

**TOWNSHIP OF EAST GREENWICH**

**ORDINANCE NO. 2-2021**

**AN ORDINANCE OF THE TOWNSHIP OF GREENWICH,  
COUNTY OF GLOUCESTER, AND STATE OF NEW JERSEY  
ADOPTING A STORMWATER CONTROL ORDINANCE  
TO CONFORM WITH THE AMENDED  
STORMWATER MANAGEMENT RULES AT N.J.A.C. 7:8**

**BE IT ORDAINED AND ENACTED** by the Township Committee of the  
Township of East Greenwich, County of Gloucester, and State of New Jersey,  
as follows:

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## **Section I. Scope and Purpose:**

### **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," as defined below in Section II.

### **C. Applicability**

1. This ordinance 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 ordinance shall also be applicable to all major developments undertaken by the Township of East Greenwich.

### **D. Compatibility with Other Permit and Ordinance Requirements**

Development approvals issued pursuant to this ordinance 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 ordinance shall be held to be the minimum requirements for the promotion of the public health, safety, and general welfare.

This ordinance 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 ordinance 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.

## **Section II. Definitions:**

For the purpose of this ordinance, 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" means 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" means 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).

"Community basin" means 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" means the increase in soil bulk density.

"Contributory drainage area" means the area from which stormwater runoff drains to a stormwater management measure, not including the area of the stormwater management measure itself.

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

"County review agency" means an agency designated by the County Board of Chosen Freeholders to review municipal stormwater management plans and implementing ordinance(s). The county review agency may either be:

1. A county planning agency or
2. 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.

"Department" means the Department of Environmental Protection.

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

"Design engineer" means 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" means 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" means 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. Milling and repaving is not considered disturbance for the purposes of this definition.

"Drainage area" means 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" means the following areas 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" means 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" means 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" means the detachment and movement of soil or rock fragments by water, wind, ice, or gravity.

"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.

"HUC 14" or "hydrologic unit code 14" means 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" means a surface that has been covered with a layer of material so that it is highly resistant to infiltration by water.

"Infiltration" is the process by which water seeps into the soil from precipitation.

"Lead planning agency" means 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" means 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 the effective date of this ordinance, whichever is earlier}*; 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."

"Motor vehicle" means 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” means 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” means any city, borough, town, township, or village.

“New Jersey Stormwater Best Management Practices (BMP) Manual” or “BMP Manual” means 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 Section IV.F. of this ordinance 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” means an area designated by the State Planning Commission concentrating facilities and activities which are not organized in a compact form.

“Nutrient” means a chemical element or compound, such as nitrogen or phosphorus, which is essential to and promotes the development of organisms.

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

“Pollutant” means 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” means the amount of water from precipitation that infiltrates into the ground and is not evapotranspired.

"Regulated impervious surface" means 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" means 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" means 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" means the lot or lots upon which a major development is to occur or has occurred.

"Soil" means all unconsolidated mineral and organic material of any origin.

"State Development and Redevelopment Plan Metropolitan Planning Area (PA1)" means 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" is defined as 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" means 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" means 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" means 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" means water flow on the surface of the ground or in storm sewers, resulting from precipitation.

"Stormwater management planning agency" means a public body authorized by legislation to prepare stormwater management plans.

"Stormwater management planning area" means 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" means 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" means a neighborhood given priority access to State resources through the New Jersey Redevelopment Authority.

"Urban Enterprise Zones" means 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" is defined as previously developed portions of 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" means 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" means 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" means 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.

### **Section III. 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.
- B. The standards in this ordinance apply only to new major development 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.

### **Section IV. 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 Section X.
- 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 Section IV.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 Section IV.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 Section IV.O, P, Q and R to the maximum extent practicable;
  3. The applicant demonstrates that, in order to meet the requirements of Section IV.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 IV.D.3 above within the upstream drainage area of the receiving stream, that would provide additional opportunities to mitigate the requirements of Section IV.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 Section IV.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 ordinance the BMP Tables in the Stormwater Management rule at N.J.A.C. 7:8-5.2(f) shall take precedence.

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

**Table 2**  
**Green Infrastructure BMPs for Stormwater Runoff Quantity**  
**(or for Groundwater Recharge and/or Stormwater Runoff Quality**  
**with a Waiver or Variance from N.J.A.C. 7:8-5.3)**

<b><u>Best Management Practice</u></b>	<b><u>Stormwater Runoff Quality TSS Removal Rate (percent)</u></b>	<b><u>Stormwater Runoff Quantity</u></b>	<b><u>Groundwater Recharge</u></b>	<b><u>Minimum Separation from Seasonal High Water Table (feet)</u></b>
<u>Bioretention System</u>	<u>80 or 90</u>	<u>Yes</u>	<u>Yes<sup>(b)</sup></u> <u>No<sup>(c)</sup></u>	<u>2<sup>(b)</sup></u> <u>1<sup>(c)</sup></u>
<u>Infiltration Basin</u>	<u>80</u>	<u>Yes</u>	<u>Yes</u>	<u>2</u>
<u>Sand Filter<sup>(b)</sup></u>	<u>80</u>	<u>Yes</u>	<u>Yes</u>	<u>2</u>
<u>Standard Constructed Wetland</u>	<u>90</u>	<u>Yes</u>	<u>No</u>	<u>N/A</u>
<u>Wet Pond<sup>(d)</sup></u>	<u>50-90</u>	<u>Yes</u>	<u>No</u>	<u>N/A</u>

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

Notes to Tables 1, 2, and 3:

- (a) subject to the applicable contributory drainage area limitation specified at Section IV.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 Section II;
- (h) manufactured treatment devices that do not meet the definition of green infrastructure at Section II

- 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 Section VI.B. Alternative stormwater management measures may be used to satisfy the requirements at Section IV.O only if the measures meet the definition of green infrastructure at Section II. 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 Section IV.D is granted from Section IV.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 Section VIII.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 Section VIII; 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 Section II may be used only under the circumstances described at Section IV.O.4.
- K. Any application for a new agricultural development that meets the definition of major development at Section II shall be submitted to the Soil Conservation District for review and approval in accordance with the requirements at Sections IV.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 Section IV.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 Gloucester 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 Section IV.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 Section X.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 Section IV of this ordinance 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 Gloucester 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 Section IV.P and Q, the design engineer shall utilize green infrastructure BMPs identified in Table 1 at Section IV.F. and/or an alternative stormwater management measure approved in accordance with Section IV.G. The following green infrastructure BMPs are subject to the following maximum contributory drainage area limitations:

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

3. To satisfy the stormwater runoff quantity standards at Section IV.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 Section IV.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 Section IV.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 Section IV.G may be used to meet the groundwater recharge, stormwater runoff quality, and stormwater runoff quantity standards at Section IV.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 Section IV.P, Q and R, unless the project is granted a waiver from strict compliance in accordance with Section IV.D.

P. Groundwater Recharge Standards

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

1. The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at Section V, 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.
2. This groundwater recharge requirement does not apply to projects within the "urban redevelopment area," or to projects subject to 4 below.
3. 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.

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.
  - ii. 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.
3. 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.

**Table 4 - Water Quality Design Storm Distribution**

<b>Time (Minutes)</b>	<b>Cumulative Rainfall (Inches)</b>	<b>Time (Minutes)</b>	<b>Cumulative Rainfall (Inches)</b>	<b>Time (Minutes)</b>	<b>Cumulative Rainfall (Inches)</b>
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

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 Section IV.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 Section V, 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.

## **Section V. Calculation of Stormwater Runoff and Groundwater Recharge:**

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

1. The design engineer shall calculate runoff using one of the following methods:

- 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 flow and the Modified Rational Method for hydrograph computations. The rational and modified rational methods are described in "Appendix A-9 Modified Rational Method" in the Standards for Soil Erosion and Sediment Control in New Jersey, January 2014. This document is available from the State Soil Conservation Committee or any of the Soil Conservation Districts listed at N.J.A.C. 2:90-1.3(a)3. The location, address, and telephone number for each Soil Conservation District is available from the State Soil Conservation Committee, PO Box 330, Trenton, New Jersey 08625. The document is also available at:

<http://www.nj.gov/agriculture/divisions/anr/pdf/2014NJSoilErosionControlStandardsComplete.pdf>.

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 Section V.A.1.i and the Rational and Modified Rational Methods at Section V.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.

## **Section VI. Sources for Technical Guidance:**

- A. 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).

1. 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).

- B. 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.

## **Section VII. Solids and Floatable Materials Control Standards:**

A. Site design features identified under Section IV.F above, or alternative designs in accordance with Section IV.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 Section VII.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.

#### **Section VIII. 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 Section VIII.C.1, VIII.C.2, and VIII.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;

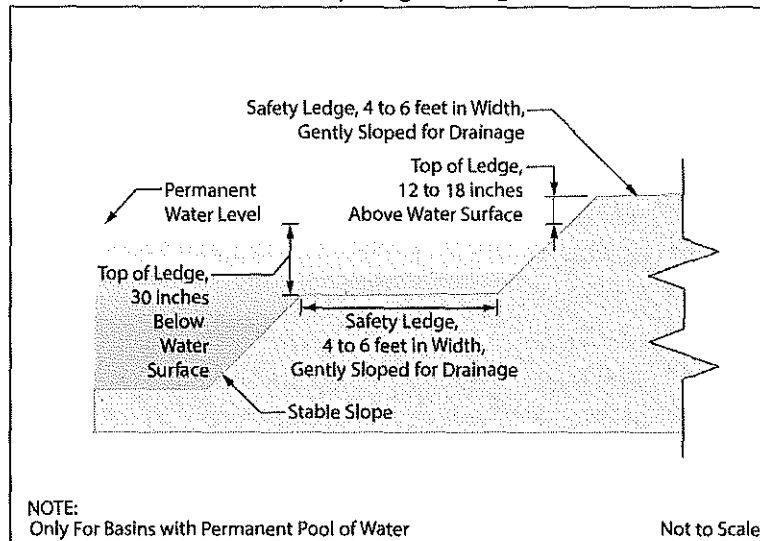
- ii. The trash rack shall be designed so as not to adversely affect the hydraulic performance of the outlet pipe or structure;
  - iii. The average velocity of flow through a clean trash rack is not to exceed 2.5 feet per second under the full range of stage and discharge. Velocity is to be computed 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 VIII.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 VIII.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



### Section IX. 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 ordinance, the applicant shall submit all of the required components of the Checklist for the Site Development Stormwater Plan at Section IX.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 ordinance.
3. The applicant shall submit [*specify number*] copies of the materials listed in the checklist for site development stormwater plans in accordance with Section IX.C of this ordinance.

#### 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 ordinance.

### 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.

#### 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 III through V 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 Section IV of this ordinance.
- 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 Section X.

8. Waiver from Submission Requirements

The municipal official or board reviewing an application under this ordinance may, in consultation with the municipality's review engineer, waive submission of any of the requirements in Section IX.C.1 through IX.C.6 of this ordinance 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.

**Section X. Maintenance and Repair:**

A. Applicability

Projects subject to review as in Section I.C of this ordinance shall comply with the requirements of Section X.B and X.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 Section X.B.3 above is not a public agency, the maintenance plan and any future revisions based on Section X.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 Section X.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 Section X.B.6 and B.7 above.
- 8. The requirements of Section X.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.
- 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

#### **Section XI. Violation and Penalties:**

Any person who erects, constructs, alters, repairs, converts, maintains, or uses any building, structure or land in violation of this chapter shall be subject to the following penalties:

- A. Any person who engages in unlawful conduct as defined in this chapter shall, upon conviction thereof in a proceeding before a court of competent jurisdiction, be subject to: imprisonment in the county jail or in any place provided by the municipality for the detention of prisoners, for any term not exceeding ninety (90) days; or by a fine, the amount of which shall be a minimum of one hundred dollars (\$100.00) up to a maximum of two thousand dollars (\$2,000.00) under N.J.S.A. 40:49-5; or by a period of community service not exceeding ninety (90) days, or any combination thereof.
- B. Any person who is convicted of violating this chapter within one year of the date of a previous violation of the same chapter and who was fined for the previous violation, shall be sentenced by a court to an additional fine as a repeat offender. The additional fine imposed by the court upon a person for a repeated offense shall not be less than the minimum or exceed the maximum fine fixed for a violation of the ordinance codified in this chapter, but shall be calculated separately from the fine imposed for the violation of this chapter.

- C. The Township of East Greenwich may seek injunctive relief in the Superior Court of New Jersey to enforce the terms of this chapter along with any other relief available under the laws of the state of New Jersey, and nothing herein shall abrogate or limit the township's right, ability, and authority to do so.

**Section XII. Severability:**

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

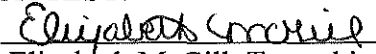
**Section XIII. Effective Date:**

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

**Effective Date.** This Ordinance shall take effect immediately upon final adoption and publication by the East Greenwich Township Committee. Introduced at a regular meeting of Township Committee on February 23, 2021 and passed upon a second reading of Township Committee held on March 23, 2021.

  
TOWNSHIP OF EAST GREENWICH  
Dale L. Archer, Mayor

ATTEST:

  
Elizabeth McGill, Township Clerk

# Stormwater Pollution Prevention Plan

East Greenwich Township  
Gloucester

NJPDES #: NJG 0154075

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## SPPP Form 1 – SPPP Team Members

All records must be available upon request by NJDEP.

<b>Stormwater Program Coordinator (SPC)</b>	
Print/Type Name and Title	Anthony Rossett, East Greenwich Works Public Manager
Office Phone # and eMail	(856) 423-0655 ext. 405
Signature/Date	
<b>Individual(s) Responsible for Major Development Project Stormwater Management Review</b>	
Print/Type Name and Title	Anthony Rossett, East Green Public Works Manager
Print/Type Name and Title	Frank S. Morris, PE, CES, CPWM, Township Engineer
Print/Type Name and Title	
Print/Type Name and Title	
Print/Type Name and Title	
<b>Other SPPP Team Members</b>	
Print/Type Name and Title	James Sabetta, Construction/zoning official Ordinance Coordinator
Print/Type Name and Title	Elizabeth McGill Township Clerk Public Notice Coordinator
Print/Type Name and Title	Anthony Rossett Public Works Manager-Post Construction Management, Employee training, Public Outreach, & Public Works Coordinator
Print/Type Name and Title	

## SPPP Form 2 – Revision History

All records must be available upon request by NJDEP.

	Revision Date	SPC Initials	SPPP Form Changed	Reason for Revision
1.	7/1/2005			Initial SPPP
2.	3/23/2018			Compliance with 2018 permit conditions
3.	2/9/2021			Update team members
4.				
5.				
6.				
7.				
8.				
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11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

## SPPP Form 3 – Public Involvement and Participation Including Public Notice

All records must be available upon request by NJDEP.

1. Website URL where the Stormwater Pollution Prevention Plan (SPPP) is posted online:	<a href="https://www.eastgreenwichnj.com/wp-content/uploads/2018/12/East-Greenwich-Twp-Stormwater-Management-plan_201812100916.pdf">https://www.eastgreenwichnj.com/wp-content/uploads/2018/12/East-Greenwich-Twp-Stormwater-Management-plan_201812100916.pdf</a>
2. Date of most current SPPP:	July 1, 2005; revised February 9, 2021
3. Website URL where the Municipal Stormwater Management Plan (MSWMP) is posted online:	<a href="https://www.eastgreenwichnj.com/wp-content/uploads/2020/03/EG-TWP-Stormwater-Management-Plan-part-1.pdf">https://www.eastgreenwichnj.com/wp-content/uploads/2020/03/EG-TWP-Stormwater-Management-Plan-part-1.pdf</a>
4. Date of most current MSWMP:	February 2006
5. Physical location and/or website URL where associated municipal records of public notices, meeting dates, minutes, etc. are kept:	<a href="https://www.eastgreenwichnj.com/agenda-meetings-minutes/">https://www.eastgreenwichnj.com/agenda-meetings-minutes/</a>
6. Describe how the permittee complies with applicable state and local public notice requirements when providing for public participation in the development and implementation of a MS4 stormwater program:	
<p>For meetings where public notice is required under the Open Public Meetings Act ("Sunshine Law," N.J.S.A. 10:4-6 et seq.), East Greenwich Township provides public notice in a manner that complies with the requirements of that Act.</p> <p>Also, in regard to the passage of ordinances, East Greenwich Township provides public notice in a manner that complies with the requirements of N.J.S.A. 40:49-1 et seq. In addition, for municipal actions, (e.g., adoption of the municipal stormwater management plan) subject to public notice requirements in the Municipal Land Use Law (N.J.S.A. 40:55D-1 et seq.), East Greenwich Township complies with those requirements.</p>	

## SPPP Form 4 – Public Education and Outreach

All records must be available upon request by NJDEP.

<p>1. Describe how public education and outreach events are advertised. Include specific websites and/or physical locations where materials are available.</p>
<p>1. On the East Greenwich Township website there is a stormwater page with links to the follow:</p> <ul style="list-style-type: none"><li>a. East Greenwich Township's SPPP</li><li>b. All Stormwater ordinance</li><li>c. NJDEP educational brochure</li></ul> <p>2. A biannual newsletter is mailed to all residents with our stormwater ordinance and educational information.</p> <p>3. Annual source water protection presentation by New Jersey Water Association at East Greenwich schools.</p> <p>4. Coloring books distributed to elementary schools annually.</p> <p>5. Annual letter from the Mayor describing the benefits from our Stormwater ordinances.</p> <p>6. Pet waste ordinance enclosed with dog license renewal.</p> <p>7. Materials are available at the Township Clerk's office at the Municipal Building.</p>
<p>2. Describe how businesses and the general public within the municipality are educated about the hazards associated with illicit connections and improper disposal of waste.</p>
<p>1. Information is available on the Township's website and at the Municipal Building.</p> <p>8. 2. A biannual newsletter is mailed to all residents with our stormwater ordinance and educational information.</p>
<p>3. Indicate where public education and outreach records are maintained.</p>
<p>1. Public education and outreach records are maintained at the East Greenwich Township Municipal Building located a 159 Democrat Road, and on the Township's website.</p> <p>2. Gloucester County mails the DEP brochure to our residents every year. Extra copies are located at The County library.</p>

## SPPP Form 5 – Post-Construction Stormwater Management in New Development and Redevelopment Program

All records must be available upon request by NJDEP.

<b>1. How does the municipality define 'major development'?</b>	<p>“Major development” means an individual “development,” as well as multiple developments that individually or collectively result in:</p> <ol style="list-style-type: none"><li>1. The disturbance of one or more acres of land since February 2, 2004;</li><li>2. The creation of one-quarter acre or more of “regulated impervious surface” since February 2, 2004;</li><li>3. The creation of one-quarter acre or more of “regulated motor vehicle surface”;</li><li>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.</li></ol> <p>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.”</p>
<b>2. Does the municipality approach residential projects differently than it does for non-residential projects? If so, how?</b>	<p>No. Residential and non-residential projects are required comply with Township's Land Development Code.</p>
<b>3. What process is in place to ensure that municipal projects meet the Stormwater Control Ordinance?</b>	<p>The Township Engineer will ensure that municipal projects meet the requirements of the Stormwater Control Ordinance. Any Development applications are reviewed by the Township Engineer.</p>

4. Describe the process for reviewing major development project applications for compliance with the Stormwater Control Ordinance (SCO) and Residential Site Improvement Standards (RSIS). Attach a flow chart if available.

Major development project applications are submitted to the Township's Land Use Board for completeness review and distribution to the Board's professional consultants. Upon receipt of the application, the Board Engineer reviews the submitted documents for compliance with the Land Use Code, including the SCO and the RSIS. A review report is prepared by the Planning Board Engineer with comments and recommendations, and submitted to the Board.

5. Does the Municipal Stormwater Management Plan include a mitigation plan?

Yes

6. What is the physical location of approved applications for major development projects, Major Development Summary Sheets (permit att. D), and mitigation plans?

Approved applications for major development projects are kept on file at the Township's Land Use Board Office at 159 Democrat Rd, Mickleton, NJ 08056

## SPPP Form 6 – Ordinances

All records must be available upon request by NJDEP.

Ordinance permit cite IV.B.1.b.iii	Date of Adoption	Website URL	Was the DEP model ordinance adopted without change?	Entity responsible for enforcement
1. Pet Waste permit cite IV.B.5.a.i	10/25/05	<a href="https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO">https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO</a>	Yes	Code Enforcement official and Local Police Dept.
2. Wildlife Feeding permit cite IV.B.5.a.ii	10/25/05	<a href="https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO">https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO</a>	Yes	Code Enforcement official and Local Police Dept.
3. Litter Control permit cite IV.B.5.a.iii	10/25/05	<a href="https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO">https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO</a>	Yes	Code Enforcement official and Local Police Dept.
4. Improper Disposal of Waste permit cite IV.B.5.a.iv	10/25/05	<a href="https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO">https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO</a>	Yes	Code Enforcement official and Local Police Dept.
5. Containerized Yard Waste/ Yard Waste Collection Program permit cite IV.B.5.a.v	10/25/05	<a href="https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO">https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO</a>	Yes	Code Enforcement official and Local Police Dept.
6. Private Storm Drain Inlet Retrofitting permit cite IV.B.5.a.vi	6/7/2009	<a href="https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO">https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO</a>	Yes	Code Enforcement official and Local Police Dept.
7. Stormwater Control Ordinance permit cite IV.B.4.g and IV.B.5.a.vii	7/1/2005	<a href="https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO">https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO</a>	Yes	Code Enforcement official and Local Police Dept.

8. Illicit Connection Ordinance permit cite IV.B.5.a.vii and IV.B.6.d	10/25/05	<a href="https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO">https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO</a>	Yes	Code Enforcement official and Local Police Dept.
9. Optional: Refuse Container/ Dumpster Ordinance permit cite IV.E.2	6/7/09	<a href="https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO">https://library.municode.com/nj/east_greenwich_township/codes/municipal_code?nodeId=EA_GRTONEJEMUCO</a>	Yes	Code Enforcement official and Local Police Dept.

Indicate the location of records associated with ordinances and related enforcement actions:

Records are located at the Construction office and at the Police Department.

## SPPP Form 7 – Street Sweeping

All records must be available upon request by NJDEP.

1. Provide a written description or attach a map indicating which streets are swept as required by the NJPDES permit. Describe the sweeping schedule and indicate if any of the streets are swept by another entity through a shared service arrangement.

East Greenwich Township has evaluated all of its streets, and determined that there are no areas which need to be swept under the NJPDES Stormwater Permit criteria.

2. Provide a written description or attach a map indicating which streets are swept that are NOT required to be swept by the NJPDES permit. Describe the sweeping schedule and indicate if any of the streets are swept by another entity through a shared service arrangement.

East Greenwich Township has evaluated all of its streets, and determined that there are no areas where street sweeping is required.

3. Does the municipality provide street sweeping services for other municipalities? If so, please describe the arrangements.

East Greenwich does not provide street sweeping services for other municipalities.

4. Indicate the location of records, including sweeping dates, areas swept, number of miles swept and total amount of wet tons collected each month. Note which records correspond to sweeping activities beyond what is required by the NJPDES permit, i.e., sweepings of streets within the municipality that are not required by permit to be swept or sweepings of streets outside of the municipality.

There are no street sweeping records since street sweeping is not required.

## SPPP Form 8 – Catch Basins and Storm Drain Inlets

All records must be available upon request by NJDEP.

1. Describe the schedule for catch basin and storm drain inlet inspection, cleaning, and maintenance.
East Greenwich Township performs an annual catch basin cleaning program to maintain catch basin function and efficiency. All catch basins are inspected once each year. If, at the time of inspection, no sediment, trash or debris is observed in the catch basin, then that catch basin will not be cleaned. All catch basins area inspected yearly, even if they were found to be “clean” the previous year. At the time of cleaning, the catch basins are also be inspected for proper function. Maintenance will be scheduled for those catch basins that are in disrepair.
2. List the locations of catch basins and storm drain inlets with recurring problems, i.e., flooding, accumulated debris, etc.
none
3. Describe what measures are taken to address issues for catch basins and storm drain inlets with recurring problems and how they are prioritized.
Scheduled routine inspections and if necessary additional maintenance
4. Describe the inspection schedule and maintenance plan for storm drain inlet labels on storm drains that do not have permanent wording cast into the design.
Currently, all stormwater inlets in East Greenwich have been labeled with either a sticker or stainless label epoxied to the curb head piece. During road repaving projects, all stormwater inlets will be upgraded to the latest NJDEP standards where the head piece has the label cast in. During our annual catch basin inspection and cleaning program, we will be checking these labels to ensure that they are still visible, and if they are not, the labels will be replaced as soon as practicable.
5. Indicate the location of records of catch basin and storm drain inlet inspections and the wet tons of materials collected during catch basin and storm drain inlet cleanings.
Catch basin and storm drain inlet inspection records are located at the East Greenwich Township Department of Public Works. 96 East Rattling Run Rd, Mickleton NJ 08056

## SPPP Form 9 – Storm Drain Inlet Retrofitting

All records must be available upon request by NJDEP.

1. Describe the procedure for ensuring that municipally owned storm drain inlets are retrofitted.
All municipal road improvement projects designed by the Township Engineer include retrofitting of curb pieces.
2. Describe the inspection process to verify that appropriate retrofits are completed on municipally owned storm drain inlets.
All municipal road improvement projects are inspected by the office of the Township Engineer. Contractors do not received final payment until retrofitting is complete.
3. Describe the procedure for ensuring that privately owned storm drain inlets are retrofitted.
All applications for development are required to comply with the Land Use Code and the SCO. The Land Use Board Engineer reviews the applications for compliance with these codes and ordinances to ensure plans include retrofitting of privately owned inlets.
4. Describe the inspection process to verify that appropriate retrofits are completed on privately owned storm drain inlets.
Compliance inspection of inlet retrofitting in private development approved by the Land Use Board is performed by the office of the Township Engineer. A Certificate of Occupancy is not recommended until retrofits are completed.

## SPPP Form 10 – Municipal Maintenance Yards and Other Ancillary Operations

All records must be available upon request by NJDEP.

*Complete separate forms for each municipal yard or ancillary operation location.*

Address of municipal yard or ancillary operation:

96 East Rattling Run Rd, Mickleton New Jersey 08056

List all materials and machinery located at this location that are exposed to stormwater which could be a source of pollutant in a stormwater discharge: N/A means material and equipment are stored inside, in dumpsters or trailers.

Raw materials – Fill dirt 100 yards

Intermediate products – stone 10 ton

Final products – N/A

Waste materials – N/A

By-products – N/A

Machinery – 2 trash trucks and 2 small pick up trucks

Fuel – N/A

Lubricants – N/A

Solvents – N/A

Detergents related to municipal maintenance yard or ancillary operations – N/A

Other – N/A

For each category below, describe the best management practices in place to ensure compliance with all requirements in permit Attachment E. If the activity in the category is not applicable for this location, indicate where it occurs.

Indicate the location of inspection logs and tracking forms associated with this municipal yard or ancillary operation, including documentation of conditions requiring attention and remedial actions that have been taken or have been planned.

1. Fueling Operations

We have 1 fueling location in our Township located at 21 East Cohawkin Rd, Clarksboro New Jersey 08020. This facility is an above ground double concrete walled storage tank On a concrete pad.

2. Vehicle Maintenance

The Township Public Works will perform monthly inspections of vehicle maintenance operations of Vehicle maintenance operations in order to ensure that SOP's are followed.

3. On-Site Equipment and Vehicle Washing

*See permit attachment E for certification and log forms for Underground Storage Tanks.*

Vehicles are taken to Auto Shine Car Wash Center for washing.

4. Discharge of Stormwater from Secondary Containment

N/A

5. Salt and De-Icing Material Storage and Handling	
East Greenwich Township utilizes bulk salt and storage from regional Gloucester County salt shed Complexes.	
6. Aggregate Material and Construction Debris Storage	
N/A	
7. Street Sweepings, Catch Basin Clean Out and Other Material Storage	
N/A	
8. Yard Trimmings and Wood Waste Management Sites	
N/A	
9. Roadside Vegetation Management	
N/A	

## SPPP Form 11 – Employee Training

All records must be available upon request by NJDEP.

**A. Municipal Employee Training:** Stormwater Program Coordinator (SPC) must ensure appropriate staff receive training on topics in the chart below as required due to job duties assigned within three months of commencement of duties and again on the frequency below. Indicate the location of associated training sign in sheets, dates, and agendas or description for each topic.

Topic	Frequency	Title of trainer or office to conduct training
1. Maintenance Yard Operations (including Ancillary Operations)	Every year	Public Works Manager
2. Stormwater Facility Maintenance	Every year	Public Works Manager
3. SPPP Training & Recordkeeping	Every year	Public Works Manager
4. Yard Waste Collection Program	Every 2 years	Public Works Manager
5. Street Sweeping	Every 2 years	NA
6. Illicit Connection Elimination and Outfall Pipe Mapping	Every 2 years	Public Works Manager
7. Outfall Pipe Stream Scouring Detection and Control	Every 2 years	Public Works Manager
8. Waste Disposal Education	Every 2 years	Public Works Manager
9. Municipal Ordinances	Every 2 years	Township Clerk
10. Construction Activity/Post-Construction Stormwater Management in New Development and Redevelopment	Every 2 years	Township Engineer

**B. Municipal Board and Governing Body Members Training:** Required for individuals who review and approve applications for development and redevelopment projects in the municipality. This includes members of the planning and zoning boards, town council, and anyone else who votes on such projects. Training is in the form of online videos, posted at [www.nj.gov/dep/stormwater/training.htm](http://www.nj.gov/dep/stormwater/training.htm).

Within 6 months of commencing duties, watch *Asking the Right Questions in Stormwater Review Training Tool*. Once per term thereafter, watch at least one of the online DEP videos in the series available under Post-Construction Stormwater Management. Indicate the location of records documenting the names, video titles, and dates completed for each board and governing body member.

**C. Stormwater Management Design Reviewer Training:** All design engineers, municipal engineers, and others who review the stormwater management design for development and redevelopment projects on behalf of the municipality must attend the first available class upon assignment as a reviewer and every five years thereafter. The course is a free, two-day training conducted by DEP staff. Training dates and locations are posted at [www.nj.gov/dep/stormwater/training.htm](http://www.nj.gov/dep/stormwater/training.htm). Indicate the location of the DEP certificate of completion for each reviewer.

## SPPP Form 12 – Outfall Pipes

All records must be available upon request by NJDEP.

1. **Mapping:** Attach an image or provide a link to the most current outfall pipe map. Maps shall be updated at the end of each calendar year.

*Note that ALL maps must be electronic by 21 Dec 2020 via the DEP's designated electronic submission service. For details, see [http://www.nj.gov/dep/dwq/msrp\\_map\\_aid.htm](http://www.nj.gov/dep/dwq/msrp_map_aid.htm).*

2. **Inspections:** Describe the outfall pipe inspection schedule and indicate the location of records of dates, locations, and findings.

Outfall pipes are inspected annually by the Public Works Staff, and findings are reported on the inspection forms. Inspection records are kept at the Department of Public Works.

3. **Stream Scouring:** Describe the program in place to detect, investigate and control localized stream scouring from stormwater outfall pipes. Indicate the location of records related to cases of localized stream scouring. Such records must include the contributing source(s) of stormwater, recommended corrective action, and a prioritized list and schedule to remediate scouring cases.

Outfall pipes are inspected annually by the Public Works Department Staff, and findings are reported on the inspection forms. Inspection records are kept at the Department of Public Works. Outfall mapping is used to locate outfall pipes with signs of scouring. The data collected will include information on bank scour, which will be reported to our Stormwater Program Coordinator. Sites with stream scour will be placed on a prioritized list and repairs will be made in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey. In addition, repairs that do not need NJDEP permits for those repairs may be done first.

We will follow up each repair with an annual inspection of the site to ensure that scouring has not resumed.

4. **Illicit Discharges:** Describe the program in place for conducting visual dry weather inspections of municipally owned or operated outfall pipes. Record cases of illicit discharges using the DEP's Illicit Connection Inspection Report Form ([www.nj.gov/dep/dwq/tier\\_a\\_forms.htm](http://www.nj.gov/dep/dwq/tier_a_forms.htm)) and indicate the location of these forms and related illicit discharge records.

*Note that Illicit Connection Inspection Report Forms shall be included in the SPPP and submitted to DEP with the annual report.*

During inspections, the Township uses the NJ Department of Environmental Protection (NJDEP) Illicit Connection Inspection Report Form and stores them with the SPPP records. Any Outfall pipes that are found to have a dry weather flow or evidence of an intermittent non-stormwater flow will be rechecked again to locate the illicit connection. If unable to locate the illicit connection (and the connection is within the Township), the Township Code Official will cite the responsible party for being in violation of our Illicit Connection Ordinance, and will ensure the connection eliminated immediately. If, after the appropriate amount of investigation, the Township is unable to locate the sources of illicit connection, the Township will submit the Closeout Investigation Form with our Annual Inspection and Recertification. If an illicit connection is found to originate from another public entity, the Township will report the illicit connection to the NJDEP.

## SPPP Form 13 – Stormwater Facilities Maintenance

All records must be available upon request by NJDEP.

1. Detail the program in place for the long-term cleaning, operation and maintenance of each stormwater facility owned or operated by the municipality.

East Greenwich Township has implemented a stormwater facility maintenance program to ensure all stormwater facilities operated by the Township function properly. East Greenwich Township operates the following: catch basins, storm drains, infiltration basins, buffer strips and swales. These stormwater facilities will be inspected annually to ensure that they are functioning properly. In high risk areas, preventative maintenance will be performed on all stormwater facilities to ensure they do not begin to fail.

2. Detail the program in place for ensuring the long-term cleaning, operation and maintenance of each stormwater facility NOT owned or operated by the municipality.

Township conducts annual visual inspections and reports any concerns to zoning offices to enforce.

3. Indicate the location(s) of the Stormwater Facilities Inspection and Maintenance Logs listing the type of stormwater facilities inspected, location information, inspection dates, inspector name(s), findings, preventative and corrective maintenance performed.

96 East Rattling Run Rd., Mickleton New Jersey 08056

Note that maintenance activities must be reported in the annual report and records must be available upon request. DEP maintenance log templates are available at [http://www.nj.gov/dep/stormwater/maintenance\\_guidance.htm](http://www.nj.gov/dep/stormwater/maintenance_guidance.htm) (select specific logs from choices listed in the Field Manuals section).

*Additional Resources: The NJ Hydrologic Modeling Database contains information and maps of stormwater management basins. To view the database map, see <https://hydro.rutgers.edu>. To download data in an Excel format, see [https://hydro.rutgers.edu/public\\_data/](https://hydro.rutgers.edu/public_data/).*

## SPPP Form 14 – Total Maximum Daily Load Information

All records must be available upon request by NJDEP.

1. Using the Total Maximum Daily Load (TMDL) reports provided on [www.nj.gov/dep/dwg/msrp-tmdl-rh.htm](http://www.nj.gov/dep/dwg/msrp-tmdl-rh.htm), list adopted TMDLs for the municipality, parameters addressed, and the affected water bodies that impact the municipality's MS4 program.

See attached list of reports on website link for Edwards Run, Still Run, Nehonsey Creek and Mantua Creek.

2. Describe how the permittee uses TMDL information to prioritize stormwater facilities maintenance projects and to address specific sources of stormwater pollutants.

The current implemented programs for illicit connections, prohibition to wildlife feeding, catch basin cleaning, and ensuring compliance with water quality requirements for any Major Development addresses the problems, concerns and issues related to the affected downstream waterbodies for TMDL limits.

## SPPP Form 15 – Optional Measures

All records must be available upon request by NJDEP.

1. Describe any Best Management Practice(s) the permittee has developed that extend beyond the requirements of the Tier A MS4 NJPDES permit that prevents or reduces water pollution.

None

2. Has the permittee adopted a Refuse Container/Dumpster Ordinance?

Yes

Reply all | ▾ Delete Junk | ▾ ...



## [EXTERNAL] RE: agenda info



Marla Gaglione &lt;mgaglione@holstonlaw.com&gt;

Today, 3:41 PM

McGill, Elizabeth; Archer, Dale; Philbin, James; Rossett, Anthony; McCaffrey, Stepha ✕

Reply all | ▾

Inbox

Hi Beth,

As discussed yesterday, for the Stormwater Management Ordinance we can introduce the Stormwater Ordinance at our meeting next week, along with a motion to send to the Planning/Zoning Board for review and recommendation of adoption. They will recommend/vote upon at the March 16<sup>th</sup> meeting and then we will adopt at the March 23<sup>rd</sup> meeting.

As for the publication, you can publish the title, a brief summary, such as an Amendment to the Stormwater Management rules to reflect revisions from the New Jersey DEP rules at N.J.A.C. 7:8. Then publish full ordinance on our website and a copy in the clerk's office.

Any questions, let me know.

Thanks,  
Marla

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**From:** McGill, Elizabeth <EMcGill@eastgreenwichnj.com>**Sent:** Friday, February 19, 2021 10:28 AM**To:** Archer, Dale <DArcher@eastgreenwichnj.com>; Philbin, James <JPhilbin@eastgreenwichnj.com>; Bottiglieri, Stephen <SBottiglieri@eastgreenwichnj.com>; Schober, Rick <RSchober@eastgreenwichnj.com>; Tice, Robert <RTice@eastgreenwichnj.com>**Cc:** Marla Gaglione <mgaglione@holstonlaw.com>**Subject:** agenda info

Good morning,

Please see attachments regarding the February 23rd township meeting.

Thank you,

Beth



## ***Alaimo Group***

200 High Street, Mt. Holly, New Jersey 08060 Tel: 609-267-8310 Fax: 609-845-0300  
2 Market Street, Paterson, New Jersey 07501 Tel: 973-523-6200 Fax: 973-523-1765

March 10, 2021

**RECEIVED**

Theresa M. Ziegler, Principal Planner  
Gloucester County Planning Board  
1200 N. Delsea Drive  
Clayton, NJ 08312

MAR 15 2021

EAST GREENWICH TOWNSHIP  
CLERK'S OFFICE

RE: East Greenwich Township  
Updated Stormwater Control Ordinance  
Our File: A-1090-0062-000

Dear Theresa:

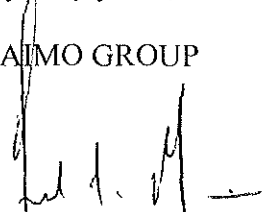
In accordance with the New Jersey Department of Environmental Protection (NJDEP) amended Stormwater Management Rules (N.J.A.C. 7:8-1 et seq), please find attached the updated East Greenwich Stormwater Control Ordinance to be adopted this month. The ordinance was prepared utilizing the NJDEP's Sample Municipal Stormwater Control Ordinance.

Further, this transmittal serves to fulfill the requirements of N.J.S.C. 7:8-4.4 (County review process) and N.J.S.A.40:55D-97 (Submission of the plan by municipalities; approval), as required by the Municipal Land Use Law (MLUL).

Should you have any questions or comments, please do not hesitate to contact us.

Very truly yours,

ALAIMO GROUP

  
\_\_\_\_\_  
Frank S. Morris, RE, CES, CPWM  
Senior Associate

FSM/DV

cc: Elizabeth McGill, Clerk, East Greenwich Township  
Anthony Rossett, Public Works Department Manager, East Greenwich Township

PUBLIC NOTICE

**TOWNSHIP OF EAST GREENWICH  
ORDINANCE NO. 2-2021**

**INTRODUCTION OF AN  
ORDINANCE OF THE  
TOWNSHIP OF GREENWICH,  
COUNTY OF GLOUCESTER, AND  
STATE OF NEW JERSEY  
ADOPTING A STORMWATER  
CONTROL ORDINANCE  
TO CONFORM WITH THE  
AMENDED  
STORMWATER MANAGEMENT  
RULES AT N.J.A.C. 7:8**

**View full ordinance at:  
[www.eastgreenwichnj.com](http://www.eastgreenwichnj.com)**

Cost: \$18.35  
2/27/2021 1T (9892905)

PUBLIC NOTICE

**TOWNSHIP OF EAST GREENWICH**

**ORDINANCE NO. 2-2021**

**AN ORDINANCE OF THE  
TOWNSHIP OF GREENWICH,  
COUNTY OF GLOUCESTER, AND  
STATE OF NEW JERSEY  
ADOPTING A STORMWATER  
CONTROL ORDINANCE  
TO CONFORM WITH THE  
AMENDED  
STORMWATER MANAGEMENT  
RULES AT N.J.A.C. 7:8**

Notice is hereby given that the  
above entitled ordinance was adopted  
by East Greenwich Township Committee  
at a meeting held on March 23, 2021.

Elizabeth McGill  
Township Clerk

Cost: \$24.19  
3/26/2021 1T (9921088)