ORDINANCE NO. 2026-20

AN ORDINANCE OF THE TOWNSHIP OF BARNEGAT, COUNTY OF OCEAN, STATE OF NEW JERSEY AMENDING AND SUPPLEMENTING CHAPTER 55 OF THE TOWNSHIP CODE ENTITLED "LAND USE" AND SPECIFICALLY SECTION 329 THEREOF ENTITLED "STORMWATER MANAGEMENT PLAN FOR NON-PINELANDS PROPERTY"

NOW THEREFORE BE IT ORDAINED by the Mayor and Township Committee of the Township of Barnegat, County of Ocean, and State of New Jersey that Chapter 55 of the Township Code entitled "Land Use" and specifically Section 329 therefore entitled "Stormwater Management Plan for Non-Pinelands Property" shall read as follows:

SECTION 1.

Chapter 55-329 of the Township Code entitled "Stormwater Management Plan for Non-Pinelands Property" is hereby amended and supplemented and shall read as follows:

§55-329.1 Scope and Purpose.

A. Policy Statement

Flood control, groundwater recharge, and pollutant reduction shall be achieved through the use of stormwater management measures, including green infrastructure Best Management Practices (GI BMPs) and nonstructural stormwater management strategies. GI BMPs 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 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 green infrastructure, water quality, quantity, and groundwater recharge.

B. Purpose

The purpose of this ordinance is to establish minimum stormwater management requirements and controls for "major development," as defined below in §55-329.2.

C. Applicability

1. This ordinance shall be applicable to the following major developments:

    a. Non-residential major developments and redevelopment projects; and

    b. Aspects of residential major developments and redevelopment projects that are not pre-empted by the Residential Site Improvement Standards at N.J.A.C. 5:21 et seq.

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

3. A complete application required by ordinance pursuant to C1 and Municipal Land Use Law at NJSA 40:55D-10.5 and above that has been submitted prior to ***(adoption date of this ordinance)*** , shall be subject to the stormwater management requirements in effect on the date the complete application was received.

4. Notwithstanding 5 below or any rule to the contrary, major developments for any public roadway or railroad project conducted by a public transportation entity that has determined a preferred alternative or reached an equivalent milestone shall be subject to the requirements of this ordinance as follows:

    i. A major development that reached a preferred alternative or equivalent milestone prior to March 2, 2021, is subject to the requirements of this ordinance in effect on March 1, 2021; and

    ii. A major development that reached a preferred alternative or equivalent milestone on or after March 2, 2021, is subject to the requirements of this ordinance in effect on the date the preferred alternative or equivalent milestone is reached

5. Should a public transportation entity initiate a substantial change to a major development that had previously reached a preferred alternative or equivalent milestone, the major development shall instead be subject to the requirements of this ordinance in effect when the amended milestone is reached.

D. Maintenance Requirement Applicability to the Stormwater Management Measures Prior Constructed Stormwater Management Measures

Under the authorization by the conditions in Part V.F.4.a of the municipality's Tier A Municipal Stormwater General Permit, the municipality must ensure adequate long-term cleaning, operation and maintenance of stormwater facilities not owned or operated by the municipality, not subject to the conditions of another NJPDES stormwater permit and which were constructed after February 7, 1984.

E**.** Compatibility with Other Permit and Ordinance Requirements

Development approvals issued pursuant to this ordinance are to be considered an integral part of development approvals and do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by any other applicable code, rule, act, or ordinance. In their interpretation and application, the provisions of this ordinance shall be held to be the minimum requirements for the promotion of the public health, safety, and general welfare.

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

§55-329.2. Definitions.

For the purpose of this ordinance, the following terms, phrases, words and their derivations shall have the meanings stated herein unless their use in the text of this

ordinance 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 used in this ordinance shall be the same as or based on the corresponding definitions in the Stormwater Management Rules at N.J.A.C. 7:8-1.2, incorporated herein by reference.

"**CAFRA Centers, Cores or Nodes**" means those areas with boundaries incorporated by reference or revised by the Department in accordance with N.J.A.C. 7:7-13.16.

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

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

"**Compaction**" means the increase in soil bulk density.

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

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

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

1. A county planning agency or

2. A county water resource association created pursuant to N.J.S.A 58:16A-55.5, if the ordinance or resolution delegates authority to

approve, conditionally approve, or disapprove municipal stormwater management plans and implementing ordinances.

"**Department**" means the Department of Environmental Protection.

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

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

"**Development**" means the division of a parcel of land into two or more parcels, the construction, reconstruction, conversion, structural alteration, relocation or enlarge-enlargement of any building or structure, any mining excavation or landfill, and any use or change in the use of any building or other structure, or land or extension of use of land, for which permission is required under the Municipal Land Use Law, N.J.S.A. 40:55D-1 *et seq*.

In the case of development of agricultural land, development means: any activity that requires a State permit, any activity reviewed by the County Agricultural Board (CAB) and the State Agricultural Development Committee (SADC), and municipal review of any activity not exempted by the Right to Farm Act , N.J.S.A 4:1C-1 et seq.

"**Disturbance**" means the placement or reconstruction of impervious surface or motor vehicle surface, or exposure and/or movement of soil or bedrock or clearing, cutting, or removing of vegetation. The following maintenance activities are not considered disturbance for the purposes of this ordinance:

1. Milling, repaving or resurfacing pavement; patching broken pavement; sealing or filling roadway cracks or joints; repairing damaged concrete pavement joints; driveway repair; bridge or pipe/culvert patching; and bridge deck overlays;

2. Repair or replacement of: median barriers; sidewalks (including installation of ramps pursuant to Americans with Disabilities Act on existing impervious surface); concrete curbs; inlets, manholes and catch basins; conduit outlet protection; and guiderail systems, including rails, posts, impact attenuators, and non-vegetated treatment surfaces consisting solely of permeable material;

3. Repair or replacement of traffic, utility and ITS structures on poles including sign structures such as traffic signs, dynamic

variable message signs, cameras, radios, traffic signal equipment and their supporting cabinets;

4. Repair or replacement of rail ties or sleepers; regrading track bed; resurfacing or re-installing rail; repairing or replacing lineside signaling systems; and staging maintenance-of-way equipment on or adjacent to track;

5. Geotechnical and archeological investigation activities; installation of one or more monitoring wells; construction of a gauge, weir, or similar device; and

6. Removal of accumulated sediment and debris from a channel

"**Drainage area**" means a geographic area within which stormwater, sediments, or dissolved materials drain to a particular receiving waterbody or to a particular point along a receiving waterbody.

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

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

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

"**Erosion**" means the detachment and movement of soil or rock fragments by water, wind, ice, or gravity.

"**Green infrastructure**" means a stormwater management measure that manages stormwater close to its source by:

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

"**HUC 14**" or "**Hydrologic Unit Code 14**" means an area within which water drains to a particular receiving surface water body, also known as a sub watershed, which is identified by a 14-digit hydrologic unit boundary designation, delineated within New Jersey by the United States Geological Survey.

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

"Independent State authority" means a public authority, board, commission, corporation, or other agency or instrumentality of the State allocated, in but not of, a principal department of State government pursuant to Article V, Section IV, paragraph 1 of the New Jersey Constitution, or which is not subject to supervision or control by the department in which it is allocated, and a regional authority, but shall not include a college or university

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

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

"**Major development**"

A. For the purposes of this section only, 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*};
   4. The reconstruction of one-quarter acre or more of "motor vehicle surface" or "impervious surface" since **{the effective date of this ordinance}**; or
   5. A combination of 2, 3, and 4 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.

B. Major development includes all developments that are part of a common plan of development or sale (for example, phased residential development) that collectively or individually meet any one or more of Subsection A(1), (2), (3), (4) or (5) above. Projects undertaken by any government agency that otherwise meet the definition of "major development" but which do not require approval pursuant to the

Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq., are also considered "major development."

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

"**Motor vehicle surface**" means any pervious or impervious surface that is intended to be used by "motor vehicles" and/or aircraft, and is directly exposed to precipitation including, but not limited to, driveways, parking areas, parking garages, roads, racetracks, and runways.

"**Municipality**" means any city, borough, town, township, or village.

"**New Jersey Stormwater Best Management Practices (BMP) Manual**" or "**BMP Manual**" means the manual maintained by the Department providing, in part, design specifications, removal rates, calculation methods, and soil testing procedures approved by the Department as being capable of contributing to the achievement of the stormwater management standards specified in this ordinance. The BMP Manual is periodically amended by the Department as necessary to provide design specifications on additional best management practices and new information on already included practices reflecting the best available current information regarding the particular practice and the Department's determination as to the ability of that best management practice to contribute to compliance with the standards contained in this ordinance. Alternative stormwater management measures, removal rates, or calculation methods may be utilized, subject to any limitations specified in this ordinance, provided the design engineer demonstrates to the municipality, in accordance with Subsection 55-329.4E(6). of this ordinance and N.J.A.C. 7:8-5.2(g), that the proposed measure and its design will contribute to the achievement of the design and performance standards established by this Ordinance.

"New public roadway or railroad" means the construction of a new public roadway or railroad where none currently or previously existed, such as a new bypass. This definition excludes the relocation or reinstating of a public roadway or railroad at a location where one previously existed within a right-of-way and excludes the construction of any widening, improvements and attendant features to an existing public roadway or railroad, such as new ramps, additional lanes/dualization, connection of gaps in existing mainlines, or connection of movements within and existing interchange.

"**Node**" means an area designated by the State Planning Commission concentrating facilities and activities which are not organized in a compact form.

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

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

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

"**Public roadway or railroad**" means a pathway for use by motor vehicles or trains that is intended for public use and is constructed by, or on behalf of, a public transportation entity. A public roadway or railroad does not include a roadway or railroad constructed as part of a private development, regardless of whether the roadway or railroad is ultimately to be dedicated to and/or maintained by a governmental entity.

"Public roadway or railroad project limits" means the segment of public roadway or railroad that is proposed to be constructed or improved, and including the right-of-way associated with the that segment of public roadway or railroad.

"**Public transportation entity**" means a Federal, State, interstate, county, or municipal government, an independent State authority, or a statutorily authorized public-private partnership program pursuant to P.L. 2018, c. 90 (N.J.S.A. 40A:11-52 et seq.), that performs a public roadway or railroad project that includes new construction, expansion, reconstruction, or improvement of a public roadway or railroad.

"**Recharge**" means the amount of water from precipitation that infiltrates into the ground and is not evapotranspiration.

"Reconstruction" means the replacement, rebuilding, or restoration of a lawfully existing structure.

"**Regulated impervious surface**" means any of the following, alone or in combination:

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

3. The total area of impervious surface proposed to be newly collected by an existing stormwater conveyance system; and/or
4. The total area of impervious surface collected by an existing stormwater conveyance system where the capacity of that conveyance system is increased.

"**Regulated motor vehicle surface**" means any of the following, alone or in combination:

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

"Retention" means retaining the stormwater runoff generated from development by infiltration, evapotranspiration, or reuse of stormwater runoff without the discharge of the stormwater runoff directly or indirectly to surface waters or to a treatment works.

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

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

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

"State Development and Redevelopment Plan Metropolitan Planning Area (PA1)" means an area delineated on the State Plan Policy Map and adopted by the State Planning Commission that is intended to be the focus for much of the State's future redevelopment and revitalization efforts.

"State Plan Policy Map" is defined as the geographic application of the State Development and Redevelopment Plan's goals and statewide policies, and the official map of these goals and policies.

"Storm Drain Inlet" means an opening in a storm drain used to collect stormwater runoff and includes, but is not limited to, a grate inlet, curb opening inlet, slotted inlet, and combination inlet.

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

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

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

"**Stormwater runoff**" means water flow on the surface of the ground or in storm sewers, resulting from precipitation.

"**Stormwater Management Planning Agency**" means a public body authorized by legislation to prepare stormwater management plans.

"**Stormwater Management Planning Area**" means the geographic area for which a stormwater management planning agency is authorized to prepare stormwater management plans, or a specific portion of that area identified in a stormwater management plan prepared by that agency.

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

"**Urban Coordinating Council Empowerment Neighborhood**" means a neighborhood given priority access to State resources through the New Jersey Redevelopment Authority.

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

"**Urban Redevelopment Area**" is defined as previously developed portions of areas:

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

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

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

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

§55-329.3. Design and Performance Standards for Stormwater Management Measures.

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

1. The minimum standards for erosion control are those established under the Soil and Sediment Control Act, N.J.S.A. 4:24-39 et seq., and implementing rules at N.J.A.C. 2:90.

2. The minimum standards for groundwater recharge, stormwater quality, and stormwater runoff quantity shall be met by incorporating green infrastructure.

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

§55-329.4. Stormwater Management Requirements for Major Development.

A. The development shall incorporate a maintenance plan for the stormwater management measures incorporated into the design of a major development in accordance with Subsection **55-329.10**.

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

C. The following development projects are exempt from the groundwater recharge, stormwater runoff quality, and stormwater runoff quantity requirements of Subsection **55-329.4 P,Q,R,** respectively, provided that any vegetated areas temporarily disturbed to conduct the project are, to the maximum extent practicable, revegetated with native, noninvasive vegetation upon completion of the project::

1. The construction, reconstruction, or repair of an underground utility line or cable, or its supporting infrastructure, such as conduit, junction boxes, and manholes;

2. The construction, reconstruction, or repair of an aboveground utility line or cable, or its supporting infrastructure, such as poles and towers; and

3. The construction, reconstruction, or repair 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;

4. The maintenance of a dam, and

5. Public safety improvements undertaken by municipality or another public transportation entity as set forth in this paragraph:

    a. Installation of guiderail systems, such as rails, posts, impact attenuators, and non-vegetated treatment surfaces, provided that any pavement utilized consists solely of permeable material;

    b. Installation of traffic, utility and ITS structures on poles including sign structures such as traffic signs, dynamic variable message signs, cameras, radios, traffic signal equipment and their supporting cabinets;

    c. Installation of railroad lineside signaling systems; and

    d. Rockfall mitigation activities that do not result in a net increase of regulated motor vehicle surface or impervious surface.

D. A waiver from strict compliance from the green infrastructure, groundwater recharge, stormwater runoff quality, and stormwater runoff quantity

requirements of Subsection 55-329.4 O, P, Q and R may be obtained for the enlargement of an existing public roadway or railroad; or the construction or enlargement of a public pedestrian access, provided that the conditions at D.1, 2, 3, and 4 below are met. The construction of a new public roadway or railroad is not eligible for a waiver pursuant to this subsection:

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

2. The applicant demonstrates through an alternatives analysis, that through the use of stormwater management measures, the option selected complies with the requirements of Subsections **55-329.4 O, P, Q and R** to the maximum extent practicable;

3. The applicant demonstrates that, in order to meet the requirements of Subsection **55-329.4 O, P, Q and R**, existing structures currently in use, such as homes and buildings, would need to be condemned; and

4. The applicant demonstrates that it does not own or have other rights to areas, including the potential to obtain through condemnation lands not falling under IV.D.3 above within the upstream drainage area of the receiving stream, that would provide additional opportunities to mitigate the requirements of Subsection **55-329.4 O, P, Q and R** that were not achievable onsite.

E. Tables 1 through 3 below summarize the ability of stormwater best management practices identified and described in the New Jersey Stormwater Best Management Practices Manual to satisfy the green infrastructure, groundwater recharge, stormwater runoff quality and stormwater runoff quantity standards specified in Subsection **55-329.4 O, P, Q and R**. When designed in accordance with the most current version of the New Jersey Stormwater Best Management Practices Manual, the stormwater management measures found at N.J.A.C. 7:8-5.2 (f) Tables 5-1, 5-2 and 5-3 and listed below in Tables 1, 2 and 3 are presumed to be capable of providing stormwater controls for the design and performance standards as outlined in the tables below. Upon amendments of the New Jersey Stormwater Best Management Practices to reflect additions or deletions of BMPs meeting these standards, or changes in the presumed performance of BMPs designed in accordance with the New Jersey Stormwater BMP Manual, the Department shall publish in the New Jersey Registers a notice of administrative change revising the applicable table. The most current version of the BMP Manual can be found on the Department's website at:

https://dep.nj.gov/stormwater/bmp-manual/.

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

Table 1
Green Infrastructure BMPs for Groundwater Recharge, Stormwater Runoff Quality, and/or Stormwater Runoff Quantity

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

Table 2
Green Infrastructure BMPs for Stormwater Runoff Quantity (or for Groundwater Recharge and/or Stormwater Runoff Quality with a Waiver or Variance from Section 329.4.O)

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

Table 3
BMPs for Groundwater Recharge, Stormwater Runoff Quality, and/or Stormwater Runoff Quantity only with a Waiver or Variance from Section 329.4.O

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	1
Subsurface Gravel Wetland	90	No	No	1
Wet Pond	50-90	Yes	No	N/A

Notes to Tables 1, 2, and 3:

(a) subject to the applicable contributory drainage area limitation specified at Section IV.O.2;
(b) designed to infiltrate into the subsoil;
(c) designed with underdrains;
(d) designed to maintain at least a 10-foot wide area of native vegetation along at least 50 percent of the shoreline and to include a stormwater runoff retention component designed to capture stormwater runoff for beneficial reuse, such as irrigation;
(e) designed with a slope of less than two percent;
(f) designed with a slope of equal to or greater than two percent;
(g) manufactured treatment devices that meet the definition of green infrastructure at Section II;
(h) manufactured treatment devices that do not meet the definition of green infrastructure at Section II.

G. An alternative stormwater management measure, alternative removal rate, and/or alternative method to calculate the removal rate may be used if the design engineer demonstrates the capability of the proposed alternative stormwater management measure and/or the validity of the alternative rate or method to the municipality. A copy of any approved alternative stormwater management measure, alternative removal rate, and/or alternative method to calculate the removal rate shall be provided to the Department in accordance with Subsection **55-329.6B**. Alternative stormwater management measures may be used to satisfy the requirements at Subsection **55-329.4O** only if the measures meet the definition of green infrastructure at Subsection **55-329.2**. Alternative stormwater management measures that function in a similar manner to a BMP listed at Subsection **55-329.4O(2)** are subject to the contributory drainage area limitation specified at Subsection **55-329.4O** 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 Subsection **55-329.4O(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 Section 329.11 or a waiver from strict compliance in accordance with Subsection **55-329.4D** is granted from Subsection **55-329.4O**.

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

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

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

2. Stormwater management measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper

functioning. Trash racks shall be installed at the intake to the outlet structure, as appropriate, and shall have parallel bars with one inch spacing between the bars to the elevation of the water quality design storm. For elevations higher than the water quality design storm, the parallel bars at the outlet structure shall be spaced no greater than one-third the width of the diameter of the orifice or one-third the width of the weir, with a minimum spacing between bars of one inch and a maximum spacing between bars of six inches. In addition, the design of trash racks must comply with the requirements of Subsection 55-329.4I(3);

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

4. Stormwater management BMPs shall be designed to meet the minimum safety standards for stormwater management BMPs at Subsection 55-329.8; and

5. Any flow control device, such as an orifice, weir, grate or perforated pipe, at the outlet of the stormwater management measures shall be designed to prevent the clogging of the flow control device while achieving the design and performance standards at Sections IV.P, Q and R.

J. Manufactured treatment devices may be used to meet the requirements of this section, provided the pollutant removal rates are verified by the New Jersey Corporation for Advanced Technology and certified by the Department. Manufactured treatment devices that do not meet the definition of green infrastructure at Subsection 55-329.4C may be used only under the circumstances described at Subsection 55-329.4O(4).

K. Any application for a new agricultural development that meets the definition of major development at Subsection 55-329.4C shall be submitted to the Soil Conservation District for review and approval in accordance with the requirements at Subsection 55-329.4 O, P, Q and R and any applicable Soil Conservation District guidelines for stormwater runoff quantity and erosion control. For purposes of this subsubsection, "agricultural development" means land uses normally associated with the production of food, fiber, and livestock for sale. Such uses do not include the development of land for the processing or sale of food and the manufacture of agriculturally related products.

L. If there is more than one drainage area, the groundwater recharge, stormwater runoff quality, and stormwater runoff quantity standards at Subsections 55-329.4 P, Q and R shall be met in each drainage area, unless the runoff from the drainage areas converge onsite and no adverse environmental impact would occur as a result of compliance with any one or more of the individual

standards being determined utilizing a weighted average of the results achieved for that individual standard across the affected drainage areas.

M. Any stormwater management measure authorized under the municipal stormwater management plan or ordinance shall be reflected in a deed notice recorded in the Office of the Ocean County Clerk. A form of deed notice shall be submitted to the municipality for approval prior to filing. The deed notice shall contain a description of the stormwater management measure(s) used to meet the green infrastructure, groundwater recharge, stormwater runoff quality, and stormwater runoff quantity standards at Subsections 55-329.4 O, P, Q and R and shall identify the location of the stormwater management measure(s) in NAD 1983 State Plane New Jersey FIPS 2900 US Feet or Latitude and Longitude in decimal degrees. The deed notice shall also reference the maintenance plan required to be recorded upon the deed pursuant to Subsection 55-329.10B(5). Prior to the commencement of construction, proof that the above required deed notice has been filed shall be submitted to the municipality. Proof that the required information has been recorded on the deed shall be in the form of either a copy of the complete recorded document or a receipt from the clerk or other proof of recordation provided by the recording office. However, if the initial proof provided to the municipality is not a copy of the complete recorded document, a copy of the complete recorded document shall be provided to the municipality within 180 calendar days of the authorization granted by the municipality.

N. A stormwater management measure approved under the municipal stormwater management plan or ordinance may be altered or replaced with the approval of the municipality, if the municipality determines that the proposed alteration or replacement meets the design and performance standards pursuant to Subsection 55-329.4 of this ordinance and provides the same level of stormwater management as the previously approved stormwater management measure that is being altered or replaced. If an alteration or replacement is approved, a revised deed notice shall be submitted to the municipality for approval and subsequently recorded with the Office of the Ocean County Clerk and shall contain a description and location of the stormwater management measure, as well as reference to the maintenance plan, in accordance with M above. Prior to the commencement of construction, proof that the above required deed notice has been filed shall be submitted to the municipality in accordance with M above.

O. Green Infrastructure Standards

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

2. Except as provided at O.6 through O.10 below, to satisfy the groundwater recharge and stormwater runoff quality standards at Subsections 55-329.4P and Q, the design engineer shall utilize green infrastructure BMPs identified in Table 1 at Subsection 55-329.4F and/or an alternative

stormwater management measure approved in accordance with Subsection 55-329.4G. 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. Except as provided at O.6, O.7.i, O.7.iii, O.8, O.9 and O.10 below, to satisfy the stormwater runoff quantity standards at Subsection 55-329.4Q, the design engineer shall utilize BMPs from Table 1 or from Table 2 and/or an alternative stormwater management measure approved in accordance with Subsection 55-329.4G.

4. If a variance in accordance with N.J.A.C. 7:8-4.6 (Section 329.11) or a waiver from strict compliance in accordance with Subsection 55-329.4D 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 Subsection 55-329.4G may be used to meet the groundwater recharge, stormwater runoff quality, and stormwater runoff quantity standards at Subsection 55-329.4 P, Q and R.

5. For separate or combined storm sewer improvement projects, such as sewer separation, undertaken by a government agency or public utility (for example, a sewerage company), the requirements of this subsection shall only apply to areas owned in fee simple by the government agency or utility, and areas within a right-of-way or easement held or controlled by the government agency or utility; the entity shall not be required to obtain additional property or property rights to fully satisfy the requirements of this subsection. Regardless of the amount of area of a separate or combined storm sewer improvement project subject to the green infrastructure requirements of this subsection, each project shall fully comply with the applicable groundwater recharge, stormwater runoff quality control, and stormwater runoff quantity standards at Subsections 55-329.4 P, Q and R, unless the project is granted a waiver from strict compliance in accordance with Subsection 55-329.4D.

6. The municipality or another public transportation entity proposing a public roadway or railroad project shall demonstrate compliance with the minimum design and performance standards for groundwater recharge,

stormwater runoff quality, and stormwater runoff quantity at Sections IV.P, Q, and R, respectively, by utilizing green infrastructure BMPs from Tables 1 or 2 within the public roadway or railroad project limits, unless green infrastructure BMPs from Tables 1 or 2 cannot be utilized due to unsuitable hydrologic, hydraulic, or physical conditions. If green infrastructure BMPs from Tables 1 or 2 cannot be utilized within the public roadway or railroad project limits due to unsuitable hydrologic, hydraulic, or physical conditions, IV.O.7 below shall apply.

7. Where the municipality or another public transportation entity demonstrates that it cannot achieve compliance with the minimum design and performance standards for groundwater recharge, stormwater runoff quality, and stormwater runoff quantity within the public roadway or railroad project limits in accordance with O.6 above, the following requirements shall apply:

   i. The municipality or another public transportation entity shall demonstrate compliance with the minimum design and performance standards for groundwater recharge, stormwater runoff quality, and stormwater runoff quantity at Sections IV.P, Q, and R, respectively, by utilizing green infrastructure BMPs from Tables 1 or 2 in disturbed lands immediately adjacent to the public roadway or railroad project limits.

      a. All disturbed lands adjacent to the public roadway or railroad project limits shall be investigated for achieving compliance with this paragraph regardless of whether the disturbed land is owned or controlled by the municipality or another public transportation entity. For the purpose of this subparagraph, disturbed land includes lawn, farmland, or other disturbed areas, but excludes preserved farmland and wooded areas.

      b. The municipality or another public transportation entity's investigation shall include lands held for recreation and conservation purposes. However, such lands are not required to be utilized if the proposed green infrastructure solution would violate State or Federal law or be inconsistent with or require a release or modification of any recorded restrictions on the property.

      c. Compliance with the minimum design and performance standards for groundwater recharge, stormwater runoff quality, and stormwater runoff quantity shall be achieved within the disturbed lands immediately adjacent to the public roadway or railroad project limits, unless the municipality or another public transportation entity demonstrates that compliance within this area cannot be

achieved due to unsuitable hydrologic, hydraulic, or physical conditions.

ii. If the municipality or another public transportation entity has demonstrated that compliance with O.7.i above cannot be achieved due to unsuitable hydrologic, hydraulic, or physical conditions, the municipality or another public transportation entity shall demonstrate compliance with the minimum design and performance standards for groundwater recharge and stormwater runoff quality at Sections IV.P and Q, respectively, by utilizing green infrastructure BMPs from Tables 1 or 2 in the land owned or controlled by the municipality or another public transportation entity, and the disturbed areas immediately adjacent thereto, located upstream of the project and within the same HUC-14 as the project.

iii. If the municipality or another public transportation entity has demonstrated that compliance with groundwater recharge and stormwater runoff quality standards pursuant to both O.7.i and O.7.ii above and/or stormwater runoff quantity standards pursuant to O.7.i above cannot be achieved due to unsuitable hydrologic, hydraulic, or physical conditions, the municipality or another public transportation entity may utilize stormwater BMPs from Table 3 to comply with the unmet standards that have been demonstrated to be not achieved pursuant to O.7.i and O.7.ii above, as applicable, without the need to request a waiver from strict compliance pursuant to Section IV.D.

8. If the municipality or another public transportation entity seeking to enlarge an existing public roadway or railroad demonstrates that compliance with the design and performance standards for stormwater runoff quality, groundwater recharge, or stormwater runoff quantity cannot be achieved in accordance with O.6 and O.7 above, it shall request a waiver from strict compliance pursuant to Section IV.D. The construction of new public roadways or railroads are not eligible for the waiver from strict compliance at Section IV.D.

9. For the purposes of O.6 and O.7 above, unsuitable hydrologic, hydraulic, or physical conditions means any physical, hydrologic, or hydraulic impediment that prevents the installation of a functioning BMP on a particular area of land such as, but not limited to, high seasonal high water table elevation, slope steeper than the maximum slope allowable for a BMP, karst topography, shallow depth to bedrock, unavoidable adverse impact resulting from groundwater mounding, or physical impedances caused by existing structures. Additionally, an inability to retain safe pedestrian passage shall be considered an unsuitable physical condition. Demonstration of unsuitable hydrologic or hydraulic conditions shall be supported by appropriate documentation that complies with the requirements set forth in the applicable laws, rules, ordinances, and

construction codes, such as soil testing reports, site plans, survey maps, geological investigation reports, geotechnical reports, and/or photos. The documents shall be submitted to the Department, along with the certification required at O.10 below. Further, the municipality or another public transportation entity shall retain copies of the documents. Installation of a stormwater BMP within the area of a sidewalk, whether within or outside the public roadway or railroad project limits, shall provide sufficient pedestrian passage in the remaining sidewalk.

10. If the municipality or another public transportation entity has demonstrated compliance with the groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements of this ordinance in accordance with O.7 and O.8 above, the municipality or another public transportation entity shall submit to the Department a certification stating that the municipality or another public transportation entity has conducted its analysis in conformance with O.6 through O.8 above. The certification shall:

    i. Be signed and sealed by one or more design engineers;

    ii. Be endorsed by the chief executive officer of the municipality or another public transportation entity; a senior executive officer having responsibility for the overall operations of a principal geographic unit of the public transportation entity (for example, Regional Administrator); or a duly authorized representative by the chief executive officer of the public transportation entity;

    iii. Include the description of project, location, name and title of the individual with direct knowledge of the review and analysis, the description of the investigation performed, rationale for the decision, and the documentation described in O.9 above must be attached to the certification;

    iv. Be submitted to the Department at the email address listed in Section VI.B as part of the application for any permit listed in N.J.A.C. 7:8-1.6(a)1 through 5, if applicable, and;

    v. Be included in the annual report that is required to be submitted to the Department pursuant to the municipality's Municipal Separate Storm Sewer System permit, pursuant to N.J.A.C. 7:14A.

11. Notwithstanding the requirements in this subsection, any public roadway or railroad project that has determined a preferred alternative or equivalent milestone by March 2, 2021, shall not be subject to O.2, O.3, and O.4 above, provided that the municipality or another public transportation entity submits to the Department at the email address listed at Section VI.B, by March 20, 2026, a list of projects that have selected a preferred alternative or equivalent milestone by March 2, 2021, and that

the municipality or another public transportation entity does not make a substantial change to the design of the project on or after March 2, 2021.

P. Groundwater Recharge Standards

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

2. The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at Subsection 55-329.5, either:

   i. Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100 percent of the average annual pre-construction groundwater recharge volume for the site; or

   ii. Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the projected 2-year storm, as defined and determined pursuant to Subsection 329.5 D of this ordinance, is infiltrated.

3. This groundwater recharge requirement does not apply to projects within the "urban redevelopment area," or to projects subject to Subsection 329.4 P(4) below.

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

   i. Stormwater from areas of high pollutant loading. High pollutant loading areas are areas in industrial and commercial developments where solvents and/or petroleum products are loaded/unloaded, stored, or applied, areas where pesticides are loaded/unloaded or stored; areas where hazardous materials are expected to be present in greater than "reportable quantities" as defined by the United States Environmental Protection Agency (EPA) at 40 CFR 302.4; areas where recharge would be inconsistent with Department approved remedial action work plan approved pursuant to the Administrative Requirements for the Remediation of Contaminated Sites rules, N.J.A.C. 7:26C, or Department landfill closure plan and areas; and areas with high risks for spills of toxic materials, such as gas stations and vehicle maintenance facilities; and

   ii. Industrial stormwater exposed to "source material." "Source material" means any material(s) or machinery, located at an industrial facility, that is directly or indirectly related to process, manufacturing or other industrial activities, which could be a source of pollutants in any industrial stormwater discharge to groundwater. Source materials include, but are not limited to, raw materials; intermediate products; final products; waste materials; by-products; industrial machinery and

fuels, and lubricants, solvents, and detergents that are related to process, manufacturing, or other industrial activities that are exposed to stormwater.

Q. Stormwater Runoff Quality Standards

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

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

i. Ninety-five percent TSS removal of the anticipated load, expressed as an annual average, shall be achieved for stormwater runoff from any new or reconstructed motor vehicle surface that is proposed to be:

a. Discharged within a 300-foot riparian zone (as established by the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13-4.1(c)1); or
b. Discharged into an existing or proposed stormwater conveyance system that ultimately discharges within a 300-foot riparian zone located within the same HUC14 as the major development.

ii. Eighty percent TSS removal of the anticipated load, expressed as an annual average shall be achieved for the stormwater runoff from any new or reconstructed of motor vehicle surface not covered by Q.2.i above, except as follows:

a. Where the municipality or another public transportation entity demonstrates that achieving 80 percent TSS removal pursuant to Q.2.ii above for a public roadway project would require acquisition of developed or otherwise encumbered land outside of the entity's existing right-of-way along the section of roadway being improved or constructed, the public transportation entity shall instead provide water quality treatment to the maximum extent practicable, with a minimum water quality treatment of 50 percent TSS removal for all new and reconstructed motor vehicle.

iii. 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, unless Q.2.i or Q.2.ii above require a higher level of TSS removal.

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 Subsection 329.4Q(2)(ii) above, unless the major development is subject to a NJPDES permit with a numeric effluent limitation for TSS or the NJPDES permit to which the major development is subject exempts the development from a numeric effluent limitation for TSS.

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

Table 4 - Water Quality Design Storm Distribution

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

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

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

   R = total TSS Percent Load Removal from application of both BMPs, and
   A = the TSS Percent Removal Rate applicable to the first BMP
   B = the TSS Percent Removal Rate applicable to the second BMP.

6. Stormwater management measures shall also be designed to reduce, to the maximum extent feasible, the post-construction nutrient load of the anticipated load from the developed site in stormwater runoff generated from the water quality design storm. In achieving reduction of nutrients to the maximum extent feasible, the design of the site shall include green infrastructure BMPs that optimize nutrient removal while still achieving the performance standards in Subsection **55-329.4 P, Q and R.**

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

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

9. The 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.

10. Stormwater management measures shall be designed to incorporate any additional measures specified in a TMDL(s) total maximum daily loads(s) approved or established by United States Environmental Protection Agency EPA, unless otherwise required pursuant to N.J.A.C. 7:14A-25.6(e).

R. Stormwater Runoff Quantity Standards

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

2. In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at Subsection **55-329.5**, complete one of the following:

   (a) Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the current and projected 2-, 10-, and 100-year storm events, as defined and determined in Subsection **329.5 C and D**, respectively, of this ordinance, do not exceed, at any point in time, the pre-construction runoff hydrographs for the same storm events;

   (b) Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the current and projected 2-, 10-, and 100-year storm events, as defined and determined pursuant to Subsection **329.5 C and D,** respectively, of this ordinance, and that the increased volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site. This analysis shall include the analysis of impacts of existing land uses and projected land uses assuming full development pursuant to existing zoning and land use ordinances in the drainage area;
      a. If the analysis demonstrates that there is no increase in the volume or peak runoff rates of stormwater leaving the site, and the change in timing is solely a result of the proposed installation of BMPs to comply with Section IV.Q or Section IV.R.4 below, then no analysis of downstream flooding impacts shall be required, unless the review agency determines that the project will result in increased flood damages downstream of the site;

   (c) Design stormwater management measures so that the post-construction peak runoff rates for the current and projected 2-, 10-,and 100-year storm events, as defined and determined in Subsections **329.5 C and D**, respectively, of this ordinance, are 50, 75 and 80 percent, respectively, of the pre-construction peak runoff rates. The percentages apply only to the post-construction stormwater runoff that is attributable to the portion of the site on which the proposed development or project is to be constructed; or

   (d) In tidal flood hazard areas, stormwater runoff quantity analysis in accordance with 2(a), (b) and (c) above is required unless the

design engineer demonstrates through hydrologic and hydraulic analysis that the increased volume, change in timing, or increased rate of the stormwater runoff, or any combination of the three will not result in additional flood damage below the point of discharge of the major development. No analysis is required if the stormwater is discharged directly into any ocean, bay, inlet, or the reach of any watercourse between its confluence with an ocean, bay, or inlet and downstream of the first water control structure.

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

4. Except as provided in R.4.iii below, the design engineer shall demonstrate that the major development meets the minimum volumetric reduction standard in accordance with R.4.i and/or R.4.ii below.

   i. Stormwater management measures shall be designed to achieve retention of the water quality design storm by incorporating green infrastructure BMPs from Table 1 and Table 2 unless R.4.i.a below applies:

      a. Where an applicant demonstrates that compliance with this subparagraph is technically impracticable as set forth at N.J.A.C. 7:8-4.6(a)1 {Section XI, if the optional Section XI is adopted}, or the type of stormwater is subject to Section IV.P.4, a major development site shall instead meet the hydrograph requirements at R.4.i.a(1) and R.4.i.a(2) below:

      (1) The runoff peak flow rate of the water quality design storm from the site shall be less than the runoff peak flow rate of the water quality design storm from a drainage area equivalent to the size of the disturbed area of the major development, with a woods cover type, in good hydrologic condition and on Hydrologic Soil Group D soil; and

      (2) The runoff hydrograph duration of the water quality design storm from the site shall be greater than the runoff hydrograph duration of the water quality design storm from a drainage area equivalent to the size of disturbed areas of the major development, with a woods cover type, in good hydrologic condition, and on Hydrologic Soil Group D soil. For the purposes of this sub-subparagraph, "runoff hydrograph duration" means the duration between the time that the runoff flow rate starts to be greater than zero to the time that the runoff flow rate becomes zero.

ii. In the alternative of R.4.i above, the applicant may address all or a portion of the volumetric reduction standard, as follows:

a. The applicant shall undertake one or both of the following:

(1) Removal of existing impervious surface totaling an area equal to or greater than the impervious surface within the disturbed portions of the major development site; and/or
(2) Retention of an equivalent or greater volume of stormwater runoff generated by the water quality design storm required pursuant to R.4 above at an offsite location. Runoff retained from storms other than the water quality design storm shall not be counted toward compliance with this requirement.

b. Volumetric reduction pursuant to R.4.ii.a above shall occur within the same HUC-14 as the major development, except where the applicant is a public transportation entity that demonstrates providing volumetric reduction within the same HUC-14 is technically reasons as set forth in N.J.A.C. 7:8-4.6 {Section XI, if the optional section is adopted}, in which case the applicant shall provide volumetric reduction within the same Watershed Management Area as the major development, and as close as practicable to the major development.
c. Any application for a major development that utilizes offsite impervious surface removal or retention to comply with the volumetric reduction standard must be accompanied by sufficient information and property owner permission to fully review and approve the offsite portion of the project along with the major development itself. Applications utilizing offsite impervious surface removal or retention without this information shall not be considered complete. Further, any offsite portions of the project must be construction prior to, or concurrent with, the major development.

iii. The volumetric reduction standards of this subsection shall not be applicable to projects that are undertaken by a public transportation entity in cases where the project meets the definition of major development solely because the project results in increased capacity of an existing stormwater conveyance system.

§55-329.5 Calculation of Stormwater Runoff and Groundwater Recharge:

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

1. The design engineer shall calculate runoff using the following method:

The USDA Natural Resources Conservation Service (NRCS) methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograph, as described in Chapters 7, 9, 10, 15 and 16 *Part 630, Hydrology National Engineering Handbook*, incorporated herein by reference as amended and supplemented. This methodology is additionally described in *Technical Release 55 - Urban Hydrology for*

Small Watersheds (TR-55), dated June 1986, incorporated herein by reference as amended and supplemented. Information regarding the methodology is available from the Natural Resources Conservation Service website at:

https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=21422

or at United States Department of Agriculture Natural Resources Conservation Service, New Jersey State Office.

2. For the purpose of calculating curve numbers 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 "curve number" applies to the NRCS methodology above at Subsection **55-329.5A.1**. A curve number 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. In addition, there is the presumption that the site is in good hydrologic condition (if the land use type is pasture, lawn, or park), with good cover (if the land use type is woods), or with good hydrologic condition and conservation treatment (if the land use type is cultivation).

3. In computing pre-construction stormwater runoff, the design engineer shall account for all significant land features and structures, such as ponds, wetlands, depressions, hedgerows, or culverts, that may reduce pre-construction stormwater runoff rates and volumes.

4. In computing stormwater runoff from all design storms, the design engineer shall consider the relative stormwater runoff rates and/or volumes of pervious and impervious surfaces separately to accurately compute the rates and volume of stormwater runoff from the site. To calculate runoff from unconnected impervious cover, urban impervious area modifications as described in the NRCS *Technical Release 55 – Urban Hydrology for Small Watersheds* or other methods may be employed.

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

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

The New Jersey Geological Survey Report GSR-32: A Method for Evaluating Groundwater-Recharge Areas in New Jersey, incorporated herein by reference as amended and supplemented. Information regarding the methodology is available from the New Jersey Stormwater Best Management Practices Manual; at the New Jersey Geological Survey website at:

https://www.nj.gov/dep/njgs/pricelst/gsreport/gsr32.pdf

or at New Jersey Geological and Water Survey, 29 Arctic Parkway, PO Box 420 Mail Code 29-01, Trenton, New Jersey 08625-0420.

C. The precipitation depths of the current two-, 10-, and 100-year storm events shall be determined by multiplying the values determined in accordance with items 1 and 2 below:

1. The applicant shall utilize the National Oceanographic and Atmospheric Administration (NOAA), National Weather Service's Atlas 14 Point Precipitation Frequency Estimates: NJ, in accordance with the location(s) of the drainage area(s) of the site. This data is available at:

   https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=nj; and

2. The applicant shall utilize Table 5: Current Precipitation Adjustment Factors below, which sets forth the applicable multiplier for the drainage area(s) of the site, in accordance with the county or counties where the drainage area(s) of the site is located. Where the major development lies in more than one county, the precipitation values shall be adjusted according to the percentage of the drainage area in each county. Alternately, separate rainfall totals can be developed for each county using the values in the table below.

Table 5: Current Precipitation Adjustment Factors

County	Current Precipitation Adjustment Factors		
	2-year Design Storm	10-year Design Storm	100-year Design Storm
Atlantic	1.01	1.02	1.03
Bergen	1.01	1.03	1.06
Burlington	0.99	1.01	1.04
Camden	1.03	1.04	1.05
Cape May	1.03	1.03	1.04
Cumberland	1.03	1.03	1.01
Essex	1.01	1.03	1.06
Gloucester	1.05	1.06	1.06
Hudson	1.03	1.05	1.09
Hunterdon	1.02	1.05	1.13
Mercer	1.01	1.02	1.04
Middlesex	1.00	1.01	1.03
Monmouth	1.00	1.01	1.02
Morris	1.01	1.03	1.06
Ocean	1.00	1.01	1.03
Passaic	1.00	1.02	1.05
Salem	1.02	1.03	1.03
Somerset	1.00	1.03	1.09
Sussex	1.03	1.04	1.07
Union	1.01	1.03	1.06
Warren	1.02	1.07	1.15

D. Table 6: Future Precipitation Change Factors provided below sets forth the change factors to be used in determining the projected two-, 10-, and 100-year storm events for use in this ordinance which are organized alphabetically by county. The precipitation depth of the projected two-, 10-, and 100-year storm events of a site shall be determined by multiplying the precipitation depth of the two-, 10-, and 100-year storm events determined from the National Weather Service's Atlas 14 Point Precipitation Frequency Estimates pursuant to **C.1** above, by the change factor in the table below, in accordance with the county or counties where the drainage area(s) of the site is located. Where the major development and/or its drainage area lies in more than one county, the precipitation values shall be adjusted according to the percentage of the drainage area in each county. Alternately, separate rainfall totals can be developed for each county using the values in the table below.

Table 6: Future Precipitation Change Factors

County	Future Precipitation Change Factors		
	2-year Design Storm	10-year Design Storm	10-year Design Storm
Atlantic	1.22	1.24	1.39
Bergen	1.20	1.23	1.37
Burlington	1.17	1.18	1.32
Camden	1.18	1.22	1.39
Cape May	1.21	1.24	1.32
Cumberland	1.20	1.21	1.39
Essex	1.19	1.22	1.33
Gloucester	1.19	1.23	1.41
Hudson	1.19	1.19	1.23
Hunterdon	1.19	1.23	1.42
Mercer	1.16	1.17	1.36
Middlesex	1.19	1.21	1.33
Monmouth	1.19	1.19	1.26
Morris	1.23	1.28	1.46
Ocean	1.18	1.19	1.24
Passaic	1.21	1.27	1.50
Salem	1.20	1.23	1.32
Somerset	1.19	1.24	1.48
Sussex	1.24	1.29	1.50
Union	1.20	1.23	1.35
Warren	1.20	1.25	1.37

§55-329.6 Sources for Technical Guidance:

A. Technical guidance for stormwater management measures can be found in the documents listed below, which are available to download from the Department's website at:

https://dep.nj.gov/stormwater/bmp-manual/.

1. Guidelines for stormwater management measures are contained in the New Jersey Stormwater Best Management Practices Manual, as amended and supplemented. Information is provided on stormwater management measures such as, but not limited to, those listed in Tables 1, 2, and 3.

2. Additional maintenance guidance is available on the Department's website at:

   https://dep.nj.gov/stormwater/maintenance-guidance/.

B. Submissions required for review by the Department should be directed to the New Jersey Department of Environmental Protection's Division of Watershed Protection and Restoration through email to stormwatermanagementrules@dep.nj.gov.

§55-329.7 Solids and Floatable Materials Control Standards:

A. Site design features identified under Subsection **55-329.4F**, or alternative designs in accordance with Subsection **55-329.4G**, 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 subsection, "solid and floatable materials" means sediment, debris, trash, and other floating, suspended, or settleable solids. For exemptions to this standard see **A.2** below.

   1. Design engineers shall use one of the following grates whenever they use a grate in pavement or another ground surface to collect stormwater from that surface into a storm drain or surface water body under that grate:

      i. The New Jersey Department of Transportation (NJDOT) bicycle safe grate, which is described in Chapter 2.4 of the NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines; or

      ii. A different grate, if each individual clear space in that grate has an area of no more than seven (7.0) square inches or is no greater than 0.5 inches across the smallest dimension.

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

iii. For curb-opening inlets, including curb-opening inlets in combination inlets, the clear space in that curb opening, or each individual clear space if the curb opening has two or more clear spaces, shall have an area of no more than seven (7.0) square inches, or be no greater than two (2.0) inches across the smallest dimension.

2. The standard in Subsection **55-329.7A.1**. above does not apply:

i. Where each individual clear space in the curb opening in existing curb-opening inlet does not have an area of more than nine (9.0) square inches;

ii. Where the municipality agrees that the standards would cause inadequate hydraulic performance that could not practicably be overcome by using additional or larger storm drain inlets;

iii. Where flows from the water quality design storm as specified in N.J.A.C. 7:8 are conveyed through any device (e.g., end of pipe netting facility, manufactured treatment device, or a catch basin hood) that is designed, at a minimum, to prevent delivery of all solid and floatable materials that could not pass through one of the following:

a. A rectangular space four and five-eighths (4.625) inches long and one and one-half (1.5) inches wide (this option does not apply for outfall netting facilities); or

b. A bar screen having a bar spacing of 0.5 inches.

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

iv. Where flows are conveyed through a trash rack that has parallel bars with one inch (1 inch) spacing between the bars, to the elevation of the Water Quality Design Storm as specified in N.J.A.C. 7:8; or

v. Where the New Jersey Department of Environmental Protection determines, pursuant to the New Jersey Register of Historic Places Rules at N.J.A.C. 7:4-7.2(c), that action to meet this standard is an undertaking that constitutes an encroachment or will damage or destroy the New Jersey Register listed historic property.

§55-329.8 Safety Standards for Stormwater Management Basins:

A. This section sets forth requirements to protect public safety through the proper design and operation of stormwater management BMPs. This section applies to any new stormwater management BMP.

B. The provisions of this section are not intended to preempt more stringent municipal or county safety requirements for new or existing stormwater management BMPs. Municipal and county stormwater management plans and ordinances may, pursuant to their authority, require existing stormwater management BMPs to be retrofitted to meet one or more of the safety standards in Subsection **55-329.8C.1, C.2, and C.3** for trash racks, overflow grates, and escape provisions at outlet structures.

C. Requirements for Trash Racks, Overflow Grates and Escape Provisions

1. A trash rack is a device designed to catch trash and debris and prevent the clogging of outlet structures. Trash racks shall be installed at the intake to the outlet from the Stormwater management BMP to ensure proper functioning of the BMP outlets in accordance with the following:

   i. The trash rack shall have parallel bars, with no greater than six-inch spacing between the bars;

   ii. The trash rack shall be designed so as not to adversely affect the hydraulic performance of the outlet pipe or structure;

   iii. The average velocity of flow through a clean trash rack is not to exceed 2.5 feet per second under the full range of stage and discharge. Velocity is to be computed on the basis of the net area of opening through the rack; and

   iv. The trash rack shall be constructed of rigid, durable, and corrosion resistant material and designed to withstand a perpendicular live loading of 300 pounds per square foot.

2. An overflow grate is designed to prevent obstruction of the overflow structure. If an outlet structure has an overflow grate, such grate shall meet the following requirements:

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

   ii. The overflow grate spacing shall be no greater than two inches across the smallest dimension.

   iii. The overflow grate shall be constructed and installed to be rigid, durable, and corrosion resistant, and shall be designed to withstand a perpendicular live loading of 300 pounds per square foot.

3. Stormwater management BMPs shall include escape provisions as follows:

    i. If a stormwater management BMP has an outlet structure, escape provisions shall be incorporated in or on the structure. Escape provisions include the installation of permanent ladders, steps, rungs, or other features that provide easily accessible means of egress from stormwater management BMPs. With the prior approval of the municipality pursuant to Subsection **55-329.8C**, a free-standing outlet structure may be exempted from this requirement;

    ii. Safety ledges shall be constructed on the slopes of all new stormwater management BMPs having a permanent pool of water deeper than two and one-half feet. Safety ledges shall be comprised of two steps. Each step shall be four to six feet in width. One step shall be located approximately two and one-half feet below the permanent water surface, and the second step shall be located one to one and one-half feet above the permanent water surface. See Subsection **55-329.8E** for an illustration of safety ledges in a stormwater management BMP; and

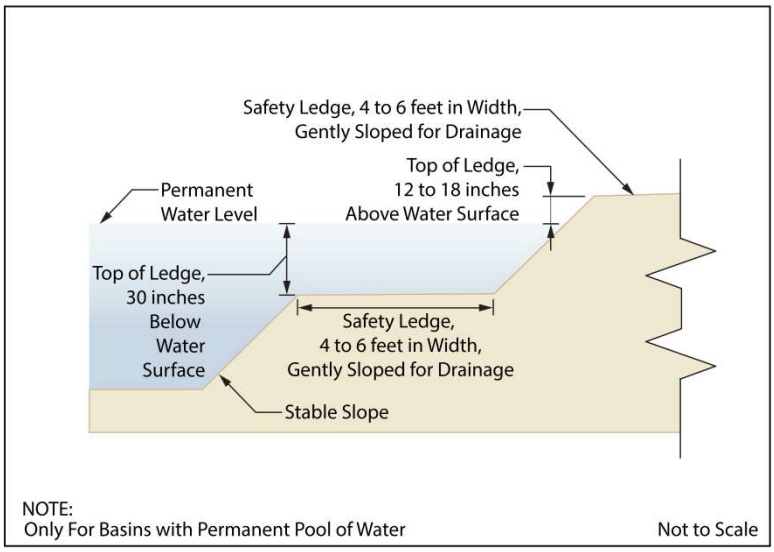
    iii. In new stormwater management BMPs, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.

D. Variance or Exemption from Safety Standard

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

E. Safety Ledge Illustration

Elevation View –Basin Safety Ledge Configuration



§55-329.9 Requirements for a Site Development Stormwater Plan:

A. Submission of Site Development Stormwater Plan

1. Whenever an applicant seeks municipal approval of a development subject to this ordinance, the applicant shall submit all of the required components of the Checklist for the Site Development Stormwater Plan at Subsection 55-329.9C below as part of the submission of the application for approval.

2. The applicant shall demonstrate that the project meets the standards set forth in this ordinance.

3. The applicant shall submit four copies of the materials listed in the checklist for site development stormwater plans in accordance with Subsection I55-329.9C of this ordinance.

B. Site Development Stormwater Plan Approval

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

C. Submission of Site Development Stormwater Plan

The following information shall be required:

1. Topographic Base Map

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

2. Environmental Site Analysis

A written and graphic description of the natural and man-made features of the site and its surroundings should be submitted. This description should include a discussion of soil conditions, slopes, wetlands, waterways and vegetation on the site. Particular attention should be given to unique, unusual, or environmentally sensitive features and to those that provide particular opportunities or constraints for development.

3. Project Description and Site Plans

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

4. Land Use Planning and Source Control Plan

This plan shall provide a demonstration of how the goals and standards of Subsections 55-329.3 through 55-329.5 are being met. The focus of this plan shall be to describe how the site is being developed to meet the objective of controlling groundwater

recharge, stormwater quality and stormwater quantity problems at the source by land management and source controls whenever possible.

5. Stormwater Management Facilities Map

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

i. Total area to be disturbed, paved or built upon, proposed surface contours, land area to be occupied by the stormwater management facilities and the type of vegetation thereon, and details of the proposed plan to control and dispose of stormwater.

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

6. Calculations

i. Comprehensive hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in Subsection 55-329.4 of this ordinance.

ii. A soil report complying with the requirements in Chapter 12 of the BMP Manual shall be submitted to determine the suitability and distribution of soils present at the location of the site.

7. Maintenance and Repair Plan

The design and planning of the stormwater management facility shall meet the maintenance requirements of Subsection 55-329.10.

8. Waiver from Submission Requirements

The municipal official or board reviewing an application under this ordinance may, in consultation with the municipality's review engineer, waive submission of any of the requirements in Subsection 55-329.9C.1 through 55-329.9C.6 of this ordinance when it can be demonstrated that the information requested is impossible to obtain or it would create a hardship on the applicant to obtain and its absence will not materially affect the review process.

§55-329.10 Maintenance and Repair:

A. Applicability

Projects subject to review as in Subsection **55-329.1.C** of this ordinance shall comply with the requirements of Section **55-329.10B and C**.

B. General Maintenance

1. The design engineer shall prepare a maintenance plan for the stormwater management measures incorporated into the design of a major development.

2. The maintenance plan shall contain specific preventative maintenance tasks and schedules; cost estimates, including estimated cost of sediment, debris, or trash removal; and the name, address, and telephone number of the person or persons responsible for preventative and corrective maintenance (including replacement). The plan shall contain information on BMP location, design, ownership, maintenance tasks and frequencies, and other details as specified in Chapter 8 of the NJ BMP Manual, as well as the tasks specific to the type of BMP, as described in the applicable chapter containing design specifics.

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

4. Responsibility for maintenance shall not be assigned or transferred to the owner or tenant of an individual property in a residential development or project, unless such owner or tenant owns or leases the entire residential development or project. The individual property owner may be assigned incidental tasks, such as weeding of a green infrastructure BMP, provided the individual agrees to assume these tasks; however, the individual cannot be legally responsible for all of the maintenance required.

5. If the party responsible for maintenance identified under **B.3** above is not a public agency, the maintenance plan and any future revisions based on **(7)** below shall be recorded upon the deed of record for each property on which the maintenance described in the maintenance plan must be undertaken.

6. Preventative and corrective maintenance shall be performed to maintain the functional parameters (storage volume, infiltration rates,

inflow/outflow capacity, etc.).of the stormwater management measure, including, but not limited to, repairs or replacement to the structure; removal of sediment, debris, or trash; restoration of eroded areas; snow and ice removal; fence repair or replacement; restoration of vegetation; and repair or replacement of non-vegetated linings.

7. The party responsible for maintenance identified under **B(3)** above shall perform all of the following requirements:

   i. maintain a detailed log of all preventative and corrective maintenance for the structural stormwater management measures incorporated into the design of the development, including a record of all inspections and copies of all maintenance-related work orders;

   ii. evaluate the effectiveness of the maintenance plan at least once per year and adjust the plan and the deed as needed; and

   iii. retain and make available, upon request by any public entity with administrative, health, environmental, or safety authority over the site, the maintenance plan and the documentation required by **B.6 and B.7** above.

8. The requirements of Subsection **55-329.10.B.3 and B.4** do not apply to stormwater management facilities that are dedicated to and accepted by the municipality or another governmental agency, subject to all applicable municipal stormwater general permit conditions, as issued by the Department.

   Note: It may be appropriate to delete requirements in the maintenance and repair plan that are not applicable if the ordinance requires the facility to be dedicated to the municipality. If the municipality does not want to take this responsibility, the ordinance should require the posting of a two year maintenance guarantee in accordance with N.J.S.A. 40:55D-53. Maintenance and inspection guidance can be found on the Department's website at:

   https://dep.nj.gov/stormwater/maintenance-guidance/

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

and shall bill the cost thereof to the responsible person. Nonpayment of such bill may result in a lien on the property.

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

§55-329.11 Variance from the Design and Performance Standards for Stormwater Management Measures

A. A variance from the design and performance standards for stormwater management measures set forth in this ordinance and the municipal stormwater management plan, provided the municipal stormwater management plan includes a mitigation plan or a mitigation plan in accordance with the conditions in this Section:

1. The applicant demonstrates that it is technically impracticable to meet any one or more of the design and performance standards on-site. For the purposes of this analysis, technical impracticability exists only when the design and performance standard cannot be met for engineering, environmental, or safety reasons. The approval of a variance shall apply to an individual drainage area and design and performance standard and shall not apply to an entire site or project, unless an applicant provides the required analysis for each drainage area within the site and each design and performance standard;

2. The applicant demonstrates that the proposed design achieves the maximum possible compliance with the design and performance standards on-site; and

3. A mitigation project in accordance with the following is implemented.

   i. The mitigation project may be selected from the municipal mitigation plan or may be proposed by the applicant, provided it meets the criteria in the municipal mitigation plan.

   ii. The mitigation project shall be approved no later than preliminary or final site plan approval of the major development.

   iii. The mitigation project shall be located in the same HUC 14 as the area of the major development subject to the variance.

   iv. The mitigation project shall be constructed prior to, or concurrently with, the major development.

v. The mitigation project shall comply with the green infrastructure standards at Section IV.O.

vi. If the variance that resulted in the mitigation project being required is from the green infrastructure standards at Section IV.O, then the mitigation project must use green infrastructure BMPs in Table 1, and/or an alternative stormwater management measure approved in accordance with Section IV.G that meets the definition of green infrastructure to manage an equivalent or greater area of impervious surface and an equivalent or greater area of motor vehicle surface as the area of the major development subject to the variance. Grass swales and vegetative filter strips may only be used in the mitigation project if the proposed project additionally includes a green infrastructure BMP other than a grass swale or vegetative filter strip. The green infrastructure used in the mitigation project must be sized to manage the water quality design storm, as defined at Section IV.Q, at a minimum, and is subject to the applicable contributory drainage area limitation specified at Section IV.G or Section IV.O, as applicable.

vii. A variance from the groundwater recharge standards at Section IV.P may be granted if one of the following is met:

(1) The average annual groundwater recharge provided by the mitigation project must equal or exceed the average annual groundwater recharge deficit resulting from granting the variance for the major development; or

(2) Runoff infiltrated during the two-year storm from the mitigation project must equal or exceed the deficit resulting from granting the variance from the required infiltration of the increase in runoff volume from pre-construction to post-construction from the major development.

viii. A variance from the stormwater runoff quality standards at Section IV.Q may be granted if the following are met:

(1) The total drainage area of motor vehicle surface managed by the mitigation project(s) must equal or exceed the drainage area of the area of the major development subject to the variance and must provide sufficient TSS removal to equal or exceed the deficit resulting from granting the variance for the major development; and

(2) The mitigation project must remove nutrients to the maximum extent feasible in accordance with Section IV.Q.

ix. A variance from the stormwater runoff quantity standards at Section IV.Q may be granted if the following are met:

(1) The applicant demonstrates, through hydrologic and hydraulic analysis, including the effects of the mitigation project, that the variance will not result in increased flooding damage below each point of discharge of the major development;

(2) The mitigation project discharges to the same watercourse and is located upstream of the major development subject to the variance; and

(3) The mitigation project provides peak flow rate attenuation in accordance with Section IV.Q for an equivalent or greater area than the area of the major development subject to the variance. For the purposes of this demonstration, equivalent includes both size of the area and percentage of impervious surface and/or motor vehicle surface.

x. The applicant or the entity assuming maintenance responsibility for the associated major development shall be responsible for preventive and corrective maintenance (including replacement) of the mitigation project and shall be identified as such in the maintenance plan established in accordance with Section X. This responsibility is not transferable to any entity other than a public agency, in which case, a written agreement with that public agency must be submitted to the review agency.

B. Any approved variance shall be submitted by the municipality to the county review agency and the New Jersey Department of Environmental Protection, by way of a written report describing the variance, as well as the required mitigation, within 30 days of the approval.

§55-329.12 Penalties and Enforcement

A. Any person, firm, corporation partnership or other business association found guilty of violating any of the provisions of this section shall be subject to a fine of not more than $2,500 for each offense and/or confinement in the Ocean County Jail for a period of not more than 30 days. In case of a continuing violation or violations, a fine of not more than $500 may be assessed for each day that said violation or violations continue unabated until such time as same corrected.

B. Each instance of engaging in a separate regulated activity in violation of this section shall be deemed a separate offense.

C. In addition, the Township may institute civil action for injunctive or other relief to enforce the provisions of this section.

D. This section shall be enforced by the Township Construction Official, Department of Public Utilities, Zoning and Coding Enforcement Department, Township Engineer and/or said Departments designee.

§55-329.13 Severability:

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

§55-329.14 Effective Date:

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

SECTION 2. Each section, subsection, sentence, clause and phrase of this Ordinance is declared to be an independent section, subsection, sentence, clause and phrase, and the finding or holding of any such portion of this ordinance to be unconstitutional, void, or ineffective for any cause, or reason, shall not affect any other portion of this Ordinance.

SECTION 3. All ordinances or parts of ordinances inconsistent herewith are hereby repealed.

SECTION 4. If any section, subsection, sentence, clause, phrase or portion of this ordinance is for any reason held to be invalid or unconstitutional by a court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions hereof.

SECTION 5. This ordinance shall take effect after second reading and publication as required by law.

NOTICE

NOTICE IS HEREBY GIVEN that the foregoing ordinance was introduced and passed by the Township Committee on first reading at a meeting of the Township Committee of the Township of Barnegat on the **6th day of October, 2026**, and will be considered for second and final passage at a meeting of the Township Committee to be held on the **5th day of November, 2026, at 6:30 PM**. at the Municipal Building located at 900 West Bay Avenue, Barnegat, New Jersey, at which time and place any persons desiring to be heard upon the same will be given the opportunity to be so heard.

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Donna M. Manno, RMC
Municipal Clerk