

BOROUGH OF EBENSBURG, CAMBRIA COUNTY

STORMWATER MANAGEMENT ORDINANCE #576

Prepared for:

Borough of Ebensburg
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ARTICLE I - GENERAL PROVISIONS

SECTION 101. SHORT TITLE

The Ordinance shall be known and may be cited as the “Stormwater Management Ordinance” for Ebensburg Borough, and is consistent with the model ordinances established by Cambria County for all municipalities located within the Little Conemaugh River Watershed, the Chest Creek Watershed, and the Blacklick Creek Watershed. The model ordinance for these three (3) watersheds have been modified herein to include those portions of the Borough which are outside either the Little Conemaugh, Chest Creek, or Blacklick Creek Watersheds.

SECTION 102. STATEMENT OF FINDINGS

The Borough Council finds that:

- A. Inadequate management of accelerated runoff of stormwater resulting from development throughout a watershed increases flood flows and velocities; contributes to erosion and sedimentation; overtaxes the carrying capacity of streams and storm sewers; greatly increases the cost of public facilities to carry and control stormwater; undermines flood plain management and flood control efforts in downstream communities; reduces groundwater recharge; and threatens public health and safety; and
- B. A comprehensive program of stormwater management, including reasonable regulation of development and activities causing accelerated erosion, is fundamental to the public health, safety and welfare and the protection of the people of the municipality and all the people of the Commonwealth, their resources and the environment.

SECTION 103. PURPOSE

The purpose of this ordinance is to promote the public health, safety and welfare by minimizing the damages described in Section 102 (A) of this ordinance by provisions designed to:

- A. Promote the general health, welfare, and safety of the community.
- B. Utilize and preserve the existing natural drainage systems.
- C. Manage accelerated runoff/erosion/sedimentation problems at the source, from modifications to natural terrain and the alteration of existing drainage from land developments.

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- D. Maintain existing flows and quality of systems and water sources in the Borough and the Commonwealth.
 - E. Preserve and restore the flood carrying capacity of streams.
 - F. Provide proper maintenance of all permanent stormwater management facilities that are constructed within the Borough.
 - G. Provide performance standards and design/construction criteria for watershed-wide stormwater management and planning.
 - H. Encourage the recharge of groundwater, where appropriate, and prevent the degradation of groundwater quality.

SECTION 104. STATUTORY AUTHORITY

The municipality is empowered to regulate these activities by the authority of the Act of Oct. 4, 1978, P.L. 864 (Act 167), the "Storm Water Management Act" and the Borough Code 53 PS Section 46201 et seq.: Pa. Municipal Planning Code, Act 247, as reenacted and amended.

SECTION 105. APPLICABILITY

1. This Ordinance is based on the model ordinances established by Cambria County for the Little Conemaugh River, Chest Creek and Blacklick Creek and has been modified to include all portions of Cambria Township, Jackson Township, and Ebensburg Borough. References to "release rates," as defined in the Definitions section of this Ordinance, shall only apply to those areas of the Borough which are located within the Little Conemaugh River drainage basin, as delineated on the Watershed Boundary Map provided with this Ordinance. For purposes of hydraulic calculations, a release rate value of 100 percent will be assumed for any location within either the Chest Creek or Blacklick Creek Watersheds for the 5, 10, 25, and 100-year storm events. However, any location within Ebensburg Borough, regardless of watershed, will be required to retain the 2-year post-development storm to 1-year post-development peak discharges.
2. This Ordinance shall apply to permanent and temporary stormwater management controls and facilities constructed as part of any of the activities listed in this section. New construction, property improvements, or creation of a subdivision or re-subdivision, meeting the criteria described in this section, shall be required to adhere to the conditions of the Subdivision and Land Development Ordinance if the application to the Borough is to be acted on after the effective date of this Ordinance. Stormwater management and erosion and sediment control during

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- construction specifically not regulated by this Ordinance shall apply to those areas of the Borough that are located within the Chest Creek Watershed.
3. This Ordinance shall only apply to permanent stormwater management facilities constructed as part of any of the regulated activities listed in this Section. Stormwater management and erosion and sedimentation control during construction activities are specifically not regulated by this Ordinance, but shall continue to be regulated under existing laws and ordinances.
 4. This Ordinance contains only the stormwater management performance standards and design criteria that are necessary or desirable from a watershed-wide perspective. Local stormwater management design criteria (e.g., inlet spacing, inlet type, collection system design and details, outlet structure design, etc.) shall continue to be regulated by the applicable Borough ordinances or at the Borough Engineer's discretion.
 5. The following activities are defined as "regulated activities" and shall be regulated by this Chapter.
 - A. Land development
 - B. Subdivision
 - C. Construction of new or additional impervious or semi-pervious surfaces (driveways, parking lots, etc.)
 - D. Construction of new buildings or additions to existing buildings
 - E. Diversion or piping of any natural or man-made stream channel
 - F. Installation of stormwater management facilities or appurtenances thereto
 - G. Mining operations
 - H. Deforestation of wooded areas
 6. This Chapter contains only minimum stormwater runoff control criteria and standards, which are necessary or desirable from a total watershed perspective. Additional stormwater management design criteria (i.e., inlet spacing, inlet type, collection system details, etc.), which represent sound engineering practice, should be regulated as part of the general responsibilities of the Borough Engineer.
 7. The following activities are defined, as negotiated activities are not included within the scope of this Ordinance.
 - A. Land development
 - B. Subdivision
 - C. Construction of new or additional impervious or semi-impervious surfaced (driveways, parking lots, etc.)
 - D. Construction of new buildings or additions to existing buildings
 - E. Diversion of piping or any natural or man-made channel

- F. Installations of stormwater controls and facilities or appurtenances thereto

SECTION 106. EXEMPTIONS

1. The following activities are specifically exempt from this Ordinance:
 - A. Any regulated activity that meets the exception criteria in the following table is exempt from the provisions of this Ordinance. These criteria shall apply to the total development even if development is to take place in phases. The date of the Borough Ordinance adoption shall be the starting point from which to consider tracts as “parent tracts” in which future subdivision and respective impervious area computations shall be cumulatively considered. An exemption shall not relieve the applicant from implementing such measures as are necessary to protect health, safety, and property. This exemption shall not relieve the applicant from meeting the requirements for water quality and groundwater recharge, special requirements for high quality (HQ) and exceptional value (EV) watersheds.

Stormwater Management Exemption Criteria	
Total Parcel Size	Impervious Area Exemption (sq. ft.)
< ¼ acre	2,500 sq. ft.
> ¼ to 1 acre	5,000 sq. ft.
> 1 to 2 acres	10,000 sq. ft.
> 2 to 5 acres	15,000 sq. ft.
> 5 acres	20,000 sq. ft.

- B. Use of land for gardening for residential consumption.
- C. Landscaping improvements which do not significantly alter the runoff characteristics.
- D. The agricultural activities such as growing crops, rotating crops, filling of soil, and grazing \animals and other such activities are specifically exempt from complying with the requirements of the Stormwater Management Act, when such activities are conducted in accordance with a conservation plan or erosion and sedimentation control plan prepared by the County Conservation District. The construction of buildings, parking lots, or any activity that may result in impervious surface which increase the rate and volume of stormwater runoff shall comply with the requirements of this Ordinance.
- E. Minor improvements to existing residential (single household) properties.

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2. For the purpose of this Chapter, the creation of more than three (3) lots (irrespective of size) of which new construction of buildings or impervious surfaces could take place at the present or in the future, will be considered to have an impervious surface greater than 10,000 square feet.

SECTION 107. REPEALER

Any ordinance of the municipality inconsistent with any of the provisions of this ordinance is hereby repealed to the extent of the inconsistency only.

SECTION 108. SEVERABILITY

Should any section or provision of this ordinance be declared invalid by a court of competent jurisdiction, such decision shall not affect the validity of any of the remaining provisions of this ordinance.

SECTION 109. COMPATIBILITY WITH OTHER PERMIT AND ORDINANCE REQUIREMENTS

Permits and approvals issued pursuant to this ordinance do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by any other applicable code, rule, act or ordinance. If more stringent requirements concerning regulation of stormwater or erosion and sedimentation control are contained in the other code, rule, act or, the Zoning Ordinance, Subdivision and Land Development Ordinance, the more stringent regulation shall apply.

ARTICLE II - DEFINITIONS

SECTION 201 – TERMS

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

Cistern - An underground reservoir or tank for storing rainwater.

Conservation District - The Conservation District serving Cambria County.

Culvert - A pipe, conduit or similar structure including appurtenant works which carries surface water.

Design Storm - The magnitude of precipitation from a storm event measured in probability of occurrence (e.g., 50-year storm) and duration (e.g., 24-hour), and used in computing stormwater management control systems.

Detention Basin - A basin designed to retard stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate. A detention basin can be designed to drain completely after a storm event, or it can be designed to contain a permanent pool of water.

Developer - A person or persons, partnership, association, corporation or other entity, or any responsible person therein or agent thereof, that undertakes the activities covered by this ordinance.

Diversion Terrace - A channel and a ridge constructed to a predetermined grade across a slope, and designed to collect and divert runoff from slopes which are subject to erosion.

Drainage Easement - A right granted by a land owner to a grantee, allowing the use of private land for stormwater management purposes.

Erosion - The removal of soil particles by the action of water, wind, ice or other geological agents.

Forest Management Operations - All activities connected with growing and harvesting of forest products including the site preparation, cultivation and logging of trees, and the construction and maintenance of roads.

Groundwater Recharge - Replenishment of existing natural underground water supplies.

Impervious Surface - A surface which prevents the percolation of water into the ground.

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

Land 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) a subdivision of land.

Land Disturbance - Any activity involving grading, filling, digging or filling of ground, or stripping of vegetation, or any other activity which causes land to be exposed to the danger of erosion.

Municipality – Ebensburg Borough, Cambria County, Pennsylvania

Nursery - A tract of land on which trees and plants are raised or stored for transplanting and sale.

Peak Discharge - The maximum rate of flow of water at a given point and time resulting from a specified storm event.

Runoff - That part of precipitation which flows over the land.

SCS - Soil Conservation Service, U.S. Department of Agriculture.

Sediment - Solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by water.

Sediment Basin - A barrier, dam, retention or detention basin designed to retain sediment.

Seepage Pit/Seepage Trench - An area of excavated earth filled with loose stone or similar material and into which surface water is directed for infiltration into the ground.

Semi-Pervious Surface - A surface such as stone, rock, concrete or other materials which permits some vertical transmission of water.

Soil-Cover Complex Method - A method of runoff computation developed by SCS, and found in its publication "Urban Hydrology for Small Watersheds", Technical Release No. 55, SCS, January 1975.

Storm Sewer - A system of pipes or other conduits which carries intercepted surface runoff, street water and other wash waters, or drainage, but excludes domestic sewage and industrial wastes.

Stormwater Management Plan - The plan for managing stormwater runoff adopted by the Ebensburg Borough Council, Cambria County, as required by the Act of Oct. 4, 1978, P.L. 864, (Act 167), and known as the “Storm Water Management Act”. **Repealed Ordinance #522**

Subdivision - The division or redivision of a lot, tract or parcel of land by any means into two or more lots, tracts, parcels or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future, of lease, transfer of ownership or building or lot development: provided, however, that the division of land for agricultural purposes into parcels of more than ten acres, not involving any new street or easement of access, shall be exempt.

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

ARTICLE III - STORMWATER MANAGEMENT REQUIREMENTS

SECTION 301. GENERAL REQUIREMENTS

1. All stormwater management system designs, plans and/or construction, which do not fall under the exemption criteria shown in Section 106, shall submit a drainage plan consistent with this Ordinance to the Borough for review. These criteria shall apply to the total proposed development even if the development is to take place in stages. Impervious cover shall include, but not be limited to, any roof, parking or driveway areas and any new streets and sidewalks. Any areas designed to initially be gravel or crushed stone shall be assumed to be impervious for the purposes of comparison to the exemption criteria. In addition they shall:

- A. Limit the peak post-development runoff to the applicable release rate of the predevelopment peak rate of runoff from the, 5, 10, 25, and 100-year storms. It is the developer/owner/engineer's responsibility to insure that the proposed development site/subdivision meets the release rate criteria of this Ordinance and does not increase stormwater runoff onto other properties.
- B. Be compatible with the Little Conemaugh River, Chest Creek, and Blacklick Creek Stormwater Management Plans, which were used as a basis for this Chapter.
- C. Comply with all the requirements of the local ordinances and/or the PA DEP. Should any stormwater management facilities qualify as a dam under 25 Pa. Code 25, Chapter 105, the facility shall be designed in accordance with Chapter 105 and meet the regulations of Chapter 105 concerning dam safety.
- D. Be conducted in such a way as to minimize accelerated erosion and resulting sediment pollution. Measures to control erosion and resulting sediment pollution shall, at a minimum, meet the standards of 25 Pa. Code, Chapter 102 "Erosion and Sediment Pollution Control," and Erosion and Sediment Pollution Control Manual (latest edition).
- E. Be designed so that the construction of basins within the 100-year floodplain are avoided, where possible, but where unavoidable, the situation shall be examined for its function-ability and supporting documentation submitted to Ebensburg Borough for review and shall be consistent with 25 Pa.Code, Chapter 106 "Floodplain Management."

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- F. Comply with all zoning, subdivision and floodplain management regulations at the State or municipal level. The more restrictive regulation(s) supersede(s) all other regulations.
 - G. Be designed by a person trained and experienced in stormwater management. The design, and installation of the control measures are the responsibility of the developer.
 - 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. The existing points of concentrated drainage that discharge onto adjacent property shall not be altered without permission of the altered property owner(s) and shall be subject to any applicable discharge criteria specified in this Ordinance.
 - J. Areas of existing diffused drainage discharge shall be subject to any applicable discharge criteria in the general direction of existing discharge, whether proposed to be concentrated or maintained as diffused drainage areas, except as otherwise provided by this Chapter. If diffused flow is proposed to be concentrated and discharged onto adjacent property, the developer 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.
 - K. Where a development site is traversed by watercourses, drainage easements shall be provided conforming to the line of such watercourses. The terms of the easements shall prohibit excavation, the placing of fill or structures, and any alternations that may adversely affect the flow of stormwater within any portion of the easement. Also, maintenance, including mowing of vegetation within the easement, shall be required, except as approved by the appropriate governing authority.
 - L. When it can be shown that, due to topographic conditions, natural drainage ways on the site cannot adequately provide for drainage, open channels may be constructed conforming substantially to the line and grade of such natural drainageways. Work within natural drainageways shall be subject to approval by PADEP through the joint application process or where deemed appropriate by PADEP, through general permit process.

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- M. Any stormwater management facilities regulated by this Ordinance that would be located in or adjacent to waters of the Commonwealth or wetlands shall be subject to approval by PADEP through the joint permit application process or where deemed appropriated by PADEP, the general permit process. When there is a question whether wetlands may be involved, it is the responsibility of the developer or his agent to show the land in question cannot be classified as wetlands, otherwise, approval to work in the area must be obtained from PADEP.
- N. Any stormwater management facilities regulated by this Ordinance that would be located on State highway right-of-way shall be subject to approval by the PennDOT.
- O. Minimization of impervious surfaces and infiltration of run-off through seepage beds, infiltration trenches, etc., are encouraged, where soil conditions permit, to reduce the size or eliminate the need for detention facilities.
- P. Roof drains must not be connected to streets, sanitary or storm sewers, or roadside ditches to promote overload flow and infiltration/percolation of stormwater where advantageous to do so. When it is more advantageous to connect directly to streets or storm sewers, then it shall be permitted on a case by case basis by the Borough.
- Q. Special requirements for areas falling within defined exceptional value and high quality sub-watershed: the temperature and quality of water and streams that have been declared as exceptional value and high quality is to be maintained as defined in Pa.Code 25, Chapter 93, "Water Quality Standards." Temperature sensitive BMPs and stormwater conveyance systems are to be used and designed with storage pool areas and supply outflow channels and should be shaded with trees. This will require modification of berms for permanent ponds and the relaxation of restrictions on planting vegetation within the facilities, provided that capacity for volumes and rate control is maintained. At a minimum, the southern half on pond shorelines shall be planted with shade or canopy trees within 10 feet of the pond shoreline. In conjunction with this requirement, the maximum slope allowed on the berm areas to be planted is 10 to 1. This will lessen the destabilization of berm soils due to root growth. A long-term maintenance schedule and management plan for the thermal control MPS's is to be established and recorded for all development sites.
2. These requirements are in addition to any and all criteria established by the PADEP.

Method of computation - Peak discharge and runoff shall be computed using the following table:

Acceptable Computation Methodologies for Stormwater Management Plans		
Method	Method Developed by	Applicability
TR-20 (or commercial package based on TR-20)	USDA SCS	Applicable where use of full hydrology computer model is desirable or necessary
TR-55 (or commercial computer package based on TR-55)	USDA SCS	Applicable for land development plans within limitations described by TR-55
HEC-1, HEC-HMS	US Army Corps of Engineers	Applicable when use of full hydrologic computer model is desirable or necessary
PSRM	Penn State University	Applicable where use of a hydrologic computer model is desirable or necessary; simpler than TR-20 or HEC-1
Rational Method (or commercial computer package based on Rational Method)	Emil Kuichling (1889)	For sites less than 20 acres, not utilizing a detention basin
Other Methods	Varies	Other computations methodologies approved by the Borough Engineer

It is assumed that all methods will be selected by the design professional based on the individual limitations and suitability of each method for a particular site.

3. It should be noted that stormwater storage could be provided on or off site. The possibility for regional or off-site facilities provides increased management flexibility within a watershed. In many areas, the most cost-effective solution may be several developments sharing a joint facility. Municipalities also may benefit from this approach. Joint facilities may maximize development in appropriate areas and provide regional storage through the use of natural or artificial lakes, floodplains, and valleys with steep slopes that are unsuitable for development. However, where off-site storage is to be used, the developer must ensure that no flooding or harm will be caused by runoff between the new development and the off-site storage area. This may require the protection of the stream channel or the construction of a storm sewer to convey runoff to the storage site.
4. For the purposes of pre-development flow rate determination, undeveloped land shall be considered as "meadow" in good condition, unless the natural ground cover generates a lower curve number or Rational "C" value (i.e., forest).
5. All calculations using the Rational Method shall use rainfall intensities consistent with appropriate times of concentration for overland flow and return periods from the design storm curves from PennDOT Design Rainfall Curves. Time of concentration for overland flow shall be calculated using the methodology presented in Chapter 3 or Urban

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- Hydrology for Small Watersheds, NRCS, TR-55. Times of concentration for channel and pipe flow shall be computed using Manning's equation.
6. Runoff curve numbers (CN) for both existing and proposed conditions to be used in the soil cover complex method shall be obtained from the Appendix.
 7. Runoff coefficients (c) for both existing and proposed conditions for use in the Rational Method shall be obtained from the Appendix.
 8. Where uniform flow is anticipated, the Manning equation shall be used for hydraulic computations, and to determine the capacity of open channels, pipes and storm sewers. Outlet structures for stormwater management facilities shall be designed to meet the performance standards of this Ordinance using any generally accepted hydraulic analysis technique or method.
 9. The design of any stormwater detention facilities intended to meet the performance standards of this Ordinance shall be verified by routing the design storm hydrograph through these facilities using the Storage-Indication Method. For drainage areas greater than 200 acres, the design storm hydrograph shall be computed using a calculation method that produces a full hydrograph. The Borough may approve the use of any generally accepted fully hydrograph approximation technique that shall use total runoff volume that is consistent with the volume from a method that produces a full hydrograph.
 10. Regional Detention Alternatives. For certain areas within the study area, it may be more cost-effective to provide one control facility for each development site. The initiative and funding for any regional runoff control alternatives are the responsibility of prospective developers. The design of any regional control basins must incorporate reasonable development of the entire upstream watershed. The peak outflow of a regional basin would be determined on a case-by-case basis using the hydraulic model of the watershed consistent with protection of the downstream watershed areas. Hydrologic model refers to the calibrated model as developed for the Stormwater Management Plan.
 11. The release rate percentage provides a standard for the watershed plan to define what measures are reasonably necessary to manage stormwater so as to prevent injury to persons and property in a watershed.
 12. Procedure for Calculating Stormwater Runoff.
 - a. Compute the pre-development runoff hydrograph for the 1, 5, 10, 25, and 100-year storm events.

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- b. Compute the post-development runoff hydrograph for the 2, 5, 10, 25, and 100-year events with no stormwater management. (Compare the post-development 2-year peak to the pre-development 1-year peak, the 5-year post to the 5-year pre, etc.) If the post-development hydrograph is identical to the pre-development runoff hydrograph in peak discharge and shape, the requirements of this Chapter have been met; other wise, proceed to step C.
 - c. If site conditions allow, apply on-site stormwater management techniques to increase infiltration and reduce impervious surfaces. Recompute the 2, 5, 10, 25, and 100-year post development hydrographs. If the peak rates are greater than pre-development rates, stormwater detention will be required.
 - d. If located within the Little Conemaugh River Watershed: using the subbase release rate percentage (provided on the watershed map in the Appendix) and the pre-development rate of runoff, multiply to determine the allowable release rates from the detention facility for the 2, 5, 10, 25, and 100-year events. (If the site is located outside the Little Conemaugh River Watershed, the release rate for all storms (except the 2-year) is 100 percent of pre-development.
 - e. Prove by accepted hydraulic methods that the allowable release rates from the detention facilities are being achieved for the 2, 5, 10, 25, and 100-year events through principal outlet/outlets.
 - f. Provide all detention facilities with an emergency spillway or emergency overflow outlet with the capacity of safely passing 100 percent of the peak inflow from the 100-year post-development event.

SECTION 302. TECHNICAL REQUIREMENTS

1. All stormwater management facilities required or regulated by this Chapter shall be designed to meet the performance standards presented within this Chapter.

- A. References to “release rates,” as defined in Section 201 of this Ordinance, shall only apply to those areas of the Borough which are located within the Little Conemaugh River drainage basin, as delineated on the Watershed Boundary Map provided in the Appendix of this Ordinance. For purposes of hydraulic calculations, a release rate value of 100 percent will be assumed for any location within either the Chest Creek or Blacklick Creek Watersheds for the 5, 10, 25, and 100 year storm events. However, any location within Ebensburg Borough, regardless of watershed, will be required to retain the 2-year post-development storm to 1-year pre-development peak discharges.

B. In addition to the requirements specified below, the ground water recharge, water quality, and streambank erosion, requirements shall be implemented.

2. The design of any detention facility intended to meet the requirements of this Ordinance shall be verified by routing the design storm hydrograph through the proposed facility. As such, use of the Rational Method for detention system facility sizing is unacceptable.

3. "No Harm Option." For any proposed development site not located in a provisional direct discharge district, the developer has the option of using a less restrictive runoff control (including no detention) if the developer can prove that "no harm" would be caused by discharging at a higher runoff rate than that specified by the Plan. The "no harm" option is used when a developer can prove that the post development hydrographs, or if it can be proved that the post-development conditions will not cause increases in peaks at all points downstream. Proof of "no harm" would have to be shown based upon the following "downstream impact evaluation" which shall include a "downstream hydraulic capacity analysis" consistent with subsection 4 to determine if adequate hydraulic capacity exists. The land developer shall submit to the Borough this evaluation of the impacts due to increased downstream stormwater flows in the watershed.

A. The "downstream impact evaluation" shall include hydrologic and hydraulic calculations necessary to determine the impact of hydrograph timing modifications due to the proposed development upon a dam, highway, structure, natural point of restricted streamflow or any stream channel section, established with the concurrence of the Borough.

B. The evaluation shall continue downstream until the increase in flow diminished due to additional flow from tributaries and/or stream attenuation.

C. The peak flow values to be used from downstream areas for the design return period storms (2, 5, 10, 25, 50, and 100 years) shall be the values from the calibrated model for the Chest Creek Watershed. These flow values can be obtained from the watershed plan.

D. Developer-proposed runoff controls which would generate increased peak flow rates at storm drainage problem areas would, by definition, be precluded from successful attempts to prove "no harm," except in conjunction with proposed capacity improvements for the problem areas consistent with subsection 4.

E. A financial distress shall not constitute grounds for granting a no-harm exemption.

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- F. Capacity improvements may be provided as necessary to implement the “no harm” option which proposed specific capacity improvements to provide that a less stringent discharge control would not create any harm downstream.
- G. Any “no harm” justifications shall be submitted by the developer as part of the drainage plan submission
4. “Downstream hydraulic capacity analysis” - Any downstream capacity hydraulic analysis conducted in accordance with this Ordinance shall use the following criteria for determining adequacy for accepting increased peak flow rates:
- A. Natural or man-made channels or swales must be able to convey the increased runoff associated with a 2-year return period event within their banks at velocities consistent with protection of the channels from erosion. Acceptable velocities shall be based upon criteria included in the DEP Erosion and Sediment Pollution Control Program Manual.
 - B. Natural or man-made channels or swales must be able to convey increased 25-year period runoff without creating any hazard on persons or property.
 - C. Culverts, bridges, storm sewers, or any other facilities which must pass or convey flow from the tributary area must be designed in accordance with 25 Pa.Code, Chapter 105, regulations (if applicable) and, at minimum, pass the increased 25-year return period runoff.
5. Regional Detention Alternatives. For certain areas within the study area, it may be more cost-effective to provide one control facility for more than one development site than to provide an individual control facility for each development site. The initiative and funding for any regional runoff control alternatives are the responsibility of prospective developers. The design of any regional control basins must incorporate reasonable development of the entire upstream watershed. The peak outflow of a regional basin would be determined on a case-by-case basis using the hydrologic model of the watershed consistent with protection of the downstream watershed areas. “Hydrologic model” refers to the calibrated model as developed for the Stormwater Management Plan.
6. All facilities that require stream encroachment or dam safety permits, as defined in 25 Pa.Code, Chapter 105, regulations (as amended or replaced from time to time by PADEP), shall be designed in accordance with Chapter 105. The definition of “dam” is defined in Chapter 105 regulations. Any roadway crossing including pipes, bridges, storm sewers, or any other drainage conveyance facility or any work involving wetlands as described in PADEP Chapter 105 regulations

shall be designed in accordance with Chapter 105 regulations and may require a permit from DEP.

7. All calculations using the soil-cover-complex method shall use the NRCS Type II 24-hour rainfall distribution

8. Rainfall intensities required for the rational formula shall use rainfall intensities consistent with appropriate times of concentration and return periods and shall be obtained from the "Rainfall-Duration-Frequency Tables for Pennsylvania." In the event that a detention facility is proposed for the development, the Rational Method will be deemed unacceptable, since routing of the storm through the detention facility is required.

9. Infiltration/storage structures are promoted throughout the watershed, particularly on the more porous soils (hydrologic soil groups A and B). Of course size limitations and geologic conditions (potential for groundwater contamination) should be carefully examined before proposing infiltration facilities. The criteria in the Ground Water Recharge Section shall be consulted in determining the storage potential for infiltration structures. The effects of frozen conditions should also be considered when designing such facilities.

10. Sites located in more than one watershed: for a proposed development site located within two or more release category subareas, the peak discharge rate from any subarea shall be the pre-development peak discharge for that subarea multiplied by the applicable release rate. The calculated peak discharges shall supply regardless of whether the grading plan changes the drainage area by subarea. An exception to the above may be granted if discharges from multiple subareas re-combine in proximity to the site. In this case, discharge in any direction may be a 100 percent release rate provided that the overall site discharge meets the weighted average release rate.

11. Any stormwater management facilities located on State highway right-of-way shall be subject to approval by PennDOT

12. The following list of general structural criteria may be used to aid in the design of a proposed stormwater detention basin:

- A. The basin is to be sodded or topsoiled and seeded, including the bottom, side slopes, and all earthen dams and embankments.
- B. Suitable lining shall be required to all points of inflow to the basin where erosion and scour may occur.
- C. The side slopes shall be maximum of 3 feet horizontal to 1 foot vertical.
- D. Basins greater than 3 feet deep shall be fenced.

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- E. Safety ledges shall be constructed on the side slopes of all detention basins having a permanent pool of water.
 - F. All stormwater detention facilities shall be designed to provide an emergency overflow which shall pass 100 percent of the 100-year post-development runoff rate. The height of embankment must be set as to provide a minimum 1 foot of freeboard above the maximum pool elevation computed when the facility functions for 100 year post-development inflow. Should any stormwater management facilities qualify as a dam under 25 Pa.Code, Chapter 105, the facility shall be designed in accordance with Chapter 105 and meet the regulations of Chapter 105 concerning dam safety.
 - G. Outlets shall be designed to function without manual, electric, or mechanical controls where possible.
 - H. Provide all spillways (primary and emergency) with erosion protection.
 - I. All earth fill shall be free from brush, roots, and other organic material subject to decomposition.
 - J. The fill material in all earth darns and embankments shall be compacted to at least 95 percent of the maximum density obtained from compaction tests performed by the appropriate method is ASTM D698

13. Off Site Areas. Off site areas that drain through a proposed development site are not subject to release rate criteria when determining allowable peak runoff rates. However, on-site drainage facilities shall be designed to safely convey off-site flows through the development site.

14. Any facilities that constitute water obstructions (e.g., culverts, bridges, outfalls, or stream enclosures), and any work involving wetlands as directed in 25 Pa.Code, be designed in accordance with Chapter 105 and will require a permit from PADEP. Any other drainage conveyance facility that does not fall under Chapter 105 regulations must be able to convey, without damage to the drainage structure or roadway, runoff lowest point along the top of the roadway. Roadway crossings located within designated minimum 1 foot of freeboard measured below the lowest point along the top of roadway. Any facility that constitutes a dam as defined in PADEP Chapter 105 regulations may require a permit under dam safety regulations. Any facility located within a PennDOT right of way must meet PennDOT minimum design standards and permit submission requirements.

15. Any drainage conveyance facility and/or channel that does not fall under 25 Pa.Code, Chapter 105 regulations, must be able to convey without damage to the drainage structure or roadway, runoff from the 10-year design storm.

Conveyance facilities to or existing from stormwater management facilities (i.e., detention basins) shall be designed to convey the design flow to or from that structure. Roadway crossings located within designated floodplain areas must be able to convey runoff from a 100-year design storm. Any facility located within a PennDOT right of way must meet PennDOT minimum design standards and permit submission requirements.

16. Storm sewers must be able to convey post-development runoff from a 10-year design storm without surcharging inlets, where appropriate.

17. Adequate erosion protection shall be provided along all open channels, and at all points of discharge.

18. Infiltration facilities cannot discharge to or be directly hydrologically connected to an underlying deep mine.

19. The design of all stormwater management facilities shall incorporate sound engineering principles and practices. The Plan Administrator shall reserve the right to disapprove any design that would result in the occurrence or perpetuation of an adverse hydrologic or hydraulic condition within the watershed.

SECTION 303. LIST OF DATA

- A. Method of Computation:** Peak discharge and runoff shall be computed using the Runoff Curve Numbers listed in the table on page 38 of this Ordinance
- B. Rainfall Frequency Data:** (available from U.S. Department of Commerce, National Weather Service and Pa. DEP, Research Publication Number 70).
- C. Maintenance of Natural Drainageways** - All natural streams, channels, swales, drainage systems and/or areas of surface water concentration shall be maintained in their existing condition unless an alteration is approved by the municipality. All encroachment activities shall comply with the requirements of Chapter 105 (Water Obstructions and Encroachments) of Title 25, Rules and Regulations of Pa. DEP.
- D. Methods of Stormwater Runoff Detention and Control** - The following is a listing of detention and control methods which may be utilized in stormwater management systems, if appropriate. The choice of control techniques is not limited to the ones appearing on this list.
 - 1. Detention basins;

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2. Roof-top storage;
 3. Parking lot and street ponding;
 4. Seepage pits, seepage trenches or other infiltration structures;
 5. Porous pavement and concrete lattice block surfaces;
 6. Grassed channels and vegetated strips;
 7. Cisterns and underground reservoirs;
 8. Routed flow over grass; and
 9. Decreased impervious area coverage.

The use of other control methods which meet the criteria in this section will be permitted when approved by the municipal engineer. Various combinations of methods should be tailored to suit the particular requirements of the type of development and the topographic features of the project area.

SECTION 304. GROUNDWATER RECHARGE

1. The ability to retain and maximize the ground water recharge capacity of the area being developed is encouraged. Design of the infiltration/recharge stormwater management facilities shall give consideration to providing ground water recharge to compensate for the reduction in the percolation that occurs when the ground surface is paved and roofed over. These measures are encouraged, particularly in hydrologic soil grounds A and B and should be utilized wherever feasible. Soils used for the construction of basins shall have low-erodibility factors ("IC" factors).
2. Infiltration BMPs shall meet the following minimum requirements;
 - A. Infiltration BMPs intended to receive runoff from developed areas shall be selected based on suitability of soils and site conditions and shall be constructed on soils that have the flowing characteristics:

1. A minimum depth of 48 inches between the bottom of the facility and the seasonal high water table and/or bedrock (limiting zones)
2. An infiltration and/or percolation rate sufficient to accept the additional stormwater load and drain completely as determined by field tests conducted by the owner's professional designer.

B. Infiltration BMPs receiving only roof runoff may be placed in soils having a minimum depth of 24 inches between the bottom of the facility and the limiting zone.

C. The size of the recharge facility shall be based upon the following equation:

$$Re_v = [(S)(R_v)(A)]/12$$

Where:

- Re_v = Recharge Volume (acre-feet)
- S = Soil specific recharge factor (inches)
- R_v = Volumetric runoff coefficient
- A = Site area contributing to the recharge facility (acres)

And: $R_v = 0.05 + 0.009(I)$

Where:

I = percent impervious area

And: S shall be obtained based upon hydrologic soil group based upon the table below:

Hydrologic Soil Group	Soil Specific Recharge Factor (S)
A	0.38 inches
B	0.25 inches
C	0.13 inches
D	0.06 inches

If more than one hydrologic soil group (HSG) is present at a site, a composite recharge volume shall be computed based upon the proportion of total site area within each HSG.

D. The recharge volume provided at the site shall be directed to the most permeable HSG available.

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- E. The recharge facility shall be capable of completely infiltrating the impounded water within 48 hours.
 - F. The recharge facility shall be capable of completely infiltrating the impounded water within 48 hours.
 3. A detained soils evaluation of the project site shall be performed to determine the suitability of recharge facilities. The evaluation shall be performed by a qualified professional, and at a minimum, address soil permeability, depth to bedrock, susceptibility to sinkhole formation, and subgrade stability. The general process for designing the infiltration BMP shall be:
 - A. Analyze hydrologic soil groups as well as natural and man-made features within watershed to determine general areas of stability for infiltration practices.
 - B. Provide field test to determine appropriate percolation rate and/or hydraulic conductivity.
 - C. Design infiltration structure for required storm volume based on field-determined capacity at the level of the proposed infiltration surface.
 4. Extreme caution shall be exercised where infiltration is proposed in geologically susceptible areas such as strip mine or limestone areas. Extreme caution shall also be exercised where salt or chloride would be a pollutant since soils do little to filter this pollutant and it may contaminate the groundwater. It is also extremely important that the design professional evaluate the possibility of groundwater contamination from the proposed infiltration/recharge facility and recommend a hydrogeologic justification study be performed if necessary. Whenever a basin will be located in an area underlain by limestone, a geological evaluation of the proposed location shall be conducted to determine susceptibility to sinkhole formations. The infiltration requirement in the high quality/exceptional waters shall be subject to 25 Pa.Code, Chapter 93, and anti-degradation regulations. The design of all facilities over limestone formations shall include measures to prevent groundwater contamination and, where necessary, sinkhole formations. The Borough may require the installation of an impermeable liner in detention basins. A detailed hydrogeologic investigation may be required by the Borough. It shall be the developer's responsibility to verify if the site is underlain by limestone. The following note

shall be attached to all drainage plans and signed and sealed by the developers engineer/surveyor/landscape architect/geologist: _____, certify that the proposed detention basin (circle one) is/is not underlain by limestone.

5. The Borough may require the developer to provide safeguards against groundwater contamination for uses which may cause groundwater contamination should there be a mishap or spill.
6. Where pervious pavement is permitted for parking lots, recreational facilities, nondedicated streets, or other areas, pavement construction specifications shall be noted on the plan.
7. Recharge/Infiltration facilities may be used in conjunction with other innovative or traditional BMPs, stormwater control facilities, and nonstructural stormwater management alternatives.

ARTICLE IV - PLAN REQUIREMENTS

SECTION 401. GENERAL REQUIREMENTS

1. Prior to the final approval of subdivision and/or land development plans, or the issuance of any permit, or the commencement of any land disturbance activity, the owner, subdivider, developer or his agent shall submit a stormwater management plan to the municipality for approval.
2. The Drainage Plan shall be submitted to the Borough with the preliminary subdivision and/or land development plan to allow for timely review and inclusion in the final subdivision plan for any revision(s) which may result from the review(s).
3. The applicant shall submit the erosion and sediment pollution control plan directly to the Cambria County Conservation District for review and approval.
4. For any activities regulated by this Ordinance, the final approval of subdivision and/or land development plans, the issuance of any building or occupancy permit, or the commencement of any land disturbance activity may not proceed until the property owner or developer or his/her agent has received written approval of a drainage plan from the Borough.

SECTION 402. EXEMPTIONS

1. Any regulated activity that meets the exception criteria in the following table is exempt from the provisions of this Section. These criteria shall apply to the total development even if development is to take place in phases. The date of the municipal ordinance adoption shall be the starting point from which to consider tracts as “parent tracts” in which future subdivisions and respective impervious area computations shall be cumulatively considered. An exemption shall not relieve the applicant from implementing such measures as are necessary to protect health, safety, and property. This exemption shall not relieve the applicant from meeting the requirements for high quality (HQ) and exceptional value (EV) watersheds.

Stormwater Management Exemption Criteria	
Total Parcel Size	Impervious Area Exemption (sq. ft.)
< ¼ acre	2,500 sq. ft.
> ¼ acre to 1 acre	5,000 sq. ft.
> 1 to 2 acres	10,000 sq. ft.
> 2 to 5 acres	15,000 sq. ft.
> 5 acres	20,000 sq. ft.

2. Exemptions shall be at the discretion of the Borough Engineer upon review of site conditions, topography, soils, and other factors as desired appropriate.

SECTION 403. PLAN CONTENTS

The following items shall be included in the Plan:

- A. Narrative report describing the project and giving the purpose and the engineering assumptions and calculations for control measures and facilities. This report should include, but not limited to the following:
 - 1. General description of the project including statement of total impervious area created.
 - 2. Brief soil description.
 - 3. General description of stormwater management controls.
 - 4. Expected project time schedule, including anticipated state and completion dates.
 - 5. A proposed schedule of inspections (if available) which will be performed by the applicant's engineer.
 - 6. All calculations, assumptions and criteria used in the design of the control measures and structures.
 - 7. A maintenance program for all stormwater management and controls for both the construction period and after construction is complete. Include the party responsible for maintenance. This program must include the proposed ownership of the permanent controls and details for financial responsibility for any required maintenance.
 - 8. Drainage plan application with fee.
 - 9. A copy of the erosion and sedimentation control plan approval letter from the Cambria County Conservation District or PADEP.
 - 10. A geologic assessment of the effects of runoff on sinkholes as specified in this Ordinance.
 - 11. The effect of the project (in terms of runoff volumes and peak flows) on adjacent properties and on any existing Borough stormwater collection system that may receive runoff from the project site.
 - 12. All deeds and plan restrictions, easements, and right-of-way related to stormwater management and facilities.
 - 13. Training and experience of person(s) preparing the plan.
 - 14. A declaration of adequacy and highway occupancy permit from the PennDOT District Office when utilization of a PennDOT storm drainage system is proposed.

- B. Map(s) of the project area shall include, but not be limited to:
 - 1. The name of the development, the name and address of the owner of the property, and the name of the individual or firm preparing the plan.
 - 2. The locations of the project relative to highways, municipalities, or other identifiable landmarks (i.e., USGS).

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3. North arrow and scale (written and graphic) of 1 inch equals no more than 50 feet.
 4. Existing and proposed contours at intervals of 2 feet; in areas of steep slopes (greater than 15%), 5-foot contour intervals may be used.
 5. Existing streams, lakes, ponds, or other bodies of water within and in close proximity to the project area.
 6. Easements and adjoining property owners.
 7. Existing structures, roads, paved areas, buildings, flood hazard boundaries, sinkholes, streams, and earth disturbances
 8. Other physical features including existing drainage swales and areas of natural vegetation to be preserved.
 9. Locations of existing and proposed underground utilities, sewers, and water lines within the property line. When groundwater recharge methods such as seepage pits, beds, or trenches are used, the locations of existing and proposed septic tank infiltration areas and wells must be shown.
 10. An overlay showing soil types and boundaries.
 11. Proposed changes to land surfaces and vegetative cover, including type and amount of impervious area that would be added.
 12. Limits of disturbed area(s).
 13. Proposed structures including roads, paved areas, and buildings.
 14. Any wetlands as delineated according to the latest acceptable manual and person(s) trained in wetland delineation.
 15. Existing and proposed stormwater management and erosion and sedimentation control structures.
 16. Details/profiles of all proposed stormwater management storage or infiltration control structures.
 17. Drainage area(s) including the total extent of the upstream area extending beyond the site limits.
 18. When groundwater recharge methods such as seepage pits, beds, or trenches are used, the locations of infiltration areas must be shown. It is recommended that any up and down-gradient wells and springs be sampled at least once prior to installation to document pre-infiltration device water quality. Reasonable radius for testing is 500 feet. Also, if infiltration facilities are used they cannot discharge to any underlying deep mine.
 19. The total tract boundary and size with distances marked to the nearest foot and bearings to the nearest degree.
 20. A key map showing all existing man-made features beyond the property boundary that would be affected by the project.
 21. Overland drainage paths.
 22. A 15-foot wide access easement around all stormwater management facilities that would provide ingress to and egress from a public right-of-way.

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23. A note on the plan indicating the location and responsibility for maintenance of stormwater management facilities that would be located off site. All offsite facilities shall meet the performance standards and design criteria specified in this Chapter.
 24. A statement, signed by the landowner, acknowledging the stormwater management system to be a permanent fixture that can be altered or removed only after approval of a revised plan by the Borough.
 25. Areas subject to special deed restrictions affecting or affected by stormwater management.
 26. Profiles and details of all open channels
 27. Plans for construction must be signed and sealed by an engineer registered in the Commonwealth of Pennsylvania and qualified under all applicable State and local laws to perform such duties indicating the compliance of the design of the stormwater management facilities and concepts with the provisions of this Ordinance.
 28. Date of submission.

SECTION 404. PLAN SUBMISSION

For all activities regulated by this Ordinance, the steps below shall be followed for submission. For any activities that require a PADEP joint permit application and regulated under 25 Pa.Code, Chapter 105 "Dam Safety and Waterway Management" of Chapter 106, "Floodplain Management" of PADEP's rules and regulations, require a PennDOT highway occupancy permit, or require any other permit under applicable State or Federal regulations, the proof of application for that, the permit(s) shall be part of the plan. The plan shall be coordinated with the State and Federal permit process.

- A. The drainage plan shall be submitted to Ebensburg Borough
- B. The drainage plan shall be accompanied with the requisite fee, as set forth in the Borough's Fee Schedule.
- C. Four (4) copies of the completed drainage plan must be submitted.

SECTION 405. DRAINAGE PLAN REVIEW AND APPROVAL.

The drainage plan shall be submitted to the Borough Council to allow for a timely review.

- A. The Borough shall distribute one (1) copy of the stormwater management plan to their designated engineer.
- B. The Conservation District and the Borough's Engineer shall provide their comments recommending approval or a list of deficiencies.

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- C. The Borough will then issue a drainage occupancy permit to provide a list of deficiencies to the developer for plan resubmission.
 - D. For regulated activities specified in this Ordinance, the Borough Engineer shall notify the Borough Building Permit Officer in writing, within a time frame consistent with the Borough Building Code and/or Borough Subdivision and Land Development Ordinance, whether the drainage plan is consistent with the Stormwater Management Plan and forward a copy of the approval/disapproval letter to the developer. Any disapproved drainage plan may be revised by the developer and resubmitted consistent with the Ordinance.
 - E. The Borough shall not approve any subdivision or land development for regulated activities specified in this Ordinance if the drainage plan has been found to be inconsistent with the Stormwater Management Plan, as determined by the Borough Engineer. All required permits from PADEP must be obtained prior to approval of any subdivision or land development.
 - F. The Borough Building Permit Officer shall not issue a building permit for any regulated activity specified in this Ordinance if the drainage plan has been found to be inconsistent with the Stormwater Management Plan, as determined by the Borough Engineer, or without considering the comments of the Borough Engineer. All required permits from PADEP must be obtained prior to issuance of a building permit.
 - G. The developer shall be responsible for completing record drawings of all stormwater management facilities included in the approved drainage plan. The record drawings and an explanation of any discrepancies with the design plans shall be submitted to the Borough Engineer for final approval. In no case shall the Borough approve the record drawings until the Borough received a copy of an approved declaration of adequacy, highway occupancy permit from the PennDOT District Office, and any applicable permits from PADEP.
 - H. Upon receipt of the final plans, which require all required modifications, the Borough Council will issue an approval letter. No work shall be permitted prior to the issuance of this approval letter.

SECTION 406. MODIFICATION OF PLANS

1. A modification to an approved drainage plan which involves a change in control methods or techniques, or which involves the relocation or redesign of control measures, or which is necessary because soil or other conditions are not

as stated on the approved application (as determined by the Borough Engineer or its designee) shall require resubmission for approval.

2. A modification to an already approved or disapproved drainage plan shall be submitted to the Borough, accompanied by the applicable review fee. A modification to a drainage plan for which a formal action has not been taken by the Borough shall be submitted to the Borough, accompanied by the applicable Borough review fee.

SECTION 407. RESUBMISSION OF DISAPPROVED PLANS.

A disapproved drainage plan may be resubmitted, with the revisions addressing the Borough Engineer's concerns documented in writing addressed to the Borough Secretary and distributed accordingly and be subject to review as specified in 404 of this Ordinance. The applicable Borough review fee must accompany a resubmission of disapproved drainage plans.

ARTICLE V - PERMIT REQUIREMENTS AND PROCEDURES

All subdivision/land development activities, except those specifically exempt from the drainage plan submittal and review requirements, shall be conducted only after the issuance of a drainage permit.

SECTION 501. PERMIT ISSUANCE.

The applicant shall obtain the required drainage permit after obtaining the required drainage plan approval as specified in Article IV of this Ordinance. This drainage permit will be issued by Ebensburg Borough concurrently with final subdivision and land development and building permit approval.

SECTION 502. MODIFICATION OF DRAINAGE PLANS

A modification to an approved drainage plan, when required by this Ordinance, shall require a new drainage permit. The permit shall be issued following approval of the revised plan.

SECTION 503. STORMWATER MANAGEMENT OCCUPANCY PERMIT.

All drainage occupancy permits required by this Ordinance shall be made on forms supplied by the Borough. The owner/developer shall not occupy the structure until the constructed stormwater management facility has been approved by the Borough Council or their Engineer. The drainage occupancy permit shall be issued by the Borough following approval of the stormwater management site drainage plan.

SECTION 504. EXPIRATION AND RENEWAL

1. All drainage permits shall expire 12 months from the date of issuance.
2. A renewal of the expired drainage permit may be issued by the Borough following a resubmittal of the drainage permit application form. Additional fees must be paid for the resubmittal of an expired permit.
3. The refusal of the Borough to reissue an expired drainage permit shall contain the reasons for such refusal.
 - A. Changes in project site conditions and requirements for the drainage plan may occur over a period of time.
 - B. If the requirements for the drainage plan have changed as determined by the Borough, re-application, review, and permit issuance requirements must be performed pursuant to this Chapter.

SECTION 505. COMPLIANCE AND GUARANTEES

Ebensburg Borough shall require a guarantee bond, or other form of security/surety approved by the Council, from the developer/applicant to assure that the proposed stormwater facility will be installed and constructed in a timely manner. The Borough will set the appropriate amount of bond based on the size and type of facility. Subsequent to the successful completion of the installation of the stormwater facility and inspection by the Borough's designated engineer and certifying the completion in accordance with the approved plans, the Borough may release the guarantee bond.

SECTION 506. SUSPENSION AND REVOCATION

- A. Any permit issued under this ordinance may be suspended or revoked by the municipality for:
 - 1. Non-compliance with or failure to implement any provision of the permit.
 - 2. A violation of any provision of this ordinance or any other applicable law, ordinance, rule or regulation relating to the project.
 - 3. The creation of any condition or the commission of any act during construction or development which constitutes or creates a hazard or nuisance, or which endangers the life or property of others.

- B. A suspended permit shall be reinstated by the municipality when:
 - 1. The municipal engineer has inspected and approved the corrections to the stormwater management control measure(s), or the elimination of the hazard or nuisance, and/or
 - 2. The municipality is satisfied that the violation of the ordinance, law, or rule and regulation has been corrected.

- C. A permit which has been revoked by the municipality cannot be reinstated. The applicant may apply for a new permit under the procedures outlined in this ordinance.

ARTICLE VI - INSPECTIONS

SECTION 601. INSPECTIONS

It is the applicant's engineer's responsibility to make inspections to assure that the facility is being constructed according to the project plans. At completion of construction, the applicant's engineer shall certify construction via a letter to the Borough. Following receipt of this certification letter, the Borough's Engineer will perform a final inspection and issue a letter to the Borough with either additional comments or recommending issuance of the occupancy permit.

SECTION 602. Ebensburg Borough's Rights

If at any stage in the work Ebensburg Borough or its designee determines that the conditions are not as stated or shown in the approved application, the Borough may suspend or revoke existing permits until a revised plan is submitted and approved.

ARTICLE VII - FEES AND EXPENSES

SECTION 701. GENERAL

1. All fees and expenses shall be outlined by resolution of Ebensburg Borough, and included as part of the drainage permit application provided within this Ordinance. No permit to begin any work on the project shall be issued until the requisite fees have been paid.

SECTION 702. MODIFICATION OF PLANS

1. If the reviewing agency determines that any stormwater management control facility design is not based on sound engineering practice, the applicant shall be responsible for the construction of any additional facilities and payment of additional fees as set forth in this Ordinance.

SECTION 703. EXPENSES COVERED BY FEES

The fees payable by an applicant shall at a minimum cover:

- A. Administrative costs
- B. The review of the drainage plan by the Borough and the Borough Engineer
- C. The site inspections
- D. The inspection of stormwater management facilities and drainage improvements during construction.
- E. The final inspection upon completion of the stormwater management facilities and drainage improvements presented in the drainage plan.
- F. Additional work required to enforce permit provisions regulated by this Ordinance, correct violations, and assure proper completion of stipulated remedial action.

ARTICLE VIII - FINANCIAL GUARANTEES AND MAINTENANCE

SECTION 801. MAINTENANCE RESPONSIBILITIES

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

2. The drainage plan for the development site shall establish responsibilities for the continuing operating and maintenance of all proposed stormwater control facilities, consistent with the following principals:

- 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 Borough, stormwater control facilities should also be dedicated to and maintained by the Borough.
- 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 should be the responsibility of the owner or private management entity.

3. The Borough Council, upon recommendation of the Borough Engineer, shall make the final determination on the continuing maintenance responsibilities prior to final approval of the stormwater management plan. The Borough Council reserves the right to accept the ownership and operating responsibilities for any or all of the stormwater management control.

4. Upon presentation of proper credentials, duly authorized representatives of Ebensburg Borough may enter at reasonable times upon any property within the Borough to investigate or ascertain the condition of the subject property in regard to any aspect regulated by this Ordinance.

ARTICLE IX - ENFORCEMENT AND PENALTIES

SECTION 901. RIGHT-OF-ENTRY

Upon presentation of proper credentials, duly authorized representatives of the municipality may enter at reasonable times upon any property within the municipality to investigate or ascertain the condition of the subject property in regard to any aspect regulated by this ordinance.

SECTION 902. NOTIFICATION

In the event that an owner, subdivider, developer or his agent fails to comply with the requirements of this ordinance, or fails to conform to the requirements of any permit issued thereunder, the Borough shall provide written notification of violation. Such notification shall set forth the nature of the violation(s) and establish a time limit for correction of these violation(s). Upon failure to comply within the time specified, the owner, subdivider, developer or his agent shall be subject to the penalty provisions of this ordinance or other penalty provisions contained in the subdivision and land development ordinance, where applicable.

SECTION 903. ENFORCEMENT

Ebensburg Borough is hereby authorized and directed to enforce all of the provisions of this Chapter.

- A. A set of design plans approved by the Borough shall be on file at the site throughout the duration of the construction activity. Periodic inspections may be made by the Borough or designee during construction.
- B. It shall be unlawful for any person, firm, or corporation to undertake any regulated activity on any property except as provided for in the approved drainage plan and pursuant to this Ordinance. It shall be unlawful to alter or remove any control structure required by the drainage plan pursuant to this Ordinance or to allow the property to remain in a condition which does not conform to the approved drainage plan.
- C. At the completion of the project and prior to occupying of the site, the owner or his representative shall provide to the Borough:
 - a. A certification of completion from an engineer or other qualified person verifying that all permanent facilities have been constructed according to the plans and specifications and approved revisions thereto.
 - b. A set of as-built drawings (if appropriate).

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- D. After receipt of the certification of completion by Ebensburg Borough, a final inspection shall be conducted by the Borough or its designee to certify compliance with this Ordinance.
- E. Occupancy Permit. An occupancy permit shall not be issued unless the certification of compliance has been secured. The occupancy permit shall be required for each lot owner and/or developer for all subdivisions and land development in the Borough.
- F. Prior to revocation or suspension of a permit, the Borough will schedule a meeting to discuss the noncompliance if there is not immediate damage to life, public health or property.
- G. Suspension and Revocation of Permits.
1. Any permit issued under this Ordinance may be suspended or revoked by the Borough for:
 - a) Noncompliance with or failure to implement any provision of the plan.
 - b) A violation of any provision of this Chapter or any other applicable law, ordinance, rule, or regulation relating to the project.
 - c) The creation of any condition or the commission of any act during construction or development which constitutes or creates a hazard or nuisance, pollution, or which endangers the life or property of others.
 2. A suspended permit shall be reinstated by Ebensburg Borough when:
 - a) The Borough, Planning Commission, or their designee have inspected and approved the corrections to the stormwater management measures, or the elimination of the hazard or nuisance.
 - b) The Borough is satisfied that the violation of the ordinance, law, or rule and regulation has been corrected.
 3. A permit which has been revoked by the Borough cannot be reinstated. The applicant may apply for a new permit under the procedures outlined in this Chapter.

SECTION 904. NOTIFICATION.

1. In the event that a person fails to comply with the requirements of this Ordinance, or fails to conform to the requirements of any permit issued hereunder, the Borough 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). Failure to comply within the time specified

shall subject such person to the penalty provisions of this Ordinance. All such penalties shall be deemed cumulative and shall not prevent the Borough from pursuing any and all 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.

2. As a result of an on-site inspection by the designee of Ebensburg Borough or a majority of the Borough Council, if it has been determined that an owner, subdivider, developer, or his agent has failed to comply with the terms and conditions of this Ordinance, or fails to conform to the requirements of any permit issued thereunder, the Borough or designee shall provide written notification of violation within ten (10) days of said on-site inspection. The violation shall be deemed a public nuisance, and the notification shall set forth the nature of the violation(s) and establish a time limit for correction of these violation(s). Upon failure to comply within the time specified, the owner, subdivider, developer, or his agent shall be subject to the penalty provisions of this Ordinance or other penalty.

3. Each day that the public nuisance violation continues shall be a separate offense. In addition, the Borough may institute injunctive mandamus or any other appropriate action or proceeding at law or in equity for the enforcement of this ordinance. Any court of competent jurisdiction shall have the right to issue restraining orders, temporary or permanent injunctions, mandamus, or other appropriate forms of remedy or relief.

SECTION 905. ENFORCEMENT REMEDIES AND PENALTIES

In case any building, structure, or land is, or is proposed to be, erected, constructed, reconstructed, altered, converted, maintained, or used in violation of this Ordinance, Ebensburg Borough, or with the approval of the Borough, an officer of the Borough in addition to other remedies, may institute in the name of the Borough any appropriate action or proceeding to prevent, restrain, correct, or abate such buildings, structure, or land, or to prevent, in or about such premises, any act, conduct business, or use constituting a violation.

A. Any person, firm, or corporation who shall violate any provision of this Part, upon conviction thereof in an action brought before a magisterial district judge in the manner provided for the enforcement of summary offenses under the Pennsylvania Rules of Criminal Procedure, shall be sentenced to pay a fine of not more than \$600 plus costs and, in default of payment of said fine and costs, to a term of imprisonment not to exceed 30 days. Each day that a violation of this Part continues or each Section of this Park which shall be found to have been violated shall constitute a separate offense.

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

ARTICLE X - APPEALS

In order to provide an aggrieved party with the due process of law they are entitled to, an appeal procedure is included.

SECTION 1001. APPEAL TO MUNICIPALITY'S GOVERNING BODY

Any person aggrieved by any action of the Borough or its agent may appeal to the Borough Council within 30 days of that action.

SECTION 1002. APPEAL TO COURT

Any person aggrieved by any decision of the Borough may appeal to the County Court of Common Pleas in Cambria County where the activity has taken place within 30 days of the municipal decision.

SECTION 1003. EFFECTIVE DATE

This Ordinance shall become effective on the date on which it has been passed , June 28, 2010 by the Borough. New construction, or creation of a subdivision or re-subdivision meeting the criteria described in Section 105, shall be required to adhere to the conditions of the Subdivision and Land Development Ordinance if the application to the Borough is to be acted on after the effective date of this Ordinance.

APPENDIX 1

Runoff Curve Numbers (From NRCS (SCS) TR-55)					
Land Use Description		A	B	C	D
Open Space		44	65	77	82
Orchard		44	65	77	82
Meadow		30*	58	71	78
Forest		36*	60	73	79
Commercial (85% impervious)		89	92	94	95
Institutional (50% Impervious)		71	82	88	90
Residential	% Impervious				
1/8 acre or less	65%	77	85	90	92
1/8 – 1/3 acre	34%	59	74	82	87
1/3 – 1 acre	23%	53	69	80	85
1 – 4 acres	12%	46	66	78	82
Smooth surfaces (concrete, asphalt, gravel, or bare compacted soil)		98	98	98	98
Water		98	98	98	98
Mining/newly graded areas (pervious areas only)		84	84	84	84
* Caution – CN values under 40 may produce erroneous modeling results					
<u>Note:</u> Existing site conditions of bare earth or fallows shall be considered as meadow					

Rational Runoff Coefficients (AMC II)					
Land Use Description		A	B	C	D
Cultivated Land: without conservation treatment		.49	.67	.81	.88
Cultivate Land: with conservation treatment		.27	.43	.61	.67
Pasture or range land: poor condition		.38	.63	.78	.84
Pasture or range land: good condition		__*	.25	.51	.65
Meadow: good condition		__*	__*	.44	.61
Wood or forest land: thing stand, poor cover, no mulch		__*	.34	.59	.70
Wood or forest land: good condition		__*	__*	.45	.59
Open spaces, lawns, parks, golf course, cemeteries					
Good condition: grass cover on 75% or more of the area		__*	.25	.51	.65
Fair condition: grass cover on 50% to 75% of the areas		__*	.45	.63	.74
Commercial and Business areas (85% impervious)		.84	.90	.93	.96
Residential					
Average lot size	Average % impervious	A	B	C	D
1/8 acre or less	65%	.59	.76	.86	.90
¼ acre	38%	.25	.49	.67	.78
1/3 acre	30%	--*	.49	.67	.78
½ acre	25%	--*	.45	.65	.76
1 acre	20%	--*	.41	.63	.74
Paved parking lots, roofs, driveways, etc.		.99	.99	.99	.99
Streets and Roads					
		A	B	C	D
Paved with curbs and storm sewers		.99	.99	.99	.99
Gravel		.57	.76	.84	.88
Dirt		.49	.69	.80	.84
Notes: values are based on S.C.S. definitions and are average values					
Values indicated by “__*” should be determined by the design engineer based on site characteristics					
Source: Pennsylvania Department of Transportation, Technical Manual for Stream Encroachment.					

APPENDIX 2
Watershed Boundary Map