

## Holland Township Environmental Commission Minutes

February 3, 2021 7 PM Meeting

Chairman Keady called the meeting to order. I call to order the February 3, 2021 Reorganizational Meeting of the Holland Township Environmental Commission. Adequate notice of this meeting was given pursuant to the Open Public Meeting Act Law by the Environmental Commission Secretary by:

1. Posting such notice on the bulletin board at the Municipal Building.
2. Publishing the notice in the December 10, 2020 edition of the Hunterdon County Democrat
3. And faxing to the Express-Times for informational purposes only.

### HOLLAND TOWNSHIP ENVIRONMENTAL COMMISSION PUBLIC NOTICE TOWNSHIP OF HOLLAND

NOTICE OF CHANGE OF FORMAT OF REGULAR TOWNSHIP ENVIRONMENTAL COMMISSION MEETING AND PUBLIC PARTICIPATION FOR THE MEETING SCHEDULED FOR 7:00 PM WEDNESDAY February 3, 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/93545326370?pwd=Mk9qMWdIOThOdkhIVi9sK2Q5RE1MUT09>

Phone: 1 646-558-8656

Meeting ID: 935 4532 6370

Passcode: 750899

All recited the pledge of allegiance. All were reminded to turn off their cell phones or put them in silent mode.

Members Present: Regina Barna, Jerry Bowers (arrive 7:02 pm), Mike Keady, David Harrison, Susan Meacham (arrived 7:07 pm), Ray Note, Dwight Pederson, and Township Committee Liaison Dan Bush, Engineer Adam Wisniewski, and Secretary Maria Elena Jennette Kozak.

Absent: Township Committee Alternate Liaison: Ray Krov.

Member of the Public: Tony Rizzello

Let the record show we have a quorum.

Minutes: A motion was made by David Harrison and seconded by Dwight Pederson to dispense with the reading of the minutes of the January 6, 2021 meeting and to approve the minutes as recorded. All present were in favor of the motion. Motion carried.

Engineer Adam Wisniewski from Maser Consulting discusses new stormwater regulations all municipalities must adopt. Proposed Ordinance 2020-xx was distributed to the board as such:

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](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.

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

Small-Scale Infiltration Basin <sup>(a)</sup>	80	Yes	Yes	2
Small-Scale Sand Filter	80	Yes	Yes	2
Vegetative Filter Strip	60-80	No	No	--

(Notes corresponding to annotations <sup>(a)</sup> through <sup>(g)</sup> are found on Page D-15)

<b>Table 2</b> <b>Green Infrastructure BMPs for Stormwater Runoff Quantity</b> <b>(or for Groundwater Recharge and/or Stormwater Runoff Quality</b> <b>with a Waiver or Variance from N.J.A.C. 7:8-5.3)</b>				
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 <sup>(b)</sup> No <sup>(c)</sup>	2 <sup>(b)</sup> 1 <sup>(c)</sup>
Infiltration Basin	80	Yes	Yes	2
Sand Filter <sup>(b)</sup>	80	Yes	Yes	2
Standard Constructed Wetland	90	Yes	No	N/A
Wet Pond <sup>(d)</sup>	50-90	Yes	No	N/A

(Notes corresponding to annotations <sup>(b)</sup> through <sup>(d)</sup> are found on Page D-15)

<b>Table 3</b> <b>BMPs for Groundwater Recharge, Stormwater Runoff Quality, and/or Stormwater Runoff Quantity</b> <b>only with a Waiver or Variance from N.J.A.C. 7:8-5.3</b>				
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 <sup>(h)</sup>	50 or 80	No	No	Dependent upon the device
Sand Filter <sup>(c)</sup>	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.

	Cumulative		Cumulative		Cumulative
Time (Minutes)	Rainfall (Inches)	Time (Minutes)	Rainfall (Inches)	Time (Minutes)	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](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/greport/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](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](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.

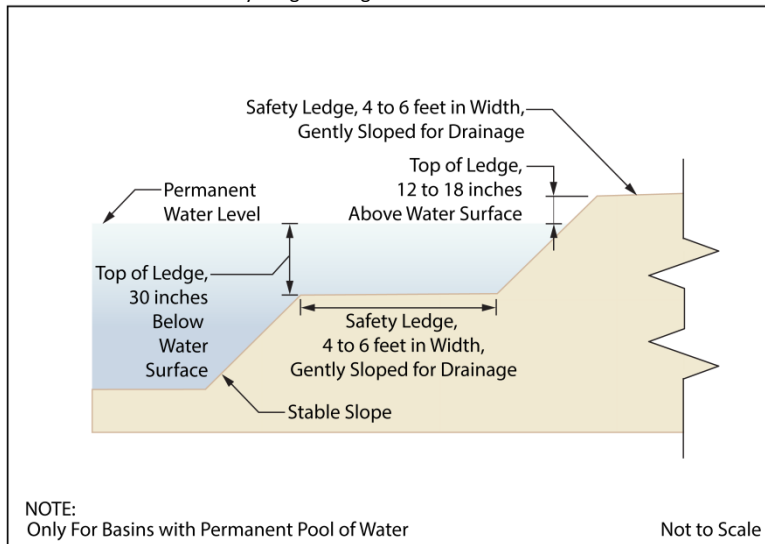
B. The provisions of this section are not intended to preempt more stringent municipal or county safety requirements for new or existing stormwater management BMPs. Municipal and county stormwater management plans and ordinances may, pursuant to their authority, require existing stormwater management 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](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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## ***Engineer Adam Wisniewski Discussion of Draft Ordinance***

The Planning Board will review for consistency with the Master Plan and the Environmental Commission was asked to review. 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 was in certain elements that pertained to the developer and were not mandatory and could be satisfied off-site. There were no concrete goals to measure strategies on site. DEP changes this and there are neutralized strategies for stormwater and run off.

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](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](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](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\\_CSO\\_Control\\_Alternative\\_for\\_LTCs.pdf](https://nj.gov/dep/dwq/pdf/CSO_Guidance_Evaluating_Green_Infrastructure_A_CSO_Control_Alternative_for_LTCs.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.

This was helpful but discussed some advantages of the old way from the concept that you put the infrastructure in and it was something that could be monitored. The new concept of 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  $\frac{3}{4}$  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 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.

Adam Wisniewski was thanked for participating in the EC Meeting.

### ***PennEast Pipeline update: Susan Meacham and Mike Keady –.***

Just hours before the meeting the U.S. Supreme Court announced it would hear an appeal of the Third District Court decision that a private company could not use eminent domain to acquire right-of-way on state-owned lands.

Secretary Kozak googled an article. The link is <https://www.inquirer.com/business/supreme-court-will-hear-penneast-pipeline-appeal-nj-pa-shale-gas-20210203.html> and the article is:

#### **U.S. Supreme Court will hear PennEast Pipeline appeal of N.J. eminent-domain dispute**

The court agreed to hear arguments that N.J. illegally blocked a pipeline from acquiring key easements for its \$1.2 billion project, which would carry fracked natural gas from Pennsylvania.

by [Andrew Maykuth](#)

Published

Feb 3, 2021

The U.S. Supreme Court on Wednesday agreed to hear a complaint that New Jersey illegally blocked the [PennEast natural gas pipeline](#) from acquiring key easements for its \$1.2 billion project, thwarting the federally approved pipeline.

The court granted PennEast Pipeline Co. LLC's [request to hear an appeal of New Jersey's decision](#) to block the pipeline from building on 42 properties in which the state has an interest. The case raises important jurisdictional issues of states rights versus federal law, and attracted the attention of anti-pipeline activists as well as the gas industry, business advocates, and the Trump administration.

PennEast [applied to the federal government six years ago](#) to build a 116-mile pipeline from northeastern Pennsylvania to carry fracked natural gas to a location near Trenton. The pipeline venture is owned by five energy companies, including its operator, UGI Energy Services, a subsidiary of UGI Corp. of Valley Forge.

PennEast on Wednesday called the court's decision "a major step" to upholding the Natural Gas Act, an 82-year-old law that gives the federal government authority to designate certain energy infrastructure to be in the public interest and authorizes the use of eminent domain to acquire rights of way.

"Congress passed the Natural Gas Act specifically to avoid state and local vetoes of interstate projects found by federal regulators to be in the public need and benefit," Tony Cox, chair of the pipeline's board of managers, said in a statement. He said a lower-court decision upholding New Jersey was "misguided." The court agrees to review only about 80 cases a year, or about 1% of the petitions filed.

Pipeline opponents, who had hoped the Supreme Court would not hear the appeal and effectively let a favorable lower court decision stand, were more restrained.

"We remain committed to working with our allies in the community to stop this unneeded pipeline and will be following the Supreme Court's deliberations closely," said Tom Gilbert, campaign director, New Jersey Conservation Foundation and ReThink Energy NJ.

The PennEast project ran into roadblocks in New Jersey under Gov. Phil Murphy, whose administration turned sour on the fossil-fuel project and challenged PennEast's claims to easements on 42 properties in which the state has an interest. The properties include two that New Jersey owns and 40 on which the state granted conservation easements requiring the land be preserved for recreational, conservation, or agricultural use.

PennEast argued that the pipeline would preserve the land as open space.

New Jersey said a state's sovereign immunity protects it from lawsuits by private parties, even when entities such as PennEast have obtained federal eminent domain authority. PennEast prevailed in district court, but the Third Circuit Court of Appeals in Philadelphia in 2019 sided with New Jersey. PennEast said the Philadelphia appeals court panel got "an exceptionally important question exceptionally wrong" and sought Supreme Court review. Gurbir S. Grewal, New Jersey's attorney general, said that PennEast "greatly overstates the consequences" of the case, saying the decision precludes only private parties from filing condemnation suits against states. The decision does not provide states with a veto over interstate pipeline projects, he said.

About 18 industry, labor and business organizations filed amicus briefs in support of PennEast's petition. The Federal Energy Regulatory Commission (FERC), the agency that reviews and approves pipelines, said the Third Circuit's decision would have "profoundly adverse impacts" on the development of the nation's interstate natural gas transportation system.

The Trump administration's acting solicitor general, Jeffrey B. Wall, also urged the Supreme Court to take up the case, calling the "erroneous" Third Circuit decision "[too significant](#)" to leave undisturbed.

The solicitor general said the appeals court erred by even taking up the case, which it said should have been challenged first through the FERC and then through the appeals court in Washington. The Supreme Court on Wednesday directed lawyers to present arguments on whether the Third Circuit properly exercised jurisdiction over the case.

The court set arguments for April. Even if the Supreme Court rules in PennEast's favor, the project's opponents believe numerous other legal and political obstacles await, each of which will cost time and money for the pipeline operator to resolve.

Another Article link: <https://www.roi-nj.com/2021/02/03/industry/energy-utilities/u-s-supreme-court-agrees-to-hear-penneast-pipeline-case/> with the article as such helps to explain the decision.

U.S. Supreme Court agrees to hear PennEast pipeline case

*Company wants to use eminent domain to secure state-owned lands for 116-mile natural gas pipeline*

By

**ROI-NJ Staff**(New Jersey)

-

February 3, 2021

The U.S. Supreme Court agreed to hear an appeal from the [PennEast Pipeline Co.](#), which is attempting to use eminent domain to take land in New Jersey for its 116-mile national gas pipeline.

The proposed 116-mile pipeline could carry as much as 1 billion cubic feet of natural gas per day from northern Pennsylvania into New Jersey. The company sued to gain access to more than 40 parcels of land that are owned by the state after the [Federal Energy Regulatory Commission](#) approved the pipeline project in 2018.

PennEast hopes to overturn a decision from the 3rd U.S. Circuit Court of Appeals that blocks it from seizing New Jersey state lands.

Tony Cox, chair of the board of managers of the PennEast Pipeline Co., was obviously pleased with the announcement.

"Congress passed the Natural Gas Act specifically to avoid state and local vetoes of interstate projects found by federal regulators to be in the public need and benefit," he said in a statement. "The misguided Third Circuit ruling in fall 2019 turned nearly 80 years of federal government interpretation and industry practice on their heads. In its written response before the U.S. Supreme Court last spring, the state of New Jersey even agreed that the U.S. Constitution allows the federal government to condemn state property and took issue only with whether it can delegate that authority to a private party.

"Eighteen business, labor and consumer advocacy organizations filing amicus briefs in support of the PennEast petition demonstrate the importance of reversing the Third Circuit decision. We remain hopeful that, after hearing full arguments this term, the U.S. Supreme Court will agree that the Third Circuit's decision was profoundly wrong."

New Jersey Attorney General Gurbir Grewal, in a tweet, said he is confident the lower court's decision will stand.

“A private party like PennEast has no right to condemn state lands in court, and we look forward to pressing our arguments to #SCOTUS. When the Court reviews the merits of the case, we believe they will recognize what the Third Circuit did: That New Jersey must prevail.”

If the appeals court ruling is not overturned, PennEast may have to find a new route through New Jersey.

The decision to hear the case is a small victory for the industry, which has fallen out of favor with the change of administration in the White House. President Joe Biden canceled the Keystone XL Pipeline in the Midwest.

Gov. Phil Murphy has been opposed to the pipeline — he says he wants more clean energy projects — despite the fact that the pipeline has the support of one of the groups that is a key Murphy backer: unions.

Mark Longo, director, [Engineers Labor-Employer Cooperative](#), cheered the decision.

“The Supreme Court is absolutely right to grant the petition of certiorari in the PennEast case,” he said. “The benefits of this sorely needed project are clear: It will provide New Jersey and the entire region with the clean, affordable energy we need to grow our economy. Our businesses and residents need low energy prices and a stable supply of clean natural gas to thrive and rebound from the economic toll of the pandemic, and PennEast is essential to accomplish that goal.

“Despite these benefits, the state of New Jersey has fought against this project to score political points. We hope the Court will recognize the importance of the PennEast pipeline for the region and allow it to move forward immediately.”

Ron Morano, the executive director of [Affordable Energy for New Jersey](#), also applauded the announcement.

“While hearing this case is unequivocally the right decision, it’s a shame that the nation’s highest court must get involved in the first place to decide whether or not New Jersey’s residents can have access to clean, affordable energy,” he said. “The Supreme Court rightly recognizes the significance of the PennEast pipeline, which has profound implications on the ability of residents and businesses throughout the region to access clean and affordable energy. We hope that the Court will agree and reverse the Third Circuit’s misguided decision.”

Another Article at link <https://www.bloomberg.com/news/articles/2021-02-03/supreme-court-agrees-to-hear-appeal-from-penneast-pipeline> with the article as follows

### **PennEast Pipeline Gets High Court Hearing on Land-Use Rights**

By

[Greg Stohr](#)

February 3, 2021, 9:43 AM EST *Updated on February 3, 2021, 12:46 PM EST*

Justices will hear arguments in April, probably rule by June

Gas pipeline would carry as much as 1 billion cubic feet a day

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The U.S. Supreme Court agreed to hear a PennEast Pipeline Co. appeal that aims to jump-start a planned natural-gas line by securing key land-use rights from New Jersey.

The proposed 116-mile pipeline would carry as much as 1 billion cubic feet of natural gas per day from northern Pennsylvania to New Jersey.

PennEast is a joint venture of five companies including Southern Co. and Enbridge Inc.

The decision to hear the case boosts an industry that has fallen out of regulatory favor with President Joe Biden in the White House. Already Biden has canceled a permit for the Keystone XL oil pipeline and ordered a pause in the sale of new oil and gas leases on federal land.

At issue at the Supreme Court is a provision in the U.S. Natural Gas Act that lets pipeline companies use the federal government’s eminent domain power. After the Federal Energy Regulatory Commission approved the pipeline in 2018, PennEast sued to gain access to more than 40 parcels that are either owned or partially controlled by New Jersey.

But a Philadelphia-based federal appeals court said that, while the law gives companies eminent domain powers, it doesn’t let them sue states to enforce those rights. The panel pointed to the Constitution’s 11th Amendment, which limits the circumstances in which private parties can sue states without their consent.

Unless the appeals court ruling is overturned, the pipeline may have to find a new route through New Jersey or turn to [Congress](#) to get the needed authority.

#### **April Arguments**

The Supreme Court said it will hear arguments in April, meaning a ruling is likely by late June. The justices acted after then-President Donald Trump’s administration urged them to take up the case.

Tony Cox, chairman of PennEast’s board of managers, called the court’s decision to take the case a “major step forward” toward safe, affordable domestic energy.

“Congress passed the Natural Gas Act specifically to avoid state and local vetoes of interstate projects found by federal regulators to be in the public need and benefit,” Cox said in an emailed statement. Cox said the company anticipates putting the first phase of the project into service in 2022 and the second phase into service in 2024.

Opponents of the pipeline urged the court to protect states and their environmental protection efforts from federal overreach.

“We need our highest court to reaffirm to fossil fuel companies that they do not have the ability to trample over the rights of the state to protect its natural resources for the benefit of its communities,” said Maya van Rossum, who leads the Delaware Riverkeeper Network, a conservation group.

The case is PennEast v. New Jersey, [19-1039](#).

— With assistance by Sergio Chapa, and Jennifer A Dlouhy

## ***Sub-Committees Reports***

Trails – Jerry Bowers, Ray Note and Regina Barna. Regina Barna stated that her goal is to walk the trails. She has been trying to get information on the trails. She expressed concerns that the Holland website is complicated. Dan Bush explained that in regards to Facebook, Holland Township has a page with the Police and with the Ridge. There are discussions about a page for the Township but it would require an employee monitoring it. No decisions have been made at this point. The trail information can be updated, Secretary

Kozak will work with Ridge Director Neglia on having trail information available at the Ridge. Jerry Bowers and Regina Barna will review the website for changes needed.

Community Forestry Plan – Ray Note, David Harrison, and Secretary Kozak

Community Forestry Plan Goals - David Harrison previously outlined the goals for 2021. Discussions took place.

These were the goals we established to be completed for the CFP in 2021:

- 1) Arbor Day tree planting – Arbor Day – April 30, 2021 - - Holland Township plants a tree each year in or around the grove. We can still do this, however Liaison Bush suggested that we seek a donation from one of the local businesses to help us replenish the Ash trees that are being removed due to the Emerald Ash Borer. We could seek a donation of approximately 6 to 12 trees. We can add more plaques of which Secretary Kozak can seek ordering additional plaques per the Liaison and EC members. Georgia Pacific is a potential business in town which Chairman Keady will write a letter. Some shade trees that would look great in The Grove would be a Flowering Dogwood or American Elm. One of these would be a good addition for this year on the other side by the pines.
- 2) Track hours and expenditures for CFP program
- 3) Complete annual training requirements; 8 CEU's – need to see if anything is available for ceu's
- 4) Submit 2 tree or forest related articles to local and regional newspapers and Township website – we do these in the Holland Happenings
- 5) Identify and label individual trees on Township property – we do the plaque project yearly
- 6) Plan and develop outreach efforts at Community Day – this is ongoing when we can
- 7) If funding is available, apply for a Township Seedling Giveaway – We signed up for trees this year and will have to pick up on April 22. In the past we have had the Boy Scouts help us. We need to have a plan this year with a rapid bail out if things change due to Covid-19. Maybe partner with another organization. Maybe pay someone from the Clean Communities grant. Chairman Keady to explore this. We have to follow social protocol of the COVID pandemic. If we cannot partner with someone then we need to figure out a way to distribute the trees.
- 8) Investigate alternate sources of funding and possibly create a non-profit Shade Tree Group need to explore this – check with Ron Farr
- 9) Work with EC and create and present a tree related program within the school district – need to explore
- 10) Attain CORE Training for at least one volunteer and/or DPW employee - Mr. Keady and Secretary Kozak are Core Trained. Liaison Bush is also Core Trained. Secretary Kozak needs to follow up with this. It is thru the County but we can also have him listed on the Holland site.
- 11) Apply for CSIP funding to implement a Riparian Buffer Program – Check with Ron Farr – is this something that ties to the Highlands Council grant Stream Corridor Grant

Tree Inventory –Submitted via email on February 1, 2021.

Holland Township CFMP annual report 2020 – Submitted February 10, 2021

Tree Map update – Dwight Pederson is still working on this. More information to follow.

Highlands Conformance – Jerry Bowers, Mike Keady and Dwight Pederson. – The Holland Township Highlands Council subcommittee completed and adopted several tasks in 2020. Progress is being made with the Fair Share Housing Plan which is the next task that will be before the Planning Board.

Highlands Council Environmental and Economic Sustainability Grant Awards Program update: Secretary Kozak continues to work with Maser and the Highlands Council but distribution of funds is on hold. The Retention/Detention basin inventory is still an important project. Shifting of monies from previously approved tasks is being considered but the Council advises that everything is on hold per the Governor. Secretary Kozak to touch base with HC liaison Green for any update.

Hunterdon County Economic Development Grant – Secretary Kozak and Planner Green worked with HCED Director Saluk with a proposal to update zoning ordinances in Holland Township identified in the Redevelopment Plan and refining the Home Occupation Ordinance. Maser Consulting submitted a proposal in the amount of \$5,850.00 with Holland Township agreeing to match the grant with 10%. Holland Township has been awarded the grant. Planner Green will begin working on this. The Planning Board and the Township Committee will be reviewing the proposed ordinances for consideration.

Stormwater Education – Mike Keady, Jerry Bowers, Susan Meacham and Maria Elena Jennette Kozak as Secretary – Secretary Kozak submitted the 2020 overview for consideration:

**Holland Township Environmental Commission** 61 Church Rd., Milford, NJ 08848  
[planningboard@hollandtownship.org](mailto:planningboard@hollandtownship.org)

***www.hollandtownshipnj.gov***  
*Phone: (908)995-0057*  
*Fax: (908)995-7112*

TO: Township Engineer Richard Roseberry  
CC: The 2020 Environmental Commission  
FROM: Maria Elena Jennette Kozak- Environmental Commission Secretary  
DATE: February 2, 2021  
RE: 2020 Tier B Municipal Stormwater General Permit Points  
New Point System for Public Education Outreach - - need 12 points and include activities from 3 of the 5 categories. Total Points 13.5

**Category 1 - General Outreach (subtotal 1 point)**

- Web postings - 1 point
  - Please look at the web site. <http://www.hollandtownshipnj.gov/>
  - Some information is available on the home page of the web site as suggested by the past township engineer. Our web administrator has it under advisories.
  - Exhibit 1 - screen shot

**Category 2 - Targets Audience Activities (subtotal 9.5)**

- Stormwater Display - 1 point
  - Display at Municipal Building -
  - Exhibit 2 - pictures
    - Posters obtained by State (like TIP cards)
    - Mounted in Black frames
    - Displayed on the lower level of the building and in our hallway
- Promotional Item - 2 points
  - Stormwater message on Individual hand sanitizer distribution to Holland School, police department, DPW, and available at the municipal building for whoever wants one
  - cost comes out of grant money!
  - Did individual hand sanitizer bottles with "Don't Pollute Streams" on it.
  - Exhibit 3 - Picture and requisitions
- Mass mailing - 2 points
  - The stormwater information sheet was mailed with the 2020 recycling /dumpster cards package distributed to residents in December.
  - Exhibit 4 - the "Solutions to Stormwater Pollution" flyer and envelop
- Stormwater Management Training - 2 points - Max 4 points -
  - Exhibit 5 - certificate Adam T. Wisniewski from Maser
- Municipal Training - 2.5 Points - Max 6 points
  - [www.njstormwater.org/training](http://www.njstormwater.org/training)
    - PB/BOA/Environmental Commission Secretary
    - Asking the Right Questions
  - Exhibit 6 - last page of slide show with signature of person completing the training and ANJEC certificates : Harrison, Grossmueller, Kanakaris, Keady, Secretary Kozak

**Category 3 - School/Youth Education and Activities (subtotal 3 points)**

- Clean-up - .3 Points
  - Road clean ups-because of COVID 19 Pandemic we did not have our regular organizations participating in roadside cleanups. Our DPW cleaned up our roads more along with residents who were walking more. Roads cleaned: Hawks Schoolhouse, Ellis Road, Bellis Road, Dennis Road, Cyphers Road, Shire Road, Phillips Road, Church Road, Stamets Road, Javes Road, Miller Park Road, and Rummel Road - residents also helped clean our local trails with DPW emptying clean up containers regularly. Way more community involvement which was voluntary.
  - Exhibit 7 - Overview of roads and trails

Secretary Kozak will add the exhibits and send this to Maser for their report that is filed to the State of New Jersey in April for Holland Township as a Tier B municipality.

Community Education and Outreach – Jerry Bowers, Dwight Pederson, and Susan Meacham – Nothing new to report.

The EC webpage is: <http://www.hollandtownshipnj.gov/14-ec/46-environmental-commission.html>. Please send any additions or corrections to Secretary Kozak for posting

Inventory of Fauna and Flora subcommittee - David Harrison, Dwight Pederson, Ray Note – Nothing new to report.

Wild and Scenic – Liaison Pederson did not have anything new to report from the Musconetcong Watershed Management Council.

Planning Board Hearing - - Solar Project at the Hughesville Mill Property on Cyphers Road. The Township Committee is in receipt of the memo that is as follows:

**To: Cathy Miller, Township Clerk**  
**From: Holland Township Environmental Commission**  
**Subject: The Holland Solar Farm Project**  
**Date: December 10, 2020**

At the December 1, 2020 meeting of the Township Committee (TC), the Township Attorney asked the Township Environmental Commission (EC) to prepare a memorandum to the TC setting forth EC concerns regarding a recently approved (Planning Board meeting of Nov. 9, 2020) application by Holland Solar Farms LLC to install solar panels on the site of the demolished Hughesville Paper mill. The Township Attorney further indicated that the topic of that memorandum would be placed on the TC agenda for a meeting in January 2021. This is the memorandum requested by the Township Attorney. The EC would be grateful if you would schedule a discussion of the matter at a January meeting of the TC.

**CONTEXT:**

*About 20 years ago, a firm specializing in the purchase of failed or struggling manufacturing plants purchased the Hughesville Paper mill with a view to salvage and sell the plant's machinery & equipment, mostly to buyers in developing countries. Once the new owners extracted and sold the mill's equipment, they left the buildings to deteriorate—creating an increasingly unsightly and unsafe set of derelict structures that were the first view of Holland Township for anyone entering the community off Route 627 at Cyphers Rd.*

*Approximately ten years later, Holland Township received, reviewed, and approved an application to develop the Township's first major-scale solar field on a site behind the Shepherd of the Valley Church off County Route 614. In order to secure Holland Township approval of the project, the Applicant requested, and was granted, a number of variances—notwithstanding a proposal forwarded by a member of the Board of Adjustment (BoA), who recommended that the Applicant be asked to post a performance bond that would cover the eventual cost of removal of the solar panels when the project reached its end of useful life and/or if the applicant might decide to abandon the project due to negative changes in the applicant's financial health and/or changes in the technical and/or financial viability of the project. The BoA member's concern was provoked specifically by the analogous situation at the abandoned Hughesville Paper mill and represented at attempt to ensure that the Township would not be burdened one day by the cost of dismantling and removing solar panels once the project completed its useful life. The BoA member's proposition was rejected by the BoA attorney, however, who concluded that such a requirement would impose an unreasonable and inequitable burden on the applicant.*

*Essentially the same process played out in 2018-2019 in the instance of a solar installation at Cyphers Road (Applicant: Milford Solar Farm LLC). In that case, however, the recommendation (for a performance bond) was supported and forwarded by the Township Environmental Commission (EC). The EC's recommendation was turned aside by the Planning Board for the same reason cited years earlier by the BoA attorney.*

*Subsequent to that decision, the EC conducted an extensive record search of state, county and municipal databases across the country, and discovered that virtually every state, and hundreds of counties and local jurisdictions in the U.S. had enacted ordinances that closely mirrored the recommendations put forward by the BoA member and by the EC over the previous decade. Drawing on*

those models, and with the EC's cooperation, the **Holland Township Attorney developed an ordinance (Ordinance 2019-19, dated November 7, 2019)** that provided the protections described above.

**In 2020, Holland Township received an application from Holland Solar Farm LLC for a third solar installation that would be co-situated on the same property (the old Hughesville mill) used for the earlier Milford Solar Farm LLC project. The third project would be the first project in the Township that would be subject to the requirements of Ordinance 2019-19, most notably including the ordinance's requirement that applicants post a performance bond as a condition to the receipt of a building permit. The Holland Solar Farm LLC application was approved by the Holland Township Planning Board (PB) on November 9, 2020.**

**The purposes of this memorandum are 1) to identify some aspects of the PB approval process that were flawed and that have the potential to undermine the intent and objectives of the ordinance; and 2) to urge the Township Committee to exercise leadership in ensuring compliance with the ordinance as it applies to this third solar installation. Ultimately, the EC's objective is to help ensure that the Holland Solar Farm project—and future projects—do not create significant operational and financial burdens on the Township and its citizens in the event that the project's operators become unable or unwilling to restore the site at the end of the project's useful life. END CONTEXT.**

In late summer of this year Holland Solar Farm LLC (“Applicant”) submitted an application to install solar panels on the site of the demolished Hughesville Paper mill. The Holland Township Planning Board (PB) held hearings on that application in September and October—approving the application at its October meeting—and met on November 9 to memorialize the Board's October approval of the application. Representatives of the Holland Township Environmental Commission (EC) attended the three PB meetings and offered testimony at the September and October sessions.

The PB's September-October review of the application identified several concerns with the proposed project and established a lengthy list of conditions that must be addressed by the Applicant prior to issuance of a building permit. **This memorandum focuses on one of those conditions, namely the successful execution of a DECOMMISSIONING AGREEMENT AND DEED RESTRICTION, the signatories of which would include Holland Township, Holland Solar Farm LLC, and (property owner) Fiberville Estates LLC.** The core element of that Agreement would acknowledge and codify the Applicant's responsibility, per Ordinance 2019-19, to submit to the Township a performance bond (or similar instrument) that would be sufficient to cover the cost of the eventual decommissioning of the solar field, and the restoration of the project site to its *status quo ante* the project.

In the course of his presentation at the September and October meetings the Applicant's attorney acknowledged his client's obligation per the ordinance and noted the Applicant's readiness to comply with that requirement. As a demonstration of that readiness, the Applicant had submitted, prior to the PB's September meeting, a first draft of the required DECOMMISSIONING AGREEMENT AND DEED RESTRICTION.

**The PB gave the EC an opportunity to review the draft decommissioning agreement prior to the September PB meeting.** The EC reviewed the document and distributed its comments/suggestions to the PB and to the Applicant's attorney before the September meeting. The EC review identified several elements in the draft agreement that would, if included in the final version, be inconsistent with the letter and intent of Ordinance 2019-20. **Among the changes suggested by the EC were:**

a) **Removal of a clause indicating that “The Developer shall make application for the performance bond within 180 days of the issuance of a demolition permit by the Township”** The EC noted that Ordinance 2019-19 requires the submission of a performance bond **prior** to the issuance of a building permit—not decades later, when the project would no longer be in operation. This phrase in the proposed draft agreement, incidentally, is identical to language in the Decommissioning Agreement executed between Holland Township, Fiberville Estates LLC, and Milford Solar Farm LLC on October 17, 2018, in the instance of the previous project--also located on the site of the Hughesville Paper mill; and

b) **The removal of text stating that “In the event that this Decommissioning Agreement is assigned to and or assumed by a company or entity listed on any publicly traded stock exchange in good standing or a public utility company or any subsidiary of a public utility company authorized to do business in New Jersey (a “Qualified Assignee”), there shall be no requirement that the Developers obligations of decommission be guaranteed by performance bond.”** Again, the EC noted that the relevant ordinance was explicit in its requirement that an Applicant submit a performance bond or functionally equivalent instrument prior to the issuance of a building permit and made no provision for a waiver of that requirement. Moreover, noted the EC, **the participation of a publicly traded utility or subsidiary in a project would not provide the Township with protections from operator insolvency, as utilities (example: Pacific Gas & Electric) could also fall into bankruptcy.** This phrase, like the clause cited in “a” above, appears in the Decommissioning Agreement executed in relation to the predecessor Milford Solar Farm project.



**By the time the PB met for its September meeting, the Applicant had submitted a revised draft of the Decommissioning Agreement.** That draft removed any reference to an end-of-project submission of a performance bond (item “a” above) and acknowledged the Applicant’s responsibility to post that bond prior to the issuance of a building permit. **The revised draft did not, however, change or delete the Applicant’s implied call for a waiver of that responsibility if certain conditions (i.e., their partnering with a publicly traded utility) were in effect.**

An EC representative testified at the September meeting, and pointed out that the language re a potential waiver was inconsistent with the intent of the Ordinance.

At its October 12 meeting the PB reviewed a third draft of the Decommissioning Agreement. Again, the language regarding a possible waiver of the performance bond (item “b” above) carried over to the revised draft, and again an EC representative testified in opposition to the proposed language. Specifically, the EC representative reminded the Applicant and the PB that the ordinance was unambiguous in its requirement that an applicant submit a performance bond prior to the issuance of a building permit and that the ordinance included no provision for a waiver.

**The Applicant’s attorney responded, noting encouragingly that the Applicant was prepared to comply with the requirement for a performance bond, but that the Township Committee had issued an “accommodation” (waiver) of that requirement in the instance of the Milford Solar Farm project--largely because that project was owned by a New Jersey public utility.** The EC representative asked the Applicant’s attorney if the principals to the Holland Solar Farm application currently before the PB had enlisted a public utility or subsidiary in the venture. The attorney replied that they had not. **(NB: There is no record that the Township Committee issued any such “accommodation”/waiver in the case of the predecessor Milford Solar Farm project. Indeed, no such waiver would have been necessary in that case, as the project pre-dated the issuance of Ordinance 2019-19, so neither the Developer nor the landowner would have been obligated to post a performance bond as a condition to receipt of a building permit).**

The PB met on November 9 to memorialize its approval of the proposed activity. Unfortunately, the PB’s resolution included several errors, all of which could have been avoided by reference to the relevant ordinance and to testimony offered at the September and October meetings of the PB. These errors included:

1. A statement that the Applicant will provide an estimate for the cost of decommissioning. Ordinance No. 2019-19 says that the cost estimate will be prepared by the Township Engineer
2. A statement that “The adequacy of the Decommissioning plan/agreement shall be reviewed and approved by the Township Attorney as a condition of approval”—not that the successful execution of the agreement with the Township Committee is the condition of approval
3. Most significantly, and notwithstanding testimony by both the EC representative and the Applicant’s attorney, the resolution incorporated the Applicant’s implied request for a waiver of the performance bond requirement if the Applicant should partner with a publicly traded utility/subsidiary of a utility. This, despite a) the Applicant’s acknowledgment that no such partner was involved in their project; b) the Attorney’s statement that the Applicant was prepared to comply with the requirement for a performance bond if that was the preference of the TC; and c) the inclusion of a factually incorrect statement that the Township had extended the same accommodation to the managers of the predecessor Milford Solar Farm project.

At the conclusion of the November PB meeting, the EC representative identified these errors, but was informed by the PB Attorney that the PB would not consider them, as the enabling Resolution had been approved that evening.

#### **Next Steps:**

**The Applicant is obliged to satisfy several conditions laid out in the November resolution—one of which is the successful negotiation of the Decommissioning Agreement with the TC.** That negotiation process, however, could be burdened by the errors included in the November resolution. Most notably, the resolution opens the door to that “accommodation”—the consequence of which would be the effective nullification of the central requirement and key protections laid out in Ordinance 2019-19.

Briefly, the Township’s interests will only be protected if the funds needed for an eventual cleanup & restoration of the project site are in hand **before** the project is approved for implementation--and now is the only time when the Township will have the opportunity to ensure that happens, i.e., via the Decommissioning Agreement. A waiver eliminates that protection. Promises to provide funds at the end of the project are vulnerable to a host of risks, including obsolescence, bankruptcy, or a change in corporate priorities.

From a more positive perspective, nothing in the Resolution—errors notwithstanding—will necessarily confound the successful negotiation of a Decommissioning Agreement that complies with the Ordinance, and which reflects long-term strategic priorities of the Township Committee. **The key elements that need to be included in that Agreement include**

**1) the incorporation, by reference, of Section 3(a)[2] “Decommissioning Process Description” of the ordinance.**

**2) the Applicant’s commitment to comply with Section 5 of the ordinance,** a portion of which states that “as a condition of site plan approval and prior to the issuance of any building permits...the land owner or operator of the facility shall obtain and submit to the Township a performance bond or other agreed-upon secured funding in a form approved by the Township Attorney to ensure that the decommissioning plan provides financial assurance that there will be sufficient funds available for decommissioning and site restoration”; and

**3) removal of language suggesting the possibility of a waiver of the Applicant’s obligation to post a performance bond.**

The starting point for negotiation of the Decommissioning Agreement can be the Applicant’s own draft of that document, albeit with corrections to some errors of fact therein, and the revision of the draft to include the three elements noted above. If considered useful by the Township Committee and the Township Attorney, the EC would be pleased to review a draft of the Applicant’s agreement, and to offer its comments and recommendations regarding the agreement to the Township Attorney. The EC’s intent in providing that assistance—if invited to do so by the Township Attorney—would be to help ensure compatibility between the Decommissioning Agreement and Ordinance 2019-19, and to thereby help protect the long-term financial and aesthetic interests of the Township and its citizens.

The simple interpretation is that Holland Township adopted Ordinance 2019-19 which requires a performance bond and the EC urges the Township Committee to ensure that the Developer complies with that ordinance. Liaison Bush understands the simple approach and will investigate and follow up. The ordinance was passed for a reason.

Public Comment: Tony Rizzello – commented about Penn East. He saw the same article and the State rights have been before the Supreme Court before under the 11<sup>th</sup> Amendment. Mr. Rizzello also asked if stormwater is applicable to preserved farms and Liaison Bush responded that a preserved farm does not receive an automatic exemption as there are criteria that have to be met.

At 8:45 pm Regina Berna made a motion to adjourn.

Respectfully Submitted

*Maria Elena Jennette Kozak*

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Environmental Commission Secretary