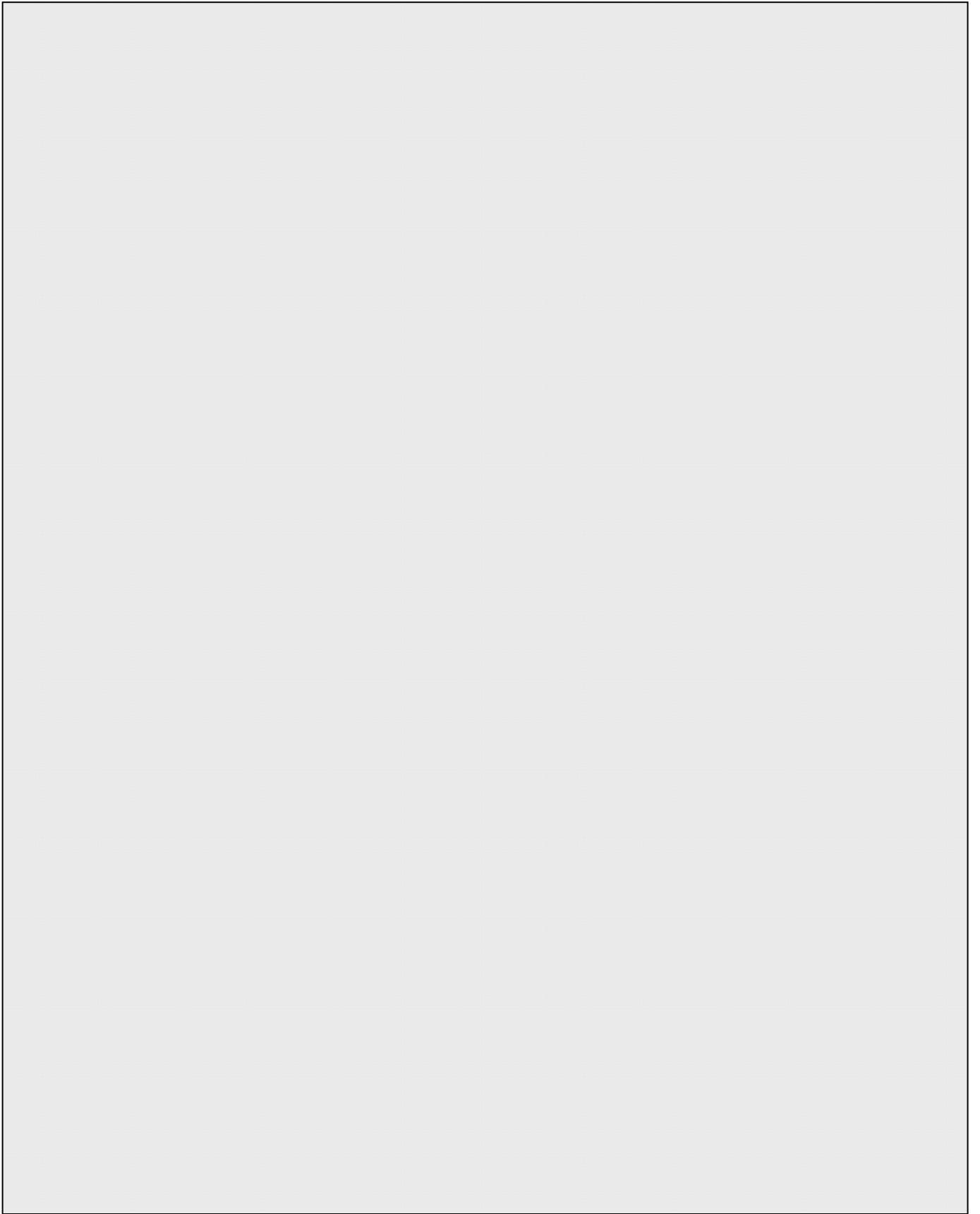


Stormwater Management Ordinance

Montour County
Act 167 County-Wide
Stormwater Management Plan

Adopted June 1, 2010



STORMWATER MANAGEMENT ORDINANCE

Implementing the Requirements of the

Montour County Stormwater Management Plan

Resolution R-25-10

MONTOUR COUNTY, PENNSYLVANIA

Adopted at a Public Meeting Held on
June 1, 2010

TABLE OF CONTENTS

ARTICLE I – GENERAL PROVISIONS	3
SECTION 101. SHORT TITLE	3
SECTION 102. STATEMENT OF FINDINGS.....	3
SECTION 103. PURPOSE.....	3
SECTION 104. STATUTORY AUTHORITY	4
SECTION 105. APPLICABILITY	4
SECTION 106. REPEALER	5
SECTION 107. SEVERABILITY.....	5
SECTION 108. COMPATIBILITY WITH OTHER ORDINANCE REQUIREMENTS	5
SECTION 109. DUTY OF PERSONS ENGAGED IN THE DEVELOPMENT OF LAND	5
ARTICLE II – DEFINITIONS	6
ARTICLE III – STORMWATER MANAGEMENT STANDARDS.....	14
SECTION 301. GENERAL PROVISIONS	14
SECTION 302. EXEMPTIONS/MODIFICATIONS	16
SECTION 303. WAIVERS.....	18
SECTION 304. VOLUME CONTROLS.....	19
SECTION 305. RATE CONTROLS.....	21
SECTION 306. SENSITIVE AREAS AND STORMWATER HOTSPOTS	21
ARTICLE IV – E&S STANDARDS.....	23
SECTION 401. EROSION AND SEDIMENTATION REQUIREMENTS DURING EARTH DISTURBANCE ACTIVITIES	23
ARTICLE V – RIPARIAN BUFFER STANDARDS	24
SECTION 501. RIPARIAN BUFFER REQUIREMENTS	24
SECTION 502. RIPARIAN BUFFER EASEMENTS	25
ARTICLE VI – DESIGN CRITERIA	26
SECTION 601. DESIGN CRITERIA FOR STORMWATER MANAGEMENT & DRAINAGE FACILITIES.....	26
SECTION 602. CALCULATION METHODOLOGY.....	32
SECTION 603. DOWNSTREAM HYDRAULIC CAPACITY ANALYSIS	35
ARTICLE VII – SWM SITE PLAN & REPORT REQUIREMENTS	37
SECTION 701. GENERAL REQUIREMENTS	37
SECTION 702. SWM SITE PLAN & REPORT CONTENTS	37
SECTION 703. SWM SITE PLAN & REPORT SUBMISSION.....	41
SECTION 704. SWM SITE PLAN & REPORT REVIEW	41
SECTION 705. MODIFICATION OF PLANS.....	41
SECTION 706. RESUBMISSION OF DISAPPROVED SWM SITE PLAN & REPORT	41
SECTION 707. AUTHORIZATION TO CONSTRUCT AND TERM OF VALIDITY.....	41
SECTION 708. RECORD DRAWINGS, COMPLETION CERTIFICATE & FINAL INSPECTION	41
ARTICLE VIII – EASEMENTS	43
SECTION 801. EASEMENTS.....	43
ARTICLE IX – MAINTENANCE RESPONSIBILITIES	44
SECTION 901. FINANCIAL GUARANTEE	44
SECTION 902. MAINTENANCE RESPONSIBILITIES	44
SECTION 903. MAINTENANCE AGREEMENT FOR PRIVATELY OWNED STORMWATER FACILITIES	45

ARTICLE X – INSPECTIONS 46
SECTION 1001. SCHEDULE OF INSPECTIONS..... 46
SECTION 1002. RIGHT OF ENTRY..... 46

ARTICLE XI – ENFORCEMENT AND PENALTIES 47
SECTION 1101. NOTIFICATION 47
SECTION 1102. ENFORCEMENT 47
SECTION 1103. PUBLIC NUISANCE..... 47
SECTION 1104. SUSPENSION AND REVOCATION..... 47
SECTION 1105. PENALTIES..... 48
SECTION 1106. APPEALS 48

ARTICLE XII – PROHIBITIONS 49
SECTION 1201. PROHIBITED DISCHARGES AND CONNECTIONS 49
SECTION 1202. ROOF DRAINS 49
SECTION 1203. ALTERATION OF BMPs 49

ARTICLE XIII – FEES AND EXPENSES 50
SECTION 1301. GENERAL 50
SECTION 1302. EXPENSES COVERED BY FEES 50
SECTION 1303. RECORDING OF APPROVED SWM SITE PLAN AND RELATED AGREEMENTS 50

APPENDIX A – OPERATION AND MAINTENANCE AGREEMENT

APPENDIX B – LOW IMPACT DEVELOPMENT PRACTICES

APPENDIX C – STORMWATER MANAGEMENT DESIGN CRITERIA

APPENDIX D – REVIEW FEE REIMBERSEMENT AGREEMENT

APPENDIX E – SMALL PROJECT SWM PLAN APPLICATION

ARTICLE I - GENERAL PROVISIONS

Section 101. Short Title

This Ordinance shall be known and may be cited as the "Montour County Stormwater Management Ordinance."

Section 102. Statement of Findings

The governing body of Montour County (hereinafter "Montour County" and/or "Municipality") 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 that 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 Montour 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 (O&M) 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:

Montour County 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", the Montour County Subdivision and Land Development Ordinance, and other applicable laws.

B. Secondary Authority:

Montour County 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

This Ordinance shall apply to all areas of Montour County, any Regulated Activity within Montour County, and all stormwater runoff entering into Montour County's separate storm sewer system from lands within the boundaries of Montour County.

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
- 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 Montour County 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.

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 Montour County Conservation District. The Montour 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 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 Montour 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.

Main Stem (Main Channel) - Any stream segment or other runoff conveyance facility used as a reach in the Montour 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 - Montour 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 Montour County.

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 that 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 concentrations of hydrocarbons, trace metals, or toxicants than are found in typical stormwater runoff.

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 Montour County Stormwater Management Plan for managing stormwater runoff in Montour 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 - Region or 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 (E&S) 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.
- 3. For projects that add impervious area to a parcel, the total impervious area on the parcel is subject to the requirements of 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 (LID) 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 SWM Plan shall be submitted to the downstream Municipal'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 demonstrate that the following BMPs are being utilized 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 must demonstrate that the proposed development/additional impervious area will 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 various requirements of this Ordinance according to the following table:

New Impervious Area ^{1, 2} (square footage)	Applicant Must Provide
0 – 5,000	---
> 5,000	Rate Controls, Volume Controls & SWM Site Plan

¹ Gravel in existing condition shall be considered pervious and gravel in proposed condition shall be considered impervious.

² New impervious area since the date of adoption of this Ordinance.

- E. The Municipality may deny or revoke any exemption pursuant to this Section at any time for any project that the Municipality believes may pose a threat to public health, safety, property or the environment.
- F. 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.
- G. 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 alternative controls are documented to be acceptable to PADEP (or Delegated Authority), for NPDES requirements pertaining to post-construction stormwater management requirements.

2. 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.
- H. Agricultural activities are exempt from requirements of this Ordinance provided the activities are performed according to the requirements of 25 PA Code Chapter 102.
 - I. 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.

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 will then consider waiver requests in accordance with Section 301.D, except waiver requests for Sections 601.B and 601.C, which will be at the Municipality's 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 and Conservation District 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 and/or Solicitor in any review of a waiver request.

- G. In granting waivers, the Municipality may impose reasonable conditions at will, in its judgment, to substantially secure 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 or volume 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 percent (20%) 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 one (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 two (2) inches of runoff from all new impervious surfaces.
 - b. At least the first one (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:

Pollutant Load	Units	Required reduction (%)
Total Suspended Solids (TSS)	Pounds	85
Total Phosphorous (TP)	Pounds	85
Total Nitrate (NO ₃)	Pounds	50

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

C. The applicable Worksheets from the BMP Manual must be used in calculations to establish Volume Control.

Section 305. Rate Controls

A. Lands contained within Montour 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, 24-hour storm events.

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

1. The post-development peak discharge rates shall be in accordance with the approved release rate map for the individual watershed.

Section 306. Sensitive Areas and Stormwater Hotspots

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

1. Sensitive areas are defined as those areas that, if developed, have the potential to endanger a water supply. These areas consist of the delineated one-year zone of contribution and direct upslope areas tributary to the water supply wells. Municipalities may update the sensitive area boundaries based on new research or studies as required.
2. Stormwater Hotspots are land development projects that have a high potential to endanger local water quality, and could potentially threaten 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), two-foot contour interval mapping shall be provided to define the limits of the sensitive area. If the project site is adjacent to, but within 500 linear feet of a defined Sensitive Area, a five-foot contour interval map defining the limits of the Sensitive Area shall be included in the Stormwater Management Plan to document the site's location relative to the sensitive area.

2. Stormwater Hotspot developments may be required to prepare and implement a stormwater pollution prevention plan and file notice of intent as required under the provision of the EPA Industrial Stormwater NPDES Permit Requirements.
3. Stormwater Hotspot developments must use an acceptable 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.
4. Stormwater Hotspot developments and development in sensitive areas must include Riparian Buffers as defined in Article VI.

ARTICLE IV - E&S STANDARDS

Section 401. E&S Requirements During Earth Disturbance Activities

- A. The applicant shall meet requirements as contained in 25 PA Code, Chapters 92 and 102 as required and applicable as follows:
 - 1. The implementation and maintenance of E&S control BMPs.
 - 2. Development of written plans.
 - 3. Submission of plans for approval.
 - 4. Obtaining E&S Control and NPDES permits.
 - 5. Maintaining plans and permits on site.

- B. Evidence of any necessary plan or permit approval for Earth Disturbance activities from PADEP or the Montour County Conservation District must be provided to the Municipality.

- C. A copy of the approved E&S Control Plan and any other permit, as required by PADEP or the Montour County Conservation District, shall be available at the project site at all times if required under Chapter 102.

- D. Construction of temporary roadways (e.g., for utility construction, timber harvesting, etc.) shall comply with all applicable standards for erosion and sedimentation control and stream crossing regulations under 25 PA Code, Chapters 102 and 105. The E&S Control Plan shall be submitted to the Montour County Conservation District for approval and shall address the following, as applicable:
 - 1. Design of the roadway system, including haul roads, skid roads, landing areas, trails, and storage and staging areas.
 - 2. Runoff control structures (e.g., diversions, culverts, detention ponds, etc.).
 - 3. Stream crossings for both perennial and intermittent streams.
 - 4. Access to public roadways, including design of rock construction entrance for mud and debris control.
 - 5. A remediation plan for restoring the disturbed area through re-grading, topsoil placement, reseeding, and other stabilization techniques, as required.

- E. Additional E&S control design standards and criteria that must be applied where infiltration BMPs are proposed include the following:
 - 1. Areas proposed for infiltration BMPs shall be protected from sedimentation and compaction during the construction phase, so as to maintain their maximum infiltration capacity.
 - 2. Infiltration BMPs shall be protected from receiving sediment-laden runoff.
 - 3. The source of protection for infiltration BMPs shall be identified (i.e. orange construction fence surrounding the perimeter of the BMP).

ARTICLE V – RIPARIAN BUFFER STANDARDS

Section 501. Riparian Buffer Requirements

Where a Riparian Buffer is required for a Regulated Activity, 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 streams – 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, unless specifically permitted by PADEP. 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 riparian forest buffer measured perpendicularly from the wetland boundary.

- E. The following uses shall be permitted in the buffer:
 1. Footpaths, trails and bike paths provided that:
 - a. Width is limited to five (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 installed and 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. E&S controls shall be installed and maintained during construction. Evidence of an approved E&S 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 forest buffer (whichever is widest); or cut into sections small enough 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 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. Low Impact Development 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. Stormwater Management Facility Design Considerations: All stormwater management facilities shall meet the following design requirements:
1. For stormwater management facilities and BMPs that retain or detain water and are of a relatively small scale (less or equal to than three (3) foot of depth from the bottom of the basin to the top of embankment and less than one (1) acre-foot of storage), exceptions to the requirements in this section may be allowed at the sole discretion of the Municipality.
 2. No outlet structure from a stormwater management facility, or swale, shall discharge directly onto a Municipal or State roadway.
 3. The top, or toe, of any slope shall be located a minimum of 10 feet from any property line.
 4. The minimum horizontal distance between any structure and any stormwater facility shall be 25 feet. 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.
 5. 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 horizontally from top of stream bank in the facilities' vicinity.
 6. Basin outflow culverts discharging into floodplains must account for tailwater. Tailwater corresponding to the 100-year floodplain elevation must be used for all 24-hour design storms, or the Applicant may elect to determine flood elevations of the adjacent watercourse for each 24-hour design storm. The floodplain 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.
 7. 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 sub-surface drainage is provided.
 8. 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.
 9. Exterior slopes of compacted soil shall not exceed 3:1, and may be further reduced if the soil has unstable characteristics.
 10. Interior slopes of the basin shall not exceed 3:1.
 11. Unless specifically designed as a volume control facility, all stormwater management facilities shall have a minimum slope of 1% extending radially out from the principal outlet structure. Facilities designed as water quality / infiltration BMPs may have a bottom slope of zero.

12. Impervious low-flow channels are not permitted within stormwater management facilities.
13. 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.
14. Energy dissipators 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.
15. 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 facilities designed as water quality / infiltration BMPs.
16. 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.
17. Principal Outlet Structures: 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 which shall, at a minimum, extend to the toe of the basin slope.
 - 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.
18. 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.

19. 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 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. The embankments shall be constructed in a maximum of 6 inch lifts. The lifts will each be compacted to a density of 98% of a standard proctor analysis as per each layer of compacted fill shall be tested to determine its density analysis per ASTM 698. Each layer of compacted fill shall be tested to determine its density per ASTM 2922 or ASTM 3017.
- 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.

20. 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.

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. New storm sewers shall be designed to convey post-development runoff without surcharging inlets for the ten-year storm event.
 - b. When proposing to connect to an existing storm sewer system, the Applicant must demonstrate that the proposed system will not exacerbate any existing stormwater problems and will not exceed downstream capacity.
 - c. Inlets, manholes, pipes, and culverts shall be designed in accordance with PENNDOT Publication 13M, and constructed in accordance with PENNDOT Publication 40, and PENNDOT Publication 72M - Standards for Roadway Construction (RC). Other construction details may be approved at the sole discretion of the Municipality. All material and construction details (inlets, manholes, pipe trenches, etc.), must be shown on the SWM Site Plan. A note should be added to the construction plans stating that all inlet and junction box frames, concrete top units, and grade adjustment rings shall be set in a bed of mortar.
 - 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 should be designed to provide a minimum velocity of 2-1/2 feet per second when flowing full. Arch pipes of equivalent cross-sectional area may be substituted in lieu of circular pipe where the depth of cover is shallow or where conflicts with utilities exist.
 - e. All storm sewer pipes shall be laid to a minimum depth of one (1) foot from the bottom of foundations or pavement to the crown of pipe.
 - f. In curbed roadway sections, the maximum encroachment of water on the roadway travel lanes should not exceed one-half of a lane or one (1) inch less than the depth of curb during the roadway 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. Design of roadway drainage should be consistent with the guidance in PENNDOT Publication 13M.
 - i. Inlets should be placed at a maximum of 600 feet apart.
 - ii. Inlets should be placed so drainage cannot cross intersections or street centerlines.

- g. Standard Type "C" inlets with eight (8) inch hoods should be used along curbed roadway networks. Type "C" inlets with ten (10) inch hoods that provide a two (2) inch sump condition may be used with approval of the Municipality when roadway longitudinal slopes are one percent (1.0%) or less.
 - h. For inlets containing a change in pipe size, the elevation of the crown of the smaller pipes should be higher than the crown of the largest pipe.
 - i. All inlets should provide a minimum two (2) inch drop between the lowest inlet pipe invert elevation and the outlet pipe invert elevation.
 - j. On curbed sections, a double inlet should be placed at the low point of sag vertical curves, or a flanking inlet should be placed within 100 feet on each side of the inlet at the low point.
 - k. At all roadway low points, swales and easements should 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 and 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 and inlet details therein.
 - n. Inlets should 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 access holes greater than five (5) feet in depth should be equipped with ladder rungs placed fifteen (15) inches on center and shall be detailed on the SWM Site Plan.
 - p. Inlets should not have a sump condition in the bottom (unless designed as a water quality BMP). Pipes shall be flush with the bottom inside surface of the box or concrete channels should be poured.
 - q. Accessible drainage structures should be located on continuous storm sewer system at all invert changes, at all locations where a transition in storm sewer pipe sizing is required, at all vertical and horizontal angle points exceeding five (5) degrees, and at all points of convergence of two (2) or more storm sewer pipes.
 - r. All storm drainage piping should be provided with either reinforced concrete headwalls at inlets or end sections at outlets compatible with the pipe material and size.
 - s. Outlet protection and energy dissipaters shall be provided at all surface discharge points in order to minimize erosion consistent with PENNDOT Publication 13M, or FHWA Publication HEC-14.
 - i. Flow velocities and volumes from any storm sewer shall not cause a degradation of the receiving waterbody.
 - t. Stormwater roof drains and pipes should not be directly connected to storm sewers or discharge onto impervious areas without prior approval by the Municipality.
5. Swale Conveyance Facilities:
- a. Swales must be able to convey post-development runoff from a 10-year design storm with six (6) inches of freeboard to top of the swale.

- b. Swales shall have side slopes no steeper than 3:1 unless approved by the Municipality.
- 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	2.35
2	2.82
10	4.09
25	5.05
50	5.94
100	6.99

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 C-1 (Appendix C).
2. NRCS Rainfall-Runoff Method – Use Table C-2 (Appendix C). Curve Numbers (CN) should be rounded to tenths for use in hydrologic models as they are a design tool with statistical variability. For large sites, 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 24-hour 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 roadway shall be designed to pass the 50-year design storm with a minimum of one (1) foot of freeboard measured below the lowest point along the inside surface of the crown for culverts or the low chord for bridges. For detailed guidance for design of culverts and bridges, refer to PennDOT Publications 13M and 15M.

H. Time of Concentration:

1. The Time of Concentration is a parameter that represents 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 twenty percent (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 shall still be set equal to the pre-development T_c for modeling purposes.
 - b. The minimum T_c for any watershed shall be five (5) minutes.
 - c. The designer may choose to assume a five (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 five (5) minute T_c cannot 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. Drainage areas tributary to sinkholes or closed depressions in areas underlain by limestone or carbonate geologic features shall be excluded from the modeled point of analysis defining pre-development flows. If left undisturbed during construction activities, areas draining to closed depressions may also be used to reduce peak runoff rates in the post-development analysis. New, additional contributing runoff should not be directed to existing sinkholes or closed depressions.
 - J. 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 *PennDOT Publication 13M*. 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.
 - K. 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.
 - L. 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.

Section 603. Downstream Hydraulic Capacity Analysis

- A. Any downstream or off-site hydraulic capacity analysis conducted in accordance with this Ordinance shall use the following criteria for determining adequacy:
 - 1. Natural or man-made channels or swales must be able to convey the post-development runoff associated with a bankfull event (or 2-year storm event) at velocities consistent with protection of the channels from erosion. Acceptable velocities

shall be based upon criteria included in the *PADEP Erosion and Sediment Pollution Control Program Manual*.

2. Natural or man-made channels or swales must be able to convey the post-development 25-year design storm runoff without creating any hazard to persons or property.
3. Culverts, bridges, storm sewers or any other facilities which must pass or convey flows from the tributary area must be designed in accordance with *PADEP, Chapter 105* regulations (if applicable) and, at a minimum, pass the post-development 25-year design storm runoff.
4. It must be demonstrated that the downstream conveyance channel, other stormwater facilities, roadways, or overland areas are capable of safely conveying the 100-year design storm without causing additional damage to buildings or other infrastructure.
5. Proposed projects must be consistent with regulations from the National Flood Insurance Program and any local floodplain ordinances.

ARTICLE VII - SWM SITE PLAN & REPORT REQUIREMENTS

Section 701. General Requirements

No activity regulated by this Ordinance may commence until the Applicant has received written approval of a SWM Site Plan from the Municipality.

Section 702. SWM Site Plan & Report Contents

The SWM Site Plan & SWM Site Report shall consist of all applicable calculations, maps, and plans. All SWM Site Plan materials shall be submitted to the Municipality in a format that is clear, concise, legible, neat and well organized; otherwise, the SWM Site Plan shall be rejected.

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

A. SWM Site Plan shall include, but not be limited to:

1. Plans shall be of one size and in a form that meets the requirements for recording in the Office of the Recorder of Deeds of Montour County.
 - a. Scale:
 - i. Plans for tracts of less than 20 acres: 1" = 50' or less;
 - ii. 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 the seal and signature of the qualified professional 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 one-thousand (1,000) 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 five percent (5%): no greater than one (1) foot;
 - b. Slopes between five and fifteen percent (5 to 15%): no greater than two (2) feet;
 - c. Steep slopes (greater than fifteen percent or 15%), five-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.
17. The location of all erosion and sedimentation control facilities, shown on a separate from the SWM Site Plan (typically an E&S Plan).
18. The location of easements as requested by the Municipality or where required by this ordinance. 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, signed by the landowner, acknowledging that the stormwater BMPs are fixtures that cannot be altered or removed without prior approval by the Municipality.
 - b. A statement referencing the Operation and Maintenance (O&M) Agreement and stating that the O&M Agreement is part of the SWM Site Plan.
 - c. A note indicating that Record Drawings will be provided for all stormwater facilities prior to occupancy, or the release of the surety bond.
 - d. The following signature block for the Qualified Professional preparing the Stormwater Management Plan:

"I, _____, hereby certify that the Stormwater Management Plan meets all design standards and criteria of the Montour County 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 Montour County's 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 water quality sensitive (WQS) 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 group (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 (Appendix A).
 2. Signed and executed easements, as required for all on-site and off-site work.
 3. An E&S Control Plan & approval letter from the Montour County Conservation District.
 4. A 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. Five (5) 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
 3. One (1) copy to the Montour County Planning Commission
 4. One (1) copy to the Montour County Conservation District
- 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.
- C. After receipt of the Record Drawing and certification of completion by the Municipality, the Municipality may conduct a final inspection.

ARTICLE VIII - EASEMENTS

Section 801. Easements

- A. Easements shall be established to accommodate the existence of drainage ways.
- B. 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.
- C. 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.).
- D. Easements are required for all areas used for off-site stormwater control.
- E. Easements to accommodate earth-moving equipment should be a minimum of 20-feet wide.
- F. 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.
- G. Where possible, easements shall be centered on side and/or rear lot lines.
- H. 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.
- I. All easement agreements shall be recorded with a reference to the recorded easement indicated on the site plan. The format and content of the easement agreement shall be reviewed and approved by the Municipal Engineer and Solicitor. The Applicant agrees to reimburse the Municipality for reasonable and necessary fees that may be incurred by the Municipal Engineer and/or Solicitor for such reviews.

ARTICLE IX - MAINTENANCE RESPONSIBILITIES

Section 901. Financial Guarantee

- A. The Applicant shall provide a Financial Guarantee to the Municipality and in a format acceptable to the Municipality for the timely installation and proper construction of all stormwater management controls as required by the approved SWM Site Plan and this Ordinance, 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 the owner and 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 also be dedicated to and maintained by the Municipality.

 - 2. If a development site is to be maintained in a single ownership or if sewers and other public improvements are to be privately owned and maintained, then the ownership and maintenance of stormwater control facilities/BMPs shall be the responsibility of the owner or private management entity.

 - 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.
- 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. The Municipality or their municipal assignee may inspect all phases of the installation of temporary or permanent stormwater management facilities pursuant to this Ordinance.
- B. During any stage of Earth Disturbance Activities, if the Municipality determines that the stormwater management facilities are not being installed in accordance with the approved SWM Site Plan, the Municipality may revoke or suspend any existing permits or approvals until all violations are corrected or until a revised SWM Site Plan is submitted and approved as specified in this Ordinance.
- C. Stormwater BMPs shall be inspected by the landowner, or the landowner's designee according to the inspection schedule described on the SWM Site Plan for each BMP.
 - 1. The Municipality may require copies of the inspection reports, in a form as stipulated by the Municipality.
 - 2. If such inspections are not conducted or inspection reports not submitted as scheduled, the Municipality, or their designee, may conduct such inspections and charge the owner appropriate fees. Non-payment of fees may result in a lien against the property.
 - a. Prior to conducting such inspections, the Municipality shall inform the owner of its intent to conduct such inspections. The owner shall be given thirty (30) days to conduct required inspections and submit the required inspection reports to the Municipality.

Section 1002. Right-of-Entry

- A. Upon presentation of proper credentials, duly authorized representatives of the Municipality may enter at reasonable times, upon any property within the Municipality, to inspect the implementation, condition, or operations and maintenance of the stormwater BMPs in regard to any aspect governed by this Ordinance.
- B. Stormwater BMP owners and operators shall allow persons working on behalf of the Municipality ready access to all parts of the premises for the purposes of determining compliance with this Ordinance.
- C. Persons working on behalf of the Municipality shall have the right to temporarily locate on any stormwater BMP in the Municipality such devices, as are necessary, to conduct monitoring and/or sampling of the discharges from such stormwater BMP.
- D. Unreasonable delay in allowing the Municipality access to a stormwater BMP is a violation of this Ordinance.

ARTICLE XI - ENFORCEMENT AND PENALTIES

Section 1101. Notification

- A. In the event that a person fails to comply with the requirements of this Ordinance, an approved SWM Site Plan, or fails to conform to the requirements of any permit or approval issued hereunder, the Municipality shall provide written notification of the violation. Such notification shall set forth the nature of the violation(s) and establish a time limit for correction of these violation(s).
- B. Failure to comply within the time specified shall subject such person to the Penalties Provisions of this Ordinance. All such penalties shall be deemed cumulative and shall not prevent the Municipality from pursuing any and all other remedies. It shall be the responsibility of the owner of the real property on which any Regulated Activity is proposed to occur, is occurring, or has occurred, to comply with the terms and conditions of this Ordinance.

Section 1102. Enforcement

- A. The Applicant shall keep a copy of the approved SWM Site Plan 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. The Municipality may file a criminal action against anyone violating the provisions of this Ordinance. A violation shall be a summary offense. Anyone found guilty, pleading guilty, entering a no contest plea or subjected to a verdict or order other than an acquittal shall be guilty of a summary offense and shall be subject to a fine of \$300 for each violation, recoverable with costs. Each day that the violation continues shall be a separate offense and penalties shall be cumulative.
- B. The Municipality may file a civil action against anyone violating the provisions of this Ordinance. Anyone who has been found by a Court to be liable or determined to have violated the Ordinance shall pay a judgment of \$500 plus all court costs and reasonable attorneys fees incurred in enforcement. Each day of violation shall constitute a separate violation.
- C. In addition, the Municipality, 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. Anyone determined to be subject to such injunction, mandamus, restraining order or other form of relief requested by the Municipality shall reimburse the Municipality for all court costs and reasonable attorney fees incurred in association with said action(s).
- D. Nothing contained in this section shall be construed or interpreted to grant to any person or entity other than the Municipality, the right to commence any action for enforcement and/or violation pursuant to this section.
- E. Pursuit of any and all available remedies is at the discretion and election of the Municipality.

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 Montour 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 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 those in subsection 1301.D below, and 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:
 - Potable water sources including dechlorinated water line and fire hydrant flushings
 - Irrigation drainage
 - Air conditioning condensate
 - Springs
 - Water from crawl space pumps
 - 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
 - Discharges from fire fighting activities
 - Flows from riparian habitats and wetlands
 - Uncontaminated water from foundations or from footing drains
 - Lawn watering
 - Dechlorinated swimming pool discharges
 - Uncontaminated groundwater
 - Water from individual residential car washing
 - Routine external building washdown (which does not use detergents or other compounds)
- E. In the event that the Municipality or PADEP determines that any of the discharges identified in subsection 1301.D is a significant contributor to pollution to the Waters of the Commonwealth, the responsible person(s) shall be notified to cease the discharge. Upon notice provided by the Municipality or PADEP, the discharger will have a reasonable time, as determined by the Municipality or PADEP, to cease the discharge, consistent with the degree of pollution caused by the discharge.
- F. Nothing in this Section shall affect a discharger's responsibilities under Commonwealth Law.

Section 1202. Roof Drains

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

Section 1203. Alteration of BMPs

- A. No person shall modify, remove, fill, landscape, or alter any existing stormwater BMP, facilities, areas, or structures unless it is part of an approved maintenance program, without the written approval of the Municipality.
- B. No person shall place any structure, fill, landscaping, or vegetation into a stormwater BMP, facilities, areas, structures, or within a drainage easement which would limit or alter the functioning of the BMP without the written approval of the Municipality.

ARTICLE XIII - FEES AND EXPENSES

Section 1301. General

- A. The fee 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.
 3. Pre-construction meetings.
 4. Inspection of stormwater management facilities/BMPs and drainage improvements during construction.
 5. Final inspection upon completion of the stormwater management facilities/BMPs and drainage improvements presented in the SWM Site Plan.
 6. Any additional work required to enforce any permit provisions regulated by this Ordinance, correct violations, and assure proper completion of stipulated remedial actions.

Section 1303. Recording of Approved SWM Site Plan and Related Agreements

- A. The owner of any land upon which permanent BMPs will be placed, constructed, or implemented, as described in the SWM Site Plan, shall record the following documents in the Office of the Recorder of Deeds of Montour County, within fifteen (15) days of approval of the SWM Site Plan by the Municipality:
1. The SWM Site Plan.
 2. Operations and Maintenance (O&M) Agreement (Appendix A).
 3. Easements under Section 801.
 4. Riparian buffers under Section 502.
- 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.

ENACTED and ORDAINED at a regular meeting of the

Montour County Commissioners

on the 1st day of June, 2010.

See Notes of Meeting.

This Ordinance shall take effect immediately.

APPENDIX A - OPERATION AND MAINTENANCE AGREEMENT
AKA STORMWATER FACILITIES MAINTENANCE AGREEMENT

STORMWATER FACILITIES MAINTENANCE AGREEMENT
Montour County Planning Commission

THIS AGREEMENT, made this ____ day of _____, 2____, by and between the Montour County Planning Commission, 112 Woodbine Lane, Danville, Pennsylvania, 17821, (hereinafter referred to as “Commission”), and _____, Landowner/Developer, (hereinafter referred to as “Landowner/Developer”) with an address of,_____.

WHEREAS, Landowner/Developer is the fee simple owner of a certain tract of real property as more fully described in Montour County Recorder of Deeds Book _____, page _____ (“Property”); and,

WHEREAS, the Landowner/Developer intends to build and develop this Property by constructing permanent improvements as more fully shown upon the Final Land Development Plan (“Plan”) dated the ___ day of _____, 2____, and approved by the Commission, which is expressly made a part hereof and incorporated by reference herein, along with any subsequently approved amendments and/or revisions;

WHEREAS, it is the intent of this Agreement that the person or entity improving a lot for sale shall be referred to as “Landowner/Developer” and the person or entity purchasing the improved and developed lot shall be referred to as the “Landowner/Purchaser” who will be solely responsible for compliance with the terms and conditions of this Agreement after the purchase of the lot as set forth below.

WHEREAS, the Plan provides for, *inter alia*, the detention, retention, infiltration and/or conveyance of stormwater within the confines of the Property; and,

WHEREAS, the Commission, Landowner/Developer and the Landowner/Purchaser, their heirs, successors and assigns, including any homeowners’ association or other association, agree that the health, safety and welfare of the residents of the Municipality require that on-site stormwater management facilities be constructed, operated and maintained on the Property in accordance with any and all applicable laws, rules and/or regulations, and Best Management Practices; and,

WHEREAS, the Commission requires, through its implementation of the Montour County Subdivision and Land Development Ordinance that stormwater management facilities as shown on the Plan, be properly and completely constructed within the time limitations provided by the Montour County Subdivision and Land Development Ordinance, the approved Plan, or as otherwise agreed, and other applicable statutes, rules and regulations, and thereafter adequately maintained by the Landowner/Developer, the Landowner/Purchaser and their heirs, successors and assigns; and,

WHEREAS, this Agreement sets forth the responsibilities of Landowner/Developer, and the Commission with respect to the performance guarantee being posted to guarantee installation and/ or maintenance of the stormwater

management facilities and erosion control measures as set forth in the Montour County Subdivision and Land Development Ordinance and the approved Plan, and other applicable statutes, rules and regulations.

NOW THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and intending to be legally bound hereby, Landowner/Developer and the Commission agree as follows:

1. Landowner/Developer shall file with the Commission; financial security in a format imposed and approved by the Commission, in an amount as set forth in the approved Plan to guarantee, among other things required by the improved plan guaranteed, installation of the stormwater management facilities and erosion control measures as required by the improved Plan.

2. The on-site stormwater management facilities shall be constructed by the Landowner/Developer in accordance with the terms, conditions and specifications identified on the approved Plan and/or any subsequently approved amendments or revisions.

3. The Landowner/Developer hereby establishes a permanent easement for stormwater management facilities and access to said facilities by all relevant persons and entities, including but not limited to the Commission, Municipality and/or other governmental authority, or their agents. The stormwater management facility easement shall run with and bind the land and the Landowner/Purchaser as fee simple owners, their heirs, executors, administrators, successors and assigns.

4. The Landowner/Developer and Landowner/Purchaser, as the case may be, shall maintain the stormwater management facilities in good working condition, according to Best Management Practices, so that the facilities adequately and properly perform per design. This provision includes but is not limited to the maintenance of all pipes, channels, ditches, swales, and/or other structures built to convey stormwater to the facility, as well as all other structures, improvements and/or vegetation provided to control the quantity and quality of the stormwater.

5. The Landowner/Developer shall conduct a visual inspection of each stormwater management and permanent erosion and sedimentation pollution control facilities at least once every six (6) months, and immediately after significant storm events during the first year and in all subsequent years with regard to all lots where ownership is retained by the Landowner/Developer.

The visual inspection shall include but not be limited to:

a) An examination of the stormwater collection, conveyance, detention and infiltration facilities for debris deposition (which may include but is not limited to aggregate material, leaves, grass clippings and soil materials);
and

b) An examination of the stormwater management facilities for settlement, sinkholes, structural cracking, excessive vegetation, erosion, failure, etc.

The Landowner/Developer shall immediately notify the Commission, appropriate governmental entities, and/or Municipality of any deficiencies, defects, problems, failure, etc. and shall immediately repair any damage to the stormwater management and permanent erosion and sedimentation pollution control facilities. The Landowner/Developer shall place topsoil on all areas that experience minor erosion, and shall seed and mulch such areas sufficiently and immediately. The Landowner/Developer shall repair all damage, including damage to riprap areas, using material that meets or exceeds the Plan and/or applicable legal requirements. The Landowner/Developer shall notify the Commission, Municipality, and Montour County Conservation District of any such repairs and also prior to initiating any major repair activities. Landowner/Developer shall secure any and all necessary permits and governmental approvals for the same.

The Landowner/Developer shall also regularly inspect the stormwater management facilities and submit an inspection report to the Commission and Municipality according to the following schedule:

- a) Annually for the first five (5) years after the completion of construction of the stormwater facilities;
- b) Once every two (2) years thereafter;
- c) During or immediately following the cessation of any twenty-five (25) year or greater precipitation event.

The purpose of these inspections is to ensure safe and proper functioning of the facilities. The inspection report shall include but not be limited to the berms, outlet structure, pond areas, access roads and all other portions of the facilities. Any and all deficiencies shall be noted in the inspection report.

After the lot is sold, the obligation set forth in paragraph no. 5 above shall become the responsibility of the Landowner/Purchaser.

6. The Landowner/Developer or Landowner/Purchaser will perform maintenance in accordance with the maintenance schedule for the stormwater management facilities, including sediment removal, as required by Local, State and/or Federal rules, regulations, laws, statutes, and/or ordinances which apply.

7. The Landowner/Developer and Landowner/Purchaser grant permission to the Commission and Municipality, its authorized agents and employees, upon presentation of proper identification, to enter upon the Property at all reasonable times, upon reasonable notice of no less than three (3) days to inspect the stormwater management facilities whenever the inspection is necessary. Such notice shall not be required in the event of an emergency which requires immediate attention. The purpose of the inspection is to ensure the safe and proper functioning of the facilities, compliance with Best Management Practices, and protection of the health, safety and welfare of the municipal citizens and property. The inspection shall or may cover all of the facilities at the discretion of the Commission or Municipality where the inspection

is necessary. When such inspections are conducted, the Commission or Municipality shall give the Landowner/Developer or Landowner/Purchaser copies of the inspection report with findings and evaluations.

8. All reasonable costs for inspections shall be borne by the Landowner/ Developer or Landowner/Purchaser and shall be payable to the Commission or its successor as required by law.

9. In the event the Landowner/Developer or Landowner/Purchaser fails to maintain the stormwater management facilities in good working condition, as shown on the Plan, in accordance with Best Management Practices, the Commission or Municipality may enter upon the Property and take such necessary and prudent action to maintain, repair, and/or correct any deficiencies to or in said stormwater management facilities and to charge the costs of the maintenance, repairs and/or corrections to the Landowner/Developer or the Landowner/Purchaser. Prior to taking such action to maintain, repair and/or correct any deficiencies, the Commission or Municipality shall give the Landowner/Developer or Landowner/Purchaser reasonable opportunity to maintain, repair, and/or correct any deficiencies and shall provide the Landowner/Developer or Landowner/Purchaser a written estimate of costs and expenses prior to commencing work. This provision shall not be construed as allowing the Commission or Municipality to erect any structure of a permanent nature on the land of the Landowner/Developer or Landowner/Purchaser outside of any easement belonging to the Municipality, the Commission and/or an authority. It is expressly understood and agreed that the Commission and Municipality are under no affirmative obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the Commission or Municipality.

10. In the event the Commission, Municipality or its agents, pursuant to this Agreement, perform work of any nature, or expend any funds in performance of said work for labor, use of equipment, supplies, and/or materials on account of the Landowner/Developer's or Landowner/Purchaser's failure to perform such work, the Landowner/Developer or Landowner/Purchaser shall reimburse the Commission and/or Municipality upon demand, within twenty (20) days of receipt of the invoice thereof, for all expenses (direct or administrative) incurred by the Commission and/or Municipality hereunder. If not paid within said twenty-day period, the Commission or Municipality may deduct the sums from the funds deposited as security and/or draw on the line of credit or bond established as security; enter a lien against the Property in the amount of such costs, plus reasonable attorney's fees and court costs; and/or elect to proceed to recover its costs, attorney's fees and court costs through proceedings in equity or at law, as authorized under the provisions of the Municipal Lien Law or any other applicable law. Where applicable, should the monies be drawn from the escrow, bond or restricted security, within ten (10) days, Landowner/ Developer shall deposit additional funds at the Commission or Municipality's request to increase the fund to its established original amount or secure a new bond. Similarly, where applicable, should

the monies be drawn from the line of credit, the Landowner/ Developer shall either increase the line or deposit monies in a restricted or escrow account within ten (10) days.

11. In the event of an emergency or the occurrence of special or unusual circumstances or situations, if the Landowner/Developer or Landowner/Purchaser is not immediately available after reasonable attempts at notification, the Commission or Municipality may enter upon the Property, to inspect and perform necessary maintenance and repairs, if needed, when the health, safety or welfare of citizens or property is in immediate jeopardy. However, the Commission or Municipality shall notify the Landowner/Developer or Landowner/Purchaser immediately of any such inspection, maintenance and/or repair undertaken so that the Landowner/Developer or Landowner/Purchaser can inspect the property, and make repairs if necessary as required by this Agreement. The Landowner/Developer or Landowner/Purchaser shall reimburse the Commission and/or Municipality for all costs associated therewith as set forth in paragraph no. 10 above.

12. The Landowner/Developer or Landowner/Purchaser shall indemnify and save harmless the Commission and Municipality and their agents and employees against any and all damages, accidents, casualties, occurrences or claims which may arise or be asserted against the Commission or Municipality, including costs, expert witness fees and attorney fees for the construction, presence, existence, inspection, or maintenance of the stormwater management facilities by the Landowner/Developer or Landowner/Purchaser, Commission and/or Municipality; however, nothing herein shall require the Landowner/Developer or Landowner/Purchaser to defend or indemnify the Commission or the Municipality for losses, damages or injuries arising out of the negligence of the Commission and/or the Municipality.

13. The Commission and/or Municipality shall indemnify and save harmless the Landowner/Developer or Landowner/Purchaser against any and all damages, accidents, casualties, occurrences or claims which may arise or be asserted against the Landowner/Developer or Landowner/Purchaser including costs, expert witness fees and attorney fees as a result of the inspection, maintenance, or repair of deficiencies in the stormwater management facilities or as a result of the entry upon the property of the Landowner for the construction, presence, existence, inspection, or maintenance of the stormwater management facilities, however, nothing herein shall require the Commission or the Municipality to defend or indemnify the Landowner/Developer or Landowner/Purchaser for losses, damages or injuries arising out of the negligence of the Landowner/Developer or Landowner/Purchaser.

14. In the event a claim is asserted against the Commission or Municipality, their agents or employees, the Commission and/or Municipality shall promptly notify the Landowner/Developer or Landowner/Purchaser, and the Landowner/Developer or Landowner/Purchaser shall defend, at their own expense, any suit based upon such claim. The Commission and/or Municipality may insist upon the hiring of legal counsel and/or expert of their choosing, with which Landowner/Developer or Landowner/Purchaser must comply; however, the hourly rate or fee for said legal counsel and/or

expert must be comparable to the hourly rate and/or fees in Montour County for similar services. If any judgment or claim against the Commission or Municipality, their agent and/or employees shall be allowed, the Landowner/Developer or Landowner/Purchaser shall pay all judgments, verdicts, claims, costs and/or expenses associated therewith.

15. No structures may be placed within or on the stormwater management facilities and easement, and no landscaping or grading is permitted within said easement which would impede stormwater flow or alter the course of the flow within said easement, nor impede the functioning of stormwater inlets, outlet structures, infiltration beds, or any other element or portion of the stormwater management facility.

16. Landowner/Developer shall keep on file with the Commission and Municipality the name, address, telephone number, e-mail, facsimile number, or other contact information for the person or company responsible for ongoing maintenance and operation activities. In the event of a change, any new information shall be submitted to the Commission or Municipality within ten (10) days of such change.

17. Nothing in this Agreement shall be construed to abrogate or diminish any requirements relating to such improvements of the current Montour County Subdivision and Land Ordinance or any amendments thereof, or any applicable law, statute and/or regulation.

18. This Agreement is to be construed in accordance with the laws of the Commonwealth of Pennsylvania and jurisdiction for enforcement and/or collection is vested in the Court of Common Pleas of Montour County and/or the District Justice of Montour county.

19. This Agreement shall be recorded in the Montour County Courthouse, which shall be at the expense of the Landowner/Developer.

20. This Agreement shall be binding on the parties, their heirs, executors, administrators, successors and assigns.

21. The Landowner/Developer covenants and agrees to include and provide a specific reference to this Agreement in any instrument of conveyance of any legal or equitable interest in the property or any part thereof, or any other documents (whether recorded, recordable, or not) related to the property or the subject matter of this Agreement.

22. If any term, condition, clause, or provision of this Agreement shall be determined or declared to be void or invalid, in law, or otherwise, then only that term, condition, clause, or provision shall be stricken from this Agreement and in all other respects this Agreement shall be valid and continue in full force, effect, and operation.

23. No modification or waiver of any of the terms herein shall be valid unless in writing and signed by both parties.

24. Each party shall, at any time and from time to time hereafter, take any and all steps and execute, acknowledge, and deliver to the other party any and all further instruments and/or documents that the other party may reasonably require for the purpose of giving full force and effect to the provisions of this Agreement.

25. The failure of either party to insist upon strict performance of any of the provisions of this Agreement shall in no way affect the right of such party hereafter to enforce the same, nor shall the waiver of any breach of any provision hereof be construed as a waiver of any subsequent default of the same or similar nature, nor shall it be construed as a waiver of strict performance of any other obligations herein.

26. The parties both acknowledge that they have read and fully understand this Agreement and that it contains the entire understanding of the parties, and there are no representation, warranties, covenants, or undertakings other than those expressly set forth herein.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals this ____ day of _____,
2_____.

WITNESS/ATTEST:

MONTOUR COUNTY PLANNING
COMMISSION:

BY: _____

LANDOWNER

BY: _____

PLANNING COMMISSION NOTARY:

COMMONWEALTH OF PENNSYLVANIA :
: SS
COUNTY OF _____ :

On this, the ____ day of _____, 2____, before me, a Notary Public for the Commonwealth of Pennsylvania, in and for said County, the undersigned personally appeared _____ (name), who acknowledged himself/herself to be the _____ (title) of the Montour County Planning Commission, and that as such he/she, being authorized to do so, executed the foregoing Stormwater Facilities Maintenance Agreement for the purposes therein contained.

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

Notary Public

LANDOWNER NOTARY:

COMMONWEALTH OF PENNSYLVANIA :
: SS
COUNTY OF _____ :

On this, the ___ day of _____, 2____, before me, a Notary Public, the undersigned officer, personally appeared _____, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within **Stormwater Facilities Maintenance Agreement**, and acknowledged that she/he executed the same for the purposes therein contained.

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

Notary Public

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 - STORMWATER MANAGEMENT DESIGN CRITERIA

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

Runoff Curve Numbers for Urban Areas					
Cover Description		Curve Numbers for Hydrologic Soil Groups			
Cover Type and Hydrologic Condition	Average Percent Impervious Area	A	B	C	D
<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

APPENDIX D – REVIEW FEE REIMBURSEMENT AGREEMENT

THIS AGREEMENT MUST BE COMPLETED AND SIGNED BY THE DEVELOPER/APPLICANT PRIOR TO SUBMISSION OF THE SUBDIVISION/LAND DEVELOPMENT APPLICATION AND PLANS, SKETCH PLANS, CONDITIONAL USE APPLICATIONS OR ANY OTHER SUBMISSION WHICH REQUIRES MUNICIPAL CONSULTANT REVIEW.

REVIEW FEE REIMBURSEMENT AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 20___, by and between _____, (hereinafter the "Landowner"), and _____, Montour County, Pennsylvania, (hereinafter "Municipality");

WITNESSETH

WHEREAS, the Landowner is the owner of certain real property as recorded by deed in the land records of Montour 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 plans; (c) preparation of any reports, legal documents, or other correspondence relating to Landowner's plan or proposal; and (d) administrative cost and incurred expenses relating to the administration of this agreement. 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, as security for the payment of all costs and expenses, charges and fees as set forth in Paragraph 3 above, upon execution of this agreement, which shall be held in a noninterest-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.
5. Landowner and Municipality agree that upon completion of the Municipality's review of Landowner's plan or proposal, all unused portions of the escrow account as described above shall be returned to the applicant upon written request to the Municipality.
6. 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 event 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.
7. 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.
8. 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.
9. The Landowner and the Municipality further agree that the Municipality shall have the right and privilege to sue the Landowner or then property owner 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.
10. The Landowner and the Municipality acknowledge that this agreement represents their full understanding as to the Municipality's reimbursement for professional or consultant services.
11. This agreement shall be binding on and inure 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:

ATTEST:

_____ (Montour County Planning Commission)

County of Montour, Pennsylvania

I, _____, a Notary Public in and for the County and Commonwealth aforesaid, do hereby certify that _____ whose name(s) is/are signed to the foregoing Agreement bearing date of the _____ day of _____, 20____, has acknowledged the same before me in my said County and Commonwealth.

GIVEN UNDER MY HAND THIS _____ day of _____, 20_____.

NOTARY PUBLIC

(SEAL)

APPENDIX E – SMALL PROJECTS SWM APPLICATION

Montour County
Small Project Stormwater Management Application

Per Montour County'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 (leading to a downspout)		X		=	
		X		=	
		X		=	
		X		=	
Driveway		X		=	
		X		=	
		X		=	
Parking Areas		X		=	
		X		=	
		X		=	
Patios/Walks		X		=	
		X		=	
		X		=	
		X		=	
Other		X		=	
		X		=	
		X		=	
Total Impervious Surface Area to be managed (sum of all areas)					

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 OR EQUAL TO 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.

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

Owner

Date:

CREDITS

Credit 1: DISCONNECTION OF IMPERVIOUS AREA

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

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

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

Length of Pervious Flow Path from discharge point * (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

* 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 ³)
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	=	
		X		=		÷	6	=	
Other		X		=		÷	6	=	
		X		=		÷	6	=	
		X		=		÷	6	=	
Total Req'd Capture Volume									

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 *Montour County Act 167 Stormwater Management Plan* regulates compliance requirements for Stormwater Management in this jurisdiction. A complete copy of the *Plan* can be found at the Montour County Planning Commission office.

Regulated activities shall be conducted only after Montour County approves a stormwater management plan. The *Montour County Act 167 Stormwater Management Plan* will assist you in preparing the necessary information and plans for Montour County 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 Montour County 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 *Montour 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 ³)		Conversion	Surface Area of BMPs (ft ²)
By Rain Garden 6" ponding; 2' soil depth	x	1.20	
Dry Well or Infiltration Trench 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.

Owner

Date:
