

**MUNICIPALITY OF MURRYSVILLE
WESTMORELAND COUNTY, PENNSYLVANIA**

ORDINANCE No. 711-06

AN ORDINANCE OF THE MUNICIPALITY OF MURRYSVILLE, WESTMORELAND COUNTY, PENNSYLVANIA AMENDING CHAPTER 198, STORM WATER MANAGEMENT, TO ADDRESS THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, MUNICIPAL STORM SEWER SYSTEM (MS4) REQUIREMENTS.

WHEREAS, the Pennsylvania Department of Environmental Protection has adopted regulations requiring that municipalities maintain MS4 permits must adopt Best Management Practices for new storm water discharges; and

WHEREAS, the Municipality of Murrysville wishes to remain in compliance with its current permit and desires to amend Chapter 198 of the Murrysville Code to maintain said compliance;

NOW THEREFORE, BE IT HEREBY ORDAINED AND ENACTED, by the Municipality of Murrysville, Chapter 198 is amended as follows:

§ 198-1. Purpose.

These regulations are adopted and implemented to achieve the following general purposes and objectives:

- A. To manage and control stormwater runoff resulting from land alteration and disturbance activities in accordance with the watershed stormwater management plans adopted pursuant to the Pennsylvania Storm Water Management Act (Act 167 of 1978, as amended).EN
- B. To utilize and preserve the desirable existing natural drainage systems and to preserve the flood-carrying capacity of the streams.
- C. To encourage natural infiltration of rainfall to preserve groundwater supplies and stream flows.
- D. To provide for adequate maintenance of all permanent stormwater structures in the Municipality.

§ 198-2. Applicability.

The following activities are included within the scope of this chapter:

- A. Land development.

B. Subdivisions.

C. Construction of new or additional impervious or semi-impervious surfaces (driveways, parking lots, buildings and additions thereto, etc.) which increases the rate of runoff equal to or more than one cubic feet per second as calculated using the rational formula for a ten-year storm.

§ 198-3. Liability disclaimer.

A. Neither the granting of any approval under the stormwater management provisions of this chapter nor the compliance with the provisions of this chapter or with any condition imposed by a municipal official hereunder shall relieve the developer, his agents, servants or employees, their heirs, successors or assigns from any responsibility for damage to persons or property resulting therefrom, or as otherwise imposed by law, nor impose any liability upon the Municipality for damages to persons or property.

B. The granting of a permit which includes any stormwater management facilities shall not constitute a representation, guaranty or warranty of any kind by the Municipality, or by an official or employee thereof, of the practicability or safety of any structure, use or other plan proposed and shall create no liability upon or cause of action against such public body, official or employee for any damage that may result pursuant thereto.

198-4, Definitions.

Accelerated Erosion - The removal of the surface of the land through the combined action of man's activity and the natural processes of a rate greater than would occur because of the natural process alone.

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

Agricultural Activities - The work of producing crops or raising livestock including tillage, plowing, disking, harrowing, pasturing 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; also the changing of surface conditions by causing the surface to be more or less impervious; land disturbance.

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

BMP (Best Management Practice) - Activities, facilities, designs, measures or procedures used to manage stormwater impacts from Regulated Earth Disturbance activities, to meet State Water Quality Requirements, to promote groundwater recharge and to otherwise meet the purposes of this Ordinance. BMPs include but are not limited to infiltration, filter strips, low impact design, bioretention, wet ponds, permeable paving, grassed swales, forested buffers, sand filters and detention basins.

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

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 for storing rainwater

CONSERVATION DISTRICT — The Westmoreland County Conservation District.

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

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 CRITERIA

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

DESIGN STORM — See "storm frequency."

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

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

Detention District - Those subareas in which some type of detention is required to meet the plan requirements and the goals of *Act 167*.

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

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

Development Site - The specific tract of land for which a Regulated Earth Disturbance activity is proposed.

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

Diversion – A channel and a ridge constructed to a pre-determined grade across a slope, and designed to collect and/or divert runoff from slopes which are subject to erosion.

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 towards it.

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

DRAINAGE AREA

The area of a drainage basin or watershed, expressed in acres, square miles or other unit of area; also called "catchment area," "watershed" or "river basin."

The area served by a sewer system receiving storm and surface water or by a watercourse.

Drainage Conveyance Facility - A Stormwater Management Facility designed to transmit 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 purposes.

Drainage Permit - A permit issued by the Municipality after the drainage plan has been approved. Said permit is issued prior to or with the final Municipality approval.

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, road maintenance, building construction and the moving, depositing, stockpiling, or storing of soil, rock, or earth material.

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

ENGINEER — Any reference to the "Engineer" will mean the duly appointed representative of the Municipality of Murrysville.

EROSION — Wearing away of the lands by running water, winds and waves.

Erosion and Sediment Pollution Control Plan - A plan that is designed to minimize accelerated erosion and sedimentation through the use of BMPs.

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

Existing Conditions - The initial condition of a project site prior to the proposed construction. If the initial condition of the site is undeveloped land, the land use shall be considered as "meadow" in good condition unless the natural land cover is proven to generate lower curve numbers or Rational "C" values, such as forested lands.

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.

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. 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.

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.

Grassed Waterway - A natural or constructed waterway, usually broad and shallow, covered with erosion-resistant grasses, used to conduct surface water from cropland.

GROUND COVER — Materials covering the ground surface.

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

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

Hydraulic Grade Line – A line joining points whose vertical distance from the center of the cross section of the fluid flowing in a pipe are proportional to the pressure of the pipe at the point.

Hydraulic Gradient – The slope of the hydraulic grade line.

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

Impervious Surface - A surface that prevents the percolation of water into the ground. Impervious surface includes, but is not limited to, any roof, parking or driveway areas, and any new streets and sidewalks. Any surface areas designed 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

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

Infiltration Structures - A structure designed to direct runoff into the ground (e.g. french drains, seepage pits, seepage trench).

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 — Any of the following activities:

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

(1) A group of two or more residential or nonresidential buildings, whether proposed initially or cumulatively, or a single nonresidential building on a lot or lots regardless of the number of occupants or tenure; or

(2) The division or allocation of land or space, whether initially or cumulatively, between or among two or more existing or prospective occupants by means or for the purpose of streets, common areas, leaseholds, condominiums, building groups or other features.

B. A subdivision of land.

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

Main Stem (Main Channel) - Any stream segment or other runoff conveyance facility used as a reach in the Turtle Creek hydrologic model.

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

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 — The Municipality of Murrysville.

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

Nonpoint Source Pollution - Pollution that enters a water body from diffuse origins in the watershed and does not result from discernible, confined, or discrete conveyances.

NPDES – National Pollutant Discharge Elimination System, the federal government’s system for issuance of permits under the *Clean Water Act*, which is delegated to PADEP in Pennsylvania

NRCS - Natural Resource Conservation Service (previously 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 flowing partly full.

OUTFALL

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

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

PADEP – 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 flow of water at a given point and time resulting from a specified storm event.

PEAK FLOW — Maximum flow

PENNSYLVANIA DER — Pennsylvania Department of Environmental Resources.

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

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

Planning Commission - The planning commission of the Municipality of Murrysville.

PMF - Probable Maximum Flood - 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).

Point Source – Any discernible, confined and 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 of *25 Pa. Code 92.1*.

Private Entity – A partnership, corporation, Homeowner’s Association, Condominium Association or any other similar associations as distinguished from an individual lot owner.

Project Site – The specific area of land where any Regulated Earth Disturbance activities in the Municipality are planned, conducted, or maintained.

Rational Formula - A rainfall-runoff relation used to estimate peak flow, expressed by the following formula:

$$Q = CIA, \text{ where}$$

Q = peak runoff rate in cfs

C = runoff coefficient

I = design rainfall intensity (in/hr) lasting for a critical time, Tc or longer

Tc = time of concentration

A = drainage area in acres

Redevelopment – Earth disturbance activities on land which has previously been disturbed or developed.

Recurrence Interval – The average interval of time, stated in years, within which a given storm “event” will be equaled or exceeded once.

Regional Stormwater Detention Facility – A stormwater facility that controls runoff from more than one development site used by developers when it is more cost effective than providing a stormwater management facility for each development separately.

Regulated Earth Disturbance Activities – Earth disturbance activity one acre or more with a point source discharge to surface waters or the Municipality’s storm sewer system, or five acres or more regardless of the planned runoff. This includes earth disturbance on any portion of, part, or during any stage of, a larger common plan or development. This only includes road maintenance activities involving 25 acres or more of earth disturbance.

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

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

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

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 cross-section, such as grading and repairing unpaved road surfaces, cutting road banks, cleaning or clearing drainage ditches and other similar 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 — That part of precipitation which flows over the land.

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

SCS — United States Department of Agriculture Soil Conservation Service.

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

Sediment Basin - A barrier, dam, retention or detention basin located and designed to retain rock, sand, gravel, silt, or other material transported by water.

Sediment Pollution - The placement, discharge or any other introduction of sediment into the waters of the Commonwealth occurring from the failure to 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 moving water, wind or gravity.

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.

Seepage Tank – A subsurface concrete tank surrounded by stone into which surface water is directed for infiltration into the ground.

Separate Storm Sewer System – A conveyance or system or 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.

Small Development - Any subdivision or land development which results in (or will result when fully constructed) the creation of 5,000 or less square feet of impervious area.

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).

Soil Group, Hydrologic - A classification of soils by the NRCS into four runoff potential groups. The groups range from A soils, which are very permeable and produce little runoff, to D soils, which are not very permeable and produce much more runoff.

Spillway - A depression in the embankment of a pond or basin which is used to pass peak discharge greater than the maximum design storm controlled by the pond.

State Water Quality Requirements – As defined under state regulations – protection of designated and existing uses (See *25 PS. Code Chapters 93 and 96*) – including:

1. Each stream segment in Pennsylvania has a “designated use”, such as “cold water fishery” or “potable water supply”, which is listed in *Chapter 93*. These uses must be protected and maintained, under state regulations.
2. “Existing uses” are those attained as of November 1975, regardless whether they have been designated in *Chapter 93*. Regulated Earth Disturbance activities must be designed to protect and maintain existing uses and maintain the level of water quality necessary to protect those uses in all streams, and to protect and maintain water quality in special protection streams.
3. Water quality involves the chemical, biological and physical characteristics of surface water bodies. After Regulated Earth Disturbance activities are complete, these characteristics can be impacted by addition of pollutants such as sediment, and changes in habitat through increased flow volumes and/or rates as a result of changes in land surface area from those activities. Therefore, permanent discharges to surface waters must be managed to protect the streambank, streambed and structural integrity of the waterway, to prevent these impacts.

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.

STORAGE FACILITY — See "detention basin (pond)" or "retention pond."

STORM FREQUENCY —The magnitude and temporal distribution of precipitation from a storm event measured in probability of occurrence (e.g. a 5-year storm) and duration (e.g. 24-hours), used in the design and evaluation of stormwater management systems.

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

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

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

Stormwater Management BMPs, Operations, and Maintenance Plan - The plan prepared by the developer or his representative indicating how stormwater runoff and operation and maintenance of stormwater management facilities will be managed in the Municipality of Murrysville.

STORMWATER MANAGEMENT PLAN — The plan for managing stormwater runoff adopted by the Municipality of Murrysville.

Stream Enclosure - A bridge, culvert, or other structure in excess of 100 feet in length upstream to downstream, that encloses a regulated water of the Commonwealth.

Subarea - The smallest drainage unit of a watershed for which stormwater management criteria have been established in the Turtle Creek 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

SUBBASIN — A specific area contributing runoff to a predefined point. The areas are further defined as shown on the Municipal Stormwater Management District Map.

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

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

Municipality – Municipality of Murrysville, Westmoreland County, Pennsylvania.

Turtle Creek Stormwater Management Plan – A watershed-wide plan developed by Allegheny and Westmoreland Counties for the Turtle Creek watershed to identify stormwater management problems, corrective actions, and to establish hydrologic and hydraulic modeling requirements for existing and future stormwater management methods and facilities.

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

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

Waters of the Commonwealth - Rivers, streams, creeks, rivulets, ditches, watercourses, storm sewers, lakes, dammed water, wetlands, ponds, springs, and all 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.

Wetlands - Those areas that are inundated or saturated by surface or ground water 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, ferns, and similar areas.

§ 198-5. Performance standards.

A. Performance districts.

(1) For purposes of stormwater management, the Municipality of Murrysville is divided into the following stormwater management districts:

(a) Turtle Creek Watershed.

(b) Pucketa Creek Watershed.

(2) The location and boundaries of the watersheds and subareas are shown on the Municipal Stormwater Management District Map hereby adopted as part of this section.

B. General standards.

(1) The following provisions shall be considered the overriding performance standards against which all proposed stormwater control measures shall be evaluated and shall apply throughout the Municipality of Murrysville:

(a) Any landowner and any person engaged in the alteration or development of land which may affect stormwater runoff characteristics shall implement such measures as are reasonably necessary to prevent injury to health, safety or other property. Such measures shall include such actions as are required:

[1] To assure that the maximum rate of stormwater runoff is no greater after development than prior to development activities; or

[2] To manage the quantity, velocity and direction of resulting stormwater runoff in a manner which otherwise adequately protects health and property from possible injury.

(2) The stormwater management plan for the development site must consider all the stormwater runoff flowing over the site.

(3) No discharge of toxic materials (i.e., materials that would be in violation of the Pennsylvania Clean Streams Law Editor's Note: See 35 P.S. § 691.1 et seq.) shall be permitted into any stormwater management system.

C. Watershed standards: Turtle Creek Stormwater Management District.

(1) The stormwater performance standards contained in this section are intended to implement the standards and criteria contained in the Turtle Creek Stormwater Management Plan, adopted and approved in accordance with the Pennsylvania Storm Water Management Act. Editor's Note: See 32 P.S. §§ 680.1 through 680.17. If there is any discrepancy between the provisions of this section and the standards and criteria of the plan, or if the watershed plan is subsequently amended, then the standards/criteria of the current watershed plan shall govern.

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

Storm Frequency
Rainfall Depth
(inches)

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

(3) Calculation methods.

(a) Development sites. For purpose of computing peak flow rates and runoff hydrographs from development sites, calculations shall be performed using one of the following SCS publications: Technical Release (TR) 55 or 20, HEC I, or Pennsylvania State Runoff Model. For sites less than 25 acres, the rational method will be used as approved by the Engineer. The intensity for the rational formula will be the rainfall depths listed above. All final flow numbers developed by the hydrology methods above will be rounded to the nearest whole number. [Amended 5-3-1993 by Ord. No. 359-93]

(b) Stormwater collection/conveyance facilities. For the purposes of designing storm sewers, open swales and other stormwater runoff collection and conveyance facilities, any of the above-listed calculation methods or the rational method may be used. Rainfall intensities for design should be obtained from the Pennsylvania Department of Transportation rainfall charts.

(c) Predevelopment conditions. Predevelopment conditions shall be assumed to be those which exist on any site at the time of adoption of the Turtle Creek Stormwater Management Plan. Hydrologic conditions for all areas with pervious cover (i.e., fields, woods, lawn areas, pastures, cropland, etc.) shall be assumed to be in good condition, and the lowest recommended SCS runoff curve number (CN) shall be applied for all pervious land uses within the respective range for each land use and hydrologic soil group.

(d) Routing of hydrographs through the detention/retention facilities for the purpose of designing those facilities shall be accomplished using the Modified-Puls Method or recognized reservoir routing method, subject to the approval of the Municipality and county.

(4) Release rate percentage.

(a) Definition. The release rate percentage defines the percentage of the predevelopment peak rate of runoff that can be discharged from an outfall on the site after development. It applies uniformly to all land development or alterations within the subarea. A delineation of the release rate percentages by subarea is shown on the Municipal Stormwater Management District Map.

(b) Procedures for use shall be as follows:

[1] Identify the specific subarea in which the development site is located and obtain the subarea release rate percentage from the watershed map.

[2] Compute the pre- and postdevelopment runoff hydrographs for each stormwater outfall on the development site using an acceptable calculation method for the two-, ten-, twenty-five- and one-hundred-year storms. Apply no on-site detention for stormwater management, but include any techniques to minimize impervious surfaces and/or increases the time of concentration for stormwater flowing from the development site. If the postdevelopment peak runoff rate and volume are less than or equal to the predevelopment peak runoff rate and volume, then additional stormwater control shall not be required at that outfall. If the postdevelopment peak runoff rate and volume are greater than the predevelopment peak runoff rate and volume, then stormwater detention will be required, and the capacity of the detention facility must be calculated in the manner prescribed below. If the adjusted release rate is less than two cubic feet per second, then no detention will be required for the associated storm event. The smallest allowable release rate will be two cubic feet per second. [Amended 5-3-1993 by Ord. No. 359-93]

[3] Multiply the subarea release rate percentage by the predevelopment rate of runoff from the development site to determine the maximum allowable release rate from any detention facility for the four prescribed storm events.

[4] Design the outlet control facility and size the volume of the detention facility using the calculated postdevelopment hydrograph and accepted hydrograph routing procedures in consideration of the maximum allowable release rate.

§ 198-6. Design criteria.

A. General criteria.

(1) Applicants may select runoff control techniques or a combination of techniques which are most suitable to control stormwater runoff from the development site. All controls must be subject to approval of the Municipal Engineer. The Municipal Engineer may request specific information on design and/or operating features of the proposed stormwater controls in order to determine their suitability and adequacy of the standards of this chapter.

(2) The stormwater collection system must be designed to carry all storm flows generated by storm events up to and including the ten-year storm event. For storm events greater than the ten-year storm, the maximum capacity of the collection system must be analyzed. All stormwater that cannot be carried by the collection system must be analyzed as overland flow. The overland flows should, as much as possible, be directed to the stormwater detention facilities. All flows generated by storms greater than the ten-year flows must be analyzed to insure that proper detention is attained and that minimal damage to persons or property is incurred by these flows.

(3) The applicant should consider the effects of the proposed stormwater management techniques on any special soil conditions or geological hazards which may exist on the development site. In the event that such conditions are identified on the site, the Municipal Engineer may require in-depth studies by a competent geotechnical engineer. Not all stormwater control methods may be advisable or allowable at a particular development site.

(4) The stormwater management practices to be used in developing a stormwater management plan for a particular site shall be selected according to the following order of preference:

(a) Infiltration of runoff on-site.

(b) Flow attenuation by use of open vegetated swales and natural depressions.

(c) Stormwater detention/retention structures.

(5) Infiltration practices shall be used to the extent practicable to reduce volume increases and promote groundwater recharge. A combination of successive practices may be used to achieve the applicable minimum control requirements.

B. Criteria for postcollection infiltration systems.

(1) Infiltration systems shall be sized and designed based upon local soil and groundwater conditions.

(2) Infiltration systems shall be greater than three feet deep and shall be located at least 10 feet from basement walls.

(3) Infiltration systems shall not be used to handle runoff from commercial or industrial working or parking areas. This prohibition does not extend to roof areas which are demonstrated to be suitably protected from the effects of the commercial/industrial activities.

(4) Infiltration systems shall not receive runoff until the entire drainage area to the system has received final stabilization (i.e., no erosion is occurring from the area).

(5) The stormwater infiltration facility design shall provide an overflow system with measures to provide a nonerosive velocity of flow along its entire length and at the outfall.

C. Criteria for stormwater detention facilities.

(1) If detention facilities are utilized for the development site, the facility(ies) shall be designed such that postdevelopment peak runoff rates from the developed site are controlled to those rates defined by the subarea release rate percentage for the two-, ten-, twenty-five- and one-hundred-year storm frequencies.

(2) All detention facilities shall be equipped with outlet structures to provide discharge control for the four designated storm frequencies. Provisions shall also be made to safely pass, at minimum, the postdevelopment one-hundred-year storm runoff without breaching or otherwise damaging (i.e., impairing the continued function of) the facilities.

(3) Shared-storage facilities, which provide detention of runoff for more than one development site within a single subarea, may be considered and are encouraged. Such facilities shall meet the criteria contained in this

section. In addition, runoff from the development sites involved shall be conveyed to the facility in a manner that avoids adverse impacts (such as flooding or erosion) to channels and properties located between the development site and the shared-storage facilities.

(4) Where detention facilities will be utilized, multiple use facilities, such as wetlands, lakes, ball fields or similar recreation/open space uses, are encouraged wherever feasible, subject to the approval of the Municipality and the Pennsylvania Department of Environmental Resources' Chapter 105 Regulations.

(5) Design criteria.

(a) Spillway design. The outlets for any detention facility must be capable of passing the one-hundred-year storm flows. All facilities must have an emergency spillway capable of handling the one-hundred-year storm flows.

(b) Principal spillway. The principal spillway (main outlet structure) must be constructed with reinforced concrete. All principal spillway openings larger than three square feet must be covered with an open grating to prevent unauthorized access.

(c) Principal spillway base. The base of the principal spillway must be firmly anchored to prevent floating. If the riser of the spillway is greater than 10 feet in height; computations must be submitted to the Engineer for approval. A factor of safety of 1.5 will be applied to these computations.

(d) Freeboard. The minimum allowable freeboard between the top of the calculated high water mark in the emergency spillway and top of the embankment shall be one foot.

(e) Emergency spillway. The emergency spillway shall consist of an open channel constructed adjacent to the embankment over undisturbed material (not fill). The minimum emergency spillway size shall be two feet in width and one foot in height.

(f) Underdrain. All detention facilities shall be designed and constructed with underdrain (minimum size four-inch diameter) to insure the proper draining of the facility. All drains shall be wrapped in a geotextile material. [Added 5-3-1993 by Ord. No. 359-93 Editor's Note: This ordinance also provided that former Subsection C(5)(f), (g) and (h) be renumbered as Subsection C(5)(g), (h) and (i), respectively.]

(g) Fences. All detention facilities that do not meet the minimum slope criteria set forth in this chapter shall be fenced. All fences associated with a detention facility will fully encompass the facility and be a chain-link-type fence with a minimum height of six feet. All fence posts must be firmly anchored with concrete. The bottom of the fence must follow the ground contours. [Amended by Ord. No. 359-93]

(h) Access. All detention facilities must have an access road with a minimum width of 12 feet and a slope not to exceed 20% to the bottom of the pond.

(i) Embankment. All embankments must be keyed into the original ground. A minimum of 25% of the interior slopes must not exceed a ratio of 3:1 horizontal to vertical dimensions. The remainder of the interior slopes must not exceed a ratio of 2:1 horizontal to vertical dimensions. The following top widths shall be used for all detention basin embankments:

Height (feet)	of	Embankment Top (feet)	Width
0 to 10		6	
10 to 15		8	
15 to 20		10	
20 and over		15	

(6) Other considerations which should be incorporated into the design of the detention facilities include:

(a) Inflow and outflow structures shall be designed and installed to prevent erosion, and bottoms of impoundment-type structures should be protected from soil erosion.

(b) Control and removal of debris both in the storage structure and in all inlet or outlet devices shall be a design consideration.

(c) Inflow and outflow structures, pumping stations and other structures shall be designed and protected to minimize safety hazards.

(d) The developer shall be required to provide fencing around the perimeter of the pond unless waived by the Council of Murrysville.

(e) Landscaping shall be provided for the facility which harmonizes with the surrounding area. The developer will be responsible for planting trees and plants on the excavated slopes and impoundment bottom. The type and species of vegetation to be planted must be of a type that is compatible with the soil and proposed environment. No planting of trees will be permitted on the embankment slopes. The embankment slopes will be planted with shrubs and ground cover.

(f) Facility shall be located to facilitate maintenance, considering the frequency and type of equipment that will be required.

D. Criteria for collection/conveyance facilities.

(1) All stormwater runoff collection or conveyance facilities, whether storm sewers or other open or closed channels, shall be designed in accordance with the following basic standards:

(a) All sites shall be graded to provide drainage away from and around the structure in order to prevent any potential flooding damage.

(b) When a house located on the high side of a street extends roof and French drains to the street, these drains must be connected to the nearest storm sewer system provided in the street. Low side lots shall extend roof and French drains to a stormwater collection conveyance/control system or natural watercourse in accordance with this chapter.

(c) Collection/conveyance facilities should not be installed parallel and close to the top or bottom of a major embankment to avoid the possibility of failing or causing the embankment to fail.

(d) All collection/conveyance facilities shall be designed to convey the ten-year storm peak flow rate from the contributing drainage area and to carry it to the nearest suitable outlet such as a stormwater control facility, storm sewer or natural watercourse.

(e) Where drainage swales or open channels are used, they shall be suitably lined to prevent erosion and designed to avoid excessive velocities.

(2) Wherever storm sewers are proposed to be utilized, they shall comply with Section IIID. of the Road and Street Design and Construction

Standards Ordinance (Ord. No. 253-89). Editor's Note: See Ch. 97, Construction Standards, Roads and Streets, § 97-5D.

§ 198-7. Erosion and sedimentation controls.

- A. Erosion/sedimentation plan shall be provided in accordance with the Pennsylvania Erosion/Sedimentation Regulations (25 Pa. Code, Chapter 102) and the standards and guidelines of the Westmoreland County Conservation District.
- B. Proposed erosion/sedimentation measures shall be submitted with the stormwater management plan as part of the preliminary and final application.
- C. Evidence of any necessary permit(s) for Regulated Earth Disturbance activities from the appropriate DEP regional office or County Conservation District must be provided to the Municipality. The issuance of an NPDES Construction Permit (or permit coverage under the statewide General Permit (PAG-2) shall satisfy the requirement of subsection A.
- D. A copy of the Erosion and Sediment Control Plan and any required permit(s), as required by DEP regulations, shall be available at the project site at all times.

§ 198-8. Maintenance of stormwater management controls.

A. Maintenance responsibilities.

(1) The stormwater management plan for the development site shall contain an operation and maintenance plan prepared by the developer and approved by the Municipal Engineer. The operation and maintenance plan shall outline required routine maintenance actions and schedules necessary to ensure proper operation of the facility(ies).

(2) The stormwater management plan for the development site shall establish responsibilities for the continuing operation and maintenance of all proposed stormwater control facilities, consistent with the following principles:

(a) If a development consists of structures or lots which are to be separately owned and in which streets, sewers and other public improvements are to be dedicated to the Municipality, stormwater control facilities shall also be dedicated to and maintained by the Municipality. All stormwater control facilities must be on a separate parcel(s) dedicated by deed to the Municipality. Dedication

and acceptance thereof shall be at the sole election of the Municipality.

(b) 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 shall be the responsibility of the owner or private management entity.

(3) The Council of the Municipality of Murrysville, with recommendations from the Engineer, shall make the final determination on the continuing maintenance responsibilities prior to final approval of the stormwater management plan. The Council reserves the right to accept the ownership and operating responsibility for any or all of the stormwater management controls.

B. Maintenance agreement for privately owned stormwater facilities.

(1) Prior to final approval of the site's stormwater management plan, the property owner shall sign and record, in the Westmoreland County Recorder of Deeds office, a maintenance agreement covering all stormwater control facilities which are to be privately owned. The agreement shall stipulate that:

a) The owner shall operate and maintain all facilities in accordance with the approved operation and maintenance schedule and shall keep all facilities in a safe and attractive manner.

(b) The owner shall convey to the Municipality easements and/or rights-of-way to assure access for periodic inspections by the Municipality and maintenance if required.

(c) The owner shall keep on file with the Municipality the name, address and telephone number of the person or company responsible for maintenance activities; in the event of change, new information will be submitted to the Municipality within 10 days of the change.

(d) If the owner fails to maintain the stormwater control facilities, the Municipality is hereby authorized and directed to give notice by personal service or by United States mail, to the owner, by certified mail, to correct the problem(s) or to otherwise conform with the requirements of the operations and maintenance plan within 30 days after issuance of such notice.

(e) In case the owner shall neglect, fail or refuse to comply with such notice within the period of time stated therein, the Municipality may perform the necessary maintenance work or corrective action, and the owner shall reimburse the Municipality for all cost, including reasonable attorney's fees, together with any additional payment authorized by law, and may be collected by the Municipality from such owner in the manner provided by law for the collection of municipal claims or by an action of assumpsit, and said sum shall be a legal and/or equitable lien or charge upon the subject land and facilities from the date of completion of said work.

(2) Other items may be included in the agreement where determined necessary to guarantee the satisfactory maintenance of all facilities. The maintenance agreement shall be subject to the review and approval of the Municipal Solicitor and Council.

§ 198-9. Stormwater plan requirements.

A. General requirements. No final subdivision/land development plan shall be approved, no permit authorizing construction issued or any earthmoving or land disturbance activity initiated until the final stormwater management plan for the development is approved in accordance with the provisions of this chapter.

B. Exemptions for small developments.

(1) At the time of application, the Municipality shall determine if the subdivision/land development qualifies as a small development and, therefore, is eligible for a simplified stormwater management plan submission. For the purpose of this chapter, a small development is any subdivision or land development which results (or will result when fully constructed) in the creation of 5,000 or fewer square feet of impervious area and one acre or less of any land cover change.

(2) Applications for small developments shall include a plan which describes the type and location of proposed on-site stormwater management techniques or the proposed connection to an existing storm sewer system. The plan should show accurately site boundaries, two-foot interval contours, locations of watershed and/or subarea boundaries on the site (if applicable) and any watercourses, floodplains or existing drainage facilities or structures located on the site. Contingent upon the approval of the Municipal Engineer, alternative runoff computational techniques such as the rational method may be used where applicable. The Municipality reserves the right to require that the plan be prepared by a registered professional engineer, surveyor or landscape architect.

(3) The Municipal Engineer shall review and approve the proposed provisions for stormwater management in accordance with the standards and requirements of this chapter.

C. Stormwater plan contents.

(1) General format. The stormwater plan shall be drawn to a scale of not less than one inch equals 200 feet. All sheets shall contain a title block with: name and address of the applicant and engineer; scale; North arrow; legend; and date of preparation.

(2) Existing and proposed features. The plan shall show the following:

(a) Watershed location. The plan shall provide a key map showing the location of the development site within the watershed(s) and watershed subarea(s) and shall, on all site drawings, show the boundaries of the watershed(s) and subarea(s) as they are located on the development site and identify watershed name(s) and subarea number(s).

(b) Floodplain boundaries. The plan shall identify one-hundred-year floodplains on the development site (as appropriate) based on the Municipal Flood Insurance Study Maps.

(c) Natural features. The plan shall show all bodies of water (natural or artificial), watercourses (permanent and intermittent), swales, wetlands and other natural drainage courses on the development site or which will be affected by runoff from the development.

(d) Soils. The plan shall provide an overlay showing all soil types and boundaries within the development site (consult Westmoreland County Soil Survey).

(e) Contours. The plan shall show existing and final contours at intervals of two feet; in areas with slopes greater than 20%, ten-foot contour intervals may be used.

(f) Land cover. The plan shall show existing and final land cover classifications as necessary to support and illustrate the runoff calculations performed.

(g) Drainage area delineations. The plan shall show the boundaries of the drainage areas employed in the runoff calculations performed.

(h) Stormwater management controls. The plan shall show any existing stormwater management or drainage controls and/or structures, such as sanitary and storm sewers, swales, culverts, etc., which are located on the development site or which are located off-site but will be affected by runoff from the development.

(3) Professional certification. The stormwater management plan (including all calculations) must be prepared and sealed by a registered professional engineer, surveyor or landscape architect with training and expertise in hydrology and hydraulics. Documentation of qualifications may be required by the Municipality.

(4) Runoff calculations. Calculations for determining pre- and postdevelopment discharge rates and for designing proposed stormwater control facilities must be submitted with the stormwater management plan. All calculations shall be prepared using the methods and data prescribed by § 198-5 of this chapter.

(5) Stormwater controls. All proposed stormwater runoff control measures must be shown on the plan, including methods for collecting, conveying and storing stormwater runoff on site, which are to be used both during and after construction. Erosion and sedimentation controls shall be shown in accordance with applicable municipal and County Conservation District requirements. The plan shall provide information on the exact type, location, sizing, design and construction of all proposed facilities and the relationship to the existing watershed drainage system.

a) If the development is to be constructed in stages, the applicant must demonstrate that stormwater facilities will be installed to manage stormwater runoff safely during each stage of development.

(b) A schedule for the installation of all temporary and permanent stormwater control measures and devices shall be submitted.

c) If appropriate, a justification should be submitted as to why any preferred stormwater management techniques, as listed in § 198-6, are not proposed for use.

(6) Easements, rights-of-way, deed restrictions. All existing and proposed easements and rights-of-way for drainage and/or access to stormwater control facilities shall be shown and the proposed owner identified. Show any areas subject to special deed restrictions relative to or affecting stormwater management on the development site.

(7) Other permits/approvals. A list of any approvals/permits relative to stormwater management that will be required from other governmental

agencies (including DER Chapters 105 and 106 permits) and anticipated dates of submissions/receipt should be included with the stormwater plan submission. Copies of permit applications may be requested by the Municipality where they may be helpful for the plan review.

(8) Maintenance program. The application shall contain a proposed maintenance plan for all stormwater control facilities in accordance with the following:

(a) Identify the proposed ownership entity (e.g., municipality, property owner, private corporation, homeowners' association or other entity).

b) Include a maintenance program for all facilities, outlining the type of maintenance activities, probable frequencies, personnel and equipment requirements and estimated annual maintenance costs.

(c) Identify method of financing continuing operation and maintenance if the facility is to be owned by other than the Municipality.

(d) Submit any legal agreements required to implement the maintenance program and copies of the maintenance agreement as required by this chapter.

(9) To control post-construction storm water impacts from Regulated Earth Disturbance activities, State Water Quality Requirements can be met by BMP's which shall be proposed by the developer at the time of application for approval. The developer shall propose post-construction BMP's and a plan for assurance of long-term operations and maintenance of those BMP's at the time of application.

(10) The Best Management Practices (BMP's) must be designed to protect and maintain existing uses (e.g. drinking water use, cold water fishery use) and maintain the level of water quality necessary to protect those uses in all streams, and to protect and maintain water quality in "Special Protection" streams, as required by statewide regulations at 25 Pa. Code Chapter 93 (Collectively referred to herein as "State Water Quality Requirements").

(11) Financial guaranties. The developer shall post securities with the Municipality of Murrysville to secure the completion of all required improvements in accordance with the provisions of this chapter, and the amount and administration shall be in accordance with Section 509 of the Pennsylvania Municipalities Planning Code. Editor's Note: See 53 P.S. § 10509. Release of these securities will be in accordance with the Pennsylvania Municipalities Planning Code upon completion of the

required work and submittal of the as-built drawings sealed by a registered surveyor or engineer certifying that the completed work has conformed to the approved plan. [Amended 5-3-1993 by Ord. No. 359- --93]

§ 198-10. Plan review procedures.

A. Preapplication phase.

(1) Before submitting the stormwater plan, applicants are urged to consult with the Municipality and County Conservation District on the requirements for safely managing the development site in a manner consistent with the municipal ordinances and applicable watershed stormwater management plan. These agencies may also be helpful in providing necessary data for the stormwater management plan.

(2) Applicants are encouraged to submit a sketch plan with a narrative description of the proposed stormwater management controls for general guidance and discussion with the Municipality.

(3) The preapplication phase is not mandatory; any review comments provided by the Municipality or other agencies are advisory only and do not constitute any legally binding action on the part of the Municipality.

B. Stormwater plan reviews.

(1) Submission of plans. Stormwater plan applications shall be submitted with the preliminary and final subdivision/land development applications.

(2) Review by Municipal Engineer and County Conservation District. Stormwater plans shall be reviewed by the Municipal Engineer and the County Conservation District. At its discretion, the Municipality and/or county may also engage other specialists in hydrology or hydraulics to assist with the stormwater plan review. All fees for additional reviews will be paid for by the applicant. The Conservation District will review the plan for general compliance with the watershed plan standards and criteria and watershed-wide impacts, and, where appropriate, may consult with adjacent counties for their comments. If the Conservation District's review identifies the improper application of the watershed standards and criteria or the possibility of harmful impacts downstream from the development site's proposed stormwater management system, the applicant and Municipal Engineer will be notified so that the necessary modifications can be made to promote safe stormwater management.

(3) Municipal Engineer's review. The Municipal Engineer shall approve or disapprove the stormwater management plan based on the requirements of this chapter, the standards and criteria of the watershed plan and good engineering practices. The Engineer shall submit a written report, along

with supporting documentation, stating the reason(s) for approval or disapproval.

(4) Status of Engineer's determination. The approval/disapproval of the site's stormwater management plan by the Municipal Engineer shall be considered final. The applicant may request Council to override the Engineer's decision.

(5) Permits required from other government agencies. Where the proposed development requires an obstruction permit from the Pennsylvania DER or an erosion/sedimentation permit from the County Conservation District, then final stormwater management plan approval shall be conditional upon receipt of such permits. However, no building permit shall be issued, nor construction started, until the permits are received and copies filed with the Municipality.

§ 198-11. Status of the stormwater plan after final approval.

A. Upon final stormwater plan approval and receipt of all necessary permits, the applicant must obtain a land operations permit from the Municipality. With the issuance of a land operations permit, the applicant may commence to install or implement the approved stormwater management controls.

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

§ 198-12. Stormwater plan modifications.

A. If the request for a plan modification is initiated before construction begins, the stormwater plan must be resubmitted and reviewed according to the procedures contained in § 198-10 above.

B. If the request for a plan modification is initiated after construction is underway, the Municipal Engineer shall have the authority to approve or disapprove the modification based on field inspection, provided that:

(1) The requested changes in stormwater controls do not result in any modifications to other approved municipal land use/development requirements (e.g., building setbacks, yards, etc.); and

(2) The performance standards in § 198-5 are met. Notification of the Engineer's action shall be sent to the Council which may issue a stay of the plan modification at the next regularly scheduled meeting and require the permittee to resubmit the plan modification for full stormwater plan review in accordance with § 198-9 above.

§ 198-13. Inspections of stormwater management controls.

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

- 1) Preliminary site preparation including stripping of vegetation, stockpiling of topsoil and construction of temporary stormwater management and erosion control facilities.
- (2) Rough grading, permanent drainage construction and other site improvements and any permanent ground cover.
- (3) Construction of all permanent stormwater control facilities.
- (4) Final grading and site stabilization.

B. No work shall commence on any subsequent phase until the preceding one has been inspected and approved. If there are deficiencies in any phase, the Municipal Engineer shall issue a written description of the required corrections and stipulate the time by which they must be made.

C. If during construction the contractor or permittee identifies any site condition, such as subsurface soil conditions, alterations in surface or subsurface drainage, which could affect the feasibility of the approved stormwater facilities, he/she shall notify the Municipal Engineer within 24 hours of the discovery of such conditions and request a field inspection. The Municipal Engineer shall determine if the condition requires a stormwater plan modification.

D. In cases where stormwater facilities are to be installed in areas of landslide-prone soils or other special site conditions exist, the Municipality may require special precautions such as soil testing and core borings, full-time inspectors and/or similar measures. All cost of any such measures shall be borne by the permittee.

§ 198-14, Prohibition Against Non-Storm Water Discharges

- A. No person, corporation or other entity shall allow, or cause to allow, storm water discharges into the Municipality's separate storm sewer system which are not composed entirely of storm water except as provided in subsection B below or discharges allowed under a state or federal permit.
- B. Discharges which may be allowed are as follows:
- (1.) Discharges from fire fighting activities.
 - (2.) Potable water sources including dechlorinated water line and fire hydrant flushings.
 - (3.) Irrigation drainage.
 - (4.) Routine external building wash down which does not use detergents or other compounds.
 - (5.) Air conditioning condensate.
 - (6.) Water from crawl space pumps.
 - (7.) Water from individual residential car washing.
 - (8.) Uncontaminated water from foundation or from footing drains.
 - (9.) Flows from riparian habitats and wetlands.
 - (10.) Lawn watering.
 - (11.) Springs
 - (12.) Pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents are not used.
 - (13.) Dechlorinated swimming pool discharges.
 - (14.) Uncontaminated groundwater.
- C. If at any time the Municipality determines that the discharges identified above significantly contribute to pollution of waters of the Commonwealth, or is so notified by DEP, the Municipality reserves the right to issue an order to cease the offending discharge and the discharger will have reasonable time to cease the offending discharge.
- D. Nothing in this section shall affect a discharger's responsibilities under state law.

§ 198-15 Prohibited Connections

- A. The following connections are prohibited, except as provided in Section 198-14 above:
- (1.) Any drain or conveyance, whether on the surface or subsurface, which allows any non-storm water discharge including sewage, process wastewater, and washwater, to

enter the separate storm sewer system, and any connections to the storm drain system from indoor drains and sinks; and

- (2.) Any drain or conveyance connected from a commercial or industrial land use to the separate storm sewer system which has not been documented in plans, maps, or equivalent records, and approved by the Municipality.

§ 198-16 Alteration of BMP's

- A. No person shall modify, remove, fill, landscape or alter any existing stormwater BMP, 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 or within a drainage easement, which would limit or alter the functioning of the BMP, without the written approval of the Municipality.

§ 198-17 Enforcement; violations and penalties.

A. Right of entry. Upon presentation of proper credentials, duly authorized representatives of the Municipality may enter at reasonable times upon any property to investigate or ascertain the condition of the subject property in regard to any aspect regulated by this chapter.

B. Notification. In the event that the applicant, developer, owner or his/her agent fails to comply with the requirements of this chapter or fails to conform to the requirements of any permit, a written notice of violation shall be issued. Such notification shall set forth the nature of the violations and establish a time limit for correction of the violations. Upon failure to comply within the time specified, unless otherwise extended by the Municipality, the applicant, developer, owner or his/her agent shall be subject to the enforcement remedies of this chapter.

C. Preventive remedies.

(1) In addition to other remedies, the Municipality may institute and maintain appropriate actions by law or in equity to restrain, correct or abate a violation, to prevent unlawful construction, to recover damages and to prevent illegal occupancy of a building or premises.

(2) In accordance with the Pennsylvania Municipalities Planning Code (§ 515.1), Editor's Note: See 53 P.S. § 10515.1. the Municipality may refuse to issue any permit or grant approval to further improve or develop any property which has been developed in violation of this chapter.

D. Enforcement remedies:

(1) Any person who has violated or knowingly permitted the violation of the provisions of this chapter shall, upon being found liable therefor in a civil enforcement proceeding commenced by the Municipality, pay a fine of not less than \$100 and not more than \$500, plus court costs, including reasonable attorney fees, incurred by the Municipality. No judgment shall commence or be imposed, levied or be payable until the date of the determination of a violation by the District Justice.

(2) If the defendant neither pays nor timely appeals the judgment, the Municipality may enforce the judgment pursuant to applicable rules of civil procedure.

(3) Each day that a violation continues shall constitute a separate violation unless the District Justice further determines that there was a good-faith basis for the person violating the chapter to have believed that there was no such violation. In such case there shall be deemed to have been only one such violation until the fifth day following the date of the District Justice's determination of a violation; thereafter each day that a violation continues shall constitute a separate violation.

(4) All judgments, costs and reasonable attorney fees collected for the violation of this chapter shall be paid over to the Municipality.

(5) The court of common pleas, upon petition, may grant an order of stay, upon cause shown, tolling the per diem fine pending a final adjudication of the violation and judgment.

(6) 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 pursuant to this section.

E. Additional remedies. In addition to the above remedies, the Municipality may also seek remedies and penalties under applicable Pennsylvania statutes, or regulations adopted pursuant thereto, including but not limited to the Storm Water Management Act (32 P.S. §§ 680.1 through 680.17), the Dam Safety and Encroachments Act (32 P.S. §§ 693.1 through 693.27) and the Erosion and Sedimentation Regulations (Chapter 102 of Title 25 of the Pennsylvania Code). Any activity conducted in violation of this chapter or any Pennsylvania-approved watershed stormwater management plan may be declared a public nuisance by the Municipality and abateable as such.

THIS ORDINANCE ORDAINED AND ENACTED AT A REGULARLY CONSTITUTED, DULY CONVENED MEETING OF THE COUNCIL OF THE MUNICIPALITY OF MURRYSVILLE, THIS _____ DAY OF _____, 2006.

COUNCIL OF THE MUNICIPALITY OF MURRYSVILLE

Theo van de Venne, Council President

Diane Heming, Municipal Secretary

(Seal)

APPROVED/REJECTED:

Joyce K. Somers, Mayor

Dated: _____, 2006

Member	Yes	No	Absent	Abstain
Jack Bankoske				
Robert J. Brooks				
Jeffrey Franke				
Nancy Kacin				
Lawrence Nicolette				
Dennis Pavlik				
Theo van de Venne				