# AN ORDINANCE TO AMEND AND SUPPLEMENT SECTION 30-17.1A, STORMWATER CONTROL IN THE CODE OF THE TOWNSHIP OF GREEN

WHEREAS, the New Jersey Department of Environmental Protection requires that all Tier A municipalities update their stormwater control ordinance to reflect amendments to the Stormwater Management rules defined in N.J.A.C. 7:8, adopted March 2, 2020, and July 17, 2023. In order to comply with the requirements of the Township of Green's Municipal Stormwater General Permit, the Township Committee wishes to amend the revised general ordinances to incorporate the amendments of the rules.

**BE IT ORDAINED** by the Green Township Committee that certain sections within Chapter 30-17.1A, Stormwater Control, of the Code of the Township of Green be amended as follows:

**SECTION 1.** Section 30-17.1A(b), Definitions, is amended to include the following definitions:

**Public Roadway or Railroad**: 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 Transportation Entity**: A Federal, State, 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.

**SECTION 2.** Section 30-17.1A(d), Stormwater Management Requirements for Major Development is amended as follows:

The last sentence of Item 5 shall be deleted and replaced with:

The most current version of the BMP Manual can be found on the Department's website at: <a href="https://dep.nj.gov/stormwater/bmp-manual/">https://dep.nj.gov/stormwater/bmp-manual/</a>.

**SECTION 3.** Section 30-17.1A(d)(16), *Groundwater Recharge Standards* is amended as follows:

Section 30-17.1A(d)(16)(b)(2) shall be deleted and replaced with:

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 is infiltrated.

Section 30-17.1A(d)(16)(d)(1) shall be deleted and replaced with:

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

**SECTION 4.** Section 30-17.1A(d)(18), *Stormwater Runoff Quantity Standards* is amended as follows:

The following text shall be revised in Section 30-17.1A(d)(18)(b)(1), (2) and (3):

Delete the phrase: the two-, ten- and 100-year storm events

Replace with: the current and projected two-, ten- and 100 year storm events

**SECTION 5.** Section 30-17.1A(e), Calculation of Stormwater Runoff and Groundwater Recharge, is deleted in its entirety and replaced to include the following:

- e. 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. 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 <u>GSR-32</u>: A <u>Method for Evaluating Groundwater-Recharge Areas in New Jersey</u>, 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.

Table 5: Current Precipitation Adjustment Factors

	Current Precipitation Adjustment Factors			
County	2-year Design Storm	10-year Design Storm	100-year Design Storm	
Sussex	1.03	1.04	1.07	

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 chapter, 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.

**Table 6: Future Precipitation Change Factors** 

	Future Precipitation Change Factors				
County	2-year Design Storm	10-year Design Storm	100-year Design Storm		
Sussex	1.24	1.29	1.50		

**SECTION 6.** Section 30-17.1A(f), *Sources for Technical Guidance*, is deleted in its entirety and replaced to include the following:

- 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: <a href="https://dep.nj.gov/stormwater/bmp-manual/">https://dep.nj.gov/stormwater/bmp-manual/</a>.
  - (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: <a href="https://dep.nj.gov/stormwater/maintenance-guidance/">https://dep.nj.gov/stormwater/maintenance-guidance/</a>.
- B. Submissions required for review by the Department should be mailed to:

The Division of Watershed Protection and Restoration, New Jersey Department of Environmental Protection, Mail Code 501-02A, PO Box 420, Trenton, New Jersey 08625-0420.

**SECTION 7.** Section 30-17.1A(h), Safety Standards for Stormwater Management Basins is amended as follows:

Section 30-17.1A(h)(3)(b)(2), shall be deleted and replaced with:

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

**SECTION 8.** Section 30-17.1A(k), is deleted in its entirety and replaced to create a new section, Private Storm Drain Inlet Retrofitting, as follows:

- k. Private Storm Dain Inlet Retrofitting.
  - 1. Purpose. The purpose of this section is to require the retrofitting of existing storm drain inlets which are in direct contact with repaying, repairing, reconstruction, or resurfacing

or alterations of facilities on private property, to prevent the discharge of solids and floatables (such as plastic bottles, cans, food wrappers and other litter) to the municipal separate storm sewer system operated by Green Township to protect the environment, public health, safety and welfare, and to prescribe penalties for failure to comply. Installation of all new storm drain inlets must include a catch basin or other BMP designed for solids collection in areas which drain to surface waters and that do not have any other downstream BMPS prior to the surface water discharge.

2. Definitions. For the purpose of this section, the following terms, phrases, words, and their derivations shall have the meanings stated herein unless their use in the text of this Chapter clearly demonstrates a different meaning. When consistent 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.

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) - A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) that is owned or operated by Green Township or other public body, and is designed and used for collecting and conveying stormwater.

*PERSON* - Any individual, corporation, company, partnership, firm, association, or political subdivision of this State subject to municipal jurisdiction.

STORM DRAIN INLET - The point of entry into the storm sewer system.

#### 3. Design Standards.

- A. No person in control of private property (except a residential lot with one single family house) shall authorize the repaving, repairing (excluding the repair of individual potholes), resurfacing (including top coating or chip sealing with asphalt emulsion or a thin base of hot bitumen), reconstructing or altering any surface that is in direct contact with an existing storm drain inlet on that property unless the storm drain inlet either:
  - (1) Already meets the design standard below to control passage of solid and floatable materials; or
  - (2) Is retrofitted or replaced to meet the standard in Section IV below prior to the completion of the project.
- B. The below design standard applies to the following types of storm drain inlet retrofit projects unless a more stringent standard is specified by the municipality's Stormwater Control Ordinance:
  - (1) Privately-owned or operated storm drain inlets (e.g., condominium association) must be retrofitted where the storm drains are:

- a. In direct contact with any repairing, repairing (excluding individual pothole repair), or resurfacing (including top coating or chip sealing with asphalt emulsion or a thin base of hot bitumen); or
- b. In direct contact with any reconstruction or alteration of facilities. This does not include single family homes.
- C. Grates in pavement or other ground surfaces shall meet either of the following standards:
  - (1) The New Jersey Department of Transportation (NJDOT) bicycle safe grate standards described in Chapter 2.4 of the NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines (see www.state.nj.us/transportation/about/publicat/pdf/BikeComp/introtofac.pd f); or
  - (2) A grate where each individual clear space in that grate has an area of no more than seven (7.0) square inches or is not greater than 0.5 inches across the smallest dimension. Note that the Residential Site Improvement Standards at N.J.A.C. 5:21 include requirements for bicycle safe grates.
    - a. Examples of grates subject to this standard include grates in grate inlets; the grate portion (noncurb opening portion) of combination inlets; grates on storm sewer manholes; ditch grates; trench grates; and grates of spacer bars in slotted drains. Examples of ground surfaces include surfaces of roads, (including bridges), driveways, parking areas, bikeways, plazas, sidewalks, lawns, fields, open channels, and stormwater basin floors used to collect stormwater from the surface into a storm drain or surface water body.
    - b. For curb-openings inlets, including curb-opening inlets in combination inlets, the clear space in the 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.

## 4. Exemptions.

The following exemptions from the design standard apply:

- A. Where each individual clear space in the curb opening in existing curb-opening inlets does not have an area of more than nine (9.0) square inches;
- B. Where the review agency determines that the standards would cause inadequate hydraulic performance that could not practicably be overcome by using additional or larger storm drain inlets;

- C. Where flows from the water quality design storm as specified in N.J.A.C. 7:8 are conveyed through any device (e.g., 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:
  - (1) A rectangular space four and five-eighths inches long and one and one-half inches wide; or
  - (2) 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).
- D. Where flows are conveyed through a trash rack that has parallel bars with one inch (1") spacing between the bars, to the elevation of the water quality design storm as specified in N.J.A.C. 7:8; or
- E. Where the Department 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 the standard is an undertaking that constitutes an encroachment or will damage or destroy the New Jersey Register listed historic property.

**SECTION 9.** Severability. Each section, subsection, sentence, clause, and phrase of this Section is declared to be an independent section, subsection, sentence, clause, and phrase, and finding or holding of any such portion of this Section to be unconstitutional, void, or ineffective for any cause or reason shall not affect any other portion of this Section.

**SECTION 10.** Effective date. This Ordinance shall take effect upon final adoption and will be published as required by law.

#### **NOTICE**

The above-entitled Ordinance was introduced and passed at first reading by the Green Township Committee at a meeting held on November 4, and after publication and a public hearing was finally adopted by the Green Township Committee at a meeting held on November 25, 2024.

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TOWNSHIP OF GREEN, IN THE COUNTY OF SUSSEX

Mark Zschack, RMC, Township Clerk

Margaret Phillips, Mayor

#### **Record of Vote - Introduction:**

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	MOTION	SECOND	AYE	NAY	ABSTAIN	ABSENT
DeYoung			$\checkmark$			
Qarmout				√ √		
Raffay			$\checkmark$			
Rose	√		$\checkmark$			
Mayor Phillips			$\checkmark$			

**Record of Vote - Adoption:** 

	MOTION	SECOND	AYE	NAY	ABSTAIN	ABSENT
DeYoung			1			
Qarmout	√			1		
Raffay			<b>V</b>			
Rose		√	1			
Mayor Phillips			<b>√</b>			

INTRODUCED: November 4, 2024 ADOPTED: November 25, 2024 ADVERTISED: November 8, 2024 ADVERTISED: December 1, 2024