ORDINANCE 0005 - 2021

WASHINGTON TOWNSHIP
GLOUCESTER COUNTY

ORDINANCE OF THE TOWNSHIP OF WASHINGTON, COUNTY OF GLOUCESTER, STATE OF NEW JERSEY, AMENDING CHAPTER 214 OF THE CODE OF THE TOWNSHIP OF WASHINGTON ENTITLED "STORMWATER MANAGEMENT"

WHEREAS, the Township of Washington ("Township") is a municipal entity organized and existing under the laws of the State of New Jersey and located in the County of Gloucester; and

WHEREAS, Chapter 214 of the Code of the Township, entitled "Stormwater Management" establishes the Township's minimum stormwater management requirements and controls for major development; and

WHEREAS, N.J.A.C. 7:8 was recently amended to revise statutory minimum requirements; and

WHEREAS, the Governing Body of the Township has determined that Chapter 214 of the Township Code should be amended to comply with the amended minimum standards set forth in N.J.A.C. 7:8; and

WHEREAS, pursuant to N.J.S.A. 40:48-2, the Governing Body is authorized to enact and amend ordinances as deemed necessary for the preservation of the public health, safety and welfare and as may be necessary to carry into effect the powers and duties conferred and imposed upon the Township by law.

NOW, THEREFORE, BE IT ORDAINED by the Mayor and Township Committee of the Township of Washington, County of Gloucester, State of New Jersey as follows.

SECTION 1. Chapter 214 entitled "Stormwater Management" is hereby amended and replaced with new Chapter 214 entitled "Stormwater Management" and which shall provide as follows:

§ 214-1. Scope and purpose.

A. Policy Statement

1. 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.

1. It is hereby determined that:

a. Land development projects and associated disturbance of vegetation and soil and changes in land cover, including increases in impervious cover, alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes. If inadequately or improperly managed, this stormwater runoff can deplete groundwater resources and increase flooding, stream channel erosion, and sediment transport and deposition.

b. This stormwater runoff contributes to increased quantities of waterborne pollutants.

c. Increases of stormwater runoff, soil erosion and nonpoint- source pollutants have occurred in the past as a result of land development, and contribute to the degradation of the water resources of the Township of Washington.

d. The Township of Washington's natural resources are to be protected in accordance with New Jersey's Stormwater Management Rules at N.J.A.C. 7:8-1.1 et seq., and New Jersey's surface water quality antidegradation policies contained in the New Jersey Surface Water Quality Standards at N.J.A.C. 7:9B-1.1 et seq. Permitted uses shall maintain the ecological character and quality of the Township of Washington, including good water quality and natural rates and volumes of flow.

e. Increased stormwater rates and volumes and the sediments and pollutants associated with stormwater runoff from future development projects within the Township of Washington have the potential to adversely affect the Township of Washington's streams and water resources and the streams and water resources of downstream municipalities.

f. Stormwater runoff, soil erosion and nonpoint-source pollution can be controlled and minimized through the regulation of stormwater runoff from development sites.

g. It is in the public interest to regulate the discharge of stormwater runoff from major development projects, as defined in § 214-7 of this chapter, conducted within the Township of Washington, as provided in this chapter, in order to control and minimize increases in stormwater runoff rates and volumes, to maintain groundwater recharge, and to control and minimize soil erosion, stream channel erosion and nonpoint-source pollution associated with stormwater runoff.

h. Therefore, it is the purpose of this chapter to establish minimum stormwater management requirements and controls for major development consistent with the statewide stormwater requirements at N.J.A.C. 7:8 and the provisions of the adopted Master Plan and land use ordinances of the Township of Washington.

C. Goals and techniques.

1. Through this chapter, the Township of Washington has established the following goals for stormwater control:

a. To reduce flood damage, including damage to life and property;

b. To minimize any increase in stormwater runoff from new development;

c. To reduce soil erosion from any development or construction project;

d. To assure the adequacy of existing and proposed culverts and bridges, and other instream structures;

e. To maintain groundwater recharge;

f. To minimize any increase in nonpoint pollution;

g. To maintain the integrity of stream channels for their biological functions, as well as for drainage;

h. To restore, protect, maintain and enhance the quality of the streams and water resources and the ecological character and quality of the Township of Washington;

i. To minimize pollutants in stormwater runoff from new and existing development in order to restore, protect, enhance and maintain the chemical, physical and

biological integrity of the f surface waters and groundwaters of the Township of Washington, to protect public health and to enhance the domestic, municipal, recreational, industrial and other uses of water; and

j. To protect public safety through the proper design and operation of stormwater management basins.

k. To incorporate green infrastructure to meet the minimum standards for groundwater recharge, stormwater quality, and stormwater runoff quantity.

2. In order to achieve the goals for stormwater control set forth in this chapter, the Township of Washington has identified the following management techniques:

a. Implementation of multiple stormwater management best management practices (BMPs) may be necessary to achieve the performance standards for stormwater runoff quantity and rate, groundwater recharge, erosion control, and stormwater runoff quality established through this chapter.

b. Compliance with the stormwater runoff quantity and rate, groundwater recharge, erosion control, and stormwater runoff quality standards established through N.J.A.C. 7:8-1.1 et seq., and this chapter, shall be accomplished to the maximum extent practicable through the use of nonstructural BMPs, before relying on structural BMPs. Nonstructural BMPs are also known as low-impact development (LID) techniques.

c. Nonstructural BMPs shall include both environmentally sensitive site design and source controls that prevent pollutants from being placed on the site or from being exposed to stormwater.

d. Source control plans shall be developed based upon physical site conditions and the origin, nature and the anticipated quantity or amount of potential pollutants.

e. Structural BMPs, where necessary, shall be integrated with nonstructural stormwater management strategies and proper maintenance plans.

f. When using structural BMPs, multiple stormwater management measures, smaller in size and distributed spatially throughout the land development site, shall be used wherever possible to achieve the performance standards for water quality, quantity and groundwater recharge established through this chapter before relying on a single, larger stormwater management measure to achieve these performance standards.

D. Applicability

1. This chapter shall be applicable to all site plans and subdivisions for the following major developments that require preliminary or final site plan or subdivision review:

a. Nonresidential major developments; and

b. Aspects of residential major developments that are not preempted by the Residential Site Improvement Standards at N.J.A.C 5:21.

2. This chapter shall also be applicable to all major developments undertaken by the Township of Washington.

E. Procedures. In addition to other development review procedures set forth in the Code of the Township of Washington, major developments located within the Township of Washington shall comply with the stormwater management requirements and specifications set forth in this chapter. New agricultural development that meets the definition of major development in § 214-7 of this chapter shall be submitted to the appropriate Soil Conservation District for review and approval in accordance with the requirements of N.J.A.C. 5.4(b) 7:8. 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.

F. Compatibility with other permit and ordinance requirements.

1. Development approvals issued for subdivisions and site plans pursuant to this chapter are to be considered an integral part of development approvals under the subdivision and site plan review process and do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by any other applicable ordinance, code, rule, regulation, statute, act or other provision of law.

2. In their interpretation and application, the provisions of this chapter shall be held to be the minimum requirements for the promotion of the public health, safety, and general welfare. This chapter 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 chapter imposes restrictions different from those imposed by any other ordinance, rule or regulation, or other provision of law, the more restrictive or stringent provisions or higher standards shall control.

3. In the event that a regional stormwater management plan(s) is prepared and formally adopted pursuant to N.J.A.C. 7:8-1.1 et seq., for any drainage area(s) or watershed(s) of which the Township of Washington is a part, the stormwater provisions of such a plan(s) shall be adopted by the Township of Washington within one year of the adoption of a regional stormwater management plan (RSWMP) as an amendment to an areawide water quality management plan.

§ 214-2. Requirements for a site development stormwater plan.

A. Submission of site development stormwater plan.

1. Whenever an applicant seeks municipal approval of a site development that is subject to this chapter, the applicant shall submit all of the required components of the checklist for the site development stormwater plan at § 214-2C below as part of the applicant's application for subdivision or site plan approval. Any and all existing stormwater related checklist items are hereby superseded by this chapter. These required components are in addition to any other nonstormwater-related information required under any provisions of the Township of Washington's land use ordinance (See Ch. 125, Land Use Procedures.)

2. The applicant shall demonstrate that the site development project meets the standards set forth in this chapter.

3. The applicant shall submit six copies of the materials listed in the checklist for site development stormwater plans in accordance with § 214-2C of this chapter.

B. Site development stormwater plan approval.

1. The applicant's site development stormwater plan shall be reviewed as a part of the subdivision or site plan review process by the municipal board or official from whom municipal approval is sought. That municipal board or official shall consult the engineer retained by the Planning and/or Zoning Board (as appropriate) to determine if all of the checklist requirements have been satisfied and to determine if the project meets the standards set forth in this chapter.

C. Adverse Impacts. 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 muhlnebergi* (bog turtle).

D. Any stormwater management measure authorized under the municipal stormwater management plan or ordinance shall be reflected in a deed notice recorded with Washington Township. 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 §214.5C 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 §214.2. 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.

E. 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 §214.4,5 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 Township of Washington and shall contain a description and location of the stormwater management measure, as well as reference to the maintenance plan, in accordance with F 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 F above.

F. Checklist requirements. Any application for approval of a major development shall include at least the following information.

1. Topographic base map. The applicant shall submit a topographic base map of the site which extends a minimum of 200 feet beyond the limits of the proposed development, at a scale of one inch equals 200 feet or greater, showing two-foot contour intervals. The map shall indicate the following: existing surface water drainage, shorelines, steep slopes, soils, highly erodible soils, perennial or intermittent streams that drain into or upstream of any Category One waters, wetlands and floodplains along with their appropriate buffer strips, marshlands and other wetlands, groundwater recharge areas, wellhead protection areas, pervious or vegetative surfaces, existing surface and subsurface human-made structures, roads, bearing and distances of property lines, and significant natural and man-made features not otherwise shown. The Township of Washington may require upstream tributary drainage system information, as necessary.

2. Environmental site analysis. The applicant shall submit a written description along with the drawings of the natural and human- made features of the site and its environs. This description should include:

   a. A discussion of environmentally critical areas, 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 for or constraints on development; and

   b. Detailed soil and other environmental conditions on the portion of the site proposed for installation of any stormwater BMPs, including, at a minimum: soils report based on on-site soil tests; locations and spot elevations in plain view of test pits and permeability tests; permeability test data and calculations; and any other required soil data (e.g., mounding analyses results) correlated with location and elevation of each test site; cross section of proposed stormwater BMP with side-by-side depiction of soil profile drawn to scale and seasonal high water table elevation identified; and any other information necessary to demonstrate the suitability of the specific proposed structural and nonstructural stormwater management measures relative to the environmental conditions on the portion(s) of the site proposed for implementation of those measures.

3. Project description and site plan(s). The applicant shall submit 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.

   a. The applicant shall submit a detailed land use planning and source control plan which provides a description of how the site will be developed to meet the erosion control, groundwater recharge and stormwater runoff quantity and quality standards at § 214-4 through use of nonstructural or low-impact development techniques and source controls to the maximum extent practicable before relying on structural BMPs. The land use planning and source control plan shall include a detailed narrative and associated illustrative maps and/or plans that specifically address how each of the following nine nonstructural strategies identified in Subchapter 5 of the NJDEP Stormwater Management Rules (N.J.A.C. 7:8-5) and set forth below, Subsection C(4)(a)[1] through [9], will be implemented to the maximum extent practicable to meet the standards at § 214-4 of this chapter on the site. If one or more of the nine nonstructural strategies will not be implemented on the site, the applicant shall provide a detailed rationale establishing a basis for the contention that use of the strategy is not practicable on the site for engineering, environmental or safety reasons.

      [1] Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment loss;

      [2] Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces;

      [3] Maximize the protection of natural drainage features and vegetation;

      [4] Minimize the decrease in the time of concentration from predeveloped to post developed conditions;

      [5] Minimize land disturbance including clearing and grading;

      [6] Minimize soil compaction and all other soil disturbance;

      [7] Provide low-maintenance landscaping that provides for the retention and planting of native plants and minimizes the use of lawns, fertilizers and pesticides;

      [8] Provide vegetated open-channel conveyance systems discharging into and through stable vegetated areas; and

      [9] Provide other source controls to prevent or minimize the use or exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runoff. These source controls shall include, but are not limited to:

         [a] Site design features that help to prevent accumulation of trash and debris in drainage systems;

         [b] Site design features that help to prevent discharge of trash and debris from drainage systems;

         [c] Site design features that help to prevent and/or contain spills or other harmful accumulations of pollutants at industrial or commercial developments; and

         [d] Applying fertilizer in accordance with the requirements established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq., and implementing rules, when establishing vegetation after land disturbance.

   b. For sites where stormwater will be generated from "high pollutant loading areas" or where stormwater will be exposed to "source material," as defined in § 214-7

of this chapter, the applicant shall also demonstrate in the land use planning and source control plan that the requirements of § 214-4 have been met.

c. The use of nonstructural strategies to meet the performance standards in § 214-4 of this chapter is not required for development sites creating less than one acre of disturbance. However, each application for major development and any other application where the Township of Washington otherwise requires a landscaping plan shall contain a landscaping or revegetation plan. In addition, the applicant shall demonstrate that, at a minimum, existing trees and vegetation on the development site will be preserved and protected according to the minimum standards established by provisions of the Township of Washington Land Use Ordinance, Zoning Ordinance (See Ch. 125, Land Use Procedures, and Ch. 285, Zoning, respectively) or by conditions of zoning or variance approval.

5. Stormwater management facilities map. The applicant shall submit a map, at the same scale as the topographic base map, depicting the following information:

   a. The total area to be disturbed, paved and/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 manage and dispose of stormwater; and

   b. Details of all stormwater management facility designs, during and after construction, including discharge provisions, discharge capacity for each outlet at different levels of detention (if applicable) and emergency spillway provisions with maximum discharge capacity of each spillway.

6. Calculations (groundwater recharge and stormwater runoff rate, volume and quality). The applicant shall submit comprehensive hydrologic and hydraulic design calculations for the predevelopment and post development conditions for the design storms specified in § 214-3. The standards for groundwater recharge and stormwater runoff rate, volume and quality required by § 214-4 shall be met using the methods, calculations and assumptions provided in § 214-3. 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. Inspection, maintenance and repair plan. The applicant shall submit a detailed plan describing how the proposed stormwater management measure(s) shall meet the maintenance and repair requirements of § 214-6 of this chapter. Said plan shall include, at a minimum, the following elements:

   a. The frequency with which inspections will be made;

   b. The specific maintenance tasks and requirements for each proposed structural and nonstructural BMP;

   c. The name, address and telephone number for the entity responsible for implementation of the maintenance plan;

   d. The reporting requirements;

   e. Information on BMP Location, design, ownership, and other details as specified in Chapter 8 of the New Jersey BP Manual, as well as tasks specific to the type of BMP, as described in the applicable chapter containing design specifics.

   f. Copies of the inspection and maintenance reporting sheets;

   g. Accurate and comprehensive drawings of the site's stormwater management measures;

   h. Specific locations of each stormwater management measure identified by means of longitude and latitude as well as block and lot number; and

i. Cost estimates, including estimated cost of sediment, debris or trash removal.

8. Exception from submission requirements. An exception may be granted from submission of any of these required components, except Subsection C (7) above, Inspection, maintenance, and repair plan, if its absence will not materially affect the review process.

§ 214-3. Methodologies for the calculation of stormwater runoff rate and volume, stormwater runoff quality, and groundwater recharge.

A. Method of calculating stormwater runoff rate and volume.

1. In complying with the stormwater runoff quantity and rate standards in § 214-4B, the design engineer shall calculate the stormwater runoff rate and volume using the USDA Natural Resources Conservation Service (NRCS) Runoff Equation, Runoff Curve Numbers, and Dimensionless Unit Hydrograph, as described in the NRCS National Engineering Handbook Part 630 — Hydrology and Technical Release 55 — Urban Hydrology for Small Watersheds, as amended and supplemented, or 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. See §214-12.

2. In calculating stormwater runoff using the NRCS methodology, the design engineer shall separately calculate and then combine the runoff volumes from pervious and directly connected impervious surfaces within a drainage area.

3. Calculation of stormwater runoff from unconnected impervious surfaces shall be based, as applicable, upon the Two-Step Method described in the current New Jersey Stormwater Best Management Practices Manual or the NRCS methodology.

4. In calculating stormwater runoff using the NRCS methodology, the design engineer shall use appropriate twenty-four-hour rainfall depths as developed for the project site by the National Oceanic and Atmospheric Administration, available online at http://hdsc.nws.noaa.gov/hdsc/pfds/index.html.

5. When calculating stormwater runoff for predeveloped site conditions, the design engineer shall use the following criteria:

a. When selecting or calculating runoff curve numbers (CNs) for predeveloped project site conditions, the project site's land cover shall be assumed to be woods in good condition. However, another land cover may be used to calculate runoff coefficients if:

[1] Such land cover has existed at the site or portion thereof without interruption for at least five years immediately prior to the time of application; and

[2] The design engineer can document the character and extent of such land cover through the use of photographs, affidavits, and/or other acceptable land use records.

b. 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 §214.3A. i and the Rational and Modified Rational Methods at §214.3. A. 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 has 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.

c. If more than one land cover has 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.

d. All predeveloped land covers shall be assumed to be in good hydrologic condition and, if cultivated, shall be assumed to have conservation treatment.

e. In calculating predeveloped site stormwater runoff, the design engineer shall include the effects of all land features and structures, such as ponds, wetlands, depressions, hedgerows, and culverts, which affect predeveloped site stormwater runoff rates and/or volumes.

f. Where tailwater will affect the hydraulic performance of a stormwater management measure, the design engineer shall include such effects in the measure's design.

B. Method of calculating stormwater runoff quality.

1. In complying with the stormwater runoff quality standards in § 214-4F(1), the design engineer shall calculate the stormwater runoff rate and volume using the USDA Natural Resources Conservation Service (NRCS) runoff equation, runoff curve numbers, and dimensionless unit hydrograph, as described in the NRCS National Engineering Handbook Part 630 - Hydrology and Technical Release 55 - Urban Hydrology for Small Watersheds, as amended and supplemented, or the Rational Method for peak flow and the Modified Rational Method for hydrograph computations, so long as the Delmarva hydrograph is employed.

2. The design engineer shall also use the NJDEP water quality design storm, which is 1.25 inches of rainfall falling in a nonlinear pattern in two hours. Details of the water quality design storm are shown in Table 1.

3. Calculation of runoff volumes, peak rates, and hydrographs for the water quality design storm may take into account the implementation of nonstructural and structural stormwater management measures.

Table 1 – Water Quality Design Storm Distribution

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

4. Total suspended solids (TSS) reduction calculations.

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

      R = A + B - (A x B)/100, where:
      R = total TSS percent load removal from application of both BMPs;
      A = the TSS percent removal rate applicable to the first BMP; and
      B = the TSS percent removal rate applicable to the second BMP.

   b. If there is more than one on-site drainage area, the eighty- percent TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site, in which case the removal rate can be demonstrated through a calculation using a weighted average.

5. TSS removal rates for stormwater BMPs.

   For purposes of TSS reduction calculations, Tables 2-4 present the presumed removal rates for certain BMPs designed in accordance with the New Jersey BMP Manual. The BMP Manual may be obtained from the address identified in

   a. § 214-12A or found on the NJDEP's Web site at www.njstormwater.org. TSS reduction shall be calculated based on the removal rates for the BMPs in Table 2-4.

   b. 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.

   c. 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.

   d. Alternative stormwater management measures, removal rates and methods of calculating removal rates may be used if the design engineer provides documentation demonstrating the capability of these alternative rates and methods to the Township of Washington. Any alternative stormwater management measure, removal rate or method of calculating the removal rate shall be subject to approval by the Township of Washington and a copy shall be provided to the following:

      [1] The Division of Watershed Management, New Jersey Department of Environmental Protection, PO Box 418, Trenton, NJ, 08625-0418.

   e. Alternative stormwater management measures may be used to satisfy the requirements at §214.5 C only if the measures meet the definition of green infrastructure at §214.7. Alternative stormwater management measures that function in a similar manner to a BMP listed at §214.5C.2 are subject to the contributory drainage area limitation specified at §214.5C.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 §214.5C.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 §214.4G.2 is granted from §214.5C.

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

(Notes corresponding to annotations (a) through (g) are found on Page 214:23)

Table 3
Green Infrastructure BMPs for Stormwater Runoff Quantity (or for Groundwater Recharge and/or Runoff Quality with waiver or Variance from N.J.A.C. 7:8-5.3)

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

(Notes corresponding to annotations (b) through (d) are found on Page 214:23)

Table 4 BMPs for Groundwater Recharge, Stormwater Runoff Quality, and/or Stormwater Runoff Quantity Only with a Waiver or variance from N.J.A.C. 7:8-5.3				
Best Management Practice	Stormwater Runoff Quality TSS Removal Rate (percent)	Stormwater Runoff Quantity	Groundwater Recharge	Minimum Separation from Seasonal High Water Table (feet)
Blue Roof	0	Yes	No	N/A
Extended Detention Basin	40-60	Yes	No	1
Manufactured Treatment Device[h]	50 or 80	No	No	Dependent upon the device
Sand Filter[c]	80	Yes	No	
Subsurface Gravel Wetland	90	No	No	1
Wet Pond	50-90	Yes	No	N/A

Notes to Tables 2, 3, and 4:

(a) subject to the applicable contributory drainage area limitation specified at § 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 §214.7;

(h) manufactured treatment devices that do not meet the definition of green infrastructure at §214.7.

6. Nutrient removal rates for stormwater BMPs. For purposes of post development nutrient load reduction calculations, Tables 2-4 presents the presumed removal rates for certain. BMPs designed in accordance with the New Jersey BMP Manual. If alternative stormwater BMPs are proposed, the applicant shall demonstrate that the selected BMPs will achieve the nutrient removal standard required in § 214-4F.

C. Methods of calculating groundwater recharge.

1. In complying with the groundwater recharge requirements in § 214-4C(1)(a), the design engineer may calculate groundwater recharge in accordance with the New Jersey Groundwater Recharge Spreadsheet (NJGRS) computer program incorporated herein by reference, as amended and supplemented. Information regarding the methodology is available in § 214-11A or from the New Jersey BMP Manual.

2. Alternative groundwater recharge calculation methods to meet these requirements may be used upon approval by the Municipal Engineer.

3. In complying with the groundwater recharge requirements in § 214-4C(1)(b), the design engineer shall:

   a. Calculate stormwater runoff volumes in accordance with the USDA Natural Resources Conservation Service (NRCS) methodology, including the NRCS Runoff Equation and Runoff Curve Numbers, as described in the NRCS National Engineering Handbook Part 630 — Hydrology and Technical Release 55 — Urban Hydrology for Small Watersheds, as amended and supplemented; and

   b. Use appropriate two-year, twenty-four-hour rainfall depths as developed for the project site by the National Oceanic and Atmospheric Administration, available online at http://hdsc.nws.noaa.gov/hdsc/pfds/index.html.

4. When calculating groundwater recharge or stormwater runoff for predeveloped site conditions, the design engineer shall use the following criteria:

   a. When selecting land covers or calculating runoff curve numbers (CNs) for predeveloped project site conditions, the project site's land cover shall be assumed to be woods. However, another land cover may be used to calculate runoff coefficients if:

      [1] Such land cover has existed at the site or portion thereof without interruption for at least five years immediately prior to the time of application; and
      [2] The design engineer can document the character and extent of such land cover through the use of photographs, affidavits, and/or other acceptable land use records.

   b. If more than one land cover, other than woods, has existed on the site during the five years immediately prior to the time of application, the land cover with the lowest runoff potential (including woods) shall be used for the computations.
   c. All predeveloped land covers shall be assumed to be in good hydrologic condition and, if cultivated, shall be assumed to have conservation treatment.

§ 214-4. Stormwater management performance standards for major development.

A. Nonstructural stormwater management strategies.

1. To the maximum extent practicable, the performance standards in § 214-4 for major development shall be met by incorporating the nine nonstructural strategies identified in Subchapter 5 of the New Jersey Stormwater Management Rules (N.J.A.C. 7:8-5), and set forth in § 214-2C(4)(a), into the design. The applicant shall identify within the land use planning and source control plan required by § 214-2C (4) of this chapter how each of the nine nonstructural measures will be incorporated into the design of the project to the maximum extent practicable.

2. If the applicant contends that it is not practical for engineering, environmental or safety reasons to incorporate any of the nine nonstructural strategies into the design of a particular project, the applicant shall provide a detailed rationale establishing a basis for the contention that use of the strategy is not practical on the site. This

rationale shall be submitted in accordance with the checklist requirements established by § 214-2 to the Township of Washington. A determination by the Township of Washington that this rationale is inadequate or without merit shall result in a denial of the application unless one of the following conditions are met:

a. The land use planning and source control plan is amended to include a description of how all nine nonstructural measures will be implemented on the development site, and the amended plan is approved by the Township of Washington;

b. The land use planning and source control plan is amended to provide an alternative nonstructural strategy or measure that is not included in the list of nine nonstructural measures, but still meets the performance standards in § 214-4, and the amended plan is approved by the Township of Washington; or

c. The land use planning and source control plan is amended to provide an adequate rationale for the contention that use of the particular strategy is not practical on the site, and the amended plan is approved by the Township of Washington.

3. In addition to all other requirements of this section, each applicant shall demonstrate that, at a minimum, existing trees and vegetation on the development site will be preserved, protected and maintained according to the minimum standards established by provisions of the Township of Washington Land Use Ordinance, Zoning Ordinance (See Ch. 125 Land Use Procedures, and Ch. 285, Zoning, respectively) or by conditions of zoning or variance approval. Existing trees and vegetation shall be protected during construction activities in accordance with the standard for tree protection during construction provided in the New Jersey State Soil Conservation Committee Standards for Soil Erosion and Sediment Control in New Jersey, which is incorporated herein by reference, as amended and supplemented.

4. In addition to all other requirements of this section, each application for major development, and any other application where the Township of Washington otherwise requires a landscaping plan, shall contain a landscaping or revegetation plan.

5. Any land area used as a nonstructural stormwater management measure to meet the performance standards in § 214-4 shall be dedicated to a government entity; shall be subjected to a conservation easement filed with the appropriate county clerk's office; or shall be subjected to an equivalent form of restriction approved by the Township of Washington that ensures that that measure, or equivalent stormwater management measure, is maintained in perpetuity, as detailed in § 214-6 of this chapter.

6. Guidance for nonstructural stormwater management strategies is available in the New Jersey BMP Manual, which may be obtained from the address identified in § 214-12A or found on the NJDEP's Web site at www.njstormwater.org.

7. Exception for major development sites creating less than one acre of disturbance. The use of nonstructural strategies to meet the performance standards in § 214-4 of this chapter is not required for major development creating less than one acre of disturbance. However, the following requirements shall be met:

a. Each application for major development and any other application where the Township of Washington otherwise requires a landscaping plan shall contain a landscaping or revegetation plan;

b. Each applicant shall demonstrate that, at a minimum, existing trees and vegetation on the development site will be preserved and protected according to the minimum standards established by provisions of the Township of Washington Land Use Ordinance, Zoning Ordinance or by conditions of zoning or variance approval; and

c. Existing trees and vegetation shall be protected during construction activities in accordance with the standard for tree protection during construction provided in the New Jersey State Soil Conservation Committee Standards for Soil Erosion and Sediment Control in New Jersey, which is incorporated herein by reference, as

amended and supplemented.

8. In addition to any and all other requirements of this section, groundwater recharge from high pollutant loading areas and areas where stormwater will be exposed to source materials is hereby prohibited.

B. Stormwater runoff quantity and rate standards.

1. The design engineer, using the assumptions and factors for stormwater runoff and groundwater recharge calculations contained in §214.4,5, shall either:

a. Demonstrate through hydrologic and hydraulic analysis that the post developed stormwater runoff hydrographs from the project site for the two-, ten-, and one-hundred-year storms do not exceed, at any point in time, the site's predeveloped runoff hydrographs for the same storms;

b. Demonstrate through hydrologic and hydraulic analysis that under post developed site conditions:

[1] There is no increase from predeveloped to post developed stormwater runoff rates from the project site for the two-, ten-, and one-hundred-year storms; and

[2] Any increased stormwater runoff volume or change in stormwater runoff timing for the two-, ten-, and one- hundred-year storms will not increase flood damage at or downstream of the project site. When performing this analysis for predeveloped site conditions, all off-site development levels shall reflect existing conditions. When performing this analysis for post developed site conditions, all off-site development levels shall reflect full development in accordance with current zoning and land use ordinances; or

c. Demonstrate that the peak post developed stormwater runoff rates from the project site for the two-, ten-, and one-hundred- year storms are 50%, 75% and 80%, respectively, of the site's peak predeveloped stormwater runoff rates for the same storms. Peak outflow rates from on-site stormwater measures for these storms shall be adjusted where necessary to account for the discharge of increased stormwater runoff rates and/or volumes from project site areas not controlled by the on-site measures. These percentages do not have to be applied to those portions of the project site that are not proposed for development at the time of application, provided that such areas are:

[1] Protected from future development by imposition of a conservation easement, deed restriction, or other acceptable legal measures; or

[2] Would be subject to review under these standards if they are proposed for any degree of development in the future.

2. In tidal flood hazard areas, a stormwater runoff quantity analysis in accordance with Subsection B(1)(a), (b) and (c) above shall only be applied if the increased volume of stormwater runoff could increase flood damages below the point of discharge.

3. The standards for stormwater runoff quantity and rate required by this section shall be met using the methods, calculations and assumptions provided in §214-3.

4. The stormwater runoff quantity standards shall be applied at the site's boundary to each abutting lot, roadway, watercourse, or receiving storm sewer system.

C. Groundwater recharge standards.

1. For all major developments, with the exception of those described in § 214-4C (4), below, the design engineer, using the assumptions and factors for stormwater runoff and groundwater recharge calculations contained in § 214-3, shall either:

a. Demonstrate through hydrologic and hydraulic analysis that the post developed project site maintains 100% of the site's predeveloped average annual groundwater recharge volume; or

b. Demonstrate through hydrologic and hydraulic analysis that any increase in the project site's stormwater runoff volume for the two-year, twenty-four-hour storm from predeveloped to post developed conditions is infiltrated on site

2. The design engineer shall assess the hydraulic impact on the groundwater table and design the project site and all site groundwater recharge measures so as to avoid adverse hydraulic impacts. Adverse hydraulic impacts include, but are not limited to: raising the groundwater table so as to cause surface ponding; flooding of basements and other subsurface structures and areas; preventing a stormwater infiltration basin from completely draining via infiltration within 72 hours of a design storm event; and interference with the proper operation of subsurface sewage disposal systems and other surface and subsurface facilities in the vicinity of the groundwater recharge measure.

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

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

   a. 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

   b. 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.

5. The standards for groundwater recharge required by this section shall be met using the methods, calculations and assumptions provided in § 214-3.

6. Exceptions.

   a. The preceding groundwater recharge standards shall not apply to sites that create less than one acre of disturbance.

D. Erosion control standards. The minimum design and performance standards for erosion control are those established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq., and its implementing regulations, N.J.A.C. 2:90-1.1 through 1.4. The minimum standards for groundwater recharge, stormwater quality, and stormwater runoff quantity shall be met by incorporating green infrastructure.

E. Stormwater runoff quality standards.

1. Stormwater management measures shall be designed to reduce the total suspended solids (TSS) load in the stormwater runoff from the post developed site by 80% expressed as an annual average.

2. 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. 1

4. Stormwater management measures shall also be designed to reduce the nutrient load in the stormwater runoff from the post developed site by the maximum extent practicable. In achieving this reduction, the design of the development site shall include nonstructural and structural stormwater management measures that optimize nutrient removal while still achieving the groundwater recharge, runoff quantity and rate, and TSS removal standards in this section.

5. The standards for stormwater runoff quality required by this section shall be met using the methods, calculations, assumptions and pollutant removal rates provided in § 214-3.

6. Exceptions.

   a. The preceding stormwater runoff quality standards shall not apply to the following major development sites:

      [1] Major development sites where less than 0.25 acre of additional impervious surface is proposed; or

      [2] Major residential development sites that create less than one acre of disturbance.

   b. The TSS reduction requirement in § 214-4F (2) shall not apply to any stormwater runoff in a discharge regulated under a numeric effluent limitation for TSS imposed under the NJPDES rules (N.J.A.C. 7:14A) or in a discharge specifically exempt under a NJPDES permit from this requirement.

   c. The stormwater runoff quantity and rate standards in § 214-4B shall still be met for all major development sites.

F. Threatened and endangered species and associated habitat standards. Stormwater management measures shall avoid adverse impacts of the development on habitat for threatened and endangered species, in accordance with N.J.A.C. 7:8-5.2(c).

G. Exemptions, exceptions and mitigation requirements.

1. The following linear development projects are exempt from the groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements established by this chapter:

   a. The construction of an underground utility line, provided that the disturbed areas are revegetated upon completion;

   b. The construction of an aboveground utility line, provided that the existing conditions are maintained to the maximum extent practicable; and

   c. 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.

2. Exceptions from strict compliance from the green infrastructure, groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements established by this chapter may be granted, at the discretion of the Township of Washington, for the enlargement of an existing public roadway or railroad, or the construction or enlargement of a public pedestrian access, provided that all of the

following conditions are met:

a. The applicant demonstrates that there is a public need for the project that cannot be accomplished by other means;

b. The applicant demonstrates through an alternatives analysis that, through the use of nonstructural and structural stormwater management strategies and measures, the option selected complies with the requirements established by this chapter to the maximum extent practicable;

c. The applicant demonstrates that, in order to meet the requirements established by this chapter, existing structures currently in use, such as homes and buildings, would need to be condemned; and

d. 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 Subsection G(2)(c) above within the upstream drainage area of the receiving stream, that would provide additional opportunities to meet the requirements established by this chapter.

3. Exceptions from strict compliance from the groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements established by this chapter may be granted, at the discretion of the Township of Washington, provided that all of the following conditions are met:

a. The exception is consistent with that allowed by the Township of Washington as determined by the Township Engineer.

b. The Township of Washington has an adopted and effective municipal stormwater management plan in accordance with N.J.A.C. 7:8-4.4, which includes a mitigation plan in accordance with N.J.A.C. 7:8-4.2(c)11. The mitigation plan shall identify what measures are necessary to offset the deficit created by granting the exception and the municipality shall submit a written report to the county review agency and the NJDEP describing the exception and the required mitigation. Guidance for developing municipal stormwater management plans, including mitigation plans, is available from the NJDEP, Division of Watershed Management and the New Jersey BMP Manual.

c. The applicant demonstrates that mitigation, in addition to the requirements of mitigation plan discussed in Subsection G(3)(b) above, will be provided, consistent with one of the following options:

[1] Mitigation may be provided off-site, but within the Township of Washington and within the same drainage area as the development site, and shall meet or exceed the equivalent recharge, quality or quantity performance standard which is lacking on the development site due to the exception; or

[2] In lieu of the required mitigation, a monetary in lieu contribution may be provided by the applicant to the Township of Washington and held in a restricted use fund in accordance with the following:

[a] The amount of the in-lieu contribution shall be determined by the Township of Washington, but the minimum in lieu contribution required shall be equivalent to the cost of implementing and maintaining the stormwater management measure(s) which will be implemented as a mitigation project(s);

[b] The in-lieu contribution shall be used to fund an off- site stormwater control mitigation project(s) located within the Township of Washington, within the same drainage area as the development site, and shall meet or exceed the equivalent recharge, quality or quantity performance standard which is lacking on the development site. Such mitigation project shall be identified by the Township of Washington in the Township of Washington's adopted municipal stormwater management plan. The stormwater control project to which the monetary contribution will be applied shall be identified by the Township of

Washington at the time the exception is granted. The applicant shall amend the project description and site plan required in § 214-2(3) to incorporate a description of both the standards for which an on-site exception is being granted and of the selected off-site mitigation project.

[c] The Township of Washington shall expend the in-lieu contribution to implement the selected off-site mitigation project within five years from the date that payment is received. Should the Township of Washington fail to expend the in-lieu contribution within the required time frame, the mitigation option provided in § 214-4H(1)(c)[3] of this chapter shall be void and the Township of Washington shall be prohibited from collecting in lieu contributions.

§ 214-5. Design, construction, and safety standards for structural stormwater management measures.

A. General design and construction standards.

1. Structural stormwater management measures shall be designed to meet the standards established in this section. These standards have been developed to protect public safety, conserve natural features, create an aesthetically pleasing site and promote proper onsite stormwater management. (Though not required by N.J.A.C. 7:8, pursuant to their authority, municipalities may have the option to require existing basins that pose a public health or safety hazard to be retrofitted to comply with the standards in this subsection.)

2. The following structural stormwater management measures may be utilized as part of a stormwater management system at a major land development in the Township of Washington, provided that the applicant demonstrates that they are designed, constructed and maintained so as to meet the standards and requirements established by this chapter. If alternative stormwater management measures are proposed, the applicant shall demonstrate that the selected measures will achieve the standards established by this chapter.

   (a) Bioretention systems;
   (b) Constructed stormwater wetlands;
   (c) Extended detention basins;
   (d) Infiltration basins;
   (e) Vegetated filter strips;
   (f) Infiltration basins and trenches;
   (g) Wet ponds with suitable liners;
   (h) Pervious paving systems;
   (i) Dry wells;
   (j) Sand filters; and
   (k) Manufactured treatment devices, provided their pollutant removal rates are verified by the New Jersey Corporation for Advanced Technology and certified by the NJDEP.

3. Structural stormwater management measures shall be designed to take into account the existing site conditions, including environmentally critical areas, wetlands, flood-prone areas, slopes, depth to seasonal high-water table, soil type, permeability and texture, the presence of solution-prone carbonate rocks (limestone), and drainage area and drainage patterns.

4. Structural stormwater management measures shall be designed and constructed 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 7.8 shall be deemed to meet this requirement); to minimize and facilitate maintenance and repairs; and to ensure proper functioning.

5. For all stormwater management measures at a development site, each applicant shall submit a detailed inspection, maintenance and repair plan consistent with the requirements of § 214-6 of this chapter.

6. To the maximum extent practicable, the design engineer shall design structural stormwater management measures on the development site in a manner that:

a. Limits site disturbance, maximizes stormwater management efficiencies, and maintains or improves aesthetic conditions;

b. Utilizes multiple stormwater management measures, smaller in size and distributed spatially throughout the land development site, instead of a single larger structural stormwater management measure;

c. Incorporates pretreatment measures. Pretreatment can extend the functional life and increase the pollutant removal capability of a structural stormwater management measure. Pretreatment measures may be designed in accordance with the New Jersey BMP Manual or other sources approved by the Municipal Engineer.

7. Stormwater management basins shall be designed in a manner that complements and mimics the existing natural landscape, including but not limited to the following design strategies:

   a. Use of natural, no wetland wooded depressions for stormwater runoff storage; and
   b. Establishment of attractive landscaping in and around the basin that mimics the existing vegetation and incorporates native plants.

8. Stormwater management basins shall be designed with gently sloping sides. The maximum allowable basin side slope shall be three horizontals to one vertical (3:1).

9. 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 §214.4,5.

10. 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.

11. 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.

12. 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.

13. 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.

14. Guidance on the design and construction of structural stormwater management measures may be found in the New Jersey BMP Manual. Other guidance sources may also be used upon approval by the Municipal Engineer.

15. After all construction activities and required field testing have been completed on the development site, as-built plans depicting design and as-built elevations of all stormwater management measures shall be prepared by a licensed land surveyor and submitted to the Municipal Engineer. Based upon the Municipal Engineer's review of the as-built plans, all corrections or remedial actions deemed by the Municipal Engineer to be necessary due to the failure to comply with the standards established

by this chapter and/or any reasons of public health or safety, shall be completed by the applicant. In lieu of review by the Municipal Engineer, the Township of Washington reserves the right to engage a professional engineer to review the as-built plans. The applicant shall pay all costs associated with such review.

B. Design and construction standards for stormwater infiltration BMPs.

1. Stormwater infiltration BMPs, such as bioretention systems with infiltration, dry wells, infiltration basins, pervious paving systems with storage beds, and sand filters with infiltration, shall be designed, constructed and maintained to completely drain the total runoff volume generated by the basin's maximum design storm within 72 hours after a storm event. Runoff storage for greater times can render the BMP ineffective and may result in anaerobic conditions, odor and both water quality and mosquito breeding problems.

2. Stormwater infiltration BMPs shall be designed, constructed, and maintained to provide a minimum separation of at least two feet between the elevation of the lowest point of the bottom of the infiltration BMP and the seasonal high-water table.

3. The minimum design permeability rate for the soil within a BMP that relies on infiltration shall be 0.5 inch per hour. A factor of safety of two shall be applied to the soil's field-tested permeability rate to determine the soil's design permeability rate. For example, if the field-tested permeability rate of the soil is four inches per hour, its design permeability rate would be two inches per hour. The minimum design permeability rate for the soil within a stormwater infiltration basin shall also be sufficient to achieve the minimum seventy-two-hour drain time described in Subsection B (1) above. The maximum design permeability shall be 10 inches per hour.

4. A soil's field-tested permeability rate shall be determined in accordance with the following:

   (a) The predevelopment field test permeability rate shall be determined according to the methodologies provided in § 214-11C (3) of this chapter;
   (b) The results of the required field permeability tests shall demonstrate a minimum tested infiltration rate of one inch per hour;
   (c) After all construction activities have been completed on the site and the finished grade has been established in the infiltration BMP, post development field permeability tests shall also be conducted according to the methodologies provided in § 214-11C (3) of this chapter;
   (d) If the results of the post development field permeability tests fail to achieve the minimum required design permeability rates in Subsection B (4) above utilizing a factor of safety of two, the stormwater infiltration BMP shall be renovated and re-tested until such minimum required design permeability rates are achieved; and
   (e) The results of all field permeability tests shall be certified by a professional engineer and transmitted to the Municipal Engineer.

5. To help ensure maintenance of the design permeability rate over time, a six-inch layer of K5 soil shall be placed on the bottom of a stormwater infiltration BMP. This soil layer shall meet the textural and permeability specifications of a K5 soil as provided at N.J.A.C. 7:9A, Appendix A, Figure 6, and be certified to meet these specifications by a professional engineer licensed in the State of New Jersey. The depth to the seasonal high-water table shall be measured from the bottom of the K5 sand layer.

6. The design engineer shall assess the hydraulic impact on the groundwater table and design the project site and all stormwater infiltration basins so as to avoid adverse hydraulic impacts. Adverse hydraulic impacts include, but are not limited to: raising the groundwater table so as to cause surface ponding; flooding of basements and other subsurface structures and areas; preventing a stormwater infiltration basin from completely draining via infiltration within 72 hours of a design storm event; and interference with the proper operation of subsurface sewage disposal systems and other surface and subsurface structures in the vicinity of the stormwater infiltration basin.

7. The design engineer shall conduct a mounding analysis, as defined in § 214-7, of all stormwater infiltration BMPs. The mounding analysis shall be conducted in

accordance with the requirements in § 214-11C(3)(l). Where the mounding analysis identifies adverse impacts, the stormwater infiltration basin shall be redesigned or relocated, as appropriate.

8. Stormwater infiltration BMPs shall be constructed in accordance with the following:

   a. To avoid sedimentation that may result in clogging and reduce the basin's permeability rate, stormwater infiltration basins shall be constructed according to the following:

      [1] All other infiltration BMP construction in this section shall be followed when the drainage area is completely stabilized, all accumulated sediment shall be removed from the infiltration BMP, which shall then be excavated to its final design elevation in accordance with the construction requirements of this section and the performance standards in § 214-6.

   b. To avoid compaction of subgrade soils of BMPs that rely on infiltration, no heavy equipment such as backhoes, dump trucks or bulldozers shall be permitted to operate within the footprint of the BMP. All excavation required to construct a stormwater infiltration BMP shall be performed by equipment placed outside the BMP. If this is not possible, the soils within the excavated area shall be renovated and tilled after construction is completed to reverse the effects of compaction. In addition, post development soil permeability testing shall be performed in accordance with Subsection B (4) of this section.

   c. Earthwork associated with stormwater infiltration BMP construction, including excavation, grading, cutting, or filling shall not be performed when soil moisture content is above the lower plastic limit.

C. 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 214.4B and C, the design engineer shall utilize green infrastructure BMPs identified in Tables 2-4 at Section 214.3B. and/or an alternative stormwater management measure approved in accordance with Section 214.3 B. The following green infrastructure BMPs are subject to the following maximum contributory drainage area limitations:

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

3. To satisfy the stormwater runoff quantity standards at Section 214.4B, the design engineer shall utilize BMPs from Tables 2-4 and/or an alternative stormwater management measure approved in accordance with Section 214.4B.

4. If a variance in accordance with N.J.A.C. 7:8-4.6 or a waiver from strict compliance in accordance with §214.4. G 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 §212.4.

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 214.4, unless the project is granted a waiver from strict compliance in accordance with Section 214.4.

D. Safety standards for structural stormwater management measures.

1. If a structural stormwater management measure has an outlet structure, escape provisions shall be incorporated in or on the structure. Escape provisions means the permanent installation of ladders, steps, rungs, or other features that provide readily accessible means of ingress and egress from the outlet structure.

2. 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;

3. Stormwater management BMPs shall be designed to meet the minimum safety standards for stormwater management BMPs at §214.5; and

4. 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.

5. A trash rack is a device intended to intercept runoff-borne trash and debris that might otherwise block the hydraulic openings in an outlet structure of a structural stormwater management measure. Trash racks shall be installed upstream of such outlet structure openings as necessary to ensure proper functioning of the structural stormwater management measure in accordance with the following:

   a. The trash rack should be constructed primarily of bars aligned in the direction of flow 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 bars shall be spaced no greater than 1/3 the width of the hydraulic opening it is protecting or six inches, whichever is less. Transverse bars aligned perpendicular to flow should be sized and spaced as necessary for rack stability and strength.

   b. The trash rack shall not adversely affect the hydraulic performance of either the outlet structure opening it is protecting or the overall outlet structure.

   c. The trash rack shall have sufficient net open area under clean conditions to limit the peak design storm velocity through it to a maximum of 2.5 feet per second.

   d. The trash rack 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.

6. An overflow grate is a device intended to protect the opening in the top of a stormwater management measure outlet structure. If an outlet structure has an overflow grate, such grate shall meet the following requirements:

   a. The overflow grate shall be secured to the outlet structure but removable for emergencies and maintenance;

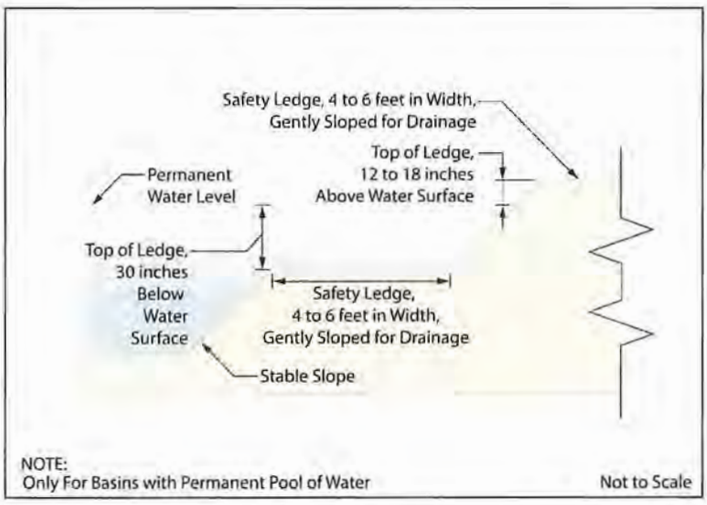
   b. The overflow grate spacing shall be no more than two inches across the smallest dimension; and

   c. 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.

7. The maximum side slope for an earthen dam, embankment, or berm shall not be steeper than three horizontals to one vertical (3:1).

8. Safety ledges shall be constructed on the slopes of all new structural stormwater management measures having a permanent pool of water deeper than 2 1/2 feet. Such safety ledges shall be comprised of two steps. Each step shall be four to six feet in width. One step shall be located approximately 2 1/2 feet below the permanent water surface, and the second step shall be located one to 1 1/2 feet above the permanent water surface. See Subsection C(5)(a) below, for an illustration of safety ledges in a stormwater management basin.

   a. Illustration of safety ledges.



§ 214-6. Inspection, maintenance, and repair of stormwater management measures.

A. Applicability. Projects subject to review pursuant to § 214-1C of this chapter shall comply with the requirements of § 214-6B and C below.

B. General inspection, maintenance, and repair plan.

1. The design engineer shall prepare an inspection, maintenance and repair plan for the stormwater management measures, including both structural and nonstructural measures incorporated into the design of a major development. This plan shall be submitted as part of the checklist requirements established in § 214-2C. Inspection and maintenance guidelines for stormwater management measures are available in the New Jersey BMP Manual.

2. The inspection, maintenance and repair plan shall contain the following:

   a. Accurate and comprehensive drawings of the site's stormwater management measures;
   b. Specific locations of each stormwater management measure identified by means of longitude and latitude as well as block and lot number;
   c. Specific preventative and corrective maintenance tasks and schedules for such tasks for each stormwater BMP;
   d. Cost estimates, including estimated cost of sediment, debris, or trash removal; and
   e. The name, address and telephone number of the person or persons responsible for regular inspections and preventative and corrective maintenance (including repair and replacement). If the responsible person or persons is a corporation, company, partnership, firm, association, municipality or political subdivision of this state, the name and telephone number of an appropriate contact person shall also be included.

3. The person responsible for inspection, maintenance and repair identified under Subsection B (2) above shall maintain a detailed log of all preventative and corrective maintenance performed for the site's stormwater management measures, including a record of all inspections and copies of all maintenance-related work orders in the inspection, maintenance and repair plan. Said records and inspection reports shall be

retained for a minimum of five years. (Retention time is not addressed in N.J.A.C. 7:8, but five years is required for retention of data collected for monitoring under a NJPDES permit.)

4. If the inspection, maintenance and repair plan identifies a person other than the developer (for example, a public agency or homeowners' association) as having the responsibility for inspection and maintenance, the plan shall include documentation of such person's agreement to assume this responsibility, or of the developer's obligation to dedicate a stormwater management measure to such person under an applicable ordinance or regulation.

5. If the person responsible for inspection, maintenance and repair identified under Subsection B (3) above is not a public agency, the maintenance plan and any future revisions based on Subsection B (6) below shall be recorded upon the deed of record for each property on which the maintenance described in the maintenance plan shall be undertaken.

6. The person responsible for inspection, maintenance and repair identified under Subsection B (2) above shall evaluate the effectiveness of the inspection, maintenance and repair plan at least once per year and update the plan and the deed as needed.

7. The person responsible for inspection, maintenance and repair identified under Subsection B (2) above shall submit the updated inspection, maintenance and repair plan and the documentation required by Subsections B (2) and B (3) above to the Township of Washington once per year. A written schedule of dates by which yearly inspections must take place must be prepared and submitted by the design engineer to the Township of Washington Engineer. The review of the updated inspection, maintenance and repair reports shall be reviewed by the Township Engineer as soon as practicable upon the receipt of such reports by the design engineer. Copies of said reports shall be maintained by the Township Engineer and the Township Clerk's office, together with any written reviews by the Township Engineer of said reports.

8. The person responsible for inspection, maintenance and repair identified under Subsection B (2) above shall retain and make available upon request by any public entity with administrative, health, environmental or safety authority over the site the inspection, maintenance and repair plan and the documentation required by Subsections B (2) and B (3) above.

C. Responsibility for inspection, repair and 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.

D. The requirements of Section § 214-6. B.3 and § 214-6.C 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.

E. Preventative and corrective maintenance shall be performed to maintain the function of the stormwater management measure, including, but not limited to: repairs or replacement to any associated appurtenance of the measure; removal of sediment, debris, or trash; restoration of eroded areas; snow and ice removal; fence repair or replacement; restoration of vegetation; repair or replacement of linings; and restoration of infiltration function.

F. Stormwater management measure easements shall be provided by the property owner as necessary for facility inspections and maintenance and preservation of stormwater runoff conveyance, infiltration, and detention areas and facilities. The purpose of the easement shall be specified in the maintenance agreement.

G. In the event that the stormwater management measure becomes a public health nuisance or danger to public safety or public health, or if it is in need of maintenance or repair, the Township of Washington shall so notify the responsible person in writing. Upon receipt of that notice, the responsible person shall have 14 days to effect maintenance and repair of the facility in a manner that is approved by the Municipal Engineer or the Municipal Engineer's

designee. The Township of Washington, at 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 within the allowable time, the Township of Washington may immediately proceed to do so with its own forces and equipment and/or through contractors. The costs and expenses of such maintenance and repair by the Township of Washington shall be entered on the tax roll as a special charge against the property and collected with any other taxes levied thereon for the year in which the maintenance and repair was performed. Nonpayment of such bill may result in a lien on the property.

H. Requirements for inspection, maintenance, and repair of stormwater BMPs that rely on infiltration. If a stormwater infiltration BMP is incorporated into the design of a major development, the applicant shall include the following requirements in its inspection, maintenance, and repair plan:

1. Once per month (if needed): mow side slopes, remove litter and debris, stabilize eroded banks, repair erosion at inflow structure(s);

2. After every storm exceeding one inch of rainfall: ensure that infiltration BMPs drain completely within 72 hours after the storm event. If stored water fails to infiltrate 72 hours after the end of the storm, corrective measures shall be taken. Raking or tilling by light equipment can assist in maintaining infiltration capacity and break up clogged surfaces;

3. Four times per year (quarterly): inspect stormwater infiltration BMPs for clogging and excessive debris and sediment accumulation within the BMP, remove sediment (if needed) when completely dry;

4. Two times per year: inspect for signs of damage to structures, repair eroded areas, check for signs of petroleum contamination and remediate;

5. Once per year: inspect BMPs for unwanted tree growth and remove if necessary, disc or otherwise aerate bottom of infiltration basin to a minimum depth of six inches; and

6. After every storm exceeding one inch of rainfall, inspect and, if necessary, remove and replace K5 sand layer and accumulated sediment, to restore original infiltration rate.

7. Additional guidance for the inspection, maintenance, and repair of stormwater infiltration BMPs can be found in the New Jersey BMP Manual.

I. Maintenance guarantee.

1. The applicant shall provide a maintenance guarantee in accordance with N.J.S.A. 40:55D-53 to ensure that all stormwater management measures required under the provisions of this chapter will be maintained in accordance with the specifications established herein.

2. Additionally, for those stormwater management measures that are to be inspected, maintained, and repaired by a public agency, the Township of Washington shall collect an upfront fee from the applicant in the amount the Township of Washington determines is needed to provide long-term inspection, maintenance and repair of all stormwater management measures. This upfront fee shall be placed in a dedicated cash management account and expended by the Township of Washington for the sole purpose of conducting inspection, maintenance and repair activities for all stormwater management measures required under the applicant's major development application approval. The calculation of the fee shall be based upon the inspection, maintenance, and repair plan (plan) required to be prepared by the applicant and approved by the Township of Washington. The plan shall include an estimate of the present value of the cost to inspect, maintain and repair the stormwater management measure(s) in accordance with the plan for the useful life of those measure(s). The Township of Washington shall furnish the applicant its published hourly rates as prescribed by its salary ordinance for public works and other personnel having responsibilities associated with stormwater management. Added to this fee shall be an amount mutually determined by the Township of Washington and the applicant to account for the reconstruction of stormwater management measures that are reasonably anticipated to be subject to long-term failure. After an agreed number of years, depending on the type of measure(s), the measure(s) will need to be reconstructed. The amount shall be based on the future value of the measure(s) being reconstructed.

Both inflation rates and bank interest rates shall be based on the ten-year average published in the Wall Street Journal or other approved publication. Interest accruing in the account must also be accounted for at an agreed upon interest rate to arrive at an amount. The costs for reconstructing the measure(s) shall be taken from the engineer's probable cost estimate that is utilized to determine the amount of the required performance guarantee. It is acceptable to attach a percentage of failure to certain line items in the estimate.

3. Additionally, for those stormwater management measures that are to be inspected, maintained, and repaired by a homeowners' association, condominium association or some other form of nonpublic ownership, no fee shall be collected by the Township of Washington. Instead, the ownership entity shall establish and maintain a fund for the annual inspection and testing program, annual maintenance and repair program and annual contribution to a contingency fund for long-term reconstruction. The initial costs agreed to for the annual inspection and testing program and annual maintenance and repair program shall be based upon actual itemized proposals offered to the applicant by prospective vendors. The annual cost expended on inspection, testing and maintenance shall be reported to the Township of Washington to verify that maintenance is not being deferred and to inform the Township of Washington on the magnitude of those services. The contingency fund shall require sufficient funds to be committed for long-term reconstruction of the stormwater management measure(s). Major reconstruction activities will necessitate proper field planning. After an agreed number of years, depending on the type of measure(s), the measure(s) will need to be reconstructed. The contingency fund in the field schedule shall be based on the future value of the measure being reconstructed. Both inflation rates and bank interest rates shall be based on the ten-year average published in the Wall Street Journal or other approved publication. Interest accruing in the account must also be accounted for at an agreed upon interest rate, to arrive at an annual contribution amount.

§ 214-7. Definitions.

Unless specifically defined below, terms, words or phrases, and their derivations used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application. When used in this chapter, the following terms shall have the meanings herein ascribed to them unless their use in 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.

AQUACULTURE — The propagation, rearing and subsequent harvesting of aquatic organisms in controlled or selected environments, and their subsequent processing, packaging and marketing, including but not limited to, activities to intervene in the rearing process to increase production such as stocking, feeding, transplanting and providing for protection from predators.

CAFRA CENTERS, CORES OR NODES — Those areas with boundaries incorporated by reference or revised by the Department in accordance with N.J.A.C. 7:7-13.16.

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

CERTIFICATION — A written statement signed and sealed by a licensed New Jersey professional engineer attesting that a BMP design or stormwater management system conforms to or meets a particular set of standards. Depending upon the context in which the term is used, the terms "certify" and "certified" shall be construed accordingly.

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

COMPACTION — The increase in soil bulk density caused by subjecting soil to greater-than-normal loading. Compaction can also decrease soil infiltration and permeability rates.

CONSTRUCTION — The construction, erection, reconstruction, alteration, conversion, demolition, removal or equipping of buildings, structures or components of a stormwater management system, including but not limited to collection inlets, stormwater piping, swales and all other conveyance systems, and stormwater BMPs.

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

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

COUNTY REVIEW AGENCY — An agency designated by the County Board of Chosen Freeholders to review municipal stormwater management plans and implementing ordinance(s). The county review agency may either be:

A. A county planning agency; or
B. 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 — The Department of Environmental Protection.

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

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

DESIGN PERMEABILITY — The tested permeability rate with a factor of safety of two applied to it (e.g., if the tested permeability rate of the soils is four inches per hour, the design rate would be two inches per hour).

DEVELOPMENT —

A. The change of or enlargement of any use or disturbance of any land, 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. the division of land into two or more parcels, and the creation or termination of rights of access or riparian rights, including, but not limited to:

    1. A change in type of use of a structure or land;

    2. A reconstruction, alteration of the size, or material change in the external appearance of a structure or land;

    3. A material increases in the intensity of use of land, such as an increase in the number of businesses, manufacturing establishments, offices or dwelling units in a structure or on land;

    4. Commencement of resource extraction or drilling or excavation on a parcel of land;

    5. Demolition of a structure or removal of trees;

    6. Commencement of forestry activities;

    7. Deposit of refuse, solid or liquid waste or fill on a parcel of land;

    8. In connection with the use of land, the making of any material change in noise levels, thermal conditions, or emissions of waste material; and

9. Alteration, either physically or chemically, of a shore, bank, or floodplain, seacoast, river, stream, lake, pond, wetlands or artificial body of water.

B. In the case of development on agricultural land, i.e., lands used for an agricultural use or purpose as defined at N.J.A.C. 7:50-2.11, development means: any activity that requires a state permit; any activity reviewed by the County Agricultural Boards (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.

DEVELOPMENT, MAJOR — 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.

DEVELOPMENT, MINOR — All development other than major development.

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

DRAINAGE AREA — A geographic area within which stormwater, sediments, or dissolved materials drain to a BMP, a stormwater management system, a particular receiving water body or a particular point along a receiving water body.

ENVIRONMENTALLY CONSTRAINED AREA — 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 — An area or feature which is of significant environmental value, including but not limited to: stream corridors; natural heritage priority sites; habitat of endangered or threatened species; threatened or endangered plants of the Pinelands pursuant to N.J.A.C. 7:5-6.27(a); large areas of contiguous open space or upland forest; steep slopes; and wellhead protection and groundwater recharge areas. T & E habitat constitutes habitat that is critical for the survival of a local population of threatened and endangered species or habitat that is identified using the Department's Landscape Project as approved by the Department's Endangered and Nongame Species Program, whichever is more inclusive.

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

EXCEPTION — The approval by the approving authority of a variance or other material departure from strict compliance with any section, part, phrase or provision of this chapter. An exception may be granted only under certain specific, narrowly-defined conditions described herein.

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

EXTENDED DETENTION BASIN — A facility constructed through filling and/or excavation that provides temporary storage of stormwater runoff. It has an outlet structure that detains and attenuates runoff inflows and promotes the settlement of pollutants. An extended detention basin is normally designed as a multistage facility that provides runoff storage and attenuation for both stormwater quality and quantity management. The term "stormwater detention basin" shall have the same meaning as "extended detention basin."

FINISHED GRADE — The elevation of the surface of the ground after completion of final grading, either via cutting, filling or a combination thereof.

GRADING — Modification of a land slope by cutting and filling with the native soil or redistribution of the native soil which is present at the site.

GREEN INFRASTRUCTURE — A stormwater management measure that manages stormwater close to its source by:

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

GROUNDWATER — Water below the land surface in a zone of saturation.

GROUNDWATER MOUNDING ANALYSIS — A test performed to demonstrate that the groundwater below a stormwater infiltration basin will not mound up, encroach on the unsaturated zone, break the surface of the ground at the infiltration area or downslope, and create an overland flow situation.

HEAVY EQUIPMENT — Equipment, machinery, or vehicles that exert ground pressure in excess of eight pounds per square inch.

HIGH POLLUTANT LOADING AREA — An area in an industrial or commercial development site: where solvents and/or petroleum products are loaded/unloaded, stored, or applied; where pesticides are loaded/ unloaded or stored; 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; where recharge would be inconsistent with NJDEP-approved remedial action work plan or landfill closure plan; and/or where a high risk exists for spills of toxic materials, such as gas stations and vehicle maintenance facilities. The term "HPLA" shall have the same meaning as "high pollutant loading area."

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

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

INFILTRATION — The process by which precipitation enters the soil through its surface.

IN LIEU CONTRIBUTION — A monetary fee collected by the Township of Washington in lieu of requiring strict on-site compliance with the groundwater recharge, stormwater runoff quantity and/or stormwater runoff quality standards established in this chapter.

INSTALL — To assemble, construct, put in place or connect components of a stormwater management system.

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

MITIGATION — Acts necessary to prevent, limit, remedy or compensate for conditions that may result from those cases where an applicant has demonstrated the inability or impracticality of strict compliance with the stormwater management requirements set forth in N.J.A.C. 7:8, in an adopted regional stormwater management plan, or in a local ordinance which is as protective as N.J.A.C. 7:8, and an exception from strict compliance is granted by the Township of Washington.

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

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

MUNICIPALITY — Any city, borough, town, township, or village.

NEW JERSEY STORMWATER BEST MANAGEMENT PRACTICES MANUAL — The manual maintained by the New Jersey Department of Environmental Protection, in coordination with the New Jersey Department of Agriculture, the New Jersey Department of Community Affairs, the New Jersey Department of Transportation, municipal engineers, county engineers, consulting field contractors, and environmental organizations to address the standards in the New Jersey Stormwater Management Rules, N.J.A.C. 7:8.

The Manual provides 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. 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 §214.4. 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.

The Manual, and notices regarding future versions of the Manual, are available from the Division of Watershed Management, NJDEP, PO Box 418, Trenton, New Jersey 08625; and on the NJDEP's Web site, www.njstormwater.org. The term "New Jersey BMP Manual" shall have the same meaning as "New Jersey Stormwater best management practices Manual."

NJDEP — The New Jersey Department of Environmental Protection.

NJPDES — The New Jersey Pollutant Discharge Elimination System as set forth in N.J.S.A. 58:10A-1 et seq., and in N.J.A.C. 7:14A.

NJPDES PERMIT — A permit issued by the NJDEP pursuant to the authority of the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., and N.J.A.C. 7:14A for a discharge of pollutants.

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

NONPOINT SOURCE —

A. Any human-made or human-induced activity, factor, or condition, other than a point source, from which pollutants are or may be discharged;

B. Any human-made or human-induced activity, factor, or condition, other than a point source, that may temporarily or permanently change any chemical, physical, biological, or

radiological characteristic of waters of the state from what was or is the natural, pristine condition of such waters, or that may increase the degree of such change; or

C. Any activity, factor, or condition, other than a point source, that contributes or may contribute to water pollution.

D. The term "NPS" shall have the same meaning as "nonpoint source."

NONSTRUCTURAL BMP — A stormwater management measure, strategy or combination of strategies that reduces adverse stormwater runoff impacts through sound site planning and design. Nonstructural BMPs include such practices as minimizing site disturbance, preserving important site features, reducing and disconnecting impervious cover, flattening slopes, utilizing native vegetation, minimizing turf grass lawns, maintaining natural drainage features and characteristics and controlling stormwater runoff and pollutants closer to the source. The term "low impact development technique" shall have the same meaning as "nonstructural BMP."

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

PERMEABILITY — The rate at which water moves through a saturated unit area of soil or rock material at hydraulic gradient of one, determined as prescribed in N.J.A.C. 7:9A-6.2 (Tube Permeameter Test), N.J.A.C. 6.5 (Pit Bailing Test) or N.J.A.C. 6.6 (Piezometer Test). Alternative permeability test procedures may be accepted by the approving authority, provided the test procedure attains saturation of surrounding soils, accounts for hydraulic head effects on infiltration rates, provides a permeability rate with units expressed in inches per hour and is accompanied by a published source reference. Examples of suitable sources include hydrogeology, geotechnical, or engineering text and design manuals, proceedings of American Society for Testing and Materials (ASTM) symposia, or peer- review journals. Neither a Soil Permeability Class Rating Test, as described in N.J.A.C. 7:9A-6.3, nor a Percolation Test, as described in N.J.A.C. 7:9A-6.4, are acceptable tests for establishing permeability values for the purpose of complying with this chapter.

PERMEABLE — Having a permeability of one inch per hour or faster. The terms "permeable soil," "permeable rock" and "permeable fill" shall be construed accordingly.

PERSON — Any individual, corporation, company, partnership, firm, association, municipality or political subdivision of this state and any state, interstate, or Federal agency subject to municipal jurisdiction pursuant to the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq.

PINELANDS CMP — The New Jersey Pinelands Comprehensive Management Plan (N.J.A.C. 7:50 1.1 et seq).

PINELANDS COMMISSION or COMMISSION — The Commission created pursuant to Section 5 of the Pinelands Protection Act, N.J.S.A. 13:18A-5.

POINT SOURCE — Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

POLLUTANT — Any dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, refuse, oil, grease, sewage sludge, munitions, chemical wastes, biological materials, medical wastes, radioactive substances (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, suspended solids, cellar dirt, industrial, municipal, agricultural, and construction waste or runoff, or other residue discharged directly or indirectly to the land, groundwaters or surface waters of the state, or to a domestic treatment works. "Pollutant" includes both hazardous and nonhazardous pollutants.

PROFESSIONAL ENGINEER — A person licensed to practice professional engineering in the State of New Jersey pursuant to N.J.S.A. 48:8-27 et seq.

RECHARGE — The amount of water from precipitation that infiltrates into the ground and is not evapotranspiration.

REGULATED IMPERVIOUS SURFACE — Any of the following, alone or in combination:

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

REGULATED MOTOR VEHICLE SURFACE — Any of the following, alone or in combination:

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

REPLICATE — One of two or more soil samples or tests taken at the same location (within five feet of each other) and depth, within the same soil horizon or substratum. In the case of fill material, replicate tests are tests performed on subsamples of the same bulk sample packed to the same bulk density.

SAND — A particle size category consisting of mineral particles which are between 0.05 and 2.0 millimeters in equivalent spherical diameter. Also, a soil textural class having 85% or more of sand and a content of silt and clay such that the percentage of silt plus 1.5 times the percentage of clay does not exceed 15, as shown in § 214-11C (1) (USDA Soil Textural Triangle).

SEASONALLY HIGH-WATER TABLE — The upper limit of the shallowest zone of saturation which occurs in the soil, identified as prescribed in 7:9A-5.8.

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

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

SOIL — All unconsolidated mineral and organic material of any origin which is not a rock substratum, including sediments below the biologically active and/or weathered zones.

SOURCE MATERIAL — Any material(s) or machinery, located at an industrial facility, which 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.

STATE DEVELOPMENT AND REDEVELOPMENT PLAN METROPOLITAN PLANNING AREA (PA1) — An area delineated on the State Plan Policy Map and adopted by the State Planning Commission that is intended to be the focus for much of the State's future redevelopment and revitalization efforts.

STATE PLAN POLICY MAP — The geographic application of the State Development and Redevelopment Plan's goals and statewide policies, and the official map of these goals and policies.

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

STORMWATER INFILTRATION BMP — A basin or other facility constructed within permeable soils that provides temporary storage of stormwater runoff. An infiltration BMP does not normally have a structural outlet to discharge runoff from the stormwater quality design storm. Instead, outflow from an infiltration BMP is through the surrounding soil. The terms "infiltration measure" and "infiltration practice" shall have the same meaning as "stormwater infiltration basin."

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

STORMWATER MANAGEMENT MEASURE — Any structural or nonstructural strategy, 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 no stormwater discharges into stormwater conveyances. This includes, but is not limited to, structural and nonstructural stormwater best management practices described in the New Jersey BMP Manual and designed to meet the standards for stormwater control contained within this chapter. The terms "stormwater best management practice" and "stormwater BMP" shall have the same meaning as "stormwater management measure."

STORMWATER MANAGEMENT PLANNING AGENCY — A public body authorized by legislation to prepare stormwater management plans.

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

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

SUITABLE SOIL — Unsaturated soil, above the seasonally high-water table, which contains less than 50% by volume of coarse fragments and which has a tested permeability rate of between one and 20 inches per hour.

SURFACE WATER — Any waters of the state which are not groundwater.

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

TIME OF CONCENTRATION — The time it takes for runoff to travel from the hydraulically most distant point of the drainage area to the point of interest within a watershed.

TOTAL SUSPENDED SOLIDS — The insoluble solid matter suspended in water and stormwater that is separable by laboratory filtration in accordance with the procedure contained in the Standard Methods for the Examination of Water and Wastewater prepared and published jointly by the American Public Health Association, American Water Works Association, and the Water Pollution Control Federation. The term "TSS" shall have the same meaning as "total suspended solids."

TOWNSHIP OF WASHINGTON — The Planning Board, Zoning Board of Adjustment or other board, agency or official of the Township of Washington with authority to approve or disapprove subdivisions, site plans, construction permits, building permits or other applications for development approval. For the purposes of reviewing development applications and ensuring compliance with the requirements of this chapter, the Township of Washington may designate the Municipal Engineer or other qualified designee to act on behalf of the Township of Washington.

URBAN COORDINATING COUNCIL EMPOWERMENT NEIGHBORHOOD — A neighborhood given priority access to State resources through the New Jersey Redevelopment Authority.

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

URBAN REDEVELOPMENT AREA — Previously developed portions of areas:

A. Delineated on the State Plan Policy Map (SPPM) as the Metropolitan Planning Area (PAI), Designated Centers, Cores or Nodes;
B. Designated as CAFRA Centers, Cores or Nodes;
C. Designated as Urban Enterprise Zones; and
D. Designated as Urban Coordinating Council Empowerment Neighborhoods.

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

WATERS OF THE STATE — The ocean and its estuaries, all springs, streams, wetlands, and bodies of surface water and groundwater, whether natural or artificial, within the boundaries of New Jersey or subject to its jurisdiction.

WATER TABLE — The upper surface of a zone of saturation.

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

WELL — A bored, drilled or driven shaft, or a dug hole, which extends below the seasonally high-water table and which has a depth which is greater than its largest surface dimension.

WETLANDS — Those lands which are inundated or saturated by water at a magnitude, duration and frequency sufficient to support the growth of hydrophytes. Wetlands include lands with poorly drained or very poorly drained soils as designated by the National Cooperative Soils Survey of the Soil Conservation Service of the United States Department of Agriculture. Wetlands include coastal wetlands and inland wetlands, including submerged lands. The New Jersey Pinelands Commission Manual for Identifying and Delineating Pinelands Area Wetlands: A Pinelands Supplement to the Federal Manual for Identifying and Delineating Jurisdictional Wetlands, dated January 1991, as amended, may be utilized in delineating the extent of wetlands based on the definitions of wetlands and wetlands soils contained in this section, N.J.A.C. 7:50 2.11, 6.4 and 6.5. The term "wetland" shall have the same meaning as "wetlands."

WET POND — A stormwater facility constructed through fi and/or excavation that provides both permanent and temporary storage of stormwater runoff. It has an outlet structure that creates a permanent pool and detains and attenuates runoff inflows and promotes the settling of pollutants. A stormwater retention basin can also be designed as a multistage facility that also provides extended detention for enhanced stormwater quality design storm treatment and runoff storage and attenuation for stormwater quantity management. The term "stormwater retention basin" shall have the same meaning as "wet pond."

§ 214-8. Violations 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. The general penalty provision of § 1-4, General penalty, shall apply regarding any and all violations of this Stormwater Control Ordinance.

§ 214-9. Effective date.

This chapter shall take effect immediately upon the following:

A. Approval by the county review agency in accordance with N.J.S.A. 40:55D-97.

§ 214-10. Severability.

If the provisions of any section, subsection, paragraph, subdivision, or clause of this chapter shall be judged invalid by a court of competent jurisdiction, such order of judgment shall not affect or invalidate the remainder of any section, subsection, paragraph, subdivision, or clause of this chapter.

§ 214-11. Appendixes.

A. Methods for calculating groundwater recharge.

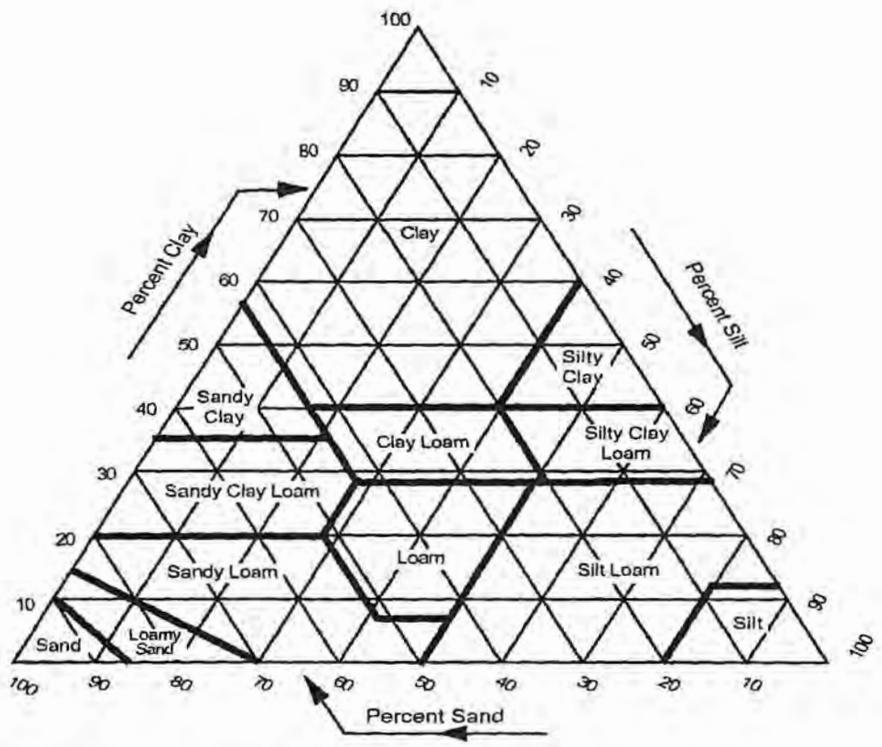
   1. The New Jersey Geological Survey Report GSR-32: A Method for Evaluating Ground-Water Recharge Areas in New Jersey. Available at http://www.njgeology.org/geodata/dgs99-2.htm.

   2. The New Jersey Groundwater Recharge Spreadsheet (NJGRS). Available in the New Jersey BMP Manual, Chapter 6, at http://www.njstormwater.org/bmp_manual2.htm.

B. NJDEP Nonstructural Strategies Point System. The New Jersey Stormwater Management Rules at N.J.A.C. 7:8-5.2(a), and § 214-4A of this chapter, require nonstructural stormwater management strategies to be incorporated into the site design of a major development. A total of nine strategies are to be used to the maximum extent practical to meet the groundwater recharge, stormwater quality stormwater quantity requirements of the rules prior to utilizing structural stormwater and management measures. The New Jersey Nonstructural Stormwater Management Strategies Point System (NSPS) provides a tool to assist planners, designers and regulators in determining that the strategies have been used to the "maximum extent practical" at a major development as required by the rules. Refer online to hhtp://www.njstrmwater.org for information on the NSPS.

C. Soils.

1. USDA Soil Textural Triangle.



Source: US Department of Agriculture.

2. Definitions. For the purposes of this appendix, the following terms shall have the meanings herein ascribed to them.

A-HORIZON — The uppermost mineral horizon in a normal soil profile. The upper part of the A-horizon is characterized by maximum accumulation of fi divided, dark-colored organic residues, known as humus, which are intimately mixed with the mineral particles of the soil.

ARTESIAN ZONE OF SATURATION — A zone of saturation which exists immediately below a hydraulically restrictive horizon, and which has an upper surface which is at a pressure greater than atmospheric, either seasonally or throughout the year.

CHROMA — The relative purity or strength of a color, a quantity which decreases with increasing grayness. Chroma is one of the three variables of soil color as defined in the Munsell system of classification.

CLAY — A particle size category consisting of mineral particles which are smaller than 0.002 millimeters in equivalent spherical diameter. Also, a soil textural class having more than 40% clay, less than 45% sand, and less than 40% silt, as shown in § 214-11C (1) (USDA Soil Textural Triangle).

CLAY LOAM — A soil textural class having 27 to 40% clay and 20 to 45% sand, as shown in § 214-11C (1) (USDA Soil Textural Triangle).

COARSE FRAGMENT — A rock fragment contained within the soil which is greater than two millimeters in equivalent spherical diameter or which is retained on a two-millimeter sieve.

COUNTY SOIL SURVEY REPORT — A report prepared by the United States Department of Agriculture, Natural Resources Conservation Service which includes maps showing the distribution of soil mapping units throughout a particular county together with narrative descriptions of the soil series shown and other information relating to the uses and properties of the various soil series.

DIRECT SUPERVISION — Control over and direction of work carried out by others with full knowledge of and responsibility for such work.

EQUIVALENT SPHERICAL DIAMETER — Of a particle, means the diameter of a sphere which has a volume equal to the volume of the particle.

EXCESSIVELY COARSE HORIZON — A horizon of limited thickness within the soil profile which provides inadequate removal of pollutants from stormwater due to a high coarse fragment content, excessively coarse texture and/or excessively rapid permeability.

EXCESSIVELY COARSE SUBSTRATUM — A substratum below the soil profile which extends beyond the depth of soil profile pits and borings and which provides inadequate removal of pollutants from stormwater due to a high coarse fragment content, excessively coarse texture and/or excessively rapid permeability.

EXTREMELY FIRM CONSISTENCE — A type of soil material whose moist aggregated mass crushes only under very strong pressure; cannot be crushed between the thumb and forefinger and shall be broken apart bit by bit.

FIRM CONSISTENCE — A type of soil material whose moist aggregated mass crushes under moderate pressure between the thumb and forefinger but resistance is distinctly noticeable.
HARD CONSISTENCE — A type of soil material whose dry aggregated mass is moderately resistant to pressure; can be broken in the hands without difficulty but is barely breakable between the thumb and forefinger.

HUE — The dominant spectral color, one of the three variables of soil color defined within the Munsell system of classification.

HYDRAULICALLY RESTRICTIVE HORIZON — A horizon within the soil profile which slows or prevents the downward or lateral movement of water and which is underlain by permeable soil horizons or substrata. Any soil horizon which has a saturated permeability less than one inch per hour is hydraulically restrictive.

HYDRAULICALLY RESTRICTIVE SUBSTRATUM — A substratum
below the soil profile which slows or prevents the downward or lateral movement of water and which extends beyond the depth of profile pits or borings or to a massive substratum. A substratum which has a saturated permeability less than one inch per hour is hydraulically restrictive.

LOAMY SAND — A soil textural class, as shown in § 214-11C (1) (USDA Soil Textural Triangle), that has a maximum of 85 to 90% sand with a percentage of silt plus 1.5 times the percentage of clay not in excess of 15; or a minimum of 70 to 85% sand with a percentage of silt plus 1.5 times the percentage of clay not in excess of 30.

LOWER PLASTIC LIMIT — The moisture content corresponding to the transition between the plastic and semisolid states of soil consistency. This corresponds to the lowest soil moisture content at which the soil can be molded in the fi to form a rod or wire, 1/ 8 inch in thickness, without crumbling.

MOTTLING — A color pattern observed in soil, consisting of blotches or spots of contrasting color. The term "mottle" refers to an individual blotch or spot. The terms "color variegation," "iron depletion" and "iron concentration" are equivalent to the term "mottling." Mottling due to redoximorphic reactions is an indication of seasonal or periodic and recurrent saturation.

MUNSELL SYSTEM — A system of classifying soil color consisting of an alphanumeric designation for hue, value and chroma, such as "7.5 YR 6/2," together with a descriptive color name, such as "strong brown."

O-HORIZON — A surface horizon, occurring above the A-horizon in some soils, which is composed primarily of undecomposed or partially decomposed plant remains which have not been incorporated into the mineral soil.

PERCHED ZONE OF SATURATION — A zone of saturation which occurs immediately above a hydraulically restrictive horizon and which is underlain by permeable horizons or substrata which are not permanently or seasonally saturated.

PIEZOMETER — A device consisting of a length of metal or plastic pipe, open at the bottom or perforated within a specified interval, and used for the determination of depth to water, permeability or hydraulic head within a specific soil horizon or substratum.

PLATY STRUCTURE — Characterized by a soil aggregate which has one axis distinctly shorter than the other two and are oriented with the short axis vertical.

REGIONAL ZONE OF SATURATION — A zone of saturation which extends vertically without interruption below the depth of soil borings and profile pits.

SANDY CLAY — A soil textural class having 35% or more of clay and 45% or more of sand, as shown in § 214-11C (1) (USDA Soil Textural Triangle).

SANDY LOAM — A soil textural class, as shown in § 214-11C (1) (USDA Soil Textural Triangle), that has a maximum of 20% clay, and the percentage of silt plus twice the percentage of clay exceeds 30, and contains 52% or more sand; or less than 7% clay, less than 50% silt, and between 43% and 52% sand.

SILT — A particle size category consisting of mineral particles which are between 0.002 and 0.05 millimeters in equivalent spherical diameter. It also means a soil textural class having 80% or more of silt and 12% or less of clay, as shown in § 214-11C (1) (USDA Soil Textural Triangle).

SILT LOAM — A soil textural class having 50% or more of silt and 12% to 27% of clay; or 50% to 80% of silt and less than 12% of clay, as shown in § 214-11C (1) (USDA Soil Textural Triangle).

SILTY CLAY — A soil textural class having 40% or more of clay and 40% or more of silt, as shown in § 214-11C (1) (USDA Soil Textural Triangle).

SILTY CLAY LOAM — A soil textural class having 27% to 40% of clay and less than 20% of sand, as shown in § 214-11C (1) (USDA Soil Textural Triangle).

SOIL AGGREGATE — A naturally occurring unit of soil structure consisting of particles of sand, silt, clay, organic matter, and coarse fragments held together by the natural cohesion of the soil.

SOIL COLOR — The soil color name and Munsell color designation determined by comparison of the moist soil with color chips contained in a Munsell soil color book.

SOIL CONSISTENCE — The resistance of a soil aggregate or clod to being crushed between the fingers or broken by the hands. Terms for describing soil consistence described are in N.J.A.C. 7:9A-5.3(h).

SOIL HORIZON — A layer within a soil profile differing from layers of soil above and below it in one or more of the soil morphological characteristics including color, texture, coarse fragment content, structure, consistence, and mottling.

SOIL LOG — A description of the soil profile which includes the depth, thickness, color, texture, coarse fragment content, mottling, structure and consistence of each soil horizon or substratum.

SOIL MAPPING UNIT — An area outlined on a map in a county soil survey report and marked with a letter symbol designating a soil phase, a complex of two or more soil phases, or some other descriptive term where no soil type has been identified.

SOIL PHASE — A specific type of soil which is mapped by the Natural Resources Conservation Service and which belongs to a soil series described within the county soil survey report.

SOIL PROFILE — A vertical cross section of undisturbed soil showing the characteristic horizontal layers or horizons of the soil which have formed as a result of the combined effects of parent material, topography, climate, biological activity, and time.

SOIL SERIES — A grouping of soil types possessing a specific range of soil profile characteristics which are described within the county soil survey report. Each soil series may consist of several soil phases which may differ in slope, texture of the surface horizon or stoniness.

SOIL STRUCTURAL CLASS — One of the shape classes of soil structure described in N.J.A.C. 7:9A-5.3(g).

SOIL STRUCTURE — The naturally occurring arrangement, within a soil horizon, of sand, silt, and clay particles, coarse fragments, and organic matter, which are held together in clusters or aggregates of similar shape and size.

SOIL TEST PIT — An excavation made for the purpose of exposing a soil profile which is to be described.

SOIL TEXTURAL CLASS — One of the classes of soil texture defined within the USDA system of classification. (Soil Survey Manual, Agricultural Handbook No. 18, USDA Soil Conservation Service 1962.)

SOIL TEXTURE — The relative proportions of sand, silt and clay in that portion of the soil which passes through a sieve with two- millimeter openings.

STATIC WATER LEVEL — The depth below the ground surface or the elevation with respect to some reference level, of the water level observed within a soil profile pit or boring, or within a piezometer, after this level has stabilized or become relatively constant with the passage of time.

SUBSTRATUM — A layer of soil or rock material present below the soil profile and extending beyond the depth of soil borings or profile pits.

UNSUITABLE SOIL — All soil other than suitable soil.

USDA SYSTEM OF CLASSIFICATION — The system of classifying soil texture used by the United States Department of Agriculture which defines 12 soil textural classes based upon the weight percentages of sand, silt and clay in that portion of the soil which passes through a sieve with two-millimeter openings. The soil textural classes are shown graphically on the USDA Soil Textural Triangle, as shown in § 214-11C (1).

VALUE — The relative lightness or intensity of a color, one of the three variables of soil color defined within the Munsell system of classification.

VERY FIRM CONSISTENCE — Characterized by a moist soil which crushes under strong pressure; barely crushable between thumb and forefinger.

VERY HARD CONSISTENCE — Characterized by a dry soil which is resistant to pressure, can be broken in the hands only with difficulty; not breakable between the thumb and forefinger.

ZONE OF SATURATION — A layer within or below the soil profile which is saturated with groundwater either seasonally or throughout the year. This includes both regional and perched zones.

3. Methods for assessing soil suitability for infiltration stormwater management BMPs. The results of a subsurface investigation shall serve as the basis for the site selection and design of stormwater infiltration BMPs. The subsurface investigation shall include, but not be limited to, a series of soil test pits and soil permeability tests conducted in accordance with the following:

   a. All soil test pits and soil permeability results shall be performed under the direct supervision of a professional engineer. All soil logs and permeability test data shall be accompanied by a certification by a professional engineer. The results and location (horizontal and vertical) of all soil test pits and soil permeability tests,

both passing and failing, shall be reported to the Township of Washington.

b. During all subsurface investigations and soil test procedures, adequate safety measures shall be taken to prohibit unauthorized access to the excavations at all times. It is the responsibility of persons performing or witnessing subsurface investigations and soil permeability tests to comply with all applicable federal state and local laws and regulations governing occupational safety.

c. A minimum of two soil test pits shall be excavated within the footprint of any proposed infiltration BMP to determine the suitability and distribution of soil types present at the site. Placement of the test pits shall be within 20 feet of the basin perimeter, located along the longest axis bisecting the BMP. For BMPs larger than 10,000 square feet in area, a minimum of one additional soil test pit shall be conducted within each additional area of 10,000 square feet. The additional test pit(s) shall be placed approximately equidistant to other test pits, so as to provide adequate characterization of the subsurface material. In all cases, where soil and or groundwater properties vary significantly, additional test pits shall be excavated in order to accurately characterize the subsurface conditions below the proposed infiltration BMP. Soil test pits shall extend to a minimum depth of eight feet below the lowest elevation of the basin bottom or to a depth that is at least two times the maximum potential water depth in the proposed infiltration BMP, whichever is greater.

d. A soil test pit log shall be prepared for each soil test pit. The test pit log shall, at a minimum, provide the elevation of the existing ground surface, the depth and thickness (in inches) of each soil horizon or substratum, the dominant matrix or background and mottle colors using the Munsell system of classification for hue, value and chroma, the appropriate textural class as shown on the USDA textural triangle, the volume percentage of coarse fragments (larger than two millimeters in diameter), the abundance, size, and contrast of mottles, the soil structure, soil consistence, and soil moisture condition, using standard USDA classification terminology for each of these soil properties. Soil test pit logs shall identify the presence of any soil horizon, substratum or other feature that exhibits an in-place permeability rate less than one inch per hour.

e. Each soil test pit log shall report the depth to seasonally high-water level, either perched or regional, and the static water level based upon the presence of soil mottles or other redoximorphic features, and observed seepage or saturation. Where redoxomorphic features including soil mottles resulting from soil saturation are present, they shall be interpreted to represent the depth to the seasonal high-water table unless soil saturation or seepage is observed at a higher level. When the determination of the seasonally high-water table shall be made in ground previously disturbed by excavation, direct observation of the static water table during the months of January through April shall be the only method permitted.

f. Any soil horizon or substratum which exists immediately below a perched zone of saturation shall be deemed by rule to exhibit unacceptable permeability (less than one inch per hour). The perched zone of saturation may be observed directly, inferred based upon soil morphology, or confirmed by performance of a hydraulic head test as defined at N.J.A.C. 7:9A-5.9.

g. Stormwater infiltration BMPs shall not be installed in soils that exhibit artesian groundwater conditions. A permeability test shall be conducted in all soils that immediately underlie a perched zone of saturation. Any zone of saturation which is present below a soil horizon which exhibits an in-place permeability of less than 0.2 inches per hour shall be considered an artesian zone of saturation unless a minimum one-foot-thick zone of unsaturated soil, free of mottling or other redoximorphic features and possessing a chroma of four or higher, exists immediately below the unsuitable soil.

h. A minimum of one permeability test shall be performed at each soil test pit location. The soil permeability rate shall be determined using test methodology as prescribed in N.J.A.C. 7:9A-6.2 (Tube Permeameter Test), 6.5 (Pit Bailing Test) or 6.6 (Piezometer Test). When the tube permeameter test is used, a minimum of two replicate samples shall be taken and tested. Alternative permeability test procedures may be accepted by the approving authority, provided the test procedure attains saturation of

surrounding soils, accounts for hydraulic head effects on infiltration rates, provides a permeability rate with units expressed in inches per hour and is accompanied by a published source reference. Examples of suitable sources include hydrogeology, geotechnical or engineering text and design manuals, proceedings of American Society for Testing and Materials (ASTM) symposia, or peer-review journals. Neither a Soil Permeability Class Rating Test, as described in N.J.A.C. 7:9A-6.3, nor a Percolation Test, as described in N.J.A.C. 7:9A-6.4, are acceptable tests for establishing permeability values for the purpose of complying with this chapter.

i. Soil permeability tests shall be conducted on the most hydraulically restrictive horizon or substratum to be left in place below the basin as follows. Where no soil replacement is proposed, the permeability tests shall be conducted on the most hydraulically restrictive horizon or substratum within four feet of the lowest elevation of the basin bottom or to a depth equal to two times the maximum potential water depth within the basin, whichever is greater. Where soil replacement is proposed, the permeability tests shall be conducted within the soil immediately below the depth of proposed soil replacement or within the most hydraulically restrictive horizon or substratum to a depth equal to two times the maximum potential water depth within the basin, whichever is greater. Permeability tests may be performed on the most hydraulically restrictive soil horizons or substrata at depths greater than those identified above based upon the discretion of the design or testing engineer. The tested infiltration rate should then be divided by two to establish the soil's design permeability rate. Such division will provide a one-hundred- percent safety factor to the tested rate.

j. The minimum acceptable tested permeability rate of any soil horizon or substratum shall be one inch per hour. Soil materials that exhibit tested permeability rates slower than one inch per hour shall be considered unsuitable for stormwater infiltration. The maximum reportable "tested permeability rate" of any soil horizon or substratum shall be no greater than 20 inches per hour regardless of the rate attained in the test procedure.

k. After all construction activities have been completed on the development site and the fi grade has been established in the infiltration BMP, a minimum of one permeability test shall be conducted within the most hydraulically restrictive soil horizon or substratum below the as-built BMP to ensure the performance of the infiltration BMP is as designed. Hand tools and manual permeability test procedures shall be used for the purpose of confirming BMP performance. In addition, the infiltration BMP shall be flooded with water sufficient to demonstrate the performance of the BMP. Test results shall be certified to the Municipal Engineer.

l. A groundwater mounding analysis shall be provided for each stormwater infiltration BMP. The groundwater mounding analysis shall calculate the maximum height of the groundwater mound based upon the volume of the maximum design storm. The professional engineer conducting the analysis shall provide the Municipal Engineer with the methodology and supporting documentation for the mounding analysis used and shall certify to the Township of Washington, based upon the analysis, that the groundwater mound will not cause stormwater or groundwater to break out to the land surface or cause adverse impact to adjacent surface water bodies, wetlands, or subsurface structures, including but not limited to basements and septic systems. If there is more than one infiltration BMP proposed, the model shall indicate if and how the mounds will interact. The mounding analysis shall be calculated using the most restrictive soil horizon that will remain in place within the explored aquifer thickness unless alternative analyses is authorized by the Municipal Engineer. The mounding analysis shall be accompanied by a cross section of the infiltration BMP and surrounding topography, and the mound analysis shall extend out to the point(s) at which the mound intersects with the preexisting maximum water table elevation.

m. The applicant shall demonstrate that stormwater infiltration BMPs meet the seventy-two-hour drain time requirement established in § 214-5B (1) of this chapter.

D. Pretreatment measures for infiltration BMPs. By reducing incoming velocities and capturing coarser sediments, pretreatment can extend the functional life and increase the pollutant removal capability of infiltration measures. Therefore, the installation of pretreatment measures is recommended for all development sites. Pretreatment measures may include,

but are not limited to, the following:

1. Vegetative filter strips;

2. Bioretention systems. Used in conjunction with a bioretention system, the infiltration basin takes the place of the standard underdrain;

3. Sand filters;

4. Grassed swales; and

5. Detention basins.

E. Collection and conveyance.

1. Bicycle-safe inlet grates. Site development plans that incorporate site design features that help 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.

   a. Design engineers shall use either 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:

      [1] 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 (April 1996); or

      [2] A different grate, if each individual clear space in that grate has an area of no more than seven square inches, or is no greater than 0.5 inch 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 basin floors.

   b. Whenever design engineers use a curb-opening inlet, 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 square inches, or be no greater than two inches across the smallest dimension.

   c. This standard does not apply:

      [1] Where the review agency determines that this standard would cause inadequate hydraulic performance that could not practicably be overcome by using additional or larger storm drain inlets that meet these standards;

      [2] Where flows from the water quality design storm as specified in § 214-3 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 4 5/8 inches long and 1 1/2 inches wide (this option does not apply for outfall netting facilities); or

         [b] A bar screen having a bar spacing of 1/2 inch.

      [3] Where flows are conveyed through a trash rack that has parallel bars with one-inch spacing between the bars, to the elevation of the water quality design storm as specified in § 214-3 of this chapter; or

      [4] Where the NJDEP 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.

2. Catch basins. Catch basins are storm drain inlets with or without sumps. Catch basins may provide pretreatment for other stormwater BMPs by capturing large sediments. The sediment and pollutant removal efficiency of catch basins depends on the size of the sump and the performance of routine maintenance to retain the available sediment storage space in the sump. Where catch basins with sumps are proposed, the minimum two feet separation between the bottom of the sump and seasonally high-water table shall be provided.

3. Open or perforated conveyance piping. Where adequate separation to the seasonal high-water table exists, stormwater from the development site may be conveyed to a stormwater basin via a system of perforated pipes. These pipes may be made of PVC or corrugated metal and are available with perforations of varying size and spacing. Perforated pipe specifications shall be certified by a professional engineer. A professional engineer shall certify that perforated conveyance piping will not act to intercept the seasonal high-water table and convey groundwater to the stormwater basin. All open or perforated stormwater conveyance systems shall be installed with a minimum separation of two feet from the seasonal high-water table.

§ 214-12. Additional sources for technical guidance.

A. NJDEP technical guidance sources.

1. New Jersey BMP Manual. Available from the Division of Watershed Management, New Jersey Department of Environmental Protection, PO Box 418, Trenton, New Jersey 08625; or online at http://www.njstormwater.org.

2. NJDEP Stormwater Management Facilities Maintenance Manual. Available from the Division of Watershed Management, New Jersey Department of Environmental Protection, PO Box 418, Trenton, New Jersey 08625; or online at http://njedl.rutgers.edu/ftp/PDFs/ 1188.pdf.

3. New Jersey Nonstructural Stormwater Management Strategies Point System (NSPS). Available from the NJDEP Web site at http://www.state.nj.us/dep/stormwater/.

B. Additional guidance sources.

1. New Jersey Pinelands Commission, PO Box 7, 15 Springfield Road, New Lisbon, New Jersey 08064; Phone: (609) 894-7300; Web site: http://www.state.nj.us/pinelands.

2. State Soil Conservation Committee Standards for Soil Erosion and Sediment Control in New Jersey. Available from all state soil conservation districts, including Gloucester County Soil Conservation District, 14 Park Place Blvd., Suite C, Sewell, NJ 08080; Phone: (856) 589-5250; Fax: (856) 256-0488; Website: http://gloucesterscd.org.

3. State Soil Conservation Districts. Gloucester County Soil Conservation District, 14 Park Place Blvd., Suite C, Sewell, NJ 08080; Phone: (856) 589-5250; Fax: (856) 256-0488; Web site: http://gloucesterscd.org.

4. New Jersey Department of Transportation, PO Box 600, Trenton, NJ 08625-0600; Phone: (609) 530-3536; Website: http://www.state.nj.us/transportation.

5. Information regarding the methodology is available from the Natural Resources Conservation Service website at:

   a. https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044171.pdf

   b. or at United States Department of Agriculture Natural Resources Conservation Service, 220 Davison Avenue, Somerset, New Jersey 08873; or

   c. 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.

SECTION 2: Except as set forth in Section 1 of the balance of the Code of Washington Township shall not be affected by this Ordinance.

SECTION 3: All Ordinances or parts of Ordinances inconsistent with this Ordinance are hereby superseded to the extent of such inconsistency.

SECTION 4: If the provisions of any section, subsection, paragraph, subdivision, or clause of this Ordinance shall be judged invalid by a court of competent jurisdiction, such order of judgement shall not affect or invalidate the remainder of any section, subsection, paragraph, subdivision, or clause of this Ordinance.

SECTION 5: This Ordinance shall take effect thirty (30) days after final passage by Council or twenty (20) days after approval by the Mayor, whichever comes first.

INTRODUCTION: February 24, 2021 .

Members	Motion	Second	Ayes	Nays	Abstain	Absent	Recuse
DellaPia		X	X				
Williams			X				
Bennett			X				
Dougherty	X		X				
Longfellow			X				

I do hereby attest the above Ordinance **0005-2021** was introduced at the Township of Washington Meeting of the Township Council on February 24, 2021. A public hearing and adoption will occur on March 10, 2021 at 7:00 PM.

ATTEST:

By: Christine Ciallella
Christine Ciallella, RMC
Township Clerk

ADOPTION: March 10, 2021 .

Members	Motion	Second	Ayes	Nays	Abstain	Absent	Recuse
DellaPia			X				
Williams			X				
Bennett			X				
Dougherty	X		X				
Longfellow		X	X				

TOWNSHIP OF WASHINGTON

By: _____

SEAN LONGFELLOW, COUNCIL PRESIDENT

I do hereby attest the above Ordinance **0005-2021** was adopted at the Township of Washington Meeting on March 10, 2021 by Township Council after a public hearing on March 10, 2021. Said Ordinance shall take effect in accordance with law.

ATTEST:

By: _____
Christine Ciallella, RMC
Township Clerk

On this 15th day of March 2021, I hereby approve the above Ordinance **0005-2021**.

_____
JOANN GATTINELLI, MAYOR