

## Chapter 94

### STORMWATER MANAGEMENT

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[HISTORY: Adopted by the Borough Council of the Borough of Heidelberg 7-15-2008 by Ord. No. 579. Amendments noted where applicable.]

#### GENERAL REFERENCES

Flood Control Authority — See Ch. 8.  
Uniform construction codes — See Ch. 42.

Flood control — See Ch. 54.  
Zoning — See Ch. 112.

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#### § 94-1. Short title.

This chapter shall be known and may be cited as the "Heidelberg Borough Stormwater Management Ordinance."

#### § 94-2. Purpose; liability disclaimer.

A. Purpose. These regulations have the following general purposes and objectives:

- (1) To assure safe management of stormwater runoff resulting from land alteration and disturbance activities in accordance with the Pennsylvania Stormwater Management Act (Act 167 of 1978, as amended).<sup>1</sup>
- (2) To utilize and preserve the existing natural drainage systems and to preserve the flood-carrying capacity of streams.
- (3) To encourage natural infiltration of rainfall to preserve groundwater supplies and stream flows.

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1. Editor's Note: See 32 P.S. §§ 680.1 to 680.17.

- (4) To provide for adequate maintenance of all permanent stormwater management structures in the Borough.

B. Liability disclaimer.

- (1) Neither the granting of any approval under the provisions of this chapter, nor the compliance with the provisions of this chapter, or with any condition imposed by a municipal official hereunder, shall relieve any person from any responsibility for damage to persons or property resulting therefrom, or as otherwise imposed by law, nor impose any liability upon the municipality for damages to persons or property.
- (2) The granting of a permit which includes any stormwater management facilities shall not constitute a representation, guarantee or warranty of any kind by the Borough, or by an official or employee thereof, of the practicability or safety of any structure, use or other plan proposed and shall create no liability upon or cause of action against such public body, official or employee for any damage that may result pursuant thereto.

**§ 94-3. Definitions.**

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

ACT — The Stormwater Management Act (Act of October 4, 1978, P.L. 864, No. 167; 32 P.S. §§ 680.1 to 680.17, as amended by Act of May 24, 1984, No. 63).

APPLICANT — A landowner or developer who has filed an application for development, including his/her heirs, successors and assigns.

BMP (best management practice) — Activities, facilities, designs, measures, or procedures used to manage stormwater impacts from regulated earth disturbance activities, to meet state water quality requirements, to promote groundwater recharge and to otherwise meet the purposes of this chapter.

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

CONSERVATION DISTRICT — The Allegheny County Conservation District.

COUNTY — Allegheny County, Pennsylvania.

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

DESIGN CRITERIA —

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

DESIGN STORM — See "storm frequency."

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

DETENTION POND — A pond or reservoir, usually small, constructed to impound or retard surface runoff temporarily.

DEVELOPER — The person, persons or any corporation, partnership, association or other entity or any responsible person therein or agent therefor that undertakes the activities associated with changes in land use. The term "developer" is intended to include but not necessarily be limited to the term "subdivider," "owner" and "builder," even though the individuals involved in successive stages of a project may vary.

DEVELOPMENT — Any activity, construction, alteration, change in land use or practice that affects stormwater runoff characteristics.

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

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

DRAINAGE AREA —

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

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

EROSION — The wearing away of the lands by running water, glaciers, winds and waves.

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

GROUND COVER — Materials covering the ground surface.

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

GROUNDWATER RECHARGE — Replenishment of groundwater naturally by precipitation or runoff or artificially by spreading or injection.

IMPERVIOUS — Not allowing or allowing only with great difficulty the movement of water; impermeable.

**INFILTRATION —**

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

**LAND DEVELOPMENT — Any of the following activities:**

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

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

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

**MUNICIPALITY —** The Borough of Heidelberg.

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

**OUTFALL —**

- A. The point, location or structure where drainage discharges from a sewer, drain or other conduit.
- B. The conduit leading to the ultimate discharge point.

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

**PEAK FLOW —** The maximum flow.

**PENNSYLVANIA DEP —** The Pennsylvania Department of Environmental Protection.

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

**REGULATED EARTH DISTURBANCE ACTIVITY —** Earth disturbance activity of one acre or more with a point source discharge to surface waters or the Borough's storm sewer system, or five acres or more regardless of the planned runoff. This includes earth disturbance on any portion of, or during any stage of, a larger common plan of development. This only includes road maintenance activities involving 25 acres or more of earth disturbance.

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

RETENTION POND — A basin, usually enclosed by artificial dikes, that is used to retard stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate.

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

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

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

SCS — The United States Department of Agriculture Soil Conservation Service.

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

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

STATE WATER QUALITY REQUIREMENTS — As defined under state regulations: protection of designated and existing uses (see 25 Pa. Code Chapters 93 and 96), including:

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

STORAGE FACILITY — See "detention pond" and "retention pond."

STORM FREQUENCY — The average interval in years over which a storm event of a given precipitation volume can be expected to occur.

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

STORMWATER — That portion of precipitation which runs over the land.

STORMWATER COLLECTION SYSTEM — Natural or man-made structures that collect and transport stormwater through or from a drainage area to the point of final outlet, including but not limited to any of the following: conduits and appurtenant features, canals, channels, ditches, streams, culverts, streets and pumping stations.

STORMWATER MANAGEMENT PLAN — The plan for managing stormwater runoff adopted by Allegheny County as required by the Stormwater Management Act.

SUBDIVISION — The division or redivision of a lot, tract or parcel of land by any means into two or more lots, tracts, parcels or other divisions of land, including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership or building or lot development; provided, however, that the subdivision by lease of land for agricultural purposes into parcels of more than 10 acres not involving any new street or easement of access or any residential dwelling shall be exempted.

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

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

WATERSHED — The entire region or area drained by a river or other body of water, whether natural or artificial. A "designated watershed" is an area delineated by the Pennsylvania DER and approved by the Environmental Quality Board for which counties are required to develop watershed stormwater management plans.

WATERSHED STORMWATER MANAGEMENT PLAN — The plan for managing stormwater runoff throughout a designated watershed adopted by Allegheny County as required by the Pennsylvania Stormwater Management Act.

#### **§ 94-4. Stormwater management.**

##### **A. General standards.**

- (1) All proposed stormwater control measures shall be evaluated to the following performance standard: Any landowner and any person engaged in the alteration or development of land which may affect stormwater runoff characteristics shall implement such measures as are reasonably necessary to prevent injury to health, safety or other property. Such measures shall include such actions as are required to:
  - (a) Assure that the maximum rate of stormwater runoff is no greater after development than prior to development activities; or
  - (b) Manage the quantity, velocity and direction of resulting stormwater runoff in a manner which otherwise adequately protects health and property from possible injury.

- (2) The stormwater management plan for the development site shall consider all the stormwater runoff flowing over the site.
- (3) Prohibited discharges.
  - (a) No person in the Borough shall allow, or cause to allow, stormwater discharges into the Borough's separate storm sewer system which are not composed entirely of stormwater, except:
    - [1] As provided in Subsection A(3)(b) below; and
    - [2] Discharges allowed under a state or federal permit.
  - (b) Discharges which may be allowed, based on a finding by the Borough that the discharge(s) do not significantly contribute to pollution of surface waters of the commonwealth, are:
    - [1] Discharges from fire-fighting activities.
    - [2] Uncontaminated water from foundation or footer drains.
    - [3] Potable water sources, including dechlorinated waterline and fire hydrant flushings.
    - [4] Flows from riparian habitats and wetlands.
    - [5] Irrigation drainage.
    - [6] Lawn watering.
    - [7] Pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents are not used.
    - [8] Routine external building washdown (which does not include detergents or other compounds).
    - [9] Air-conditioning condensate.
    - [10] Water from individual residential car washing.
    - [11] Dechlorinated swimming pool discharges.
    - [12] Springs.
    - [13] Uncontaminated groundwater.
    - [14] Water from crawl space pumps.
  - (c) In the event that the Borough determines that any of the discharges identified in Subsection A(3)(b) significantly contribute to pollution of waters of the commonwealth or is so notified by PADEP, the Borough will notify the responsible person to cease the discharge.

- (d) Upon notice provided by the Borough under Subsection A(3)(c), the discharger will have a reasonable time, as determined by the Borough, to cease the discharge, consistent with the degree of pollution caused by the discharge.
- (e) Nothing in this section shall affect a discharger's responsibilities under state law.
- (4) Prohibited connections. The following connections are prohibited, except as provided in Subsection A(3)(b) above:
  - (a) Any drain or conveyance, whether on the surface or subsurface, which allows any nonstormwater discharge, including sewage, process wastewater, and wash water, to enter the separate storm sewer system, and any connections to the storm drain system from indoor drains and sinks; and
  - (b) Any drain or conveyance connected from a commercial or industrial land use to the separate storm sewer system which has not been documented in plans, maps, or equivalent records, and approved by the Borough.

B. Design standards.

- (1) Storm frequencies. Stormwater management facilities on all development sites shall control the peak stormwater discharge for the two-, ten-, twenty-five-, and one-hundred-year storm frequencies. The SCS twenty-four-hour, Type II rainfall distribution shall be used for analyzing stormwater runoff for both predevelopment and postdevelopment conditions. The twenty-four-hour total rainfall for these storm frequencies in the Borough is:

<b>Storm Frequency</b>	<b>Rainfall Depth (inches)</b>
2-year	2.50
10-year	3.61
25-year	4.31
100-year	5.71

C. Calculation methods.

- (1) Development sites. For the purpose of computing peak flow rates and runoff hydrographs from development sites, calculations shall be performed using one of the following: SCS publications, Technical Release (TR) 55, HEC I, Penn State Runoff Model (PSRM) or Modified Rational Method.
- (2) Stormwater collection/conveyance facilities. For the purpose of designing storm sewers, open swales and other stormwater runoff collection and conveyance facilities, the Rational Method shall be applied. Rainfall intensities for a twenty-five-year design storm with a minimum five-minute duration shall be used.

Rainfall intensities for design should be obtained from the Pennsylvania Department of Transportation rainfall charts.

- (3) Routing of hydrographs through detention/retention facilities for the purpose of designing those facilities shall be accomplished using the Modified Puls Method or other recognized reservoir routing method subject to the approval of the municipality and county.
- (4) Predevelopment conditions. Predevelopment conditions shall be assumed to be those which exist on any site prior to any development. Hydrologic conditions for all areas with pervious cover (i.e., fields, woods, lawn areas, pastures, cropland, etc.) shall be assumed to be in good condition, and the lowest recommended SCS runoff curve number (CN) shall be applied for all pervious land uses within the respective range for each land use and hydrologic soil group.

D. State water quality standards.

- (1) All stormwater management plans for activities within the Borough shall demonstrate postconstruction compliance with state water quality standards.
- (2) To control postconstruction stormwater impacts from regulated earth disturbance activities, state water quality requirements can be met by best management practices (BMPs), including site design, which provide for replication of preconstruction stormwater infiltration and runoff conditions, so that postconstruction stormwater discharges do not degrade the physical, chemical or biological characteristics of the receiving waters. As described in the DEP Comprehensive Stormwater Management Policy (#392-0300-002, September 28, 2002), this may be achieved by the following:
  - (a) Infiltration: replication of preconstruction stormwater infiltration conditions;
  - (b) Treatment: use of water quality treatment BMPs to ensure the filtering out of chemical and physical pollutants from the stormwater runoff; and
  - (c) Streambank and streambed protection: management of volume and rate of postconstruction stormwater discharges to prevent physical degradation of receiving waters (e.g., from scouring and erosion).
- (3) The best management practices must be designed to protect and maintain existing uses (e.g., drinking water use, coldwater fishery use) and maintain the level of water quality necessary to protect those uses in all streams, and to protect and maintain water quality in "special protection" streams, as required by statewide regulations at 25 Pa. Code Chapter 93 (collectively referred to as "state water quality requirements").
- (4) DEP has regulations that require municipalities to ensure design, implementation and maintenance of best management practices (BMPs) that control runoff from new development and redevelopment (hereinafter "development") after regulated earth disturbance activities are complete. These requirements include the need to implement postconstruction stormwater BMPs with assurance of long-term operations and maintenance of those BMPs.

**§ 94-5. Design criteria for stormwater management controls.****A. General criteria.**

- (1) Applicants may select runoff control techniques, or a combination of techniques, which are most suitable to control stormwater runoff from the development site. All controls shall be subject to approval of the Borough Engineer. The Borough Engineer may request specific information on design and/or operating features of the proposed stormwater controls in order to determine their suitability and adequacy in terms of the standards of this chapter.
- (2) The applicant should consider the effect of the proposed stormwater management techniques on any special soil conditions or geological hazards which may exist on the development site. In the event that such conditions are identified on the site, the Borough Engineer may require in-depth studies by a competent geotechnical engineer. Not all stormwater control methods may be advisable or allowable at a particular development site.
- (3) In developing a stormwater management plan for a particular site, stormwater controls shall be selected according to the following order of preference:
  - (a) Infiltration of runoff on site.
  - (b) Flow attenuation by use of open vegetated swales and natural depressions.
  - (c) Stormwater detention/retention structures.
- (4) Infiltration practices shall be used to the extent practicable to reduce volume increases and promote groundwater recharge. A combination of successive practices may be used to achieve the applicable minimum control requirements. Justification shall be provided by the applicant for rejecting each of the preferred practices based on actual site conditions.

**B. Infiltration systems.**

- (1) Infiltration systems shall be sized and designed based upon local soil and groundwater conditions.
- (2) Infiltration systems greater than three feet deep shall be located at least 10 feet from basement walls.
- (3) Infiltration systems shall not be used to handle runoff from commercial or industrial working or parking areas. This prohibition does not extend to roof areas which are demonstrated to be suitably protected from the effects of the commercial/industrial activities.
- (4) Infiltration systems may not receive runoff until the entire drainage area to the system has received final stabilization.
- (5) The stormwater infiltration facility design shall provide an overflow system with measures to provide a nonerosive velocity of flow along its length and at the outfall.

## C. Flow attenuation facilities.

- (1) If flow attenuation facilities are employed to assist in the control of peak rates of discharge, their effects must be quantified using the SCS Technical Release (TR) 55, Urban Hydrology for Small Watersheds, or other approved method. The effects of the flow attenuation facilities on travel time should be reflected in the calculations.
- (2) Flow attenuation facilities such as swales and natural depressions should be properly graded to ensure positive drainage and avoid prolonged ponding of water.
- (3) Swales shall be properly vegetatively stabilized or otherwise lined to prevent erosion.
- (4) Swales shall be designed according to the recommendations contained in the Commonwealth of Pennsylvania Erosion and Sediment Pollution Control Program Manual.

## D. Stormwater detention facilities.

- (1) If detention facilities are utilized for the development site, the facility(ies) shall be designed such that postdevelopment peak runoff rates from the developed site are controlled to those rates in existence prior to development for the two-, ten-, twenty-five-, and one-hundred-year storm frequencies.
- (2) All detention facilities shall be equipped with outlet structures to provide discharge control for the four designated storm frequencies. Provisions shall also be made to safely pass the postdevelopment one-hundred-year storm runoff without damaging (i.e., impairing the continued function of) the facilities. Should any stormwater management facilities qualify as a dam under PADER Chapter 105, the facility shall be designed in accordance with those regulations and meet the regulations concerning dam safety.
- (3) Shared-storage facilities which provide detention of runoff for more than one development site within a single watershed are encouraged wherever feasible and provided that such facilities meet the criteria contained in this section. In addition, runoff from the development sites involved shall be conveyed to the facility in a manner that avoids adverse impacts (such as flooding or erosion) to channels and properties located between the development site and the shared-storage facilities.
- (4) Where detention facilities will be utilized, multiple-use facilities, such as wetlands, lakes, ball fields or similar recreational/open space uses, are encouraged wherever feasible, subject to the approval of the Borough and Pennsylvania Department of Environmental Resources' Chapter 105 regulations.
- (5) Other considerations which should be incorporated into the design of the detention facilities include:
  - (a) Inflow and outflow structures shall be designed and installed to prevent erosion, and bottoms of impoundment-type structures should be protected from soil erosion.

- (b) Control and removal of debris both in the storage structure and in all inlet or outlet devices shall be a design consideration.
- (c) Inflow and outflow structures, pumping stations and other structures shall be designed and protected to minimize safety hazards.
- (d) The water depth at the perimeter of a storage pond should be limited to that which is safe for children. This is especially necessary if bank slopes are steep or if ponds are full and recirculating in dry periods. Restriction of access (fence, walls, etc.) may be necessary, depending on the location of the facility.
- (e) Side slope of storage ponds shall not exceed a ratio of 2.5 to one horizontal to vertical dimension.
- (f) Landscaping shall be provided for the facility which harmonizes with the surrounding area.
- (g) The facility shall be located to facilitate maintenance, considering the frequency and type of equipment that will be required.

E. Collection/conveyance facilities.

- (1) All stormwater runoff collection or conveyance facilities, whether storm sewers or other open or closed channels, shall be designed in accordance with the following basic standards:
  - (a) All sites shall be graded to provide drainage away from and around the structure in order to prevent any potential flooding damage.
  - (b) Lots located on the high side of streets shall extend roof and french drains to the curblin storm sewer (if applicable). Low side lots shall extend roof and french drains to a stormwater collection/conveyance/control system or natural watercourse in accordance with the approved stormwater management plan for the development site.
  - (c) Collection/conveyance facilities should not be installed parallel and close to the top or bottom of a major embankment to avoid the possibility of failing or causing the embankment to fail.
  - (d) All collection/conveyance facilities shall be designed to convey the twenty-five-year storm peak flow rate from the contributing drainage area and to carry it to the nearest suitable outlet such as a stormwater control facility, curbed street, storm sewer or natural watercourse.
  - (e) Where drainage swales or open channels are used, they shall be suitably lined to prevent erosion and designed to avoid excessive velocities.
- (2) Wherever storm sewers are proposed to be utilized, they shall comply with the following criteria:

- (a) Where practical, they shall be designed to traverse under seeded and planted areas. If constructed within 10 feet of road paving, walks or other surfaced areas, drains shall have a narrow trench and maximum compaction of backfill to prevent settlement of the superimposed surface or development.
- (b) Preferably, they shall be installed after excavating and filling in the area to be traversed is completed, unless the drain is installed in the original ground with a minimum of three feet of cover and/or adequate protection during the fill construction.
- (c) They shall be designed with cradle when traversing fill areas of indeterminate stability; with anchors when gradient exceeds 20%; and with encasement or special backfill requirements when traversing under a paved area.
- (d) They shall be designed to adequately handle the anticipated stormwater flow and be economical to construct and maintain. The minimum pipe size shall be 15 inches in diameter.
- (e) Drain pipe, trenching, bedding and backfilling requirements shall conform to the requirements of the municipality and/or applicable PennDOT Specifications, Form 408.
- (f) All corrugated metal pipe shall be polymer-coated and with asbestos bonding and paved inverts where prone to erode. Pipe within a municipal right-of-way shall be reinforced concrete pipe with a minimum diameter of 15 inches.
- (g) Storm inlets and structures shall be designed to be adequate, safe, self-cleaning and unobtrusive and consistent with municipal standards.
- (h) Appropriate grates shall be designed for all catch basins, stormwater inlets and other entrance appurtenances.
- (i) Manholes shall be designed so that the top shall be at finished grade and sloped to conform to the slope of the finished grade. Top castings of structures located in roads or parking areas shall be machined or installed to preclude rattling.
- (j) Where the proposed sewer connects with an existing storm sewer system, the applicant shall demonstrate that sufficient capacity exists in the downstream system to handle the additional flow.
- (k) Storm sewer outfalls shall be equipped with energy dissipation devices to prevent erosion and to conform with applicable requirements of the Pennsylvania DEP for stream encroachments (Chapter 105 of Pennsylvania DEP Rules and Regulations).

**§ 94-6. Erosion and sedimentation controls.**

- A. An erosion/sedimentation plan shall be prepared for each development site in accordance with the Pennsylvania erosion/sedimentation regulations (25 Pa. Code Chapter 102); the standards and guidelines of the Allegheny County Conservation District.
- B. Proposed erosion/sedimentation measures shall be submitted with the stormwater management plan.
- C. No regulated earth disturbance activities within the Borough shall commence until approval by the Borough of an erosion and sediment control plan for construction activities.
- D. The Pennsylvania Department of Environmental Protection (PADEP) has regulations that require an erosion and sediment control plan for any earth disturbance activity of 5,000 square feet or more, under 25 Pa. Code § 102.4(b).
- E. In addition, under 25 Pa. Code Chapter 92, a PADEP NPDES construction activities permit is required for any earth disturbance one acre or more with a point source discharge to surface waters or the Borough's storm sewer system or five acres or more regardless of the planned runoff (hereinafter collectively referred to as "regulated earth disturbance activities"). This includes earth disturbance on any portion of, part of, or during any stage of a larger common plan of development.
- F. Evidence of any necessary permit(s) for regulated earth disturbance activities from the appropriate PADEP regional office or the Allegheny County Conservation District must be provided to the Borough. The issuance of an NPDES construction permit [or permit coverage under the statewide General Permit (PAG-2)] satisfies the requirements of Subsection C.
- G. A copy of the erosion and sediment control plan and any required permits, as required by PADEP regulations, shall be available at the project site at all times.

**§ 94-7. Maintenance of stormwater management controls.**

- A. Maintenance responsibilities.
  - (1) The maintenance plan for stormwater management facilities located on the development site shall establish responsibilities for the continuing operation and maintenance of all proposed stormwater control facilities, consistent with the following principles:
    - (a) If a development consists of structures or lots which are to be separately owned and in which streets, sewers and other public improvements are to be dedicated to the Borough, stormwater control facilities should also be dedicated to and maintained by the Borough, if the Borough agrees to the dedication.
    - (b) If a development site is to be maintained in single ownership or if sewers and other public improvements are to be privately owned and maintained, then

the ownership and maintenance of stormwater control facilities should be the responsibility of the owner or private management entity.

- (2) The governing body, upon recommendation of the Borough Engineer, shall make the final determination on the continuing maintenance responsibilities prior to final approval of the stormwater management plan. The governing body reserves the right to accept the ownership and operating responsibility for any or all of the stormwater management controls.

B. Maintenance agreement for privately owned stormwater facilities.

- (1) Prior to final approval of the site's stormwater management plan, the applicant and the Borough shall execute a maintenance agreement covering all stormwater control facilities which are to be privately owned. The maintenance agreement shall be recorded with the final subdivision/land development plan for the site. The agreement shall stipulate that:
  - (a) All facilities shall be maintained in accordance with the approved maintenance schedule and in a safe and attractive manner.
  - (b) Easements and/or rights-of-way shall be conveyed to the municipality to assure access for periodic inspections by the municipality and maintenance if required.
  - (c) The name, address and telephone number of the person or company responsible for maintenance activities shall be filed with the municipality. In the event of a change, new information will be submitted to the municipality within 10 days of the change.
  - (d) If the facility owner fails to maintain the stormwater control facilities, the Borough may perform the necessary maintenance work or corrective work following due notice by the Borough to the facility owner to correct the problem(s). The facility owner shall reimburse the Borough for all costs.
- (2) Other items may be included in the agreement where determined necessary to guarantee the satisfactory maintenance of the facilities.

C. Borough Stormwater Maintenance Fund.

- (1) Persons installing stormwater storage facilities shall be required to pay a specified amount into the Borough Stormwater Maintenance Fund to help defray costs of the periodic inspections and maintenance expenses. The amount to be deposited shall be determined as follows:
  - (a) If the storage facility is to be privately owned and maintained, the deposit shall cover the cost of periodic inspections performed by the municipality for a period of 10 years, as estimated by the Borough Engineer. After that period of time, inspections will be performed at the expense of the municipality.
  - (b) If the storage facility is to be owned and maintained by the Borough, the deposit shall cover the estimated costs for the maintenance and inspections

for 10 years. The Borough Engineer will estimate costs utilizing information submitted by the applicant.

- (c) The amount of the deposit of the fund shall be converted to present worth of the annual series values. The Borough Engineer shall determine the present worth equivalents, which shall be subject to the approval of the governing body.
- (2) If a storage facility is proposed that also serves as a recreation facility (e.g., ball field, lake), the Borough may reduce or waive the amount of the maintenance fund deposit based upon the value of the land for public recreation purposes.
- (3) If, in the future, a storage facility (whether publicly or privately owned) is eliminated due to the installation of storm sewers or other storage facility, the unused portion of the maintenance fund deposit will be applied to the cost of abandoning the facility and connecting the storm sewer system or other facility. Any amount of the deposit remaining after the costs of abandonment are paid will be returned to the depositor.

#### **§ 94-8. Stormwater plan requirements.**

- A. General requirements. No final subdivision/land development plan shall be approved, no permit authorizing construction issued or any earthmoving or land disturbance activity initiated until the final stormwater management plan for the development site is approved in accordance with the provisions of this chapter.
- B. Exemptions for small developments.
  - (1) At the time of application, the Borough shall determine if the subdivision/land development qualifies as a small development and, therefore, is eligible for a simplified stormwater plan submission. For the purposes of this chapter, a "small development" is any subdivision or land development which results in (or will result in when fully constructed) the creation of 5,000 or less square feet of impervious surface area.
  - (2) Applications for small developments shall include a plan which describes the type and location of proposed on-site stormwater management techniques or the proposed connection to an existing storm sewer system. The plan should show accurately site boundaries, five-foot interval contours, locations of watershed and/or subarea boundaries on the site (if applicable) and any watercourses, floodplains or existing drainage facilities or structures located on the site. The Borough reserves the right to require that the plan be prepared by a registered professional engineer, surveyor or landscape architect.
  - (3) The Borough Engineer shall review and approve the proposed provisions for stormwater management in accordance with the standards and requirements of this chapter.
- C. Stormwater plan contents.

- (1) General format. The stormwater plan shall be drawn to a scale of not less than one inch equals 200 feet. All sheets shall contain a title block with the name and address of the applicant and engineer, scale, North arrow, legend and date of preparation.
- (2) Existing and proposed features. The plan shall show the following:
  - (a) Watershed location. Provide a key map showing the location of the development site within the watershed(s). On all site drawings, show the boundaries of the watershed(s) as they are located on the development site and identify watershed names(s).
  - (b) Floodplain boundaries. Identify one-hundred-year floodplains on the development site (as appropriate) based on the Flood Insurance Firm Maps for the Borough.
  - (c) Natural features. Show all bodies of water (natural or artificial), watercourses (permanent and intermittent), swales, wetlands and other natural drainage courses on the development site or which will be affected by runoff from the development.
  - (d) Soils. Provide an overlay showing soil types and boundaries within the development site (consult Allegheny County Conservation District, SCS and United States Geological Survey for information).
  - (e) Contours. Show existing and final contours at intervals of two feet; in areas with slopes greater than 15%, five-foot contour intervals may be used.
  - (f) Land cover. Show existing and final land cover classifications as necessary to support and illustrate the runoff calculations performed.
  - (g) Drainage area delineations. Show the boundaries of the drainage areas employed in the runoff calculations performed.
  - (h) Stormwater management controls. Show any existing stormwater management or drainage controls and/or structures, such as sanitary and storm sewers, swales, culverts, etc., which are located on the development site or which are located off site but will be affected by runoff from the development.
- (3) Professional certification. The stormwater management plan (including all calculations) shall be prepared and sealed by a registered professional engineer, surveyor or landscape architect with training and expertise in hydrology and hydraulics. Documentation of qualifications may be required by the Borough.
- (4) Runoff calculations. Calculations for determining predevelopment and postdevelopment discharge rates and for designing proposed stormwater control facilities must be submitted with the stormwater management plan. All calculations shall be prepared using the methods and data prescribed by § 94-4 of this chapter.

- (5) Stormwater controls. All proposed stormwater runoff control measures must be shown on the plan, including methods for collecting, conveying and storing stormwater runoff on site, which are to be used both during and after construction. Erosion and sedimentation controls shall be shown in accordance with § 94-6 of this chapter. The plan shall provide information on the exact type, location, sizing, design and construction of all proposed facilities and relationship to the existing watershed drainage system.
- (a) If the development is to be constructed in stages, the applicant must demonstrate that stormwater facilities will be installed to manage stormwater runoff safely during each stage of development.
  - (b) A schedule for the installation of all temporary and permanent stormwater control measures and devices shall be submitted.
  - (c) If appropriate, a justification should be submitted as to why any preferred stormwater management techniques, as listed in § 94-5, are not proposed for use.
- (6) Easements, rights-of-way and deed restrictions. All existing and proposed easements and rights-of-way for drainage and/or access to stormwater control facilities shall be shown, along with any areas subject to special deed restrictions relative to or affecting stormwater management on the development site.
- (7) Other permits/approvals. A list of any approvals/permits relative to stormwater management that will be required from other governmental agencies (Pennsylvania DEP Chapters 105 and 106 permits and/or NPDES permit) and anticipated dates of submission/receipt should be included with the stormwater plan submission. Copies of permit applications may be requested by the municipality where they may be helpful for the plan review.
- (8) Maintenance program. The proposed maintenance plan for all stormwater control facilities shall:
- (a) Identify the proposed ownership entity (e.g., municipality, property owner, private corporation, homeowners' association or other entity).
  - (b) Identify the type of maintenance, probable frequencies, personnel and equipment requirements and estimated annual maintenance costs.
  - (c) Identify method of financing, continuing operation and maintenance if the facility is to be owned by other than a governmental agency.
  - (d) Include copies of any legal agreements required to implement the maintenance program and, if applicable, copies of the maintenance agreement as required by § 94-7 of this chapter.
- (9) Financial guarantees. Submit financial guarantees in accordance with the provisions of § 94-13 of this chapter.

**§ 94-9. Plan review procedures.****A. Preapplication phase.**

- (1) Before submitting the stormwater plan, applicants are urged to consult with the Borough, Allegheny County Planning Department and Allegheny County Conservation District on the applicable regulations and techniques for safely managing runoff from the development site. These agencies may also be helpful in providing necessary data for the stormwater management plan.
- (2) Applicants are encouraged to submit a sketch plan with a narrative description of the proposed stormwater management controls for general guidance and discussion with the municipality and other agencies.
- (3) The preapplication phase is not mandatory; any review comments provided by the Borough or other agencies are advisory only and do not constitute any legally binding action on the part of the municipality or any county agency.

**B. Stormwater plan reviews.**

- (1) Submission of plans. Stormwater plan applications shall be submitted with the preliminary and final subdivision/land development applications.
- (2) Notification of affected municipalities. The municipality shall notify municipalities upstream and downstream of the development site which may be affected by the stormwater runoff and proposed controls for the site. Copies of the plans will be made available to the municipalities upon request. Comments received from any affected municipality will be considered by the Borough Engineer and county agencies in their reviews.
- (3) County planning review.
  - (a) The Borough shall forward a copy of the stormwater plan, along with all runoff calculations, to the Allegheny County Planning Department. A report of the findings will be returned to the municipality within 30 days.
  - (b) If the Department determines that the plan fails to comply with the watershed standards and criteria or that a possibility exists for harmful downstream impacts from the development site, the applicant will be advised so that proposed stormwater management controls can be modified. The Borough Engineer shall not approve the development site's stormwater management plan until it receives a positive review from the County Planning Department.
- (4) Borough Engineer's review. The Borough Engineer shall approve or disapprove the stormwater management plan based on the requirements of the municipal ordinances, the standards and criteria of the watershed plan and good engineering practice. The Engineer shall submit a written report, along with supporting documentation, stating his reasons for approval or disapproval.
- (5) Status of the Engineer's determination. The approval/disapproval of the site's stormwater management plan by the Borough Engineer shall be considered final. The governing body shall not reverse the Engineer's determination by approving or

disapproving the site's stormwater management plan or any specific control measure in contradiction of the Engineer's action. The governing body may request modifications or alternative approaches to the stormwater management controls, provided that these are agreed to by the Borough Engineer and the applicant's engineer.

- (6) Permits required from other governmental agencies. Where the proposed development requires an obstruction permit from the Pennsylvania DEP or an erosion/sedimentation permit from the County Conservation District, final stormwater management plan approval shall be granted subject to the receipt of such permits. No building permit shall be issued, nor construction started, until the permits are received and copies filed with the Borough.

#### **§ 94-10. Status of stormwater plan after final approval.**

- A. Upon final stormwater plan approval and receipt of all necessary permits, the applicant may commence to install or implement the approved stormwater management controls.
- B. If site development or building construction does not begin within two years of the date of final approval of the stormwater management plan, then, before doing so, the applicant shall resubmit the stormwater management plan to verify that no condition has changed within the watershed that would affect the feasibility or effectiveness of the previously approved stormwater management controls. Further, if for any reason development activities are suspended for two years or more, then the same requirement for resubmission of the stormwater management plan shall apply.

#### **§ 94-11. Stormwater plan modifications.**

- A. If the request for a plan modification is initiated before construction begins, the stormwater plan must be resubmitted and reviewed according to the procedures contained in § 94-9 above.
- B. If the request for a plan modification is initiated after construction is under way, the Borough Engineer shall have the authority to approve or disapprove the modification based on field inspection, provided that the requested changes in stormwater controls do not result in any modifications to other approved municipal land use/development requirements (e.g., building setbacks, yards, etc.) and the performance standards in § 94-4 are met. Notification of the Engineer's action shall be sent to the governing body, which may issue a stay of the plan modification within five days and require the permittee to resubmit the plan modification for full stormwater plan review in accordance with § 94-9 above.

#### **§ 94-12. Inspections of stormwater management controls.**

- A. The Borough Engineer or a designated representative shall inspect the construction of the temporary and permanent stormwater management system for the development site. The permittee shall notify the Engineer 48 hours in advance of the completion of the following key development phases:

- (1) At the completion of preliminary site preparation, including stripping of vegetation, stockpiling of topsoil and construction of temporary stormwater management and erosion control facilities.
  - (2) At the completion of rough grading but prior to placing topsoil, permanent drainage or other site development improvements and ground covers.
  - (3) During construction of the permanent stormwater facilities at such times as specified by the Borough Engineer.
  - (4) Completion of permanent stormwater management facilities, including established ground covers and plantings.
  - (5) Completion of final grading, vegetative control measures or other site restoration work done in accordance with the approved plan and permit.
- B. No work shall commence on any subsequent phase until the preceding one has been inspected and approved. If there are deficiencies in any phase, the Borough Engineer shall issue a written description of the required corrections and stipulate the time by which they must be made.
- C. If, during construction, the contractor or permittee identifies any site conditions, such as subsurface soil conditions, alterations in surface or subsurface drainage which could affect the feasibility of the approved stormwater facilities, he/she shall notify the Borough Engineer within 24 hours of the discovery of such condition and request a field inspection. The Borough Engineer shall determine if the condition requires a stormwater plan modification.
- D. In cases where stormwater facilities are to be installed in areas of landslide-prone soils or other special site conditions exist, the municipality may require special precautions such as soil tests and core borings, full-time inspectors and/or similar measures. All costs of any such measures shall be borne by the permittee.

**§ 94-13. Financial guarantees and dedications of public improvements.**

- A. Guarantee of completion. A completion guarantee in the form of a bond, cash deposit, certified check or other negotiable securities acceptable to the Borough shall be filed. The guarantee shall cover all streets, sanitary sewers, stormwater management facilities, water systems, fire hydrants, sidewalks and other required improvements; it shall be in the amount and form prescribed by the Municipalities Planning Code (Section 509).<sup>2</sup>
- B. Release of completion guarantee. The procedures for requesting and obtaining a release of the completion guarantee shall be in a manner prescribed by the Municipalities Planning Code (Section 510).<sup>3</sup>
- C. Default of completion guarantee. If improvements are not installed in accordance with the approved final plan, the governing body may enforce any corporate bond or other

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2. Editor's Note: See 53 P.S. § 10509.

3. Editor's Note: See 53 P.S. § 10510.

security by appropriate legal and equitable remedies. If proceeds of such bond or other security are insufficient to pay the cost of installing or making repairs or corrections to all the improvements covered by said security, the governing body may, at its option, install part of such improvements in all or part of the development and may institute appropriate legal or equitable action to recover the moneys necessary to complete the remainder of the improvements. All proceeds, whether resulting from the security or from any legal or equitable action brought against the developer, or both, shall be used solely for the installation of the improvements covered by such security and not for any other municipal purpose.

D. Dedication of public improvements.

- (1) When streets, sanitary sewers, stormwater management facilities, waterlines or other required improvements in the development have been completed in accordance with the final approved plan, such improvements shall be deemed private until such time as they have been offered for dedication to the Borough and accepted by separate ordinance or resolution or until they have been condemned for use as a public facility.
- (2) Prior to acceptance of any improvements or facilities, the Borough Engineer shall inspect it to ensure that it is constructed in accordance with the approved plan and is functioning properly. In the case of any stormwater control facility, it must be free of sediment and debris.
- (3) The owner shall submit as-built plans for all facilities proposed for dedication.

E. Maintenance guarantee. Prior to acceptance of any improvements or facilities, the applicant shall provide a financial security to secure the structural integrity and functioning of the improvements. The security shall be in the form of a bond, cash, certified check or other negotiable securities acceptable to the municipality; be for a term of 18 months; and be in the amount equal to 15% of the actual cost of the improvements and facilities so dedicated.

**§ 94-14. Fee schedule.**

The municipal governing body may adopt by resolution from time to time a reasonable schedule of fees to cover the cost of plan reviews, inspections and other activities necessary to administer the provisions of this chapter. All fees shall be set in accordance with the applicable provisions of the Municipalities Planning Code,<sup>4</sup> and any dispute over the fee amount shall be resolved in the manner prescribed by the Code.

**§ 94-15. Enforcement procedures and remedies.**

- A. Right of entry. Upon presentation of proper credentials, duly authorized representatives of the Borough may enter at reasonable times upon any property to investigate or

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

ascertain the condition of the subject property in regard to an aspect regulated by this chapter.

- B. Notification. In the event that the applicant, developer, owner or his/her agent fails to comply with the requirements of this chapter or fails to conform to the requirements of any permit, a written notice of violation shall be issued. Such notification shall set forth the nature of the violation(s) and establish a time limit for correction of the violation(s). Upon failure to comply within the time specified, unless otherwise extended by the Borough, the applicant, developer, owner or his/her agent shall be subject to the enforcement remedies of this chapter.
- C. Preventive remedies.
- (1) In addition to other remedies, the Borough may institute and maintain appropriate actions by law or in equity to restrain, correct or abate a violation, to prevent unlawful construction, to recover damages and to prevent illegal occupancy of a building or premises.
  - (2) In accordance with the Municipalities Planning Code (Section 515.1),<sup>5</sup> the Borough may refuse to issue any permit or grant approval to further improve or develop any property which has been developed in violation of this chapter.
- D. Enforcement remedies.
- (1) Any person who has violated or permitted the violation of the provisions of this chapter shall, upon being found liable therefore in a civil enforcement proceeding commenced by the municipality, pay a fine of not less than \$50 and not more than \$500, plus court costs, including reasonable attorney fees incurred by the Borough. No judgment shall commence or be imposed, levied or be payable until the date of the determination of a violation by the District Justice.
  - (2) If the defendant neither pays nor timely appeals the judgment, the Borough may enforce the judgment pursuant to applicable rules of civil procedure.
  - (3) Each day that a violation continues shall constitute a separate violation unless the District Justice further determines that there was a good faith basis for the person violating the ordinance to have believed that there was no such violation. In such case there shall be deemed to have been only one such violation until the fifth day following the date of the District Justice's determination of a violation; thereafter each day that a violation continues shall constitute a separate violation.
  - (4) All judgments, costs and reasonable attorney fees collected for the violation of this chapter shall be paid to the Borough.
  - (5) The Court of Common Pleas, upon petition, may grant an order of stay, upon cause shown, tolling the per diem fine pending a final adjudication of the violation and judgment.

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5. Editor's Note: See 53 P.S. 10515.1.

- (6) Nothing contained in this section shall be construed or interpreted to grant to any person or entity other than the Borough the right to commence any action for enforcement pursuant to this section.
- E. Additional remedies. In addition to the above remedies, the Borough may also seek remedies and penalties under applicable Pennsylvania statutes, or regulations adopted pursuant thereto, including but not limited to the Stormwater Management Act (32 P.S. §§ 680.1 to 680.17) and the Erosion and Sedimentation Regulations (25 Pa. Code Chapter 102). Any activity conducted in violation of this chapter or any Pennsylvania-approved watershed stormwater management plan may be declared a public nuisance by the municipality and abatable as such.