, evapotranspire, or reuse stormwater on the site where it is generated.
- ee. **Groundwater** - Water beneath the earth's surface that supplies wells and springs and is within the saturated zone of soil and rock.
- ff. **Groundwater Recharge** - The replenishment of existing natural underground water supplies from precipitation or overland flow.
- gg. **Hydrologic Soil Group (HSG)** - Infiltration rates of soils vary widely and are affected by subsurface permeability as well as surface intake rates. Soils are classified into four HSGs (A, B, C, and D) according to their minimum infiltration rate, which is obtained for bare soil after prolonged wetting. The NRCS defines the four groups and provides a list of most of the soils in the United States and their group classification. The soils in the area of the development site may be identified from a soil survey report that can be obtained from local NRCS offices or conservation district offices. Soils become less pervious as the HSG varies from A to D (NRCS 1, 2).
- hh. **Impervious Surface (Impervious Area)** - A surface that prevents the infiltration of water into the ground. Impervious surfaces (or areas) shall include, but not be limited to: roofs; additional indoor living spaces, patios, garages, storage sheds and similar structures; and any new streets or sidewalks. Decks, parking areas, and driveway areas are counted as impervious areas if they directly prevent infiltration. Gravel is considered impervious unless compaction or infiltration test are provided.
- ii. **Invasive Species** - Plant species that are not native to the state, grow aggressively, and spread and displace native vegetation per DCNR's most-recently published invasive species list.
- jj. **Infiltration** - Movement of surface water into the soil, where it is absorbed by plant roots, evaporated into the atmosphere, or percolated downward to recharge groundwater.
- kk. **Land Development (Development)** - Any activity, construction, alteration, change in land use or similar action that affects stormwater runoff characteristics. The definitions in the "Subdivision Regulations & Standards of the City Planning Commission," the Special Definitions for the Riverfront Overlay District of the Zoning Code, and/or the definition in Chapter 926 of the Zoning Code may apply.
- ll. **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.
- mm. **Landslide-Prone Area** - Any area delineated on the City of Pittsburgh landslide-prone overlay district map and /or which is determined by a geotechnical study to be landslide prone.

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- nn. **MS4** - Municipal Separate Storm Sewer System; a conveyance or system of conveyances that is owned by a state, city, town, village, or other public entity that discharges to waters of the Commonwealth; is designed or used to collect or convey stormwater (including storm drains, pipes, ditches, etc.); is not a combined sewer; and is not part of a Publicly Owned Treatment Works (sewage treatment plant).
- oo. **Native Vegetation** - Plant species that have historically grown in Pennsylvania and are not invasive species as defined herein.
- pp. **NRCS** - USDA Natural Resources Conservation Service (previously Soil Conservation Service).
- qq. **Peak Discharge / Flow / Rate of Runoff** - The maximum rate of flow of water at a given point and time resulting from a specific storm event.
- rr. **Pervious Area** - Any area not defined as impervious.
- ss. **Project Site** - The specific area of land where any regulated activities in the City are planned, conducted, or maintained.
- tt. **Qualified Professional** - Any person licensed by the Pennsylvania Department of State or otherwise qualified under Pennsylvania law to perform the work required by this Ordinance.
- uu. **Regulated Activities** - Any earth disturbance activities or any activities that involve the alteration or development of land in a manner that may affect stormwater runoff.
- vv. **Regulated Earth Disturbance Activity** - Activity involving earth disturbance subject to regulation under PA Code Title 25, Chapters 92 and 102, or the Clean Streams Law.
- ww. **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.
- xx. **Release Rate District** - A watershed or portion of a watershed for which a release rate has been established by an adopted Act 167 Stormwater Management Plan.
- yy. **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.
- zz. **Return Period** - The average interval, in years, within which a storm event of a given magnitude can be expected to occur one time. For example, the 25-year return period rainfall would be expected to occur on average once every 25 years; or stated in another way, the probability of a 25-year storm occurring in any one year is 0.04 (i.e., a 4% chance).
- aaa. **Riparian Buffer** - A permanent vegetated area of trees and shrubs located adjacent to streams, lakes, ponds and wetlands.
- bbb. **Runoff** - Any part of precipitation that flows over the land.
- ccc. **Sediment** - Soils or other materials transported by surface water as a product of erosion.
- ddd. **Simplified Method** - A method of calculating stormwater management needs, also known as Volume Control-

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Guideline 2 (CG-2) in the BMP Manual³, which is independent of site conditions.

- eee. **State Water Quality Requirements** - The regulatory requirements to protect, maintain, reclaim, and restore water quality under PA Code Title 25 and the Clean Streams Law.
- fff. **Stormwater** - Drainage runoff from the surface of the land resulting from precipitation or snow or ice melt.
- ggg. **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; rain gardens, bio-retention planters and swales, and other infiltration facilities.
- hhh. **Stormwater Management Site Plan** - The plan prepared by the developer or the developer's representative indicating how stormwater runoff will be managed at the development site in accordance with this Ordinance. Stormwater Management Site Plan will be designated as **SWM Site Plan** throughout this Ordinance.
- iii. **Stream** - A channel or conveyance of surface water having a defined bed and banks, whether natural or artificial, with perennial or intermittent flow.
- jjj. **Streambank, top of** - the first substantial break in slope between the edge of the bed of the stream and the surrounding terrain.
- kkk. **Undermined area** - Area where coal or other minerals have been mined, removing the lateral support and leaving underground voids where the accumulation of water can occur and/or can increase acid mine drainage.
- III. **USDA** - United States Department of Agriculture.
- mmm. **Waters of this Commonwealth** - Any and all rivers, streams, creeks, rivulets, impoundments, ditches, watercourses, storm sewers, lakes, dammed water, wetlands, ponds, springs, and all other bodies or channels of conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of this Commonwealth.
- nnn. **Watercourse** - See Stream.
- ooo. **Watershed** - Region or land area drained by a river, watercourse, or other surface water of this Commonwealth to a downstream point.
- ppp. **Wetland** - Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas.

ARTICLE III - STORMWATER MANAGEMENT STANDARDS

13301. General Requirements

- a. For all regulated activities that result in cumulative earth disturbances equal to or greater than 10,000 SF, or the

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addition of 5,000 SF of impervious area, or lower thresholds as defined in the Zoning Ordinance, unless preparation of an SWM Site Plan is specifically exempted in Section 302:

1. Preparation and implementation of an approved SWM Site Plan is required.
2. No regulated activities shall commence until the City issues written approval of an SWM Site Plan, which demonstrates compliance with the requirements of this Ordinance.
- b. SWM Site Plans approved by the City, in accordance with Section 406, shall be on site throughout the duration of the regulated activity.
- c. These standards apply to the landowner and any person engaged in regulated activities.
- d. Riparian Buffer requirements per Section 305 are applicable regardless of whether or not the disturbance thresholds triggering SWM Site Plan review are met.
- e. For all regulated earth disturbance activities, erosion and sediment control BMPs shall be designed, implemented, operated, and maintained during the regulated earth disturbance activities (e.g., during construction) to meet the purposes and requirements of this Ordinance and to meet all requirements under PA Code Title 25 and the Clean Streams Law. Various BMPs and their design standards are listed in the Erosion and Sediment Pollution Control Program Manual (E&S Manual4), No. 363-2134-008, as amended and updated.
- f. Impervious areas:
 1. The measurement of impervious areas shall include all of the impervious areas in the total proposed development even if development is to take place in stages.
 2. For development taking place in stages, the entire development plan must be used in determining conformance with this Ordinance.
 3. For projects that add impervious area to a site, the total impervious area is subject to the requirements of this Title and of Title Nine, the Zoning Code.
- g. Stormwater flows onto adjacent or downstream property shall not be created, increased, decreased, relocated, impeded, or otherwise altered without written permission of the affected property owner(s). Notification shall include a description of the proposed development and the stormwater flows that are being created, increased, decreased, relocated, impeded, or otherwise altered. Adjacent property shall at a minimum include any property having a shared boundary with the subject property of the SWM Site Plan, however, if in the judgement of the Designated Plan Reviewer additional properties are being affected, additional notifications may be required. Proof of notification (signed postal receipt for example) shall be included as part of the SWM Plan submission to the City. Such stormwater flows shall be subject to the requirements of this Ordinance.
- 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, natural slopes over twenty-five percent (25%), existing native

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vegetation, trees and wooded areas.

- B. Maintain or extend riparian buffers.
 - C. Minimize soil disturbance and soil compaction.
 - D. Avoid erosive flow conditions in natural flow pathways.
 - E. Minimize thermal impacts to waters of this Commonwealth.
 - F. Disconnect impervious surfaces by directing runoff to pervious areas, wherever possible.
3. Incorporate methods described in the DEP Stormwater Best Management Practices Manual (BMP Manual³). If methods other than green infrastructure and LID methods are proposed to achieve the volume and rate controls required under this Ordinance, the SWM Site Plan must include a detailed justification, acceptable to the Designated Plan Reviewer, demonstrating that the use of LID and green infrastructure is not practicable. See section 306.
- i. Infiltration BMPs should be dispersed throughout the project site at strategic locations, made as shallow as practicable, and located to maximize use of natural on-site infiltration features provided that the geological and soil conditions are conducive to infiltration. Infiltration is prohibited in the Landslide-Prone Overlay District.
 - j. 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.
 - k. The design storm precipitation depths to be used in the analysis of peak rates of discharge shall be as obtained in PennDOT's Drainage Manual, Publication 584, Appendix 7A; or 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.
 - l. For all regulated activities, SWM BMPs shall be designed, implemented, operated, and maintained to meet the purposes and requirements of this Ordinance and to meet all requirements under PA Code Title 25, the Clean Streams Law, and the Storm Water Management Act.
 - m. Regulated activities shall incorporate BMPs and their design standards as listed in the BMP Manual³ when feasible or required
 - n. The City may, after consultation with DEP, approve measures for meeting the state water quality requirements other than those in this Ordinance, provided that they meet the minimum requirements of, and do not conflict with, state law including, but not limited to, the Clean Streams Law.

13302. Exemptions

- a. Agricultural activity is exempt from the SWM Site Plan preparation requirements of this Ordinance provided the activities are performed according to the requirements of PA Code Title 25, Chapter 102.
- b. Roadway resurfacing and maintenance projects, which do not increase impervious area, and underground

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infrastructure projects are exempt from the provisions of this Ordinance, provided the activities meet the requirements of all other Municipal, State and Federal requirements.

- c. Demolition of a residential structure by the City or other governmental body.
- d. Exemptions from any provisions of this Ordinance shall not relieve the applicant from the requirements in Sections 301.E. through K, which require all disturbance and development activities, regardless of SWM Site Plan review requirements, to comply with other relevant state and local codes.
- e. The City may deny or revoke any exemption pursuant to this Section at any time for any project that the City believes may pose a threat to public health and safety or the environment.
- f. If conditions exist that prevent the reasonable implementation of water quality and/or quantity control practices on site, upon written request by the applicant, the Department may at its sole discretion accept off-site stormwater management practices, retrofitting, stream restorations, or other practices that provide water quality and/or quantity control equal or greater than onsite practices for the volume which the applicant has demonstrated to be infeasible to manage and treat on site.

13303. Volume Controls

The green infrastructure and low impact development practices provided in the BMP Manual³ shall be utilized for all regulated activities wherever possible. Water volume controls shall be implemented using the Design Storm Method in Subsection A or the Simplified Method in Subsection B below, or alternative design criteria as allowed by PA Code Title 25, Chapter 102.

- a. The Design Storm Method (CG-1 in the BMP Manual³) is applicable as a method to any size of regulated activity. This method requires detailed modeling based on site conditions. The following shall be incorporated into the Design Storm method:
 - 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 privately-funded projects: At least the first one inch of runoff from impervious surfaces shall be permanently removed from the runoff flow, i.e., it shall not be released into the surface waters of this Commonwealth.
 - 3. For publicly-funded projects: Runoff from at least the 95th percentile storm event shall be permanently removed from the runoff flow, i.e., it shall not be released into the surface waters of this Commonwealth.
 - 4. For both privately- and publicly-funded projects: Removal options include reuse, evaporation, transpiration, and, except in the Landslide-Prone Overlay District, infiltration. If the developer provides justification that the listed removal options are not feasible, and the Designated Plan Reviewer agrees, runoff shall be detained in a facility designed for a 24 hour dewatering time if in an area with a dedicated stormwater system (not contributory to a combined sewer system), or shall be detained in a facility designed for a 72 hour dewatering time if in an area contributory to a combined sewer system, before discharge to the environment or local stormwater systems.
 - 5. For modeling purposes:
 - A. Existing (predevelopment) non-forested pervious areas shall be calculated using permeability coefficients for meadow in good condition, in efforts to be as conservative as possible in existing conditions modeling.

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- B. 20% of existing impervious area, when present, shall be calculated using permeability coefficients for meadow in good condition in the model for existing conditions. The intent of this is to start calculations from a baseline that is closer to naturally-occurring, pre-urbanization conditions, realizing that impervious cover has detrimental hydrologic impacts.
- b. The Simplified Method (CG-2 in the BMP Manual³) 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 impervious surfaces:
1. Stormwater facilities shall capture at least the first two (2) inches of runoff from impervious surfaces.
 2. For privately-funded projects: At least the first one inch of runoff from impervious surfaces shall be permanently removed from the runoff flow, i.e., it shall not be released into the surface waters of this Commonwealth.
 3. For publicly-funded projects: Runoff from at least the 95th percentile storm event shall be permanently removed from the runoff flow, i.e., it shall not be released into the surface waters of this Commonwealth.
 4. For both privately- and publicly-funded projects: Removal options include reuse, evaporation, transpiration, and, except in the Landslide-Prone Overlay District, infiltration. If the developer provides justification that the listed removal options are not feasible, and the Designated Plan Reviewer agrees, runoff shall be detained in a facility designed for a 24 hour dewatering time if in an area with a dedicated stormwater system (not contributory to a combined sewer system), or shall be detained in a facility designed for a 72 hour dewatering time if in an area contributory to a combined sewer system, before discharge to the environment or local stormwater systems.

13304. Rate Controls

- a. For areas not covered by a maximum-allowable release rate map from an approved Act 167 Stormwater Management Plan:

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. This is the equivalent to a 100% release rate area when compared to those rates shown in the maps contained in Appendix A (New and Existing Release Rate Management Districts). This Pre-development to Post-development control is not to be misconstrued as the same as the “Conditional Direct Discharge” areas on the Release Rate maps. 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. Peak flows should be computed using the methods included in the Chapter titled “Stormwater Calculations and Methodology” of the BMP Manual³.

- b. For areas covered by a maximum-allowable release rate map from an approved Act 167 Stormwater Management Plan:

For the 1-, 2-, 5-, 10-, 25-, 50-, and 100-year, 24-hour storm events, the post-development peak discharge rates will follow the applicable approved release rate maps. These maps are contained in Appendix A (New and Existing Release Rate Management Districts). Peak flows should be computed using the methods included in Chapter 8 of the BMP Manual³.

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- a. For modeling purposes, whether or not the area is covered by a maximum-allowable release rate map:
1. Existing (predevelopment) non-forested pervious areas shall be calculated using permeability coefficients for meadow in good condition.
 2. 20% of existing impervious area, when present, shall be calculated using permeability coefficients for meadow in good condition in the model for existing conditions. The intent of this is to start calculations from a baseline that is closer to naturally-occurring, pre-urbanization conditions, realizing that impervious cover has detrimental hydrologic impacts.

13305. Riparian Buffers

- a. In order to protect and improve water quality, a Riparian Buffer Easement shall be created and recorded as part of any subdivision or land development that encompasses a Riparian Buffer, regardless of whether other requirements from this Title apply. The intent of this ordinance in establishing a Riparian Buffer is to protect and improve stream water quality. The Riparian Buffer is intended to slow overland flow to the stream through the presence of native grasses, trees and shrubs, allowing infiltration/groundwater recharge; causing deposition of sediment, nutrients, pesticides, and other pollutants in the buffer rather than in the stream; and reducing erosion by providing stream bank stabilization. The trees provide shade for streams; keeping waters cooler and reducing evaporation.
- b. Except as required by PA Code Title 25 Chapter 102, the Riparian Buffer Easement shall be required for all streams with a contributing watershed area of greater than 10 acres. The Riparian Buffer Easement shall be measured to be a minimum of 35 feet from the top of the streambank (on each side).
- c. Minimum Management Requirements for Riparian Buffers:
1. No use or construction within the Riparian Buffer shall be permitted that is inconsistent with the intent of the Riparian Buffer as described in Section 305.A.
 2. Existing native vegetation shall be protected and maintained within the Riparian Buffer Easement.
 3. Whenever practicable, invasive vegetation shall be actively removed and the Riparian Buffer Easement shall be planted with native trees, shrubs and other vegetation to create a diverse native plant community appropriate to the intended ecological context of the site.
- d. The Riparian Buffer Easement shall be enforceable by the City and shall be recorded in the appropriate County Recorder of Deeds Office, so that it shall run with the land and shall limit the use of the property located therein. The easement shall allow for the continued private ownership and shall count toward the minimum lot area required by Zoning, unless otherwise specified in the Zoning Ordinance.
- e. Any permitted use within the Riparian Buffer Easement shall be conducted in a manner that will maintain the extent of the existing 100-year floodplain, improve or maintain the stream stability, and preserve and protect the ecological function of the floodplain.
- f. Stormwater drainage pipes shall be permitted within the Riparian Buffer Easement, but they shall cross the Easement in the shortest practical distance. Other structural stormwater management facilities are not permitted within the

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Riparian Buffer Easement.

- g. The following conditions shall apply when public and/or private recreation trails are permitted by the City within Riparian Buffers:
 - 1. It is preferred that trails be designed to be permeable and for non-motorized use only; however, impermeable trails are permitted provided they have adequate drainage
 - 2. Trails shall be designed to have the least impact on native plant species and other sensitive environmental features.
- h. Septic drainfields and sewage disposal systems shall not be permitted within the Riparian Buffer Easement and shall comply with setback requirements established under PA Code Title 25, Chapter 73.
- i. Underground utilities shall be permitted within the Riparian Buffer Easement; however, work shall be performed to minimize disturbance area and removal of trees. Restoration within the Riparian Buffer Easement shall be with native species of trees, grasses, and other plantings.
 - 1. Where tree removal is necessary, an existing tree survey, tree replacements, and landscape restoration plan shall be designed by a Registered Professional with the requisite experience. Tree replacements shall follow the tree replacement requirements of the Zoning Ordinance for trees greater than 12" DBH (diameter at breast height), or a one-to-one replacement rate for trees lesser than 12" DBH.
 - 2. Aboveground utilities shall only be permitted to cross the Easement perpendicular to the Easement or in the shortest practical distance. Existing utilities may remain and be maintained as required.

13306. Standards for Green Infrastructure and Low-Impact Development

- a. If methods other than green infrastructure and low-impact development methods are proposed to achieve the volume and rate controls required under this Ordinance, the applicant shall demonstrate technical infeasibility in the SWM Site Plan sealed by a qualified professional.

- b. Demonstration of Technical Infeasibility

For projects where technical infeasibility exists, the developer shall document and quantify that, due to the site conditions enumerated below, it is technically infeasible to manage the total amount of the precipitation from rainfall events less than or equal to the 95th Percentile Rainfall Event by infiltrating, evapotranspiring and harvesting & reusing the precipitation using Green Infrastructure & Low Impact Development practices. Documentation of technical infeasibility shall at least include, but is not limited to, engineering calculations, geologic reports, hydrologic analyses, and site maps. The Stormwater Management Plan reviewer may consider the following site conditions that may prevent the utilization of Green Infrastructure & Low Impact Development technologies and stormwater strategies, such as infiltration, evapotranspiration, and harvesting and reuse:

- 1. The conditions on the site preclude the use of infiltration practices due to the presence of shallow bedrock, contaminated soils, landslide prone areas, near surface ground water or other factors such as underground

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facilities or utilities;

2. The design of the site precludes the use of soil amendments, plantings of vegetation or other designs that can be used to infiltrate and evapotranspire runoff;
 3. Water harvesting and use are not practical or possible because the volume of water used for irrigation, toilet flushing, industrial make-up water, wash-waters, or other is not significant enough to warrant the design and use of water harvesting and use systems;
 4. Modifications to an existing building to manage stormwater are not feasible due to structural or plumbing constraints or other factors as identified by the facility owner/operator;
 5. Small project sites where the lot is too small to accommodate infiltration practices adequately sized to infiltrate the volume of runoff from impervious surfaces;
 6. Soils that cannot be sufficiently amended to provide for the requisite infiltration rates;
 7. Situations where site use is inconsistent with the capture and use of stormwater or other physical conditions on site that preclude the use of plants for evapotranspiration or bioinfiltration;
 8. Retention and/or use of stormwater onsite or discharge of stormwater onsite via infiltration has a significant adverse effect on the site or the down gradient water balance of surface waters, ground waters or receiving watershed ecological processes, including areas that may exacerbate acid mine drainage or subsidence;
 9. State and local requirements or permit requirements that prohibit water collection or make it technically infeasible to use certain Green Infrastructure & Low Impact Development techniques;
 10. Compliance with the requirements of this Chapter would result in the retention and/or use of stormwater on the site such that an adverse water balance impact may occur to the receiving surface waterbody or ground water.
- c. If, due to the existence of site conditions described above, a developer successfully demonstrates to the Stormwater Management Plan reviewer that it is technically infeasible to manage the total amount of the precipitation from rainfall events less than or equal to the 95th Percentile Rainfall Event by infiltrating, evapotranspiring and harvesting & reusing the precipitation using Green Infrastructure & Low Impact Development practices, the remaining percentage of precipitation may be managed using conventional technologies so long as they adhere to all detention and release rate requirements in this ordinance.

ARTICLE IV - STORMWATER MANAGEMENT (SWM) SITE PLAN REQUIREMENTS

13401. Plan Requirements

The City shall not approve any SWM Site Plan that is deficient in meeting the requirements of this Ordinance. At its sole discretion and in accordance with this Article, when a SWM Site Plan is found to be deficient, the City may either

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disapprove the submission and require a resubmission, or in the case of minor deficiencies, the Designated Plan Reviewer may accept submission of modifications.

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

- a. Provisions for permanent access or maintenance easements for all physical SWM BMPs, such as ponds and infiltration structures, as necessary to implement the Operation and Maintenance (O&M) Plan discussed in section 401(c)(9) below.
- b. The SWM Site Plan shall provide the following information:
 1. The overall stormwater management concept for the project.
 2. A determination of site conditions in accordance with the BMP Manual³. A detailed site evaluation shall be completed for projects proposed in environmentally sensitive areas, such as but not limited to brownfields and areas with steep slopes.
 3. Stormwater runoff design computations and documentation as specified in this Ordinance, or as otherwise necessary to demonstrate that the maximum practicable measures have been taken to meet the requirements of this Ordinance, including the recommendations and general requirements in Section 301.
 4. Expected project schedule.
 5. A soil erosion and sediment control plan, where applicable, as prepared for and submitted to the approval authority.
 6. The effect of the project (in terms of runoff volumes, water quality, and peak flows) on surrounding properties and aquatic features and on any existing stormwater conveyance system that may be affected by the project.
 7. Plan and profile drawings of all SWM BMPs, including drainage structures, pipes, open channels, and swales.
 8. SWM Site Plan shall show the locations of existing and proposed on-lot wastewater facilities and water supply wells, property boundaries, existing and proposed topography, point(s) of interest, utilities, and potential utility conflicts.
 9. The SWM Site Plan shall include an O&M Plan for all existing and proposed physical stormwater management facilities. This plan shall address long-term ownership and responsibilities for O&M including type and schedule/frequency of maintenance activities, personnel and equipment requirements, estimated annual maintenance costs, and method of financing continuing O&M.
 10. A justification, acceptable to the Designated Plan Reviewer, must be included in the SWM Site Plan if BMPs other than green infrastructure methods and LID practices are proposed to achieve the volume, rate and water quality controls under this Ordinance. See section 306.
 - A. Documentation and quantification of why, due to the applicable site conditions, it is technically infeasible to manage the total amount of the precipitation from rainfall events less than or equal to the 95th Percentile Rainfall Event by infiltrating, evapotranspiring and harvesting & reusing the precipitation using Green Infrastructure & Low Impact Development practices;

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- B. If conventional technology will be used to manage any volume, a list and description of conventional technologies the developer plans to utilize and how much precipitation volume those conventional technologies will manage.

13402. Plan Submission

Plans shall be submitted in a format acceptable to the Designated Plan Reviewers.

13403. Plan Review

- a. SWM Site Plans shall be submitted to and approved by the City for consistency with the provisions of this Ordinance.
- b. The City has designated the Department of City Planning and the Pittsburgh Water and Sewer Authority as the Designated Plan Reviewers of SWM Site Plans for the City, and shall be understood to be the reviewer where indicated as the City within this ordinance.
- c. The City shall notify the applicant in writing within 45 days whether the SWM Site Plan is approved or disapproved or requires additional documentation. If a longer notification period is provided by other statute, regulation, or ordinance, the applicant will be so notified by the City.
- d. For any SWM Site Plan that proposes to use any BMPs other than green infrastructure and LID practices to achieve the volume and rate controls required under this Ordinance, the City will not approve the SWM Site Plan unless it determines that green infrastructure and LID practices are not practicable.
- e. If the City disapproves the SWM Site Plan, the City will state the reasons for the disapproval in writing. Revisions can be approved if requirements of the code are met.

13404. Modification of Plans

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

13405. Resubmission of Disapproved SWM Site Plans

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

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13406. Authorization to Construct and Term of Validity

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

13407. Record Drawings, Completion Certificate, and Final Inspection

- a. The Design Engineer must be given a minimum of one week notice prior to the SWM BMPs installation. The Design Engineer must be present during the installation of all layers of the SWM BMPs.
- b. The developer shall be responsible for providing record drawings of all SWM BMPs included in the approved SWM Site Plan. The record drawings and an explanation of any discrepancies with the construction plans shall be submitted to the City.
- c. The record drawing submission shall include a certification of completion signed by the BMP Design Engineer, or the Design Engineer's representative for the project, verifying that all permanent SWM BMPs have been constructed according to the approved plans and specifications. The latitude and longitude coordinates for all permanent SWM BMPs must also be submitted, at the central location of the BMPs. If any licensed qualified professionals contributed to the construction plans, then a licensed qualified professional must sign the completion certificate.
- d. The City or its designated representative may conduct inspections during construction as it deems appropriate. If inspections performed by the City reveal deficiencies from the submitted and approved SWM Site Plan, the City may request corrective actions. Any corrective action shall be at the cost of the stormwater facility owner.
- e. After receipt of the completion certification by the City, the City will conduct a final inspection, and may conduct inspections thereafter to ensure proper functioning and compliance with approved plans.

ARTICLE V - OPERATION AND MAINTENANCE

13501. Responsibilities of Developers and Landowners

- a. The Designated Plan Reviewers shall make the final determination on the continuing maintenance responsibilities prior to final approval of the SWM Site Plan but it is assumed that the Owner will be responsible for all operation and maintenance responsibilities unless otherwise agreed upon by the City and PWSA in writing.
- b. Facilities, areas, or structures used as SWM BMPs shall be enumerated as permanent real estate appurtenances and recorded as deed restrictions or conservation easements that run with the land.

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- c. The O&M Plan shall be recorded as a restrictive deed covenant that runs with the land.
 - d. PWSA, in coordination with the City, may take enforcement actions against an owner for any failure to satisfy the provisions of this Article.

13502. Operation and Maintenance Agreements

- a. Prior to final approval of the SWM Site Plan, the property owner shall sign and record an Operation and Maintenance (O&M) Agreement, as approved by the Designated Plan Reviewers, covering all stormwater control facilities which are to be privately owned.
 - 1. The owner, successor and assigns shall maintain all facilities in accordance with the approved maintenance schedule in the O&M Agreement.
 - 2. The owner shall maintain the stormwater control facilities to ensure that the post-construction stormwater runoff performance standards are being met.
 - 3. The owner shall convey to the City conservation easements to assure access for periodic inspections by PWSA as necessary.
 - 4. The owner shall keep on file with the City the name, address, and contact information of the person or company responsible for maintenance activities; in the event of a change, new information shall be submitted by the owner to the City within ten (10) working days of the change.
- b. The owner is responsible for operation and maintenance (O&M) of the SWM BMPs. If the owner fails to adhere to the O&M Agreement, the City / PWSA may perform the services required and charge the owner appropriate fees. Nonpayment of fees may result in a lien against the property.

13503. Operator Inspections

The landowner or the owner's designee (including the City for dedicated and owned facilities) shall inspect SWM BMPs, facilities and/or structures installed under this Ordinance according to the following frequencies, at a minimum, to ensure the BMPs, facilities and/or structures continue to function as intended:

- a. Annually for the first 5 years.
- b. Once every 3 years thereafter.
- c. During or immediately after the cessation of a 10-year or greater storm.

A written inspection report shall be created to document each inspection. The inspection report shall contain the date and time of the inspection, the individual(s) who completed the inspection, the location of the BMP, facility or structure inspected, observations on performance, and recommendations for improving performance, if applicable. Inspection reports shall be kept onsite and furnished to City / PWSA inspectors upon request.

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13503. Performance Guarantee

For SWM Site Plans that involve subdivision and land development, the applicant shall provide a financial guarantee to the City for the timely installation and proper construction of all stormwater management controls as required by the approved SWM Site Plan and this Ordinance in a format acceptable to the City.

ARTICLE VI - FEES AND EXPENSES

13601. General

The City may include all costs incurred into the review fee charged to an applicant. The review fee may include, but not be limited to, costs for the following:

- a. Administrative/clerical processing.
- b. Review of the SWM Site Plan.
- c. Review of a SWM Site Plan resubmission.
- d. Attendance at meetings.
- e. Inspections.

ARTICLE VII - PROHIBITIONS

13701. Prohibited Discharges and Connections

- a. Any drain or conveyance, whether on the surface or subsurface, that allows any non-stormwater discharge including sewage, process wastewater, and wash water to enter a regulated MS4 or to enter the surface waters of this Commonwealth is prohibited.
- b. No person shall allow, or cause to allow, discharges into a regulated MS4, or discharges into waters of this Commonwealth, which are not composed entirely of stormwater, except (1) as provided in paragraph C below and (2) discharges authorized under a state or federal permit.
- c. The following discharges are authorized unless they are determined to be significant contributors to pollution of a regulated 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

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do not contain detectable concentrations of Total Residual Chlorine (TRC).

3. Non-contaminated irrigation water, water from lawn maintenance, landscape drainage and flows from riparian habitats and wetlands.
 4. Diverted stream flows and springs.
 5. Non-contaminated pumped ground water and water from foundation and footing drains and crawl space pumps.
 6. Non-contaminated HVAC condensation and water from geothermal systems.
 7. Residential (i.e., not commercial) vehicle wash water where cleaning agents are not utilized.
 8. Non-contaminated hydrostatic test water discharges, if such discharges do not contain detectable concentrations of TRC.
 9. Dechlorinated swimming pool and hot tub discharges, as long as the DEP guidelines for swimming pool water discharge are followed.
- d. In the event that the City or DEP determines that any of the discharges identified in Subsection C significantly contribute pollutants to a regulated MS4 or to the waters of this Commonwealth, the City or DEP will notify the responsible person(s) to cease the discharge.

13702. Roof Drains and Sump Pumps

Roof drains and sump pumps shall discharge to infiltration or vegetative BMPs wherever feasible.

13703. Alteration of SWM BMPs

No person shall modify, remove, fill, landscape, or alter any SWM BMPs, facilities, areas, drainage easements, or structures that were installed as a requirement of this Ordinance without the written approval of the City.

ARTICLE VIII - ENFORCEMENT AND PENALTIES

13801. Right of Entry

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

13802. Enforcement

- a. It shall be unlawful for a person to undertake any regulated activity except as provided in an approved SWM Site

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Plan, unless specifically exempted in Section 302.

- b. It shall be unlawful to violate Section 703 of this Ordinance.
- c. Inspections regarding compliance with the SWM Site Plan are a responsibility of the City. Inspections for operations and maintenance are the responsibility of the landowner or the owner's designee.

13803. Suspension and Revocation

- a. Any approval or permit issued by the City pursuant to this Ordinance may be suspended or revoked for:
 - 1. Non-compliance with or failure to implement any provision of the approved SWM Site Plan or O&M Agreement.
 - 2. A violation of any provision of this Ordinance or any other applicable law, ordinance, rule, or regulation relating to the Regulated Activity.
 - 3. The creation of any condition or the commission of any act during the Regulated Activity which constitutes or creates a hazard, nuisance, pollution, or endangers the life or property of others.
- b. A suspended approval may be reinstated by the City when:
 - 1. The City has inspected and approved the corrections to the violations that caused the suspension.
 - 2. The City is satisfied that the violation has been corrected.
- c. An approval that has been revoked by the City cannot be reinstated. The applicant may apply for a new approval under the provisions of this Ordinance.
- d. If a violation causes no immediate danger to life, public health, or property, at its sole discretion, the City may provide a limited time period for the owner to correct the violation. In these cases, the City 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 City may revoke or suspend any, or all, applicable approvals and permits pertaining to any provision of this Ordinance.

13804. Penalties

- a. Anyone violating the provisions of this Ordinance shall be guilty of a summary offense, and upon conviction, shall be subject to a fine consistent with current City fee and penalty schedules for each violation, recoverable with costs. Each day that the violation continues shall be a separate offense and penalties shall be cumulative.
- b. In addition, the City may institute injunctive, mandamus, or any other appropriate action or proceeding at law or in equity for the enforcement of this Ordinance. Any court of competent jurisdiction shall have the right to issue restraining orders, temporary or permanent injunctions, mandamus, or other appropriate forms of remedy or relief.

13805. Appeals

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- a. Any person aggrieved by any action of the City or its designee, relevant to the provisions of this Ordinance, may appeal to the City within 30 days of that action.
 - b. Any person aggrieved by any decision of the City, relevant to the provisions of this Ordinance, may appeal to the Allegheny County Court of Common Pleas within 30 days of the City's decision.

ARTICLE IX - REFERENCES

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

APPENDICES - see City website

Section 2. AMENDING AND SUPPLEMENTING THE PITTSBURGH CODE, BY DELETING STORMWATER MANAGEMENT TEXT FROM TITLE 10, BUILDING, CHAPTER 1003.

The strike-through text below shall be removed from the Building Code as it is being replaced by the new Stormwater Management Ordinance in Title 13. Text without strike-through shall remain in the Building Code as is.

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§ 1001.04 - PURPOSE AND INTENT.

(a) This Title is hereby declared to be remedial and shall be construed to secure the beneficial interests and purposes, thereof, which are public safety, health and welfare through structural strength and stability, means of egress, adequate light and ventilation and safety to life, limb and property from fire and other hazards, incident to the design, construction, alteration, repair, removal, demolition, use or occupancy of buildings or structures and their appurtenant equipment.

~~(b) The purpose of this Title is additionally to promote health, safety, and welfare within the City watersheds, through provisions designed to:~~

~~(1) Meet legal water quality requirements under state law, including regulations at 25 Pa. Code Chapter 93, to protect, maintain, reclaim and restore the existing and designated uses.~~

~~(2) Preserve the natural drainage systems as much as possible.~~

~~(3) Manage stormwater impacts close to the runoff source.~~

~~(4) Provide procedures and performance standards for stormwater planning and management.~~

~~(5) Prevent scour and erosion of stream banks and streambeds.~~

~~(6) Provide proper operations and maintenance of all permanent SWM BMPs that are implemented within the City.~~

~~(7) Provide standards to meet NPDES permit requirements.~~

~~(8) Maintain groundwater recharge, to prevent degradation of surface and groundwater quality and to otherwise protect water resources.~~

~~(9) Encourage innovative BMPs for site plans in post-construction stormwater management in both new development and redevelopment.~~

[SUBSECTION DELETED]

(Ord. 19-2007, § 1, eff. 11-19-07)

CHAPTER 1003: - LAND OPERATIONS CONTROL AND STORMWATER MANAGEMENT¹³¹

Footnotes:

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Editor's note- Ord. 9-2004, effective June 8, 2004, renumbered former Ch. 1009 as Ch. 1003 and amended same to read as herein set out. See the editor's note at Title 10 and also the Code Comparative Table for a detailed analysis of inclusion. Subsequently, Ord. 19-2007, amended Ch. 1003, in its entirety, to read as herein set out. Prior to inclusion of said ordinance, Ch. 1003 was entitled, "Land Operations Control."

§ 1003.01 - DEFINITIONS.

As used in this Chapter, certain terms are defined as follows:

(a) **95TH PERCENTILE RAINFALL EVENT.** The measured precipitation depth accumulated over a twenty-four-hour period for the period of record that ranks as the 95th percentile rainfall depth based on the range of all daily event occurrences during this period.

(b) **ACCD.** The Allegheny County Conservation District, which has the authority as an agency of state government to administer and enforce all or a portion of the erosion and sediment control program in

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- (c) ~~ACT~~ or ~~ACT 167~~ means the Storm Water Management Act (Act of October 4, 1978, P.L. 864, No. 167; 32 P.S. §§ 680.1-680.17, as amended by Act of May 24, 1984, P.L. 324, No. 63).
- (d) ~~AGRICULTURAL ACTIVITY~~. 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.

[SUBSECTION DELETED]

- (e) ~~APPLICANT~~. A landowner, developer or other person who has filed an application for approval to engage in any Regulated Activities.
- (f) ~~BMP (BEST MANAGEMENT PRACTICE) or SWM BMP~~. Activities, facilities, designs, measures or procedures used to manage stormwater impacts from Regulated Activities, to meet State Water Quality Requirements, and to otherwise meet the purposes of this Chapter. BMPs include but are not limited to infiltration (except in the Landslide-Prone Overlay District), filter strips, low impact design, bioretention, wet ponds, permeable paving, grassed swales, forested buffers, sand filters and detention basins. Structural SWM BMPs are permanent appurtenances to the site. BMPs include but are not limited to those described or depicted in the City of Philadelphia Stormwater Management Guidance Manual (2007) and in the DEP Pennsylvania Stormwater BMP Manual.
- (g) ~~CHANNEL~~. A natural stream that conveys water; a ditch or open channel excavated for the flow of water.
- (h) ~~CITY~~. The City of Pittsburgh, Allegheny County, Pennsylvania, and any related City agency, department, or authority.
- (i) ~~CODE OFFICIAL~~. The executive official in charge of the Department of Building Inspection as defined in the ICC International Building Code, Section 103.1 as amended (Title 10, Chapter 1002, Section 1002.02), or such other officer of the City as may from time to time be designated by the City Council or its designee.

[SUBSECTION DELETED]

- (j) ~~DECISION-MAKING BODY~~. The entity (City Council, Planning Commission, Zoning Board of Adjustment, Zoning Administrator, Planning Director, department head or Code Official) that is authorized to finally approve or deny an application, plan or permit required under this Chapter.
- (k) ~~DEP~~. The Pennsylvania Department of Environmental Protection.
- (l) ~~DEPARTMENT~~. The Department of City Planning of the City of Pittsburgh.
- (m) ~~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. twenty-four (24) hours), used in the design and evaluation of stormwater management systems.

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- (n) **DETENTION.** Slowing, dampening, or attenuating runoff flows entering the storm drainage system by temporarily holding water in areas such as detention basins, reservoirs, on roof tops, in streets, parking lots, or within the drainage system itself, and releasing the water at a desired rate of discharge.
- (o) **DETENTION BASIN.** The basin designed to retard stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate.
- (p) **DEVELOPER.** Any landowner, agent of such landowner or tenant with the permission of such landowner, who seeks to make or makes or causes to be made a subdivision or land development or to undertake any Regulated Activities at a site in the City.
- (q) **DEVELOPMENT.** Any activity, construction, alteration, change in land use or similar action that affects stormwater runoff characteristics. The definitions in the "Subdivision Regulations & Standards of the City Planning Commission," the Special Definitions for the Riverfront Overlay District of the Zoning Code, and/or the definition in Chapter 926 of the Zoning Code may apply.
- (r) **DISCHARGE.** Rate of flow, specifically fluid flow. A volume of fluid flowing from a conduit or channel, or being released from detention storage, per unit of time. Commonly expressed as cubic feet per second (cfs), million gallons per day (mgd), gallons per minute (gpm), or cubic meters per second (cms).
- (s) **DISTURBED AREA.** An un-stabilized land area where a land operation is occurring or has occurred.
- (t) **DRAINAGE.** Interception and removal of excess surface water or groundwater from land by artificial or natural means.
- (u) **ENCROACHMENT.** Any structure or activity which in any manner changes, expands or diminishes the course, current or cross section of any watercourse, floodway or body of water.
- (v) **EROSION.** The wearing away of the land surface by running water, wind, ice, other geological agents, or chemical action.

[SUBSECTION DELETED]

- (w) **EXCAVATION.** The end result of excavating.
- (x) **EXCAVATING.** Any act by which ground components such as earth, sand, gravel, coal or other minerals, rock or similar material are cut into, dug, quarried, uncovered, removed, crushed, displaced or relocated, including conditions resulting therefrom.
- (y) **EXTENDED DETENTION VOLUME (EDV).** Release of run-off - i.e., runoff in excess of Permanently Removed Volume (PRV) - over a period of time not less than twenty-four (24) and not more than seventy-two (72) hours from the start of the design storm.

[SUBSECTION DELETED]

- (z) **EXISTING CONDITION.** The dominant land cover during the five-year period immediately preceding a proposed Regulated Activity.
- (aa) **EXTRACTING INDUSTRY.** A commercial or industrial or research operation involving the surface

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removal of natural accumulations of sand, rock, soil, gravel, coal or any mineral.

- (bb) **FILL.** The end result of filling or the material used in filling.
- (cc) **FILLING.** Any act by which material is deposited into a cavity, mounded or banked or added to an existing base, including any conditions resulting therefrom. Stock piling of material, if accepted as such by the Code Official, shall not constitute filling.
- (dd) **FLOODPLAIN.** Any land area susceptible to inundation by water from any natural source or delineated by applicable Federal Emergency Management Agency (FEMA) maps and studies as being a special flood hazard area. Also included are areas that comprise Group 13 Soils, as listed in Appendix A of the Pennsylvania Department of Environmental Protection Technical Manual for Sewage Enforcement Officers.
- (ee) **FLOODWAY.** The channel of the watercourse and those portions of the adjoining floodplains that is reasonably required to carry and discharge the one hundred-year flood. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the one hundred-year floodway, it is assumed - absent evidence to the contrary - that the floodway extends from the stream to fifty (50) feet from the top of the bank of the stream.

[SUBSECTION DELETED]

- (ff) **GRADIENT.** The degree of inclination of a slope, expressed in terms of the percentage of the difference in the vertical elevation to the horizontal distance (e.g., a gradient of twenty-five (25) percent means a difference in vertical elevation of twenty-five (25) feet in a horizontal distance of one hundred (100) feet.)
- (gg) **GRADING.** Excavating or filling or any combination thereof.
- (hh) **GREEN INFRASTRUCTURE & LOW IMPACT DEVELOPMENT.** The use of natural systems to help absorb, infiltrate, evaporate or re-use stormwater runoff, including but not limited to rain barrels and cisterns, roofs covered with vegetation and plantings, tree boxes, rain gardens and pocket wetlands.
- (ii) **GROUNDWATER.** That part of the subsurface water which is below the zone of saturation.
- (jj) **IMPERVIOUS SURFACE (IMPERVIOUS AREA).** A surface that prevents the infiltration of water into the ground. Impervious surfaces (or covers) shall include, but not be limited to, roofs, additional indoor living spaces, patios, garages, storage sheds and similar structures, and any new streets or sidewalks. Decks, parking areas, and driveway areas are not counted as impervious areas if they do not prevent infiltration. The measurement of impervious areas shall include all of the impervious areas in a proposed development even if development is to take place in stages.
- (kk) **INFILTRATION.** The penetration and movement of water through the earth's surface.

[SUBSECTION DELETED]

- (ll) **LAND DEVELOPMENT (DEVELOPMENT).** Inclusive of any or all of the following meanings: (i) the improvement of one (1) lot or two (2) or more contiguous lots, tracts, or parcels of land for any purpose

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- involving (a) a group of two (2) or more buildings, or (b) the division or allocation of land or space between or among two (2) or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups, or other features; (ii) any subdivision of land; (iii) development in accordance with the Pittsburgh Zoning Code.
- (mm) **LAND OPERATION.** An operation and related activities involving or primarily connected with reshaping of land including, but not limited to, grading; surface mining; removal of trees, vegetation or other natural ground cover; transportation of fill or other material for disposal purposes; clearing and grubbing; excavations; embankments; road maintenance; building construction and the moving, depositing, stockpiling, crushing, or storing of soil, coal, rock or earth materials; and surfacing of land.
- (nn) **LAND RECLAMATION PROJECT.** A land reclaiming or conservation undertaking, extending over a site of not less than twenty (20) acres involving a land operation with or without an extracting industry as a continuing activity over an extended period of time, and which will leave the land suitable for re-use, either for new development or in a natural state as usable open space.
- ~~(oo) **LANDSLIDE PRONE AREA.** Any area delineated on the City of Pittsburgh Landslide Prone Overlay Zone Map and /or which is determined by a geotechnical study to be landslide prone.~~
- ~~(pp) **MEADOW.** A field of grass or other vegetation excluding shrubs or trees.~~
- ~~(qq) **PEAK DISCHARGE.** The maximum rate of stormwater runoff from a specific storm event.~~
- ~~(rr) **PEAK RATE OF RUNOFF.** The maximum rate of flow of water at a given point and time resulting from a specific storm event.~~
- ~~(ss) **PERMANENTLY REMOVED VOLUME (PRV).** The volume of runoff that is permanently removed from the runoff and not released into surface Waters of this Commonwealth during or after a storm event.~~
- [SUBSECTION DELETED]
- (tt) **PERMIT.** A land operations permit as prescribed in this Chapter.
- ~~(uu) **PERVIOUS AREA.** Any area not defined as impervious.~~
- (vv) **PUBLICLY FUNDED DEVELOPMENT.** Any development funded in whole or in part by public monies that are provided by the City or approved by the City pursuant to the Redevelopment Assistance Capital Program, and that are in the form of any grant, loan that is forgiven or discounted below the market rate over the life of the loan, bond financing, infrastructure improvements related to a project, below-market sale or lease of property, or other form of financial assistance with an aggregate value over the life of all planned phases of development of at least one million dollars (\$1,000,000.00). Public monies provided in the form of educational or training grants shall not count towards the aggregate value. For purposes of determining whether the assistance threshold is met, all affiliates, controlled organizations, controlling organizations, and/or organizations having an identity of interest with the assistance recipient shall be treated as a single entity. Market value shall be determined by a third party that shall not include the City or the City subsidy recipient.
- ~~(ww) **PUBLICLY FUNDED REDEVELOPMENT.** Any land-disturbing activity that results in the creation,~~

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addition, or replacement of five hundred (500) square feet or more of impervious surface area at a Publicly Funded Development that has already been permitted pursuant to the requirements of section 1003.04A of this Title.

- (xx) **REGISTERED PROFESSIONAL.** Any professional person registered with the Commonwealth or otherwise qualified by law in one (1) or more of the design professions, with specialized experience in soil mechanics, foundation investigation or stormwater management, such as a registered professional engineer, a registered architect, a registered landscape architect, or other person qualified to perform the work required by this Chapter whose qualifications are acceptable to the Code Official and/or Zoning Administrator.
- (yy) **REGULATED ACTIVITIES.** Any land operations, earth disturbances or any activities that involve the alteration or development of land in a manner that may affect stormwater runoff.
- (zz) **RETENTION/REMOVED.** The volume of runoff that is captured and not released directly into the Waters of this Commonwealth during or after a storm event.
- (aaa) **RETURN PERIOD.** The average interval, in years, within which a storm event of a given magnitude can be expected to occur one (1) time. For example, the twenty-five-year return period rainfall would be expected to occur on average once every twenty-five (25) years.
- (bbb) **REVIEW BODY.** The entity (City Council, Planning Commission, Zoning Board of Adjustment, Zoning Administrator, Planning Director, department head or Code Official) that is authorized to approve or deny or to recommend approval or denial of an application, plan or permit required under this Chapter.
- (ccc) **RUNOFF.** Any part of precipitation that flows over the land.
- (ddd) **SEDIMENT.** Solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site or origin by air, water, gravity, or ice and has come to rest on the earth's surface.
- (eee) **SITE.** A lot or parcel of land or a series of lots or parcels of land considered as a single unit upon which a land operation is to be performed or is being performed and/or the specific area of land where any Regulated Activities are planned, conducted or maintained.
- (fff) **SITE PLAN.** A drawing or drawings which indicate details of existing and intended development of a particular site in relationship to its surroundings, including details of land use, topography, landscaping and structures.
- [SUBSECTION DELETED]
- (ggg) **SPECIAL INSPECTOR.** A special inspector as set forth in the ICC International Building Code, Section 1704.7 as amended (Title 10, Chapter 1002, Section 1002.02).
- (hhh) **STATE WATER QUALITY REQUIREMENTS.** The regulatory requirements to protect, maintain, reclaim, and restore water quality under Pennsylvania Code Title 25 and the Pennsylvania Clean Streams Law, 35 P.S. § 691.1 et seq., as amended.
- (iii) **STORMWATER.** Drainage runoff from the surface of the land resulting from precipitation or snow or ice melt.

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(jjj) ~~**STORMWATER MANAGEMENT BMPs**~~ is abbreviated as SWM BMPs throughout this Chapter.

(kkk) ~~**STORMWATER MANAGEMENT FACILITY.**~~ Any structure, natural or man-made, that, due to its condition, design, or construction, conveys, stores, or otherwise affects stormwater runoff. Typical stormwater management facilities include, but are not limited to, detention and retention basins, open channels, storm sewers, pipes, and, except in the Landslide-Prone Overlay District, infiltration structures.

(lll) ~~**STORMWATER MANAGEMENT PLAN.**~~ The plan for managing stormwater runoff approved by the DEP and adopted by the City as required by the Act of October 4, 1978, P.L. 864, (Act 167), as amended, and known as the "Storm Water Management Act."

(mmm) ~~**STORMWATER MANAGEMENT SITE PLAN or SWM SITE PLAN.**~~ The plan prepared by the applicant or his representative indicating how stormwater runoff will be managed at the development site in accordance with this Chapter.

[SUBSECTION DELETED]

(nnn) ~~**TOE OF SLOPE.**~~ The beginning point of any ascending slope, or in the case of excavation fill on a slope, the lowermost point where the excavation or fill joins the exposed slope surface.

(ooo) ~~**TRANSPORTING OPERATION.**~~ The conveyance of material for disposal or fill purposes from one (1) site to another site over any public street.

(ppp) ~~**TRANSPORT ORIGIN POINT.**~~ Any site from which material is conveyed to another site as a transporting operation.

(qqq) ~~**UNDERMINED AREA.**~~ Area where coal or other minerals have been mined, removing the lateral support and leaving underground voids where the accumulation of water can occur and/or can increase acid mine drainage.

[SUBSECTION DELETED]

(rrr) ~~**VERTICAL HEIGHT.**~~ The vertical distance between the toe of slope and a line level with the top of that slope.

(sss) ~~**WATERS OF THIS COMMONWEALTH.**~~ Rivers, streams, creeks, rivulets, impoundments, ditches, watercourses, storm sewers, lakes, dammed water, wetlands, ponds, springs and 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.

(ttt) ~~**WATERSHED.**~~ Region or area drained by a river, watercourse or other body of water, whether natural or artificial.

(uuu) ~~**WETLAND.**~~ Those areas that are inundated or saturated by surface or ground water 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, fens, and similar areas.

(vvv) ~~**ZONING ADMINISTRATOR.**~~ The staff member of the Department of City Planning, so designated by

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the City Planning Commission, who is charged with the administration of the Zoning Ordinance, Subdivision Regulations and Standards of the City Planning Commission, and the zoning, planning and stormwater management provisions of this Chapter or such other officer of the City authorized to act on the Administrator's behalf.

[SUBSECTION DELETED]

(Ord. 19-2007, § 2, eff. 11-19-07; Ord. No. 28-2010, § 1, eff. 8-19-10) § 1003.02 - PERMIT AND PLAN REQUIRED; APPLICATION OF CHAPTER; REGULATIONS.

- (a) No land operation as herein defined where the nature, extent, volume, degree or quantity or any part thereof to be conducted or undertaken within any period of twenty-four (24) consecutive months, exceeds the limitations specified herein, shall be conducted or undertaken within the City unless a permit is obtained from the Code Official.
- (b) No Regulated Activities as herein defined shall commence until the City approves a plan which demonstrates compliance with the requirements of this Chapter and of the applicable City zoning, subdivision and building ordinances, regulations and standards.

[SUBSECTION DELETED]

- (c) This Chapter shall also apply to any existing land operation where the nature, extent, volume, degree or quantity of any part of the operation to be performed exceeds the limitations specified herein, or to any existing land operation that has become a hazard to life or property or affects the safety, use or stability of a public street or way, or otherwise constitutes a public nuisance.
- (d) All Regulated Activities and all activities that may affect stormwater runoff, including land development or earth disturbance, within the boundaries of the City, are subject to regulation by this Chapter.
- (e) The Department Director or Code Official is authorized to develop stormwater regulations and guidelines under this Chapter or to allow other methods of stormwater management which are acceptable to the DEP or which comport with other stormwater management practices approved within the Commonwealth of Pennsylvania.

[SUBSECTION DELETED]

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.03 - LAND AND TRANSPORTING OPERATIONS REQUIRING A PERMIT.

- (a) *When required.* A land operations permit shall be obtained from the Code Official in the following instances except when included in the operations for which a permit is not required under subsection (b) hereof. A single permit involving a single site may include any one (1) or all of the kinds of operations to be performed in connection with that site. When more than one (1) site is involved such as excavating at one (1) site and filling at another, separate permits for each site shall be required. Separate permits shall be also required for any transporting operation not involving a site, where the operation requires a permit under subsection (a)(5) hereof.

- (1) Grading, involving:

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- A. Fifty (50) cubic yards or more;
 - B. An excavation or fill, five (5) feet or more in vertical depth at its deepest point as measured from the natural ground surface of any slope with a gradient of twenty-five (25) percent or more;
 - C. Excavation below finished grade for basement, cellar, and/or foundation of any aboveground structure, swimming pool or underground structure on a lot with an average existing slope with a gradient of twenty-five (25) percent or more;
 - D. An easement for a public sewer, water main, storm drain or power line;
 - E. An encroachment on or alteration of an existing drainage channel or watercourse.
- (2) Surface mining involving fifty (50) cubic yards or more.
- (3) Removal of trees, vegetation or other natural ground cover:
- A. Over an area in excess of ten thousand (10,000) square feet;
 - B. On any slope with a gradient in excess of twenty-five (25) percent, when in the opinion of the Code Official, the removal of such ground cover could affect the stability of existing slope.
- (4) Surfacing and paving of land other than streets or ways with hard surface or compacted nonpermeable material such as asphalt, concrete or slag, with area in excess of ten thousand (10,000) square feet.
- (5) Transportation of any material for disposal purposes over public streets, in total quantity of material in excess of one thousand five hundred (1,500) cubic yards.
- (6) Any "major excavating, grading or filling" operation as so defined in § 903.02 and permitted as a conditional use under the Zoning Ordinance.
- (b) *When not required.* A land operation permit shall not be required by virtue for any of the following:
- (1) Grading or paving for street improvement, when a City street improvement permit is required.
 - (2) An excavation or fill below finished grade for basement and/or foundation of an aboveground structure, swimming pool or underground structure, other than on a lot with an average gradient of twenty-five (25) percent or more, when otherwise authorized by a valid building permit and when the cost of the excavation is included in the building permit evaluation.
 - (3) Grading Activity that constitutes Regulated Activity and is subject to the requirements of Section 1003.04.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.04 ~~REGULATED ACTIVITIES REQUIRING A PLAN;
STORMWATER MANAGEMENT STANDARDS.~~

- (a) ~~*When required.* For all Regulated Activities equal to or greater than ten thousand (10,000) square feet in area, except for Publicly Funded Development and Publicly Funded Redevelopment that are subject to § 1003.04A of this Chapter, implementation of water quality controls, peak rate controls and preparation of a SWM Site Plan are required unless such activities are exempt under subsection (c) hereof.~~
- (b) ~~*What required.* All Regulated Activities shall include such measures as necessary to:~~

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- (1) ~~Protect health, safety, and property;~~
 - (2) ~~Meet State Water Quality Requirements as defined in Section 1003.01. The Review Body may, after consultation with DEP, approve alternative methods for meeting the State Water Quality Requirements other than those in this Chapter, provided that they meet the minimum requirements of, and do not conflict with, State law, including but not limited to, the Clean Streams Law.~~
 - (3) ~~Meet the water quality goals of this Chapter by implementing measures to:~~
 - A. ~~Minimize disturbance to floodplains, wetlands, natural slopes over twenty-five (25) percent, and existing native vegetation.~~
 - B. ~~Preserve and maintain trees and woodlands. Maintain or extend riparian buffers and protect existing forested buffer. Provide trees and woodlands adjacent to impervious areas whenever feasible.~~
 - C. ~~Establish and maintain non-erosive flow conditions in natural flow pathways.~~
 - D. ~~Minimize soil disturbance and soil compaction.~~
 - E. ~~Disconnect impervious surfaces by directing runoff to pervious areas.~~
 - (4) ~~Incorporate the techniques described in Appendix A (Low Impact Development Practices) of this Chapter whenever practical. The applicant shall provide the opinion of a qualified professional to substantiate a claim that the Appendix A techniques are not practical.~~
 - (5) ~~Impervious Areas.~~
 - A. ~~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.~~
 - B. ~~For development taking place in stages, the entire development plan must be used in determining conformance with this Chapter.~~
 - C. ~~For projects that add impervious area to a parcel, the total impervious area on the parcel is subject to the requirements of this Title and of Title Nine, the Zoning Code.~~
- (c) *Exemptions.*
- (1) ~~Regulated Activities less than ten thousand (10,000) square feet in area are exempt from the requirements of §§ 1003.04, 1003.06 and 1003.29. This exemption does not apply to Publicly Funded Developments or Publicly Funded Redevelopments as defined in section 1003.01 of this Title.~~
 - (2) ~~Regulated Activities equal to or greater than ten thousand (10,000) square feet in area that create less than five thousand (5,000) square feet of new impervious area and that meet the Area of Influence (A) requirements shown in Table 1A, which may be revised from time to time by the Director of the Department, are exempt from the peak rate control and the SWM Site Plan preparation requirement of this Chapter. This exemption does not apply to Publicly Funded Developments or Publicly Funded Redevelopments as defined in section 1003.01 of this Title.~~
 - (3) ~~Regulated Activities equal to or greater than ten thousand (10,000) square feet in area that create less~~

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than five thousand (5,000) square feet of new impervious area and that meet the Area of Influence (A) requirements shown in Table 1B, which may be revised from time to time by the Director of the Department, are exempt from the rate control requirements of this Chapter. This exemption does not apply to Publicly Funded Developments or Publicly Funded Redevelopments as defined in section 1003.01 of this Title.

- (4) After the date of the enactment of this Chapter, if a subdivision and land development plan is submitted that addresses peak rate control and includes a SWM Site Plan, then the impervious exemption is calculated from the date of approval of that plan, based upon the impervious area shown on the subdivision and land development plan.
- (5) Agricultural plowing and tilling are exempt from the rate control and SWM Site Plan preparation requirements of this Chapter provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102.
- (6) If conditions exist that prevent the reasonable implementation of water quality and/or quantity control practices on site, upon written request by the applicant, the Department may at its sole discretion accept off-site stormwater management practices, retrofitting, stream restorations, or other practices that provide water quality and/or quantity control equal or greater than onsite practices for the volume which the applicant has demonstrated to be infeasible to manage and treat on site.
- (7) The regulations and guidelines of the City of Philadelphia Stormwater Management Guidance Manual (2007), prepared by the Philadelphia Water Department Office of Watersheds, or the Pennsylvania DEP Stormwater Best Management Practices Manual, or other DEP accepted methods, practices, calculations, or other commonly accepted methods, practices, and calculations used by stormwater management professionals, subject to the approval of the Zoning Administrator, shall be used to determine if an exemption is applicable for Regulated Activities.
- (8) Exemptions from any provisions of this Chapter, except for section 1003.04(c)(1), shall not relieve the Applicant from the requirements in sections 1003.04(b)(4), 1003.04(b)(5) and 1003.19(a).

TABLE 1A: SWM exemptions from Peak Rate Controls and SWM Site Plan preparation for Area of Influence, A, less than three (3) acres.

Area of Influence, A (acres)	Total Impervious Area, a, Exempt from Peak Rate Controls and from SWM Site Plan Preparation (sq. ft.)
≤ 0.125	1,000
0.2	1,400
0.3	1,900
0.4	2,300
0.5	2,700
0.6	3,100
0.7	3,500
0.8	3,900

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0.9	4,200
1.0	4,600
1.1	4,900
1.2	5,200
1.3	5,500
1.4	5,900
1.5	6,200
1.6	6,500
1.7	6,800
1.8	7,100
1.9	7,300
2.0	7,600
2.1	7,900
2.2	8,200
2.3	8,400
2.4	8,700
2.5	9,000
2.6	9,200
2.7	9,500
2.8	9,800
2.9	10,000

TABLE 1B: SWM exemptions from peak rate controls (ONLY) for Area of Influence, A, 3.0 acres and greater

Area of Influence, A (acres)	Total Impervious Area a, Exempt from Peak Rate Controls ONLY (sq. ft.)
3	10,300
3.1	10,500
3.2	10,800
3.3	11,000
3.4	11,300
3.5	11,500
3.6	11,700

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3.7	12,000
3.8	12,200
3.9	12,500
4	12,700
4.1	12,900
4.2	13,200
4.3	13,400
4.4	13,600
4.5	13,800
4.6	14,100
4.7	14,300
4.8	14,500
4.9	14,700
5	15,000
>5	15,000

(d) *Water Quality*. Low Impact Development Practices (Appendix A) are encouraged for all Regulated Activities. Water quality control shall be implemented using the following methodologies, or as otherwise determined by the Zoning Administrator from time to time:

(1) ~~The Simplified Method is independent of site conditions.~~

- A. Retention and detention facilities shall be sized to capture the first one (1) inch of runoff from all impervious surfaces.
- B. The first one (1) inch of runoff shall be permanently removed and shall not be released into the surface Waters of this Commonwealth. This is the Permanently Removed Volume ("PRV"). Removal options include reuse, evaporation, transpiration, and, except in the Landslide-Prone Overlay District, infiltration.
- C. For projects that meet the exemption criteria in Table 1A, the subsequent one (1) inch of runoff shall be detained. This is the Extended Detention Volume ("EDV").
- D. For projects that do not meet the exemption criteria in Table 1A, the one-year twenty-four-hour runoff volume shall be detained.
- E. Infiltration of the first one-half (0.5) inch of the PRV is encouraged, provided that the geological and soil conditions are conducive to infiltration. Infiltration is prohibited in the Landslide-Prone Overlay District. Where infiltration of the first one-half (0.5) inch of the PRV is permitted, this portion of the PRV is the Groundwater Recharge Volume ("GRV").

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- F. The PRV requirement for land areas with existing cover consisting of meadow, brush, wood-grass combination, or woods proposed for conversion to any other non-equivalent type of pervious cover shall be one-fourth ($\frac{1}{4}$) inch of runoff.
 - G. Retention and detention facilities should be designed to drain both the PRV and EDV completely within twenty-four (24) to forty-eight (48) hours from the start of the storm.
 - H. Retention facilities should be designed to accommodate infiltration of the PRV. Infiltration areas should be spread out and located in the sections of the site that are most suitable for infiltration. Except that there shall be no infiltration in Landslide-Prone Overlay areas.

(2) ~~The Design Storm Method requires detailed modeling based on site conditions:~~

- A. ~~Do not increase the post-development total runoff volume for all storms equal to or less than the two-year twenty-four-hour duration rainfall.~~
- B. ~~Do not increase peak rate of runoff for (one-, two-, ten-, twenty-five-, one hundred-year storms (at minimum); pre-development to post-development; as necessary, provide additional peak rate control as required by Act 167 planning.~~
- C. ~~Existing (pre-development) non-forested pervious areas must be considered meadow or its equivalent.~~
- D. ~~Twenty (20) percent of existing impervious area, when present, shall be considered meadow in the model for existing conditions.~~

(3) ~~In all cases, retention and detention facilities should be designed to completely drain water quality volumes (in the case of the Simplified Method this includes both the PRV and EDV) over a period of time not less than twenty-four (24) and not more than seventy-two (72) hours from the start of the design storm.~~

~~The Pennsylvania Stormwater Best Management Practices Manual (1) provides guidance on selection and application of both water quality control methods. However, water quality control methods that comply with the City of Philadelphia Stormwater Management Guidance Manual (2007) or other stormwater management regulations promulgated within the Commonwealth of Pennsylvania and approved by the DEP may be substituted.~~

(e) ~~Rate Controls.~~

(1) ~~Areas not covered by a Release Rate Map from an approved Act 167 Stormwater Management Plan:~~

~~Post-development discharge rates shall not exceed the predevelopment discharge rates for the two-, five-, ten-, twenty-five-, fifty-, and one hundred-year storms. If it is shown that the peak rates of discharge indicated by the post-development analysis are less than or equal to the peak rates of discharge indicated by the pre-development analysis for two-, five-, ten-, twenty-five-, fifty-, and one hundred-year, twenty-four-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.~~

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~~(2) Areas covered by a Release Rate Map from an approved Act 167 Stormwater Management Plan:~~

~~For the two-, five-, ten-, twenty-five-, fifty-, and one hundred-year storms, the post-development discharge rates will follow the release rate maps in this Chapter or in the Zoning Code. For any areas not shown on the release rate maps, the post-development discharge rates shall not exceed the predevelopment discharge rates.~~

~~(Ord. 19-2007, § 2, eff. 11-19-07; Ord. No. 28-2010, § 1, eff. 8-19-10) § 1003.04A – PUBLICLY FUNDED DEVELOPMENT AND PUBLICLY FUNDED REDEVELOPMENT REQUIRING A PLAN; STORMWATER MANAGEMENT STANDARDS.~~

~~(a) *When required.* For all Publicly Funded Development and Publicly Funded Redevelopment, implementation of water quality controls contained in section 1003.04A, and peak rate controls and preparation of a SWM Site Plan contained in section 1003.04(d), are required unless such activities are exempt under subsection (c) of this section.~~

~~(b) *What required.* All Publicly Funded Development and Publicly Funded Redevelopment shall include such measures as necessary to:~~

~~(1) Protect health, safety, and property;~~

~~(2) Meet State Water Quality Requirements as defined in Section 1003.01. The Review Body may, after consultation with DEP, approve alternative methods for meeting the State Water Quality Requirements other than those in this Chapter, provided that they meet the minimum requirements of, and do not conflict with, State law, including but not limited to, the Clean Streams Law.~~

~~(3) Meet the water quality goals of this Chapter by implementing measures to:~~

~~A. Minimize disturbance to floodplains, wetlands, natural slopes over twenty-five (25) percent, and existing native vegetation.~~

~~B. Preserve and maintain trees and woodlands. Maintain or extend riparian buffers and protect existing forested buffer. Provide trees and woodlands adjacent to impervious areas whenever feasible.~~

~~C. Establish and maintain non-erosive flow conditions in natural flow pathways.~~

~~D. Minimize soil disturbance and soil compaction.~~

~~E. Disconnect impervious surfaces by directing runoff to pervious areas.~~

~~(4) Incorporate the techniques described in the Green Infrastructure & Low Impact Development provisions from and referenced in section 1003.04A(d)(3) and Appendices A and B of this Chapter to the maximum extent technically feasible to, in priority of order, infiltrate, evapotranspire, and/or harvest for reuse, without allowing any offsite discharge, the precipitation from all rainfall events less than or equal to the 95th Percentile Rainfall Event. The applicant shall provide the opinion of a qualified professional to substantiate a claim that the utilization of Green Infrastructure & Low Impact Development practices is technically infeasible. A demonstration of technical infeasibility, which must include the opinion of a qualified professional, must be incorporated into the SWM Site Plan. Without the Review Body's express, written approval of a demonstration of technical infeasibility, Publicly~~

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Funded Developments and Publicly Funded Redevelopments must incorporate Green Infrastructure & Low Impact Development practices to the maximum extent technically feasible without recourse to conventional stormwater management technologies in order to manage onsite the precipitation from all rainfall events less than or equal to the 95th Percentile Rainfall Event.

~~(c) Exemptions:~~

- ~~(1) Agricultural plowing and tilling are exempt from the rate control and SWM Site Plan preparation requirements of this Chapter provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102.~~
- ~~(2) Demolition of a residential structure by the City or other governmental body.~~
- ~~(3) If conditions exist that prevent the implementation of water quality and/or quantity control practices on site, upon written request by the applicant, the Department may at its sole discretion accept off-site stormwater management practices; retrofitting; stream restorations; or other practices that provide water quality and/or quantity control equal or greater than onsite practices for the volume which the applicant has demonstrated to be infeasible to manage and treat on-site.~~
- ~~(4) Exemptions from any provisions of this Chapter shall not relieve the Applicant from the requirements in sections 1003.04(b)(4), 1003.04(b)(5) and 1003.19(a).~~

~~(d) Water Quality:~~

- ~~(1) Water quality control shall be implemented in the following manner:~~

- ~~A. The onsite stormwater management techniques and facilities must be properly sized to, in priority of order, infiltrate, evapotranspire, and/or harvest for reuse, without allowing any offsite discharge, and by using Green Infrastructure & Low Impact Development practices to the maximum extent technically feasible, the precipitation from all rainfall events less than or equal to the 95th Percentile Rainfall Event. From the date of enactment of this section to January 1, 2015, the precipitation volume of the 95th Percentile Rainfall Event shall be one and a half (1.5) inches.~~
- ~~B. Beginning on January 1, 2015 and every five (5) years thereafter, the Review Body shall recalculate the volume of the 95th Percentile Rainfall Event. The minimum number of years' worth of precipitation data that must be used for the recalculations is thirty (30) years. For guidance on calculating the 95th Percentile Rainfall Event, please see Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act (2009) (prepared by the United States Environmental Protection Agency).~~
- ~~C. Offsite discharge that results from harvesting and reusing stormwater runoff for grey water plumbing is exempt from the prohibition of offsite discharge in section 1003.04A(d)(1)A.~~

- ~~(2) Demonstration of Technical Infeasibility~~

- ~~A. For projects where technical infeasibility exists, the developer of the relevant Publicly Funded Development or Publicly Funded Redevelopment shall document and quantify that, due to the site conditions enumerated below, it is technically infeasible to manage the total amount of the~~

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precipitation from rainfall events less than or equal to the 95th Percentile Rainfall Event by infiltrating, evapotranspiring and harvesting & reusing the precipitation using Green Infrastructure & Low Impact Development practices. Documentation of technical infeasibility shall at least include, but is not limited to, engineering calculations, geologic reports, hydrologic analyses, and site maps. The Review Body or Decision-Making Body may consider the following site conditions that may prevent the utilization of Green Infrastructure & Low Impact Development technologies and stormwater strategies, such as infiltration, evapotranspiration, and harvesting and reuse, to the maximum extent technically feasible:

- (i) The conditions on the site preclude the use of infiltration practices due to the presence of shallow bedrock, contaminated soils, landslide prone areas, near surface ground water or other factors such as underground facilities or utilities;
- (ii) The design of the site precludes the use of soil amendments, plantings of vegetation or other designs that can be used to infiltrate and evapotranspire runoff;
- (iii) Water harvesting and use are not practical or possible because the volume of water used for irrigation, toilet flushing, industrial make-up water, wash waters, or other is not significant enough to warrant the design and use of water harvesting and use systems;
- (iv) Modifications to an existing building to manage stormwater are not feasible due to structural or plumbing constraints or other factors as identified by the facility owner/operator;
- (v) Small project sites where the lot is too small to accommodate infiltration practices adequately sized to infiltrate the volume of runoff from impervious surfaces;
- (vi) Soils that cannot be sufficiently amended to provide for the requisite infiltration rates;
- (vii) Situations where site use is inconsistent with the capture and use of stormwater or other physical conditions on site that preclude the use of plants for evapotranspiration or bioinfiltration;
- (viii) Retention and/or use of stormwater onsite or discharge of stormwater onsite via infiltration has a significant adverse effect on the site or the down gradient water balance of surface waters, ground waters or receiving watershed ecological processes, including areas that may exacerbate acid mine drainage or subsidence;
- (ix) State and local requirements or permit requirements that prohibit water collection or make it technically infeasible to use certain Green Infrastructure & Low Impact Development techniques;
- (x) Compliance with the requirements of this Chapter would result in the retention and/or use of stormwater on the site such that an adverse water balance impact may occur to the receiving surface waterbody or ground water.

B. If, due to the existence of site conditions described in section 1003.04A(d)(2)A(i)-(x), a developer successfully demonstrates to the Review Body that it is technically infeasible to manage the total amount of the precipitation from rainfall events less than or equal to the 95th Percentile Rainfall

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Event by infiltrating, evapotranspiring and harvesting & reusing the precipitation using Green Infrastructure & Low Impact Development practices, then the developer can manage the remaining percentage of precipitation by using conventional technologies.

For example, if a developer can successfully demonstrate to the Review Body that, due to site conditions, (s)he can manage only eighty-five (85) percent of the precipitation from rainfall events less than or equal to the 95th Percentile Rainfall Event by infiltrating, evapotranspiring, and harvesting & reusing the precipitation using Green Infrastructure & Low Impact Development to the maximum extent technically feasible, then the developer can utilize conventional technology to manage the remaining fifteen (15) percent.

- C. Where developers use a combination of Green Infrastructure & Low Impact Development and conventional practices in accordance with this section, then developers are not required to manage with conventional technologies the remaining percentage of precipitation onsite so long as they detain and release according to the standards applicable to detention and release set forth in section 1003.04(d). The percentage of precipitation that a developer can, to the maximum extent technically feasible, manage by using Green Infrastructure & Low Impact Development, must be completely managed onsite, subject to the exemption for greywater plumbing.

(3) *Green Infrastructure & Low Impact Development Practices Required*

- A. Publicly Funded Developments and Publicly Funded Redevelopments shall use Green Infrastructure & Low Impact Development practices to the maximum extent technically feasible in order to manage onsite, through infiltration, evapotranspiration, and harvesting & reuse, the precipitation from rainfall events less than or equal to the 95th Percentile Rainfall Event. Examples of Green Infrastructure & Low Impact Development include, but are not limited to, the following:

- (i) Rain gardens
- (ii) Pervious pavements including but not limited to pervious interlocking concrete paving blocks, concrete grid pavers, perforated brick pavers, and compacted gravel
- (iii) Vegetated swales
- (iv) Green roofs
- (v) Pocket wetlands
- (vi) Rainwater harvesting

All examples of Green Infrastructure & Low Impact Development from the following documents may be utilized by Publicly Funded Developments and Publicly Funded Redevelopments in their SWM Site Plans: City of Philadelphia Stormwater Management Guidance Manual (2007) (prepared by the Philadelphia Water Department Office of Watersheds; Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act (2009) (prepared by the United States Environmental Protection Agency); Pennsylvania DEP Stormwater Best Management Practices Manual;

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Maryland Department of Environmental Resources, Low-Impact Development Design Strategies: An Integrated Design Approach; or other documents that meet the approval of the Review Body or Decision-Making Body.

- B. Should the developer want to utilize a Green Infrastructure & Low Impact Development practice that is not listed in section 1003.04A(d)(3)A(i)-(vi) of this Chapter or in the reference manuals listed in the above paragraph, the developer must seek and obtain permission to use such a practice from the Review Body prior to the developer's submission of the SWM Site Plan. The Review Body's approval of unlisted Green Infrastructure or Low Impact Development practices shall be documented in the SWM Site Plan. The Review Body shall have the discretion to determine the form and content of such approval.

(e) Rate Controls.

- (1) ~~Areas not covered by a Release Rate Map from an approved Act 167 Stormwater Management Plan:~~

~~Post-development discharge rates shall not exceed the predevelopment discharge rates for the two-, five-, ten-, twenty-five-, fifty-, and one hundred-year storms. If it is shown that the peak rates of discharge indicated by the post-development analysis are less than or equal to the peak rates of discharge indicated by the pre-development analysis for two-, five-, ten-, twenty-five-, fifty-, and one hundred-year, twenty-four-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.~~

- (2) ~~Areas covered by a Release Rate Map from an approved Act 167 Stormwater Management Plan:~~

~~For the two-, five-, ten-, twenty-five-, fifty-, and one hundred-year storms, the post-development discharge rates will follow the release rate maps in this Chapter or in the Zoning Code. For any areas not shown on the release rate maps, the post-development discharge rates shall not exceed the predevelopment discharge rates.~~

(f) Stormwater Management Site Plan Requirements.

- (1) Except for Section 1003.06(a)(2)(J), Section 1003.06 applies to all Publicly Funded Development and Publicly Funded Redevelopment. There are no exceptions or exemptions from the SWM Site Plan requirements.

- (2) In addition to all other SWM Site Plan requirements that apply to developments that are not Publicly Funded Developments or Publicly Funded Redevelopments, SWM Site Plans for Publicly Funded Developments and Publicly Funded Redevelopments must contain, when applicable, a demonstration of technical infeasibility pursuant to the requirements in section 1003.04A(d)(2). The SWM Site Plans for Publicly Funded Developments and Publicly Funded Redevelopments shall address the applicable requirements from section 1003.04A as well as the following:

- A. A list of which Green Infrastructure & Low Impact Development practices the developer plans to utilize and how much precipitation volume each practice will manage;
- B. Taking into account the Green Infrastructure & Low Impact Development practices either

enumerated in section 1003.04A(d)(3)A(i)-(vi) or contained in the reference manuals named in section 1003.04A(d)(3), a list of which Green Infrastructure & Low Impact Development practices are not being utilized at the site and a description of why not.

- C. Pursuant to section 1003.04A(d)(2), documentation and quantification of why, due to the applicable site conditions, it is technically infeasible to manage the total amount of the precipitation from rainfall events less than or equal to the 95th Percentile Rainfall Event by infiltrating, evapotranspiring and harvesting & reusing the precipitation using Green Infrastructure & Low Impact Development practices;
- D. If conventional technology will be used to manage any volume, a list and description of conventional technologies the developer plans to utilize and how much precipitation volume those conventional technologies will manage.

- (3) The Review Body and Decision-Making Body shall have the authority to require developers to periodically demonstrate compliance throughout the permit period with the Green Infrastructure & Low Impact Development practices contained in the relevant SWM Site Plan. The Review Body and/or Decision-Making Body shall have the discretion to determine the form and content of such demonstration of compliance. The requirement for demonstration of compliance would become a term of the permit subject to all applicable enforcement provisions. Demonstration of compliance could include, but need not be limited to, a demonstration of periodic maintenance of Green Infrastructure & Low Impact Development practices.

(Ord. No. 28-2010, § 1, eff. 8-19-10)

[SUBSECTION DELETED]

§ 1003.05 - PERMIT APPLICATION.

- (a) *Form and content.* Written application for a permit shall be made on a form prescribed for that purpose by the Code Official, and shall include such plans and detailed information as may be required in accord with application specifications adopted by the Code Official, but includes at least the following:

- (1) *Initial submission.*

- A. The application shall include a plot plan identifying any site involved, with official street address, property dimensions, and designation of block and lot numbers from the Allegheny County Block and Lot System. The plan shall also show existing and proposed buildings and other structures and adjacent streets and public or private property;
- B. Plans or statements clearly describing nature and extent of the operations so that necessary fees can be determined and additional information as may be necessary can be indicated by the Code Official.

- (2) *Subsequent submission.* Additional information which the Code Official may determine is necessary to evaluate the proposal shall be submitted, if not included in the initial submission. This information includes but is not limited to the following:

- A. General plans showing the plan of work, cross sections, present and proposed contours, description

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of the type of soil and rock strata and any coal workings, known or which after reasonable examination can be ascertained, location of utilities, sewers and drains, details of surface protection, walls, cribbing and any other structures on the property;

- B. Specifications which shall set forth details of the work, such as materials, methods, procedures, insurance and estimated dates for starting and completing the work;
- C. If any structures will be affected by the work, calculations may also be required showing the safety of the structure and earth pressures;
- D. Where a fill is involved, the following additional information: Plan showing preparation of natural ground surface by benching and removal of top soil, vegetation and other materials. Description of surface and subsurface draining control. Results of stability and analysis. Description of kind of material to be used in fill. Statement of intended moisture density control of fill. Statement of method of compacting fill and thickness of layers to be used in the compacting. Statement of tests to be made prior to and during the process of filling and the names of persons or agencies responsible for making the tests.

- (3) ~~Waiver of requirements.~~ If the land operation involves a Regulated Activity the Code Official may waive the information required under this section if such information is contained in a SWM Site Plan in accordance with section 1003.06.

[SUBSECTION DELETED]

(b) *Character of required data.*

- (1) Drawings other than plot plans, calculations and grading specifications shall be prepared by a registered professional and shall be submitted with his/her seal.
- (2) ~~The Code Official may waive the submission of any drawings, calculations or specifications required by this section if the work can be sufficiently described in the application or is contained in a SWM Site Plan. The Code Official may also waive the requirement for preparation of drawings, calculations and specifications by a registered professional, where the nature of the operation does not require such submission.~~

[SUBSECTION DELETED]

- (3) Soil analysis. Unless otherwise approved by the Code Official, any analysis and design pertaining to soils engineering or any required soils tests shall be made under the direction of a registered professional.
- (c) Referral to Zoning Administrator and other agencies. The Code Official shall submit the application for approval by the Zoning Administrator and any other agency which in his judgment may be affected by or have an interest in the performance of the work.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.06—~~STORMWATER MANAGEMENT SITE PLAN REQUIREMENTS.~~

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(a) Plan contents.

- (1) The requirements of Section 922.04 of the Pittsburgh Zoning Code and the "Subdivision Regulations and Standards of the City Planning Commission" shall be followed for the preparation of the SWM Site Plan.
- (2) The SWM Site Plan shall additionally provide the following information:
 - A. The overall stormwater management concept for the project.
 - B. A determination of Site Conditions in accordance with Appendix B.
 - C. Stormwater runoff computations as specified in this Chapter.
 - D. Expected project time schedule.
 - E. A soil erosion and sedimentation control plan, where applicable, as prepared for and submitted to the ACCD.
 - F. 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 site.
 - G. Plan and profile drawings of all SWM BMPs including open channel and swales. Drawings shall indicate hydraulic facility.
 - H. The locations of existing and proposed septic tank infiltration areas and wells.
 - I. The drawings shall indicate the manner of collection of stormwater runoff into storm sewers where available.
 - J. The incorporation wherever applicable and feasible of green infrastructure for stormwater management.

(b) Plan submission.

- (1) Five (5) copies of the SWM Site Plan shall be submitted as follows:
 - A. Two (2) copies to the Zoning Administrator.
 - B. One (1) copy to the Code Official.
 - C. One (1) copy to the Pittsburgh Water and Sewer Authority.
 - D. One (1) copy to the ACCD.
- (2) Additional copies shall be submitted as requested by the City or DEP.

(c) Plan review.

- (1) The SWM Site Plan shall be reviewed by the Review Body for consistency with the provisions of this Chapter. The Review Body shall provide a written recommendation for the Decision-Making Body to approve or disapprove the SWM Site Plan. If it is recommended to disapprove the SWM Site Plan, the Review Body shall state the reasons for the disapproval in writing. The Review Body also may recommend approval of the SWM Site Plan with conditions and, if so, shall provide the acceptable

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conditions for approval in writing. The SWM Site Plan review and recommendations shall be completed within forty-five (45) calendar days of the receipt by the Review Body of the SWM Site Plan.

- (2) The Decision-Making Body shall notify the applicant in writing whether the SWM Site Plan is approved or disapproved. If the Plan is disapproved, the Decision-Making Body shall cite the reasons for disapproval.
- (3) The Decision-Making Body's approval of a SWM Site Plan shall be valid for a period not to exceed two (2) years. This two-year time period shall commence on the date that the Decision-Making Body signs the approved SWM Site Plan. If stormwater management facilities included in the approved SWM Site Plan have not been constructed, or if an As-Built Survey of these facilities has not been approved within this two-year time period, then the Decision-Making Body may consider the SWM Site Plan disapproved and may revoke any and all permits.
- (4) Plans approved by the Decision-Making Body shall be on site throughout the duration of the Regulated Activity.
- (d) *Modification of Plans.* A modification to a submitted SWM Site Plan that involves a change in SWM BMPs or techniques, or that involves the relocation or re-design of SWM BMPs, or that is necessary because soil or other conditions are not as stated on the SWM Site Plan as determined by the Decision-Making Body, shall require a resubmission of the modified SWM Site Plan in accordance with this section.
- (e) *Subsequent submission.* A disapproved SWM Site Plan may be resubmitted, with the revisions addressing the Decision-Making Body's concerns in accordance with this Chapter. The applicable review fee must accompany a resubmission of a disapproved SWM Site Plan.
- (f) *As-Built Surveys.*
 - (1) The applicant shall be responsible for completing an "As-Built Survey" of all SWM BMPs included in the approved SWM Site Plan. The As-Built Survey and an explanation of any discrepancies with the design plans shall be submitted to the Zoning Administrator.
 - (2) The submission shall include a certification of completion from an engineer, architect, surveyor or other qualified person verifying that all permanent SWM BMPs have been constructed according to the plans and specifications and approved revisions thereto.
 - (3) After receipt by the Decision-Making Body of the certification of completion, the Code Official may conduct a final inspection.

(Ord. 19-2007, § 2, eff. 11-19-07)

[SUBSECTION DELETED]

§ 1003.07 - PERMIT ISSUANCE; CONDITIONS.

If the Code Official finds that the application and the plans, specifications and description filed therewith comply with the requirements of this Chapter, and that the proposal is for an operation in conformity with this Chapter and with other laws and ordinances applicable thereto, and that the performance of the work will not

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create a dangerous condition or endanger adjacent property or create a hazard to human life, he shall issue a land operations permit. Where appropriate the permit may be subject to conditions, stated in the permit, which he/she deems necessary or proper to carry out the purposes of this Chapter. The conditions may include, but shall not be limited to:

- (a) A reasonable time limit for completion of the work.
- (b) Limitations upon the hours of day, days of the week and travel on public streets.
- (c) Construction of additional drainage facilities, berms, terracing or cribbing.
- (d) Tests of soil or other material used or involved in the operation of the results of which shall be made available as soon as possible to the Code Official.
- (e) Restrictions upon the size, type and number of pieces of equipment to be used, including trucks on public streets or thoroughfares.
- (f) Planting of appropriate ground cover on slopes to provide retention of soil and to control erosion.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.08 - INSPECTION.

- (a) *Special Inspector.* (See Section 1003.01(ddd). The Code Official is hereby authorized to require the employment of a special inspector during the performance of the work. The special inspector shall be a qualified person approved by the Code Official and shall be employed by the owner. The special inspector shall be a registered professional, or have had at least five (5) years experience in the type of work he is to inspect. If in the opinion of the Code Official, the qualifications of a special inspector may be in doubt, he/she shall have authority to require the inspector to pass a written examination prepared by the Code Official. The special inspector shall furnish inspection on the work as directed by the Code Official. He/she shall make weekly reports in writing to the Code Official furnishing all necessary information regarding progress of the work. The report shall also include the total cubic yards filled, excavated or transported on a weekly basis.
- (b) *Inspection when special inspector not required.* In those instances where the nature of the work does not, in the opinion of the Code Official, require the employment of a special inspector, inspection shall be made at regular intervals until completion of the work, in accord with procedures followed by Building Inspection under this Title.
- (c) *Right-of-Entry.* Upon presentation of proper credentials, the Code Official may enter at reasonable times upon any property within the City to inspect the condition of the stormwater structures and facilities in regard to any aspect regulated by this Chapter.
- (d) *SWM BMPs should be inspected by the owner on the following basis:*
 - (1) ~~Annually for the first five (5) years.~~
 - (2) ~~Once every three (3) years thereafter,~~
 - (3) ~~During or immediately after the cessation of a ten-year or greater storm.~~
- (e) A written report of each inspection listed in subsection (d) hereof shall be provided to the Code Official within fourteen (14) days of such inspection.

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(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.09 - ADDITIONAL SAFETY PRECAUTIONS.

If at any time, the Code Official determines by inspection, the nature of the operation is such that further work as authorized by an existing permit is likely to endanger any property or public way, the Code Official may require as a condition of allowing further work to be done, that reasonable safety precautions be taken as the Code Official considers advisable to avoid such likelihood of danger. The safety precautions may include, but are not limited to specifying a flatter exposed slope, construction of additional drainage facilities, berms, terraces, compaction or cribbing.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.10 - DISPLAY OF PERMIT PLACARD.

A permit placard issued by the Code Official, and if deemed necessary by the Code Official, more than one (1) permit placard, indicating that a permit has been issued, shall be displayed and maintained in a conspicuous place on any site, plainly visible to the general public from adjacent streets, and kept there for the duration of the operation. In case of a transportation operation where a permit is not otherwise required in connection with an on-site land operation, the permit placard shall be kept at each origin or destination site of the transporting operation within the city.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.11 - CHANGE OF PLANS.

- (a) No departure or deviation shall be made from the plans, specifications or description after issuance of the permit unless new information is submitted, approved by the Code Official and incorporated in the permit.
- ~~(b) No person shall modify, remove, fill, landscape, or alter any SWM BMPs without the written approval of the Decision-Making Body.~~

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(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.12 - EXPIRATION OF PERMIT.

Every permit shall expire by limitation and become void if the work authorized by the permit has not been commenced within six (6) months, or subsequent to the starting thereof, has been discontinued for a period of six (6) months from the date of issue. However, the Code Official may, upon presentation of satisfactory evidence that unusual difficulties have prevented the work from being started or continued within the specified time limits, grant a reasonable extension of time, provided such evidence is submitted prior to the date of expiration of the permit.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.13 - PERMIT AND PLAN SUSPENSION OR REVOCATION.

- (a) *Permits.* Whenever the work for which a permit has been issued is not being performed in conformity with the plans, specifications and descriptions filed with the application, the Code Official may suspend or revoke the permit in accordance with the procedures set forth in § 1003.15. The Code Official may also suspend or revoke the permit when he finds that the continuation of the work would create a dangerous condition, nuisance, pollution, or a hazard to life or property.
- (b) *Plans.* Any approval for a ~~Regulated Activity~~ may be suspended or revoked by the Code Official for:
- (1) Non-compliance with, or failure to implement, any provision of the approval.
 - (2) A violation of any provision of this Chapter or any other applicable law, ordinance, rule or regulation

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~~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 or nuisance, pollution, or which endangers the life or property of others.

(c) *A suspended approval may be reinstated by the Code Official when:*

- (1) The Code Official has inspected and approved the corrections to the violations that caused the suspension.
- (2) The Code Official is satisfied that the violation has been corrected.
- (d) An approval that has been revoked by the Code Official cannot be reinstated. The applicant may apply for a new approval under the provisions of this Chapter.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.14 - CERTIFICATE OF COMPLETION.

Upon completion of the operation for which permit has been obtained, the owner, or a special inspector in charge of the operation on behalf of the owner, or registered professional if the operation involves a Regulated Activity, shall certify in writing to the Code Official that the operation has been completed in compliance with the provisions of this Chapter.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.15 - EXISTING AND COMPLETED LAND OPERATIONS.

- (a) *Maintenance.* The owner of any property in which a land operation project has been conducted shall be responsible for maintenance in good condition and repair all retaining walls, cribbing, drainage, structures, fences, ground cover and other protective devices as established by the permit, and the continued further use of such area shall be contingent upon the maintenance and upkeep satisfactory to the Code Official.
- (b) *Elimination of hazard.* Whenever the Code Official determines that any land operation either in process or completed, and whether or not a permit is required under this Chapter has, from any cause, become a hazard to life or property, or affects the safety, use or stability of a public street or way, or otherwise constitutes a public nuisance, the owner of the property upon which the operation is located, or other person or agent in control of such property, upon receipt of notice in writing from the Code Official, shall within thirty (30) days of the date of the notice or less in emergency situations, comply with such requirements of the chapter as the Code Official may direct, or take other action ordered by the Code Official to eliminate the hazard or nuisance, or other danger to the public street or way. Where compliance with the order of the Code Official may not be possible within such period, and where public safety will not be adversely affected, the Code Official may grant an extension of time for a specified period for compliance.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.16 - APPLICABILITY OF STANDARDS.

The following standards for land operations and activities set forth in this Chapter shall apply to any work performed pursuant to a permit as required herein, and shall also apply to operations and activities regardless of whether a permit is required under this Chapter.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.17 - GRADING.

- (a) *Finished slope.* The slope of a finished cut of any excavation shall not be steeper than one and one-half (1½) horizontal to one (1) vertical, and the finished slope of a fill shall not be steeper than two (2) horizontal to one (1) vertical, unless a different ratio is recommended in writing by a registered

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professional for the work and is approved by the Code Official. The Code Official may require flatter slopes on cuts and fills if he finds this to be necessary to insure stability and safety and to avoid possible damage to persons or property.

- (b) *Placement of fill.* No fill shall be placed over trees, stumps or other organic and unstable material which would create a nuisance or be susceptible to attracting rodents, termites or other pests.
- (c) *Compacting and benching.* All fill shall be compacted to provide stability of material and to prevent undesirable settlement, and proper benching shall be provided, as required, in accordance with the recommendations of a registered professional, or as may be approved by the Code Official.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.18 - DRAINAGE.

- (a) *Accommodation of surface and subsurface water.* Sufficient drainage shall be provided to accommodate surface and subsurface water during any grading operation and after its completion in order to prevent additional water from flowing onto adjacent property or from unduly increasing the load on sewage or drainage facilities. Facilities in the form of pipe-pervious granular layers, buried granular trenches, and the like, shall be provided to control subsurface groundwater flow or pore water pressures as needed to assure stability.
- (b) *Preservation of natural drainageways.* Any operation that will change the course, width or elevation of any natural or other drainageway channel in such a manner as to obstruct, interfere with, or change the drainage of such land shall be compensated by an alternative by which run-off or seeping water can be carried to a satisfactory disposal.
- (c) *Protection of slope faces.* Adequate provision shall be made to prevent any storm or surface water from damaging the cut face of any excavation or the sloping face of any fill. When necessary for protection of critical areas during construction, diversion ditches or terraces shall be provided.
- (d) *Design of drainage facilities.* Drainage facilities shall be of such design as to carry storm and surface waters to the nearest practical street storm drain or natural watercourse, approved by the Department of Mobility and Infrastructure as a safe place to deposit and receive the waters.
- (e) *Protection during construction.* Suitable areas shall be utilized for spreading and desilting storm water. Protective vegetation shall be maintained on drainageways serving as temporary outlets for storm water, during construction and until storm sewers have been completed. Wherever necessary, sediment basins, debris basins, desilting basins or silt traps shall be installed and maintained during construction.

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- (f) *Sub-drainage facilities.* Adequate sub-drainage shall be provided in connection with any fill to avoid the development of hydrostatic pressures.

(Ord. 19-2007, § 2, eff. 11-19-07; Ord. No. 2-2018, § 32, eff. 2-15-18) § 1003.19 - PROTECTION OF ADJACENT PROPERTY AND UTILITIES.

- (a) *Prevention of slides or washes.* Discharges onto adjacent property shall not be created, increased, decreased or relocated, or otherwise altered, without permission of the adjacent property owner(s). Such discharges shall be subjected to the requirements of this Chapter. Materials shall not be permitted to roll, slide, flow or

wash onto adjacent private or public property, and where necessary, walls or benching shall be utilized to comply with this requirement.

- (b) *Horizontal distance of excavation or fill slope from property or easement line.* The horizontal distance from either the toe or top of the excavation or fill slope line shall be five (5) feet or one-half ($\frac{1}{2}$) of the vertical height of the fill or excavation from any adjoining property or easement line, whichever is greater, but the distance need not exceed ten (10) feet. The Code Official shall have the authority to modify this requirement in instances where it is demonstrated that the modification is needed to secure desirable interrelationships between properties and will not result in a condition detrimental to the adjacent property.
- (c) *Support and protection of public utilities and public streets.* A firm commitment shall be in effect for proper support and protection from drainage resulting from the operation, for all public and private utilities, whether on the surface, beneath the ground surface or overhead, and when necessary, for the repair, replacement or relocation of such utilities. The surface and other facilities of public streets shall be fully restored by the permittee, in the event of such damage. The owner shall correct any damage to the utility involved before the Code Official issues the completion certificate.
- (d) *Fencing.* Should the nature of land operation, in the opinion of the Code Official, create a hazard to persons or property, unless adequately fenced, the owner shall construct the fences or guard rails as safeguards to persons using adjoining public or private property.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.20 - GROUND COVER.

- (a) *Scheduling of areas to be stripped.* Areas to be stripped of natural cover shall be limited to those required by feasible operational schedules, which schedules delineating those areas shall be submitted with the application.
- (b) *Interim protective vegetation.* Protective vegetation and/or mulching, or artificial cover, shall be established on all areas where soil is to be exposed for more than six (6) months, including topsoil stockpiles and borrow pits, except that this provision shall not apply to land operations where the principal material used for fill, or the principal material being excavated or stockpiled, consists of slag or other material with similar qualities of inherent stability and imperviousness to weather.
- (c) *Preservation of natural features.* In order to prevent the denuding of the landscape, wherever practical, large trees and other natural features which constitute physical, esthetic and economic assets to the community shall be preserved and shall be protected during ground moving operations.
- (d) *Final ground cover.* Permanent final vegetation or other ground cover shall be installed as soon as practical in the development. Upon completion of the operation, the entire site shall be ground covered and provided with drainage facilities in an approved manner so as to avoid excessive erosion, sedimentation and storm run-off. The Code Official may require this work to be done in accord with specifications of a registered landscape architect, an experienced nurseryman or other person qualified in this field.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.21 - TRANSPORTATION OF MATERIAL.

- (a) *Approval of the Department of Mobility and Infrastructure.* The proposed use of public streets or thoroughfares for the transportation of material for disposal or fill purposes shall have the approval of the Department of Mobility and Infrastructure.

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- (b) *Size and type of vehicles and hours of operation.* The size and type of vehicle used, and the hours of operation shall be as approved by the Department as related to the capacity of streets to be used and traffic volumes thereon.
 - (c) *Wheel and truck cleaners.* Wheel and truck cleaners shall be required on site at any transport origin and destination point within the city, and all vehicles shall be scraped and cleaned before leaving the site.
 - (d) *Protection of property during transporting.* The transporter shall take reasonable measures including but not limited to, wetting down or other treatment before leaving the site, to insure that during transit, no material being transported shall blow or spill over upon public or private property.
 - (e) *Street cleaning.* In the event that earth, dust, powder, mud, sludge or any other debris from the operation involved in the permit accumulates in or on any street, street gutter, catch basin or sewer line, the transporter shall be required to remove the debris immediately upon notification by the city.

(Ord. 19-2007, § 2, eff. 11-19-07; Ord. No. 2-2018, § 32, eff. 2-15-18) § 1003.22 - SLOPE LOCATION
RELATED TO BUILDINGS.

Cut or fill slopes with an inclination of two (2) horizontal to one (1) vertical or steeper shall not be used for building construction unless authorized by the Code Official. The toe of the cut or fill slopes shall be located clear of buildings, the distances as may be required for safety reasons by the Code Official, depending upon each particular situation and condition.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.23 - LAND RECLAMATION PROJECT APPLICATION.

An owner or lessee holding under a recorded lease, the unexpired term of which is more than five (5) years from the date of filing of the application may, in filing for a required land operations permit, choose to undertake or conduct a land reclamation project, as defined by this Chapter. In this instance the application shall contain additional information as may be deemed necessary by the Code Official, to describe properly the nature and extent of the operation and the program. Other requirements of this Chapter shall apply, but the Code Official shall recognize that the special nature and scope of the operation, the self-imposed protective methods and devices, and the provisions of other applicable regulatory laws may warrant different considerations, and shall take this into account when applying the standards, and when waiving submission of data under Sec. 1003.05.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.24 - RECLAMATION OPERATIONAL REQUIREMENTS.

- (a) In addition to complying with other applicable requirements of this Chapter, and other applicable requirements of any governmental agency, the operation shall be conducted in a manner as to provide reasonable protection to surrounding properties and uses, against detriment from emission of odor, dust, smoke, noise, gas, fumes, cinders, vibration, refuse matter, water-carried waste and the like.
- (b) In connection with the proposed operation, the Code Official may require the installation, maintenance of methods and devices as may, in his/her opinion, be reasonably required to prevent or reduce emissions, and may impose conditions regarding the extent of open space between any portion of the proposed operation involving emissions, as will tend to prevent or reduce injury to surrounding property and neighborhood which might result from the proposed operation.
- (c) The Code Official shall also limit the extent and hours of any operation depending upon the specific site of the operation and its relation to surrounding properties and structures, so as to provide a reasonable degree

of protection, and shall prohibit the operation at a particular location, if in his/her opinion it would be unsafe or dangerous surroundings.

- (d) Undrained pools resulting from surface drainage shall be sprayed in accordance with specifications of local public health authorities to eliminate breeding places for mosquitoes and other insects.
- (e) Off-street parking areas adequate for all employees vehicles and trucks shall be provided.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.25 - DEVELOPMENT PROGRAM.

The application shall include a program and illustrative plan for development of the subject property which shall consist of two (2) phases: the exploitation phase and the re-use phase, as well as an annual stage development schedule.

- (a) *Exploitation phase.* The plan for the exploitation phase shall show the proposed development as planned in relation to surrounding properties within three hundred (300) feet, and shall include topographic and geological surveys and other materials indicating existing conditions including drainage and the conditions including topography, drainage and soils which shall exist at the end of the exploitation phase. Contour intervals based on U.S. Geological survey datum shall be given every five (5) feet in areas where gradient is greater than ten (10) percent, and two (2) feet in areas where gradient is ten (10) percent or less. The program for the exploitation phase shall demonstrate the feasibility of the operation without creating hazard or causing damage to other properties. This program shall also indicate the different stages of exploitation, where and how traffic on and from the development will be handled, where equipment will be operating, the location and dimensions of structures, the manner in which safeguards will be provided, including those for preventing access by children and other unauthorized persons to dangerous areas. The final stage of the program shall indicate how the project is to be finished in accord with the plan for re-use.
- (b) *Re-use phase.* The program for the re-use phase shall indicate how the property is to be left in a form suitable for re-use for purposes permissible in the zoning district in which it is located, or in any zoning district to be established by contemplated re-zoning, so as to relate the re-uses to uses existing, proposed, or intended for surrounding properties. Among items to be included in the program are feasible circulation patterns in and around the site, the treatment of exposed soil or sub-soil including measures to be taken to replace topsoil or establish vegetation in worked-over areas in order to make the property suitable for the re-use, and treatment of slopes to prevent erosion.
- (c) *Annual stage development schedule.* The applicant shall submit an initial schedule delineating the scope and extent of the operation, the estimated time for completion, and the portion to be accomplished during the first year of the program; and annually thereafter the applicant shall submit a schedule projecting the intended accomplishment for at least one (1) year ahead. Any change in schedule, or foreseeable or anticipated delays shall be reported promptly to the Code Official with reasons therefor, and a proper adjustment in plans shall be made. Unforeseeable delays or departures from schedule shall be justified to the satisfaction of the Code Official. Major departures from schedule shall be considered as changes in plans, and shall render the entire application subject to review and approval by the Code Official.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.26 - REFERRAL TO ZONING ADMINISTRATOR.

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The program and illustrative plans for development of the site shall be referred to the Zoning Administrator of the Department of City Planning for report and recommendation as to relationship of the development to zoning and other planning aspects.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.27 - PERMITS AND CERTIFICATES OF COMPLETION.

Permits and certificates of completion shall be issued in accordance with the provisions of this Chapter, except that an annual permit fee shall be required as provided for in Sec. 1003.31.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.28 - BONDS AND INSURANCE FOR LAND OPERATIONS
~~WITHOUT REGULATED ACTIVITIES.~~

(a) *Performance bond.* Except where clearly demonstrated by the applicant to the satisfaction of the Code Official that the operation if left incomplete will not create a hazard to human life or endanger adjoining property or property at a higher or lower level or any street or street improvement or any other public property, the applicant shall file with the Code Official prior to the issuance of the permit a performance bond for the benefit of the city. As in the application for a land reclamation project, the Code Official shall recognize that the special nature and extent of the operation, the self-imposed protective methods and devices and the provisions of other applicable regulatory laws may warrant different considerations, and shall take this into account when reviewing the performance bond needs for a land reclamation project. Governmental agencies shall be exempted from the requirement of filing a bond unless the Code Official finds that a bond is required for adequate protection of the public.

- (1) *Execution.* All bonds shall be executed by the owner of the property where the work is to be undertaken and by a corporate surety insurer authorized to do business in this Commonwealth as surety, or, in lieu thereof, the bond shall be in writing accompanied by a deposit of cash in the amount of the bond.
- (2) *Conditions.* Every bond shall be conditioned upon compliance with all the provisions of this Chapter and all other applicable laws and ordinances, compliance with all the terms and conditions of the permit, and completion of all work contemplated under the permit within the time limit specified in the permit. The Code Official may, for sufficient cause, extend the time limit specified in the permit, but no extension shall release the surety upon the bond.
- (3) *Term.* The term of each bond shall begin upon the date of filing and shall remain in effect until one (1) year from the date of the issuance of the completion of the permit by the Code Official. In the case of a cash deposit, the deposit or any unused portion thereof shall be refunded one (1) year after the date of the completion of the permit.
- (4) *Coverage for completion of work and compliance with permit.* In the event of failure to complete the work or comply with all the terms and conditions of the permit, the Code Official may order the work or part thereof to be completed as required by the permit. The surety executing the bond, or the person giving the deposit, shall continue to be firmly bound under a continuing obligation for the payment of all necessary costs and expenses that may be incurred or expended by the City in causing any and all required work to be done, and the surety or the depositor shall be considered to assent to any lawful extensions of time within which to construct and complete the work.
- (5) *Amount.* The amount of bond shall be based in part upon the quantity of material handled and also

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include an additional amount equal to the cost estimated by the Code Official, of all construction work, both surface and subsurface drainage, or other protective devices, removal or replacement of trees or other natural ground cover which may be required. The portion of the bond valuation based upon the cost of handling material shall be computed as set forth in the following table:

Cubic Yards	Amount of Bond
Under 10,000	\$10,000
10,000 to 100,000	\$10,000, plus \$500 for each additional 1,000 cubic yard or fraction thereof in excess of 10,000 cubic yards
Over 100,000	\$55,000. plus \$200 for each additional 1,000 cubic yards or fraction thereof in excess of 100,000 cubic yards

- (6) *Proportionate reduction as work is completed.* When a substantial portion of the required work has been completed to the satisfaction of the Code Official, and the completion of the remaining work is delayed due to conditions beyond the control of the owner or the contractor, the Code Official may in his/her discretion accept the completed portion of the work and consent to an appropriate reduction of the bond to an amount estimated to be adequate to insure completion of the work remaining to be performed. In no case shall the reduction be greater than an amount equal to fifty (50) percent of the original bond.
- (b) *Liability insurance.* The applicant shall furnish to the Code Official together with the application for a permit certificate showing standard form public liability insurance in an amount not less than two hundred thousand dollars (\$200,000.00) against claims for damages for personal injury as well as claims for property damage, including damage to City streets or other public improvements by blowing, drifting, washing, sliding, flowing subsurface water, or otherwise depositing of matter, which may arise from or out of performance of the work whether the performance be by himself, his contractor or subcontractor or any person directly or indirectly employed by him/her. The insurance shall include protection against liability arising from completed operations. The insurance shall be written by a company approved by the Code Official and shall insure the city, its officers, agents and employees against any loss or liability which may arise during the performance of, or which may result from any work herein required to be performed.

(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.29 ~~BONDS AND INSURANCE FOR LAND OPERATIONS WITH REGULATED ACTIVITIES.~~

The Applicant shall provide bonds in accordance with the provisions of Chapter 9 of the Subdivision Regulations and Standards of the City Planning Commission, and furnish such other security and insurance in an amount as set from time to time by resolution of the Department.

[SUBSECTION DELETED]

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(Ord. 19-2007, § 2, eff. 11-19-07) § 1003.30 - ENTRY UPON PREMISES.

Any authorized representative of the City or the surety shall have access to the premises described in the permit for the purpose of inspecting the progress of the work.

In the event of default in the performance of any term or condition of the permit, the surety, or any person employed or engaged in its behalf, or the City or any person employed or engaged in its behalf, shall have the right to go upon the premises to complete the required work.

No owner or any person shall interfere with the authorized entry of any person upon the premises under the provisions of this section.

(Ord. 19-2007, § 2, eff. 11-19-07)

~~§ 1003.31 - PERMIT AND PLAN FEES.~~

- ~~(a) In addition to any other fees payable under the Zoning Ordinance, Subdivision Regulations, Building Title or other regulations, a permit fee shall be paid pursuant to this Chapter based upon quantity of material handled or land area involved for each lot site, even though the same material may be handled in more than one (1) type of operation. The amount of fee shall be as listed in the ICC International Building Code, Section 108.~~
- ~~(b) Should any person actually begin any work for which a permit is required by this Chapter without obtaining that permit, there shall be paid, in addition to the fees described in Section 108, a penalty as provided in Sec. 1002.02. This shall not be construed as waiving any penalty provision for violation of this Code.~~
- ~~(c) All applications for Regulated Activity approval under this Chapter shall be accompanied by an application fee in an amount as set from time to time by the Director of the Department. No application shall be accepted as administratively complete by the Zoning Administrator or acted upon unless the appropriate fees are paid to the Zoning Administrator.~~
- ~~(d) Inspection, review and engineering deposit. The applicants and permit holders shall be responsible for reimbursing the City for any and all costs incurred by the City in relation to any application, permit, review, and/or inspection required by this Chapter and/or other ordinances, resolutions and/or regulations of the City.~~
 - ~~(1) An inspection, review and engineering deposit shall accompany the application for Regulated Activity approval required by this Chapter. The amount of this deposit shall be set from time to time by the Director of the Department and shall be sufficient to cover the costs incurred by the City, including but not limited to:
 - A. Engineering and legal review fees, and reasonable attorney's fees, engineering fees, and/or professional consultant fees if so needed.
 - B. Site inspections including, but not limited to, pre-construction meetings, inspections during construction of SWM BMPs, and final inspection upon completion of the SWM BMPs.
 - C. Administrative/clerical costs.~~

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D. Attendance at meetings.

E. Any additional work required to monitor and enforce any provisions of this Chapter, correct violations, and assure proper completion of stipulated remedial actions.

- (2) If it is determined by the City that the balance available is or will be inadequate to fully cover anticipated costs in subsection (d)(1) above, the applicant will be notified that an additional deposit is required. The applicant shall submit such additional deposit within twenty (20) days of notification. The failure to submit any required deposit within the specified time period shall be a violation of this Chapter, and may result in the immediate suspension of all permits and approvals granted under this Chapter and/or other ordinances, resolutions and/or regulations of the City.

(Ord. 19-2007, § 2, eff. 11-19-07)

~~§ 1003.32 – PENALTIES.~~

Anyone violating the provisions of this Chapter that relate to any Regulated Activity shall be subject to the penalties set forth in Chapter 924 of the Zoning Ordinance.

[SUBSECTION DELETED]

(Ord. 19-2007, § 2, eff. 11-19-07)

~~§ 1003.33 - APPEALS.~~

- (a) Any decision of the Code Official relating to the administration or enforcement of this Chapter that does not involve a Regulated Activity may be appealed to the Board of Appeals established pursuant to Appendix B of the ICC International Building Code. (b) Any decision relating to the administration or enforcement of this Chapter that involves a Regulated Activity may be appealed to the appropriate body pursuant to Chapter 923 of the Zoning Ordinance.

(Ord. 19-2007, § 2, eff. 11-19-07)

~~APPENDIX A~~

~~LOW IMPACT DEVELOPMENT PRACTICES~~

~~ALTERNATIVE APPROACH FOR~~

~~MANAGING STORM WATER RUNOFF~~

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

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and managing concentrated runoff.

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

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

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

(Ord. 19-2007, § 2, eff. 11-19-07)

APPENDIX B

A. ~~LIST OF SUITABLE SITE CONDITIONS FOR INFILTRATION~~

- 1. ~~Depth of bedrock below the invert of the BMP should be greater than or equal to two (2) feet.~~
- 2. ~~Depth of seasonal high water table below the invert of the BMP should greater than or equal to two (2) feet.~~
- 3. ~~Soil permeability tests should be greater than or equal to 0.10 inches/hour and less than or equal to ten (10) inches per hour.~~
- 4. ~~Setback distances or buffers should be a minimum of:~~
 - a. ~~Fifty (50) feet from individual water supply wells and one hundred (100) feet from community or municipal water supply wells.~~
 - b. ~~Twenty (20) feet from building foundations.~~

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e. Fifty (50) feet from septic system drain fields.

~~B. EFFECTIVE BMPs FOR INFILTRATION~~

- ~~1. Infiltration trench, except in the Landslide-Prone Overlay District.~~
- ~~2. Infiltration Basin, except in the Landslide-Prone Overlay District.~~
- ~~3. Biofilters, rain gardens, bioinfiltration, vegetated filter strips, except in the Landslide-Prone Overlay District, bio swales~~
- ~~4. Filters for pre-treatment.~~
- ~~5. Permeable Paving.~~

~~C. EFFECTIVE BMPs FOR RATE CONTROL~~

- ~~1. Wet ponds~~
- ~~2. Storm water wetlands~~
- ~~3. Extended detention (dry) ponds~~
- ~~4. Swales~~
- ~~5. Runoff volume reduction BMPs listed and B and C above such as retention, infiltration, except in the Landslide-Prone Overlay District, and re-vegetation.~~

~~D. EFFECTIVE BMPs FOR EVAPOTRANSPIRATION~~

- ~~1. Rain gardens~~
- ~~2. Green roofs~~

(Ord. 19-2007, § 2, eff. 11-19-07)