



ORDINANCE 2024-22

Amending and Supplementing Chapter 62, Land Use, Article VI, Stormwater Management, of the Township Code of the Township of South Brunswick (Amended 10/16/2024)

WHEREAS, the Township of South Brunswick maintains Chapter 62, Land Use, of the Township Code; and
WHEREAS, the New Jersey Department of Environmental Protection (NJDEP) has advised that the Township is required to amend its Code of Ordinances to implement regulations governing stormwater management; and

WHEREAS, it is in the best interests of the health, safety and welfare of the residents of the Township of South Brunswick to amend the Township Code so that it is in compliance with these NJDEP requirements;

NOW THEREFORE BE IT ORDAINED by the Township Council of the Township of South Brunswick, County of Middlesex, State of New Jersey, that:

- I. Chapter 62, Land Use, Article VI, Stormwater Management, of the South Brunswick Township Code is hereby amended and supplemented with deletions in strikethrough and additions in underline:

ARTICLE VI. Stormwater Management

Sec. 62-2571. Scope and purpose.

(c) *Applicability.*

- (1) This article 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 article shall also be applicable to all major developments undertaken by South Brunswick Township.
- (~~3~~) This article shall be applicable to any development that requires a permit for any land disturbance or construction that exceeds one acre.
- (4) An application required by ordinance pursuant to (c)1 above that has been submitted prior to September 18, 2024, (Ordinance Adoption Date) shall be subject to the stormwater management requirements in effect on September 17, 2024. (One Day Before Ordinance Adoption Date)
- (5) An application required by ordinance for approval pursuant to (c)1 above that has been submitted on or after March 2, 2021, but prior to September 18, 2024, (Ordinance Adoption Date) shall be subject to the stormwater management requirements in effect on September 17, 2024. (One Day Before Ordinance Adoption Date)
- (6) 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.

Sec. 62-2572. Definitions.

CAFRA Centers, Cores or Nodes means those with boundaries incorporated by reference or revised by the Department 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).

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.

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 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.

Sec. 62-2574. Stormwater management requirements for major development.

(p) Groundwater recharge standards.

- (1) This subsection 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 section 62-2575, either:
 - a. 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
 - b. 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 62-2575 (e) 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 (4) below.
- (4) The following types of stormwater shall not be recharged:
 - a. Stormwater from areas of high pollutant loading. High pollutant loading areas are areas in industrial and commercial developments where solvents and/or petroleum products are loaded/unloaded, stored, or applied, areas where pesticides are loaded/unloaded or stored; areas where hazardous materials are expected to be present in greater than "reportable quantities" as defined by the United States Environmental Protection Agency (EPA) at 40 CFR 302.4; areas where recharge would be inconsistent with Department approved remedial action work plan approved pursuant to the Administrative Requirements for the Remediation of Contaminated Sites rules, N.J.A.C. 7:26C, or Department ~~or~~ landfill closure plan and areas; and areas with high risks for spills of toxic materials, such as gas stations and vehicle maintenance facilities; and
 - b. Industrial stormwater exposed to "source material." "Source material" means any material(s) or machinery, located at an industrial facility, that is directly or indirectly related to process,

manufacturing or other industrial activities, which could be a source of pollutants in any industrial stormwater discharge to groundwater. Source materials include, but are not limited to, raw materials; intermediate products; final products; waste materials; by-products; industrial machinery and fuels, and lubricants, solvents, and detergents that are related to process, manufacturing, or other industrial activities that are exposed to stormwater.

(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 Section V, 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 Section 62-2575 (d) and (e), 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 two-, ten- and 100-year storm events, as defined and determined pursuant to Section 62-2575 (d) and (e), 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;
 - c. Design stormwater management measures so that the post-construction peak runoff rates for the current and projected two-, ten- and 100-year storm events, as defined and determined in Section 62-2575 (d) and (e), 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

Sec. 62-2575. 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:

- a. 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/viewFS..aspx?hid=21422>

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

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

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

- b. ~~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 62-2575(a)(1)a. and the Rational and Modified Rational Methods at section 62-2575(a)(1)b.~~ 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).

- ~~(d) 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
Middlesex	1.00	1.01	1.03

- ~~(e) 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

<u>County</u>	<u>Future Precipitation Change Factors</u>		
	<u>2-year Design Storm</u>	<u>10-year Design Storm</u>	<u>100-year Design Storm</u>
<u>Middlesex</u>	<u>1.19</u>	<u>1.21</u>	<u>1.33</u>

Sec. 62-2576. 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/>

- Guidelines for stormwater management measures are contained in the New Jersey Stormwater Best Management Practices Manual, as amended and supplemented. New Jersey Stormwater Best Management Practices Manual July 2023 Appendix D: Model Stormwater Control Ordinance for Municipalities Page D-27 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 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

Sec. 62-2579. Requirements for a site development stormwater plan.

- (c) *Submission of site development stormwater plan.* The following information shall be required:

- 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 man-made features not otherwise shown.
- 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.

- (24) *Project description and site plans.* A map (or maps) 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.
- (35) *Land use planning and source control plan.* This plan shall provide a demonstration of how the goals and standards of sections 62-2573 through 62-2575 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.
- (46) *Stormwater management facilities map.* The following information, illustrated on a map of the same scale as the topographic base map, shall be included:
 - a. 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.
 - b. Details of all stormwater management facility designs, during and after construction, including discharge provisions, discharge capacity for each outlet at different levels of detention and emergency spillway provisions with maximum discharge capacity of each spillway.
- (57) *Calculations.*
 - a. Comprehensive hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in section 62-2574 of this article.
 - b. When the proposed stormwater management control measures depend on the hydrologic properties of soils or require certain separation from the seasonal high-water table, then a soils report shall be submitted. The soils report shall be based on onsite boring logs or soil pit profiles. The number and location of required soil borings or soil pits shall be determined based on what is needed to determine the suitability and distribution of soils present at the location of the control measure.
 - c. When the proposed stormwater management control measures require certain separation from the seasonal high-water table, a soils report shall be submitted to demonstrate location of the seasonal high-water table.
- (68) *Engineer's statement.* A written statement by a NJ Licensed Professional Engineer shall be submitted, certifying that the proposed site development stormwater plan will meet all applicable standards as set forth in the Township of South Brunswick Stormwater Control Ordinances.
- (79) *Maintenance and repair plan.* The design and planning of the stormwater management facility shall meet the maintenance requirements of section 62-2580.
- (810) *Waiver from submission requirements.* The municipal official or board reviewing an application under this article may, in consultation with the municipality's review engineer, waive submission of any of the requirements in section 62-2579(c)(1) through 62-2579(c)(6) of this article 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.

Sec. 62-2580. Maintenance and repair.

- (4) 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.
- (45) 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.
- (56) If the party responsible for maintenance identified under section 62-2580(b)(2) above is not a public agency, the maintenance plan and any future revisions based on section 62-2580(b)(9) shall be recorded upon the deed of record for each property on which the maintenance described in the maintenance plan must be undertaken.
- (67) Where continued maintenance is to be the responsibility of the applicant, a proposed maintenance agreement, in a form to be provided by the Township of South Brunswick, shall be submitted. The agreement shall specify maintenance responsibility and standards during and after completion of the proposed activity and, upon approval and execution by the township manager, both the maintenance plan and maintenance agreement shall be recorded by the applicant in Middlesex County Clerk's office. The applicant shall thereafter file copies of the recorded maintenance plan and maintenance agreement with the township planning department. The township shall retain the right to enter and make repairs and improvements where necessary to ensure that all stormwater control measures as well as areas dedicated to stormwater retention or groundwater recharge are adequately maintained and preserved. The township may charge the owner for the costs of these services if such maintenance is his responsibility.
- (78) Where continued maintenance is to be the responsibility of the Township of South Brunswick, the following shall apply:

 - a. The applicant shall maintain the stormwater management facilities during the construction phase of the project.
 - b. As a condition of final approval and prior to acceptance of the stormwater management facilities by the Township of South Brunswick, the applicant shall enter into an escrow agreement with the township, which agreement shall include a statement that the escrow contribution is made in consideration of the township assuming all future maintenance of the stormwater management facilities. The form of the agreement shall be provided by the township. The agreement, upon approval and execution by the township manager, shall be recorded by the applicant in the Middlesex County Clerk's office. The applicant shall thereafter file a copy of the recorded agreement with the township planning department.
 - c. The escrow contributions shall be made as follows:
 - 1. *Stormwater management basins.*
 - i. The amount of the escrow contribution shall be based upon area of the basin on an acreage basis, which shall include the plan area at the top of the bank plus an additional 25 feet at the top of the bank encircling the basin. The amount of the escrow contribution shall be calculated according to the following formula:

\$30,000.00 per acre of area of basin, plus \$75,000.00 per basin for repairs and major maintenance. The total of the above shall be multiplied by a factor of 1.1 to cover the cost of the first year of maintenance.

- ii. The minimum contribution, regardless of the size of the basin, shall be \$100,000.00.

2. *Other stormwater management facilities.*

- i. The amount of escrow contribution for both structural and non-structural stormwater management facilities other than basins shall be based on the total plan area of the facility plus an additional 15 feet around the perimeter of the facility. The amount of the escrow contribution shall be based on the following formula:

\$30,000.00 per acre of area of the facility, plus \$10,000.00 per facility for repairs and major maintenance. The total of the above shall be multiplied by a factor of 1.1 to cover the costs of the first year of maintenance.

- ii. The minimum contribution, regardless of the size of the facility, shall be \$15,000.00.

3. *Manufactured treatment devices.*

- i. The amount of the escrow contribution for any manufactured water quality treatment device shall be \$10,000.00 to cover the costs of maintenance and repairs.

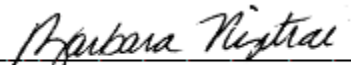
- d. The escrow contributions do not include maintenance of the lot or open space area in which the stormwater management basin or facility is located.
 - e. Upon certification by the township engineer that the project is complete and the guaranty bond for the project may be released, acceptance of the stormwater management basin or facility by the Township of South Brunswick shall be specifically stated in the resolution authorizing the bond release. The township shall retain from the cash portion of the bond a sum equal to the escrow contribution calculated by the township engineer in accordance with the formulas in subsection (5)c. of this section. If the cash portion of the bond is less than the escrow contribution, the developer shall post the deficit in cash prior to release of the bond. Any interim bond reductions authorized by the township shall not be construed to mean that all or any part of the stormwater management basin or facility has been accepted by the township, nor shall any such interim reduction reduce the cash portion of the bond to an amount less than the escrow contribution.
 - f. Prior to the acceptance by the Township of South Brunswick of any stormwater management basin or facility, the developer's engineer shall certify that the basin or facility has been constructed in accordance with the approved plan.
- (89) 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.
- (910) The party responsible for maintenance identified under section 62-2580(b)(2) above shall perform all of the following requirements:
- a. 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;

- b. Evaluate the effectiveness of the maintenance plan at least once per year and adjust the plan and the deed as needed; and
 - c. 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 section 62-2580(b)(6) and (b)(7) above.
- (10-11) The requirements of section 62-2580(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.
- (11-12) 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 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.
- (12-13) Nothing in this subsection 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.
- II. If any clause, sentence, paragraph, section or part of this ordinance or any other codes or ordinances incorporated herein shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair or invalidate the remainder hereof, but shall be confined in its operation to the clause, sentence, paragraph, section or part thereof directly involved in the controversy in which said judgment shall have been rendered.
- III. This ordinance shall become effective twenty (20) days after its final passage and any publication as required by law.

The above ordinance was introduced and passed on first reading at a meeting of the Township Council of the Township of South Brunswick held on September 18, 2024, and will be considered on second reading and final passage at a meeting of the Township Council of the Township of South Brunswick to be held at the Municipal Building, Monmouth Junction, New Jersey, on October 16, 2024, at which time of second reading and final passage any person having an interest therein will be given an opportunity to be heard.

RESULT:	ADOPTED AS AMENDED [UNANIMOUS]
MOVER:	Joseph Camarota, Councilman
SECONDER:	Ken Bierman, Deputy Mayor
AYES:	Bierman, Camarota, Grover, Hochman, Carley

This is to certify that the foregoing is a true copy of a Ordinance Adopted at the South Brunswick Township Council meeting held on October 16, 2024.


Barbara Nyitrai, Township Clerk