

**SADSBURY TOWNSHIP**  
**STORMWATER MANAGEMENT ORDINANCE**

Implementing the Requirements of the  
**Crawford County Stormwater Management Plan**

**ORDINANCE NO. 194 – 2011 SERIES**

SADSBURY TOWNSHIP, CRAWFORD COUNTY, PENNSYLVANIA

Adopted at a Public Meeting Held on

**APRIL 12, 2011**

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## **ARTICLE I - GENERAL PROVISIONS**

### **Section 101. Short Title**

This Ordinance shall be known and may be cited as the "Sadsbury Township Stormwater Management Ordinance."

### **Section 102. Statement of Findings**

The governing body of Sadsbury Township 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 non-point 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 Municipality 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).

### **Section 103. Purpose**

The purpose of this Ordinance is to promote health, safety, and welfare within Sadsbury Township, Crawford County, by minimizing the harms and maximizing the benefits described in Section 102 of this Ordinance 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.

#### **Section 104. Statutory Authority**

- A. Primary Authority: Sadsbury Township 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 Second Class Township Code, Act of May 1, 1933 (P.L. 103, No. 69), Reenacted and amended November 9, 1995 (P.L. 350, No. 60) as amended.
- B. Secondary Authority: *Sadsbury Township* 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.

#### **Section 105. Applicability**

In *Sadsbury Township*, 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.

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

"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 Sadsbury Township 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. 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.

**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 Municipality 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** – Sadsbury Township, 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 Sadsbury Township.

**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 ( $T_c$ )** - 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**

### **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 the Volume and Rate Control Requirements, as described under Sections 304 and 305 of this Ordinance.
  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 Ordinance 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. 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 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, meet all requirements under the Storm Water Management Act 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 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. 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 Ordinance 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.
    - 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 Ordinance.
- 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 ordinance.
- 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 Ordinance.
- I. 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 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 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.
- 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 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.
- 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 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).
- 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 Ordinance.
- 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 Ordinance 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.

### **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 <sup>1,2</sup> (square footage)	Applicant Must Provide
0 – 1,000	---
> 1,000 – 2,500	Documentation of new impervious surface <sup>3</sup>
> 2,500 – 5,000	Volume Controls & Small Project SWM Application <sup>3</sup>
> 5,000	Rate Controls, Volume Controls & SWM Site Plan

**NOTES:**

- <sup>1</sup> New Impervious Area since the date of Adoption of this Ordinance.
- <sup>2</sup> Gravel in existing condition shall be considered pervious and gravel in proposed condition shall be considered impervious. Existing maintained municipal roads are considered impervious.
- <sup>3</sup> The Small Project Stormwater Management Application included in Appendix E shall be used to establish eligibility for the exemptions listed in the above table for projects under 5,000 sq. ft. or for single family home construction. The Small Project SWM Application provides for documentation of compliance with: Sections 302.A, 302.B and 302.C; 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 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 Section 304) 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 post construction stormwater management requirements.
- 3. The alternative controls are in compliance with all other sections of this ordinance, including but not limited to Sections 301.D and 302.A-C.

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. It should be noted that temporary roadways are not exempt.
- I. Single Family Residential activities with less than 5,000 square feet of impervious surface are exempt from these requirements provided the construction:
  - 1. Comply with Sections 302.A, 302.B, 302.C and
  - 2. Have building setback 75 feet from downstream property lines, and
  - 3. Driveways:
    - a. Runoff must discharge onto pervious surface with a gravel strip or other spreading device.
    - b. No more than 1,000 square feet of paved surface may discharge to any one point.
    - c. The length of flow on the pervious must exceed the length of the paved surface flow.
  - 4. The municipality can require more information or require mitigation of certain impacts through installation of stormwater management BMP's if there is a threat to property, health or safety.

**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 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 Ordinance.
- 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 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 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.
  - 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 increase of peak flow (design storms up to 100-year) or volume (design storms up to 2-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 100-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 pre-development ground water 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.

#### **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* as defined below. For Regulated Activity areas equal or less than one (1) acre that do not require hydrologic routing to design the stormwater facilities, this Ordinance 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 sized Regulated Activity. This method requires detailed modeling based on site conditions.
  - a. Do not increase the post-development total runoff volume when compared to the pre-development total runoff volume for the 2-year/24-hour storm event.
  - b. For hydrologic modeling purposes:
    - i. Existing non-forested pervious areas must be considered meadow (good condition) for pre-development hydrologic calculations.
    - ii. Twenty (20) percent of existing impervious area, when present within the proposed project site, shall be considered meadow (good condition) for pre-development hydrologic calculations for re-development.
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 1 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 2 inches of runoff from all new impervious surfaces.
  - b. At least the first 1 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 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. 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.

- 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 following water quality pollutant load reductions will be required for all disturbed areas within the proposed development:

<b>Pollutant Load</b>	<b>Units</b>	<b>Required reduction (%)</b>
Total Suspended Solids (TSS)	Pounds	85
Total Phosphorous (TP)	Pounds	85
Total Nitrate (NO <sub>3</sub> )	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.

**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.
    - a. Conneaut Outlet Watershed - for the 2-year, 10-year, 25-year and 100-year storms, post-development peak discharge rates shall follow the approved release rate map.

**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. These areas consist of the delineated 1-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 ground water 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), 2-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 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.
3. Stormwater Hotspot developments must use an acceptable pre-treatment BMP prior to volume control and/or rate control BMPs. Acceptable pre-treatment BMPs for these developments include those based on filtering, settling, or chemical reaction processes such as coagulation.

## **ARTICLE IV – PROTECTED WATERSHED STANDARDS**

### **Section 401. 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, Chapters 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 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.
    - 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, sandmounds, 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 post-development 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 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. 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 post-development 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.
- 1. SWM Plan and Report shall address the following:
    - a. Design using nonstructural BMPs
      - i. 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
- ii. 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 non-disturbance areas
  - (c) Considered mitigative practices for minimal disturbance areas (e.g., Soil Restoration)
  - (d) Considered re-forestation and re-vegetation opportunities
- iii. Reduce Impervious coverage
  - (a) Reduced road width
  - (b) Reduced driveway lengths and widths
  - (c) Reduced parking ratios and sizes
  - (d) Utilized porous surfaces for applicable features
- iv. 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.
  - i. Manage close to source with collection with conveyance minimized
  - ii. Consistent with site factors (e.g., soils, slope, available space, amount of sensitive areas, pollutant removal needs)
  - iii. Minimize footprint and integrate into already disturbed areas/other building program components (e.g., recharge beneath parking areas, vegetated roofs)
  - iv. Consider other benefits such as aesthetic, habitat, recreational and educational benefits
  - v. BMP's select based on maintenance needs that fit owner/users
  - vi. BMP's sustainable using a long-term maintenance plan

## **ARTICLE V – RIPARIAN BUFFER STANDARDS**

### **Section 501. Riparian Buffer Requirements**

Where a Regulated Activity requiring a permit under PA Code Title 25 Chapter 102 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 25 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 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, 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.

## **Section 502. Riparian Buffer Easement**

For all required Riparian Buffers, an easement shall be provided:

- A. Easements shall be in accordance with Section 801 and recorded in accordance with Section 1303 of this Ordinance.

## **ARTICLE VI - DESIGN CRITERIA**

### **Section 601. Design Criteria for Stormwater Management & Drainage Facilities**

#### **A. General Design Guidelines:**

1. 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. A concentrated discharge of stormwater to an adjacent property shall be within an existing watercourse or confined in an easement or returned to a pre-development 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 pre-application 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 ball fields, 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. All stormwater management facilities shall meet the following design requirements:
1. No outlet structure from a stormwater management facility, or swale, shall discharge directly onto a Municipal or State roadway without approval.
  2. The top, or toe, of any slope shall be located a minimum of 10 feet from any property line.
  3. The minimum horizontal distance between any structure and any stormwater facility shall be 10 feet; this distance shall be increased to 25 feet for stormwater storage facilities. The lowest floor elevation of any structure constructed immediately adjacent to a detention basin or other stormwater facility shall be a minimum of 2 feet above the 100-year water surface elevation.
  4. Stormwater management facility bottom (or surface of permanent pool) elevations must be greater than adjacent floodplain elevations (FEMA or HEC-RAS analysis). If no floodplain is defined, bottom elevations must be greater than existing ground elevations 50 feet from top of stream banks in the facilities' vicinity.
  5. Basin outflow culverts discharging into floodplains must account for tailwater. Tailwater corresponding to the 100-year floodplain elevation must be used for all design storms, or the Applicant may elect to determine flood elevations of the adjacent watercourse for each design storm. The floodway is assumed to be 50 feet from top of stream bank in areas where a floodplain is not designated, or no other evidence is provided.
  6. The invert of all stormwater management facilities and underground infiltration/storage facilities shall be located a minimum of 2 feet above the seasonal high groundwater table. The invert of stormwater facilities may be lowered if adequate subsurface drainage is provided.
  7. Whenever possible the side slopes and basin shape shall be amenable to the natural topography. Vertical side slopes and rectangular basins shall be avoided whenever possible.
  8. Exterior slopes of compacted soil shall not exceed 3:1, and may be further reduced if the soil has unstable characteristics.
  9. Interior slopes of the basin shall not exceed 3:1.
  10. Unless specifically designed as a volume control facility, all stormwater management facilities shall have a minimum slope of 2% extending radially out from the principal outlet structure. Facilities designed as water quality/infiltration BMPs may have a bottom slope of zero.
  11. Impervious low-flow channels are not permitted within stormwater management facilities.
  12. Unless specifically designed as a Volume Control or water quality facility, all stormwater management facilities must empty over a period of time not less than 24 hours and not more than 72 hours from the end of the facility's inflow hydrograph. Infiltration tests performed at the facility locations and proposed basin bottom depths, in accordance with the BMP Manual, must support time-to-empty calculations if infiltration is a factor



13. Energy dissipaters and/or level spreaders shall be installed at points where pipes or drainageways discharge to or from basins. Discharges to drainage swales shall be dissipated, or piped, to an acceptable point.
14. Landscaping, and planting specifications must be provided for all stormwater management basins and be specific for each type of basin.
  - a. Minimal maintenance, saturation tolerant vegetation must be provided in basins designed as water quality/infiltration BMPs.
15. A safety fence may be required, at the discretion of the Municipality, for any stormwater management facility. The fence shall be a minimum of 4 feet high, and of a material acceptable to the Municipality. A gate with a minimum opening of 10 feet shall be provided for maintenance access.
16. Principal outlet structures: The primary outlet structure shall be designed to pass all design storms (up to and including the 100-year event) without discharging through the emergency spillway. All principal outlet structures shall:
  - a. Be constructed of reinforced concrete or an alternative material approved by the Municipal Engineer. When approved for use, all metal risers shall:
    - i. Be suitably coated to prevent corrosion.
    - ii. Have a concrete base attached with a watertight connection. The base shall be sufficient weight to prevent flotation of the riser.
    - iii. Provide a trash rack or similar appurtenance to prevent debris from entering the riser.
    - iv. Provide an anti-vortex device, consisting of a thin vertical plate normal to the basin berm.
  - b. Provide trash racks to prevent clogging of primary outflow structure stages for all orifices equivalent to 12 inches or smaller in diameter.
  - c. Provide outlet aprons and shall extend to the toe of the basin slope at a minimum.
  - d. Where spillways will be used to control peak discharges in excess of the 10-year storm, the control weirs shall be constructed to withstand the pressures of impounded waters and convey flows at computed outlet velocities without erosion.
17. Emergency Spillways: Any stormwater management facility designed to store runoff shall provide an emergency spillway designed to convey the 100-year post-development peak rate flow with a blocked primary outlet structure. The emergency spillway shall be designed per the following requirements:
  - a. The top of embankment elevation shall provide a minimum 1 foot of freeboard above the maximum water surface elevation. This is to be calculated when the spillway functions for the 100-year post-development inflow, with a blocked outlet structure.
  - b. Avoid locating on fill areas, whenever possible.
  - c. The spillway shall be armored to prevent erosion during the 100-year post-development flow, with a blocked primary outlet structure.
    - i. Synthetic liners or riprap may be used, and calculations sufficient to support proposed armor must be provided. An earthen plug must be used to accurately control the spillway invert if riprap is the proposed armoring material. Emergency spillway armor must extend up the sides of the spillway, and continue at full width to a minimum of 10 feet past the toe of slope.

- d. Municipal Engineer may require the use of additional protection when slopes exceed 4:1 and spillway velocities might exceed NRCS standards for the particular soils involved.
- e. Any underground stormwater management facility (pipe storage systems) must have a method to bypass flows higher than the required design (up to a 100-year post-development inflow) without structural failure, or causing downstream harm or safety risks.

18. Stormwater Management Basins: Design of stormwater management facilities having 3 feet or more of water depth (measured vertically from the lowest elevation in the facility to the crest of the emergency spillway) shall meet the following additional requirements:

- a. The maximum water depth within any stormwater management facility shall be no greater than 8 feet when functioning through the primary outlet structure.
- b. The top of embankment width shall be:
  - i. For embankments up to 4', width shall be at least 6 feet;
  - ii. For embankments between 4 and 6 feet, width shall be at least 8 feet;
  - iii. For embankments over 6 feet, width shall be at least 10 feet.
- c. A 10 foot wide access to the basin bottom must be provided with a maximum longitudinal slope of 10%.
- d. Berms shall be constructed using soils that conform to the unified soil classification of CH, MH, CL or ML. Soils used shall be tested to determine its density analysis per ASTM 698. The embankments will be constructed in a maximum of 6 inch lifts. The lifts will each be compacted to a density at least 98% of its maximum dry density. Each layer of compacted fill shall be tested to determine its density per ASTM 2922 or ASTM 3017. One test per 50 cubic yards of material placed (at least one per layer) shall be performed by an Independent Testing Agency.
- e. A cutoff and key trench of impervious material shall be provided under all embankments 4 feet or greater in height. The cutoff trench shall run the entire length of the embankment and tie into undisturbed natural ground.
- f. Anti-seep collars, or a PADEP approved alternative, must be provided on all outflow culverts in accordance with the methodology contained in the latest edition of the PADEP E&S Manual. An increase in seepage length of 15 percent must be used in accordance with the requirements for permanent anti-seep collars.

19. Construction of Stormwater Management Facilities:

- a. Basins used for rate control only shall be installed prior to or concurrent with any earthmoving or land disturbances, which they will serve. The phasing of their construction shall be noted in the narrative and on the plan.
- b. Basins that include water quality or recharge components shall have those components installed in such a manner as to not disturb or diminish their effectiveness.
- c. Compaction test reports shall be kept on file at the site and be subject to review at all times with copies being forwarded to the Municipal Engineer upon request.
- d. Temporary and permanent grasses or stabilization measures shall be established on the sides and base of all earthen basins within 15 days of construction.

20. Exceptions to these requirements may be made at the discretion of the Municipality for BMPs that retain or detain water, but are of a much smaller scale than traditional stormwater management facilities.

C. Stormwater Carrying Facilities:

1. All storm sewer pipes, grass waterways, open channels, swales and other stormwater carrying facilities that service drainage areas within the site must be able to convey post-development runoff from the 10-year design storm.
2. Stormwater management facilities that convey off-site water through the site shall be designed to convey the 25-year storm event (or larger events, as determined by the Municipal Engineer).
3. All developments shall include provisions that allow for the overland conveyance and flow of the post-development 100-year storm event without damage to public or private property.
4. Storm Sewers:
  - a. Storm sewers must be able to convey post-development runoff without surcharging inlets for the 10-year storm event.
  - b. When connecting to an existing storm sewer system, the Applicant must demonstrate that the proposed system will not exacerbate any existing stormwater problems and that adequate downstream capacity exists.
  - c. Inlets, manholes, pipes, and culverts shall be constructed in accordance with the specifications set forth in PENNDOT's Publication 408, and as detailed in the PENNDOT's Publication 72M - Standards for Roadway Construction (RC) or other detail approved by the Municipal Engineer. All material and construction details (inlets, manholes, pipe trenches, etc.), must be shown on the SWM Site Plan, and a note added that all construction must be in accordance with PENNDOT's Publication 408 and PENNDOT's Publication 72M, latest edition. A note shall be added to the plan stating that all frames, concrete top units, and grade adjustment rings shall be set in a bed of full mortar according to Publication 408.
  - d. A minimum pipe size of eighteen (18) inches in diameter shall be used in all roadway systems (public or private) proposed for construction in the Municipality. Pipes shall be designed to provide a minimum velocity of 2-1/2 feet per second when flowing full, but in all cases, the slope shall be no less than 0.5%. Arch pipe of equivalent cross-sectional area may be substituted in lieu of circular pipe where cover or utility conflict conditions exist.
  - e. All storm sewer pipes shall be laid to a minimum depth of 1 foot from subgrade to the crown of pipe.
  - f. In curbed roadway sections, the maximum encroachment of water on the roadway pavement shall not exceed half of a through travel lane or one (1) inch less than the depth of curb during the ten (10) year design storm of five (5)

minute duration. Gutter depth shall be verified by inlet capture/capacity calculations that account for road slope and opening area.

- i. Inlets shall be placed at a maximum of 400 feet apart.
  - ii. Inlets shall be placed so drainage cannot cross intersections or street centerlines.
- g. Standard Type "C" inlets with 8 inch hoods shall be used along curbed roadway networks. Type "C" inlets with 10 inch hoods that provide a 2 inch sump condition may be used with approval of the Municipal Engineer when roadway longitudinal slopes are 1.0% or less.
- h. For inlets containing a change in pipe size, the elevation for the crown of the pipes shall be the same or the smaller pipe's crown shall be at a higher elevation.
- i. All inlets shall provide a minimum 2 inch drop between the lowest inlet pipe invert elevation and the outlet pipe invert elevation.
- j. On curbed sections, a double inlet shall be placed at the low point of sag vertical curves, or an inlet shall be placed on each side of the low point at a distance not to exceed 100 feet, or at an elevation not to exceed 0.2 feet above the low point.
- k. At all roadway low points, swales and easements shall be provided behind the curb or swale and through adjacent properties to channelize and direct any overflow of stormwater runoff away from dwellings and structures.
- l. All inlets in paved areas shall have heavy duty bicycle safe grating. A note to this effect shall be added to the SWM Site Plan or inlet details therein.
- m. Inlets must be sized to accept the specified pipe sizes without knocking out any of the inlet corners. All pipes entering or exiting inlets shall be cut flush with the inside wall of the inlet. A note to this effect shall be added to the SWM Site Plan or inlet details therein.
- n. Inlets shall have weep holes covered with geotextile fabric placed at appropriate elevations to completely drain the sub grade prior to placing the base and surface course on roadways.
- o. Inlets, junction boxes, or manholes greater than five (5) feet in depth shall be equipped with ladder rungs and shall be detailed on the SWM Site Plan.
- p. Accessible drainage structures shall be located on continuous storm sewer system at all vertical dislocations, at all locations where a transition in storm sewer pipe sizing is required, at all vertical and horizontal angle points exceeding 5 degrees, and at all points of convergence of 2 or more storm sewer pipes.
- q. All storm drainage piping shall be provided with either end sections or reinforced concrete headwalls with the pipe size involved at its entrance and discharge.

- r. Outlet protection and energy dissipaters shall be provided at all surface discharge points in order to minimize erosion consistent with the E&S Manual.
    - i. Flow velocities and volumes from any storm sewer shall not result in a degradation of the receiving channel.
  - s. Stormwater roof drains and pipes shall not be connected to storm sewers or discharge onto impervious areas without approval by the Municipal Engineer.
5. Swale Conveyance Facilities:
- a. Swales must be able to convey post-development runoff from a 10-year design storm with 6 inches of freeboard to top of the swale.
  - b. Swales shall have side slopes no steeper than 3:1.
  - c. All swales shall be designed, labeled on the SWM Site Plan, and details provided to adequately construct and maintain the design dimension of the swales.
  - d. Swales shall be designed for stability using velocity or shear criteria. Velocity criteria may be used for channels with less than 10% slope. Shear criteria may be used for all swales. Documentation must be provided to support velocity and/or shear limitations used in calculations.
  - e. Where swale bends occur, the computed velocities or shear stresses shall be multiplied by the following factor for the purpose of designing swale erosion protection:
    - i. 1.75 – When swale bend is 30 to 60 degrees
    - ii. 2.00 – When swale bend is 60 to 90 degrees
    - iii. 2.50 – When swale bend is 90 degrees or greater
  - f. Manning's "n" values used for swale capacity design must reflect the permanent condition.

## Section 602. 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 Soil Conservation Service Type II, 24-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 than 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 – 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:
  - a. NRCS's TR-55 – limited to 100 acres in size
  - b. NRCS's TR-20 or HEC-HMS – no size limitations
  - c. Other models as pre-approved by the Municipal Engineer

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 tenth of a cubic foot per second (cfs).

F. Runoff Coefficients:

1. Rational Method – Use Table III-1 (Appendix F).
2. NRCS Rainfall-Runoff Method – Use Table III-2 (Appendix F). 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, CN's should realistically be rounded to the nearest whole number.
3. For the purposes of pre-development peak flow rate and volume determination, existing non-forested pervious areas conditions shall be considered as meadow (good condition).

4. For the purposes of pre-development peak flow rate and volume determination, 20 percent 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 1-year, 2-year, 10-year, 25-year, 50-year, and 100-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 post development 100-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 50-year design storm with a minimum 1 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 pre-approved by the Municipal Engineer:

- a. Pre-development – NRCS's Lag Equation:

Time of Concentration =  $T_c = [(T_{lag}/.6) * 60]$  (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. Post-development; 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. Post-development; 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 post-development  $T_c$  shall never be greater than the pre-development  $T_c$  for any watershed or sub-watershed. This includes when the designer has specifically used swales to reduce flow velocities. In the event that the designer believes that the post-development  $T_c$  is greater, it will still be set by default equal to the pre-development  $T_c$  for modeling purposes.

- b. The minimum  $T_c$  for any watershed shall be 5 minutes.
  - c. The designer may choose to assume a 5 minute  $T_c$  for any post development watershed or subwatershed without providing any computations.
  - d. The designer must provide computations for all pre-development  $T_c$  paths. A 5 minute  $T_c$  can not be assumed for pre-development.
  - 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 pre-development 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 or other appropriate publications as approved by the Township Engineer. Inlet control shall be checked at all inlet boxes to ensure the headwater depth during the 10-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 & 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. SWM Site Plan shall include, but not be limited to:

1. Plans shall be no greater than 24" x 36" and be of one size and in a form that meets the requirements for recording in the Office of the Recorder of Deeds of Crawford County.
  - a. Scale:
    - 1.Plans for tracts of less than 20 acres: 1" = 50' or less;
    - 2.Plans for tracts of 20 acres or more: no greater than 1" = 100;'
  - b. All lettering and details shall be drawn to a size to be legible if the plans are reduced to half size.
2. The name of the development; name and location address of the property site; name, address, and telephone number of the Applicant/Owner of the property; and name, address, telephone number, email address, and engineering seal of the individual preparing the SWM Site Plan.
3. The date of submission and dates of all revisions.
4. A graphical and written scale on all drawings and maps.
5. A north arrow on all drawings and maps.
6. A location map at a minimum scale of one (1) inch equals two-thousand (2,000) feet and illustrates the project relative to highways, municipalities or other identifiable landmarks.
7. Metes and bounds description of the entire tract perimeter.
8. Existing and final contours at intervals:
  - a. Slopes less than 5%: no greater than one (1) foot;
  - b. Slopes between 5 and 15%: no greater than two (2) feet;
  - c. Steep slopes (greater than 15%): 5-foot contour intervals may be used.
9. Perimeters of existing waterbodies within the project area including stream banks, lakes, ponds, springs, field delineated wetlands or other bodies of water, sinkholes, flood hazard boundaries (FEMA delineated floodplains and floodways), areas of natural vegetation to be preserved, the total extent of the upstream area draining through the site, and overland drainage paths. In addition, any areas necessary to determine downstream impacts, where required for proposed stormwater management facilities must be shown.

10. The location of all existing and proposed utilities, on-lot wastewater facilities, water supply wells, sanitary sewers, and water lines on and within fifty (50) feet of property lines including inlets, manholes, valves, meters, poles, chambers, junction boxes, and other utility system components.
11. A key map showing all existing man-made features beyond the property boundary that may be affected by the project.
12. Soil names and boundaries with identification of the Hydraulic Soil Group classification including rock outcroppings.
13. Proposed impervious surfaces (structures, roads, paved areas, and buildings), including plans and profiles of roads and paved areas and floor elevations of buildings.
14. Existing and proposed land use(s).
15. Horizontal alignment, vertical profiles and cross sections of all open channels, pipes, swales and other BMPs.
16. The location and clear identification of the nature of permanent stormwater BMPs.
  - a. Where infiltration BMPs are utilized, construction sequence shall be shown on the Plans.
17. The location of all erosion and sedimentation control facilities, shown on a separate plan from the SWM Site Plan (typically an E&S Plan).
18. A minimum twenty (20) foot wide access easement around all stormwater management facilities that would 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.
19. Construction details for all drainage and stormwater BMPs.
20. Identification of short-term and long-term ownership, operations, and maintenance responsibilities.
21. Notes and Statements:
  - a. A statement referencing the Operation and Maintenance (O&M) Agreement and stating that the O&M Agreement is part of the SWM Site Plan.
  - b. A note indicating that Record Drawings will be provided for all stormwater facilities prior to occupancy, or the release of the surety bond.
  - c. The following signature block for the Land Owner:
 

“I, \_\_\_\_\_, the Land Owner, heirs and assigns acknowledge the Stormwater Management Plan is to be maintained in accordance with the Operation and Maintenance Agreement and shall remain a permanent fixture which cannot be altered or removed without approval by Sadsbury Township.”
  - d. The following signature block for the registered professional preparing the Stormwater Management Plan:

"I, \_\_\_\_\_, hereby certify that the Stormwater Management Plan meets all design standards and criteria of the Sadsbury Township Stormwater Management Ordinance."

- e. The following signature block for the Municipal Engineer reviewing the Stormwater Management Plan:

"I, \_\_\_\_\_, have reviewed this Stormwater Management Plan in accordance with the design standards and criteria of the Sadsbury Township Stormwater Management Ordinance."

B. SWM Site Report shall include (but not limited to):

1. General data including:
  - a. Project Name
  - b. Project location – address of the property site
  - c. Name, address, and telephone number of the Applicant/Owner of the property;
  - d. Name, address, telephone number, email address, and engineering seal of the individual preparing the SWM Site Report;
  - e. Date of submission and revisions.
2. Project description narrative that clearly discusses the project and provides the following information:
  - a. Narrative
    - Statement of the regulated activity describing what is being proposed. Overall stormwater management concept with description of permanent stormwater management techniques, including construction specifications and materials to be used for stormwater management facilities.
    - Expected project schedule
    - Location map showing the project site and its location relative to release rate districts.
    - Detailed description of the existing site conditions including a site evaluation completed for projects proposed in areas of carbonate geology or karst topography, and other environmentally sensitive areas such as brownfields.
    - Total site area – pre and post, which must be equal or have an explanation as to why it is not
    - Total site impervious area
    - Total off-site areas
    - Number and description of stormwater management facilities
    - Type of development
    - Pre-development land use
    - Whether site is a Stormwater Hotspot development
    - Whether site is in a defined sensitive area
    - Types of water quality and recharge systems used, if applicable
    - Complete hydrologic, hydraulic, and structural computations for all stormwater management facilities
    - A written maintenance plan for all stormwater features including detention facilities and other stormwater management elements.
    - Identification of ownership and maintenance responsibility for all permanent stormwater management facilities
    - Other pertinent information, as required

- b. Summary Tables
    - Pre-development Hydrologic soil groups (HSG) assumptions, curve numbers (CN), Computation of average slope, hydraulic length, computed time of concentration.
    - Existing conditions runoff volume & peak rate of runoff
    - Post-development runoff volume & peak rate of runoff
    - Undetained areas, areas to ponds
    - Land use for each subarea
    - Hydrologic soil group (HSG) assumptions, curve numbers (CN)
    - Time of concentration computed for each subarea
    - Post-development peak rate of runoff routed to ponds and out
    - Pond maximum return period design data including: maximum water surface elevation, berm elevation, and emergency spillway elevation
    - Water quality depth and volume requirements
  
  - c. Calculations
    - Complete hydrologic, hydraulic, and structural computations, calculations, assumptions, and criteria for the design of all stormwater BMPs
    - Details of the berm embankment and outlet structure indicating the embankment top elevation, embankment side slopes, top width of embankment, emergency spillway elevation, perforated riser dimensions, pipe barrel dimensions and dimensions and spacing of antiseep collars
    - Design computations for the control structures (pipe barrel and riser, etc.)
    - A plot or table of the stage-storage (volume vs. elevation) and all supporting computations
    - Routing computations
  
  - d. Drawings
    - Drainage area maps for all watersheds and inlets depicting the time of concentration path for both existing conditions and post developed condition
    - All stormwater management facilities must be located on a plan and described in detail including easements and buffers boundaries
3. Reports that do not clearly indicate the above information may be rejected for review by the Municipality and will be returned to the applicant.
  4. Description of, justification and actual field results for infiltration testing with respect to the type of test and test location for the design of infiltration BMPs.
  5. The effect of the project (in terms of runoff volumes, water quality, and peak flows) on surrounding properties and aquatic features and on any existing municipal stormwater collection system that may receive runoff from the project site.
  6. Description of the proposed changes to the land surface and vegetative cover including the type and amount of impervious area to be added.
  7. Identification of short-term and long-term ownership, operation, and maintenance responsibilities as well as schedules and costs for inspection and maintenance activities for each permanent stormwater or drainage BMP, including provisions for permanent access or maintenance easements.

- C. Supplemental information to be provided prior to recording of the SWM Site Plan, as applicable:
1. Signed and executed Operations and Maintenance Agreement
  2. Signed and executed easements, as required for all on-site and off-site work
  3. An Erosion and Sedimentation Control Plan and approval letter from the Crawford County Conservation District
  4. An NPDES Permit
  5. Permits from PADEP and ACOE
  6. Geologic assessment
  7. Soils investigation report, including boring logs, compaction requirements, and recommendations for construction of detention basins
  8. A Highway Occupancy Permit from PENNDOT when utilization of a PENNDOT storm drainage system is proposed or when proposed facilities would encroach onto a PENNDOT right-of-way

**Section 703. SWM Site Plan & Report Submission**

- A. The Applicant shall submit the SWM Site Plan & Report for the Regulated Activity.
- B. Three (3) copies of the SWM Site Plan & Report shall be submitted and be distributed as follows:
1. Two (2) copies to the Municipality accompanied by the requisite executed Review Fee Reimbursement Agreement, as specified in this Ordinance
  2. One (1) copy to the Municipal Engineer
- C. Additional copies shall be submitted as requested by the Municipality or PADEP.

**Section 704. SWM Site Plan & Report Review**

- A. The Municipality shall require receipt of a complete SWM Site Plan & Report as specified in this Ordinance. The Municipality shall review the SWM Site Plan & Report for consistency with the purposes, requirements, and intent of this Ordinance.
- B. The Municipality shall not approve any SWM Site Plan & Report that is deficient in meeting the requirements of this Ordinance. At its sole discretion and in accordance with this Article, when a SWM Site Plan & 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 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. If the SWM Site Plan & Report involves a Subdivision or Land Development Plan, the timing shall follow the Subdivision and Land Development process according to the Municipalities Planning Code.
- 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 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 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 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.

### **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.
  - 2. Submission shall include a comparison of the constructed stage-storage (volume vs. elevation) of all above ground 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, the Municipal Engineer and/or Municipal designee may conduct a final inspection. Such final inspection may include survey measurements of the constructed stormwater management facilities to ensure conformance with the approved SWM Site Plan. The costs for such final inspection and surveys shall be included in the Expenses Covered by Fees in Section 1302.

## **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. Where a tract is traversed by a watercourse, drainage-way, channel or stream, there shall be provided an easement paralleling the line of such watercourse, drainage-way, channel or stream with a width adequate to preserve the unimpeded flow of natural drainage in the 100-year floodplain.
- D. Easements shall be established for all on-site stormwater management or drainage facilities, including but not limited to: detention facilities (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 100-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 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. 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 & Report for the project site shall establish responsibilities for the continuing operating and maintenance of all proposed stormwater control facilities, consistent with the following principals:
  - 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, at the discretion of the Municipality, also be dedicated to and maintained by the Municipality. The Municipality is in no way obligated or required to accept maintenance responsibilities for any privately constructed stormwater management facilities.
  - 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.
  - 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 & 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 Ordinance.
- 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 & 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. The amount of such fee, if any, shall be determined by the Municipal Engineer.
- 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. 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. Non-payment of fees may result in a lien against the property.

## **ARTICLE X - INSPECTIONS**

### **Section 1001. 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, the Municipal Engineer, and/or the Municipality's designee may inspect all phases of the installation of temporary or permanent stormwater management facilities. The costs for such inspections shall be included in the Expenses Covered by Fees in Section 1302.
- B. During any stage of Earth Disturbance Activities, if the Municipality, the Municipal Engineer, and/or the Municipality's designee determines that the stormwater management facilities are not being installed in accordance with the approved SWM Site Plan, the Municipality, Municipal Engineer, and/or the Municipality's designee shall notify the Applicant and the Applicant shall take action to address the issue. The Municipality, the Municipal Engineer, and/or the Municipality's designee may revoke any existing permits or approvals until the matter is addressed. In addition, the Municipality, the Municipal Engineer, and/or the Municipality's designee may require the Applicant to submit a revised SWM Site Plan for review and approval as specified in this Ordinance.
- C. After completion of construction, 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 landowner shall submit copies of the inspection reports to the Municipality, in a form stipulated by the Municipality.
- D. The Municipality, the Municipal Engineer and/or the Municipality's designee may also conduct inspections of the stormwater BMP's. The costs for such inspections shall be included in the Expenses Covered by Fees in Section 1302.

### **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 and directed 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 upon conviction by a District Magisterial Judge shall be guilty of a summary offense and shall be subject to a fine of not more than \$300 for each violation, recoverable with costs. Each day that the violation continues shall be a separate offense and penalties shall be cumulative.
- B. In addition, the 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.

## **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 1201.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 dechlorinated 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 pumps
  - Flows from riparian habitats and wetlands
  - Uncontaminated water from foundations or from footing drains
  - Irrigation or Lawn watering
  - Dechlorinated 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 1201.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 required by this Ordinance is the Municipal Review Fee. The Municipal Review Fee shall be established by the Municipality to defray review costs incurred by the Municipality and the Municipal Engineer. The Applicant shall pay all fees.

### **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, the Municipal Engineer and the Municipal Solicitor.
  - 3. Attendance at pre-construction meetings by representatives of the Municipality and/or the Municipal Engineer.
  - 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. Survey measurements of the constructed facilities to confirm compliance with the approved 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.
  - 7. Inspections of constructed stormwater management facilities by the Municipality, the Municipal Engineer and/or Municipal designee for a period of 10 years following Municipal approval of the construction. The Municipal Engineer shall convert the future costs of these inspections into a present worth. The Applicant shall deposit the present worth sum of money with the Municipality to defray the costs of the future inspections.

### **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, shall record the following documents in the Office of the Recorder of Deeds of Crawford County, within ninety (90) days of approval of the SWM Site Plan by the Municipality:
  - 1. The SWM Site Plan.
    - a. Refer to the requirements of Section 702 of this Ordinance. At a minimum, the items A.1-11, 13, 14, 16, 18, 20 and 21 must be included on the recorded SWM Site Plan.
  - 2. Operations and Maintenance (O&M) Agreement (Appendix A).
  - 3. Easements under Section 801.
  - 4. Riparian buffers under Section 501.
- 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.

STORMWATER MANAGEMENT ORDINANCE  
OF  
SADSBURY TOWNSHIP

 FILE COPY

Ordinance No. 194 - 2011 Series

ENACTED and ORDAINED at a regular meeting of the

Sadsbury Township Board of Supervisors

on this 12<sup>th</sup> day of April, 2011.

This Ordinance shall take effect immediately.

Kevin R. VanHonk  
Kevin R. VanHonk Supervisor (Chairman)

Roy W. Whaley  
Roy W. Whaley Supervisor (Vice-Chairman)

Donald E. Ellis, Sr.  
Supervisor

ATTEST:

Rose A. Mumau  
Rose A. Mumau, Secretary

I hereby certify that the foregoing Ordinance was advertised in the Meadville Tribune on March 28, 2011, a newspaper of general circulation in the Municipality and was duly enacted and approved as set forth at a regular meeting of the Sadsbury Township Board of Supervisors held on April 12, 2011.

Rose A. Mumau  
Rose A. Mumau, Secretary

**TOWNSHIP OF SADBURY  
CRAWFORD COUNTY, PENNSYLVANIA**

**ORDINANCE NO. 2011 - 196 SERIES**

AN ORDINANCE OF THE TOWNSHIP OF SADBURY, CRAWFORD COUNTY, PENNSYLVANIA FOR THE PURPOSE OF THE ENACTMENT OF A TAX ON THE PRIVILEGE OF ENGAGING IN AN OCCUPATION WITHIN THE TOWNSHIP OF SADBURY, CRAWFORD COUNTY, PENNSYLVANIA TO BE KNOWN AS THE LOCAL SERVICES TAX; PROVIDING FOR THE ADMINISTRATION OF THE ORDINANCE; PROVIDING FOR INTEREST AND PENALTIES, INCLUDING CRIMINAL PENALTIES, FOR VIOLATION OF THE ORDINANCE.

**LOCAL SERVICES TAX**

BE IT ORDAINED AND ENACTED by the Board of Supervisors of the Township of Sadsbury, Crawford County, Pennsylvania as follows:

**Section 101. Authority for Tax.** This tax is levied under the authority granted to the Township of Sadsbury, Crawford County, Pennsylvania by the Act of Assembly of the Commonwealth of Pennsylvania known as Act 511, approved December 31<sup>st</sup>, 1965, P.L. 1257, known as the Local Tax Enabling Act, as amended December 9<sup>th</sup>, 2002, P.L. 1364, No. 166, and further amended December 1<sup>st</sup>, 2004, P.L. 1729, No. 222, and further amended by Act No. 7, effective June 21<sup>st</sup>, 2007.

**Section 102. Definitions.** The following words and phrases when used in this Ordinance shall have the following meanings ascribed to them in this section except when the context or language indicates or requires a different meaning:

a. **Employer.** An individual, partnership, association, corporation, institution, governmental body, agency, or other entity employing one of more persons on a salary, wage, commission or other compensation basis including a self-employed person.

b. **He, His or Him.** Indicates the singular or plural number as well as male, female and neutered gender.

c. **Individual.** Any natural person, male or female, engaged in an occupation, trade or profession within the corporate limits of the Township of Sadsbury, Crawford County, Pennsylvania.

d. **Occupation.** Any trade, profession, business or undertaking of any type, kind or character, including services, domestic or otherwise, carried on or performed within the corporate limits of the Township of Sadsbury, Crawford County, Pennsylvania for which compensation is received whether by means of salary, wages, commission or fees for services rendered.



e. **Tax Officer.** The person, public employee or private agency designated by the governing body to collect and administer the Local Services Tax.

f. **Reserve Component of the Armed Forces.** The United States Army Reserve; the United States Naval Reserve; the United States Marine Corps Reserve; the United States Coast Guard Reserve; the United States Air Force Reserve; and the Pennsylvania Army National Guard or the Pennsylvania Air National Guard.

g. **Taxes.** Local Services Tax in the amount of \$52.00 in 2012 and subsequent years thereafter paid pursuant to the terms and conditions of this Ordinance.

h. **Township.** The area within the corporate limits of the Township of Sadsbury, Crawford County, Pennsylvania as now established or as may be enlarged in the future by operation of law.

i. **Income From All Sources.** For purposes of exemption from the tax herein imposed the term "income from all sources" shall be limited to "earned income" and "net profits" as defined in Division I of Section 13 of the Act of Assembly known as the Local Tax Enabling Act as amended and supplemented from time to time.

**Section 103.** **Levy of Tax.** For the purposes as set forth in Section 104 of this Ordinance a Local Services Tax is hereby levied upon the privilege of engaging in an occupation within the Township of Sadsbury, Crawford County, Pennsylvania from January 1<sup>st</sup>, 2012 or from the effective date of this Ordinance whichever shall first occur. The tax established by this Ordinance i.e. the Local Services Tax may be levied, assessed and collected by the Township of Sadsbury, Crawford County, Pennsylvania only if the taxpayer's place of employment is in the Township of Sadsbury, Crawford County, Pennsylvania. This tax is in addition to all other taxes of any kind or nature whatsoever levied by the Township of Sadsbury, Crawford County, Pennsylvania and is further enacted for every calendar year thereafter without annual re-enactment, provided, however, that the tax hereby levied shall not be imposed upon any natural person whose total earned income during any taxable year commencing January 1<sup>st</sup>, 2011 is not in excess of \$1,000.00. Any natural person who has paid the tax levied hereunder or for whom his employer has paid such tax and does not have annual income from all sources in excess of \$12,000.00 during a calendar year may file with the Tax Officer of the Township of Sadsbury, Crawford County, Pennsylvania on a form to be provided by the Tax Officer for a refund of the amount so paid or, in the alternative, may prior to payment of the tax imposed by this Ordinance seek an exemption pursuant to the provisions and procedures set forth in Section 103.3 of this Ordinance.

**Section 103.1.** **Absolute Exemption.** The following natural persons shall not be subject to the tax imposed by this Ordinance for any taxable year commencing January 1<sup>st</sup>, 2012:

a. Persons whose total earned income during the taxable year is not in excess of \$1,000.00.

b. Any person who has served in any war or armed conflict in which the United States was engaged and is honorably discharged or released under honorable circumstances from active duty if, as a result of military service, the person is blind, paraplegic or a double or quadruple amputee or has a service-connected disability declared by the United States Veterans' Administration or its successor to be a total one hundred percent permanent disability.

c. Any person who serves as a member of a reserve component of the Armed Forces and is called to active duty at any time during the taxable year.

**Section 103.2. Exemption for other persons.** Any person who does not have income from all sources in excess of \$12,000.00 for a calendar year in which the Local Services Tax is levied may be exempt from the tax imposed by this Ordinance and in connection with said exemption shall follow the procedures as set forth in Section 103.3 of this Ordinance.

**Section 103.3. Procedure, claim and exemption as provided for in Section 103.2 of this Ordinance.**

a. A person seeking to claim an exemption from the tax imposed by this Ordinance may annually file an exemption certificate with the Secretary/Treasurer of the Township of Sadsbury and with the person's employer affirming that the person reasonably expects to receive earned income and net profits from all sources within the political subdivision of less than \$12,000.00 in the calendar year for which the exemption certificate is filed. Upon receipt of the exemption certificate by the Township of Sadsbury, Crawford County, Pennsylvania a copy of the aforesaid exemption certificate shall be delivered to the Tax Officer.

The exemption certificate shall have attached to it the following documents:

i. A copy of the employee's last paystub or W-2 forms from employment within the political subdivision for the year prior to the fiscal year for which the employee is requesting to be exempted from the Local Services Tax. Upon receipt of the exemption certificate and until otherwise instructed by the Township of Sadsbury, Crawford County, Pennsylvania or except as hereinafter required by subsection b. of this Ordinance, the employer shall not withhold the tax from the person during the calendar year or the remainder of the calendar year for which the exemption certificate applies. Employers shall ensure that the exemption certificate forms are readily available to employees at all times and shall furnish each new employee with a form at the time of hiring. The exemption certificates shall be those certificates developed by the Department of Community and Economic Development.

ii. With respect to a person who claimed an exemption for a given calendar year from the Local Services Tax, upon notification to an employer by the person or by the Township of Sadsbury, Crawford County, Pennsylvania that the person has received earned income and net profits from all sources within that political subdivision equal to or in excess of \$12,000.00 in that calendar year or that the person is otherwise ineligible for the tax exemption for that calendar year, or upon an employer's payment to the person of earned income within that political subdivision in an amount equal to or in excess of \$12,000.00 in that calendar year, an

employer shall withhold the Local Services Tax from the person pursuant to subsection c. of this Ordinance.

iii. If a person who claimed an exemption for a given calendar year from the Local Services Tax becomes subject to the tax for the calendar year pursuant to subsection b. of this Ordinance, the employer shall withhold the tax for the remainder of that calendar year. The employer shall withhold from the person, for the first payroll period after receipt of the notification under subsection b. of this Ordinance, a lump sum equal to the amount of tax that was not withheld from the person due to the exemption claimed by the person under this Ordinance, plus the per payroll amount due for that first payroll period. The amount of tax withheld per payroll period for the remaining payroll periods in that calendar year shall be the same amount withheld for other employees. In the event the employment of a person subject to withholding of the tax pursuant to this subsection is subsequently severed in that calendar year, the person shall be liable for any outstanding balance of tax due, and the Township of Sadsbury, Crawford County, Pennsylvania may pursue collection prescribed by this Ordinance.

iv. Except as provided in subsection b. of this Ordinance, it is the intent of the Township of Sadsbury, Crawford County, Pennsylvania that employers shall not be responsible for investigating exemption certificates, monitoring tax exemption eligibility or exempting any employee from the tax imposed by this Ordinance.

**Section 103.4. Refund of Tax.** In the event that a natural person has not filed a certificate of exemption as hereinbefore provided and has paid the tax but does not have earned income in excess of \$12,000.00 during the calendar year, that person may file with the Tax Officer of the Township of Sadsbury, Crawford County, Pennsylvania on a form to be provided by the Tax Officer, a request for refund of the amount so paid. This application shall be filed on or after April 15<sup>th</sup> of the succeeding year for which the exemption is claimed. Such natural person shall have from April 15<sup>th</sup> to July 15<sup>th</sup> of the succeeding year to file for a refund of the tax paid and if the refund request is not filed by July 15<sup>th</sup> of the succeeding year, then in that event the Local Services Tax becomes the property of the Township of Sadsbury, Crawford County, Pennsylvania.

**Section 104. Restricted Use.** Any funds derived from the Local Services Tax for the Township of Sadsbury, Crawford County, Pennsylvania pursuant to this Ordinance may only be used for the following purposes:

a. Emergency services, which shall include emergency medical services, police services, and/or fire services. The Township of Sadsbury, Crawford County, Pennsylvania shall use no less than twenty-five percent (25%) of the funds derived from the tax imposed by this Ordinance for emergency services.

b. Road construction and/or road maintenance.

c. Reduction of property taxes.

d. Property tax relief through implementation of a homestead and farmstead exclusion in accordance with 53 Pa.C.S., Ch. 85, Subchapter F (relating to homestead property exclusion). In the event that the Township of Sadsbury, Crawford County, Pennsylvania decides to implement a homestead and farmstead exclusion for the purpose of providing property tax relief in accordance with this subsection, then in that event the procedures as set forth in subsection (b) of Section 10 of Act 7, adopted June 21<sup>st</sup>, 2007, shall be followed.

**Section 105. Duty of Employers.** Each employer within the Township of Sadsbury, Crawford County, Pennsylvania as well as each employer located outside the Township of Sadsbury, Crawford County, Pennsylvania, but who engages in business within the Township of Sadsbury, Crawford County, Pennsylvania, is hereby charged with the duty of collecting from each of his employees engaged by him and performing an occupation for him within the Township of Sadsbury, Crawford County, Pennsylvania the tax of \$52.00, provided, however, that any person subject to the tax imposed by this Ordinance shall be assessed a pro-rata share of the tax for each payroll period in which the person is engaging in an occupation in the Township of Sadsbury, Crawford County, Pennsylvania. The pro-rata share of the tax assessed on the person for a payroll period shall be determined by dividing the rate of the Local Services Tax levied for the calendar year by the number of payroll periods established by the employer for the calendar year. For purposes of determining the pro-rata share, an employer shall round down the amount of the tax collected each payroll period to the nearest one-hundredth of a dollar. Collection of the Local Services Tax levied under this Ordinance shall be made on a payroll period basis for each payroll period in which the person is engaging in an occupation in the Township of Sadsbury, Crawford County, Pennsylvania. Provided, however, that in the case of concurrent employment, an employer shall refrain from withholding the Local Services Tax if the employee provides a recent pay statement from a principal employer that includes the name of the employer, the length of the payroll period and the amount of the Local Services Tax withheld and a statement from the employee that the pay statement is from the employee's principal employer and the employee will notify other employer's of a change in principal place of employment within two weeks of the occurrence. For this purpose a uniform employee statement should be utilized by the employee as prepared by the Department of Community and Economic Development.

The Local Services Tax imposed by this Ordinance shall be no greater than \$52.00 on each person for each calendar year, irrespective of the number of political subdivisions within which a person may be employed. A political subdivision shall provide a taxpayer a receipt of payment upon request by the taxpayer.

No employer shall be held liable for failure to withhold the Local Services Tax or for the payment of the withheld tax money to the political subdivision if the failure to withhold taxes arises from incorrect information submitted by the employee as to the employee's place or places of employment; the employee's principal office or where the employee is principally employed; and provided further, that an employer shall not be liable for payment of the Local Services Tax in an amount exceeding the amount withheld by the employer if the employer complied with the provisions of this Ordinance and remits the amount so withheld in accordance with the provisions of Section 106 of this Ordinance.

**Section 106. Return.** Each employer shall prepare and file a return at the end of each calendar quarter showing a computation of the tax on forms to be supplied to the employer by the Tax Officer of the Township of Sadsbury, Crawford County, Pennsylvania and the employer shall be required to remit the Local Services Tax within thirty (30) days after the end of each quarter of a calendar year. It is further provided that if the employer fails to file such return and pay such tax, whether or not he makes collection thereof from the salary, wage or commission paid by him to such employee, the employer shall be responsible for the payment of the tax as though the tax had been originally assessed and levied against him.

**Section 107. Situs of Tax.** The situs of such tax shall be the place of employment, but in the event a person is engaged in more than one occupation, that is, concurrent employment, or an occupation which requires a person working in more than one political subdivision during a payroll period, the priority of claim to collect the Local Services Tax shall be in the following order:

a. First, the political subdivision in which a person maintains the person's principal office or is principally employed.

b. Second, the political subdivision in which the person resides and works, if such tax is levied by that political subdivision.

c. Third, the political subdivision in which a person is employed and which imposes the tax nearest in miles to the person's home.

The place of employment shall be determined at the time the taxpayer first becomes subject to the tax during the calendar year.

**Section 108. Concurrent employment.** In the case of concurrent employment, an employer shall refrain from withholding the Local Services Tax if the employee provides a recent pay statement from a principal employer that includes the name of the employer, the length of the payroll period and the amount of the Local Services Tax withheld and a statement from the employee that the pay statement is from the employee's principal employer and the employee will notify other employers of a change in the principal place of employment within two weeks of its occurrence. In connection with the provisions of this section the uniform employee statement form shall be used by the Township as developed by the Department of Community and Economic Development.

The Local Services Tax imposed by this Ordinance shall be no more than \$52.00 on each person for each calendar year, irrespective of the number of political subdivisions within which a person may be employed. A political subdivision shall provide a taxpayer a receipt of payment upon request by the taxpayer.

**Section 109. Self-employed Individuals.** All self-employed individuals who perform services of any type or kind or engage in any occupation or profession within the Township of Sadsbury, Crawford County, Pennsylvania shall be required to comply with this Ordinance and pay the tax in the amount of \$52.00 to the Tax Officer of the Township of Sadsbury, Crawford

County, Pennsylvania on or before May 31<sup>st</sup>, 2012 and on each succeeding May 31<sup>st</sup> or as soon thereafter as he engages in an occupation.

**Section 110. Non-Resident Employers and Self-Employed Individuals.** All employers and self-employed individuals residing or having a place of business outside of the Township of Sadsbury, Crawford County, Pennsylvania but who perform services of any type or kind or engage in any occupation or occupations within the Township of Sadsbury, Crawford County, Pennsylvania, do by virtue thereof agree to be bound by and subject themselves to the provisions and penalties promulgated by this Ordinance with the same force and effect as though they are residents of or have a place of business in the Township of Sadsbury, Crawford County, Pennsylvania. Further, any individual engaged in any occupation within the Township of Sadsbury, Crawford County, Pennsylvania and an employee of a non-resident employer may for purposes of this Ordinance, be considered a self-employed person and in the event the tax imposed by this Ordinance is not remitted to the Tax Officer by May 31<sup>st</sup>, 2012 and each succeeding year by May 31<sup>st</sup>. The Township of Sadsbury, Crawford County, Pennsylvania shall have the option of proceeding against either the employer or employee for the collection of this tax as imposed by this Ordinance.

**Section 111. Administration of Tax.**

a. It shall be the duty of the Tax Officer of the Township of Sadsbury, Crawford County, Pennsylvania to accept and receive payments of this tax and to keep a record thereof showing the amount received by him from each employer or self-employed person together with the date the tax was received.

b. The Tax Officer of the Township of Sadsbury, Crawford County, Pennsylvania is hereby charged with the administration and enforcement of this Ordinance as well as the regulations promulgated by the Board of Supervisors of Sadsbury Township including regulations for the examination of the payroll records of any employer subject to this Ordinance; examination and correction of any return made in compliance with this Ordinance; and any payment alleged or found to be incorrect as to which overpayment is claimed or found to have occurred. Any person aggrieved by any decision of the Tax Officer of the Township of Sadsbury, Crawford County, Pennsylvania shall have the right to appeal to the Court of Common Pleas of Crawford County as is so provided in other cases.

c. The Tax Officer of the Township of Sadsbury, Crawford County, Pennsylvania is hereby authorized to examine the books and payroll records of any employer in order to verify the accuracy of any return(s) made by a employer, or if no return was made, to ascertain the tax due. Each employer is hereby directed and required to give the Tax Officer of the Township of Sadsbury, Crawford County, Pennsylvania the means, facilities and opportunity for such examination.

d. The Township of Sadsbury, Crawford County, Pennsylvania shall adopt regulations for the processing of refund claims for overpaid Local Services Taxes for any calendar year. The regulations so adopted shall be consistent with Section 9 of the Act of Assembly of May 5<sup>th</sup>, 1998, P.L. 301, No. 50 (53 Pa.C.S.A. 8421) known as the Local Taxpayers

Bill of Rights Act. Refunds made within seventy-five (75) days of a refund request or seventy-five (75) days after the last day the employer is required to remit the Local Services Tax for the last quarter of the calendar year under this Ordinance, whichever is later, shall not be subject to interest imposed pursuant to Section 9 of the Act of Assembly known as the Local Taxpayers Bill of Rights Act. (53 Pa.C.S.A. 8426) It is the intent of this section that the Township or its Tax Officer determine eligibility for the exemption and provide refunds to exempt persons from the Local Services Tax and that employers shall not be responsible for processing an exemption or exempting any employee from the Local Services Tax. For purposes of exemption from the Local Services Tax, "income from all sources" shall be limited to "earned income" and "net profits" as defined in Division I of Section 13 of the Local Tax Enabling Act.

e. The Township of Sadsbury, Crawford County, Pennsylvania shall only provide refunds for amounts overpaid during the calendar year that exceed \$1.00.

f. To facilitate the administration of the tax imposed by this Ordinance and the processing of refunds the Township of Sadsbury, Crawford County, Pennsylvania may utilize forms and technical assistance provided by the Department of Community and Economic Development.

#### **Section 112. Collection of Delinquent Tax.**

a. The tax imposed by this Ordinance shall be considered delinquent if not paid within thirty (30) days after the due dates established by this Ordinance. The Tax Officer of the Township of Sadsbury, Crawford County, Pennsylvania shall demand, receive and collect from all corporations, political subdivisions, associations, companies, firms or individuals employing persons owing delinquent Local Services Tax or whose spouse owes delinquent Local Services Tax pursuant to the provisions as set forth in Sections 5 or 6 of the Act of Assembly approved the 21st day of June, 2007. In the event the Tax Officer is not successful in collecting the delinquent tax pursuant to the provisions of Sections 5 or 6 of the Act of Assembly approved the 21st day of June, 2007 then in that event the Tax Officer may proceed to collect delinquent tax imposed by this Ordinance by an action in assumpsit civil action as provided in Section 5 of the Act of Assembly approved the 21<sup>st</sup> day of June, 2007. In the event that collection procedures are instituted either pursuant to Sections 5 or 6 of the Act of Assembly approved the 21<sup>st</sup> day of June, 2007 or by an action in assumpsit civil action the Township of Sadsbury, Crawford County, Pennsylvania shall be entitled to claim, in addition to a ten percent (10%) penalty, interest at the rate of six percent (6%) per annum, which shall be charged on account of the delinquent tax together with the cost of collection which shall include a reasonable attorney's fee.

**Section 113. Fine and Penalty.** Whoever makes any false or untrue statement on any return required by this Ordinance, or who refuses inspection of his books, records of accounts in his custody and control setting forth the number of employees subject to this tax who are in his employment, or, whoever fails or refuses to file any return required by this Ordinance, or who shall fail to pay the tax due, shall upon conviction before any District Justice, or other Court having jurisdiction, be sentenced to pay a fine of not more than Three Hundred Dollars (\$300.00) for each offense and in default of payment of said fine and costs, be imprisoned in

Crawford County Correctional Facility for a period not exceeding ninety (90) days for each offense. It is further provided that the action to enforce the fine and penalty herein provided may be instituted against any person in charge of the business of any employer who has failed or refuses to file a return by this Ordinance.

**Section 114. Validity.** The provisions of this Ordinance are severable and if any of its provisions shall be held invalid or unconstitutional, the decision of the Court shall not affect or invalidate any of the remaining provisions. It is hereby declared to be the legislative intent that this Ordinance would have been adopted if such illegal, invalid or unconstitutional provision had not been included herein.

**Section 115. Savings Clause.**

a. Nothing contained in this Ordinance should be construed to empower the Township of Sadsbury, Crawford County, Pennsylvania to levy and collect the tax hereby imposed upon the privilege of engaging in an occupation, not within the taxing power of the Township of Sadsbury, Crawford County, Pennsylvania under the Constitution of the United States and the laws of the Commonwealth of Pennsylvania.

b. If the tax hereby imposed under the provisions of this part shall be held by any Court of competent jurisdiction to be in violation of the Constitution of the United States and the laws of the Commonwealth of Pennsylvania as to any individual, the decision of the Court shall not affect or impair the right to impose or collect such tax or the validity of the tax so imposed on other persons or individuals as herein provided.

**Section 116. Effective Date.** This Ordinance shall be effective as of January 1<sup>st</sup>, 2012.

ATTEST:

**SADSBURY TOWNSHIP**

By: Rose A. Mumau  
Secretary

By: Ken R. Van Hook  
Supervisor

By: Poy W. White  
Supervisor

By: \_\_\_\_\_  
Supervisor

I, Rose Mumau, Secretary/Treasurer for the Sadsbury Township Board of Supervisors, certify that this is a true and correct copy of Ordinance No. 2011 - 196 Series adopted by the Board of Supervisors at their meeting held on November 8th, 2011 at the Sadsbury Township Municipal Building.

Rose A. Mumau  
Rose Mumau, Secretary/Treasurer  
Sadsbury Township, Crawford Co., PA



**SADSBURY TOWNSHIP  
CRAWFORD COUNTY, PENNSYLVANIA**

**Ordinance No. 2011 - 195**

AN ORDINANCE TO LEVY AND ASSESS THE EARNED INCOME AND  
NET PROFITS TAX PURSUANT TO AUTHORITY OF THE  
PENNSYLVANIA LOCAL TAX ENABLING ACT.

*WHEREAS*, by Act 32 of 2008, the Pennsylvania legislature made substantial changes to the Pennsylvania Local Tax Enabling Act pertaining to the levy and collection of the earned income and net profits tax by Pennsylvania municipal governments and school districts.

*WHEREAS*, the Board of Supervisors of Sadsbury Township desires to enact a new ordinance authorizing the levy and collection of the earned income and net profits tax in a manner consistent with the governing authority of the Local Tax Enabling Act, as amended by Act 32 of 2008, and as otherwise amended.

*WHEREAS*, it is intended that this Ordinance shall continue, reaffirm and update the existing levy of the earned income and net profits tax under terms consistent with the current law and does not levy a new tax.

*NOW, THEREFORE*, be it ordained by the Board of Supervisors of Sadsbury Township, and it is hereby ordained by and with the authority of same as follows:

**Section 1. Title.** The title of this Ordinance is the Sadsbury Township Earned Income and Net Profits Tax Ordinance.

**Section 2. Purpose.** The purpose of this Ordinance is to continue, reaffirm and update the ordinance for the levy of the Earned Income and Net Profits Tax to meet the existing requirements of the Local Tax Enabling Act as same has been and may be further amended.

**Section 3. Authority.** This Ordinance is adopted pursuant to the authority of the Local Tax Enabling Act, Act 511 of 1965, as amended by Act 32 of 2008 and as otherwise amended, found at 53 P.S. § 6924.101, *et seq.*

**Section 4. Definitions.**

Local Tax Enabling Act (or "LTEA") -- Act 511 of 1965, enacted December 31, 1965, P.L. 1257, as thereafter amended, and including Act 32 adopted July 2, 2008, as thereafter amended, which Act is found at 53 P.S. § 6913 (until repealed effective June 30, 2012) and 53 P.S. § 6924.101, *et seq.*, as same may be hereafter amended.

Earned Income and Net Profits Tax or Tax -- The tax levied on earned income and net profits under authority of the Local Tax Enabling Act.

Earned Income – The compensation as required to be reported to or as determined by the Department of Revenue under Section 303 of the act known as the Tax Reform Code of 1971, and rules and regulations promulgated under that section. Employee business expenses as reported to or determined by the Department of Revenue under Article III of the Tax Reform Code of 1971 shall constitute allowable deductions in determining earned income. The term does not include offsets for business losses. The amount of any housing allowance provided to a member of the clergy shall not be taxable as earned income.

Net Profits – The net income from the operation of a business, other than a corporation, as required to be reported to or as determined by the Department of Revenue under Section 303 of the act known as the Tax Reform Code of 1971, and rules and regulations promulgated under that section. The term does not include any:

1. Income which:
  - (i) is not paid for services provided; and
  - (ii) is in the nature of earnings from an investment.
2. Income which represents:
  - (i) any gain in the sale of farm machinery;
  - (ii) any gain on the sale of livestock held twelve (12) months or more for draft, breeding or dairy purposes; and
  - (iii) any gain on the sale of other capital assets of a farm.

Employer – A person, business entity or other entity, employing one or more persons for a salary, wage, commission or other compensation. The term includes the Commonwealth, a political subdivision and an instrumentality or public authority of either. For purposes of penalties, the term includes a corporate officer.

Person – A natural person.

Resident – A person or business domiciled in the political subdivision levying the tax.

Nonresident – A person or business domiciled outside the political subdivision levying the tax.

Taxpayer – A person or business required under this Ordinance to file a return or to pay a tax.

Tax Collection Committee or TCC - The committee established to govern the Crawford County Tax District for purpose of collection of the Earned Income and Net Profits Tax.

Tax Collection District – The tax collection district established under Section 504 of the LTEA, encompassing political subdivisions in Crawford County and surrounding counties.

Tax Officer - The person(s) or entity(s) appointed by the Tax Collection Committee to collect the Earned Income and Net Profits Tax for political subdivisions within the Crawford County Tax Collection District.

Tax Year or "Current Year" - The calendar year for which the tax is levied.

Succeeding Year - The calendar year following the tax year.

Township - shall mean Sadsbury Township, its governing body and duly appointed representatives. It shall also mean political subdivision or municipality as those terms are used in this Ordinance.

The definitions as found in the Local Tax Enabling Act, as amended from time to time are hereby incorporated herein by reference and shall be applied in the administration and enforcement of this Ordinance.

**Section 5. Levy of Earned Income and Net Profits Tax.** In accordance with the provisions of the Local Tax Enabling Act, Sadsbury Township hereby levies and assesses a tax for general revenue purposes at the rate of one percent (1%) on the earned income and net profits of residents of Sadsbury Township and on the earned income and net profits of nonresidents who receive earned income and net profits from any work, business, profession or activity performed or rendered in Sadsbury Township.

**Section 6. Local Tax Enabling Act Applicable.** This Tax is imposed under authority of the Local Tax Enabling Act. All provisions of the Local Tax Enabling Act that govern the levy, administration and collection of the tax on earned income and net profits are incorporated into this Ordinance by reference as though set forth herein. Any future amendments to the Local Tax Enabling Act that are required to be applied to the levy and collection of a tax on earned income or net profits shall automatically become part of this Ordinance upon the effective date of such amendment, without the need for formal amendment of this Ordinance, to the maximum extent allow by law.

**Section 7. Tax Levied for 2012 and Each Year Thereafter.** The Tax hereby levied and assessed shall be levied and assessed for the calendar year 2012 and each year thereafter, without annual reenactment or levy.

**Section 8. Applicable Laws, Regulations, Policies and Procedures.** This Tax shall be collected and administered in accordance with the applicable provisions of the Local Tax Enabling Act, other applicable laws and regulations; and regulations, policies and procedures adopted by this political subdivision, the Tax Collection Committee, or by the Tax Officer. This includes any regulations, policies, and procedures adopted in the future to the maximum extent allowed by law.

**Section 9. Employers Obligations.** Employers shall withhold, remit and report taxes imposed by this Ordinance as follows:

- A. Every employer having an office, factory, workshop, branch, warehouse or other place of business within a tax collection district who employs one or

more persons, other than domestic servants, for a salary, wage, commission or other compensation, who has not previously registered, shall, within fifteen (15) days after becoming an employer, register with the Tax Officer the name and address of the employer and such other information as the Department of Community and Economic Development (DCED) may require.

- B. An employer shall require each new employee to complete a certificate of residency form, which shall be an addendum to the Federal Employee's Withholding Allowance Certificate (Form W-4). An employer shall also require any employee who changes their address or domicile to complete a certificate of residency form. The certificate of residency form shall provide information to help identify the political subdivisions where an employee lives and works.
- C. Every employer having an office, factory, workshop, branch, warehouse or other place of business within a tax collection district that employs one or more persons, other than domestic servants, for a salary, wage, commission or other compensation, shall, at the time of payment, deduct from the compensation due each employee employed at such place of business the greater of the employee's resident tax or the employee's nonresident tax as released in the official register maintained by the DCED.
- D. Except as set forth in paragraph E. below, within thirty (30) days following the end of each calendar quarter, every employer shall file a quarterly return and pay the amount of taxes deducted during the preceding calendar quarter to the Tax Officer for the place of employment of each employee. The form shall show the name, address and Social Security number of each employee, the compensation of the employee during the preceding three-month period, the tax deducted from the employee, the political subdivisions imposing the tax upon the employee, the total compensation of all employees during the preceding calendar quarter, the total tax deducted from the employees and paid with the return and any other information prescribed by the DCED.
- E. Notwithstanding paragraph D. above, the provisions of this paragraph shall apply if an employer has more than one place of employment in more than one tax collection district. Within thirty (30) days following the last day of each month, the employer may file the return required by paragraph D. and pay the total amount of taxes deducted from employees in all work locations during the preceding month to the Tax Officer for either the tax collection district in which the employer's payroll operations are located or as determined by the DCED. The return and taxes deducted shall be filed and paid electronically. The employer must file a notice of intention to file combined returns and make combined payments with the Tax Officer for each place of employment at least one month before filing its first combined return or making its first combined payment. This paragraph shall not be construed to change the location of an employee's place of employment for purposes of nonresident tax liability.

- F. Any employer who, for two of the preceding four quarterly periods, has failed to deduct the proper tax, or any part of the tax, or has failed to pay over the proper amount of tax as required by paragraph C. above to the tax collection district, may be required by the Tax Officer to file returns and pay the tax monthly. In such cases, payments of tax shall be made to the Tax Officer on or before the last day of the month succeeding the month for which the tax was withheld.
- G. On or before February 28 of the succeeding year, every employer shall file with the Tax Officer where taxes have been deducted and remitted pursuant to paragraph C. above:
1. An annual return showing, for the period beginning January 1 of the current year and ending December 31 of the current year, the total amount of compensation paid, the total amount of tax deducted, the total amount of tax paid to the Tax Officer and any other information prescribed by the DCED.
  2. An individual withholding statement, which may be integrated with the Federal Wage and Tax Statement (Form W-2), for each employee employed during all or any part of the period beginning January 1 of the current year and ending December 31 of the current year, setting forth the address and Social Security number, the amount of compensation paid to the employee during the period, the amount of tax deducted, the amount of tax paid to the Tax Officer, the numerical code prescribed by the DCED representing the tax collection district where the payments required by paragraphs D. and E. above were remitted and any other information required by the DCED. Every employer shall furnish one copy of the individual withholding statement to the employee for whom it is filed.
- H. Any employer who discontinues business prior to December 31 of the current year shall, within thirty (30) days after the discontinuance of business, file returns and withholding statements required under this section and pay the tax due.
- I. Except as otherwise provided in section 511 of the Local Tax Enabling Act (53 P.S. § 6924.511), an employer who willfully or negligently fails or omits to make the deductions required by this section shall be liable for payment of taxes which the employer was required to withhold to the extent that the taxes have not been recovered from the employee. The failure or omission of any employer to make the deductions required by this section shall not relieve any employee from the payment of the tax or from complying with the requirements for filing of declarations and returns.

**Section 10.**  
taxes as follows:

**Taxpayers Obligations.** Taxpayers shall declare and pay

- A. Every taxpayer shall, on or before April 15 of the succeeding year, make and file with the tax officer for the place of taxpayer's residence, a final return showing the amount of taxable income received during the period beginning January 1 of the current year and ending December 31 of the current year, the total amount of tax due on the taxable income, the amount of tax paid, the amount of tax that has been withheld and the balance of tax due. All amounts reported shall be rounded to the nearest whole dollar. At the time of filing the final return, the taxpayer shall pay the tax officer the balance of the tax due or shall make demand for refund or credit in the case of overpayment.
- B. Every taxpayer making net profits shall, by April 15 of the current year, make and file with the tax officer for the place of taxpayer's residence a declaration of the taxpayer's estimated net profits during the period beginning January 1 and ending December 31 of the current year, and shall pay to the tax officer in four equal quarterly installments the tax due on the estimated net profits. The first installment shall be paid at the time of filing the declaration, and the other installments shall be paid on or before June 15 of the current year, September 15 of the current year and January 15 of the succeeding year, respectively.
- C. Any taxpayer who first anticipates any net profit after April 15 of the current year shall make and file the declaration required on or before June 15 of the current year, September 15 of the current year or December 31 of the current year, whichever date next follows the date on which the taxpayer first anticipates such net profit, and shall pay to the tax officer in equal installments the tax due on or before the quarterly payment dates that remain after the filing of the declaration.
- D. Every taxpayer shall, on or before April 15 of the succeeding year, make and file with the tax officer for the place of taxpayer's residence a final return showing the amount of net profits earned or received based on the method of accounting used by the taxpayer during the period beginning January 1 of the current year, and ending December 31 of the current year, the total amount of tax due on the net profits and the total amount of tax paid. At the time of filing the final return, the taxpayer shall pay to the tax officer the balance of tax due or shall make demand for refund or credit in the case of overpayment. Any taxpayer may, in lieu of paying the fourth quarterly installment of the estimated tax, elect to make and file with the resident tax officer on or before January 31 of the succeeding year, the final return.
- E. The DCED, in consultation with the Department of Revenue, shall provide by regulation for the filing of adjusted declarations of estimated net profits and for the payments of the estimated tax in cases where a taxpayer who has filed the declaration required under this subsection anticipates additional net profits not previously declared or has overestimated anticipated net profits.

- F. Every taxpayer who discontinues business prior to December 31 of the current year, shall, within thirty (30) days after the discontinuance of business, file a final return as required under this paragraph and pay the tax due.
- G. Every taxpayer who receives any other taxable income not subject to withholding under the Local Tax Enabling Act shall make and file with the tax officer for the place of taxpayer's residence a quarterly return on or before April 15 of the current year, June 15 of the current year, September 15 of the current year, and January 15 of the succeeding year, setting forth the aggregate amount of taxable income not subject to withholding by the taxpayer during the three-month periods ending March 31 of the current year, June 30 of the current year, September 30 of the current year, and December 31 of the current year, respectively, and subject to tax, together with such other information as the department may require. Every taxpayer filing a return shall, at the time of filing the return, pay to the tax officer the amount of tax due. The department shall establish criteria under which the tax officer may waive the quarterly return and payment of the tax and permit a taxpayer to file the receipt of taxable income on the taxpayer's annual return and pay the income tax due on or before April 15 of the succeeding year.
- H. For a taxpayer whose fiscal year is not a calendar year, the tax officer shall establish deadlines for filing, reporting and payment of taxes which provide time periods equivalent to those provided for a calendar year taxpayer.

**Section 11. Tax Officer Responsibilities.** The Tax Officer appointed by the Tax Collection Committee is hereby authorized and directed to take such actions to collect and remit the Earned Income and Net Profits Tax hereby levied as are authorized by the Local Tax Enabling Act, as amended from time to time, and shall carry out those responsibilities in accordance with the requirements of the Local Tax Enabling Act.

**Section 12. Actions of Tax Officer to Collect Unpaid Tax.** The Tax Officer is hereby authorized to take any and all actions authorized by the Local Tax Enabling Act as amended from time to time, and as otherwise permitted by law to determine and to collect taxes owed.

**Section 13. Interest and Penalties Against the Taxpayer.**

- A. Except as provided in Section 13. B. below, if the tax is not paid when due, interest at the rate the taxpayer is required to pay to the Commonwealth under Section 806 of the Act of April 9, 1929 (P.L. 343, No. 176), known as The Fiscal Code, on the amount of the tax, and an additional penalty of one percent (1%) of the amount of the unpaid tax for each month or fraction of a month during which the tax remains unpaid shall be added and collected but the amount shall not exceed fifteen percent (15%) in the aggregate. Where an action is brought for the recovery of the tax, the taxpayer liable for the tax shall, in addition, be liable for the costs of collection, interest and penalties.

- B. The Tax Officer, with the concurrence of the Tax Collection Committee, may abate interest or penalties that would otherwise be imposed for the nonreporting and underreporting of income tax liabilities or for the nonpayment of taxes previously imposed and due if the taxpayer voluntarily files delinquent returns and pays the taxes in full. The provisions of this paragraph shall not affect or terminate any petitions, investigations, prosecutions or other proceedings pending under this Ordinance, or prevent the commencement or further prosecution of any proceedings by the proper authorities for violations of this Ordinance.

**Section 14. Fines and Penalties for Taxpayer Violations.**

- A. Any Taxpayer who fails, neglects or refuses to make any declaration or return required by this Ordinance, any employer who fails, neglects or refuses to register, keep or supply records or returns required by the LTEA or to pay the tax deducted from employees, or fails, neglects or refuses to deduct or withhold the tax from employees, any taxpayer or employer who refuses to permit the tax officer appointed by a tax collection committee or an employee or agent of the tax officer to examine books, records and papers, and any taxpayer or employer who knowingly makes any incomplete, false or fraudulent return, or attempts to do anything whatsoever to avoid the full disclosure of the amount of income in order to avoid the payment of income taxes shall, upon conviction thereof, be sentenced to pay a fine of not more than \$2,500.00 for each offense and reasonable costs, and in default of the payment of said fine and costs, to imprisonment for not more than six (6) months.
- B. Any employer required under this Ordinance to collect, account for and distribute taxes who willfully fails to collect or truthfully account for and distribute taxes, commits a misdemeanor and shall, upon conviction, be sentenced to pay a fine not exceeding \$25,000.00 or to imprisonment not exceeding two years, or both.
- C. The penalties imposed under this subsection shall be in addition to any other costs and penalties imposed by this Ordinance.
- D. The failure of any person to obtain forms required for making the declaration or returns require by this Ordinance shall not excuse the person from making the declaration or return.

**Section 15. Severability.** The provisions of this Ordinance are severable. If any sentence, clause, or section of this Ordinance is for any reason found to be unconstitutional, illegal, or invalid, such unconstitutionality, illegality, or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses or sections of this Ordinance. It is hereby declared to be the intent of this political subdivision that this Ordinance would have been adopted without such unconstitutional, illegal, or invalid sentence, clause, or section included herein.



**Section 16. Repeal.** All ordinances and resolutions and parts of ordinances and resolutions inconsistent with this Ordinance are hereby repealed effective January 1, 2012, and all ordinances and resolutions previously adopted by or in effect in this political subdivision which purport to levy or assess a tax on earned income or net profits are hereby repealed and superseded by this Ordinance effective January 1, 2012, except that provisions relating to the reporting and collection of taxes imposed in tax years preceding 2012 shall, as applicable, remain in effect.

**Section 17. Effective Date.** This Ordinance shall be effective at the earliest possible time permitted in accordance with the applicable provisions of the laws governing this political subdivision and the tax hereby levied shall be effective for calendar year 2012 and each year thereafter.

ORDAINED AND ENACTED, by the Board of Supervisors of Sadsbury Township this  
8th day of November, 2011.

ATTEST:

SADSBURY TOWNSHIP BOARD OF SUPERVISORS

By: Rose A. Humau  
Secretary

By: Kevin R. Van Hook  
Chairman

By: Roy W. Whal  
Supervisor

By: \_\_\_\_\_  
Supervisor

**APPENDIX A - OPERATION AND MAINTENANCE AGREEMENT**

**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 Sadsbury Township, Crawford County, Pennsylvania, (hereinafter "Municipality");

**WITNESSETH**

**WHEREAS**, the Landowner is the owner of certain real property in \_\_\_\_\_ (municipality), as recorded by deed in the land records of Crawford County, Pennsylvania, Deed Book \_\_\_\_\_ at Page \_\_\_\_\_, (hereinafter "Property").

**WHEREAS**, the Landowner is proceeding to build and develop the Property; and

**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, or more often as determined to be appropriate, 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 }  
 County of Crawford, Pennsylvania } SS:

On this, the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me  
 the undersigned officer, personally appeared

\_\_\_\_\_  
 known to me (or satisfactorily proven) to be the person whose name subscribed to the within  
 instrument, and acknowledges that \_\_\_\_\_ executed the same for the purpose therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and seal.

My Commission Expires

\_\_\_\_\_  
 Official Title

**APPENDIX B – LOW IMPACT DEVELOPMENT PRACTICES**

## LOW IMPACT DEVELOPMENT PRACTICES ALTERNATIVE APPROACHES FOR MANAGING STORMWATER RUNOFF

Natural hydrologic conditions may be altered radically by poorly planned development practices, such as introducing unneeded impervious surfaces, destroying existing drainage swales, constructing unnecessary storm sewers, and changing local topography. A traditional drainage approach of development has been to remove runoff from a site as quickly as possible and capture it in a detention basin. This approach leads ultimately to the degradation of water quality, as well as expenditure of additional resources for detaining and managing concentrated runoff at some downstream location.

The recommended alternative approach is to promote practices that will minimize post-development runoff rates and volumes, which will minimize needs for artificial conveyance and storage facilities. To simulate pre-development hydrologic conditions, forced infiltration is often necessary to offset the loss of infiltration by creation of impervious surfaces. The ability of the ground to infiltrate runoff depends upon the soil types and its conditions.

Preserving natural hydrologic conditions requires careful alternative site design considerations. Site design practices include preserving natural drainage features, minimizing impervious surface area, reducing the hydraulic connectivity of impervious surfaces, and protecting natural depression storage. A well-designed site will contain a mix of all those features. 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. However, this objective is often not accomplished in land development. In fact, commonly held drainage philosophy encourages just the opposite pattern - streets and adjacent storm sewers typically are located in the natural headwater valleys and swales, thereby replacing natural drainage functions with a completely impervious system. As a result, runoff and pollutants generated from impervious surfaces flow directly into storm sewers with no opportunity for attenuation, infiltration, or filtration. Developments designed to fit site topography also minimize the amount of grading on site.
- ◆ **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. Traditional development practices eliminate these depressions by filling or draining, thereby obliterating their ability to reduce surface runoff volumes and trap pollutants. The volume and release-rate characteristics of depressions should be protected in the design of the development site. 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.** Impervious surfaces are significantly less of a problem if they are not directly connected to an impervious conveyance system (such as storm sewer). Two basic ways to reduce hydraulic connectivity are: routing of roof runoff over lawns; and reducing the use of storm sewers.

Site grading should promote increasing travel time of stormwater runoff and should help reduce concentration of runoff to a single point in the development.

- ◆ **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. The practice requires educating local citizens and public works officials, who expect runoff to disappear shortly after a rainfall event.
- ◆ **Reducing Street Widths.** Street widths can be reduced by either eliminating on-street parking or by reducing cartway widths. Municipal planners and traffic designers should encourage narrower neighborhood streets, which ultimately could lower maintenance and maintenance related costs.
- ◆ **Limiting Sidewalks to One Side of the Street.** A sidewalk on one side of the street may suffice in low-traffic neighborhoods. The lost sidewalk could be replaced with bicycle/recreational trails that follow back-of-lot lines. Where appropriate, backyard trails should be constructed using pervious materials.
- ◆ **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.
- ◆ **Reducing Building Setbacks.** Reducing building setbacks reduces driveway and entry walks and is most readily accomplished along low-traffic streets where traffic noise is not a problem.
- ◆ **Constructing Cluster Developments.** Cluster developments can also reduce the amount of impervious area for a given number of lots. The biggest savings is in street length, which also will reduce costs of the development. Cluster development “clusters” the construction activity onto less-sensitive areas without substantially affecting the gross density of development.

In summary, careful consideration of the existing topography and implementation of a combination of the above mentioned techniques may avoid construction of costly stormwater control measures. Other benefits include: reduced potential of downstream flooding, reduced water quality degradation of receiving streams and water bodies, enhancement of aesthetics, and reduction of development costs. 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.

**APPENDIX C – FEE REIMBURSEMENT AGREEMENT**



## FEE REIMBURSEMENT AGREEMENT

**THIS AGREEMENT**, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between \_\_\_\_\_, (hereinafter the "Landowner"), and Sadsbury Township, Crawford County, Pennsylvania, (hereinafter "Municipality");

### WITNESSETH

**WHEREAS**, the Landowner is the owner of certain real property in Sadsbury Township, as recorded by deed in the land records of Crawford County, Pennsylvania, Deed Book \_\_\_\_\_ at Page \_\_\_\_\_, (hereinafter "Property").

**WHEREAS**, the Landowner is proceeding to build and develop the Property; and

**WHEREAS**, the Landowner has submitted a SWM Site Plan for review and approval by the Municipality (hereinafter referred to as the "Plan") for the property identified herein; and

**WHEREAS**, the Developer has requested and/or required the Municipality approval and/or review of its proposed plans, and the Municipality is willing to authorize its professional consultants to review said Plan and/or proposal upon execution of this agreement, and upon deposit of an escrow account according to the current Fee Schedule.

**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 and Municipality hereby authorize and direct the Municipality's professional consultants, as defined at Section 107 of the Pennsylvania Municipalities Planning Code to review Landowner's plans or proposals to use its property, and to make such recommendations and specifications as may be necessary with respect to such plans in accordance with all applicable Municipality ordinances, and State and Federal rules and regulations.
2. The Landowner and Municipality acknowledge that the Municipality will incur costs and fees relating to the review of Landowner's plans by its professional consultants, and Landowner agrees to pay and/or reimburse the Municipality for such costs in accordance with this agreement.
3. The Landowner shall pay the professional consultant's charges and fees for the following: (a) review of any and all Stormwater Management Plans, studies, or other correspondence relating to the Landowners submission; (b) attendance at any and all meetings relating to Landowner's plan; (c) preparation of any reports, legal documents, or other correspondence relating to Landowner's plan or proposal; (d) inspections during construction; (e) survey measurements and analyses of the constructed facilities for purposes of ensuring compliance with the approved SWM Site Plan; (f) administrative cost and incurred expenses relating to the administration of this agreement; and (g) inspections following completion of construction for a period of 10 years. It is understood by the execution of this agreement that the Landowner specifically accepts the Fee Schedule currently in effect in the Municipality.
4. The Landowner hereby agrees to deposit with the Municipality the sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_), payable as cash in U.S. Dollars or check drawn on a Pennsylvania bank to defray the costs of the future inspections described in Paragraph 3(g) above, upon execution of this Agreement, which shall be held in an interest bearing account by the Municipality.

5. The Landowner hereby agrees to deposit with the Municipality the sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_), payable as cash in U.S. Dollars or check drawn on a Pennsylvania bank, as security for the payment of all costs and expenses, charges and fees as set forth in Paragraph 3(a) through 3(g) above, upon execution of this agreement, which shall be held in an interest-bearing account by the Municipality. In the event that the above deposited escrow fund shall fall below fifty percent (50%) of the original deposit, the Landowner shall immediately, upon receipt of written notice from the Municipality or its agent(s), deposit sums with the Municipality necessary to replenish the account to its original balance. In the event that this is insufficient to pay current Municipality incurred expenses, Landowner agrees to pay the total amount currently due for Municipality incurred expenses without delay in addition to re-establishing the base escrow account balance. The Municipality will use its best efforts to advise the Landowner of the impending likelihood that its costs have exceeded the required escrow account sums as described above.
6. Landowner and Municipality agree that upon completion of construction and determination of the acceptability of such construction by the Municipality, all unused portions of the escrow account as described in Paragraph 5 above shall be returned to the applicant upon written request to the Municipality.
7. Landowner and Municipality acknowledge that the Ordinance and appropriate fee schedules require Landowner to pay Municipality's professional consultant fees relating to this plan or project, and in the even that Landowner fails to provide sufficient funds in the above-described revolving escrow account upon fifteen (15) days written notice to the Landowner or make the initial deposit payment described above within five (5) days of the date of this agreement, Landowner shall be in default of this agreement and in violation of the above Sections of Ordinance. In the event of Landowner's default as described above, the Municipality may refuse to issue any permit or grant any approval necessary to further improve or develop the subject site until such time as the terms of this Agreement are strictly met by Landowner. Moreover, final approval or further review may be denied or delayed until such time as the terms of this agreement are strictly met by Landowner.
8. Landowner and the Municipality further agree that all fees or costs arising out of this Agreement shall be paid prior to the issuance of any permit, occupancy or otherwise, for the use, improvement or construction of the buildings as proposed on the Landowner's plan. The Landowner agrees and acknowledges that no permit, occupancy or otherwise, or recordable plans, shall be released by the Municipality until all outstanding professional consultant fees and costs are paid to the Municipality, and provided that the Landowner is not in default under this agreement.
9. The Landowner may at any time terminate all further obligations under this Agreement by giving fifteen (15) days written notice to the Municipality that it does not desire to proceed with the development as set forth on the plan and upon receipt of such written notice by the Landowner to the Municipality, the Landowner shall be liable to the Municipality for its costs and expenses incurred to the date and time of its receipt of the notice, plus the applicable administrative costs and expenses as outlined in Paragraph 3 above.
10. The Landowner and the Municipality further agree that the Municipality shall have the right and privilege to sue the Landowner or then property owner in assumpsit for reimbursement or to lien the property or both, in its sole discretion, for any expense in excess of the then current balance of funds on deposit with the Municipality in accordance with this agreement incurred by the Municipality by reason of any review, supervision and inspection of Landowner's project by its professionals including, but not limited to, the Municipality Engineer and Solicitor. The Municipality's election of its remedies under this paragraph shall not constitute a waiver of any other remedies the Municipality may have.
11. The Landowner and the Municipality acknowledge that this agreement represents their full understanding as to the Municipality's reimbursement for professional or consultant services.

12. This agreement shall be binding on and insure to the benefit of the successors and assigns of Landowner. The Municipality shall receive thirty (30) days advance written notice from Landowner of any proposed assignment of Landowner's rights and responsibilities under this Agreement.

ATTEST:

WITNESS the following signatures and seals:

(SEAL)

For the Municipality:

\_\_\_\_\_

For the Landowner:

\_\_\_\_\_

Commonwealth of Pennsylvania }  
County of Crawford, Pennsylvania } SS:

On this, the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me  
the undersigned officer, personally appeared

\_\_\_\_\_

known to me (or satisfactorily proven) to be the person whose name subscribed to the within  
instrument, and acknowledges that \_\_\_\_\_ executed the same for the purpose therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and seal.

My Commission Expires

\_\_\_\_\_

Official Title

**APPENDIX D – SMALL PROJECTS SWM APPLICATION**

# Crawford County - Small Project Stormwater Management Application

Per Sadsbury Township's Act 167 Stormwater Management Ordinance, a stormwater management plan is required whenever more than 2,500 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.

*To Calculate Impervious Surfaces Please Complete This Table*

Surface Type	Length	X	Width	=	Proposed Impervious Area
Building		X		=	
		X		=	
		X		=	
Driveway		X		=	
		X		=	
		X		=	
Parking Areas		X		=	
		X		=	
		X		=	
Patios/Walks		X		=	
		X		=	
		X		=	
Other		X		=	
		X		=	
<b>Total Impervious Surface Area to be managed (sum of all areas)</b>					

**If the Total Impervious Surface Area is LESS THAN 2,500 Square Feet, read, acknowledge and sign below.**

**If the Total Impervious Surface Area is GREATER THAN 2,500 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, Sadsbury Township 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 representatives of Sadsbury Township are granted access to the above described property for review and inspection as may be required. By signature below I acknowledge the requirements of Section 302.A, 302.B and 302.C of Sadsbury Township's Stormwater Management Ordinance, and hereby state that the Regulated Activity to be undertaken will comply with these Sections.

**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

Length of Pervious Flow Path from discharge point * (ft)	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

- 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.

\* 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 (ft <sup>3</sup> )
Building (area per downspout)		X		=		÷	6	=
		X		=		÷	6	=
		X		=		÷	6	=
		X		=		÷	6	=
Driveway		X		=		÷	6	=
		X		=		÷	6	=
		X		=		÷	6	=
Parking Areas		X		=		÷	6	=
		X		=		÷	6	=
		X		=		÷	6	=
Patios/Walks		X		=		÷	6	=
		X		=		÷	6	=
		X		=		÷	6	=
Other		X		=		÷	6	=
		X		=		÷	6	=
		X		=		÷	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
6 ft <sup>3</sup> per tree planted	10 ft <sup>3</sup> per tree planted

**Criteria**

To receive credit for planting trees, the following must be met:

- Trees must be native species (see below), minimum 2" caliper and 6 feet tall (min).
- Trees shall be adequately protected during construction.
- Trees shall be maintained until redevelopment occurs.
- No more than 25% of the runoff volume can be mitigated through the use of trees.
- Dead trees shall be replaced within 6 months.
- Non-native species are not applicable.

	<b>Req'd Capture Volume (ft<sup>3</sup>)</b>
-	
	<b>Tree Planting Credit (ft<sup>3</sup>)</b>
	<b>Capture Volume to be managed (ft<sup>3</sup>)</b>

**Sizing of BMP**

	How much of the Volume will you manage with a Rain Garden?
+	
	How much of the Volume will you manage with a Sump or Trench?
	<b>Capture Volume to be managed (ft<sup>3</sup>)</b>

Enter the volumes into the **Small Project SWM Plan Worksheet** on the next sheet.

**Native Species Trees (Common Name)**

- |  |  |
|--|--|
| - Blackgum                               | - Sycamore, American                                   |
| - Arrow-wood, southern                   | - Cotton-wood, eastern                                 |
| - Box-elder                              | - Aspen, big-tooth or quaking                          |
| - Maple, (red or silver)                 | - Cherry, black  |
| - Birch, (river or gray)                 | - Oak, (white, swamp white, scarlet, pin, willow, red) |
| - Ironwood                               | - Willow, black  |
| - Hickory, sweet pignut or shag-bark     | - Bald Cypress   |
| - Cedar, (Atlantic white or eastern red) | - Basswood, American                                   |
| - Beech, American                        | - Serviceberry, (downy or shadbush)                    |
| - Ash, (white, black or green)           | - Redbud, eastern                                      |
| - Holly, American                        | - Dogwood, flowering                                   |
| - Tuliptree                              | - Magnolia, sweetbay                                   |
|  | - Pine, (pitch or eastern white)                       |

## 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 Sadsbury Township approves a stormwater management plan. The *Crawford County Act 167 Stormwater Management Plan* will assist you in preparing the necessary information and plans for Sadsbury Township 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 Sadsbury Township for approval. A design by a qualified professional may be required for more complex sites.

### PLEASE INITIAL BELOW TO INDICATE THE STORMWATER MANAGEMENT PLAN FOR 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

The relevant details from *Crawford County Act 167 Stormwater Management Plan* will be installed in their entirety AND the system will be located as not to adversely affect other property, nor any septic systems or drinking water wells on this, or any other, parcel.

To meet this requirement, the following will be installed and maintained:

Capture Volume to be managed (ft <sup>3</sup> )			Conversion	Surface Area of BMPs (ft <sup>2</sup> )
	<b>By Rain Garden</b> 6" ponding; 2' soil depth	x	1.20	
	<b>Dry Well or Infiltration Trench</b> 2½' aggregate depth	x	1.25	
	Total		Total	

In lieu of meeting the above, an alternative and/or professional design is attached for approval AND the system will be located as not to adversely affect other property, any septic systems or drinking water wells on this, or any other, parcel.

#### Site Sketch Plan showing:

- Property lines with dimensions
- Proposed buildings with dimensions
- Proposed impervious surfaces with dimensions
- Proposed septic system, if applicable
- Proposed well site, if applicable
- Proposed stormwater management system(s)

#### Operation and Maintenance Agreement

**Condition on approval** - The stormwater management plan must be fully implemented prior to a request for final inspection 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.
- I acknowledge the requirements of Section 302.A, 302.B and 302.C of Sadsbury Township's Stormwater Management Ordinance, and hereby state that the Regulated Activity to be undertaken will comply with these Sections.

\_\_\_\_\_

Owner                      Date: \_\_\_\_\_

**APPENDIX E – RELEASE RATE PLATE**

**APPENDIX F – STORMWATER MANAGEMENT DESIGN CRITERIA**

**TABLE F-1 - RATIONAL METHOD RUNOFF COEFFICIENTS**

Hydraulic Soil Group	Storm	A			B			C			D		
		0-2%	2-6%	+6%	0-2%	2-6%	+6%	0-2%	2-6%	+6%	0-2%	2-6%	+6%
Slope Range													
Cultivated Land	<25yr	0.08	0.13	0.16	0.11	0.15	0.21	0.14	0.19	0.26	0.18	0.23	0.31
	≥25yr	0.14	0.08	0.22	0.16	0.21	0.28	0.2	0.25	0.34	0.24	0.29	0.41
Pasture	<25yr	0.12	0.2	0.3	0.18	0.28	0.37	0.24	0.34	0.44	0.3	0.4	0.5
	≥25yr	0.15	0.25	0.37	0.23	0.34	0.45	0.3	0.42	0.52	0.37	0.5	0.62
Meadow	<25yr	0.10	0.16	0.25	0.14	0.22	0.3	0.2	0.28	0.36	0.24	0.3	0.4
	≥25yr	0.14	0.22	0.3	0.2	0.28	0.37	0.26	0.35	0.44	0.3	0.4	0.5
Forest	<25yr	0.05	0.08	0.11	0.08	0.11	0.14	0.1	0.13	0.16	0.12	0.16	0.2
	≥25yr	0.08	0.11	0.14	0.1	0.14	0.18	0.12	0.16	0.2	0.15	0.2	0.25
Residential													
1/8 Acre	<25yr	0.25	0.28	0.31	0.27	0.3	0.35	0.3	0.33	0.38	0.33	0.36	0.42
	≥25yr	0.33	0.37	0.4	0.35	0.39	0.44	0.38	0.42	0.49	0.41	0.45	0.54
1/4 Acre	<25yr	0.22	0.26	0.29	0.24	0.29	0.33	0.27	0.31	0.36	0.3	0.34	0.4
	≥25yr	0.3	0.34	0.37	0.33	0.37	0.42	0.36	0.4	0.47	0.38	0.42	0.52
1/3 Acre	<25yr	0.19	0.23	0.26	0.22	0.26	0.3	0.25	0.29	0.34	0.28	0.32	0.39
	≥25yr	0.28	0.32	0.35	0.3	0.35	0.39	0.33	0.38	0.45	0.36	0.4	0.5
1/2 Acre	<25yr	0.16	0.2	0.24	0.19	0.23	0.28	0.22	0.27	0.32	0.26	0.3	0.37
	≥25yr	0.25	0.29	0.32	0.28	0.32	0.36	0.31	0.35	0.42	0.34	0.38	0.48
1 Acre	<25yr	0.14	0.19	0.22	0.17	0.21	0.26	0.2	0.25	0.31	0.24	0.29	0.35
	≥25yr	0.22	0.26	0.29	0.24	0.28	0.34	0.28	0.32	0.4	0.31	0.35	0.46
Industrial	<25yr	0.67	0.68	0.68	0.68	0.68	0.69	0.68	0.69	0.69	0.69	0.69	0.7
	≥25yr	0.85	0.85	0.86	0.85	0.86	0.86	0.86	0.86	0.87	0.86	0.86	0.88
Commercial	<25yr	0.71	0.71	0.72	0.71	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
	≥25yr	0.88	0.88	0.89	0.89	0.89	0.89	0.89	0.89	0.9	0.89	0.89	0.9
Streets	<25yr	0.7	0.71	0.72	0.71	0.72	0.74	0.72	0.73	0.76	0.73	0.75	0.78
	≥25yr	0.76	0.77	0.79	0.8	0.82	0.84	0.84	0.85	0.89	0.89	0.91	0.95
Open Space	<25yr	0.05	0.1	0.14	0.08	0.13	0.19	0.12	0.17	0.24	0.16	0.21	0.28
	≥25yr	0.11	0.16	0.2	0.14	0.19	0.26	0.18	0.23	0.32	0.22	0.27	0.39
Parking or Impervious	<25yr	0.85	0.86	0.87	0.85	0.86	0.87	0.85	0.86	0.87	0.85	0.86	0.87
	≥25yr	0.95	0.96	0.97	0.95	0.96	0.97	0.95	0.96	0.97	0.95	0.96	0.97

Source: Rawls, W.J., S.L. Long, and R.H. McCuen, 1981. Comparison of Urban Flood Frequency Procedures. Preliminary Draft Report prepared for the Soil Conservation Service, Beltsville, Maryland.

**For simplification, a designer may use 0.3 for all pervious areas and 0.95 for all impervious areas.**

TABLE F-2 - RUNOFF CURVE NUMBERS (FROM NRCS (SCS) TR-55)

Runoff Curve Numbers for Urban Areas					
Cover Description		Curve Numbers for Hydrologic Soil Groups			
<i>Cover Type and Hydrologic Condition</i>	<i>Average Percent Impervious Area</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>
<i>Fully Developed Urban Areas (Vegetation Established)</i>					
Open Space (lawns, parks, golf courses, etc):					
Poor Condition (grass cover < 50%)		68	79	86	89
Fair Condition (grass cover 50% to 75%)		49	69	79	84
Good Condition (grass cover > 75%)		39	61	74	80
Impervious Areas:					
Paved Parking Lots, Roofs, Driveways, etc.		98	98	98	98
Streets and Roads:					
Paved: Curbed and Storm Sewers		98	98	98	98
Paved: Open Ditches		83	89	92	93
Gravel		76	85	89	91
Dirt		72	82	87	89
Urban Districts:					
Commercial and Business	85%	89	92	94	95
Industrial	72%	81	88	91	93
Residential Districts by Average Lot Size:					
1/8 Acres or less	65%	77	85	90	92
1/4 Acre	38%	61	75	83	87
1/3 Acre	30%	57	72	81	86
1/2 Acre	25%	54	70	80	85
1 Acre	20%	51	68	79	84
2 Acres	12%	46	65	77	82

Runoff Curve Numbers for Cultivated Agricultural Lands						
Cover Description			Curve Numbers			
Cover Type	Treatment	Hydrologic Condition	A	B	C	D
Fallow	Bare Soil	--	77	86	91	94
	Crop Residue Cover (CR)	Poor	76	85	90	93
		Good	74	83	88	90
Row Crops	Straight Row (SR)	Poor	72	81	88	91
		Good	67	78	85	89
	SR + CR	Poor	71	80	87	90
		Good	64	75	82	85
	Contoured (C)	Poor	70	79	84	88
		Good	65	75	82	86
	C + CR	Poor	69	78	83	87
		Good	64	74	81	85
	Contoured & Terraced (C & T)	Poor	66	74	80	82
		Good	62	71	78	81
C & T + CR	Poor	65	73	79	81	
	Good	61	70	77	80	
Small Grain	SR	Poor	65	76	84	88
		Good	63	75	83	87
	SR + CR	Poor	64	75	83	86
		Good	60	72	80	84
	C	Poor	63	74	82	85
		Good	61	73	81	84
	C + CR	Poor	62	73	81	84
		Good	60	72	80	83
	C & T	Poor	61	72	79	82
		Good	59	70	78	81
C & T + CR	Poor	60	71	78	81	
	Good	58	69	77	80	
Close Seeded or Broadcast Legumes Or Rotation Meadow	SR	Poor	66	77	85	89
		Good	58	72	81	85
	C	Poor	64	75	83	85
		Good	55	69	78	83
	C & T	Poor	63	73	80	83
		Good	51	67	76	80
Runoff Curve Numbers for Other Agricultural Lands						
Pasture, Grassland, or Range – Continuous Forage for Grazing		Poor	68	79	86	89
		Fair	49	69	79	84
		Good	39	61	74	80
Meadow – Continuous Grass, Protected from Grazing and Generally Mowed for Hay		--	30	58	71	78
Woods – Grass Combination (orchard or tree farm)		Poor	57	73	82	86
		Fair	43	65	76	82
		Good	32	58	72	79
Woods		Poor	45	66	77	83
		Fair	36	60	73	79
		Good	30	55	70	77
Farmsteads – Buildings, Lanes, Driveways and Surrounding Lots.		--	59	74	82	86