BOROUGH OF BRADLEY BEACH, MONMOUTH COUNTY

ORDINANCE 2024-7

AN ORDINANCE AMENDING CHAPTER 396: "STORMWATER MANAGEMENT" OF THE BOROUGH'S REVISED GENERAL ORDINANCES TO REVISE THE BOROUGH'S STORMWATER PER RECOMMENDATIONS FROM THE MONMOUTH COUNTY PLANNING BOARD

Mayor Fox offered the following Ordinance and moved its introduction:

WHEREAS, the New Jersey Department of Environmental Protection ("NJDEP") recently amended its state-wide Stormwater Management Rules, N.J.A.C. 7:8, *et seq.*; and

WHEREAS, the Borough of Bradley Beach (the "Borough") has maintained and continues to maintain its municipal stormwater management regulations within its Borough Code located at Chapter 396, entitled "Stormwater Management"; and

WHEREAS, pursuant to the instructions of the Monmouth County Planning Board, the Borough must revise its local stormwater management regulations within Chapter 396 of the Borough Code to be consistent with NJDEP amendments and mandates;

NOW, THEREFORE BE IT ORDAINED by the Mayor and Council of the Borough of Bradley Beach, County of Monmouth, and State of New Jersey as follows:

SECTION 1. Article III: "Standards and Requirements" of Chapter 396: "Stormwater Management" of the Revised General Ordinances of the Borough of Bradley Beach are hereby amended as follows (~~stricken text~~ indicates deletions, underlined text indicates additions):

CHAPTER 396: STORMWATER MANAGEMENT

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ARTICLE III STANDARDS AND REQUIREMENTS.

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§ 396-6 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://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 ~~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 § 396-6 A.1~~.i and the Rational and Modified Rational Methods at § 396-6 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 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 and Water 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
Monmouth	1.00	1.01	1.02

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. 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
Monmouth	1.19	1.19	1.26

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§ 396-9 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 basins. This section applies to any new stormwater management basin.

B. The provisions of this section are not intended to preempt more stringent municipal or county safety requirements for new or existing stormwater management basins. Municipal and county stormwater management plans and ordinances may, pursuant to their authority, require existing stormwater management basins to be retrofitted to meet one or more of the safety standards in § 396-9 C.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 basins to ensure proper functioning of the basins outlets in accordance with the following:

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

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

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

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

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

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

   ii. The overflow grate spacing shall be no ~~less~~ 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 basins shall include escape provisions as follows:

   i. If a stormwater management basin 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 basins. With the prior approval of the municipality pursuant to § 396-9 C, a free-standing outlet structure may be exempted from this requirement;

   ii. Safety ledges shall be constructed on the slopes of all new stormwater management basins 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 § 396-9 E for an illustration of safety ledges in a stormwater management basin; and

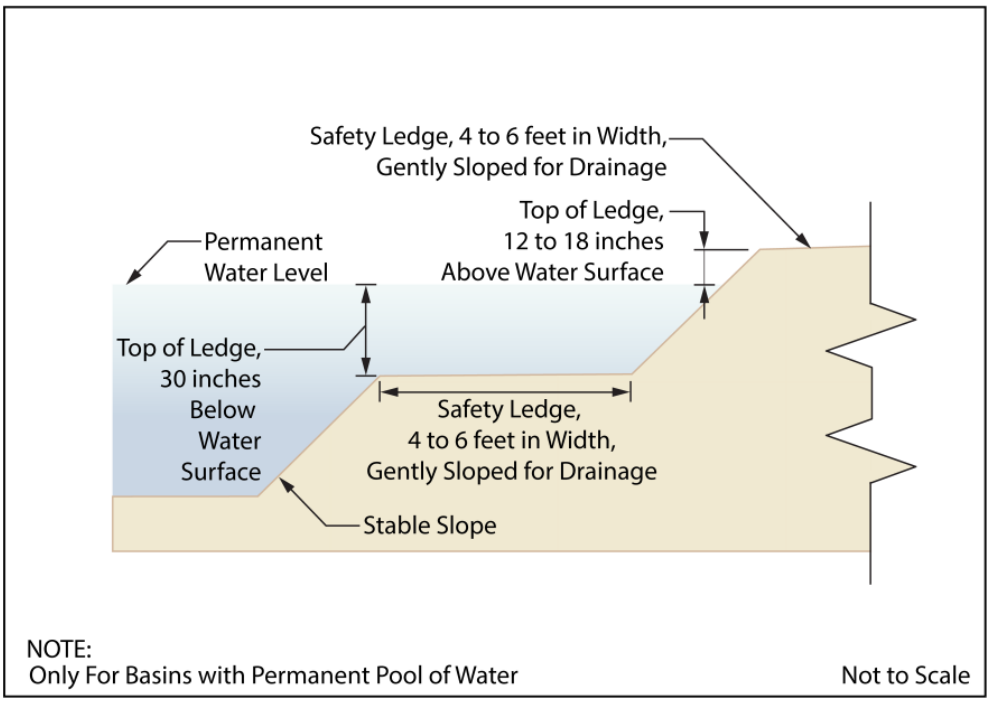
   iii. In new stormwater management basins, the maximum interior slope for an earthen dam, embankment, or berm shall not be steeper than three horizontal to one vertical.

D. Variance or Exemption from Safety Standard

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

E. Safety Ledge Illustration

Elevation View –Basin Safety Ledge Configuration



SECTION 2. If any article, section, subsection, sentence, clause or phrase of this Ordinance is, for any reason, held to be unconstitutional or invalid, such decision shall not affect the remaining portions of this Ordinance and they shall remain in full force and effect.

SECTION 3. In the event of any inconsistencies between the provisions of this Ordinance and any prior ordinance of the Borough of Bradley Beach, the provisions hereof shall be determined to govern. All other parts, portions and provisions of The Revised General Ordinances of the Borough of Bradley Beach are hereby ratified and confirmed, except where inconsistent with the terms hereof.

SECTION 4. After introduction, the Borough Clerk is hereby directed to submit a copy of the within Ordinance to the Planning Board of the Borough of Bradley Beach for its review in accordance with N.J.S.A. 40:55D-26 and N.J.S.A. 40:55D-64. The Planning Board is directed to make and transmit to the Borough's Mayor & Council, within 35 days after referral, a report including identification of any provisions in the proposed ordinance which are inconsistent with the master plan and recommendations concerning any inconsistencies and any other matter as the Board deems appropriate.

SECTION 5. After adoption of this Ordinance, the Borough Clerk is hereby directed to submit a copy of the within Ordinance to the Planning Board of the County of Monmouth for its review and approval in accordance with N.J.S.A. 40:55D-97.

SECTION 6. This Ordinance shall take effect upon its (1) adoption; (2) publication in accordance with the laws of the State of New Jersey; and (3) approval by the Monmouth County Planning Board pursuant to N.J.S.A. 40:55D-97.

SO ORDAINED as aforesaid.

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ERICA KOSTYZ, RMC, CMR	LARRY FOX
Municipal Clerk	Mayor

Introduced: May 8, 2024

Date of Hearing and Adoption: July 10, 2024