

AN ORDINANCE AMENDING SECTIONS 929.01, 929.20, 929.21, AND 929.22 OF THE MORGANTOWN CITY CODE AS THE SAME APPLY TO STORMWATER MANAGEMENT AND DRAINAGE, STORMWATER DESIGN, AND PLAN SUBMISSION AND REVIEW.

THE CITY OF MORGANTOWN HEREBY ORDAINS THAT SECTIONS 929.01, 929.20, 929.21, AND 929.22 OF THE MORGANTOWN CITY CODE ARE AMENDED AS FOLLOWS (new matter underlined, deleted matter struck through).

ARTICLE 929

Stormwater Management and Surface Water Discharge Control

929.01 Definitions:

Unless the context specifically indicates otherwise, the meaning of the terms used herein shall be as follows:

- (a) "Best Management Practices (BMPs)" are physical, structural and/or managerial practices that, when used singly or in combination, control site run-off, spillage and leaks, waste disposal and drainage from raw material storage and prevent or reduce the discharge of pollutants directly or indirectly to waters of the state. BMPs may include schedules of activities, prohibition of practices, design standards, educational activities and treatment requirements.
- (b) "City watershed" are those areas within the corporate limits of the City of Morgantown, and designated areas outside of those limits, over which surface water naturally drains into the City. Designation of areas outside of the corporate limits of the City of Morgantown shall be made by the Director.
- (c) "Director" is the General Manager of the Morgantown Utility Board.
- (d) "Facility" for purposes of Section 929.18 of this Article is a building, structure, installation or construction site in which pollutants are produced and/or generated as a result of a process or processes, conducted within the building, structure or installation.
- (e) "Flat rate charge" is the charge applicable to a single-family dwelling per dwelling unit.
- (f) "Footing drain" is a pipe or conduit which is placed around the perimeter of a building foundation or other structures for the purpose of admitting ground water.
- (g) "Illicit connection" means any physical connection to a publicly maintained storm drain system which has not been ~~permitted or approved~~ authorized by the Morgantown Utility Board from the date of enactment of this ordinance.

(h) "Illicit discharge" means any discharge to a storm drain or into the stormwater collection system that is not composed entirely of stormwater, except discharges pursuant to a NPDES permit, discharges resulting from firefighting activities, and other discharges exempted in this Article.

(i) "Impervious area" is land area covered by buildings, pavement, gravel or other material that significantly inhibits stormwater from penetrating the soil.

(j) "Industrial sites" are those sites that contain industrial activities which require NPDES stormwater permits as set forth in 40 CFR 122.26(a)(6).

(k) "Multi-unit property" is a residential, non-residential or commercial property of any size that has located upon the property two or more tenants, at least one of which having no ownership interest in the property.

(l) "New Development" is any construction activity upon undisturbed/undeveloped land.

(~~m~~) "Non-stormwater" is all flows to the stormwater system not defined as stormwater in section 929.01 of this Article or as determined by the Director. This includes, but is not limited to, cooling water, process water, ground water from a purge well and swimming pool discharge.

(~~n~~) "Pervious area" is all land area that is not impervious.

(~~o~~) "Pollutant" means objects including, but not limited to, dredged soil, solid waste, incinerator residue, sewage, garbage, sewage sludge, grease, petroleum products, munitions, chemical waste, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, silt, dirt, industrial, municipal and agricultural waste, gasses entrained in water, paints, oil and other automotive fluids, soil, rubbish, debris, materials containing fecal coliform, fecal streptococcus, and enterococcus, heavy metals, hazardous wastes, yard waste from commercial landscaping operations, animal waste, materials that result from the process of building, and offensive matter of any kind, which, when discharged to water, cause or contribute to water pollution.

(~~p~~) "Pollution" is the degradation of the physical, thermal, chemical, biological or radioactive properties of the waters of the state and/or the discharge of any pollutant to the waters of the state which will or is likely to create a nuisance or to render such waters harmful, detrimental or injurious to public health, safety or welfare or to the beneficial use of the water and/or the water environment.

(q) "Re-Development" is any reconstruction of or modification to an existing property that requires or would require a building permit under existing ordinance.

(~~r~~) "Stormwater" is atmospheric precipitation, surface runoff water, ground water discharge, water from operation of the water distribution system, water used in fire fighting, runoff from street sweeping, flows from footing drains and all other discharge sources identified in the City of Morgantown stormwater NPDES permit, except as may be defined as non-stormwater by this Article.

(sq) "Stormwater management" is the process of collection, conveyance, storage, treatment and disposal of stormwater to ensure control of the magnitude and frequency of runoff to minimize the impact of the runoff upon the water quality of the receiving stream and the other hazards associated with flooding.

(tr) "Stormwater service charge" is a flat rate charge, a charge based on land area, and/or a non-stormwater user charge.

(us) "Stormwater system" is public and private stormwater sewers, drains, ditches, streets, retention/detention ponds, dams, river impoundments and flood control facilities used for collecting and transporting stormwater and non-stormwater.

(vt) "User" is a firm, person or property which is the legal owner or occupant of a property that directly or indirectly contributes stormwater or non-stormwater flows to the stormwater system, whether within or outside the corporate limits of the City of Morgantown.

929.20 Stormwater Management and Comprehensive Drainage Plans:

(a) The requirements and standards of this section shall apply to ~~Within twelve (12) months of the effective date of this Article, the Director shall propose and there shall be enacted by ordinance regulations providing for specific requirements and standards for stormwater management and drainage upon all new developments and redevelopment projects. The intent of these regulations shall be written~~ is to minimize the discharge and transport of pollutants to storm drain systems and prevent the deterioration of water quality. ~~At a minimum, these regulations shall address:~~

- ~~(1) Prevention of any direct discharge of untreated stormwater, either on or off-site.~~
- ~~(2) Prevention of increased post-development discharge rates.~~
- ~~(3) Removal of a designated amount, determined by the percentage of impervious parcel area, of annual total suspended solids generated from development or redevelopment runoff prior to any off-site discharge.~~
- ~~(4) Description and implementation of best management practices, and the continuation of those BMPs for appropriate periods of time.~~
- ~~(5) Protection of ground water from instances of polluted runoff infiltration.~~

(b) All new developments and redevelopment projects within the city watershed shall include stormwater management plans and comprehensive drainage plans as described in this section. These plans shall be subject to the review and approval of the Director.

(c) The following activities shall be exempt from the requirements of this Section, except that no activity shall be exempt from the management of the discharge of sediment or any other form of water pollution that may leave any parcel or site.

- (1) Agricultural land management activities;

(2) Additions or modifications to existing detached single-family dwellings of a size less than 1,000 square feet; and

(3) Activities that result in impervious surface area of less than 3,000 square feet, regardless of the ratio of impervious surface area to total site area. However, a phased construction project shall be measured by the size of all planned or contemplated phases. Each phase may be required to meet the requirements of this article.

(d) All new development and redevelopment subject to the provisions of this ordinance shall be required to obtain a stormwater permit unless exempted under the provisions of 929.20(c). The Director shall issue a stormwater management permit for plans that meet the requirements of this section and any other requirements of this ordinance. No city building permit shall be issued without the submission of a stormwater permit issued under the provisions of this ordinance.

(e) Technical, administrative or procedural matters may be modified by the Director as needed to meet the objectives and policies defined in this ordinance, so long as such modifications are not contrary to or beyond the intent of the objectives and policies included in this ordinance.

(f) Uniform requirements shall be applied to each regulated project site. These requirements shall be based upon the criterion that post development stormwater peak runoff rates of flow must not exceed the pre-development peak runoff rates of flow. In redevelopment projects, a peak runoff rate of flow reduction of 10% from the preexisting peak runoff rate of flow must be achieved. However, no reduction shall be required beyond the peak runoff rate of flow that would occur from the parcel in its natural, undeveloped state.

(g) For construction that results in impervious area of 3,000 square feet or more and less than 25,000 square feet, and if the ratio of impervious surface area to total site area is less than 75%, a Stormwater Management and Comprehensive Drainage Plan will be required in order to qualify for a stormwater permit. The plan shall include the following information:

(1) Descriptive Information:

A. Title Block With:

- i. Development Name
- ii. Owner
- iii. Design Firm
- iv. Legend
- v. North Arrow
- vi. Vicinity Map
- vii. Scale
- viii. Sheet Numbers
- ix. Date

B. Topographical Features:

- i. Original contours at intervals no greater than 2 vertical feet.
- ii. Existing drainage components, i.e., streams, ponds, pipes, etc.
- iii. Property Boundary lines.
- iv. Existing streets, buildings, and utilities.

- v. 100 year flood plain.
- vi. Off-site drainage entering site.
- vii. Original drawing no larger than 24-inch x 36-inch and at a scale from 1 inch equals 10 feet to 1 inch equals 50 feet.

C. Site Plan:

- i. Existing and proposed structures, roads, buildings, paved areas.
- ii. Existing and proposed stormwater management system and components including sizes, lengths, pertinent elevations, etc.
- iii. Where and how proposed stormwater management system will be connected to existing systems.
- iv. Location and grade of all swales including cross sections.
- v. Location and design of all other Best Management Structures /Implementations.
- vi. Sediment and Erosion Control measures are required. Refer to the most current edition of the West Virginia Department of Environmental Protection Sediment and Erosion Control manual for acceptable means and methods.
- vii. Existing and proposed ground cover.
- viii. Total Impervious Area.
- ix. Control release facilities showing cross-sections and profiles.

D. Final As-Built Drawings:

- i. Show location, length, sizes, pertinent elevations of the stormwater management system.
- ii. All impervious areas shall be accurately depicted.
- iii. Failure to provide final as-built drawings within three months of substantial project completion will cause the utility to prepare these drawings. The responsible party shall be charged for this service. The Director may extend this time as deemed necessary.

(2) Design Standards:

- A. Flow rates shall be calculated by use of the Rational Method unless sufficient justification for use of another method is approved by the Director.
- B. The minimum "Time of Concentration" to be used in the calculations shall be six (6) minutes.
- C. The ABT & Grigg Method shall be used to determine the volume necessary for detention. Detention structures shall be designed in such a manner that the post-construction peak runoff rate of flow shall be equal to or less than the pre-construction peak runoff rate of flow for 2-year/24-hour, 10-year/24-hour and 25-year/24-hour storms. In redevelopment projects, a peak runoff rate of flow reduction of 10% from the pre-existing peak runoff rate of flow must be achieved. However, no reduction shall be required beyond the peak runoff rate of flow that would occur from the parcel in its natural, undeveloped state.

D. Beginning on July 1, 2013, detention structures that have not been approved for construction shall be designed in such a manner that the post-construction peak runoff rate of flow shall be equal to or less than the pre-construction peak runoff rate of flow for 2-year/24-hour, 10-year/24-hour and 50-year/24-hour storms. In redevelopment projects, a peak runoff rate of flow reduction of 10% from the preexisting peak runoff rate of flow must be achieved. However, no reduction shall be required beyond the peak runoff rate of flow that would occur from the parcel in its natural, undeveloped state.

(3) Design Backup:

A. Calculations of volumetric runoff and peak runoff rate of flow for both pre-development and post-development.

B. Calculations for stormwater detention/retention facility and other system elements.

C. Operation and Maintenance Manual for private stormwater control facilities

(4) Sedimentation and Erosion Control measures are required. Refer to the most current edition of The West Virginia Department of Environmental Protection Sedimentation and Erosion Control Manual for acceptable means and methods.

(h) For construction that results in impervious area of 25,000 square feet and greater or, if the ratio of impervious surface area to total site area is greater than 75%, a Stormwater Management and Comprehensive Drainage Plan will be required in order to qualify for a stormwater permit. The plan shall include the following information:

(1) Descriptive Information:

A. Title Block With:

- i. Development Name
- ii. Owner
- iii. Design Firm
- iv. Authorized Registered Professional Engineer Stamp, Signature, and Date.
- v. Legend
- vi. North Arrow
- vii. Vicinity Map
- viii. Scale
- ix. Sheet Numbers
- x. Date
- xi. Revision Numbers and Dates

B. Topographical Features

- i. Original and proposed contours at intervals no greater than 2 vertical feet.
- ii. Existing drainage components, i.e., streams, ponds, pipes, etc.
- iii. Property Boundary lines.
- iv. Existing streets, buildings, and utilities.
- v. 100 year flood plain.
- vi. Off-site drainage entering site.

- vii. Original drawing no larger than 24-inchx36-inch and at a scale from 1-inch equals 10 feet to 1-inch equals 50 feet.

C. Site Plan:

- i. Existing and proposed structures, roads, buildings, paved areas.
- ii. Existing and proposed stormwater management system and components including sizes, lengths, pertinent elevations, etc.
- iii. Where and how proposed stormwater management system will be connected to existing systems.
- iv. Location and grade of all swales including cross sections.
- v. Location and design of all other Best Management Structures/Implementations.
- vi. Sedimentation and Erosion Control measures are required. Refer to the most current edition of The West Virginia Department of Environmental Protection Sedimentation and Erosion Control Manual for acceptable means and methods.
- vii. Existing and proposed ground cover.
- viii. Total Impervious Area
- ix. Control release facilities showing cross-sections and profiles.

D. Final As-Built Drawings

- i. Submitted in Autocadd DXF or DWG file format
- ii. Show all revised contours and appropriate "spot elevations"
- iii. Show location, length, sizes, pertinent elevations of the stormwater management system.
- iv. All impervious areas shall be accurately depicted.
- v. Failure to provide final as-built drawings within three months of substantial project completion will cause the utility to prepare these drawings. The responsible party shall be charged for this service. The Director may extend this time as deemed necessary.

(2) Design Standards:

- A. Flow rates shall be calculated by use of the Rational Method unless sufficient justification for use of another method is approved by the Director.
- B. The minimum "Time of Concentration" to be used in the calculations shall be six (6) minutes.
- C. The ABT & Grigg Method shall be used to determine the volume necessary for detention. Detention structures shall be designed in such a manner that the post-construction peak runoff rate of flow shall be equal to or less than the pre-construction peak runoff of flow rate for 2-year/24-hour, 10-year/24-hour and 25-year/24-hour storms. In redevelopment projects, a peak runoff reduction of 10% from the preexisting peak runoff rate of flow must be achieved. However, no reduction shall be required beyond the peak runoff rate of flow that would occur from the parcel in its natural, undeveloped state.

D. Beginning on July 1, 2013, Detention structures that have not been approved for construction shall be designed in such a manner that the post-construction peak runoff rate of flow shall be equal to or less than the pre-construction peak runoff rate of flow for 2-year/24-hour, 10-year/24-hour and 50-year/24-hour storms. In redevelopment projects, a peak runoff rate of flow reduction of 10% from the preexisting runoff must be achieved. However, no reduction shall be required beyond the peak runoff rate of flow that would occur from the parcel in its natural, undeveloped state.

(3) Design Backup:

A. Calculations of volumetric runoff and peak runoff rate of flow for both pre-development and post-development.

B. Calculations for stormwater detention/retention facility and other system elements.

C. Operation and Maintenance Manual for private stormwater control facilities.

(4) Sedimentation and Erosion Control measures are required. Refer to the most current edition of The West Virginia Department of Environmental Protection Sedimentation and Erosion Control Manual for acceptable means and methods.

(i) All development and/or redevelopment projects shall minimize the impact to the water environment by applying structural and/or non-structural management practices selected to address site-specific conditions. The minimum requirement for runoff water quality treatment shall be a reduction of 80% of the average post-development total suspended solids and a reduction of 40% of the average post-development phosphorus load.

(j) No construction shall be performed in a manner that will negatively impact the water environment in the vicinity of construction or in other areas, regardless of whether this impact is manifested by flow restrictions, increased runoff, diminishing channel or floodplain storage capacity, harm to aquatic life or any other manifestation of negative impact.

(k) New construction or reconstruction shall be permitted only after temporary or permanent erosion and sediment control management practices have been placed and are operational to the satisfaction of the Director. The Director may halt construction, void a permit, or take other enforcement actions consistent with this ordinance upon a finding of inadequate erosion and sediment control management practices upon a site or property subject to the provisions of this ordinance.

(l) All active construction sites shall be inspected by the owner no less than weekly and within 24 hours after a 0.25 inch rain event to ensure and verify effective erosion and sediment control. The owner shall maintain records of these inspections. The Director may halt construction on properties that do not provide satisfactory proof of compliance with this requirement.

(m) The Owner of a completed new development and/or redevelopment construction shall submit to the Director within thirty (30) days of substantial project completion and "as-built" plan of the stormwater management facilities located upon the property/site.

(n) Waivers for Providing Stormwater Management .

1. Every applicant shall provide for stormwater management as required by this ordinance unless a waiver of these requirements is granted by the Director. A written request for waiver must be submitted to the Director in a form that he/she prescribes.

2. The Director may not waive the minimum requirements for stormwater management of water quality protection.

3. Any requirements beyond those described in 929.20(i) may be waived by the Director, if the Director finds that meeting the minimum on-site stormwater management requirements is not feasible due to the unique natural or existing physical characteristics of a site, or that the property owner would suffer an undue hardship if required to meet the full requirements of this regulation. To be eligible for a waiver, the Applicant must also demonstrate to the satisfaction of the Director that the waiver will not result in any of the following impacts to downstream waterways:

A. Deterioration of existing culverts, bridges, dams, and other structures;

B. Degradation of biological functions or habitat;

C. Accelerated stream bank or streambed erosion; or,

D. Increased threat of flood damage to public health, life and/or property.

4. Where compliance with the full requirements for on-site stormwater management is waived, the Applicant shall satisfy stormwater management requirements by accomplishing a mitigation measure approved by the Director. Mitigation measures may include, but are not limited to, the following:

A. Alternative means for on-site management of stormwater discharges that have been established in a stormwater management plan that has been approved by the Director.

B. The creation of appropriately designed and constructed stormwater management facility or drainage improvements on other properties, public or private, that currently lack stormwater management facilities. This alternative facility must provide a level of stormwater control that is equal to or greater than that which would be afforded by the waived on-site practices and there must be a legally obligated entity responsible for the long-term operation and maintenance of the off-site practice. The Director shall, to the maximum extent practical, ensure that the benefits arising from the off-site practice shall be realized in the same basin/watershed as the waived management practice.

- C. The purchase and donation of privately owned lands to the City of Morgantown or the grant of an easement to the City of Morgantown, to be dedicated to preservation, reforestation, and/or the creation of green space, wetlands, or permanent buffer areas to protect water quality and aquatic habitat.

Any mitigation measure shall provide a level of environmental protection and/or improvement that is, in the sole discretion of the Director, approximately equal to or greater than that which would have been provided by the waived practice.

(o) Fee in Lieu of Stormwater Management Practices.

1. Where the Director waives all or part of the minimum stormwater management requirements, and the Applicant does not complete an approved mitigation project, the Applicant shall be required to pay a fee in lieu of stormwater management practices, in an amount as determined by the Director. This amount shall be approximately equal to the cost of stormwater management and based on the cubic feet of storage required for stormwater management of the development in question. All of the monetary contributions shall be credited to an appropriate stormwater capital improvements program project, and shall be made by the Applicant prior to the issuance of any stormwater permit for the development.

929.21 ~~Drainage System Standards:~~ Stormwater Design Manual:

~~Drainage systems shall comply with the standards established by ordinance.~~

(a) The Stormwater Utility may furnish additional policy, criteria and information including specifications and standards, for the proper implementation of the requirements of this ordinance and may provide such information in the form of a Stormwater Design Manual.

(b) This manual will include a list of acceptable stormwater treatment practices, including the specific design criteria for each stormwater practice. The manual may be updated and expanded from time to time, at the discretion of the Stormwater Utility, based on improvements in engineering, science, monitoring and local maintenance experience. Stormwater treatment practices that are designed and constructed in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards.

929.22 Plan Submission and Review Process:

~~(a) Within eighteen (18) months of the effective date of this Article, and no sooner than six (6) months following the enactment of regulations providing for specific requirements and standards for stormwater management and drainage upon all new developments and redevelopment projects, stormwater management plans and comprehensive drainage plans for any new construction or reconstruction within the city watershed shall be submitted to the Director. The plans shall be reviewed by the Director for compliance with the applicable rules and standards. Plans developed to meet federal or state requirements may be submitted, and will be approved if they conform to the requirements of this Article.~~

(a) The plan submission and review process shall be coordinated with and integrated into the City planning and permitting process. Following the effective date of this section, no building permit shall be issued without an approved stormwater management plan if required under this Article.

This Ordinance shall be effective upon date of adoption.

FIRST READING: October 21, 2003

ADOPTED: November 4, 2003

FILED: November 5, 2003

RECORDED: November 5, 2003


MAYOR


CITY CLERK

