Chapter 215

STORMWATER MANAGEMENT

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[HISTORY: Adopted by the Borough Council of the Borough of Linesville 4-14-2011 by Ord. No. 302. Amendments noted where applicable.]

GENERAL REFERENCES

Uniform construction codes — See Ch. 100.
Floodplain management — See Ch. 130.
Zoning — See Ch. 262.

ARTICLE I
General Provisions

§ 215-1. Short title.

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

§ 215-2. Statement of findings.

The governing body of Linesville Borough finds that:

A. Inadequate management of accelerated stormwater runoff resulting from development throughout a watershed increases flood flows and velocities, contributes to erosion and sedimentation, overtaxes the carrying capacity of existing streams and storm sewers,

greatly increases the cost of public facilities to convey and manage stormwater, undermines floodplain management and flood reduction efforts in upstream and downstream communities, reduces groundwater recharge, threatens public health and safety, and increases nonpoint source pollution of water resources.

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

C. Inadequate planning and management of stormwater runoff resulting from land development and redevelopment throughout a watershed can also harm surface water resources by changing the natural hydrologic patterns; accelerating stream flows (which increase scour and erosion of streambeds and stream banks, thereby elevating sedimentation); destroying aquatic habitat; and elevating aquatic pollutant concentrations and loadings such as sediments, nutrients, heavy metals, and pathogens. Groundwater resources are also impacted through loss of recharge.

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

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

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

§ 215-3. Purpose.

The purpose of this chapter is to promote health, safety, and welfare within Linesville Borough, Crawford County, by minimizing the harms and maximizing the benefits described in § 215-2 of this chapter through provisions intended to:

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

B. Manage accelerated runoff and erosion and sedimentation problems close to their source, by regulating activities that cause these problems.

C. Preserve the natural drainage systems as much as possible.

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

E. Maintain existing flows and quality of streams and watercourses.

F. Preserve and restore the flood-carrying capacity of streams and prevent scour and erosion of stream banks and streambeds.

G. Manage stormwater impacts close to the runoff source, with a minimum of structures and a maximum use of natural processes.

H. Provide procedures, performance standards, and design criteria for stormwater planning and management.

I. Provide proper operations and maintenance of all temporary and permanent stormwater management facilities and best management practices (BMPs) that are constructed and implemented.

J. Provide standards to meet the NPDES permit requirements.

§ 215-4. Statutory authority.

A. Primary authority. Linesville Borough is empowered to regulate these activities by the authority of the Act of October 4, 1978, P.L. 864 (Act 167), 32 P.S. § 680.1 et seq., as amended, the "Stormwater Management Act," and the Borough Code.[1]

B. Secondary authority. Linesville Borough also 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.[2]

§ 215-5. Applicability.

A. In Linesville Borough, all regulated activities and all activities that may affect stormwater runoff, including land development and earth disturbance activity, are subject to regulation by this chapter.

B. Earth disturbance activities and associated stormwater management controls are also regulated under existing state law and implementing regulations. This chapter shall operate in coordination with those parallel requirements; the requirements of this chapter shall be no less restrictive in meeting the purposes of this chapter than state law.

C. "Regulated activities" are any earth disturbance activities or any activities that involve the alteration or development of land in a manner that may affect stormwater runoff. "Regulated activities" include, but are not limited to, the following listed items:

(1) Earth disturbance activities.

(2) Land development.

(3) Subdivision where earth disturbance activities are proposed.

(4) Construction of new or additional impervious or semipervious surfaces.

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1. **Editor's Note: See 53 P.S. § 45101 et seq.**

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

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

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

(7) Installation of stormwater management facilities or appurtenances thereto.

(8) Installation of stormwater BMPs.

D. See § 215-11 of this chapter for exemption/modification criteria.

§ 215-6. Compatibility with other ordinance requirements.

Approvals issued and actions taken pursuant to this chapter do not relieve the applicant of the responsibility to comply with or to secure required permits or approvals for activities regulated by any other applicable codes, laws, rules, statutes, or ordinances. To the extent that this chapter imposes more rigorous or stringent requirements for stormwater management, the specific requirements contained in this chapter shall be followed.

§ 215-7. Duty of persons engaged in development of land.

Notwithstanding any provision(s) of this chapter, including exemptions, any landowner or 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 also shall include actions as are required to manage the rate, volume, direction, and quality of resulting stormwater runoff in a manner which otherwise adequately protects health, property, and water quality.

§ 215-8. Municipality liability disclaimer.

A. Neither the granting of any approval under 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 there from, or as otherwise imposed by law nor impose any liability upon the Linesville Borough for damages to persons or property.

B. The granting of a permit which includes any stormwater management facilities shall not constitute a representation, guarantee or warranty of any kind by the municipality, 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.

ARTICLE II
Terminology

§ 215-9. Definitions.

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

A. Word usage.

(1) 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.

(2) 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.

(3) The word "person" includes an individual, firm, association, organization, partnership, trust, company, corporation, or any other similar entity.

(4) The words "shall" and "must" are mandatory; the words "may" and "should" are permissive.

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

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

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

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

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

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

BEST MANAGEMENT PRACTICES (BMPs) — 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 chapter. Stormwater BMPs are commonly grouped into one of two broad categories or measures: nonstructural or structural. "Nonstructural" BMPs are measures referred to as operational and/or behavior-related practices that attempt to minimize the contact of pollutants with stormwater runoff whereas "structural" BMPs are measures 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.

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

CISTERN — An underground reservoir or tank used for storing rainwater.

CONSERVATION DISTRICT — The Crawford County Conservation District. The Crawford County Conservation District has the authority under a delegation agreement executed with the Department of Environmental Protection to administer and enforce all or a portion of the regulations promulgated under 25 Pa. Code Chapter 102.

CULVERT — A structure with appurtenant works that carries a stream and/or stormwater runoff under or through an embankment or fill.

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

DESIGN STORM — The magnitude and temporal distribution of precipitation from a storm event measured in probability of occurrence (e.g., a twenty-five-year storm) and duration (e.g., 24 hours), used in the design and evaluation of stormwater management systems. Also see "return period."

DESIGNEE — The agent of this municipality and/or agent of the governing body involved with the administration, review or enforcement of any provisions of this chapter by contract or memorandum of understanding.

DETENTION BASIN — An impoundment structure designed to manage stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate.

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

DEVELOPER — A person, partnership, association, corporation, or other entity, or any responsible person therein or agent thereof, that undertakes any regulated activity of this chapter.

DEVELOPMENT SITE (SITE) — The specific tract of land for which a regulated activity is proposed. Also see "project site."

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

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

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

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

DRAINAGEWAY — Any natural or artificial watercourse, trench, ditch, pipe, swale, channel, or similar depression into which surface water flows.

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

EROSION — The movement of soil particles by the action of water, wind, ice, or other natural forces.

EROSION AND SEDIMENT POLLUTION CONTROL PLAN — A plan which is designed to minimize accelerated erosion and sedimentation.

EXCEPTIONAL VALUE WATERS — Surface waters of high quality, which satisfies Pa. Code Title 25, Environmental Protection, Chapter 93, Water Quality Standards, § 93.4b(b) (relating to anti-degradation).

EXISTING CONDITIONS — The initial condition of a project site prior to the proposed construction. If the initial condition of the site is undeveloped land and not forested, the land use shall be considered as "meadow" unless the natural land cover is documented to generate lower curve numbers or Rational "C" coefficient.

FEMA — The Federal Emergency Management Agency.

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

FLOOD FRINGE — The remaining portions of the one-hundred-year floodplain outside of the floodway boundary.

FLOODPLAIN — Any land area susceptible to inundation by water from any natural source or delineated by applicable department of housing and urban development, federal insurance administration flood hazard boundary, mapped as being a special flood hazard area. Included are lands adjoining a river or stream that have been or may be inundated by a one-hundred-year flood. Also included are areas that comprise group 13 soils, as listed in Appendix A of the Pennsylvania Department of Environmental Protection (PADEP) Technical Manual for Sewage Enforcement Officers (as amended or replaced from time to time by PADEP).

FLOODWAY — The channel of the watercourse and those portions of the adjoining floodplains that are reasonably required to carry and discharge the one-hundred-year

frequency flood. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the one-hundred-year frequency floodway, it is assumed, absent evidence to the contrary, that the floodway extends from the stream to 50 feet landward from the top of the bank of the stream.

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

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

GRADE — A slope, usually of a road, channel or natural ground specified in percent and shown on plans as specified herein.

(TO) GRADE — To finish the surface of a roadbed, top of embankment or bottom of excavation.

GROUNDWATER RECHARGE — Replenishment of existing natural underground water supplies.

HEC-HMS MODEL CALIBRATED — (Hydrologic Engineering Center Hydrologic Modeling System) A computer-based hydrologic modeling technique adapted to the watershed(s) in Crawford County for the Act 167 Plan. The model has been calibrated by adjusting key model input parameters.

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

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 one of four HSG (A, B, C, and D) according to their minimum infiltration rate, which is obtained for bare soil after prolonged wetting. The Natural Resource Conservation Service (NRCS) of the U.S. Department of Agriculture 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 interest may be identified from a soil survey report from the local NRCS office or the County Conservation District.

IMPERVIOUS SURFACE (IMPERVIOUS AREA) — A surface that prevents the infiltration of water into the ground. Impervious surface (or areas) include, but are not limited to: roofs, additional indoor living spaces, patios, garages, storage sheds and similar structures, parking or driveway areas, and any new streets and sidewalks. Any surface areas proposed to initially be gravel or crushed stone shall be assumed to be impervious surfaces.

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

INFILTRATION STRUCTURES — A structure designed to direct runoff into the ground (e.g., french drains, seepage pits, seepage trench, etc.).

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

LAND DEVELOPMENT (DEVELOPMENT) —

(1) The improvement of one lot or two or more contiguous lots, tracts or parcels of land for any purpose involving:

(a) A group of two or more buildings; or

(b) The division or allocation of land or space 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;

(2) Any subdivision of land;

(3) Development in accordance with Section 503(1.1) of the Pa. Municipalities Planning Code.[3]

LOW-IMPACT DEVELOPMENT (LID) — An approach to land development that uses various land planning and design practices and technologies to simultaneously conserve and protect natural resource systems and reduce infrastructure costs. LID still allows land to be developed, but in a cost-effective manner that helps mitigate potential environmental impacts.

MAIN STEM (MAIN CHANNEL) — Any stream segment or other runoff conveyance facility used as a reach in the Crawford County Act 167 watershed hydrologic model(s).

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

MUNICIPALITY — Linesville Borough, Crawford County, Pennsylvania.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) — The federal government's system for issuance of permits under the Clean Water Act, which is delegated to PADEP in Pennsylvania.

NOAA ATLAS 14 — Precipitation-Frequency Atlas of the United States, Atlas 14, Volume 2, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, Hydrometeorological Design Studies Center, Silver Spring, Maryland (2004). NOAA's Atlas 14 can be accessed at Internet address http://hdsc.nws.noaa.gov/hdsc/pfds/.

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3. **Editor's Note: See 53 P.S. § 10503(1.1).**

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

NRCS — Natural Resource Conservation Service [previously Soil Conservation Service (SCS)].

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

OUTFALL —

(1) Point where water flows from a conduit, stream, or drain;

(2) "Point source" as described in 40 CFR 122.2 at the point where the municipality's storm sewer system discharges to surface waters of the commonwealth.

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

PADEP — The Pennsylvania Department of Environmental Protection.

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

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

PERSON — An individual, partnership, public or private association or corporation, or a governmental unit, public utility or any other legal entity whatsoever which is recognized by law as the subject of rights and duties.

PERVIOUS AREA — Any area not defined as impervious.

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

PLANNING COMMISSION — The Planning Commission of Linesville Borough.

POINT SOURCE — Any discernible, confined, or discrete conveyance, including, but not limited to: any pipe, ditch, channel, tunnel, or conduit from which stormwater is or may be discharged, as defined in state regulations at 25 Pennsylvania Code § 92.1.

PROBABLE MAXIMUM FLOOD (PMF) — The flood that may be expected from the most severe combination of critical meteorological and hydrologic conditions that are reasonably possible in any area. The PMF is derived from the probable maximum precipitation (PMP) as determined on the basis of data obtained from the National Oceanographic and Atmospheric Administration (NOAA).

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

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

RATIONAL FORMULA — A rainfall-runoff relation used to estimate peak flow.

REDEVELOPMENT — Earth disturbance activities on land which has previously been developed.

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.

REGULATED EARTH DISTURBANCE ACTIVITY — Activity involving earth disturbance subject to regulation under 25 Pa. Code Chapter 92, Chapter 102, or the Clean Streams Law.[4]

RELEASE RATE — The percentage of predevelopment peak rate of runoff from a site or subwatershed area to which the postdevelopment peak rate of runoff must be reduced to protect downstream areas.

RELEASE RATE DISTRICT — Those subwatershed areas in which postdevelopment flows must be reduced to a certain percentage of predevelopment flows as required to meet the plan requirements and the goals of Act 167.

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

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

RETURN PERIOD — The average interval, in years, within which a storm event of a given magnitude can be expected to recur. For example, the twenty-five-year return period rainfall would be expected to recur on the average once every 25 years; or stated in another way, the probability of a twenty-five-year storm occurring in any one given year is 0.04 (i.e., a four-percent chance).

RIPARIAN BUFFER — A vegetated area bordering perennial and intermittent streams and wetlands, that serves as a protective filter to help protect streams and wetlands from the impacts of adjacent land uses.

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

ROAD MAINTENANCE — Earth disturbance activities within the existing road right-of-way, such as grading and repairing existing unpaved road surfaces, cutting road banks, cleaning or clearing drainage ditches, and other similar activities. Road

4. **Editor's Note: See 35 P.S. § 691.1 et seq.**

maintenance activities that do not disturb the subbase of a paved road (such as milling and overlays) are not considered earth disturbance activities.

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

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

RUNOFF CAPTURE VOLUME — The volume of runoff that is captured (retained) and not released into surface waters of the commonwealth during or after a storm event.

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

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

SEDIMENT POLLUTION — The placement, discharge, or any other introduction of sediment into waters of the commonwealth occurring from the failure to properly design, construct, implement or maintain control measures and control facilities in accordance with the requirements of this chapter.

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

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

SEPARATE STORM SEWER SYSTEM — A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) primarily used for collecting and conveying stormwater runoff.

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

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

SPILLWAY (EMERGENCY) — A depression in the embankment of a pond or basin, or other overflow structure, that is used to pass peak discharges greater than the maximum design storm controlled by the pond or basin.

STATE WATER QUALITY REQUIREMENTS — The regulatory requirements to protect, maintain, reclaim, and restore water quality under Title 25 of the Pennsylvania Code and the Clean Streams Law.[5]

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

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

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

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

STORMWATER HOTSPOT — A land use or activity that generates higher pollutants than are found in typical stormwater runoff and have a high potential to endanger local water quality, and could potentially threaten groundwater reservoirs.

STORMWATER MANAGEMENT FACILITIES — 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 infiltration facilities.

STORMWATER MANAGEMENT PLAN — The Crawford County Stormwater Management Plan for managing stormwater runoff in Crawford County as required by the Act of October 4, 1978, P.L. 864 (Act 167) and known as the "Stormwater Management Act."[6]

STORMWATER MANAGEMENT SITE PLAN (SWM SITE PLAN) — The plan prepared by the applicant or his representative indicating how stormwater runoff will be managed at the project site in accordance with this chapter.

STREAM ENCLOSURE — A bridge, culvert, or other structure in excess of 100 feet in length upstream to downstream which encloses a regulated waters of the commonwealth.

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, 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

5. Editor's Note: See 35 P.S. § 691.1 et seq.

6. Editor's Note: See 32 P.S. § 680.1 et seq.

any new street or easement of access or any residential dwellings, shall be exempt (Pennsylvania Municipalities Planning Code, Act of July 31, 1968, P.L. 805, No. 247)[7].

SUBWATERSHED AREA — The smallest drainage unit of a watershed for which stormwater management criteria has been established in the stormwater management plan.

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

TIMBER OPERATIONS — See "forest management."

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

USDA — The United States Department of Agriculture.

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

WATERS OF THE 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 the Commonwealth of Pennsylvania.

WATERSHED — Area drained by a river, watercourse, or other surface water, whether natural or artificial.

WETLAND — Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas. (The term includes but is not limited to wetland areas listed in the State Water Plan, the United States Forest Service Wetlands Inventory of Pennsylvania, the Pennsylvania Coastal Zone Management Plan and a wetland area designated by a river basin commission. This definition is used by the United States Environmental Protection Agency and the United States Army Corps of Engineers.)

ARTICLE III
Stormwater Management Standards

§ 215-10. General requirements.

A. For all regulated activities, unless specifically exempted in § 215-11:

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

(1) Preparation and implementation of an approved SWM site plan is required.

(2) No regulated activities shall commence until the municipality issues written approval of a SWM site plan which demonstrates compliance with the requirements of this chapter.

(3) The SWM site plan shall demonstrate that adequate capacity will be provided to meet the volume and rate control requirements, as described under §§ 215-13 and 215-14 of this chapter.

(4) The SWM site plan approved by the municipality, shall be on-site throughout the duration of the regulated activities.

B. 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 chapter and to meet all requirements under Title 25 of the Pennsylvania Code (including but not limited to Chapter 102, Erosion and Sediment Control) and the Clean Streams Law.[8] Various BMPs and their design standards are listed in the Erosion and Sediment Pollution Control Program Manual (E&S Manual), No. 363-2134-008 (April 15, 2000), as amended and updated.

C. For all regulated activities, stormwater BMPs shall be designed, installed, 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, conform to the state water quality requirements, meet all requirements under the Stormwater Management Act[9] and any more stringent requirements as determined by the municipality.

D. The municipality may, after consultation with PADEP, 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.

E. All regulated activities shall include, to the maximum extent practicable, measures to:

(1) Protect health, safety, and property.

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

(a) Minimize disturbance to floodplains, wetlands, natural slopes, existing native vegetation and woodlands.

(b) Create, maintain, or extend riparian buffers and protect existing forested buffers.

(c) Provide trees and woodlands adjacent to impervious areas whenever feasible.

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8. **Editor's Note: See 35 P.S. § 691.1 et seq.**

9. **Editor's Note: See 32 P.S. § 680.1 et seq.**

(d) Minimize the creation of impervious surfaces and the degradation of waters of the commonwealth and promote groundwater recharge.

(e) Protect natural systems and processes (drainageways, vegetation, soils, and sensitive areas) and maintain, as much as possible, the natural hydrologic regime.

(f) Incorporate natural site elements (wetlands, stream corridors, mature forests) as design elements.

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

(h) Minimize soil disturbance and soil compaction.

(i) Minimize thermal impacts to waters of the commonwealth.

(j) Disconnect impervious surfaces by directing runoff to pervious areas wherever possible and decentralize and manage stormwater at its source.

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 developments taking place in stages, the entire development plan must be used in determining conformance with this chapter.

G. If diffused flow is proposed to be concentrated and discharged onto adjacent property, the applicant must document that adequate downstream conveyance facilities exist to safely transport the concentrated discharge, or otherwise prove that no erosion, sedimentation, flooding, or other harm will result from the concentrated discharge.

(1) Applicant must provide an easement for proposed concentrated flow across adjacent properties to a drainage way or public right-of-way.

(2) Such stormwater flows shall be subject to the requirements of this chapter.

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

I. Where watercourses traverse a development site, drainage easements (to encompass the one-hundred-year flood elevation with a minimum width of 20 feet) shall be provided conforming to the line of such watercourses. The terms of the easement shall prohibit excavation, the placing of fill or structures, and any alterations that may adversely affect the flow of stormwater within any portion of the easement. Also, maintenance, including mowing of vegetation within the easement, may be required, except as approved by the appropriate governing authority.

J. When it can be shown that, due to topographic conditions, natural drainageways on the site cannot adequately provide for drainage, open channels may be constructed conforming substantially to the line and grade of such natural drainageways. Work within

natural drainageways shall be subject to approval by PADEP under regulations at 25 Pa. Code Chapter 105 through the joint permit application process, or, where deemed appropriate by PADEP, through the general permit process.

K. Any stormwater management facilities or any facilities that constitute water obstructions (e.g., culverts, bridges, outfalls, or stream enclosures, etc.) that are regulated by this chapter, that will be located in or adjacent to waters of the commonwealth (including wetlands), shall be subject to approval by PADEP under regulations at 25 Pa. Code Chapter 105 through the joint permit application process, or, where deemed appropriate by PADEP, the general permit process. When there is a question whether wetlands may be involved, it is the responsibility of the applicant or his agent to show that the land in question cannot be classified as wetlands; otherwise, approval to work in the area must be obtained from PADEP.

L. Should any stormwater management facility require a dam safety permit under PADEP Chapter 105, the facility shall be designed in accordance with Chapter 105 and meet the regulations of Chapter 105 concerning dam safety.

M. Any stormwater management facilities regulated by this chapter that will be located on, or discharged onto state highway rights-of-way shall be subject to approval by the Pennsylvania Department of Transportation (PennDOT).

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

O. Infiltration BMPs should be dispersed throughout the site, 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.

P. Roof drains shall not be connected to streets, sanitary or storm sewers, or roadside ditches in order to promote overland flow and infiltration/percolation of stormwater where it is advantageous to do so. When it is more advantageous to connect directly to streets or storm sewers, then the municipality shall permit it on a case-by-case basis.

Q. Applicants are encouraged to use low-impact development practices to comply with the requirements of this chapter and the state water quality requirements.

R. When stormwater management facilities are proposed within 1,000 feet of a downstream municipality, the developer shall notify the downstream municipality and, upon request, provide the SWM plan to the downstream municipality's engineer for review and comment.

§ 215-11. Exemptions/modifications.

A. Under no circumstance shall the applicant be exempt from implementing such measures as necessary to:

(1) Meet state water quality standards and requirements.

(2) Protect health, safety, and property.

(3) Meet special requirements for high quality (HQ) and exceptional value (EV) watersheds.

B. The applicant must utilize the following BMPs to the maximum extent practicable to receive consideration for the exemptions:

(1) Design around and limit disturbance of floodplains, wetlands, natural slopes over 15%, existing native vegetation, and other sensitive and special value features.

(2) Maintain riparian and forested buffers.

(3) Limit grading and maintain nonerosive flow conditions in natural flow paths.

(4) Maintain existing tree canopies near impervious areas.

(5) Minimize soil disturbance and reclaim disturbed areas with topsoil and vegetation.

(6) Direct runoff to pervious areas.

C. The applicant's proposed development/additional impervious area may not adversely impact the following:

(1) Capacities of existing drainageways and storm sewer systems.

(2) Velocities and erosion.

(3) Quality of runoff if direct discharge is proposed.

(4) Existing known problem areas.

(5) Safe conveyance of the additional runoff.

(6) Downstream property owners.

D. An applicant proposing regulated activities, after demonstrating compliance with Subsections A, B, and C, may be exempted from the SWM site plan, rate control, or volume control requirements of this chapter according to the following table:

Exemption Table

New Impervious Area[1, 2] (square footage)	Applicant Must Provide
0 to 1,000	—
>1,000 to 2,500	Documentation of new impervious surface[3]
>2,500 to 5,000	Volume controls and small project SWM application[3]
>5,000	Rate controls, volume controls and SWM site plan

NOTES:

1 New impervious area since the date of adoption of this chapter.

2 Gravel in existing condition shall be considered pervious and gravel in proposed condition shall be considered impervious. Existing maintained municipal roads are considered impervious.

3 The Small Project Stormwater Management Application included in Appendix D [10] shall be used to establish eligibility for the exemptions listed in the above table for projects under 5,000 square feet or for single-family home construction. The small project SWM application satisfies the requirement for demonstrating compliance with Subsections A, B, and C and for documentation of new impervious surface; credits for disconnection of impervious surfaces and tree planting; and for computing the size of volume control BMPs, when required.

E. An applicant proposing regulated activities, after demonstrating compliance with Subsections A, B and C, may be exempted from various requirements of this chapter if documentation can be provided that a downstream man-made water body (i.e., reservoir, lake, or man-made wetlands) has been designed or modified to address the potential stormwater flooding impacts of the proposed development.

F. The purpose this section is to ensure consistency of stormwater management planning between local ordinances and NPDES permitting (when required) and to ensure that the applicant has a single and clear set of stormwater management standards to which the applicant is subject. The municipality may accept alternative stormwater management controls under this section, provided that:

(1) The municipality, in consultation with the PADEP, determines that meeting the volume control requirements (see § 215-13) is not possible or places an undue hardship on the applicant.

(2) The alternative controls are documented to be acceptable to PADEP, for NPDES requirements pertaining to postconstruction stormwater management requirements.

(3) The alternative controls are in compliance with all other sections of this chapter, including but not limited to § 215-10D and Subsections A through C of this section.

G. Agricultural activity is 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.

H. Forest management and timber operations are exempt from the rate and volume control requirement and SWM site plan preparation requirement of this chapter provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102. It should be noted that temporary roadways are not exempt.

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10. Editor's Note: Appendix D is on file in the Borough offices.

§ 215-12. Waivers.

A. The provisions of this chapter are the minimum standards for the protection of the public welfare.

B. All waiver requests must meet the provisions of Subsections G and H.

(1) Waivers shall not be issued from implementing such measures as necessary to:

(a) Meet state water quality standards and requirements.

(b) Protect health, safety, and property.

(c) Meet special requirements for high quality (HQ) and exceptional value (EV) watersheds.

(2) The municipality then will consider waiver requests in accordance with § 210-10D, except that requests for waivers from the design requirements of §§ 215-19 and 215-20 will be considered by the municipality at its sole discretion.

C. If an applicant demonstrates to the satisfaction of the governing body of the municipality that any mandatory provision of this chapter is unreasonable or causes unique or undue unreasonableness or hardship as it applies to the proposed project, or that an alternate design may result in a superior result within the context of §§ 215-2 and 215-3 of this chapter, the governing body of the municipality, upon obtaining the comments and recommendations of the municipal engineer, may grant a waiver or relief so that substantial justice may be done and the public interest is secured; provided that such waiver will not have the effect of nullifying the intent and purpose of this chapter.

D. The applicant shall submit all requests for waivers in writing and shall include such requests as a part of the plan review and approval process. The applicant shall state in full the facts of unreasonableness or hardship on which the request is based, the provision or provisions of this chapter that are involved, and the minimum waiver or relief that is necessary. The applicant shall state how the requested waiver and how the applicant's proposal shall result in an equal or better means of complying with the intent or purpose and general principles of this chapter.

E. The municipality shall keep a written record of all actions on waiver requests.

F. The municipality may charge a fee for each waiver request, which shall be used to offset the administrative costs of reviewing the waiver request. The applicant shall also agree to reimburse the municipality for reasonable and necessary fees that may be incurred by the Municipal Engineer in any review of a waiver request.

G. In granting waivers, the municipality may impose reasonable conditions at will, in its judgment, secure substantially the objectives of the standards or requirements that are to be modified.

H. The municipality may grant applications for waivers when the following findings are made, as relevant:

(1) That the waiver shall result in an equal or better means of complying with the intent of this chapter.

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

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

(4) That existing downgradient stormwater problems will not be exacerbated.

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

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

(7) That potential icing conditions will not occur.

(8) That increase of peak flow (design storms up to one-hundred-year) or volume (design storms up to two-year) from the site will not occur.

(9) That erosive conditions due to increased peak flows or volume will not occur.

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

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

(12) That increased or unusual municipal maintenance expenses will not result from the waiver.

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

(14) That infiltration of runoff throughout the proposed site has been provided where practicable and predevelopment groundwater recharge protected.

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

(16) That long-term operation and maintenance activities are established.

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

§ 215-13. Volume controls.

A. The low-impact development practices provided in the BMP Manual and in Appendix B of this chapter[11] shall be utilized for all regulated activities to the maximum extent practicable.

B. Stormwater runoff volume controls shall be implemented using the Design Storm Method or the Simplified Method as defined below. For regulated activity areas equal or less than

11. Editor's Note: Appendix B is on file in the Borough offices.

one acre that do not require hydrologic routing to design the stormwater facilities, this chapter establishes no preference for either method; therefore, the applicant may select either method on the basis of economic considerations, the intrinsic limitations on applicability of the analytical procedures associated with each methodology, and other factors.

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

(a) Do not increase the postdevelopment total runoff volume when compared to the predevelopment total runoff volume for the two-year/twenty-four-hour storm event.

(b) For hydrologic modeling purposes:

[1] Existing nonforested pervious areas must be considered meadow (good condition) for predevelopment hydrologic calculations.

[2] Twenty percent of existing impervious area, when present within the proposed project site, shall be considered meadow (good condition) for predevelopment hydrologic calculations for redevelopment.

(2) The Simplified Method (CG-2 in the BMP Manual) 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 detailed design of stormwater storage facilities. For new impervious surfaces:

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

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

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

(d) Actual field infiltration tests at the location of the proposed elevation of the stormwater BMPs are required. Infiltration test shall be conducted in accordance with the BMP Manual. Notification of the municipality shall be provided to allow witnessing of the testing.

(3) In cases where it is not possible or desirable to use infiltration-based best management practices to partially fulfill the requirements in either Subsection B(1) or (2), the following procedure shall be used:

(a) At a minimum, the following documentation shall be provided to justify the decision to not use infiltration BMPs:

[1] Description of and justification for field infiltration/permeability testing with respect to the type of test and test locations.

[2] An interpretive narrative describing existing site soils and their structure as these relate to the interaction between soils and water occurring on the site. In addition to providing soil and soil profile descriptions, this narrative shall identify depth to seasonal high water tables and depth to bedrock, and provide a description of all subsurface elements (fragipans and other restrictive layers, geology, etc.) that influence the direction and rate of subsurface water movement.

[3] A qualitative assessment of the site's contribution to annual aquifer recharge shall be made, along with identification of any restrictions or limitations associated with the use of engineered infiltration facilities.

[4] The provided documentation must be signed and sealed by a professional engineer or geologist.

(b) The following water quality pollutant load reductions will be required for all disturbed areas within the proposed development:

Pollutant Load	Units	Required Reduction (%)
Total suspended solids (TSS)	Pounds	85%
Total phosphorous (TP)	Pounds	85%
Total nitrate (NO_3)	Pounds	50%

(c) The performance criteria for water quality best management practices shall be determined from the Pennsylvania Stormwater Best Management Practices Manual, most current version.

C. The applicable worksheets from the BMP Manual must be used in calculations to establish volume control. Worksheets documenting volume control credits are also acceptable.

§ 215-14. Rate controls.

A. Lands contained within Crawford County that have not had release rates established under an approved Act 167 Stormwater Management Plan:

(1) Postdevelopment discharge rates shall not exceed the predevelopment discharge rates for the one-, two-, ten-, twenty-five-, fifty-, and one-hundred-year storms.

B. Lands contained within Crawford County that have had release rates established under an approved Act 167 Stormwater Management Plan:

(1) The postdevelopment peak discharge rates shall be in accordance with the approved release rate map for the individual watershed.

(a) Conneaut Outlet Watershed: for the two-, ten-, twenty-five-, and one-hundred-year storms, postdevelopment peak discharge rates shall follow the approved release rate map.

§ 215-15. Sensitive areas and stormwater hotspots.

A. Sensitive areas, as defined below, and stormwater hotspots which require special consideration with regard to stormwater management.

(1) Sensitive areas are defined as those areas that, if developed, have the potential to endanger a water supply. These areas consist of the delineated one-year zone of contribution and direct upslope areas tributary to the water supply wells. Municipalities may update the sensitive area boundaries based on new research or studies as required.

(2) Stormwater hotspots are land development projects that have a high potential to endanger local water quality and could potentially threaten groundwater reservoirs. The Municipal Engineer will determine what constitutes these classifications on a case-by-case basis. The PADEP wellhead protection contaminant source list shall be used as a guide in these determinations. Industrial manufacturing site and hazardous material storage areas must provide NPDES SIC codes. Industrial sites referenced in 40 CFR 125 are also examples of hotspots.

B. Performance standards.

(1) The location of the boundaries of sensitive areas is set by drainage areas tributary to any public water supply. The exact location of these boundaries as they apply to a given development site shall be determined using mapping at a scale which accurately defines the limits of the sensitive area. If the project site is within the sensitive area (in whole or in part), two-foot contour interval mapping shall be provided to define the limits of the sensitive area. If the project site is adjacent to but within 500 linear feet of a defined sensitive area, a five-foot contour interval map defining the limits of the sensitive area shall be included in the stormwater management plan to document the site's location relative to the sensitive area.

(2) Stormwater hotspot developments may be required to prepare and implement a stormwater pollution prevention plan and file notice of intent as required under the provision of the EPA Industrial Stormwater NPDES Permit Requirements.

(3) Stormwater hotspot developments must use an acceptable pretreatment BMP prior to volume control and/or rate control BMPs. Acceptable pretreatment BMPs for these developments include those based on filtering, settling, or chemical reaction processes, such as coagulation.

ARTICLE IV
Protected Watershed Standards

§ 215-16. Protected watershed requirements.

A. For any regulated activity within a protected watershed (high quality or exceptional value), the applicant shall meet requirements as contained in 25 Pa. Code Chapter 93, as required and applicable.

B. Existing resources and site analysis plan. Shall be prepared to provide the developer and the municipality with a comprehensive analysis of existing conditions, both on the proposed development site and within 500 feet of the site. Conditions beyond the parcel boundaries may be described on the basis of existing published data available from governmental agencies and from aerial photographs. The municipality shall review the plan to assess its accuracy, conformance with municipal ordinances, and likely impact upon the natural and cultural resources on the property. The following information shall be required:

(1) Complete current perimeter boundary survey of the property to be subdivided or developed prepared by a registered surveyor, showing all courses, distances, and area and tie-ins to all adjacent intersections.

(2) A vertical aerial photograph enlarged to a scale not less detailed than one inch equals 400 feet, with the site boundaries clearly marked.

(3) Natural features, including:

(a) Contour lines at intervals of not more than two feet. (Ten-foot intervals are permissible beyond the parcel boundaries, interpolated from USGS published maps.) Contour lines shall be based on information derived from a topographic survey for the property, evidence of which shall be submitted, including the date and source of the contours. Datum to which contour elevations refer and references to known, established benchmarks and elevations shall be included on the plan.

(b) Steep slopes in the following ranges: 15% to 25%, 25% and greater. The location of these slopes shall be graphically depicted by category on the plan. Slope shall be measured over three or more two-foot contour intervals.

(c) Areas within the floodway, flood fringe, and approximated floodplain.

(d) Watercourses, either continuous or intermittent and named or unnamed, and lakes, ponds or other water features as depicted on the USGS Quadrangle Map, most current edition.

(e) Wetlands and wetland margins.

(f) Riparian buffers.

(g) Soil types and their boundaries, as mapped by the USDA Natural Resources Conservation Service, including a table listing the soil characteristics

pertaining to suitability for construction and, in unsewered areas, for septic suitability. Alluvial and hydric soils shall specifically be depicted on the plan.

(h) Existing vegetation, denoted by type, including woodlands, hedgerows, tree masses, tree lines, individual freestanding trees over six inches DBH, wetland vegetation, pasture or croplands, orchards, permanent grass land, old fields, and any other notable vegetative features on the site. Vegetative types shall be described by plant community, relative age, and condition.

(i) Any identified Pennsylvania Natural Diversity Inventory (PNDI) site conflicts.

(j) Geologic formations on the tract, including rock outcroppings, cliffs, sinkholes, and fault lines, based on available published information or more detailed data obtained by the applicant.

(4) Existing man-made features, including:

(a) Location, dimensions, and use of existing buildings and driveways.

(b) Location, names, widths, center-line courses, paving widths, identification numbers, and rights-of-way of existing streets and alleys.

(c) Location of trails that have been in public use (pedestrian, equestrian, bicycle, etc.).

(d) Location and size of existing sanitary sewage facilities.

(e) Location and size of drainage facilities.

(f) Location of water supply facilities, including wellhead protection areas.

(g) Any easements, deed restrictions, rights-of-way, or any other encumbrances upon the land, including location, size, and ownership.

(h) Site features or conditions such as hazardous waste, dumps, underground tanks, active and abandoned wells, quarries, landfills, sand mounds, and artificial land conditions.

(5) Total acreage of the tract, the adjusted tract area, where applicable, and the constrained land area with detailed supporting calculations.

C. Stormwater management system concept plan. A written and graphic concept plan of the proposed postdevelopment stormwater management system shall be prepared and include:

(1) Preliminary selection and location of proposed structural stormwater controls;

(2) Location of existing and proposed conveyance systems such as grass channels, swales, and storm drains;

(3) Location of floodplain/floodway limits;

(4) Relationship of site to upstream and downstream properties and drainages;

(5) Preliminary location of proposed stream channel modifications, such as bridge or culvert crossings.

D. Consultation meeting. Prior to any stormwater management permit application submission, the landowner or developer shall meet with the municipality for a consultation meeting on a concept plan for the postdevelopment stormwater management system to be utilized in the proposed project. This consultation meeting shall take place at the time of the preliminary plan or other early step in the development process. The purpose of this meeting is to discuss the postdevelopment stormwater management measures necessary for the proposed project, as well as to discuss and assess constraints, opportunities and potential ideas for stormwater management designs before the formal site design engineering is commenced.

E. All proposed regulated activities within a protected watershed shall utilize, to the maximum extent possible, low-impact development practices as contained in Appendix B.[12]

(1) SWM plan and report shall address the following:

(a) Design using nonstructural BMPs.

[1] Lot configuration and clustering.

[a] Reduced individual lot impacts by concentrated/clustered uses and lots.

[b] Lots/development configured to avoid critical natural areas.

[c] Lots/development configured to take advantage of effective mitigative stormwater practices.

[d] Lots/development configured to fit natural topography.

[2] Minimum disturbance:

[a] Define disturbance zones (excavation/grading) for the site and individual lots to protect maximum total site area from disturbance.

[b] Barriers/flagging proposed to protect designated nondisturbance areas.

[c] Considered mitigative practices for minimal disturbance areas (e.g., soil restoration).

[d] Considered reforestation and revegetation opportunities.

[3] Reduce impervious coverage.

12. Editor's Note: Appendix B is on file in the Borough offices.

[a] Reduced road width.

[b] Reduced driveway lengths and widths.

[c] Reduced parking ratios and sizes.

[d] Utilized porous surfaces for applicable features.

[4] Stormwater disconnected from impervious area.

[a] Disconnected drives/walkways/small impervious areas to natural areas.

[b] Use rain barrels and/or cisterns for lot irrigation.

(b) Apply structural BMP selection process that meets runoff quantity and quality needs.

[1] Manage close to source with collection with conveyance minimized.

[2] Consistent with site factors (e.g., soils, slope, available space, amount of sensitive areas, pollutant removal needs).

[3] Minimize footprint and integrate into already disturbed areas/other building program components (e.g., recharge beneath parking areas, vegetated roofs).

[4] Consider other benefits such as aesthetic, habitat, recreational and educational benefits.

[5] BMPs selected based on maintenance needs that fit owner/users.

[6] BMPs sustainable using a long-term maintenance plan.

ARTICLE V
Riparian Buffer Standards

§ 215-17. Riparian buffer requirements.

Where a regulated activity is proposed, the riparian buffer shall be established as follows:

A. The buffer shall be measured perpendicularly from the top of the stream bank landward.

(1) High-quality or exceptional value watersheds: a minimum of 150 feet;

(2) Impaired watersheds: a minimum of 150 feet;

(3) All other watersheds: a minimum of 50 feet; or

(4) As determined by a stream corridor study approved by PADEP and the municipality.

B. The riparian buffer shall be located on both sides of all perennial and intermittent streams. The perennial and intermittent streams and the riparian buffer boundaries shall be shown on all applications for building permits, subdivision, or land development. Existing uses within the buffer are permitted to continue but not be expanded. Placement of new structures or roadways within the riparian buffer shall be prohibited. Where a wetland exists within the buffer area, the buffer shall be extended landward to provide a minimum buffer of 25 feet, as measured perpendicularly from the wetland boundary.

C. The buffer shall be undisturbed forest consisting of appropriate native species.

D. Where wetlands are located partially or entirely within a buffer, the buffer shall be extended to encompass the wetland and shall be widened by a distance sufficient to provide a twenty-five-foot forested buffer measured perpendicularly from the wetland boundary.

E. The following uses shall be permitted in the buffer:

(1) Footpaths, trails and bike paths, provided that:

(a) Width is limited to five feet;

(b) Width may be increased provided a corresponding increase in the buffer is provided;

(c) Construction shall have minimal impact to the buffer.

(2) Stream crossings, provided the crossing is designed and constructed in such a manner as to minimize the impact to the buffer. The riparian buffer shall be restored to its original condition, to the maximum extent practical, upon completion of construction.

(3) Utility lines, provided that the crossing is designed and constructed in such a manner as to minimize the impact to the inner buffer and provided that there is no practical alternative to locating the utility line within the buffer. The riparian buffer shall be restored to its original condition, to the maximum extent practical, upon completion of construction.

(4) Maintenance and restoration of the riparian buffer.

(5) Projects conducted with the objective of improvement, stabilization, restoration, or enhancement of the stream bank, stream channel, floodplain, watershed hydrology, riparian buffers, or aquatic habitat and maintenance activities associated with such projects. These projects include, but are not limited to agricultural and stormwater management best management practices. Such projects must receive appropriate permits and approvals from PADEP prior to starting the project.

(6) Minor private recreational uses for the property owner. Such uses include benches, fire rings, and similar uses. Such uses do not include structures such as cabins, sheds, pavilions, garages, dwellings or similar structures.

F. Disturbance of the riparian buffer shall be limited to the area necessary to perform an allowable use.

G. Where possible and practical, disturbances shall be phased with each phase restored prior to beginning the next phase.

H. Allowable activities shall not cause stormwater flow to concentrate.

I. Any vegetation removed for an allowable activity shall be replaced immediately upon completion of the activity. Where mature trees are removed, such trees shall be replaced with the largest practical tree of acceptable native species.

J. Erosion and sediment pollution control shall be installed and maintained during construction. Evidence of an approved erosion and sediment control plan, NPDES permit or other PADEP permit, where required, shall be submitted prior to issuance of local permits.

K. Riparian buffers shall be maintained in a manner consistent with sound forest management practices. In the absence of a site-specific management plan, the following maintenance guidelines apply:

(1) Buffers shall be inspected periodically for evidence of excessive sediment deposition, erosion or concentrated flow channels. Prompt action shall be taken to correct these problems and prevent future occurrence.

(2) Trees presenting an unusual hazard of creating downstream obstructions shall be removed. Such material shall be removed from the floodplain or the riparian buffer (whichever is widest); or cut into sections small enough so as to prevent the possibility of creating obstructions downstream. Wherever possible, large stable debris should be conserved.

(3) Vegetation should be inspected periodically to ensure diverse vegetative cover and vigorous plant growth consistent with buffering objectives.

(a) Remove invasive plant species that may threaten the integrity of the buffer.

(b) Periodic cutting of trees may be necessary to promote vigorous growth and encourage regeneration.

(4) Excessive use of fertilizers, pesticides, herbicides, and other chemicals shall be avoided. These products should be used only when absolutely necessary to maintain buffer vegetation.

§ 215-18. Riparian buffer easement.

For all required riparian buffers, an easement shall be provided. Easements shall be in accordance with § 215-29 and recorded in accordance with § 215-46 of this chapter.

ARTICLE VI
Design Criteria

§ 215-19. Design criteria for stormwater management and drainage facilities.

A. General design guidelines:

(1) Stormwater shall not be transferred from one watershed to another, unless:

(a) The watersheds are subwatersheds of a common watershed which join together within the perimeter of the property;

(b) The effect of the transfer does not alter the peak rate discharge onto adjacent lands; or

(c) Easements from the affected landowner(s) are provided.

(2) Consideration shall be given to the relationship of the subject property to the drainage pattern of the watershed. A concentrated discharge of stormwater to an adjacent property shall be within an existing watercourse or confined in an easement or returned to a predevelopment flow-type condition.

(3) Stormwater BMPs and recharge facilities are encouraged (e.g., rooftop storage, drywells, cisterns, recreation area ponding, diversion structures, porous pavements, holding tanks, infiltration systems, in-line storage in storm sewers, and grading patterns). They shall be located, designed, and constructed in accordance with the latest technical guidance published by PADEP, provided they are accompanied by detailed engineering plans and performance capabilities and supporting site specific soils, geology, runoff and groundwater and infiltration rate data to verify proposed designs. Additional guidance from other sources may be accepted at the discretion of the Municipal Engineer (a preapplication meeting is suggested).

(4) All existing and natural watercourses, channels, drainage systems and areas of surface water concentration shall be maintained in their existing condition unless an alteration is approved by the appropriate regulatory agency.

(5) The design of all stormwater management facilities shall incorporate sound engineering principles and practices. The municipality shall reserve the right to disapprove any design that would result in the continuation or exacerbation of a documented adverse hydrologic or hydraulic condition within the watershed, as identified in the plan.

(6) The design and construction of multiple use stormwater detention facilities are strongly encouraged. In addition to stormwater management, facilities should, where appropriate, allow for recreational uses including ballfields, play areas, picnic grounds, etc. Consultation with the municipality and prior approval are required before design. Provision for permanent wet ponds with stormwater management capabilities may also be appropriate.

(a) Multiple use basins should be constructed so that potentially dangerous conditions are not created.

(b) Water quality basins or recharge basins that are designed for a slow release of water or other extended detention ponds are not permitted for recreational uses, unless the ponded areas are clearly separated and secure.

(7) Should any stormwater management facility require a dam safety permit under PADEP Chapter 105, the facility shall be designed in accordance with Chapter 105 and meet the regulations of Chapter 105 concerning dam safety.

B. Stormwater management facility design considerations. All stormwater management facilities shall meet the requirements contained in the Crawford County Stormwater Management Facility Design Criteria.

§ 215-20. Calculation methodology.

A. All calculations shall be consistent with the guidelines set forth in the BMP Manual, as amended herein.

B. Stormwater runoff from all development sites shall be calculated using either the Rational Method or the NRCS Rainfall-Runoff Methodology. Methods shall be selected by the design professional based on the individual limitations and suitability of each method for a particular site.

C. Rainfall values.

(1) Rational Method. The Pennsylvania Department of Transportation Drainage Manual, Intensity-Duration-Frequency Curves, Publication 584, Chapter 7A, latest edition, shall be used in conjunction with the appropriate time of concentration and return period.

(2) NRCS Rainfall-Runoff Method. The Natural Resources Conservation Service Type II, twenty-four-hour rainfall distribution shall be used in conjunction with rainfall depths from NOAA Atlas 14 or be consistent with the following table:

Return Interval (year)	24-Hour Rainfall Total (inches)
1	2.08
2	2.49
10	3.50
25	3.60
50	4.67
100	5.23

D. Runoff volume.

(1) Rational Method. Not to be used to calculate runoff volume.

(2) NRCS Rainfall-Runoff Method. This method shall be used to estimate the change in volume due to regulated activities. Combining curve numbers for land areas proposed for development with curve numbers for areas unaffected by the proposed development into a single weighted curve number is not acceptable.

E. Peak flow rates.

(1) Rational Method. This method may be used for design of conveyance facilities only. Extreme caution should be used by the design professional if the watershed has more then one main drainage channel, if the watershed is divided so that hydrologic properties are significantly different in one versus the other, if the time of concentration exceeds 60 minutes, or if stormwater runoff volume is an important factor. The combination of Rational Method hydrographs based on timing shall be prohibited.

(2) NRCS Rainfall-Runoff Method.

(a) This method is recommended for design of stormwater management facilities and where stormwater runoff volume must be taken into consideration. The following provides guidance on the model applicability:

[1] NRCS's TR-55: limited to 100 acres in size.

[2] NRCS's TR-20 or HEC-HMS: no size limitations.

[3] Other models as preapproved by the Municipal Engineer.

(b) The NRCS antecedent runoff condition II (ARC II, previously AMC II) must be used for all simulations. The use of continuous simulation models that vary the ARC are not permitted for stormwater management purposes.

(3) For comparison of peak flow rates, flows shall be rounded to a 10th of a cubic foot per second (cfs).

F. Runoff coefficients.

(1) Rational Method. Use Table C-1 (Appendix C).

(2) NRCS Rainfall-Runoff Method. Use Table C-2 (Appendix C). Curve numbers (CN) should be rounded to tenths for use in hydrologic models as they are a design tool with statistical variability. For large sites, CNs should realistically be rounded to the nearest whole number.

(3) For the purposes of predevelopment peak flow rate and volume determination, existing nonforested pervious areas conditions shall be considered as meadow (good condition).

(4) For the purposes of predevelopment peak flow rate and volume determination, 20% of existing impervious area, when present, shall be considered meadow (good condition).

G. Design storm.

(1) All stormwater management facilities shall be verified by routing the proposed one-, two-, ten-, twenty-five-, fifty-, and one-hundred-year hydrographs through the facility using the storage indication method or modified puls method. The design storm hydrograph shall be computed using a calculation method that produces a full hydrograph.

(2) The stormwater management and drainage system shall be designed to safely convey the postdevelopment one-hundred-year storm event to stormwater detention facilities, for the purpose of meeting peak rate control.

(3) All structures (culvert or bridges) proposed to convey runoff under a municipal road shall be designed to pass the fifty-year design storm with a minimum one foot of freeboard measured below the lowest point along the top of the roadway.

H. Time of concentration.

(1) The time of concentration is to represent the average condition that best reflects the hydrologic response of the area. The following time of concentration (T_c) computational methodologies shall be used unless another method is preapproved by the Municipal Engineer:

(a) Predevelopment: NRCS's lag equation:

Time of concentration = $T_c = [(T_{lag}/0.6) * 60]$ (minutes)

$$T_{lag} = L^{0.8} \frac{(S+1)^{0.7}}{1900\sqrt{Y}}$$

Where:

T_{lag}	=	Lag time (hours)
L	=	Hydraulic length of watershed (feet)
Y	=	Average overland slope of watershed (percent)
S	=	Maximum retention in watershed as defined by: S = [(1000/CN) – 10]
CN	=	NRCS curve number for watershed

(b) Postdevelopment; commercial, industrial, or other areas with large impervious areas (>20% impervious area) - NRCS Segmental Method. The length of sheet flow shall be limited to 100 feet. T_c for channel and pipe flow shall be computed using Manning's equation.

(c) Postdevelopment; residential, cluster, or other low impact designs less than or equal to 20% impervious area - NRCS Lag Equation or NRCS Segmental Method.

(2) Additionally, the following provisions shall apply to calculations for time of concentration:

(a) The postdevelopment T_c shall never be greater that the predevelopment T_c for any watershed or subwatershed. This includes when the designer has specifically used swales to reduce flow velocities. In the event that the designer believes that the postdevelopment T_c is greater, it will still be set by default equal to the predevelopment T_c for modeling purposes.

(b) The minimum T_c for any watershed shall be five minutes.

(c) The designer may choose to assume a five-minute T_c for any postdevelopment watershed or subwatershed without providing any computations.

(d) The designer must provide computations for all predevelopment T_c paths. A five-minute T_c can not be assumed for predevelopment.

(e) Undetained fringe areas (areas that are not tributary to a stormwater facility but where a reasonable effort has been made to convey runoff from all new impervious coverage to best management practices) may be assumed to represent the predevelopment conditions for purpose of T_c calculation.

I. Where uniform flow is anticipated, the Manning's equation shall be used for hydraulic computations and to determine the capacity of open channels, pipes, and storm sewers. The Manning's equation should not be used for analysis of pipes under pressure flow or for analysis of culverts. Manning's "n" values shall be obtained from PennDOT's Drainage Manual, Publication 584. Inlet control shall be checked at all inlet boxes to ensure the headwater depth during the ten-year design event is contained below the top of grate for each inlet box.

J. The municipality may approve the use of any generally accepted full hydrograph approximation technique that shall use a total runoff volume that is consistent with the volume from a method that produces a full hydrograph.

K. The municipality has the authority to require that computed existing runoff rates be reconciled with field observations, conditions and site history. If the designer can substantiate, through actual physical calibration, that more appropriate runoff and time of concentration values should be utilized at a particular site, then appropriate variations may be made upon review and recommendation of the municipality.

ARTICLE VII
SWM Site Plan and Report Requirements

§ 215-21. General requirements.

For any of the activities regulated by this chapter and not eligible for the exemptions provided in § 215-11, the final approval of subdivision and/or land development plans, the issuance of any building or occupancy permit, or the commencement of any land disturbance activity, may not proceed until the applicant has received written approval of a SWM site plan from the municipality.

§ 215-22. SWM site plan and report contents.

A. The SWM site plan and SWM site report shall consist of all applicable calculations, maps, and plans. All SWM site plan materials shall be submitted to the municipality in a format that is clear, concise, legible, neat and well organized; otherwise, the SWM site plan shall be rejected.

B. The SWM site plan and report shall meet the requirements set forth in the Crawford County Stormwater Management Facility Design Handbook.

C. Appropriate sections from the Municipal Subdivision and Land Development Ordinance, and other applicable local ordinances, shall be followed in preparing the SWM site plan.

§ 215-23. SWM site plan and report submission.

A. The applicant shall submit the SWM site plan and report for the regulated activity.

B. Three copies of the SWM site plan and report shall be submitted and be distributed as follows:

(1) Two copies to the municipality accompanied by the requisite executed review fee reimbursement agreement, as specified in this chapter.

(2) One copy to the Municipal Engineer.

C. Additional copies shall be submitted as requested by the municipality or PADEP.

§ 215-24. SWM site plan and report review.

A. The municipality shall require receipt of a complete SWM site plan and report as specified in this chapter. The municipality shall review the SWM site plan and report for consistency with the purposes, requirements, and intent of this chapter.

B. The municipality shall not approve any SWM site plan and report that is deficient in meeting the requirements of this chapter. At its sole discretion and in accordance with this article, when a SWM site plan and report is found to be deficient, the municipality may disapprove the submission and require a resubmission, or in the case of minor deficiencies, the municipality may accept submission of modifications.

C. The municipality shall notify the applicant in writing within 45 calendar days whether the SWM site plan and report is approved or disapproved if the SWM site plan and report is not part of a subdivision or land development plan. If the SWM site plan and report involves a subdivision or land development plan, the timing shall following the subdivision and land development process according to the Municipalities Planning Code.[13]

D. The Municipal Building Permit Office shall not issue a building permit for any regulated activity if the SWM site plan and report has been found to be inconsistent with this chapter, as determined by the municipality. All required permits from PADEP must be obtained prior to issuance of a building permit.

§ 215-25. Modification of plans.

A modification to a submitted SWM site plan and report for a development site that involves a change in stormwater management facilities or techniques, or that involves the relocation or redesign of stormwater management facilities, or that is necessary because soil or other conditions are not as stated on the SWM site plan as determined by the municipality, shall require a resubmission of the modified SWM site plan in accordance with this chapter.

§ 215-26. Resubmission of disapproved SWM site plan and report.

A disapproved SWM site plan and report may be resubmitted with the revisions addressing the municipality's concerns documented in writing to the municipality in accordance with this chapter. The applicable municipal review fee must accompany a resubmission of a disapproved SWM site plan and report.

§ 215-27. Authorization to construct and term of validity.

The municipality's approval of a SWM site plan and report authorizes the regulated activities contained in the SWM site plan for a maximum term of validity of five years following the date of approval. The municipality may specify a term of validity shorter than five years in the approval for any specific SWM site plan. Terms of validity shall commence on the date the municipality signs the approval for a SWM site plan. If stormwater management facilities included in the approved SWM site plan have not been constructed, or if a record drawing of these facilities has not been approved within this time, then the municipality may consider the SWM site plan disapproved and may revoke any and all permits or approvals.

§ 215-28. Record drawings, completion certificate and final inspection.

A. The applicant shall be responsible for providing record drawings of all stormwater BMPs included in the approved SWM site plan. The record drawing and an explanation of any discrepancies with the approved SWM site plan shall be submitted to the municipality as a prerequisite for the release of the guarantee or issuance of an occupancy permit.

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

B. The record drawing shall include a certification of completion signed by a qualified professional verifying that all permanent stormwater BMPs have been constructed according to the approved SWM site plan and report.

(1) Drawings shall show all approved revisions and elevations and inverts to all manholes, inlets, pipes, and stormwater control facilities.

(2) Submission shall include a comparison of the constructed stage-storage (volume vs. elevation) of all aboveground and below-ground stormwater storage facilities to the approved design.

C. After receipt of the record drawing and certification of completion by the municipality, the municipality may conduct a final inspection.

ARTICLE VIII
Easements

§ 215-29. Granting of easements.

A. Easements provided shall be in favor of the municipality, granting access and maintenance rights to the municipality.

B. Easements shall be established to accommodate the existence of drainageways.

C. Where a tract is traversed by a watercourse, drainageway, channel or stream, there shall be provided an easement paralleling the line of such watercourse, drainageway, channel or stream with a width adequate to preserve the unimpeded flow of natural drainage in the one-hundred-year floodplain.

D. Easements shall be established for all on-site stormwater management or drainage facilities, including but not limited to detention facilitates (above or below ground), infiltration facilities, all stormwater BMPs, drainage swales, and drainage facilities (inlets, manholes, pipes, etc.).

E. Easements are required for all areas used for off-site stormwater control.

F. All easements shall be a minimum of 20 feet wide and shall encompass the one-hundred-year surface elevation of the proposed stormwater facility.

G. Easements shall provide ingress to, and egress from, a public right-of-way. In lieu of providing an easement to the public right-of-way, a note may be added to the plan granting the municipality or their designees access to all easements via the nearest public right-of-way able for vehicle ingress and egress on grades of less than 10% for carrying out inspection or maintenance activities.

H. Where possible, easements shall be centered on side and/or rear lot lines.

I. Nothing shall be planted or placed within the easement which would adversely affect the function of the easement, or conflict with any conditions associated with such easement.

J. All easement agreements shall be recorded with a reference to the recorded easement indicated on the site plan. The format and content of the easement agreement shall be reviewed and approved by the Municipal Engineer and Solicitor.

ARTICLE IX
Maintenance Responsibilities

§ 215-30. Financial guarantee.

A. When an approved SWM site plan requires the timely installation and proper construction of stormwater management controls, the applicant shall provide a financial guarantee to the municipality equal to 110% of the full construction cost of the required controls in accordance with the Municipalities Planning Code.[14]

B. At the completion of the project and as a prerequisite for the release of the financial guarantee, the applicant shall:

(1) Provide a certification of completion from an engineer, architect, surveyor or other qualified person, verifying that all permanent facilities have been constructed according to the SWM site plan and report and approved revisions thereto.

(2) Provide a set of record drawings.

(3) Request a final inspection from the municipality to certify compliance with this chapter, after receipt of the certification of completion and record drawings by the municipality.

§ 215-31. Maintenance responsibilities.

A. The SWM site plan and report for the project site shall describe the future operation and maintenance responsibilities. The operation and maintenance description shall outline required routine maintenance actions and schedules necessary to ensure proper operation of the stormwater control facilities.

B. The SWM site plan and report for the project site shall establish responsibilities for the continuing operating and maintenance of all proposed stormwater control facilities, consistent with the following principles:

(1) If a development consists of structures or lots that are to be separately owned and in which streets, sewers, and other public improvements are to be dedicated to the municipality, stormwater control facilities/BMPs may also be dedicated to and maintained by the municipality.

(2) If a development site is to be maintained in a 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/BMPs shall be the responsibility of the owner or private management entity.

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

(3) Facilities, areas, or structures used as stormwater BMPs shall be enumerated as permanent real estate appurtenances and recorded as deed restrictions or easements that run with the land.

(4) The SWM site plan and report shall be recorded as a restrictive deed covenant that runs with the land.

(5) The municipality may take enforcement actions against an applicant for failure to satisfy any provision of this chapter.

C. The municipality, upon recommendation of the Municipal Engineer, shall make the final determination on the continuing maintenance responsibilities prior to final approval of the SWM site plan and report. The municipality may require a dedication of such facilities as part of the requirements for approval of the SWM site plan. Such a requirement is not an indication that the municipality will accept the facilities. The municipality reserves the right to accept or reject the ownership and operating responsibility for any portion of the stormwater management controls.

D. If the municipality accepts ownership of stormwater BMPs, the municipality may, at its discretion, require a fee from the applicant to the municipality to offset the future cost of inspections, operations, and maintenance.

E. It shall be unlawful to alter or remove any permanent stormwater BMP required by an approved SWM site plan, or to allow the property to remain in a condition which does not conform to an approved SWM site plan, unless the municipality grants an exception in writing.

§ 215-32. Maintenance agreement for privately owned stormwater facilities.

A. Prior to final approval of the SWM site plan and report, the applicant shall sign the Operation and Maintenance (O&M) Agreement (Appendix A)[15] covering all stormwater control facilities that are to be privately owned. The Operation and Maintenance (O&M) Agreement shall be recorded with the SWM site plan and made a part hereto.

B. Other items may be included in the Operation and Maintenance (O&M) Agreement where determined necessary to guarantee the satisfactory operation and maintenance of all BMP facilities. The Operation and Maintenance (O&M) Agreement shall be subject to the review and approval of the municipality and the Municipal Solicitor.

C. The owner is responsible for operation and maintenance of the stormwater BMPs. If the owner fails to adhere to the Operation and Maintenance (O&M) Agreement, the municipality may perform the services required and charge the owner appropriate fees. Nonpayment of fees may result in a lien against the property.

15. Editor's Note: Appendix A is on file in the Borough offices.

ARTICLE X
Inspections

§ 215-33. Schedule of inspections.

A. PADEP or its designees normally ensure compliance with any permits issued, including those for stormwater management. In addition to PADEP compliance programs, the municipality or their municipal assignee may inspect all phases of the installation of temporary or permanent stormwater management facilities.

B. During any stage of earth disturbance activities, if the municipality determines that the stormwater management facilities are not being installed in accordance with the approved SWM site plan, the municipality shall revoke any existing permits or approvals until a revised SWM site plan is submitted and approved as specified in this chapter.

C. Stormwater BMPs shall be inspected by the landowner, or the landowner's designee according to the inspection schedule described on the SWM site plan for each BMP.

(1) The municipality may require copies of the inspection reports, in a form as stipulated by the municipality.

(2) If such inspections are not conducted or inspection reports not submitted as scheduled, the municipality, or their designee, may conduct such inspections and charge the owner appropriate fees. Nonpayment of fees may result in a lien against the property.

(a) Prior to conducting such inspections, the municipality shall inform the owner of its intent to conduct such inspections. The owner shall be given 30 days to conduct required inspections and submit the required inspection reports to the municipality.

§ 215-34. Right-of-entry.

A. Upon presentation of proper credentials, duly authorized representatives of the municipality may enter at reasonable times, upon any property within the municipality, to inspect the implementation, condition, or operations and maintenance of the stormwater BMPs in regard to any aspect governed by this chapter.

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

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

D. Unreasonable delay in allowing the municipality access to a stormwater BMP is a violation of this chapter.

ARTICLE XI
Enforcement and Penalties

§ 215-35. Notification.

A. In the event that a person fails to comply with the requirements of this chapter, an approved SWM site plan, or fails to conform to the requirements of any permit or approval issued hereunder, the municipality shall provide written notification of the violation. Such notification shall set forth the nature of the violation(s) and establish a time limit for correction of these violation(s).

B. Failure to comply within the time specified shall subject such person to the penalties provisions of this chapter. All such penalties shall be deemed cumulative and shall not prevent the municipality from pursuing any and all other remedies. It shall be the responsibility of the owner of the real property on which any regulated activity is proposed to occur, is occurring, or has occurred, to comply with the terms and conditions of this chapter.

§ 215-36. Enforcement.

A. The municipal governing body is hereby authorized and directed to enforce all of the provisions of this chapter. The approved SWM site plan shall be on file at the project site throughout the duration of the construction activity. The municipality or their designee may make periodic inspections during construction.

B. Adherence to approved SWM site plan.

(1) It shall be unlawful for any person, firm, or corporation to undertake any regulated activity on any property except as provided for by an approved SWM site plan and pursuant to the requirements of this chapter.

(2) It shall be unlawful to alter or remove any control structure required by the SWM site plan pursuant to this chapter.

(3) It shall be unlawful to allow a property to remain in a condition that does not conform to an approved SWM site plan.

§ 215-37. Public nuisance.

A. A violation of any provision of this chapter is hereby deemed a public nuisance.

B. Each day that a violation continues shall constitute a separate violation.

§ 215-38. Suspension and revocation.

A. Any approval or permit issued by the municipality may be suspended or revoked for:

(1) Noncompliance with or failure to implement any provision of the approved SWM site plan or Operation and Maintenance (O&M) Agreement.

(2) A violation of any provision of this chapter 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 or nuisance, pollution, or which endangers the life or property of others.

B. A suspended approval or permit may be reinstated by the municipality when:

(1) The municipality or their designee has inspected and approved the corrections to the violation(s) that caused the suspension.

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

C. An approval that has been revoked by the municipality cannot be reinstated. The applicant may apply for a new approval under the provisions of this chapter.

§ 215-39. Violations and penalties.

A. Anyone violating the provisions of this chapter shall be guilty of a summary offense and upon conviction, shall be subject to a fine in an amount established by duly adopted resolution of the municipality for each violation, recoverable with all costs. Each day that the violation continues shall be a separate offense and penalties shall be cumulative.

B. In addition, the municipality, through its solicitor, may institute injunctive, mandamus, or any other appropriate action or proceeding at law or in equity for the enforcement of this chapter. Any court of competent jurisdiction shall have the right to issue restraining orders, temporary or permanent injunctions, mandamus, or other appropriate forms of remedy or relief.

§ 215-40. Appeals.

A. Any person aggrieved by any action of the municipality or its designee, relevant to the provisions of this chapter, may appeal to the municipality within 30 days of that action.

B. Any person aggrieved by any decision of the municipality, relevant to the provisions of this chapter, may appeal to the Crawford County Court of Common Pleas within 30 days of the municipality's decision.

ARTICLE XII
Prohibitions

§ 215-41. Prohibited discharges and connections.

A. Any drain (including indoor drains and sinks) or conveyance, whether on the surface or underground, that allows any nonstormwater discharge including sewage, process wastewater, and wash water, to enter the municipality's separate storm sewer system or waters of the commonwealth is prohibited.

B. Any drain or conveyance connected from a commercial or industrial land use to the municipality's separate storm sewer system, which has not been documented in plans, maps, or equivalent records, and approved by the municipality, is prohibited.

C. No person shall allow, or cause to allow, discharges into the municipality's separate storm sewer system or into surface waters of the commonwealth, which are not composed entirely of stormwater, except:

(1) As provided in Subsection D below; and

(2) Discharges allowed under a state or federal permit.

D. The following discharges are authorized unless they are determined to be significant contributors to pollution to the waters of the commonwealth:

(1) Discharges from fire-fighting activities.

(2) Potable water sources including dechlorinated water and fire hydrant flushings.

(3) Air-conditioning condensate.

(4) Springs.

(5) Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents are not used.

(6) Water from crawl space pumps.

(7) Flows from riparian habitats and wetlands.

(8) Uncontaminated water from foundations or from footing drains.

(9) Irrigation or lawn watering.

(10) Dechlorinated swimming pool discharges.

(11) Water from individual residential car washing.

(12) Routine external building washdown (which does not use detergents or other compounds).

E. In the event that the municipality or PADEP determines that any of the discharges identified in Subsection D is a significant contributor to pollution to the waters of the commonwealth, the responsible person(s) shall be notified to cease the discharge. Upon notice provided by the municipality or PADEP, the discharger will have a reasonable time, as determined by the municipality or PADEP, to cease the discharge, consistent with the degree of pollution caused by the discharge.

F. Nothing in this section shall affect a discharger's responsibilities under Commonwealth Law.

§ 215-42. Roof drains.

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

§ 215-43. Alteration of BMPs.

A. No person shall modify, remove, fill, landscape, or alter any existing stormwater BMP, facilities, areas, or structures unless it is part of an approved maintenance program, without the written approval of the municipality.

B. No person shall place any structure, fill, landscaping, or vegetation into a stormwater BMP, facilities, areas, structures, or within a drainage easement which would limit or alter the functioning of the BMP without the written approval of the municipality.

ARTICLE XIII
Fees and Expenses

§ 215-44. General.

The fee required by this chapter is the municipal review fee. The municipal review fee shall be established by duly adopted resolution of the municipality to defray review costs incurred by the municipality and the Municipal Engineer. The applicant shall pay all fees.

§ 215-45. Expenses covered by fees.

The fees required by this chapter shall, at a minimum, cover:

A. Administrative and clerical costs.

B. Review of the SWM site plan and report by the municipality.

C. Preconstruction meetings.

D. Inspection of stormwater management facilities/BMPs and drainage improvements during construction.

E. Final inspection upon completion of the stormwater management facilities/BMPs and drainage improvements presented in the SWM site plan.

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

§ 215-46. Recording of approved SWM site plan and related agreements.

A. The owner of any land upon which permanent BMPs will be placed, constructed, or implemented, as described in the SWM site plan, shall record the following documents in the Office of the Recorder of Deeds of Crawford County, according to the time provided by duly authorized resolution of the municipality:

(1) The SWM site plan. Refer to the requirements of 1.A. of the Crawford County Stormwater Management Facility Design Criteria. At a minimum, the items 1.A.1-7, 8-11, 13, 14, 16, 18, and 10 must be included on the recorded SWM site plan.

(2) Operations and Maintenance (O&M) Agreement (Appendix A).[16]

(3) Easements under § 215-29.

(4) Riparian buffers under § 215-18.

B. The municipality may suspend or revoke any approvals granted for the project site upon discovery of the failure of the owner to comply with this section.

C. Appeals shall be processed in accordance with the Local Agency Law.[17] The municipality may further provide the regulations regarding such appeals pursuant to duly adopted resolution of Borough Council.

16. Editor's Note: Appendix A is on file in the Borough offices.

17. Editor's Note: See 2 Pa.C.S.A. § 105 et seq.