

Chapter 253. Stormwater Management

Article III. Stormwater Management Standards

§ 253-13. General requirements.

- A. Preparation of a SWM site plan is required for all regulated activities, unless preparation and submission of the SWM site plan is specifically exempted according to § 253-21 or the activity qualifies as a small project.
- B. No regulated activities shall commence until Leacock Township issues unconditional written approval of a SWM site plan or stormwater permit.
- C. SWM site plans approved by Leacock Township, in accordance with § 253-26, shall be on site throughout the duration of the regulated activity.
- D. Leacock Township may, after consultation with DEP, approve measures 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. The Township shall maintain a record of consultations with DEP pursuant to this subsection. Where an NPDES permit for stormwater discharges associated with construction activities is required, issuance of an NPDES permit shall constitute satisfaction of consultation with DEP. The applicant shall initiate and facilitate all consultations between DEP and the Township.
- E. For all regulated activities, erosion and sediment control and stormwater management BMPs shall be designed, implemented, operated and maintained to meet the purposes and requirements of this chapter and to meet all requirements under Title 25 of the Pennsylvania Code and the Clean Streams Law. Various BMPs and their design standards are listed in the Erosion and Sediment Pollution Control Program Manual (E&S Manual)^[1], No. 363-2134-008 (March 2012), as amended and updated, and the BMP Manual.
[1] NOTE: See § 253-52I.
- F. Developers have the option to propose a regional stormwater management plan or participate in a regional stormwater management plan developed by others. A regional stormwater management plan may include off-site volume and rate control, as appropriate and supported by a detailed design approved by Leacock Township in accordance with § 253-13D. A regional stormwater management plan must meet all of the volume and rate control standards required by this chapter for the area defined by the regional stormwater management plan, but not necessarily for each individual development site. Appropriate agreements must be established to ensure the requirements of this chapter and the requirements of the regional stormwater management plan are met.
- G. Unless prohibited by Chapter 310, Zoning, of the Code of Leacock Township, or any ordinance which regulates construction and development within the areas of the Township subject to flooding, and any other applicable requirements of the Flood Plain Management Act, stormwater management facilities located in the floodplain are permitted when designed and constructed in accordance with the provisions of the BMP Manual, regulatory requirements and the requirements of this chapter.

H. Impervious areas:

- (1) The measurement of impervious area shall include all of the impervious areas in the total proposed development even if development is to take place in stages or phases.
- (2) For development taking place in stages or phases, the entire development plan must be used in determining conformance with this chapter.
- (3) Any areas designed to initially be gravel or crushed stone shall be assumed to be impervious.

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

- (1) Protect health, safety and property;
- (2) Meet the water quality goals of this chapter by implementing measures to:
 - (a) Protect and/or improve the function of floodplains, wetlands and wooded areas.
 - (b) Protect and/or improve native plant communities, including those within the riparian corridor.
 - (c) Protect and/or improve natural drainageways from erosion.
 - (d) Minimize thermal impacts to waters of this commonwealth.
 - (e) Disconnect impervious surfaces by directing runoff to pervious areas, wherever possible.

J. The design of all stormwater management facilities over karst shall include an evaluation of measures to minimize adverse effects and to certify the following:

- (1) No stormwater facilities shall be placed in, over or immediately adjacent to the following features:
 - (a) Sinkholes.
 - (b) Closed depressions.
 - (c) Lineaments in carbonate areas.
 - (d) Fracture traces.
 - (e) Caverns.
 - (f) Intermittent lakes.
 - (g) Ephemeral streams.
 - (h) Bedrock pinnacles (surface or subsurface).
- (2) Stormwater management basins shall not be located closer than 100 feet from the rim of sinkholes or closed depressions, nor within 100 feet from disappearing streams; nor shall these basins be located closer than 50 feet from lineaments or fracture traces; nor shall these basins be located closer than 25 feet from surface or identified subsurface pinnacles unless lined with an impermeable liner or equivalent design as signed and sealed by a professional geologist.
- (3) Stormwater resulting from regulated activities shall not be discharged into sinkholes.
- (4) It shall be the developer's responsibility to verify if the development is underlain by carbonate geology. The following certificate shall be included on all stormwater site plans and shall be signed and sealed by the developer's professional geologist, "I, _____, certify that the proposed stormwater/BMP facility (circle one) is/is not underlain by carbonate geology."

- (5) Whenever a stormwater facility will be located in an area underlain by carbonate geology, a geological evaluation of the proposed location by a registered professional geologist shall be conducted to determine susceptibility to sinkhole formation. The evaluation may include the use of impermeable liners to reduce or eliminate the separation distances listed in Subsection J(1) and (2).
- K. Infiltration BMPs shall be spread out, made as shallow as practicable, and located to maximize use of natural on-site infiltration features while still meeting the other requirements of this chapter. Infiltration BMPs shall include pretreatment BMPs unless shown to be unnecessary.
- L. Infiltration BMPs intended to receive runoff from developed areas shall be selected based on suitability of soils and development site conditions and shall be constructed on soils that have the following characteristics:
 - (1) A minimum depth of 24 inches between the bottom of the facility and the limiting zone, unless it is demonstrated to the satisfaction of Leacock Township that the selected BMP has design criteria which allow for a smaller separation.
 - (2) A stabilized infiltration rate sufficient to accept the additional stormwater load and drain completely as determined by field tests conducted by the applicant's professional designer.
 - (a) The stabilized infiltration rate is to be determined in the same location and within the same soil horizon as the bottom of the infiltration facility.
 - (b) The stabilized infiltration rate is to be determined as specified in the BMP Manual.
- M. The calculation methodology to be used in the analysis of volume and peak rates of discharge shall be as required in § 253-17.
- N. A planting plan is required for all vegetated stormwater BMPs.
 - (1) Native or naturalized/noninvasive vegetation suitable to the soil and hydrologic conditions of the development site shall be used unless otherwise specified in the BMP Manual.
 - (2) Invasive vegetation may not be included in any planting schedule. Refer to the DCNR Invasive Plant list at www.dcnr.state.pa.us/forestry/plants/invasiveplants/index.htm
 - (3) The limit of existing, native vegetation to remain shall be delineated on the plan along with proposed construction protection measures.
 - (4) Prior to construction, a tree protection zone shall be delineated at the dripline of the tree canopy. All trees scheduled to remain during construction shall be marked; however, where groups of trees exist, only the trees on the outside edge need to be marked. A forty-eight-inch-high snow fence or forty-eight-inch-high construction fence mounted on steel posts located eight feet on center shall be placed along the tree protection boundary. No construction, storage of material, temporary parking, pollution of soil, or regrading shall occur within the tree protection zone.
 - (5) All planting shall be performed in conformance with good nursery and landscape practice. Plant materials shall conform to the standards recommended by the American Association of Nurseryman, Inc., in the American Standard of Nursery Stock.
 - (a) Planting designs are encouraged to share planting space for optimal root growth whenever possible.
 - (b) No staking or wiring of trees shall be allowed without a maintenance note for the stake and/or wire removal within one year of planting.
- O. Areas proposed for infiltration BMPs shall be protected from sedimentation and compaction during the construction phase to maintain maximum infiltration capacity. Staging of earthmoving activities and selection of construction equipment should consider this protection.

- P. Infiltration BMPs shall not be constructed nor receive runoff from disturbed areas until the entire contributory drainage area to the infiltration BMP has achieved final stabilization.
- Q. A minimum twenty-foot-wide access easement shall be provided for all stormwater facilities with tributary areas equal or greater than 1,000 square feet and not located within a public right-of-way. Easements shall provide for ingress and egress to a public right-of-way.
- R. Drainage easements shall be provided where the conveyance, treatment or storage of stormwater, either existing or proposed, is identified on the SWM site plan. Drainage easements shall be provided to contain and convey the one-hundred-year frequency flood. The terms of the easement shall prohibit excavation, the placing of fill or structures and any alterations that may affect adversely the flow of stormwater within any portion of the easement. Also maintenance and mowing of vegetation within the easement shall be required.
- S. Leacock Township may require additional stormwater control measures for stormwater discharges to special management areas, including, but not limited to:
 - (1) Water bodies listed as "impaired" on Pennsylvania's Clean Water Act Section 303(d)/305(b) Integrated List.
 - (2) Any water body or watershed with an approved total maximum daily load (TMDL).
 - (3) Critical areas with sensitive resources (e.g., state-designated special protection waters, cold-water fisheries, carbonate or other groundwater recharge areas highly vulnerable to contamination, drainage areas to water supply reservoirs, source water protection zones, etc.)
- T. Roof drains and sump pumps shall be tributary to infiltration or vegetative BMPs. Sump pumps shall not be tributary to subsurface facilities. Use of catchment facilities for the purpose of reuse is also permitted. When it is more advantageous to connect directly to streets or storm sewers, roof drains connections to streets or roadside ditches may be permitted on a case-by-case basis by the Township. It shall be the burden of the person seeking to make the connection to demonstrate to the Township that such connection is more advantageous and such connection shall not violate any state or federal statute, rule or regulation. Proposed storm sewer piping may connect to an existing storm sewer piping system provided the existing storm sewer is adequate.
- U. Nonstructural BMPs shall be utilized for all regulated activities unless proven to be impractical.