Chapter 15

Part B: Storm water

ORDINANCE (OR1-2011)

SAEGERTOWN BOROUGH, CRAWFORD COUNTY, PENNSYLVANIA

Originally Adopted at a Public Meeting Held on APRIL 11, 2011

Updated 2015

ARTICLE I - GENERAL PROVISIONS

Section 101. Short Title

This Ordinance shall be known and may be cited as the "**Saegertown Borough** Stormwater Management Ordinance."

Section 102. Statement of Findings

The governing body of **Saegertown Borough** finds that:

- A. 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.
- B. Public education on the control of pollution from stormwater is an essential component in successfully addressing stormwater issues.
- C. 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).

Section 103. Purpose

The purpose of this Ordinance is to promote health, safety, and welfare within **Saegertown Borough**, Crawford County.

Section 104. Statutory Authority

- A. Primary Authority: **Saegertown Borough** is empowered to regulate these activities by the authority of the Act of October 4, 1978, 32 P.S., P.L. 864 (Act 167), 32 P.S. Section 680.1 et seq., as amended, the "Storm Water Management Act", and the **Borough Code**.
- B. Secondary Authority: **Saegertown 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.

In **Saegertown 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 Ordinance.

"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:

- A. Earth Disturbance Activities
- B. Land Development
- C. Subdivision where earth disturbance activities are proposed
- D. Construction of new or additional impervious or semi-pervious surfaces
- E. Construction of new buildings or additions to existing buildings
- F. Diversion or piping of any natural or man-made stream channel
- G. Installation of stormwater management facilities or appurtenances thereto
- H. Installation of stormwater BMPs

See Section 302 of this Ordinance for Exemption/Modification Criteria.

Section 106. Repealer

Any ordinance, ordinance provision(s), or regulation of **Saegertown Borough** inconsistent with any of the provision(s) of this Ordinance is hereby repealed to the extent of the inconsistency only.

Section 107. Severability

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

Section 108. Compatibility with Other Ordinance Requirements

Approvals issued and actions taken pursuant to this Ordinance 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 Ordinance imposes more rigorous or stringent requirements for stormwater management, the specific requirements contained in this Ordinance shall be followed.

Section 109. Duty of Persons Engaged in the Development of Land

Notwithstanding any provision(s) of this Ordinance, 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.

Section 110. Municipal Liability Disclaimer

- A. Neither the granting of any approval under this Ordinance, nor the compliance with the provisions of this Ordinance, 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 Saegertown Borough for damages to persons or property.
- B. The granting of a permit which includes any storm water 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 – DEFINITIONS

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

- A. Words used in the present tense include the future tense; the singular number includes the plural; and the plural number includes the singular; words of masculine gender include feminine gender; and words of feminine gender include masculine gender.
- B. The word "includes" or "including" shall not limit the term to the specific example but is intended to extend its meaning to all other instances of like kind and character.
- C. The word "person" includes an individual, firm, association, organization, partnership, trust, company, corporation, or any other similar entity.
- D. The words "shall" and "must" are mandatory; the words "may" and "should" are permissive.
- E. The words "used or occupied" include the words "intended, designed, maintained, or arranged to be used, occupied or maintained".

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 Ordinance. Stormwater BMPs are commonly grouped into one of two broad categories or measures: "non-structural" or "structural". "Non-structural" 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 25-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 Ordinance 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 Ordinance.

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 100-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 100-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 100-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 100-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 US 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 is 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) - (i) 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; (ii) Any subdivision of land; (iii) Development in accordance with Section 503(1.1) of the PA Municipalities Planning Code.

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 - Saegertown 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, US 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/.

Non-point 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 - (i) Point where water flows from a conduit, stream, or drain; (ii) "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 Saegertown 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 the Ordinance.

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.

Release Rate - The percentage of pre-development peak rate of runoff from a site or subwatershed area to which the post-development peak rate of runoff must be reduced to protect downstream areas.

Release Rate District - Those subwatershed areas in which post-development flows must be reduced to a certain percentage of pre-development 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 25-year return period rainfall would be expected to recur on the average once every twenty-five years; or stated in another way, the probability of a 25-year storm occurring in any one given year is 0.04 (i.e. a 4% 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 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 Ordinance.

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.

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 ground water 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 "Storm Water Management Act".

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 Ordinance.

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.

Subwatershed Area - The smallest drainage unit of a watershed for which stormwater management criteria has been established in the Stormwater Management Plan.

Subdivision - The division or re-division 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 ten

acres, not involving 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}.

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

Timber Operations - See "Forest Management".

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

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

Section 201 Reserved

Section 301. General Requirements

- A. For all Regulated Activities, unless specifically exempted in Section 302:
 - 1. Preparation and implementation of an approved SWM Site Plan is required.
 - 2. No Regulated Activities shall commence until the municipality issues written approval of a SWM Site Plan, which demonstrates compliance with the requirements of this Ordinance.
 - 3. The SWM Site Plan shall demonstrate that adequate capacity will be provided to meet Volume and Rate Control Requirements.
- 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.
- C. For all Regulated Activities, stormwater BMPs shall be designed, installed, implemented, operated, and maintained to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code and the Clean Streams Law, conform to the State Water Quality Requirements, and meet any more stringent requirements as determined by the municipality.
- D. The municipality may approve measures for meeting the State Water Quality Requirements other than those in this Ordinance, provided that they meet the minimum requirements of, and do not conflict with state law, including, but not limited to, the Clean Streams Law.
- E. Impervious Areas:
 - 1. The measurement of impervious areas shall include all of the impervious areas in the total proposed development, even if development is to take place in stages.
 - 2. For developments taking place in stages, the entire development plan must be used in determining conformance with this Ordinance.
- F. 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 ordinance.
- G. 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 Ordinance.
- H. Where watercourses traverse a development site, drainage easements (to encompass the 100-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 Borough Council.

- I. 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 drainage ways 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.
- J. 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 Ordinance, 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.
- K. 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.
- L. Any stormwater management facilities regulated by this Ordinance that will be located on, or discharged onto State highway rights-of-ways shall be subject to approval by the Pennsylvania Department of Transportation (PENNDOT).
- M. 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.
- N. 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 Ordinance.
- O. 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.
- P. Applicants are encouraged to use Low Impact Development Practices to comply with the requirements of this Ordinance and the State Water Quality Requirements.

Section 302. 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 non-erosive 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 Sections 302.A, 302.B, and 302.C, may be exempted from the SWM Site Plan, Rate Control, or Volume Control requirements of this Ordinance according to the following table:

EXEMPTION TABLE

New Impervious Area ^{1, 2} (square footage)	Applicant Must Provide
0 – 1,000	
1,000 – 5,000	Documentation of new impervious surface ³
5,000 – 1 acre	Volume Controls & Small Project SWM Application ³
greater than 1 acre	Rate Controls, Volume Controls & SWM Site Plan

NOTES:

- ¹ New Impervious Area since the date of Adoption of this Ordinance.
- 2. Existing maintained municipal roads are considered impervious.
- ³ The Small Project Stormwater Management Application included in Appendix D shall be used to establish eligibility for the exemptions listed in the above table for projects under 1 acre or for single family home construction. The Small Project SWM Application satisfies the requirement for demonstrating compliance with Sections 302.A, 302.B, and 302.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 BMP's, when required.
 - E. An Applicant proposing Regulated Activities, after demonstrating compliance with Sections 302.A, 302.B, and 302.C, may be exempted from various requirements of this Ordinance 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. The Municipality may accept alternative stormwater management controls under this section provided that:
 - 1. The Municipality determines that meeting the Volume Control requirements is not possible or places an undue hardship on the Applicant.
 - 2. The alternative controls are documented to be acceptable pertaining to post construction stormwater management requirements.
 - G. Agricultural activity is exempt from the rate control and SWM Site Plan preparation requirements of this Ordinance provided the activities are performed according to the requirements of 25 Pa. Code 102.
 - H. Forest management and timber operations are exempt from the Rate and Volume Control requirement and SWM Site Plan preparation requirement of this Ordinance provided the activities are performed according to the requirements of 25 PA Code Chapter 102.

Section 303. Waivers

- A. The provisions of this Ordinance are the minimum standards for the protection of the public welfare.
- B. All waiver requests must meet the provisions of Section 303.G. and H. Waivers shall not be issued 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.

The Municipality then will consider waiver requests in accordance with Section 301.D, except that requests for waivers from the design requirements of Sections 601 and 602 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 Ordinance 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 Section 102 and 103 of this Ordinance, the governing body of the Municipality may grant a waiver or relief so that substantial justice may be done and the public interest is secured.
- 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 the Ordinance 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 Ordinance.
- 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 a Municipal Engineer in any review of a waiver request. Fees set by resolution of Council.
- 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 Ordinance.
 - 2. That the waiver is the minimum necessary to provide relief.
 - 3. That the applicant is not requesting a waiver based on cost considerations alone.
 - 4. That existing down gradient 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 erosive conditions due to increased peak flows or volume will not occur.
 - 9. That adverse impact to water quality will not result.
 - 10. That increased 100-Year Floodplain levels will not result.

- 11. That increased or unusual municipal maintenance expenses will not result from the waiver.
- 12. That the amount of stormwater generated has been minimized to the greatest extent allowed.
- 13. That infiltration of runoff throughout the proposed site has been provided where practicable and pre-development ground water recharge protected.
- 14. That long term operation and maintenance activities are established.
- 15. 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.

Section 304. Volume Controls

- A. The Low Impact Development Practices provided in the BMP Manual and in Appendix B of this Ordinance 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.
 - 1. The Design Storm Method (CG-1 in the BMP Manual) is applicable to any sized Regulated Activity.
 - 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.
 - 3. In cases where it is not possible or desirable to use infiltration-based best management practices to partially fulfill the requirements in either Section 304.B.1 or 304.B.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:
 - i. Description of and justification for field infiltration/permeability testing with respect to the type of test and test locations).
 - ii. An interpretive narrative describing existing site soils and their structure as these relate to the interaction between soils and water occurring on the site
 - iii. 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.
 - iv. The provided documentation must be signed and sealed by a professional engineer or geologist.
 - b. 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.

Section 305. Rate Controls

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

- 1. Post-development discharge rates shall not exceed the pre-development discharge rates for the 1-year, 2-year, 10-year, 25-year, 50-year, and 100-year storms.
- B. Lands contained within Crawford County that have had release rates established under an approved Act 167 Stormwater Management Plan:
 - 1. The post-development peak discharge rates shall be in accordance with the approved release rate map for the individual watershed.

Section 306. 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.
 - 2. Stormwater Hotspots are land development projects that have a high potential to endanger local water quality, and could potentially threaten ground water reservoirs.

B. Performance Standards

- The location of the boundaries of sensitive areas is set by drainage areas tributary to any public water supply. If the site is within 500 linear feet of a defined Sensitive Area, a 5-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.

ARTICLE IV - PROTECTED WATERSHED STANDARDS

Section 401. Protected Watershed Requirements

- A. For any Regulated Activity within a protected watershed (French Creek and Woodcock Creek) the applicant shall meet requirements as contained in 25 PA Code, Chapters 93 as required and applicable.
- B. Existing Resources and Site Analysis Plan. 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.)
 - b. Steep slopes in the following ranges: 15% and greater. The location of these slopes shall be graphically depicted by category on the plan.
 - c. Areas within the 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. Soil types and their boundaries, as mapped by the USDA Natural Resource Conservation Service, including a table listing the soil characteristics pertaining to suitability for construction and, in un-sewered areas, for septic suitability. Alluvial and hydric soils shall specifically be depicted on the plan.
- g. Existing vegetation, denoted by type, including woodlands, hedgerows, tree masses, tree lines, individual freestanding trees over six feet and wetland vegetation.
- 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 and size of existing sanitary sewage facilities.
 - d. Location of water supply facilities, including wellhead protection areas.
- C. Stormwater Management System Concept Plan. A written and graphic concept plan of the proposed post-development stormwater management system shall be prepared.
- D. Consultation Meeting. Prior to any stormwater management permit application submission, the land owner or developer shall meet with the Municipality for a consultation meeting on a concept plan for the post-development stormwater management system to be utilized in the proposed project.
- 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.
 - a. Apply structural BMP selection process that meets runoff quantity and quality needs.

ARTICLE V - RIPARIAN BUFFER STANDARDS

Section 501. 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. All other watersheds a minimum of 50 feet; or (French Creek & Woodcock Creek)
- B. The riparian buffer shall be located on both sides of all perennial streams. The perennial 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 consisting of appropriate native species.
- D. The following uses shall be permitted in the buffer:
 - 1. Footpaths, trails and bike paths provided that:
 - a. Width is limited to 5 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. 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. 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.
- E. Allowable activities shall not cause stormwater flow to concentrate.
- F. Any vegetation removed for an allowable activity shall be replaced immediately upon completion of the activity.
- G. Erosion and sediment pollution control shall be installed and maintained during construction. Evidence of an approved Erosion and Sediment Control Plan, if disturbing more than one acre.
- H. Riparian buffers shall be maintained in a manner consistent with sound forest management practices.

ARTICLE VI - DESIGN CRITERIA

Section 601. Design Criteria for Stormwater Management & Drainage Facilities

A. General Design Guidelines:

- Stormwater shall not be transferred from one watershed to another, unless (1) the
 watersheds are sub-watersheds of a common watershed which join together within the
 perimeter of the property; (2) the effect of the transfer does not alter the peak rate
 discharge onto adjacent lands; or (3) 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.
- 3. Stormwater BMPs and recharge facilities are encouraged.
- 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 Borough Council.
- 5. The design of all stormwater management facilities shall incorporate sound engineering principles and practices.
- 6. The design and construction of multiple use stormwater detention facilities are strongly encouraged.
- 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.

Section 602. Calculation Methodology

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

B. Design Storm:

1. The stormwater management and drainage system shall be designed to safely convey the post development 100-year storm event to stormwater detention facilities, for the purpose of meeting peak rate control.

C. Time of Concentration:

- 1. The Time of Concentration is to represent the average condition that best reflects the hydrologic response of the area.
- D. The Municipality may approve the use of any generally accepted technique that shall use a total runoff volume.
- E. 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 & REPORT REQUIREMENTS

Section 701. General Requirements

For any of the activities regulated by this Ordinance and not eligible for the exemptions provided in Section 302, 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.

Section 702. SWM Site Plan & Report Contents

- A. The SWM Site Plan & 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 & 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.

Section 703. SWM Site Plan & Report Submission

- A. The Applicant shall submit the SWM Site Plan & Report for the Regulated Activity.
- B. Additional copies shall be submitted as requested by the Municipality.

Section 704. SWM Site Plan & Report Review

- A. The Municipality may require receipt of a complete SWM Site Plan & Report as specified in this Ordinance.
- B. The Municipality shall not approve any SWM Site Plan & Report that is deficient in meeting the requirements of this Ordinance.
- C. The Municipality shall notify the Applicant in writing within forty-five (45) calendar days whether the SWM Site Plan & Report is approved or disapproved if the SWM Site Plan & Report is not part of a Subdivision or Land Development Plan.
- D. The Municipal Building Permit Office shall not issue a building permit for any Regulated Activity if the SWM Site Plan & Report has been found to be inconsistent with this Ordinance, as determined by the Municipality. All required permits from PADEP must be obtained by the applicant prior to issuance of a building permit.

Section 705. Modification of Plans

A. A modification to a submitted SWM Site Plan & Report for a development site that involves a change in stormwater management facilities or techniques, or that involves the relocation or re-design 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 Ordinance.

Section 706. Resubmission of Disapproved SWM Site Plan & Report

A. A disapproved SWM Site Plan & Report may be resubmitted with the revisions addressing the Municipality's concerns documented in writing, to the Municipality in accordance with this Ordinance. The applicable Municipal Review Fee (as set by Council from time to time) must accompany a resubmission of a disapproved SWM Site Plan & Report.

Section 707. Authorization to Construct and Term of Validity

A. The Municipality's approval of a SWM Site Plan & Report authorizes the Regulated Activities contained in the SWM Site Plan for a maximum term of validity of five (5) years following the date of approval. The Municipality may specify a term of validity shorter than five (5) 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 an 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.

Section 708. 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.
- 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 & Report.
 - 1. Drawings shall show all approved revisions and elevations and inverts to all manholes, inlets, pipes, and stormwater control facilities.
- C. After receipt of the Record Drawing and certification of completion by the Municipality, the Municipality may conduct a final inspection.

ARTICLE VIII - EASEMENTS

Section 801. 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. 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 Solicitor.

ARTICLE IX - MAINTENANCE RESPONSIBILITIES

Section 901. 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.
- 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 & 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 Ordinance, after receipt of the certification of completion and Record Drawings by the Municipality.

Section 902. Maintenance Responsibilities

- A. The SWM Site Plan & Report for the project site shall describe the future operation and maintenance responsibilities.
- B. The SWM Site Plan & Report for the project site shall establish responsibilities for the continuing operating and maintenance of all proposed stormwater control facilities.
 - 1. The SWM Site Plan & Report may be recorded as a restrictive deed covenant that runs with the land.
 - 2. The Municipality may take enforcement actions against an Applicant for failure to satisfy any provision of this Ordinance.
- C. The Municipality, upon recommendation of appropriate experts shall make the final determination on the continuing maintenance responsibilities prior to final approval of the SWM Site Plan & Report. 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. Any fees may be set by resolution of Council from time to time.
- 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.

Section 903. Maintenance Agreement for Privately Owned Stormwater Facilities

- A. Prior to final approval of the SWM Site Plan & Report, the Applicant shall sign the Operation and Maintenance (O&M) Agreement (Appendix A) 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. 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. Non-payment of fees may result in a lien against the property.

ARTICLE X - INSPECTIONS

Section 1001. Schedule of Inspections

- A. 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 Ordinance.
- 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. Non-payment 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 thirty (30) days to conduct required inspections and submit the required inspection reports to the Municipality.

Section 1002. 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 Ordinance.
- 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 Ordinance.
- 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 Ordinance.

ARTICLE XI - ENFORCEMENT AND PENALTIES

Section 1101. Notification

- A. In the event that a person fails to comply with the requirements of this Ordinance, 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 Ordinance. 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 Ordinance.

Section 1102. Enforcement

- A. The municipal governing body is hereby authorized to enforce all of the provisions of this Ordinance. 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 Ordinance.
 - 2. It shall be unlawful to alter or remove any control structure required by the SWM Site Plan pursuant to this Ordinance.
 - 3. It shall be unlawful to allow a property to remain in a condition that does not conform to an approved SWM Site Plan.

Section 1103. Public Nuisance

- A. A violation of any provision of this Ordinance is hereby deemed a Public Nuisance.
- B. Each day that a violation continues shall constitute a separate violation.

Section 1104. Suspension and Revocation

- A. Any approval or permit issued by the Municipality may be suspended or revoked for:
 - 1. Non-compliance with or failure to implement any provision of the approved SWM Site Plan or Operation & Maintenance (O&M) Agreement.
 - 2. A violation of any provision of this Ordinance or any other applicable law, Ordinance, rule or regulation relating to the Regulated Activity.
 - 3. The creation of any condition or the commission of any act, during the Regulated Activity which constitutes or creates a hazard 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 Ordinance.

Section 1105. Penalties

- A. Anyone violating the provisions of this Ordinance shall be guilty of a summary offense and upon conviction, shall be subject to a Class B 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 Ordinance. Any court of competent jurisdiction shall have the right to issue restraining orders, temporary or permanent injunctions, mandamus, or other appropriate forms of remedy or relief.

Section 1106. Appeals

- A. Any person aggrieved by any action of the Municipality or its designee, relevant to the provisions of this Ordinance, may appeal to the Municipality within thirty (30) days of that action.
- B. Any person aggrieved by any decision of the Municipality, relevant to the provisions of this Ordinance, may appeal to the Crawford County Court of Common Pleas within thirty (30) days of the Municipality's decision.
- C. Appeals shall be processed in accordance with the Local Agency Law. The Municipality may further provide the regulations regarding such appeals pursuant to duly adopted Resolution of Borough Council.

ARTICLE XII - PROHIBITIONS

Section 1201. Prohibited Discharges and Connections

- A. Any drain (including indoor drains and sinks), or conveyance whether on the surface or underground, that allows any non-stormwater 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 1301.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:

- -Discharges from fire fighting activities
- -Potable water sources including water and fire hydrant flushings
- -Air conditioning condensate
- -Springs
- -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
- -Water from crawl space or basement pumps
- -Flows from riparian habitats and wetlands
- -Uncontaminated water from foundations or from footing drains
- -Irrigation or Lawn watering
- -Swimming pool discharges
- -Water from individual residential car washing
- -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 1301.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.

Section 1202. Roof Drains

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

Section 1203. 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

Section 1301. General

A. The fee authorized by this Ordinance 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 as required, and set by resolution of Council.

Section 1302. Expenses Covered by Fees

- A. The fees required by this Ordinance shall, at a minimum, cover:
 - 1. Administrative and Clerical Costs.
 - 2. Review of the SWM Site Plan & Report by the Municipality.
 - 3. Pre-construction meetings.
 - 4. Inspection of stormwater management facilities/BMPs and drainage improvements during construction.
 - 5. Final inspection upon completion of the stormwater management facilities/BMPs and drainage improvements presented in the SWM Site Plan.

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

Section 1303. 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, may at the direction of Borough Council 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.
 - 2. Easements under Section 901.
- 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.

SAEGERTOWN	I BOROUGH	STORMWATER	MANAGEMENT	ORDINANCE

ORDINANCE NUMBER 01-2011 **ENACTED and ORDAINED** at a regular meeting of the

Saegertown Borough Council

on this 11th day of April, 2011.

Updated ____ 2015

Appendix A

OPERATION AND MAINTENANCE (O&M) AGREEMENT STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES (SWM BMPs)

THIS AGREEMENT, made and entered into this	day of	, 20, by and between
, (hereinafter	the	"Landowner"), and
, Crawford County, Pennsy	/Ivania, (hereir	nafter "Municipality");
WITNESSETH		
WHEREAS, the Landowner is the owner of certain re (municipality), as recorded by deed in the land records of at Page, (hereinafter "Property").		
WHEREAS, the Landowner is proceeding to build and deve	elop the Prope	erty; and
MULTIPLE COMPANY CITY Discours and least the Administration	Physical Control of the	

WHEREAS, the SWM Site Plan approved by the Municipality (hereinafter referred to as the "Plan") for the property identified herein, which is attached hereto as Appendix A and made part hereof, as approved by the Municipality, provides for management of stormwater within the confines of the Property through the use of BMPs; and

WHEREAS, the Municipality, and the Landowner, his successors and assigns, agree that the health, safety, and welfare of the residents of the Municipality and the protection and maintenance of water quality require that on-site SWM BMPs be constructed and maintained on the Property; and

WHEREAS, the Municipality requires, through the implementation of the SWM Site Plan, that stormwater BMPs as required by said Plan and the Municipal Stormwater Management Ordinance be constructed and adequately operated and maintained by the Landowner, successors and assigns.

NOW, THEREFORE, in consideration of the foregoing promises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

- 1. The Landowner shall construct the BMPs in accordance with the plans and specifications identified in the SWM Site Plan.
- 2. The Landowner shall operate and maintain the BMPs as shown on the Plan in good working order in accordance with the specific maintenance requirements noted on the approved SWM Site Plan.
- 3. The Landowner hereby grants permission to the Municipality, its authorized agents, and employees, to enter upon the property, at reasonable times and upon presentation of proper credentials, to inspect the BMPs whenever necessary. Whenever possible, the Municipality shall notify the Landowner prior to entering the property.
- 4. In the event the Landowner fails to operate and maintain the BMPs per paragraph 2, the Municipality or its representatives may enter upon the Property and take whatever action is deemed necessary to maintain said BMPs. It is expressly understood and agreed that the Municipality is under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the Municipality.
- 5. In the event the Municipality, pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Landowner shall reimburse the Municipality for all expenses (direct and indirect) incurred within ten (10) days of receipt of invoice from the Municipality.
- 6. The intent and purpose of this Agreement is to ensure the proper maintenance of the onsite BMPs by the Landowner; provided, however, that this Agreement shall not be deemed to create or

- effect any additional liability of any party for damage alleged to result from or be caused by stormwater runoff.
- 7. The Landowner, its executors, administrators, assigns, and other successors in interests, shall release the Municipality from all damages, accidents, casualties, occurrences or claims which might arise or be asserted against said employees and representatives from the construction, presence, existence, or maintenance of the BMPs by the Landowner or Municipality.
- 8. The Municipality may inspect the BMPs at a minimum of once every three years to ensure their continued functioning.

This Agreement shall be recorded at the Office of the Recorder of Deeds of Crawford County, Pennsylvania, and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Landowner, his administrators, executors, assigns, heirs and any other successors in interests, in perpetuity.

ATTEST:	
WITNESS the following signatures and seals:	
(SEAL)	For the Municipality:
	For the Landowner:
Commonwealth of Pennsylvania SS:	
County of Crawford, Pennsylvania	
On this, the day of	_, 20, before me
the undersigned officer, personally appeared	
know to me (or satisfactorily proven) to be the pers	on whose name subscribed to the within
instrument, and acknowledges that exec	cuted the same for the purpose therein contained.
IN WITNESS WHEREOF, I have hereunto set my ho	and and seal.
My Commission Expires	Official Title

Page-29

Crawford County Act 167 Plan Phase II - Model Ordinance

APPENDIX B

LOW IMPACT DEVELOPMENT PRACTICES ALTERNATIVE APPROACHES FOR MANAGING STORMWATER RUNOFF

Preserving natural hydrologic conditions requires careful alternative site design considerations. The following describes various techniques to achieve the alternative approaches:

- **Preserving Natural Drainage Features**. Protecting natural drainage features, particularly vegetated drainage swales and channels, is desirable because of their ability to infiltrate and attenuate flows and to filter pollutants.
- Protecting Natural Depression Storage Areas. Depressional storage areas have no surface outlet, or drain very slowly following a storm event. They can be commonly seen as ponded areas in farm fields during the wet season or after large runoff events. The depressions can be protected by simply avoiding the depression or by incorporating its storage as additional capacity in required detention facilities.
- Avoiding Introduction of Impervious Areas. Careful site planning should consider reducing impervious coverage to the maximum extent possible. Building footprints, sidewalks, driveways, and other features producing impervious surfaces should be evaluated to minimize impacts on runoff.
- Reducing the Hydraulic Connectivity of Impervious Surfaces. Two basic ways to reduce hydraulic connectivity are: routing of roof runoff over lawns; and reducing the use of storm sewers.
- Routing Roof Runoff Over Lawns. Roof runoff can be easily routed over lawns in most site designs. The practice discourages direct connections of downspouts to storm sewers or parking lots. The practice also discourages sloping driveways and parking lots to the street. The routing of roof drains and crowning the driveway to allow runoff to discharge to pervious areas is desirable as the pervious area essentially acts as a filter strip.
- Reducing the Use of Storm Sewers. By reducing the use of storm sewers for draining streets, parking lots, and back yards, the potential for accelerating runoff from the development can be greatly reduced. The practice requires greater use of swales and may not be practical for some development sites, especially if there are concerns for areas that do not drain in a "reasonable" time.
- Using Permeable Paving Materials. These materials include permeable interlocking concrete paving blocks or porous bituminous concrete. Such materials should be considered as alternatives to conventional pavement surfaces, especially for low use surfaces such as driveways, overflow parking lots, and emergency access roads.

In summary, Beneficial results include: more stable baseflows in receiving streams, improved groundwater recharge, reduced flood flows, reduced pollutant loads, and reduced costs for conveyance and storage.

Saegertown Borough Small Project Stormwater Management Application

Per Saegertown Borough's Act 167 Stormwater Management Ordinance, a stormwater management plan is required whenever more than 5,000 square feet of impervious surface is proposed. Impervious surfaces are areas that prevent the infiltration of water into the ground and shall include, but not be limited to, roofs, patios, garages, storage sheds and similar structures, and any new streets or sidewalks.

То	Calculate Imperviou	s Surface	s Please Comp	lete Thi	s Table
Surface Type	Length	x	Width	=	Proposed Impervious Area
Building		Х		=	
		х		=	
		X		=	
		х		=	
Driveway		х		=	
		x			
		x			
Parking Areas		х		=	
		x			
		x			
Patios/Walks		х		=	
		x			
		x			
		х			
Other		х		=	
		x			
		X			
Total Impervio	ous Surface Area to be	e manag	ed (sum of all a	reas)	

If the Total Impervious Surface Area is LESS THAN 5,000 Square Feet, read, acknowledge and sign below.

If the Total Impervious Surface Area is GREATER THAN 5,000 Square Feet, complete the remainder of the Application.

Based Upon the information you have provided a **Stormwater Management Plan IS NOT required** for this regulated activity. However, Saegertown Borough may request additional reporting and/or management should public health or safety or property or the environment be threatened.

Property Owner Acknowledges that submission of inaccurate information may result in a stop work order or permit revocation. Acknowledgement of such is by signature below. I declare that I am the owner or owner's legal representative. I further acknowledge that the information provided is accurate and employees of Saegertown Borough are granted access to the above-described property for review and inspection as may be required.

Owner	Date:

CREDITS

Credit 1: DISCONNECTION OF IMPERVIOUS AREA

When runoff from impervious areas is directed to a pervious area that allows for infiltration, filtration, and increased time of concentration, all or parts of the impervious areas may qualify as Disconnected Impervious Area (DIA). Using the criteria below, determine the portion of the impervious area that can be excluded from the calculation of total impervious area.

Criteria: An impervious area is considered to be completely or partially disconnected if it meets the requirements listed below

- rooftop area draining to a downspout is ≤500 sf
- paved area draining to a discharge is ≤1,000 sf
- flow path of paved impervious area is not more than 75'
- soil at discharge is not designated as hydrologic soil group "D"
- flow path at discharge area has a positive slope of ≤5%
- gravel strip or other spreading device is required at paved discharges.

Length of Pervious Flow Path from discharge point *	DIA Credit Factor
0 – 14	1.0
15 – 29	0.8
30 – 44	0.6
45 – 59	0.4
60 – 74	0.2
75 or more	0

^{*} Flow path cannot include impervious surfaces and must be at least 15 feet from any impervious surfaces.

Calculate DIA Credit & Required Capture Volume									
Surface Type	Proposed Impervious Area (from previous sheet)	x	DIA Credit Factor	-	Impervious Area to be managed	÷		=	Required Capture Volume (ft³)
Building		Χ		=		÷	6	=	
(area per downspout)		Χ		=		÷	6	=	
, ,		Χ		=		÷	6	=	
		X		=		÷	6	=	
Driveway		Х		=		÷	6	=	
		Х		=		÷	6	=	
		Х		=		÷	6	=	
Parking Areas		Х		=		÷	6	=	
		Х		=		÷	6	=	
		Х		=		÷	6	=	
Patios/Walks		Х		=		÷	6	=	
		Х		=		÷	6	=	
		Х		=		÷	6	=	
		Х		=		÷	6	=	
Other		Х		=		÷	6	=	
		Х		=		÷	6	=	
		Х		=		÷	6	=	
•	•		•	•			., .	•	

Total Req'd Capture Volume

Credit 2: TREE PLANTING

Perhaps the best BMP is a tree as they intercept rainfall, increase evapotranspiration and increase time of concentration. A portion of the required capture volume can be reduced provided the criteria are met.

CREDITS

Deciduous Trees	Evergreen Trees

Small Project SWM Plan Worksheet

Based upon the information you have provided a Stormwater Plan IS Required for this development activity. The Stormwater Management Ordinance developed through the Crawford County Act 167 Stormwater Management Plan regulates compliance requirements for Stormwater Management in this jurisdiction. A complete copy of the Plan can be found on the Crawford County website.

Regulated activities shall be conducted only after Saegertown Borough approves a stormwater management plan. The Crawford County Act 167 Stormwater Management Plan will assist you in preparing the necessary information and plans for Saegertown Borough to review and approve. This document will constitute an approved plan if all of the relevant details are to be installed in their entirety AND no part of the stormwater system adversely affects any other property, nor adversely affect any septic systems or drinking water wells on this, or any other, parcel. If an alternative system is to be used a plan will need to be submitted to Saegertown Borough for approval. A design by a qualified professional may be required for more complex sites.

PLEASE	E INITIAL BELOW TO IND	ICATE THE STORMWATER MAN	AG	EMENT PLAN F	OR THIS SITE			
	Minimum Control #1 Erosion & Sediment Pollution Control (Elements 1-10) Minimum Control #2: Source Control of Pollution Minimum Control #3: Preservation of Natural Drainage Systems and Outfalls							
	their entirety AND the s systems or drinking wat	m Crawford County Act 167 Sto ystem will be located as not to er wells on this, or any other, par	adv cel.	ersely affect ot				
	To meet this requireme	nt, the following will be installed	anc	l maintained:				
	Capture Volume to be	managed (ff³)		Conversion	Surface Area of BMPs (ft²)			
		By Rain Garden 6" ponding; 2' soil depth	х	1.20				
		Dry Well or Infiltration Trench 2½' aggregate depth	x	1.25				
		Total		Total				
		above, an alternative and/or prosted as not to adversely affect ny other, parcel.						
Site Sketch Plan showing: Property lines with dimensions Proposed buildings with dimensions Proposed impervious surfaces with dimensions Proposed stormwater management system(s)								
	Operation and Mainter	nance Agreement						
	on on approval - The sta	ormwater management plan mu	ust k	oe fully implem	ented prior to a request for			

ection of the building or zoning permit.

Acknowledgement - By executing below, the Owner acknowledges the following:

- I declare that I am the owner of the property.
- The information provided is accurate.
- I further acknowledge that municipal representatives are granted access to the above described property for review and inspection as may be required.

Owner	Date: