MONROE TOWNSHIP, MIDDLESEX COUNTY

ORDINANCE NO.: O-8-2024-016

ORDINANCE OF THE MONROE TOWNSHIP COUNCIL AMENDING THE CODE OF THE TOWNSHIP OF MONROE SECTION 108-5.27 ENTITLED "STORMWATER MANAGEMENT"

BE IT ORDAINED by the Township Council of the Township of Monroe, County of Middlesex, State of New Jersey, that Section 108-5.27 of the code of the Township of Monroe entitled "Stormwater Management" is hereby amended to include the following: (new text is in red and underlined)

Section I. Scope and Purpose:

C. Applicability

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

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

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

3. An application required by ordinance pursuant to C.1 above that has been submitted prior to September 4, 2024, shall be subject to the stormwater management requirements in effect on September 3, 2024.

4. An application required by ordinance for approval pursuant to C.1 above that has been submitted on or after March 2, 2023, but prior to September 4, 2024, shall be subject to the stormwater management requirements in effect on September 3, 2024.

5. Notwithstanding any rule to the contrary, a major development for any public roadway or railroad project conducted by a public transportation entity that has determined a preferred alternative or reached an equivalent milestone before July 17, 2023, shall be subject to the stormwater management requirements in effect prior to July 17, 2023.

Section II. Definitions:

For the purpose of this ordinance, the following terms, phrases, words and their derivations shall have the meanings stated herein unless their use in the text of this Chapter clearly demonstrates a different meaning. When not inconsistent with the context, words used in the present tense include the future, words used in the plural number include the singular number, and words used in the singular number include the plural number. The word "shall" is always mandatory and not merely directory. The definitions below are the same as or based on the corresponding definitions in the Stormwater Management Rules at N.J.A.C. 7:8-1.2.

"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 Transportation Entity" means a Federal, State county, or municipal government, an independent State authority, or a statutorily authorized public-private 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 IV. Stormwater Management Requirements for Major Development

E. Tables 1 through 3 below summarize the ability of stormwater best management practices identified and described in the New Jersey Stormwater Best Management Practices Manual to satisfy the green infrastructure, groundwater recharge, stormwater runoff quality and stormwater runoff quantity standards specified in Section IV.O, P, Q and R. When designed in accordance with the most current version of the New Jersey Stormwater Best Management Practices Manual, the stormwater management measures found at N.J.A.C. 7:8-5.2 (f) Tables 5-1, 5-2 and 5-3 and listed below in Tables 1, 2 and 3 are presumed to be capable of providing

stormwater controls for the design and performance standards as outlined in the tables below. Upon amendments of the New Jersey Stormwater Best Management Practices to reflect additions or deletions of BMPs meeting these standards, or changes in the presumed performance of BMPs designed in accordance with the New Jersey Stormwater BMP Manual, the Department shall publish in the New Jersey Registers a notice of administrative change revising the applicable table. The most current version of the BMP Manual can be found on the Department's website at: ~~https://njstormwater.org/bmp_manual2.htm.~~

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

P. Groundwater Recharge Standards

1. This subsection contains the minimum design and performance standards for groundwater recharge.

2. The design engineer shall, using the assumptions and factors for stormwater runoff and groundwater recharge calculations at Section V, either:
   i. Demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100 percent of the average annual pre-construction groundwater recharge volume for the site; or
   ii. Demonstrate through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the projected 2-year storm, as defined and determined pursuant to Section V.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 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.

R. Stormwater Runoff Quantity Standards

2. In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at Section V, complete one of the following:

   i. Demonstrate through hydrologic and hydraulic analysis that for stormwater leaving the site, post-construction runoff hydrographs for the current and projected 2-, 10-, and 100-year storm events, as defined and determined in Section V.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;
   ii. Demonstrate through hydrologic and hydraulic analysis that there is no increase, as compared to the pre-construction condition, in the peak runoff rates of stormwater leaving the site for the current and projected 2-, 10- and 100-year storm events, as defined and determined in Section V.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 under existing zoning and land use ordinances in the drainage area;
   iii. Design stormwater management measures so that the post-construction peak runoff rates for the current and projected 2-, 10- and 100-year storm events, as

defined and determined in Section V.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

Section V. Calculation of Stormwater Runoff and Groundwater Recharge:

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

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

The USDA Natural Resources Conservation Service (NRCS) methodology, including the NRCS Runoff Equation and Dimensionless Unit Hydrograph, as described in Chapters 7, 9, 10, 15 and 16 Part 630, Hydrology National Engineering Handbook, incorporated herein by reference as amended and supplemented. This methodology is additionally described in Technical Release 55 - Urban Hydrology for Small Watersheds (TR-55), dated June 1986, incorporated herein by reference as amended and supplemented. Information regarding the methodology is available from the Natural Resources Conservation Service website at:

~~https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044171.pdf~~
https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=21422
or at United States Department of Agriculture Natural Resources Conservation Service, New Jersey State Office. ~~220 Davison Avenue, Somerset, New Jersey 08873; or~~

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

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

2. For the purpose of calculating ~~runoff coefficients~~ 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 "~~runoff coefficient~~ curve number" applies to ~~both~~ the NRCS methodology above at Section V.A.1.~~i and the Rational and Modified Rational Methods at Section V.A.1.ii~~. A ~~runoff coefficient~~ 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 ~~have~~ 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).

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 Oceanographoc and Atmospheric Administration (NOAA), National Weather Service's Atlas 14 Point Precipitation Frequency Estimates: NJ, in accordance with the locations(s) of the drainage area(s) of the site. The 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
Middlesex	1.00	1.01	1.03

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 ©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	100-year Design Storm
Middlesex	1.19	1.21	1.33

Section VI. Sources for Technical Guidance:

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

~~http://www.nj.gov/dep/stormwater/bmp_manual2.htm.~~
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://www.njstormwater.org/maintenance_guidance.htm.~~
https://dep.nj.gov/stormwater/maintenance-guidance/.

B. Submissions required for review by the Department should be mailed to:

~~The Division of Water Quality, New Jersey Department of Environmental Protection, Mail Code 401-02B, PO Box 420, Trenton, New Jersey 08625-0420~~.

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 VIII. Safety Standards for Stormwater Management Basins:

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

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

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

ii. The overflow grate spacing shall be no ~~less~~ 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.

Section IX. Requirements for a Site Development Stormwater Plan:

A. Submission of Site Development Stormwater Plan

3. The applicant shall submit a minimum of ~~three~~ four copies of the materials listed in the checklist for site development stormwater plans in accordance with Section IX.C of this ordinance.

Section XV. Effective Date:

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

SO, ORDAINED as aforesaid.

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MIRIAM COHEN, Council President

RECORDED VOTE – INTRODUCTION – August 5, 2024						
COUNCIL	**MOTION**	**SECOND**	**AYE**	**NAY**	**ABSTAIN**	**ABSENT**
Councilman Dipierro	**X**		**X**			
Councilman Markel			**X**			
Councilwoman Siegel			**X**			
Council V. President Van Dzura		**X**	**X**			
Council President Cohen			**X**			

NOTICE

Notice is hereby given that the foregoing Ordinance was introduced and passed on first reading at a meeting of the Monroe Township Council held on August 5, 2024. Said Ordinance was to be considered for final passage after a Public Hearing during the council meeting to be held on September 4, 2024 at 6:30 p.m., however was **TABLED** due to the August 22, 2024 Planning Board meeting being cancelled. This Ordinance will again be considered for final passage after a Public Hearing which will be held on October 7, 2024 at 6:30 p.m. in the Monroe Twp. Municipal Building, One Municipal Plaza, Monroe Twp., N.J. 08831. At said time and place, all persons will be granted the opportunity to be heard concerning this Ordinance prior to its consideration for adoption by Council.

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CHRISTINE ROBBINS, Township Clerk

RECORDED VOTE – SECOND READING & FINAL ADOPTION – October 7, 2024						
COUNCIL	**MOTION**	**SECOND**	**AYE**	**NAY**	**ABSTAIN**	**ABSENT**
Councilman Dipierro						
Councilman Markel						
Councilwoman Siegel						
Council V. President Van Dzura						
Council President Cohen						

ORDINANCE NO.: O-8-2024-016

ORDINANCE OF THE MONROE TOWNSHIP COUNCIL
AMENDING THE CODE OF THE TOWNSHIP OF MONROE
SECTION 108-5.27 ENTITLED "STORMWATER MANAGEMENT"

MAYORAL APPROVAL

By virtue of the Optional Municipal Charter Law of 1950 and Chapter 3, Section 19 of the Code of the Township of Monroe, my approval of this Ordinance is effected by the affixing of my signature hereto.

_____
STEPHEN DALINA, Mayor

Date signed: _____