

Holland Township Planning Board

Minutes of the Regular Meeting

March 8, 2021

(Notice-The Chairman reserves the right to change or revise the order of the agenda as needed. Formal action may or may not be taken)

The electronic communications used for this remote meeting have a function that allows the Board to mute the audio of all members of the public, as well as allow members of the public to mute themselves.

The meeting was called to order by the Secretary Kozak:

Chairman Rader: "I call to order the March 8, 2021 Meeting of the Holland Township Planning Board. Adequate notice of this meeting was given pursuant to the Open Public Meeting Act Law by the Planning Board Secretary by:

1. Posting such notice on the bulletin board at the Municipal Building.
2. Publishing the notice in the December 12, 2020 edition of the Hunterdon County Democrat
3. And faxing to the Express-Times for informational purposes only.
- 4.

HOLLAND TOWNSHIP PLANNING BOARD PUBLIC NOTICE TOWNSHIP OF HOLLAND

NOTICE OF CHANGE OF FORMAT OF REGULAR TOWNSHIP PLANNING BOARD MEETING AND PUBLIC PARTICIPATION FOR THE MEETING SCHEDULED FOR 7:30 PM MONDAY MARCH 8, 2021

PLEASE TAKE NOTICE.

THE MEETING FORMAT HAS BEEN CHANGED FROM IN-PERSON ATTENDANCE AT THE MUNICIPAL BUILDING, 61 CHURCH ROAD, TO TELECONFERENCE DUE TO COVID-19 OUTBREAK AND THE STATE OF EMERGENCY DECLARED BY GOVERNOR MURPHY.

IN LIEU OF IN-PERSON ATTENDANCE, THE PUBLIC MAY ATTEND THIS MEETING VIA TELECONFERENCING AND COMMENT DURING THE DESIGNATED PUBLIC COMMENT PORTION IN COMPLIANCE WITH THE OPEN PUBLIC MEETINGS ACT.

OFFICIAL ACTION TO BE TAKEN

Join Zoom Meeting

<https://zoom.us/j/91480158952?pwd=U253UVdLNFNkWW80UEdMY0dHZXltZz09>

Phone: 1 646-558-8656

Meeting ID: 914 8015 8952

Passcode: 914930

Flag Salute

Chairman Rader asked all to recite the Pledge of Allegiance

Identification of those at the podium

Present: Dan Bush, Ken Grisewood, Dave Grossmueller, Michael Keady, Nickolas Moustakas, Mike Miller, Dan Rader, Scott Wilhelm (arrived 7:33pm), Duane Young, John Gallina, Esq., Adam Wisniewski, Engineer, Darlene Green, Planner and Court Reporter Lucille Grozinski, CSR and Maria Elena Jennette Kozak, Secretary.

Absent: N/A

Excused Absent: N/A

Let the record show there is a quorum.

Minutes

A motion was made by Ken Grisewood and seconded by Mike Keady to dispense with the reading of the minutes of the January 11, 2021 meeting and to approve the minutes as recorded. All present were in favor of the motion with the exception of Scott Wilhelm who abstained. Motion carried.

Old Business:

There was no Old Business scheduled at this time on the agenda.

New Business:

- **Master Plan - Stormwater Management and Mitigation Plan Element – Consistency Review – Board Action Required – Adam Wisniewski of Maser Consulting present**
“ORDINANCE 2021-02 ORDINANCE TO AMEND CHAPTER 100 – PART 3 OF THE CODE OF THE TOWNSHIP OF HOLLAND ENTITLED “STORMWATER MANAGEMENT” TO REFLECT AMENDMENTS TO THE NEW JERSEY STORMWATER MANAGEMENT RULES AT N.J.A.C. 7:8, ADOPTED MARCH 2, 2020”

Introduce by the Township Committee February 16, 2021 with a public hearing scheduled March 16, 2021.

Engineer Wisniewski was present and explained the Planning Board will review for consistency with the Master Plan and the Environmental Commission was asked to review the document at their meeting. The Township Committee introduces the proposed ordinance and has a public hearing for adoption.

This revision is the biggest change since the March 2020 adoption by the state. All municipalities need to adopt the regulations by March of 2021. This proposed ordinance will replace the existing ordinance. The new regulations are finalizing what the Highlands Council requested. The major issue is that the stormwater regulations allowed for many exceptions, and applicants would try to fulfill the less burdensome requirements. The new version allows far fewer instances where the applicant can be held to easier standards.

Ordinance No. 2020 - XX
Ordinance to Amend Chapter 100 – Part 3 of the Code of the Township of Holland
Entitled “Stormwater Management” To Reflect Amendments to The
New Jersey Stormwater Management Rules at N.J.A.C. 7:8, Adopted March 2, 2020

WHEREAS, the Township of Holland has a Stormwater Management Ordinance pursuant to the requirements in N.J.A.C. 7:8, and its Municipal Stormwater Permit; and

WHEREAS, the Stormwater Management Ordinance is subject to change when the State amends N.J.A.C. 7:8; and

WHEREAS, the State of New Jersey amended its Stormwater Management Rules at N.J.A.C. 7:8 on March 2, 2020; and

WHEREAS, the municipalities in the State of New Jersey are required to amend their Stormwater Control Ordinances to align with the updated Stormwater Management Rules at N.J.A.C. 7:8 on or before March 2, 2021;

NOW THEREFORE BE IT ORDAINED BY THE TOWNSHIP COMMITTEE OF THE TOWNSHIP OF HOLLAND, COUNTY OF HUNTERDON AND STATE OF NEW JERSEY THAT CHAPTER 100 – PART 3 OF THE CODE OF THE TOWNSHIP OF HOLLAND, ENTITLED “STORMWATER MANAGEMENT”, IS AMENDED AS FOLLOWS:

Article One - Chapter 100 – Part 3 of the Code of the Township of Holland entitled “Stormwater Management” shall be replaced in its entirety as follows:

Chapter 100 - Land Use

Part 3 – Stormwater Management

Article XXIV Stormwater Management Regulations

§ 100-182. Scope, Purpose and Fees:

- A. Policy Statement. Flood control, groundwater recharge, and pollutant reduction shall be achieved through the use of stormwater management measures, including green infrastructure Best Management Practices (GI BMPs) and nonstructural stormwater management strategies. GI BMPs and low impact development (LID) should be utilized to meet the goal of maintaining natural hydrology to reduce stormwater runoff volume, reduce erosion, encourage infiltration and groundwater recharge, and reduce pollution. GI BMPs and LID should be developed based upon physical site conditions and the origin, nature and the anticipated quantity, or amount, of potential pollutants. Multiple stormwater management BMPs may be necessary to achieve the established performance standards for water quality, quantity, and groundwater recharge.
- B. Purpose. The purpose of this ordinance is to establish minimum stormwater management requirements and controls for “major development”, and “minor development” as defined below in §100-183.
- C. Applicability
 - (1) This Part 3 shall be applicable to the following major developments:
 - a. Non-residential major developments; and
 - b. Aspects of residential major developments that are not pre-empted by the Residential Site Improvement Standards at N.J.A.C. 5:21.
 - (2) This Part 3 shall also be applicable to all major developments undertaken by the Township of Holland and other governmental entities.
 - (3) This Part 3 shall be applicable to all applications for soil removal under Chapter 140 and building permits that are not subject to subdivision or site plan review that meet the definition of "Major Development."
[Added 8-21-2018 by Ord. No. 2018-09]
 - (4) The quantity reduction provisions of this Part 3 shall be applicable to any person, partnership, corporation, or public agency that is not defined as a "major development" and which shall by any means whatsoever increase the quantity or velocity of stormwater runoff emanating from the developed land area, hereinafter referred to as "minor development." Excluding the development of any area from the effective date hereof by the construction or installation of any impervious surface less than 2,000 square feet.
[Added 8-21-2018 by Ord. No. 2018-09]
- D. Review and inspection fees.
 - (1) Review fees.
 - (a) When stormwater management plans are required to be prepared and submitted for review and approval under this Part 3, and when such plans are submitted for review and approval in conjunction with an application for development approval under the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq., then no additional and separate review fee shall be required. The costs for professional review of the stormwater management plan will be deducted from the review escrow account established for the development application in accordance with the applicable provisions of Chapter 100 of this Code.
 - (b) A review fee, as established in Chapter 83, Fees, shall be paid to the Township whenever:
 - [1] A stormwater management plan is required to be prepared and submitted for review and approval under this Part 3, and such plan is not submitted for review and approval in conjunction with an application for development approval under the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq.
 - [2] A revised stormwater management plan is submitted for review and approval subsequent to the approval of a development application by the Township Planning Board or Board of Adjustment, and when revisions to a previously approved stormwater management plan are necessitated by field conditions or other modifications to the development proposal.
 - (2) Inspection fees.
 - (a) When stormwater management improvements are constructed in conjunction with other site improvements associated with an approved major subdivision or site plan, then no additional and separate construction inspection escrow account shall be required.

- (b) When stormwater management improvements are constructed in conjunction with minor subdivision approval, major developments not subject to subdivision or site plan approval, or variance approval for which no site plan was required, then a construction inspection escrow account shall be established with the Township in the manner as provided in Chapter 100 of this Code and in accordance with the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq.

[Added 8-21-2018 by Ord. No. 2018-09]

- E. Compatibility with Other Permit and Ordinance Requirements. Development approvals issued pursuant to this Part 3 are to be considered an integral part of development approvals and 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. In their interpretation and application, the provisions of this Part 3 shall be held to be the minimum requirements for the promotion of the public health, safety, and general welfare.

This Part 3 is not intended to interfere with, abrogate, or annul any other ordinances, rule or regulation, statute, or other provision of law except that, where any provision of this Part 3 imposes restrictions different from those imposed by any other ordinance, rule or regulation, or other provision of law, the more restrictive provisions or higher standards shall control.

- F. Permit Required

[Added 8-21-2018 by Ord. No. 2018-09]

- (1) For major development applications not subject to subdivision or site plan review, a lot grading and stormwater management plan with supporting calculations shall be filed with the Zoning Officer in accordance with this Part 3. The plans and calculations shall be forwarded to the Township Engineer for review and approval. No building permit or land disturbance shall be issued or commence until approved by the Municipal Engineer. No certificates of occupancy shall be issued until as-built plans are submitted to the Township Engineer with any other required proofs that the plan, and any conditions of plan approval, have been fully met and complied with.

§ 100-183. Definitions:

For the purpose of this Part 3, the following terms, phrases, words and their derivations shall have the meanings stated herein unless their use in the text of this Chapter clearly demonstrates a different meaning. When not inconsistent with the context, words used in the present tense include the future, words used in the plural number include the singular number, and words used in the singular number include the plural number. The word "shall" is always mandatory and not merely directory. The definitions below are the same as or based on the corresponding definitions in the Stormwater Management Rules at N.J.A.C. 7:8-1.2.

CAFRA CENTERS, CORES OR NODES

Those areas with boundaries incorporated by reference or revised by the Department in accordance with N.J.A.C. 7:7-13.16.

CAFRA PLANNING MAP

The map used by the Department to identify the location of Coastal Planning Areas, CAFRA centers, CAFRA cores, and CAFRA nodes. The CAFRA Planning Map is available on the Department's Geographic Information System (GIS).

CARBONATE ROCK AREA

An area where rock consisting chiefly of calcium and magnesium carbonates, such as limestone and dolomite, has been identified. See also "limestone area," "karst terrain."

[Added 8-21-2018 by Ord. No. 2018-09]

COMMUNITY BASIN

An infiltration system, sand filter designed to infiltrate, standard constructed wetland, or wet pond, established in accordance with N.J.A.C. 7:8-4.2(c)14, that is designed and constructed in accordance with the New Jersey Stormwater Best Management Practices Manual, or an alternate design, approved in accordance with N.J.A.C. 7:8-5.2(g), for an infiltration system, sand filter designed to infiltrate, standard constructed wetland, or wet pond and that complies with the requirements of this chapter.

COMPACTION

The increase in soil bulk density.

CONTRIBUTORY DRAINAGE AREA

The area from which stormwater runoff drains to a stormwater management measure, not including the area of the stormwater management measure itself.

CORE

A pedestrian-oriented area of commercial and civic uses serving the surrounding municipality, generally including housing and access to public transportation.

COUNTY REVIEW AGENCY

An agency designated by the County Commissioners to review municipal stormwater management plans and implementing ordinance(s). The county review agency may either be a county planning agency or a county water resource association created under N.J.S.A 58:16A-55.5, if the ordinance or resolution delegates authority to approve, conditionally approve, or disapprove municipal stormwater management plans and implementing ordinances.

CURRENT DEFICIT AREA

Any United States Geological Survey 14-digit Hydrologic Unit Code subwatershed area that is identified in the Highlands Regional Master Plan as having negative net water availability, meaning that existing consumptive and depletive water uses exceed the capacity of the ground water supply to sustain.

[Added 8-21-2018 by Ord. No. 2018-09]

DEPARTMENT

The New Jersey Department of Environmental Protection.

DESIGNATED CENTER

A State Development and Redevelopment Plan Center as designated by the State Planning Commission such as urban, regional, town, village, or hamlet.

DESIGN ENGINEER

A person professionally qualified and duly licensed in New Jersey to perform engineering services that may include, but not necessarily be limited to, development of project requirements, creation and development of project design and preparation of drawings and specifications.

DEVELOPMENT

The division of a parcel of land into two or more parcels, the construction, reconstruction, conversion, structural alteration, relocation or enlarge-enlargement of any building or structure, any mining excavation or landfill, and any use or change in the use of any building or other structure, or land or extension of use of land, for which permission is required under the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq. In the case of development of agricultural land, development means: any activity that requires a State permit, any activity reviewed by the County Agricultural Board (CAB) and the State Agricultural Development Committee (SADC), and municipal review of any activity not exempted by the Right to Farm Act, N.J.S.A 4:1C-1 et seq.

DISTURBANCE

The placement or reconstruction of impervious surface or motor vehicle surface, or exposure and/or movement of soil or bedrock or clearing, cutting, or removing of vegetation, or the redevelopment of previously developed sites. Milling and repaving is not considered disturbance for the purposes of this definition.

DRAINAGE AREA

A geographic area within which stormwater, sediments, or dissolved materials drain to a particular receiving waterbody or to a particular point along a receiving waterbody.

ENVIRONMENTALLY CONSTRAINED AREA

An area where the physical alteration of the land is in some way restricted, either through regulation, easement, deed restriction or ownership such as: wetlands, floodplains, threatened and endangered species sites or designated habitats, and parks and preserves. Habitats of endangered or threatened species are identified using the Department's Landscape Project as approved by the Department's Endangered and Nongame Species Program.

ENVIRONMENTALLY CRITICAL AREA

An area or feature which is of significant environmental value, including but not limited to: stream corridors, natural heritage priority sites, habitats of endangered or threatened species, large areas of contiguous open space or upland forest, steep slopes, and well head protection and groundwater recharge areas. Habitats of endangered or threatened species are identified using the Department's Landscape Project as approved by the Department's Endangered and Nongame Species Program.

EMPOWERMENT NEIGHBORHOODS

Neighborhoods designated by the Urban Coordinating Council "in consultation and conjunction with" the New Jersey Redevelopment Authority pursuant to N.J.S.A 55:19-69.

EROSION

The detachment and movement of soil or rock fragments by water, wind, ice, or gravity.

GREEN INFRASTRUCTURE

a stormwater management measure that manages stormwater close to its source by:

1. Treating stormwater runoff through infiltration into subsoil;
2. Treating stormwater runoff through filtration by vegetation or soil; or
3. Storing stormwater runoff for reuse.

HUC 14 or HYDROLOGIC UNIT CODE 14

An area within which water drains to a particular receiving surface water body, also known as a subwatershed, which is identified by a 14-digit hydrologic unit boundary designation, delineated within New Jersey by the United States Geological Survey.

IMPERVIOUS SURFACE

A surface that has been covered with a layer of material so that it is highly resistant to infiltration by water.

INFILTRATION

The process by which water seeps into the soil from precipitation.

LEAD PLANNING AGENCY

One or more public entities having stormwater management planning authority designated by the regional stormwater management planning committee pursuant to N.J.A.C. 7:8-3.2, that serves as the primary representative of the committee.

MAJOR DEVELOPMENT

An individual “development,” as well as multiple developments that individually or collectively result in:

1. The disturbance of one or more acres of land since February 2, 2004;
2. The creation of one-quarter acre or more of “regulated impervious surface” since February 2, 2004;
3. The creation of one-quarter acre or more of “regulated motor vehicle surface” since March 2, 2021; or
4. A combination of 2 and 3 above that totals an area of one-quarter acre or more. The same surface shall not be counted twice when determining if the combination area equals one-quarter acre or more.

Major development includes all developments that are part of a common plan of development or sale (for example, phased residential development) that collectively or individually meet any one or more of paragraphs 1, 2, 3, or 4 above. Projects undertaken by any government agency that otherwise meet the definition of “major development” but which do not require approval under the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq., are also considered “major development.”

[Amended 8-21-2018 by Ord. No. 2018-09]

MINOR DEVELOPMENT

Any development, not meeting the requirements of a major development, that involves the new construction or installation of impervious surfaces equal to or greater than 2,000 square feet hereinafter the effective date of this Part 3.

[Added 8-21-2018 by Ord. No. 2018-09]

MOTOR VEHICLE

Land vehicles propelled other than by muscular power, such as automobiles, motorcycles, autocycles, and low speed vehicles. For the purposes of this definition, motor vehicle does not include farm equipment, snowmobiles, all-terrain vehicles, motorized wheelchairs, go-carts, gas buggies, golf carts, ski-slope grooming machines, or vehicles that run only on rails or tracks.

MOTOR VEHICLE SURFACE

Any pervious or impervious surface that is intended to be used by “motor vehicles” and/or aircraft, and is directly exposed to precipitation including, but not limited to, driveways, parking areas, parking garages, roads, racetracks, and runways.

MUNICIPALITY

Any city, borough, town, township, or village. For the purposes of this ordinance, the Township of Holland.

NEW JERSEY STORMWATER BEST MANAGEMENT PRACTICES (BMP) MANUAL or BMP MANUAL

The manual maintained by the Department providing, in part, design specifications, removal rates, calculation methods, and soil testing procedures approved by the Department as being capable of contributing to the achievement of the stormwater management standards specified in this chapter. The BMP Manual is periodically amended by the Department as necessary to provide design specifications on additional best management practices and new information on already included practices reflecting the best available current information regarding the particular practice and the Department’s determination as to the ability of that best management practice to contribute to compliance with the standards contained in this chapter. Alternative stormwater management measures, removal rates, or calculation methods may be utilized, subject to any limitations specified in this chapter, provided the design engineer demonstrates to the municipality, in accordance with §100-185.F. of this Part 3 and N.J.A.C. 7:8-5.2(g), that the proposed measure and its design will contribute to achievement of the design and performance standards established by this chapter.

NODE

An area designated by the State Planning Commission concentrating facilities and activities which are not organized in a compact form.

NUTRIENT

A chemical element or compound, such as nitrogen or phosphorus, which is essential to and promotes the development of organisms.

PERSON

Any individual, corporation, company, partnership, firm, association, political subdivision of this State and any state, interstate or Federal agency.

POLLUTANT

Any dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, refuse, oil, grease, sewage sludge, munitions, chemical wastes, biological materials, medical wastes, radioactive substance (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. §§ 2011 *et seq.*)), thermal waste, wrecked or discarded equipment, rock, sand, cellar dirt, industrial, municipal, agricultural, and construction waste or runoff, or other residue discharged directly or indirectly to the land, ground waters or surface waters of the State, or to a domestic treatment works. “Pollutant” includes both hazardous and nonhazardous pollutants.

RECHARGE

The amount of water from precipitation that infiltrates into the ground and is not evapotranspired.

REDEVELOPMENT

Any land-disturbing activity that results in the creation, addition, or replacement of impervious surface area on an already developed or disturbed site. Redevelopment includes, but is not limited to, the expansion of a building footprint, addition or replacement of a structure, replacement of impervious surface area that is not part of a routine maintenance activity, and land-disturbing activities related to structural or impervious surfaces. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety.

[Added 8-21-2018 by Ord. No. 2018-09]

REGULATED IMPERVIOUS SURFACE

Any of the following, alone or in combination:

1. A net increase of impervious surface;
2. The total area of impervious surface collected by a new stormwater conveyance system (for the purpose of this definition, a “new stormwater conveyance system” is a stormwater conveyance system that is constructed where one did not exist immediately prior to its construction or an existing system for which a new discharge location is created);
3. The total area of impervious surface proposed to be newly collected by an existing stormwater conveyance system; and/or
4. The total area of impervious surface collected by an existing stormwater conveyance system where the capacity of that conveyance system is increased.

REGULATED MOTOR VEHICLE SURFACE

Any of the following, alone or in combination:

1. The total area of motor vehicle surface that is currently receiving water;
 2. A net increase in motor vehicle surface; and/or
- quality treatment either by vegetation or soil, by an existing stormwater management measure, or by treatment at a wastewater treatment plant, where the water quality treatment will be modified or removed.

SEDIMENT

Solid material, mineral or organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water or gravity as a product of erosion.

SITE

The lot or lots upon which a major development is to occur or has occurred.

SOIL

All unconsolidated mineral and organic material of any origin.

STATE DEVELOPMENT AND REDEVELOPMENT PLAN METROPOLITAN PLANNING AREA (PA1)

An area delineated on the State Plan Policy Map and adopted by the State Planning Commission that is intended to be the focus for much of the State’s future redevelopment and revitalization efforts.

STATE PLAN POLICY MAP

The geographic application of the State Development and Redevelopment Plan’s goals and statewide policies, and the official map of these goals and policies.

STORMWATER

Water resulting from precipitation (including rain and snow) that runs off the land’s surface, is transmitted to the subsurface, or is captured by separate storm sewers or other sewage or drainage facilities or conveyed by snow removal equipment.

STORMWATER MANAGEMENT BMP

An excavation or embankment and related areas designed to retain stormwater runoff. A stormwater management BMP may either be normally dry (that is, a detention basin or infiltration system), retain water in a permanent pool (a retention basin), or be planted mainly with wetland vegetation (most constructed stormwater wetlands).

STORMWATER MANAGEMENT MEASURE

Any practice, technology, process, program, or other method intended to control or reduce stormwater runoff and associated pollutants, or to induce or control the infiltration or groundwater recharge of stormwater or to eliminate illicit or illegal non-stormwater discharges into stormwater conveyances.

STORMWATER RUNOFF

Water flow on the surface of the ground or in storm sewers, resulting from precipitation.

STORMWATER MANAGEMENT PLANNING AGENCY

A public body authorized by legislation to prepare stormwater management plans.

STORMWATER MANAGEMENT PLANNING AREA

The geographic area for which a stormwater management planning agency is authorized to prepare stormwater management plans, or a specific portion of that area identified in a stormwater management plan prepared by that agency.

TIDAL FLOOD HAZARD AREA

A flood hazard area in which the flood elevation resulting from the two-, 10-, or 100-year storm, as applicable, is governed by tidal flooding from the Atlantic Ocean. Flooding in a tidal flood hazard area may be contributed to, or influenced by, stormwater runoff from inland areas, but the depth of flooding generated by the tidal rise and fall of the Atlantic Ocean is greater than flooding from any fluvial sources. In some situations, depending upon the extent of the storm surge from a particular storm event, a flood hazard area may be tidal in the 100-year storm, but fluvial in more frequent storm events.

URBAN COORDINATING COUNCIL EMPOWERMENT NEIGHBORHOOD

A neighborhood given priority access to State resources through the New Jersey Redevelopment Authority.

URBAN ENTERPRISE ZONES

A zone designated by the New Jersey Enterprise Zone Authority pursuant to the New Jersey Urban Enterprise Zones Act, N.J.S.A. 52:27H-60 et. seq.

URBAN REDEVELOPMENT AREA

Previously developed portions of the following areas:

1. Delineated on the State Plan Policy Map (SPPM) as the Metropolitan Planning Area (PA1), Designated Centers, Cores or Nodes;
2. Designated as CAFRA Centers, Cores or Nodes;
3. Designated as Urban Enterprise Zones; and
4. Designated as Urban Coordinating Council Empowerment Neighborhoods.

WATER CONTROL STRUCTURE

A structure within, or adjacent to, a water, which intentionally or coincidentally alters the hydraulic capacity, the flood elevation resulting from the two-, 10-, or 100-year storm, flood hazard area limit, and/or floodway limit of the water. Examples of a water control structure may include a bridge, culvert, dam, embankment, ford (if above grade), retaining wall, and weir.

WATERS OF THE STATE

The ocean and its estuaries, all springs, streams, wetlands, and bodies of surface or groundwater, whether natural or artificial, within the boundaries of the State of New Jersey or subject to its jurisdiction.

WETLANDS or WETLAND

An area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.

§ 100-184. Design and Performance Standards for Stormwater Management

Measures

A. Stormwater management measures for major development shall be designed to provide erosion control, groundwater recharge, stormwater runoff quantity control, and stormwater runoff quality treatment as follows:

1. The minimum standards for erosion control are those established under the Soil and Sediment Control Act, N.J.S.A. 4:24-39 et seq., and implementing rules at N.J.A.C. 2:90.
2. The minimum standards for groundwater recharge, stormwater quality, and stormwater runoff quantity shall be met by incorporating green infrastructure.

The standards in this Part 3 apply to both new major development and redevelopment and are intended to minimize the impact of stormwater runoff on water quality and water quantity in receiving water bodies and maintain groundwater recharge. The standards do not apply to new major development to the extent that alternative design and performance standards are applicable under a regional stormwater management plan or Water Quality Management Plan adopted in accordance with Department rules.

B. The standards in this Part 3 for projects that do not meet the requirements of a new major development but are considered minor developments are intended to minimize the impact of stormwater runoff and water quantity.

[Added 8-21-2018 by Ord. No. 2018-09]

§ 100-185. Stormwater Management Requirements for Major Development

A. The development shall incorporate a maintenance plan for the stormwater management measures incorporated into the design of a major development in accordance with §100-191.

B. Stormwater management measures shall avoid adverse impacts of concentrated flow on habitat for threatened and endangered species as documented in the Department's Landscape Project or Natural Heritage Database established under N.J.S.A. 13:1B-15.147 through 15.150, particularly *Helonias bullata* (swamp pink) and/or *Clemmys muhlenbergi* (bog turtle).

C. The following linear development projects are exempt from the groundwater recharge, stormwater runoff quality, and stormwater runoff quantity requirements of §100-185.P, Q and R:

1. The construction of an underground utility line provided that the disturbed areas are revegetated upon completion;
2. The construction of an aboveground utility line provided that the existing conditions are maintained to the maximum extent practicable; and
3. The construction of a public pedestrian access, such as a sidewalk or trail with a maximum width of 14 feet, provided that the access is made of permeable material.

D. A waiver from strict compliance from the green infrastructure, groundwater recharge, stormwater runoff quality, and stormwater runoff quantity requirements of §100-185.O, P, Q and R may be obtained for the enlargement of an existing public roadway or railroad; or the construction or enlargement of a public pedestrian access, provided that the following conditions are met:

1. The applicant demonstrates that there is a public need for the project that cannot be accomplished by any other means;
2. The applicant demonstrates through an alternatives analysis, that through the use of stormwater management measures, the option selected complies with the requirements of §100-185.O, P, Q and R to the maximum extent practicable;
3. The applicant demonstrates that, in order to meet the requirements of §100-185.O, P, Q and R, existing structures currently in use, such as homes and buildings, would need to be condemned; and
4. The applicant demonstrates that it does not own or have other rights to areas, including the potential to obtain through condemnation lands not falling under §100-185.D.3 above within the upstream drainage area of the receiving stream, that would provide additional opportunities to mitigate the requirements of §100-185.O, P, Q and R that were not achievable onsite.

E. Tables 1 through 3 below summarize the ability of stormwater best management practices identified and described in the New Jersey Stormwater Best Management Practices Manual to satisfy the green infrastructure, groundwater recharge, stormwater runoff quality and stormwater runoff quantity standards specified in §100-185.O, P, Q and R. When designed in accordance with the most current version of the New Jersey Stormwater Best Management Practices Manual, the stormwater management measures found at N.J.A.C. 7:8-5.2 (f) Tables 5-1, 5-2 and 5-3 and listed below in Tables 1, 2 and 3 are presumed to be capable of providing stormwater controls for the design and performance standards as outlined in the tables below. Upon amendments of the New Jersey Stormwater Best Management Practices to reflect additions or deletions of BMPs meeting these standards, or changes in the presumed performance of BMPs designed in accordance with the New Jersey Stormwater BMP Manual, the Department shall publish in the New Jersey Registers a notice of administrative change revising the applicable table. The most current version of the BMP Manual can be found on the Department's website at: https://njstormwater.org/bmp_manual2.htm.

F. Where the BMP tables in the NJ Stormwater Management Rule are different due to updates or amendments with the tables in this Part 3 the BMP Tables in the Stormwater Management rule at N.J.A.C. 7:8-5.2(f) shall take precedence.

Table 1 Green Infrastructure BMPs for Groundwater Recharge, Stormwater Runoff Quality, and/or Stormwater Runoff Quantity				
Best Management Practice	Stormwater Runoff Quality TSS Removal Rate (percent)	Stormwater Runoff Quantity	Groundwater Recharge	Minimum Separation from Seasonal High Water Table (feet)
Cistern	0	Yes	No	--
Dry Well ^(a)	0	No	Yes	2
Grass Swale	50 or less	No	No	2 ^(e) 1 ^(f)
Green Roof	0	Yes	No	--
Manufactured Treatment Device ^{(a)(g)}	50 or 80	No	No	Dependent upon the device
Pervious Paving System ^(a)	80	Yes	Yes ^(b) No ^(c)	2 ^(b) 1 ^(c)
Small-Scale Bioretention Basin ^(a)	80 or 90	Yes	Yes ^(b) No ^(c)	2 ^(b) 1 ^(c)
Small-Scale Infiltration Basin ^(a)	80	Yes	Yes	2
Small-Scale Sand Filter	80	Yes	Yes	2
Vegetative Filter Strip	60-80	No	No	--

(Notes corresponding to annotations ^(a) through ^(g) are found on Page D-15)

Table 2 Green Infrastructure BMPs for Stormwater Runoff Quantity (or for Groundwater Recharge and/or Stormwater Runoff Quality with a Waiver or Variance from N.J.A.C. 7:8-5.3)				
Best Management Practice	Stormwater Runoff Quality TSS Removal Rate (percent)	Stormwater Runoff Quantity	Groundwater Recharge	Minimum Separation from Seasonal High Water Table (feet)
Bioretention System	80 or 90	Yes	Yes ^(b) No ^(c)	2 ^(b) 1 ^(c)
Infiltration Basin	80	Yes	Yes	2
Sand Filter ^(b)	80	Yes	Yes	2
Standard Constructed Wetland	90	Yes	No	N/A
Wet Pond ^(d)	50-90	Yes	No	N/A

(Notes corresponding to annotations ^(b) through ^(d) are found on Page D-15)

Table 3 BMPs for Groundwater Recharge, Stormwater Runoff Quality, and/or Stormwater Runoff Quantity only with a Waiver or Variance from N.J.A.C. 7:8-5.3				

Best Management Practice	Stormwater Runoff Quality TSS Removal Rate (percent)	Stormwater Runoff Quantity	Groundwater Recharge	Minimum Separation from Seasonal High Water Table (feet)
Blue Roof	0	Yes	No	N/A
Extended Detention Basin	40-60	Yes	No	1
Manufactured Treatment Device ^(h)	50 or 80	No	No	Dependent upon the device
Sand Filter ^(e)	80	Yes	No	1
Subsurface Gravel Wetland	90	No	No	1
Wet Pond	50-90	Yes	No	N/A

Notes to Tables 1, 2, and 3:

(a) subject to the applicable contributory drainage area limitation specified at §100-185.O.2;

(b) designed to infiltrate into the subsoil;

(c) designed with underdrains;

(d) designed to maintain at least a 10-foot wide area of native vegetation along at least 50 percent of the shoreline and to include a stormwater runoff retention component designed to capture stormwater runoff for beneficial reuse, such as irrigation;

(e) designed with a slope of less than two percent;

(f) designed with a slope of equal to or greater than two percent;

(g) manufactured treatment devices that meet the definition of green infrastructure at § 100-183;

(h) manufactured treatment devices that do not meet the definition of green infrastructure at § 100-183.

G. An alternative stormwater management measure, alternative removal rate, and/or alternative method to calculate the removal rate may be used if the design engineer demonstrates the capability of the proposed alternative stormwater management measure and/or the validity of the alternative rate or method to the municipality. A copy of any approved alternative stormwater management measure, alternative removal rate, and/or alternative method to calculate the removal rate shall be provided to the Department in accordance with §100-187.B. Alternative stormwater management measures may be used to satisfy the requirements at §100-185.O only if the measures meet the definition of green infrastructure at §100-183. Alternative stormwater management measures that function in a similar manner to a BMP listed at Section O.2 are subject to the contributory drainage area limitation specified at Section O.2 for that similarly functioning BMP. Alternative stormwater management measures approved in accordance with this subsection that do not function in a similar manner to any BMP listed at Section O.2 shall have a contributory drainage area less than or equal to 2.5 acres, except for alternative stormwater management measures that function similarly to cisterns, grass swales, green roofs, standard constructed wetlands, vegetative filter strips, and wet ponds, which are not subject to a contributory drainage area limitation. Alternative measures that function similarly to standard constructed wetlands or wet ponds shall not be used for compliance with the stormwater runoff quality standard unless a variance in accordance with N.J.A.C. 7:8-4.6 or a waiver from strict compliance in accordance with §100-185.D is granted from §100-185.O.

H. Whenever the stormwater management design includes one or more BMPs that will infiltrate stormwater into subsoil, the design engineer shall assess the hydraulic impact on the groundwater table and design the site, so as to avoid adverse hydraulic impacts. Potential adverse hydraulic impacts include, but are not limited to, exacerbating a naturally or seasonally high water table, so as to cause surficial ponding, flooding of basements, or interference with the proper operation of subsurface sewage disposal systems or other subsurface structures within the zone of influence of the groundwater mound, or interference with the proper functioning of the stormwater management measure itself.

I. Design standards for stormwater management measures are as follows:

1. Stormwater management measures shall be designed to take into account the existing site conditions, including, but not limited to, environmentally critical areas; wetlands; flood-prone areas; slopes; depth to seasonal high water table; soil type, permeability, and texture; drainage area and drainage patterns; and the presence of solution-prone carbonate rocks (limestone);

2. Stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning. Trash racks shall be installed at the intake to the outlet structure, as appropriate, and shall have parallel bars with one-inch spacing between the bars to the elevation of the water quality design storm. For elevations higher than the water quality design storm, the parallel bars at the outlet structure shall be spaced no greater than one-third the width of the diameter of the orifice or one-third the width of the weir, with a minimum spacing between bars of one inch and a maximum spacing between bars of six inches. In addition, the design of trash racks must comply with the requirements of §100-189.C;

3. Stormwater management measures shall be designed, constructed, and installed to be strong, durable, and corrosion resistant. Measures that are consistent with the relevant portions of the Residential Site Improvement Standards at N.J.A.C. 5:21-7.3, 7.4, and 7.5 shall be deemed to meet this requirement;

4. Stormwater management BMPs shall be designed to meet the minimum safety standards for stormwater management BMPs at §100-189; and

5. The size of the orifice at the intake to the outlet from the stormwater management BMP shall be a minimum of two and one-half inches in diameter.

J. Manufactured treatment devices may be used to meet the requirements of this subchapter, provided the pollutant removal rates are verified by the New Jersey Corporation for Advanced Technology and certified by the Department. Manufactured treatment devices that do not meet the definition of green infrastructure at §100-183 may be used only under the circumstances described at §100-185.O.4.

K. Any application for a new agricultural development that meets the definition of major development at §100-183 shall be submitted to the Soil Conservation District for review and approval in accordance with the requirements at Sections §100-185.O, P, Q and R and any applicable Soil Conservation District guidelines for stormwater runoff quantity and erosion control. For purposes of this subsection, "agricultural development" means land uses normally associated with the production of food, fiber, and livestock for sale. Such uses do not include the development of land for the processing or sale of food and the manufacture of agriculturally related products.

L. If there is more than one drainage area, the groundwater recharge, stormwater runoff quality, and stormwater runoff quantity standards at §100-185.P, Q and R shall be met in each drainage area, unless the runoff from the drainage areas converge onsite and no adverse environmental impact would occur as a result of compliance with any one or more of the individual standards being determined utilizing a weighted average of the results achieved for that individual standard across the affected drainage areas.

M. Any stormwater management measure authorized under the municipal stormwater management plan or ordinance shall be reflected in a deed notice recorded in the Office of the Hunterdon County Clerk. A form of deed notice shall be submitted to the municipality for approval prior to filing. The deed notice shall contain a description of the stormwater management measure(s) used to meet the green infrastructure, groundwater recharge, stormwater runoff quality, and stormwater runoff quantity standards at §100-185.O, P, Q and R and shall identify the location of the stormwater management measure(s) in NAD 1983 State Plane

New Jersey FIPS 2900 US Feet or Latitude and Longitude in decimal degrees. The deed notice shall also reference the maintenance plan required to be recorded upon the deed pursuant to §100-191.B.5. Prior to the commencement of construction, proof that the above required deed notice has been filed shall be submitted to the municipality. Proof that the required information has been recorded on the deed shall be in the form of either a copy of the complete recorded document or a receipt from the clerk or other proof of recordation provided by the recording office. However, if the initial proof provided to the municipality is not a copy of the complete recorded document, a copy of the complete recorded document shall be provided to the municipality within 180 calendar days of the authorization granted by the municipality.

N. A stormwater management measure approved under the municipal stormwater management plan or ordinance may be altered or replaced with the approval of the municipality, if the municipality determines that the proposed alteration or replacement meets the design and performance standards pursuant to §100-185 of this Part 3 and provides the same level of stormwater management as the previously approved stormwater management measure that is being altered or replaced. If an alteration or replacement is approved, a revised deed notice shall be submitted to the municipality for approval and subsequently recorded with the Office of the Hunterdon County Clerk and shall contain a description and location of the stormwater management measure, as well as reference to the maintenance plan, in accordance with M above. Prior to the commencement of construction, proof that the above required deed notice has been filed shall be submitted to the municipality in accordance with M above.

O. Green Infrastructure Standards

1. This subsection specifies the types of green infrastructure BMPs that may be used to satisfy the groundwater recharge, stormwater runoff quality, and stormwater runoff quantity standards.

2. To satisfy the groundwater recharge and stormwater runoff quality standards at §100-185.P and Q, the design engineer shall utilize green infrastructure BMPs identified in Table 1 at §100-185.F. and/or an alternative stormwater management measure approved in accordance with §100-185.G. The following green infrastructure BMPs are subject to the following maximum contributory drainage area limitations:

Best Management Practice	Maximum Contributory Drainage Area
Dry Well	1 acre
Manufactured Treatment Device	2.5 acres
Pervious Pavement Systems	Area of additional inflow cannot exceed three times the area occupied by the BMP
Small-scale Bioretention Systems	2.5 acres
Small-scale Infiltration Basin	2.5 acres
Small-scale Sand Filter	2.5 acres

3. To satisfy the stormwater runoff quantity standards at §100-185.R, the design engineer shall utilize BMPs from Table 1 or from Table 2 and/or an alternative stormwater management measure approved in accordance with §100-185.G.

4. If a variance in accordance with N.J.A.C. 7:8-4.6 or a waiver from strict compliance in accordance with §100-185.D is granted from the requirements of this subsection, then BMPs from Table 1, 2, or 3, and/or an alternative stormwater management measure approved in accordance with §100-185.G may be used to meet the groundwater recharge, stormwater runoff quality, and stormwater runoff quantity standards at §100-185.P, Q and R.

5. For separate or combined storm sewer improvement projects, such as sewer separation, undertaken by a government agency or public utility (for example, a sewerage company), the requirements of this subsection shall only apply to areas owned in fee simple by the government agency or utility, and areas within a right-of-way or easement held or controlled by the government agency or utility; the entity shall not be required to obtain additional property or property rights to fully satisfy the requirements of this subsection. Regardless of the amount of area of a separate or combined storm sewer improvement project subject to the green infrastructure requirements of this subsection, each project shall fully comply with the applicable groundwater recharge, stormwater runoff quality control, and stormwater runoff quantity standards at §100-185.P, Q and R, unless the project is granted a waiver from strict compliance in accordance with §100-185.D.

P. Groundwater Recharge Standards

1. This subsection contains the minimum design and performance standards for groundwater recharge as follows:

2. The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at §100-186, either:

- i. Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100 percent of the average annual pre-construction groundwater recharge volume for the site; or
- ii. Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the 2-year storm is infiltrated.

iii. Projects located in a current deficit area: Where the project is located in a current deficit area as identified in Exhibit A, the project shall demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures provide for one of the following provisions:
[Added 8-21-2018 by Ord. No. 2018-09]

[a] Recharge 125% of the percentage of the average annual preconstruction groundwater recharge volume for the site; or

[b] In addition to complying with the requirements of § 100-185P(2), retain on-site with no discharge the stormwater quality design volume (SWQDv), defined as the runoff from the 1.25-inch, two-hour rainfall event. Groundwater recharge or infiltration performed in compliance with § 100-185B(2)(a)[3][a] or § 100-185P(2), above, may count toward required retention of the SWQDv. Where groundwater recharge will result in equal or greater retention than required to meet the SWQDv, then it shall constitute compliance with § 100-185B(2)(a)[3][b]. Where meeting the groundwater recharge requirement will not result in retention of the full SWQDv, the major development shall retain any additional volume to meet the requirements of § 100-185.B(2)(a)[3][b] through additional infiltration, or through evapotranspiration or capture and on-site re-use of rainfall.

3. This groundwater recharge requirement does not apply to projects within the “urban redevelopment area,” or to projects subject to 4 below.

4. The following types of stormwater shall not be recharged:

- i. Stormwater from areas of high pollutant loading. High pollutant loading areas are areas in industrial and commercial developments where solvents and/or petroleum products are loaded/unloaded, stored, or applied, areas where pesticides are loaded/unloaded or stored; areas where hazardous materials are expected to be present in greater than “reportable quantities” as defined by the United States Environmental Protection Agency (EPA) at 40 CFR 302.4; areas where recharge would be inconsistent with Department approved remedial action work plan or landfill closure plan and areas with high risks for spills of toxic materials, such as gas stations and vehicle maintenance facilities; and
- ii. Industrial stormwater exposed to “source material.” “Source material” means any material(s) or machinery, located at an industrial facility, that is directly or indirectly related to process, manufacturing or other industrial activities, which could be a source of pollutants in any industrial stormwater discharge to groundwater. Source materials include, but are not limited to, raw materials; intermediate products; final products; waste materials; by-products; industrial machinery and fuels, and lubricants, solvents, and detergents that are related to process, manufacturing, or other industrial activities that are exposed to stormwater.
- iii. Carbonate rock areas, where surficial or subsurface karst features have been identified and recharge facilities cannot be designed in a manner that would eliminate the concentrated subsurface release of stormwater (Note: The mere presence of carbonate bedrock does not constitute a karst feature).

[Added 8-21-2018 by Ord. No. 2018-09]

5. The design engineer shall assess and certify the hydraulic impact on the groundwater table and design the project site and all site groundwater recharge measures so as to avoid adverse hydraulic impacts. Adverse hydraulic impacts include, but are not limited to, raising the groundwater table so as to cause surface

ponding, flooding of basements and other subsurface facilities, and interference with the proper operation of subsurface sewage disposal systems and other subsurface structures in the vicinity of a groundwater recharge measure.

6. Mitigation required. In lieu of on-site recharge, the applicant shall be responsible for providing mitigation of the groundwater recharge volume in the required amount. The applicant should provide mitigation, on-site if possible and/or practical, or within the same drainage area within which the subject project is proposed, or contribute funding toward a municipal stormwater control project, or provide for equivalent treatment at an alternate location, or provide for another equivalent water quality benefit, in lieu of implementing the required groundwater recharge volume on their specific site.

[Added 8-21-2018 by Ord. No. 2018-09]

Q. Stormwater Runoff Quality Standards

1. This subsection contains the minimum design and performance standards to control stormwater runoff quality impacts of major development. Stormwater runoff quality standards are applicable when the major development results in an increase of one-quarter acre or more of regulated motor vehicle surface.

2. Stormwater management measures shall be designed to reduce the post-construction load of total suspended solids (TSS) in stormwater runoff generated from the water quality design storm as follows:

i. Eighty percent TSS removal of the anticipated load expressed as an annual average shall be achieved for the stormwater runoff from the net increase of motor vehicle surface.

3. If the surface is considered regulated motor vehicle surface because the water quality treatment for an area of motor vehicle surface that is currently receiving water quality treatment either by vegetation or soil, by an existing stormwater management measure, or by treatment at a wastewater treatment plant is to be modified or removed, the project shall maintain or increase the existing TSS removal of the anticipated load expressed as an annual average.

The requirement to reduce TSS does not apply to any stormwater runoff in a discharge regulated under a numeric effluent limitation for TSS imposed under the New Jersey Pollutant Discharge Elimination System (NJPDES) rules, N.J.A.C. 7:14A, or in a discharge specifically exempt under a NJPDES permit from this requirement. Every major development, including any that discharge into a combined sewer system, shall comply with 2 above, unless the major development is itself subject to a NJPDES permit with a numeric effluent limitation for TSS or the NJPDES permit to which the major development is subject exempts the development from a numeric effluent limitation for TSS.

4. The water quality design storm is 1.25 inches of rainfall in two hours. Water quality calculations shall take into account the distribution of rain from the water quality design storm, as reflected in Table 4, below. The calculation of the volume of runoff may take into account the implementation of stormwater management measures.

Time (Minutes)	Cumulative Rainfall (Inches)	Time (Minutes)	Cumulative Rainfall (Inches)	Time (Minutes)	Cumulative Rainfall (Inches)
1	0.00166	41	0.1728	81	1.0906
2	0.00332	42	0.1796	82	1.0972
3	0.00498	43	0.1864	83	1.1038
4	0.00664	44	0.1932	84	1.1104
5	0.00830	45	0.2000	85	1.1170
6	0.00996	46	0.2117	86	1.1236
7	0.01162	47	0.2233	87	1.1302
8	0.01328	48	0.2350	88	1.1368
9	0.01494	49	0.2466	89	1.1434
10	0.01660	50	0.2583	90	1.1500
11	0.01828	51	0.2783	91	1.1550
12	0.01996	52	0.2983	92	1.1600
13	0.02164	53	0.3183	93	1.1650
14	0.02332	54	0.3383	94	1.1700
15	0.02500	55	0.3583	95	1.1750
16	0.03000	56	0.4116	96	1.1800
17	0.03500	57	0.4650	97	1.1850
18	0.04000	58	0.5183	98	1.1900
19	0.04500	59	0.5717	99	1.1950
20	0.05000	60	0.6250	100	1.2000
21	0.05500	61	0.6783	101	1.2050
22	0.06000	62	0.7317	102	1.2100
23	0.06500	63	0.7850	103	1.2150
24	0.07000	64	0.8384	104	1.2200
25	0.07500	65	0.8917	105	1.2250
26	0.08000	66	0.9117	106	1.2267
27	0.08500	67	0.9317	107	1.2284
28	0.09000	68	0.9517	108	1.2300
29	0.09500	69	0.9717	109	1.2317
30	0.10000	70	0.9917	110	1.2334
31	0.10660	71	1.0034	111	1.2351
32	0.11320	72	1.0150	112	1.2367
33	0.11980	73	1.0267	113	1.2384
34	0.12640	74	1.0383	114	1.2400
35	0.13300	75	1.0500	115	1.2417
36	0.13960	76	1.0568	116	1.2434
37	0.14620	77	1.0636	117	1.2450
38	0.15280	78	1.0704	118	1.2467
39	0.15940	79	1.0772	119	1.2483
40	0.16600	80	1.0840	120	1.2500

Table 4 - Water Quality Design Storm Distribution

5. If more than one BMP in series is necessary to achieve the required 80 percent TSS reduction for a site, the applicant shall utilize the following formula to calculate TSS reduction:

$$R = A + B - (A \times B) / 100,$$

Where

R = total TSS Percent Load Removal from application of both BMPs, and

A = the TSS Percent Removal Rate applicable to the first BMP

B = the TSS Percent Removal Rate applicable to the second BMP.

6. Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated from the water quality design storm. In achieving reduction of nutrients to the maximum extent feasible, the design of the site shall include green infrastructure BMPs that optimize nutrient removal while still achieving the performance standards in §100-185.P, Q and R.

7. In accordance with the definition of FW1 at N.J.A.C. 7:9B-1.4, stormwater management measures shall be designed to prevent any increase in stormwater runoff to waters classified as FW1.

8. The Flood Hazard Area Control Act Rules at N.J.A.C. 7:13-4.1(c)1 establish 300-foot riparian zones along Category One waters, as designated in the Surface Water Quality Standards at N.J.A.C. 7:9B, and certain upstream tributaries to Category One waters. A person shall not undertake a major development that is located within or discharges into a 300-foot riparian zone without prior authorization from the Department under N.J.A.C. 7:13.

9. Pursuant to the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13-11.2(j)3.i, runoff from the water quality design storm that is discharged within a 300-foot riparian zone shall be treated in accordance with this subsection to reduce the post-construction load of total suspended solids by 95 percent of the anticipated load from the developed site, expressed as an annual average.

10. This stormwater runoff quality standards do not apply to the construction of one individual single-family dwelling, provided that it is not part of a larger development or subdivision that has received preliminary or final site plan approval prior to December 3, 2018, and that the motor vehicle surfaces are made of permeable material(s) such as gravel, dirt, and/or shells.

R. Stormwater Runoff Quantity Standards

1. This subsection contains the minimum design and performance standards to control stormwater runoff quantity impacts of major development.

2. In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at §100-186, complete one of the following:

- i. Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the 2-, 10-, and 100-year storm events do not exceed, at any point in time, the pre-construction runoff hydrographs for the same storm events;
 - ii. Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the 2-, 10- and 100-year storm events and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site. This analysis shall include the analysis of impacts of existing land uses and projected land uses assuming full development under existing zoning and land use ordinances in the drainage area;
 - iii. Design stormwater management measures so that the post-construction peak runoff rates for the 2-, 10- and 100-year storm events are 50, 75 and 80 percent, respectively, of the pre-construction peak runoff rates. The percentages apply only to the post-construction stormwater runoff that is attributable to the portion of the site on which the proposed development or project is to be constructed; or
 - iv. In tidal flood hazard areas, stormwater runoff quantity analysis in accordance with 2.i, ii and iii above is required unless the design engineer demonstrates through hydrologic and hydraulic analysis that the increased volume, change in timing, or increased rate of the stormwater runoff, or any combination of the three will not result in additional flood damage below the point of discharge of the major development. No analysis is required if the stormwater is discharged directly into any ocean, bay, inlet, or the reach of any watercourse between its confluence with an ocean, bay, or inlet and downstream of the first water control structure.
3. The stormwater runoff quantity standards shall be applied at the site's boundary to each abutting lot, roadway, watercourse, or receiving storm sewer system.

§ 100-185.1 Stormwater Management Requirements for Minor Developments

[Added 8-21-2018 by Ord. No. 2018-09]

A. Application for approval.

(1) In cases where the development of land involves the construction of a building or other facility requiring a construction permit or application to the Planning or Zoning Board of Adjustment, the Zoning Officer shall determine whether the development involves the construction or installation of an impervious surface equal to or greater than 2,000 square feet. If the extent of work to be undertaken is such that requires review and approval with regard to the provisions of this article, the applicant shall proceed to submit an application and other data as outlined in § 100-190A and B to the Township Engineer. The Township Engineer shall approve, tentatively disapprove, or disapprove the application within 35 calendar days after submitted to him.

(2) In cases where the development does not require the construction of a building or other facility requiring a construction permit, the applicant shall submit an application and other data as outlined in § 100-190A and B herein, directly to the Township Engineer for review. The Township Engineer shall approve, tentatively disapprove, or disapprove the application within 35 calendar days after submitted to him. If disapproved, the applicant may seek relief from the Planning Board under §100-185D or §100-190C.

B. Data required. Any application for minor developments must be accompanied by the following data with the payment of the appropriate fees:

(1) Plot plan showing dimensions of the property, proposed buildings dimensioned from each side to the shortest lot line, driveways, patios, sidewalks, etc. The plan shall include existing and proposed elevations and contour lines over the entire area of the proposed property, together with watercourses and an indication of the final disposal location of surface waters. All elevations shall be related to two permanent bench marks identified on the plan. Contours shall be shown at not more than two-foot intervals for areas with less than a ten-percent slope, five-foot intervals for areas with ten- to twenty-percent slopes. Any existing feature to be removed or relocated shall be indicated. Flood hazard area limits and wetlands shall be shown.

(2) Calculations for estimating pre- and post-development runoff prepared by a professional engineer based on the methodologies outlined in § 100-186, with a design that satisfies the requirements of § 100-185R.

C. Design standards. The intent of this Part 3 is to regulate and control stormwater runoff as it is increased as a result of development as outlined in § 100-185R. All facilities shall be designed based on the methods of calculating runoff as described in § 100-186 of this Part 3 and are subject to the approval by the Township Engineer. All facilities shall be designed based on the requirements for stormwater management facilities described in §100-185.

§ 100-186. Calculation of Stormwater Runoff and Groundwater Recharge:

A. Stormwater runoff shall be calculated in accordance with the following:

[Amended 8-21-2018 by Ord. No. 2018-09]

1. The design engineer shall calculate runoff using one of the following methods in complying with the design and performance standards of §100-185 and §100-185.1:

- i. The USDA Natural Resources Conservation Service (NRCS) methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograph, as described in Chapters 7, 9, 10, 15 and 16 Part 630, Hydrology National Engineering Handbook, incorporated herein by reference as amended and supplemented. This methodology is additionally described in *Technical Release 55 - Urban Hydrology for Small Watersheds* (TR-55), dated June 1986, incorporated herein by reference as amended and supplemented. Information regarding the methodology is available from the Natural Resources Conservation Service website at: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044171.pdf or at United States Department of Agriculture Natural Resources Conservation Service, 220 Davison Avenue, Somerset, New Jersey 08873; or
 - ii. The Rational Method for peak stormwater runoff rate calculations only. Use of the Rational Method is limited to drainage areas of 20 acres or less.
2. For the purpose of calculating runoff coefficients and groundwater recharge, there is a presumption that the pre-construction condition of a site or portion thereof is a wooded land use with good hydrologic condition. The term "runoff coefficient" applies to both the NRCS methodology above at §100-186.A.1.i and the Rational and Modified Rational Methods at §100-186.A.1.ii. A runoff coefficient or a groundwater recharge land cover for an existing condition may be used on all or a portion of the site if the design engineer verifies that the hydrologic condition has existed on the site or portion of the site for at least five years without interruption prior to the time of application. If more than one land cover have existed on the site during the five years immediately prior to the time of application, the land cover with the lowest runoff potential shall be used for the computations. In addition, there is the presumption that the site is in good hydrologic condition (if the land use type is pasture, lawn, or park), with good cover (if the land use type is woods), or with good hydrologic condition and conservation treatment (if the land use type is cultivation).
3. In computing pre-construction stormwater runoff, the design engineer shall account for all significant land features and structures, such as ponds, wetlands, depressions, hedgerows, or culverts, that may reduce pre-construction stormwater runoff rates and volumes.
4. In computing stormwater runoff from all design storms, the design engineer shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site. To calculate runoff from unconnected

impervious cover, urban impervious area modifications as described in the NRCS *Technical Release 55 – Urban Hydrology for Small Watersheds* or other methods may be employed.

5. If the invert of the outlet structure of a stormwater management measure is below the flood hazard design flood elevation as defined at N.J.A.C. 7:13, the design engineer shall take into account the effects of tailwater in the design of structural stormwater management measures.

B. Groundwater recharge may be calculated in accordance with the following:

The New Jersey Geological Survey Report GSR-32, A Method for Evaluating Groundwater-Recharge Areas in New Jersey, incorporated herein by reference as amended and supplemented. Information regarding the methodology is available from the New Jersey Stormwater Best Management Practices Manual; at the New Jersey Geological Survey website at: <https://www.nj.gov/dep/njgs/pricelst/gsr32.pdf> or at New Jersey Geological and Water Survey, 29 Arctic Parkway, PO Box 420 Mail Code 29-01, Trenton, New Jersey 08625-0420.

§100-187. Sources for Technical Guidance:

1. Technical guidance for stormwater management measures can be found in the documents listed below, which are available to download from the Department's website at: http://www.nj.gov/dep/stormwater/bmp_manual2.htm. Guidelines for stormwater management measures are contained in the New Jersey Stormwater Best Management Practices Manual, as amended and supplemented. Information is provided on stormwater management measures such as, but not limited to, those listed in Tables 1, 2, and 3.
2. Additional maintenance guidance is available on the Department's website at: https://www.njstormwater.org/maintenance_guidance.htm.

A. Submissions required for review by the Department should be mailed to:

The Division of Water Quality, New Jersey Department of Environmental Protection, Mail Code 401-02B, PO Box 420, Trenton, New Jersey 08625-0420.

§100-188. Solids and Floatable Materials Control Standards:

- A. Site design features identified under §100-185.F above, or alternative designs in accordance with §100-185.G above, to prevent discharge of trash and debris from drainage systems shall comply with the following standard to control passage of solid and floatable materials through storm drain inlets. For purposes of this paragraph, "solid and floatable materials" means sediment, debris, trash, and other floating, suspended, or settleable solids. For exemptions to this standard see §100-188.A.2 below.
 1. Design engineers shall use one of the following grates whenever they use a grate in pavement or another ground surface to collect stormwater from that surface into a storm drain or surface water body under that grate:
 - i. The New Jersey Department of Transportation (NJDOT) bicycle safe grate, which is described in Chapter 2.4 of the NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines; or
 - ii. A different grate, if each individual clear space in that grate has an area of no more than seven (7.0) square inches, or is no greater than 0.5 inches across the smallest dimension.

Examples of grates subject to this standard include grates in grate inlets, the grate portion (non-curb-opening portion) of combination inlets, grates on storm sewer manholes, ditch grates, trench grates, and grates of spacer bars in slotted drains. Examples of ground surfaces include surfaces of roads (including bridges), driveways, parking areas, bikeways, plazas, sidewalks, lawns, fields, open channels, and stormwater system floors used to collect stormwater from the surface into a storm drain or surface water body.

- iii. For curb-opening inlets, including curb-opening inlets in combination inlets, the clear space in that curb opening, or each individual clear space if the curb opening has two or more clear spaces, shall have an area of no more than seven (7.0) square inches, or be no greater than two (2.0) inches across the smallest dimension.
 2. The standard in A.1. above does not apply:
 - i. Where each individual clear space in the curb opening in existing curb-opening inlet does not have an area of more than nine (9.0) square inches;
 - ii. Where the municipality agrees that the standards would cause inadequate hydraulic performance that could not practicably be overcome by using additional or larger storm drain inlets;
 - iii. Where flows from the water quality design storm as specified in N.J.A.C. 7:8 are conveyed through any device (e.g., end of pipe netting facility, manufactured treatment device, or a catch basin hood) that is designed, at a minimum, to prevent delivery of all solid and floatable materials that could not pass through one of the following:
 - a. A rectangular space four and five-eighths (4.625) inches long and one and one-half (1.5) inches wide (this option does not apply for outfall netting facilities); or
 - b. A bar screen having a bar spacing of 0.5 inches.

Note that these exemptions do not authorize any infringement of requirements in the Residential Site Improvement Standards for bicycle safe grates in new residential development (N.J.A.C. 5:21-4.18(b)2 and 7.4(b)1).

- iv. Where flows are conveyed through a trash rack that has parallel bars with one-inch (1 inch) spacing between the bars, to the elevation of the Water Quality Design Storm as specified in N.J.A.C. 7:8; or
- v. Where the New Jersey Department of Environmental Protection determines, pursuant to the New Jersey Register of Historic Places Rules at N.J.A.C. 7:4-7.2(c), that action to meet this standard is an undertaking that constitutes an encroachment or will damage or destroy the New Jersey Register listed historic property.

§100-189. Safety Standards for Stormwater Management Basins:

- A. This section sets forth requirements to protect public safety through the proper design and operation of stormwater management BMPs. This section applies to any new stormwater management BMP.
- B. The provisions of this section are not intended to preempt more stringent municipal or county safety requirements for new or existing stormwater management BMPs. Municipal and county stormwater management plans and ordinances may, pursuant to their authority, require existing stormwater management BMPs to be retrofitted to meet one or more of the safety standards in §100-189.C.1, §100-189.C.2, and §100-189.C.3 for trash racks, overflow grates, and escape provisions at outlet structures.
- C. Requirements for Trash Racks, Overflow Grates and Escape Provisions
 1. A trash rack is a device designed to catch trash and debris and prevent the clogging of outlet structures. Trash racks shall be installed at the intake to the outlet from the Stormwater management BMP to ensure proper functioning of the BMP outlets in accordance with the following:
 - i. The trash rack shall have parallel bars, with no greater than six-inch spacing between the bars;
 - ii. The trash rack shall be designed so as not to adversely affect the hydraulic performance of the outlet pipe or structure;
 - iii. The average velocity of flow through a clean trash rack is not to exceed 2.5 feet per second under the full range of stage and discharge. Velocity is to be computed on the basis of the net area of opening through the rack; and
 - iv. The trash rack shall be constructed of rigid, durable, and corrosion resistant material and designed to withstand a perpendicular live loading of 300 pounds per square foot.
 2. An overflow grate is designed to prevent obstruction of the overflow structure. If an outlet structure has an overflow grate, such grate shall meet the following requirements:
 - i. The overflow grate shall be secured to the outlet structure but removable for emergencies and maintenance.
 - ii. The overflow grate spacing shall be no less than two inches across the smallest dimension
 - iii. The overflow grate shall be constructed and installed to be rigid, durable, and corrosion resistant, and shall be designed to withstand a perpendicular live loading of 300 pounds per square foot.
 3. Stormwater management BMPs shall include escape provisions as follows:
 - i. If a stormwater management BMP has an outlet structure, escape provisions shall be incorporated in or on the structure. Escape provisions include the installation of permanent ladders, steps, rungs, or other features that provide easily accessible means of egress from stormwater management BMPs. With the prior approval of the municipality pursuant to §100-189.C, a free-standing outlet structure may be exempted from this requirement;

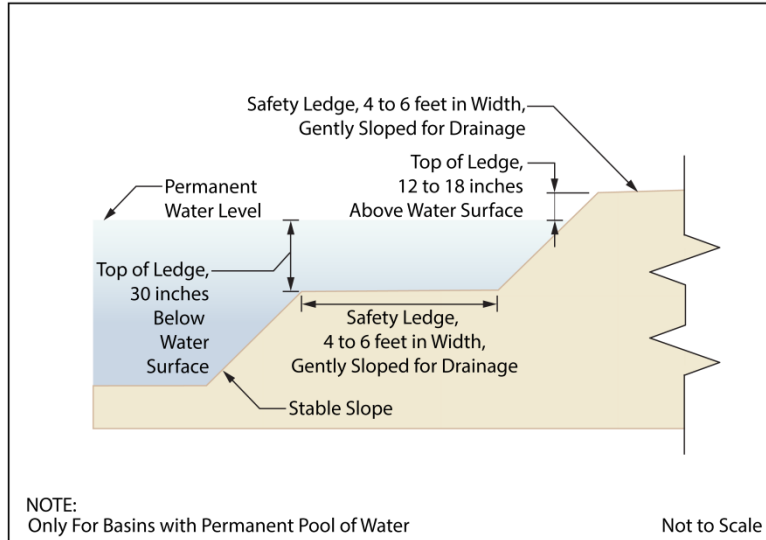
- ii. Safety ledges shall be constructed on the slopes of all new stormwater management BMPs having a permanent pool of water deeper than two and one-half feet. Safety ledges shall be comprised of two steps. Each step shall be four to six feet in width. One step shall be located approximately two and one-half feet below the permanent water surface, and the second step shall be located one to one and one-half feet above the permanent water surface. See §100-189.E for an illustration of safety ledges in a stormwater management BMP; and
- iii. In new stormwater management BMPs, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.

D. Variance or Exemption from Safety Standard

A variance or exemption from the safety standards for stormwater management BMPs may be granted only upon a written finding by the municipality that the variance or exemption will not constitute a threat to public safety.

E. Safety Ledge Illustration

Elevation View –Basin Safety Ledge Configuration



§100-190. Requirements for a Site Development Stormwater Plan:

A. Submission of Site Development Stormwater Plan

- 1. Whenever an applicant seeks municipal approval of a development subject to this Part 3, the applicant shall submit all of the required components of the Checklist for the Site Development Stormwater Plan at §100-190.C below as part of the submission of the application for approval.
- 2. The applicant shall demonstrate that the project meets the standards set forth in this Part 3.
- 3. The applicant shall submit [specify number] copies of the materials listed in the checklist for site development stormwater plans in accordance with §100-190.C of this Part 3.

B. Site Development Stormwater Plan Approval

The applicant's Site Development project shall be reviewed as a part of the review process by the municipal board or official from which municipal approval is sought. That municipal board or official shall consult the municipality's review engineer to determine if all of the checklist requirements have been satisfied and to determine if the project meets the standards set forth in this Part 3.

C. Submission of Site Development Stormwater Plan

The following information shall be required:

1. Topographic Base Map

The reviewing engineer may require upstream tributary drainage system information as necessary. It is recommended that the topographic base map of the site be submitted which extends a minimum of 200 feet beyond the limits of the proposed development, at a scale of 1"=200' or greater, showing 2-foot contour intervals. The map as appropriate may indicate the following: existing surface water drainage, shorelines, steep slopes, soils, erodible soils, perennial or intermittent streams that drain into or upstream of the Category One waters, wetlands and flood plains along with their appropriate buffer strips, marshlands and other wetlands, pervious or vegetative surfaces, existing man-made structures, roads, bearing and distances of property lines, and significant natural and manmade features not otherwise shown.

2. Environmental Site Analysis

A written and graphic description of the natural and man-made features of the site and its surroundings should be submitted. This description should include a discussion of soil conditions, slopes, wetlands, waterways and vegetation on the site. Particular attention should be given to unique, unusual, or environmentally sensitive features and to those that provide particular opportunities or constraints for development. For sites located within limestone (carbonate) areas, a geotechnical investigation shall be required. The report must be prepared in accordance with §101-26C of the Township's Highlands Land Use Ordinance and meet all of the performance requirements for Phase I and, as required, Phase II, Geological Investigations, listed therein.

[Amended 8-21-2018 by Ord. No. 2018-09]

3. Project Description and Site Plans

A map (or maps) at the scale of the topographical base map indicating the location of existing and proposed buildings roads, parking areas, utilities, structural facilities for stormwater management and sediment control, and other permanent structures. The map(s) shall also clearly show areas where alterations will occur in the natural terrain and cover, including lawns and other landscaping, and seasonal high groundwater elevations. A written description of the site plan and justification for proposed changes in natural conditions shall also be provided.

4. Land Use Planning and Source Control Plan

This plan shall provide a demonstration of how the goals and standards of Sections §100-184 through 186 are being met. The focus of this plan shall be to describe how the site is being developed to meet the objective of controlling groundwater recharge, stormwater quality and stormwater quantity problems at the source by land management and source controls whenever possible.

5. Stormwater Management Facilities Map

The following information, illustrated on a map of the same scale as the topographic base map, shall be included:

- i. Total area to be disturbed, paved or built upon, proposed surface contours, land area to be occupied by the stormwater management facilities and the type of vegetation thereon, and details of the proposed plan to control and dispose of stormwater.
- ii. Details of all stormwater management facility designs, during and after construction, including discharge provisions, discharge capacity for each outlet at different levels of detention and emergency spillway provisions with maximum discharge capacity of each spillway.

6. Calculations

- i. Comprehensive hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in §100-185 of this Part 3.
- ii. When the proposed stormwater management control measures depend on the hydrologic properties of soils or require certain separation from the seasonal high-water table, then a soils report shall be submitted. The soils report shall be based on onsite boring logs or soil pit profiles. The number and location of required soil borings or soil pits shall be determined based on what is needed to determine the suitability and distribution of soils present at the location of the control measure.

7. Maintenance and Repair Plan

The design and planning of the stormwater management facility shall meet the maintenance requirements of §100-191.

8. Waiver from Submission Requirements

The municipal official or board reviewing an application under this Part 3 may, in consultation with the municipality's review engineer, waive submission of any of the requirements in §100-190.C.1 through C.6 of this Part 3 when it can be demonstrated that the information requested is impossible to obtain or it would create a hardship on the applicant to obtain and its absence will not materially affect the review process.

§100-191. Maintenance and Repair:

A. Applicability

Projects subject to review as in §100-182.C of this Part 3 shall comply with the requirements of §100-191.B and C.

B. General Maintenance

1. The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major development.
2. The maintenance plan shall contain specific preventative maintenance tasks and schedules; cost estimates, including estimated cost of sediment, debris, or trash removal; and the name, address, and telephone number of the person or persons responsible for preventative and corrective maintenance (including replacement). The plan shall contain information on BMP location, design, ownership, maintenance tasks and frequencies, and other details as specified in Chapter 8 of the NJ BMP Manual, as well as the tasks specific to the type of BMP, as described in the applicable chapter containing design specifics.
3. If the maintenance plan identifies a person other than the property owner (for example, a developer, a public agency or homeowners' association) as having the responsibility for maintenance, the plan shall include documentation of such person's or entity's agreement to assume this responsibility, or of the owner's obligation to dedicate a stormwater management facility to such person under an applicable ordinance or regulation.
4. Responsibility for maintenance shall not be assigned or transferred to the owner or tenant of an individual property in a residential development or project, unless such owner or tenant owns or leases the entire residential development or project. The individual property owner may be assigned incidental tasks, such as weeding of a green infrastructure BMP, provided the individual agrees to assume these tasks; however, the individual cannot be legally responsible for all of the maintenance required.
5. If the party responsible for maintenance identified under §100-191.B.3 above is not a public agency, the maintenance plan and any future revisions based on §100-191.B.7 below shall be recorded upon the deed of record for each property on which the maintenance described in the maintenance plan must be undertaken.
6. Preventative and corrective maintenance shall be performed to maintain the functional parameters (storage volume, infiltration rates, inflow/outflow capacity, etc.) of the stormwater management measure, including, but not limited to, repairs or replacement to the structure; removal of sediment, debris, or trash; restoration of eroded areas; snow and ice removal; fence repair or replacement; restoration of vegetation; and repair or replacement of non-vegetated linings.
7. The party responsible for maintenance identified under §100-191.B.3 above shall perform all of the following requirements:
 - i. maintain a detailed log of all preventative and corrective maintenance for the structural stormwater management measures incorporated into the design of the development, including a record of all inspections and copies of all maintenance-related work orders;
 - ii. evaluate the effectiveness of the maintenance plan at least once per year and adjust the plan and the deed as needed; and
 - iii. retain and make available, upon request by any public entity with administrative, health, environmental, or safety authority over the site, the maintenance plan and the documentation required by §100-191.B.6 and B.7 above.
8. The requirements of §100-191.B.3 and B.4 do not apply to stormwater management facilities that are dedicated to and accepted by the municipality or another governmental agency, subject to all applicable municipal stormwater general permit conditions, as issued by the Department.

https://www.njstormwater.org/maintenance_guidance.htm.

9. In the event that the stormwater management facility becomes a danger to public safety or public health, or if it is in need of maintenance or repair, the municipality shall so notify the responsible person in writing. Upon receipt of that notice, the responsible person shall have fourteen (14) days to effect maintenance and repair of the facility in a manner that is approved by the municipal engineer or his designee. The municipality, in its discretion, may extend the time allowed for effecting maintenance and repair for good cause. If the responsible person fails or refuses to perform such maintenance and repair, the municipality or County may immediately proceed to do so and shall bill the cost thereof to the responsible person. Nonpayment of such bill may result in a lien on the property.

- C. Nothing in this subsection shall preclude the municipality in which the major development is located from requiring the posting of a performance or maintenance guarantee in accordance with N.J.S.A. 40:55D-53.

§100-192. Penalties:

Any person who erects, constructs, alters, repairs, converts, maintains, or uses any building, structure or land in violation of this Part 3 shall be subject to the penalty prescribed by § 1-15 of this Code.

§100-193. Severability:

Each section, subsection, sentence, clause and phrase of this Part 3 is declared to be an independent section, subsection, sentence, clause and phrase, and the finding or holding of any such portion of this Part 3 to be unconstitutional, void, or ineffective for any cause, or reason, shall not affect any other portion of this Part 3.

§100-194. Effective Date:

This Part 3 shall be in full force and effect from and after its adoption and any publication as required by law.

Article Two - If any section, subdivision, paragraph, clause, or provision of this ordinance shall be adjudged invalid, such adjudication shall apply only to such section, subdivision, paragraph, clause, or provision and the remainder of this ordinance shall be deemed valid and effective. All ordinances or parts of ordinances inconsistent with this ordinance are hereby repealed to the extent of such inconsistency.

Article Three - This ordinance shall take effect upon the publication of notice of final adoption as provided by law.

CERTIFICATION

I, Catherine M. Miller, RMC of the Township of Holland, Hunterdon County, State of New Jersey, do certify that the forgoing ordinance was duly adopted at a Regular Meeting of the Township Committee held on February ____, 2021.

Catherine M. Miller, RMC
Township Clerk/ Registrar

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The DEP created a "FAQS" sheet that helps to explain what the regulations are about. The link was provided to everyone but the information is as follows:

FAQS FOR GREEN INFRASTRUCTURE RULE

Q: Who do the Stormwater Management rules apply to?

The Stormwater Management rules apply to all major development. The amended rule defines "Major development" as any individual "development," as well as multiple developments that individually or collectively result in:

1. The disturbance of one or more acres of land since February 2, 2004;
2. The creation of one-quarter acre or more of "regulated impervious surface" since February 2, 2004;
3. The creation of one-quarter acre or more of "regulated motor vehicle surface" since March 2, 2021; or
4. A combination of 2 and 3 above that totals an area of one-quarter acre or more.

The same surface shall not be counted twice when determining if the combination area equals one quarter acre or more. Major development includes all developments that are part of a common plan of development or sale (for example, phased residential development) that collectively or individually meet any one or more of conditions 1, 2, 3, or 4 above. Projects undertaken by any government agency that otherwise meet the

definition of “major development” but which do not require approval under the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq., are also considered “major development.”

In addition, local government units may impose a stricter threshold than what is defined as major development in the amended rule. Local government units will need to adopt ordinances specifying whether they are using this State standard or a more stringent threshold requiring green infrastructure.

Q: What amendments to the Stormwater Management rules did the Department of Environmental Protection (Department) adopt?

A: The Department adopted amendments to the Stormwater Management rules, N.J.A.C. 7:8, to replace the current requirement that major developments incorporate nonstructural stormwater management strategies to the “maximum extent practicable” to meet groundwater recharge standards, stormwater runoff quantity standards, and stormwater runoff quality standards, with a requirement that green infrastructure (GI) be utilized to meet these same standards.

Q: What are some of the major changes to the current rule?

A: The adopted amendments clarify and modify the definition of major development, which defines the scope of projects to which these rules apply. The Department adopted changes to apply the total suspended solids (TSS) removal requirement to the runoff from motor vehicle surfaces and to eliminate the TSS removal requirement as it applies to runoff from other impervious surfaces not traveled by automobiles, such as rooftops and sidewalks. The Department also adopted several changes that will improve water quality and stormwater management improvements in communities with combined sewer systems. This adoption makes changes to existing definitions, such as the definition of “Tidal Flood Hazard Area,” and adds new definitions, such as “Green Infrastructure” and “New Jersey Stormwater BMP Manual.” Other adopted amendments make other alterations related to the changes identified above, as well as other minor changes to other provisions in the Stormwater Management rules. Additionally, the Department adopted minor amendments to the Coastal Zone Management Rules, the Freshwater Wetlands Protection Act Rules, the Flood Hazard Area Control Act Rules, the New Jersey Pollutant Discharge Elimination System rules, and the Highlands Water Protection and Planning Act Rules in order to update cross-references and incorporate other changes consistent with the amendments to the Stormwater Management rules.

Q: How does the Department define GI in the amended Stormwater Management rules?

A: “Green infrastructure” means a stormwater management measure that manages stormwater close to its source by:

1. Treating stormwater runoff through infiltration into subsoil;
2. Treating stormwater runoff through filtration by vegetation or soil; or
3. Storing stormwater runoff for reuse. For more information on GI visit our website at <https://www.nj.gov/dep/gi/index.html>.

Q: How is GI different from more traditional stormwater management methods?

A: Green Infrastructure best management practices (BMPs) are intended to mimic natural hydrologic conditions and, thus, typically incorporate infiltration and/or vegetation more than traditional stormwater management methods.

Q: What are the benefits of GI versus more traditional methods of managing stormwater?

A: The main stormwater related benefit of GI vs traditional methods of managing stormwater is stormwater volume reduction. While, as noted in the definition of GI at N.J.A.C. 7:8-1.2, there are three mechanisms by which GI systems can work, each of the three results in at least some portion of the volume of stormwater being retained by the BMP. Thus, that portion of the stormwater (and any pollutants it would have carried) never reaches downstream conveyance systems or watercourses. This will result in both reduced flooding and improved water quality in watercourses, since the retained portion of the stormwater never reaches the downstream watercourse. By contrast, more traditional stormwater management systems do not generally retain a significant amount of stormwater runoff. GI also results in numerous non-stormwater co-benefits to communities, including reduction in urban heat island effect, decreased energy use, removal of pollutants from the air through greater utilization of vegetation, beautification of public spaces, and increased property values.

Q: What are some examples of GI Best Management Practices (BMPs) and where can I find information about BMPs?

A: The most widely used GI stormwater BMP is the rain garden, which is a type of small-scale bioretention system. Other examples of green infrastructure BMPs include green roofs, dry wells, pervious paving systems, infiltration basins, cisterns, and even certain types of manufactured treatment devices. For more information on BMPs, please see the New Jersey Stormwater BMP Manual, which is available at https://www.njstormwater.org/bmp_manual2.htm.

Q: Does the rule have limitations on the drainage area to GI BMPs? If so, why?

A: Yes. The amended rules require stormwater runoff to be managed by GI BMPs with smaller scale GI BMPs required in most cases. The drainage area limits are intended to ensure that the GI BMPs utilized are small scale which is important in ensuring that the BMP maintains or mimics natural hydrology and manages stormwater runoff close to its source. Drainage area limits are applicable to dry wells (1 acre), manufactured treatment devices (2.5 acres), small-scale bioretention systems (2.5 acres), small-scale infiltration basins (2.5 acres), small-scale sand filters (2.5 acres), and pervious paving systems (area of additional inflow cannot exceed three times the area occupied by the BMP.)

Q: Can you use GI in urban areas?

A: Yes, while developing in urban areas comes with additional challenges, there are a wide variety of GI BMPs that can be utilized in urban areas. The Department expects that the implementation in urban settings will realize co-benefits such as reductions in the urban heat island effect, decreased energy use, removal of pollutants from the air through greater utilization of vegetation, beautification of public spaces, and increased property values in areas where they are most needed. For more information on the specific limitations of BMPs, please see the New Jersey Stormwater BMP Manual, which is available at https://www.njstormwater.org/bmp_manual2.htm.

Q: Does GI cost more to construct, or operate and maintain?

A: GI is widely recognized to be a cost-effective and resilient approach to managing stormwater while simultaneously providing environmental, social, and economic co-benefits. Since GI is typically distributed and small scale, developers may have to install multiple GI BMPs on a single major development site to manage stormwater, whereas under the current rules fewer larger stormwater management BMPs may be sufficient. Costs will vary depending on the scope of the project and the BMPs chosen. However, in general the Department expects no significant increased cost to property owners who assume the cost of operation and maintenance of GI.

Q: Can I get funding for GI?

A: Yes, the NJ Water Bank provides low interest loans through the clean water state revolving fund to owners of publicly-owned treatment works with GI projects that help protect, maintain or improve water quality. Private entities are eligible through public conduit borrowers. Project sponsor eligibility has also been expanded to private colleges and universities that are interested in sponsoring nonpoint source pollution projects. Combined Sewer Overflow (CSO) abatement projects utilizing GI are eligible to receive principal forgiveness (grant like funding) for up to 50% of project costs (principal forgiveness capped at \$2Million). Water quality restoration grants are also awarded by the Department to fund watershed restoration activities and initiatives around New Jersey that address nonpoint source pollution (NPS). Funding sources include USEPA pass-through grants issued under Section 319(h) of the federal Clean Water Act (CWA) and other federal and State funds that may be available for NPS-related water quality restoration activities. For more information on available financing, visit our website at https://www.nj.gov/dep/gi/financial_assistance.htm.

Q: Do the rules help address combined sewer overflows?

A: The adopted rules support water quality and stormwater management improvements in communities with combined sewer systems (CSS). The adopted rules clarify the applicability of the water quality standards for discharges into a CSS (N.J.A.C. 7:8-5.5(c)); require quantity control in tidal flood hazard areas (unless the design engineer demonstrates through hydrologic and hydraulic analysis that the increased rate, increased volume, or both of stormwater runoff will not result in additional flood damage below the point of discharge (N.J.A.C. 7:8-5.6(b)4)); expand the municipality’s planning flexibility for CSOs and flood control (N.J.A.C. 7:8-4.2(c)14); and provide differing applicability of GI requirements to sewer separation projects to make them more feasible (N.J.A.C. 7:8-5.3(e)). For information regarding the evaluation of GI as part of the development of Long Term Control Plans to address CSOs can be found at https://nj.gov/dep/dwq/pdf/CSO_Guidance_Evaluating_Green_Infrastructure_A_CS0_Control_Alternative_for_LTCPs.pdf

Q: Are manufactured treatment devices (MTDs) still allowed? If so, when and where?

A: Yes. The amendments do not specifically restrict the use of MTDs, instead they require the use of GI. While most MTDs do not qualify as GI, there are MTDs that do. Furthermore, MTDs for road projects with a waiver from strict compliance, pre-treatment of certain other BMPs, retrofits of existing BMPs, and projects that are not major development will be unaffected by these changes. For a listing of Department certified MTDs, please see <https://www.njstormwater.org/treatment.html>.

Q: When do these amendments become operative?

A: These amendments will become operative on March 2, 2021.

Q: Do municipalities have to revise their stormwater control ordinances?

A: Yes. The Stormwater Management rules represent the minimum standard for municipal stormwater control ordinances. Therefore, municipal stormwater control ordinances must be revised to be consistent with these amendments.

Q: How long do municipalities have to revise their ordinances?

A: Municipalities have until March 3, 2021 for their revised ordinance to become effective. However, a municipality can choose to make their ordinance effective sooner.

Q: Will permit applications be "grandfathered"?

A: For applications submitted to the Department's Division of Land Use Regulation, any technically complete application received prior to March 2, 2021 will be subject to the existing Stormwater Management rule. Similarly, any application submitted to a municipality that includes both the application form and all accompanying documents required by ordinance will be subject to the ordinance in effect at the time of application.

Q: Is the Department planning additional amendments to the Stormwater Management rules?

A: As indicated in the notice of proposal Summary, 50 N.J.R. at 2376, the Department is in the process of seeking input regarding potential further amendments to the Stormwater Management rules. In response to the notice of proposal associated with these adopted amendments, the Department received comments that were beyond the scope of anything proposed in this rulemaking. The Department will consider the input provided by those comments as it determines what further amendments to the rules may be appropriate in a future rulemaking. Information from the stakeholder meetings can be found at <https://www.nj.gov/dep/workgroups/>.

Q: Do the rules address climate change? Are you going to do more?

A: In part, the adopted amendments are intended to make the State more resilient to storm and flood impacts from climate change through the use of GI. Additionally, GI BMPs will help fight against climate change by creating carbon-sequestering green space. However, the development of a second phase of rule changes is underway to advance Governor Murphy's climate change goals called for in the NJ Protecting Against Climate Threats (NJ-PACT) initiative directed by Executive Order 100. The DEP anticipates proposing these amendments this year.

EC Chairman and PB member Keady mentioned the Best Management Practices Manual which is available on the state website https://www.nj.gov/dep/stormwater/bmp_manual2.htm.

"Stormwater Management rules, N.J.A.C. 7:8 specify stormwater management standards that are mandatory for new major development. The New Jersey Stormwater Best Management Practices Manual (BMP manual) is developed to provide guidance to address the standards in the Stormwater Management rules, N.J.A.C. 7:8. The BMP manual provides examples of ways to meet the standards contained in the rule. The methods referenced in the BMP manual are one way of achieving the standards. An applicant is welcome to demonstrate that other proposed management practices will also achieve the standards established in the rules. The BMP Manual was developed by the New Jersey Department of Environmental Protection, in coordination with the New Jersey Department of Agriculture, the New Jersey Department of Community Affairs, the New Jersey Department of Transportation, municipal engineers, county engineers, consulting firms, contractors, and environmental organizations.

The BMP manual has been drafted to assist review agencies and the regulated community. The methods in the BMP manual can be utilized without need for additional documentation to address the performance standards in the rule. The Department anticipates providing guidance on additional best management practices and new information on already included practices as research and development occurs in this field

Future updates of the BMP Manual will be available through www.njstormwater.org."

Engineer Wisniewski explained that the manual is often referred to as the design Bible. The engineers review projects and make sure the project is in line with the manual and ordinances.

Ken Grisewood had questions pertaining to C1 streams and ordinances regarding runoff. He wanted to know if applications will follow 95 TSS? Engineer Wisniewski stated that it will be reviewed as a case by case. All discharge to a waterway will need to be reviewed. The new ordinance has motor vehicle surface is restrictive. Flood Area Permit still has DEP involvement.

More conversations took place and the new regulations show wetlands, rain gardens etc. are more fragile. The question becomes more of how to oversee this. Engineer Wisniewski explained that traditional basins are still being used but they will require green infrastructure too. The last ¾ of the proposed ordinance talks about enforcement. The manual will be recorded and that runs with the land which means the landowner is required to follow the rules. A filed copy should also be in an application and filed in the zoning file once approved. The township can require a performance bond. The rules are for a new development or a redevelopment. One acre of disturbance or addition of a quarter-acre of new impervious surface is what triggers the ordinance. Mitigation was added to the adopted Holland Master Plan Stormwater and Mitigation Plan Element as a recommendation of the Highlands Council. An applicant cannot get a waiver from ground water recharge. The equivalent mitigation offsite is specific to a Township property.

Holland Township, a more rural community, has a Tier B stormwater permit.

The new ordinance is consistent with the recently adopted Holland Township Planning Board Master Plan Stormwater Management and Mitigation Plan Element.

A motion was made by Mike Keady and seconded by Mike Miller to recommend adoption of this ordinance as it is consistent with the recently adopted Holland Township Planning Board Master Plan. At a roll call vote,

everyone present was in favor of the motion with the exception of Scott Wilhelm who abstained. Motion carried. Secretary Kozak to follow up with Clerk Miller.

Adam Wisniewski was thanked for participating in the EC Meeting.

- ORDINANCE NO. 2021-__ AN ORDINANCE OF THE TOWNSHIP OF HOLLAND AMENDING AND SUPPLEMENTING CHAPTER 100 ENTITLED “LAND USE”, ARTICLE III ENTITLED “TERMINOLOGY”, SECTION 6 ENTITLED “DEFINITIONS” - Holland Township Ordinance Revisions thru Hunterdon County Economic Grant Program – awarded December 15 2020 – 2020 Master Plan & development Regulations Reexamination report had recommendations for updates to our Zoning Ordinances. Planner Green is working on this. Task 1 – Definitions – presented for Planning Board review, comment, and referral to the Township Committee for adoption – board action required

As a reminder, Holland Township obtained a grant thru the Hunterdon County Economic Grant Program:

STATE OF NEW JERSEY
COUNTY OF HUNTERDON
RESOLUTION
#2020 - 740

WHEREAS, the County of Hunterdon created the Economic Development Grant Program for the purpose of providing funding to municipalities in Hunterdon County to achieve goals identified in the County Comprehensive Economic Development Strategy plan; and
WHEREAS, The Township of Holland's proposed project is consistent with the goals and objectives of the county's economic development initiative
WHEREAS, the Economic Development Grant Program is operated, and funding recommendations are made, in accordance with the Hunterdon County Economic Development Grant Program guidelines adopted by the Board of Chosen Freeholders including a requirement for at least 10% in matching funds to be contributed by a municipality;
NOW, THEREFORE, BE IT RESOLVED, that the Board of Chosen Freeholders of the County of Hunterdon does hereby award the Township of Holland funding in the amount of \$5,850.00, for the purposes of updating the Township's municipal zoning ordinances for the purposes of attracting investment.

This project evolved from our adoption of the re-examination plan of the Master Plan. Planner Green worked on a proposal that included 4 tasks.

1. Scope of Work – definitions
2. Industrial District Use & Regulations
3. Commercial District Use & Regulations
4. Home Occupation

Presented for review, is Task 1:

TOWNSHIP OF HOLLAND

ORDINANCE NO. 2021-__

AN ORDINANCE OF THE TOWNSHIP OF HOLLAND AMENDING AND SUPPLEMENTING CHAPTER 100 ENTITLED “LAND USE”, ARTICLE III ENTITLED “TERMINOLOGY”, SECTION 6 ENTITLED “DEFINITIONS”

WHEREAS, the Township Planning Board adopted a 2020 Master Plan & Development Regulations Reexamination (“Reexamination”) on July 13, 2020; and

WHEREAS, the Reexamination makes several recommendations to add, update, and enhance the definitions found in Section 100-6 of the Township’s Land Use Ordinance; and

WHEREAS, the Township Committee has reviewed the Reexamination and agree Chapter 100 should be amended to add, update, and expand the definitions in the Township’s Land Use Ordinance to provide clarification for officials, businesses, and potential applicants.

NOW, THEREFORE, BE IT ORDAINED, by the Township Committee of the Township of Holland, as follows:

SECTION 1. Chapter 100 of the Code of the Township of Holland entitled “Land Use”, Article III entitled “Terminology”, Section 6 entitled “Definitions” is hereby amended and supplemented by adding the following underlined text in alphabetical order and deleting text in ~~strikeout~~:

BUSINESS AND PROFESSIONAL OFFICES

An establishment consisting of a room or group of rooms used for conducting the affairs of a business, profession, service, industry, or government and generally furnished with desks, tables, files, and communication equipment.

CHILD-CARE CENTER

A facility which is maintained for the care, development, and/or supervision of six or more children who attend for less than 24 hours per day and which is licensed by the New Jersey Department of Human Services.

DRIVE-IN FOOD STAND

An establishment where food and/or beverages are sold in a form ready for consumption, where all of the consumption takes place outside of the confines of the building, and where ordering and pickup of food may take place from an automobile. This use does not include a drive-through window.

FAMILY DAYCARE

The private residence of a family day care provider, which is registered as a family day care home pursuant to the Family Day Care Provider Registration Act.

HEIGHT OF BUILDINGS

Unless otherwise specified in this Part 1, the height of buildings shall be measured from the average elevation of the post-disturbance grade ground level at the foundation of the building to the highest point of the highest ridgeline of the roof.

LOT WIDTH

The horizontal distance between the side lines of a lot measured along a straight line parallel to the front lot line. Said measurement shall occur at the minimum required front setback line. ~~The straight and horizontal distance between side lot lines at setback points on each side lot line measured an equal distance back from the street line. The minimum lot width shall be measured at the minimum required setback line; provided, however, that the width of the lot between side lot lines at their foremost points (along the frontage) shall not be less than 80% of the required lot width except in the case of lots on the turning circle of a cul-de-sac, where the lot frontage shall be at least 50 feet.~~

MANUFACTURE OF LIGHT MACHINERY

An establishment engaged in the mechanical or chemical transformation of materials or substances into light machinery, including the assembling of component parts and the creation of products. Ancillary business offices shall be permitted within the same structure.

PERSONAL SERVICE

An establishment primarily engaged in providing services involving the care of a person or his or her personal goods or apparel. Personal service establishments shall include, but are not limited to, salons, barbershops, nail salons, clothing and shoe cleaning and repair, tailors, and the like.

RETAIL SALES

An establishment engaged in selling goods or merchandise to the general public for personal or household consumption and rendering services incidental to the sale of such goods.

WAREHOUSING

A building used for the storage of goods and materials. Space within a building may be leased to separate entities. Ancillary business offices shall be permitted within the warehouse building.

SECTION 2. All other sections of this Ordinance shall remain in full force and effect.

SECTION 3. All Ordinances and parts of Ordinances inconsistent with the provisions hereof are hereby repealed.

SECTION 4. This Ordinance shall take effect immediately upon passage and publication as required by law.

_____ Dan Bush, Mayor

ATTEST:

Catherine M. Miller, RMC
Township Clerk

Introduced: _____
Public Hearing: _____
Adopted: _____

Ken Grisewood had questions which included height of the building and grade of ground with additional discussions taking place regarding pre grade (which is more confusing) and post grade which is more conventional. Lot width was also discussed with emphasis on cul de sacs and which prohibits the narrowing of a lot which causes the lot to be wider.

After additional discussion, Planner Green will make the mentioned changes and Secretary Kozak will redistribute for the next meeting. The Planning Board will then review the document and if acceptable the board would recommend that the Township Committee put this on the agenda for their meeting after the Planning Board meeting. This will take place in April.

Completeness Review:

There is no completeness review to discuss at this time on the agenda.

Resolution

There were no resolutions on the agenda at this time.

Public Hearings

There are no Public Hearings to discuss at this time on the agenda.

Sub-Committee Status and Updates:

Holland Township Highlands Council Subcommittee –update – Mike Keady reported that everything is quiet at the moment but there is anticipation that additional funding will be available in the future.

Public Comment

There were no public comments offered at this time as no one was present representing the public.

Executive Session

There was no Executive Session scheduled at this time.

Adjournment

Dan Bush made a motion to adjourn. Motion approved. The meeting ended at 8:10 p.m.

Respectfully submitted,
Maria Elena Jennette Kozak
Maria Elena Jennette Kozak
Secretary