



RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION

NO. PC4-21- 31

TITLE: To Revise and Adopt Proposed Amendments to the Comprehensive Management Plan (Stormwater Management)

Commissioner Avery moves and Commissioner Lloyd seconds the motion that:

WHEREAS, on February 4, 2004, the New Jersey Department of Environmental Protection (NJDEP) adopted a set of Stormwater Management Rules (N.J.A.C. 7:8) that addressed stormwater-related water quality, groundwater recharge and water quantity impacts of major development; and

WHEREAS, the Pinelands Commission conducted a detailed review of the 2004 NJDEP regulations and identified amendments to the Pinelands Comprehensive Management Plan (CMP) that were necessary to integrate the NJDEP's new regulations, reflect then state-of-the-art stormwater engineering practices and provide for enhanced protection of Pinelands resources; and

WHEREAS, following adoption by the Pinelands Commission, these CMP amendments took effect on May 1, 2006 and were subsequently implemented by Pinelands municipalities through the adoption of Stormwater Management Plans and Stormwater Control Ordinances; and

WHEREAS, on October 25, 2019, the NJDEP adopted amendments to its Stormwater Management Rules, focusing on the use of green infrastructure to meet groundwater recharge, stormwater runoff quantity and stormwater runoff quality standards; and

WHEREAS, the amended NJDEP rules took effect on March 2, 2020; and

WHEREAS, the Pinelands Commission again identified the need to once again amend the CMP in order to integrate the new NJDEP regulations; and

WHEREAS, the Pinelands Commission determined that it is appropriate and necessary to modify the amended NJDEP rules to provide enhanced protection of Pinelands resources and address the potential impacts of climate change on stormwater runoff; and

WHEREAS, the Commission therefore proposed adoption of more stringent standards, requiring stormwater management for both major and minor development and limiting the potential for variations or exceptions from stormwater management requirements; and

WHEREAS, on June 11, 2021, the Pinelands Commission authorized the publication of the proposed amendments through adoption of Resolution PC4-21-16; and

WHEREAS, the proposed amendments were published in the July 19, 2021 issue of the New Jersey Register at 53 N.J.R. 1195(a), posted on the Commission's website and distributed to all Pinelands municipalities and counties, the Pinelands Municipal Council and a wide range of interested parties; and

WHEREAS, the Pinelands Commission held a public hearing to elicit public comment on the proposed amendments on September 1, 2021; and

WHEREAS, the Pinelands Commission also solicited written comment on the proposed amendments through September 17, 2021; and

WHEREAS, the Pinelands Commission received both oral and written comments on the proposed amendments; and

WHEREAS, at its October 29, 2021 meeting, the Commission's Policy & Implementation Committee reviewed all public comments received on the proposed Comprehensive Management Plan amendments

and the responses prepared by Commission staff, including a number of minor clarifications and corrections to the amendments; and

WHEREAS, these minor clarifications and corrections are reflected in the attached Notice of Adoption, dated December 1, 2021; and

WHEREAS, the Pinelands Commission has reviewed the December 1, 2021 Notice of Adoption and all public comments received by the Commission on the proposed amendments; and

WHEREAS, the Pinelands Commission desires to revise and adopt the proposed amendments in accordance with the December 1, 2021 Notice of Adoption; and

WHEREAS, pursuant to N.J.S.A. 13:18A-5h, no action authorized by the Commission in adopting the Comprehensive Management Plan or amendments thereto shall have force or effect until thirty (30) days, Saturdays, Sundays and public holidays excepted, after a copy of the minutes of the meeting of the Commission has been delivered to the Governor for review, unless prior to expiration of the review period the Governor shall approve same, in which case the action shall become effective upon such approval.

NOW, THEREFORE BE IT RESOLVED that

1. The Pinelands Commission hereby revises the proposed Comprehensive Management Plan amendments, as published in the July 19, 2021 New Jersey Register, in accordance with the attached December 1, 2021 Notice of Adoption.
2. The Pinelands Commission hereby adopts the proposed Comprehensive Management Plan amendments, as published in the July 19, 2021 New Jersey Register, and in accordance with the attached December 1, 2021 Notice of Adoption.
3. The Acting Executive Director shall forward the amendments and minutes of this action to the Governor of the State of New Jersey, and shall also forward these amendments to the United States Secretary of the Interior for review in accordance with Section 502 of the National Parks and Recreation Act of 1978.
4. The amendments shall take effect as provided in the Pinelands Protection Act and upon publication in the New Jersey Register.

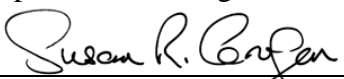
Record of Commission Votes

	AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*
Avery	X				Jannarone			X		Quinn			X	
Christy	X				Lloyd	X				Rohan Green			X	
Higginbotham	X				Lohbauer	X				Prickett	X			
Irick	X				Pikolycky	X								


*A = Abstained / R = Recused

Adopted at a meeting of the Pinelands Commission

Date: December 10, 2021



 Susan R. Grogan
 Acting Executive Director



 Richard Prickett
 Chairman

December 1, 2021

ENVIRONMENTAL PROTECTION

PINELANDS COMMISSION

Pinelands Comprehensive Management Plan

Definitions; Standards for Certification of Municipal Master Plans and Land Use

Ordinances; and Minimum Standards for Point and Non-Point Source Discharges

Adopted Amendments: N.J.A.C. 7:50-2.11, 3.39, and 6.84

Proposed: July 19, 2021 at 53 N.J.R. 1195(a)

Adopted: _____ by the New Jersey Pinelands Commission, Susan R. Grogan, Acting Executive Director

Filed: _____, as R. d. _____, **with non-substantive changes** not requiring additional public notice and comment (see N.J.A.C. 1:30-6.3).

Authorized by: New Jersey Pinelands Commission

Authority: N.J.S.A. 13:18A-6j.

Effective Date:

Expiration Date: Exempt.

The New Jersey Pinelands Commission (Commission) is adopting amendments to Subchapter 2, Interpretations and Definitions, Subchapter 3, Certification of County, Municipal, and Federal Installation Plans, and Subchapter 6, Management Programs and Minimum Standards of the Pinelands Comprehensive Management Plan (CMP). The amendments were proposed on July 19, 2021 at 53 N.J.R. 1195(a). The adopted amendments relate to stormwater management in the Pinelands Area and harmonize the CMP with the stormwater management rules adopted by the New Jersey Department of Environmental Protection in 2019 (see 50 N.J.R.

2375(a)), with modifications consistent with the goals of the CMP and in recognition of the special resources of the Pinelands that the Commission is charged with protecting.

The Pinelands Commission transmitted the notice of proposal to each Pinelands municipality and county, as well as to other interested parties, for review and comment.

Additionally, the Pinelands Commission:

- Sent notice of the public hearing to all persons and organizations that subscribe to the Commission's public hearing registry;

- Sent notice of the public hearing and provided a copy of the notice of proposal to all Pinelands counties and municipalities, a lengthy list of municipal and consulting engineers who typically represent applications or submit development applications to the Commission, and other interested parties;

- Placed advertisements of the public hearing in the four official newspapers of the Commission, as well as on the Commission's own web page;

- Submitted the proposed amendments to the Pinelands Municipal Council pursuant to N.J.S.A. 13:18A-7.f;

- Distributed the proposed amendments to the news media maintaining a press office in the State House Complex; and

- Published a copy of the proposed amendments on its web page at www.nj.gov/pinelands.

Summary of Hearing Officer Recommendations and Agency Response:

A formal public hearing was held in live video format (Zoom) before the Commission staff on September 1, 2021. Instructions for how to participate in the video hearing were included

in the public hearing notice as well as on the Commission's website. The public hearing was recorded in video format and is on file in the Commission's digital records. Six people called in to provide oral testimony on the notice of proposal.

In addition to the oral comments, the Commission received 10 written comments, two of which were from individuals that provided oral comment at the public hearing.

Summary of Public Comments and Agency Responses:

The Commission accepted oral comments on the July 19, 2021 proposal at the above discussed September 1, 2021 public hearing and written comments by regular mail, facsimile or e-mail through September 17, 2021.

The following individuals and organizations submitted comments:

1. Rhyan Grech, Pinelands Preservation Alliance
2. Georgina Shanley, Citizens United for Renewable Energy
3. Marie Pezzato, resident of Burlington County
4. Wendy Brophy, former Tabernacle resident, current Ocean County resident
5. Charles Caruso, in personal capacity
6. Sandra Blick (public hearing) and Joseph Sweger (written comment), New Jersey Department of Transportation
7. L. Stanton Hales, Jr. PhD, Barnegat Bay Partnership
8. Stephen M. Mazur, PE, PP, PTOE, CME, South Jersey Transportation Authority
9. Patrick Stewart, New Jersey Society of Professional Engineers
10. Tony DiLodovico, Tony D Environmental Permitting, LLC
11. Dan Kennedy, P.P., MCRP, Utility and Transportation Contractors Association
12. Robert J. Fischer, P.E., New Jersey Turnpike Authority
13. Hunter Birckhead, P.E., CFM, Colliers Engineering

14. Grant Lucking, New Jersey Builders Association

The Commission's detailed response to the comments is set forth below. The numbers in parentheses after each comment correspond to the list of commenters above.

General Comments

1. COMMENT: Several commenters expressed general support for the proposal, with many stating that the proposal will strengthen and enhance stormwater protection in the Pinelands. Two commenters added that the proposal will have the same benefits in Barnegat Bay. Some expressed appreciation for the efforts of the Pinelands Commission to go further than the stormwater rules recently adopted by the New Jersey Department of Environmental Protection (NJDEP) in protecting the natural resources of the Pinelands. (1, 2, 3, 5, 7, 9)

RESPONSE: The Commission thanks the commenters for their support.

2. COMMENT: Several commenters noted that the additional protections provided for in the rule proposal are important in the face of climate change and its impact on stormwater runoff.

(1, 3, 7)

RESPONSE: The Commission thanks the commenters for their support.

3. COMMENT: Two commenters stated that the proposed changes establish reasonable requirements for home builders and developers. (5, 7)

RESPONSE: The Commission thanks the commenters for their support.

4. COMMENT: Two commenters stated that they believe municipalities that have areas both within and outside the Pinelands Area should be encouraged to apply the Commission's stormwater rules that are superior to the NJDEP rules, both within and outside the

Pinelands Area. The commenters submit that such a change would result in overall improvements in water quality in the Pinelands and adjoining areas and give municipalities additional flexibility in their management of stormwater. (5, 7)

RESPONSE: The Commission appreciates the commenters' interest in improving water quality in the Pinelands Area and in the areas adjacent to it. Pursuant to the Pinelands Protection Act at N.J.S.A. 13:18A-8, the Commission's regulatory authority is limited to the State designated Pinelands Area. Consequently, the Commission cannot mandate that municipalities implement the Commission's stormwater rules in those portions of the municipality located outside of the Pinelands Area.

5. COMMENT: Three commenters requested an exception for de minimis impact for public roadway projects, such as a threshold of allowable impervious surface with no additional BMP required for each HUC14. (6, 8, 11)

RESPONSE: Neither the current stormwater management rules nor the proposed rules provide a means for granting exceptions for de minimis impacts for public roadway projects. Additionally, it is not feasible within the context of the proposed rule to address all situations where exceptions for de minimis impacts could be sought by a public agency. However, pursuant to N.J.A.C. 7:50-4.52 of the CMP, the Commission may enter into an intergovernmental agreement that authorizes a public agency to undertake development activities that are not fully consistent with Pinelands land use and development standards. Such an agreement could address specific concerns of intergovernmental agency staff and could provide a formal means of defining potentially de minimis impacts as well as streamlined application and review procedures on a more comprehensive basis.

6. COMMENT: One commenter relayed her personal experience installing a rain garden at her house, with guidance from Rutgers University, that has been successful in

combating flooding issues on her property. She explained that her community had once been forested but is now a housing development that has drainage issues when it rains. She feels that if her one rain garden can be so successful for one house, the State should adopt stronger stormwater management requirements. (4)

RESPONSE: The Commission thanks the commenter for her support.

7. COMMENT: One commenter advised the Pinelands Commission that he and another engineer have submitted updates to Chapter 9 NEH4 Part 630 Hydrology to USDA NRCS for their review. Among the recommended changes is the acknowledgment that the Curve Number Method is not applicable in forest HSG A and B soils. They conducted a hydrology study in McDonald's Branch within the Pinelands National Reserve which confirmed their findings. He suggested an informal meeting with Pinelands Commission staff to discuss these findings on the proper use of the Curve Number in the Pinelands National Reserve and to address storm water management on a valid scientific basis. (13)

RESPONSE: The Commission thanks the commenter for the offer to meet with the Pinelands Commission staff to discuss recommendations on the use of the Curve Number in the Pinelands National Reserve. The Commission suggests meeting after the USDA NRCS has reviewed the commenter's report and has issued a formal response thereto.

**Runoff rate and volume, runoff quality, and groundwater recharge methodologies
(recodified N.J.A.C. 7:50-6.84(a)6ii)**

8. COMMENT: Three commenters requested that the Rational Method be acceptable when assessing peak flows and that the NRCS method limits apply only for runoff volume calculations and the sizing of a stormwater management measure. (6, 8, 11)

RESPONSE: The proposed amendments at N.J.A.C. 7:50-6.84(a)6ii(1) prohibit use of the Rational Method only when calculating rates of stormwater runoff and volume of stormwater to be recharged. They codify the Commission's long-standing policy to prohibit use of the Rational Method for demonstrating compliance with the runoff requirements and recharge standards in the CMP. The Rational Method can continue to be utilized for stormwater system design purposes for standards that are not specifically addressed in the CMP (e.g., calculations for sizing stormwater conveyance pipe).

Runoff requirements (recodified N.J.A.C. 7:50-6.84(a)6iii)

9. COMMENT: Several commenters urged the Commission to leave intact the requirement for applicants to file a deed notice on any undeveloped area of the property in order to be allowed to deduct that acreage from stormwater calculations. One of the commenters stated that deeds are useful and allow for accurate tracking of portions of properties down the road, particularly after properties have changed hands. Two of the commenters stated that the current rule, which permanently restricts those areas from development, is more protective of Pinelands habitats, biotic resources, and water quality throughout all Pinelands watersheds, including the Barnegat Bay. (1, 5, 7)

RESPONSE: Prior to the adoption of these amendments, the CMP provided applicants with two options for the undeveloped portions of their parcels: recordation of a permanent deed restriction or the filing of a deed notice. The Commission chose to remove the option for an applicant to impose a permanent deed restriction on the undeveloped portion of a parcel of land because applicants rarely, if ever, chose this option as a way of demonstrating compliance with stormwater management requirements. They more frequently opted to file a deed notice stating that the undeveloped portion of the parcel would be subject to CMP stormwater management

requirements when and if a proposal for its development was submitted in the future. The Commission has determined that deed notices are not necessary because any future development of the parcel would be required to meet all CMP standards, including stormwater management, regardless of whether a deed notice is placed on the parcel. The notice does not impose new requirements on the parcel and only results in additional costs to the property owner and delays in the approval process. In addition, the Commission maintains an accurate and effective application tracking database and process that serve the same purpose as the deed notice – to ensure that applicants meet the CMP stormwater management requirements when any remaining portion of a parcel in the Pinelands Area is developed.

10. COMMENT: Two commenters expressed concern that prohibiting stormwater runoff from being directed in such a way as to increase volume and rate of discharge into any wetland, wetlands transition area at N.J.A.C. 7:50-6.84(a)6iii(1) appears to require infiltration of the increase in runoff from the 100-year storm. The commenters state that this is contrary to the Commission’s long-established position that it only requires infiltrating the increase in runoff from the 10-year storm runoff. (10, 14)

RESPONSE: The Commission believes the commenters have misinterpreted this amendment. It does not require infiltration of the increase in runoff from the 100-year storm. The Commission is merely adding “wetlands” and “wetlands transition areas” to the existing prohibition against directing stormwater runoff in such a way as to increase the volume and rate of discharge into a surface water body. The Commission historically has not allowed applicants to direct stormwater in a way that that increases the volume and rate of discharge into wetlands and wetlands transition areas and this amendment simply codifies this existing, long-standing practice.

Recharge standards (recodified N.J.A.C. 7:50-6.84(a)6iv)

11. COMMENT: One commenter applauded the Commission's proposal to exceed DEP's standards regarding nitrogen removal and minor development. The commenter stated that the CMP already further protected surface waters and areas around high pollutant areas, and the new standards are appropriate to preserve the quantity and quality of the Kirkwood Cohansey aquifer. (1)

RESPONSE: The Commission thanks the commenter for its support.

12. COMMENT: Three commenters believe that the major and minor development thresholds should not include temporary disturbances as part of public roadway projects that will be restored upon the completion of the project. (6, 8, 11)

RESPONSE: The proposed amendments do not change the definitions of major and minor development in the CMP and the Commission does not see a need to make any changes to these definitions at this time. The CMP does not distinguish between temporary or permanent disturbance. Both have always been required to be considered in stormwater calculations and the Commission continues to believe that is appropriate.

13. COMMENT: Three commenters believe the threshold for both major and minor development projects should be determined on a watershed basis, not the project in its entirety, as roadway projects cross multiple watersheds. (6, 8, 11)

RESPONSE: The Commission notes that the current proposal does not include any changes to the current CMP definitions of major and minor development. The CMP requires an applicant to consider the total amount of proposed disturbance associated with a development application submitted to the Commission. The Commission does not believe any changes are warranted.

14. COMMENT: Two commenters expressed support for the definitions of major and minor development in the proposed rule because the definitions enable better protection of Pinelands resources beyond that provided by the current NJDEP rules. (5, 7)

RESPONSE: The Commission thanks the commenters for their support.

Minor residential development (recodified N.J.A.C. 7:50-6.84(a)6iv(2))

15. COMMENT: Two commenters believe the recharge standards for minor residential development should be expanded to include recharge from all impervious surfaces in the development, such as driveways, and not just from roofs. (5, 7)

RESPONSE: The proposed recharge standards for minor residential development offer greater protection of Pinelands resources than both the current CMP and the NJDEP stormwater rules. The Commission does not agree that those standards should be expanded any further at this time, given the proposed rule already captures smaller development projects that would not be subject to stormwater management requirements under the NJDEP rule.

Minor non-residential development (recodified N.J.A.C. 7:50-6.84(a)6iv(3)(A))

16. COMMENT: Three commenters expressed concern over the effect of the infiltration thresholds on public roadway projects. Specifically, they were concerned over the requirement for infiltration when an excess of 1,000 square feet of regulated motor vehicle surface is proposed for minor nonresidential development. They stated that this requirement will cause project delays, additional costs for design, right-of-way acquisition and maintenance for additional BMPs. Drainage issues that could have been resolved with a few additional inlets may now require BMPs. The commenters request a waiver process for public roadway projects. (6, 8, 11)

RESPONSE: The Commission does not believe that it is necessary or appropriate to incorporate a special waiver process for public roadway projects. The amendments already provide the Commission with the ability to grant exceptions and allow for off-site mitigation for all public development projects that cannot meet CMP on-site design and performance standards for green infrastructure, groundwater recharge, stormwater runoff quality, and stormwater runoff quality for public development projects. The proposed amendment to require that the infiltration of the water quality design storm volume generated on any increase of more than 1,000 square feet of regulated motor vehicle surfaces will apply only to new motor vehicle surfaces. The requirement will not be applied to existing regulated motor vehicle surfaces and will not be triggered when existing stormwater conveyance systems are repaired or replaced.

17. COMMENT: Three commenters stated that at locations where the water table is high, infiltration will not function, yet the new criteria will require more infiltration BMPs. The commenters recommend that N.J.A.C. 7:50-6:84(a)6vii indicate that where infiltration is not feasible within the project area, infiltration will not be required for minor non-residential development. (6, 8, 11)

RESPONSE: The Commission is not amenable to this request, as the amendments provide for the granting of exceptions at N.J.A.C. 7:50-6:84(a)6vii, which allow for off-site mitigation for minor non-residential projects that cannot meet the on-site design and performance standards for green infrastructure, groundwater recharge, stormwater runoff quality, and stormwater runoff quality for public development projects.

18. COMMENT: Several commenters questioned the basis for recharge standards for an increase of 1,000 square feet of regulated motor vehicle surfaces. One commenter requested justification for the additional recharge standard and two commenters asked: (1) why the Commission is deviating from existing standards; and (2) how the Commission determined that

1,000 square feet is appropriate. (10, 11, 14)

RESPONSE: To strengthen the protection of Pinelands water resources, the Commission decided to improve stormwater runoff quality from minor nonresidential regulated motor vehicle surfaces, as defined at N.J.A.C. 7:8-1.2. Regulated motor vehicle surfaces are subject to contamination from automotive chemicals. These pollutants frequently bind to soil particulates (sand, silt, and clay) that collect on regulated motor vehicle surfaces. The proposed amendments require that stormwater runoff originating from new regulated motor vehicle surfaces be treated to remove 80 percent of total suspended solids (TSS) from the water quality design storm (1.25 inches/2-hours). Treated stormwater, free of most particulate-bound pollutants, is then recharged to groundwater.

The Commission selected 1,000 square feet as the threshold at which enhanced water quality protections were warranted based upon the area of standard parking spaces and interior roadway widths to access those spaces, as well as the typical length and width of highway acceleration and deceleration lanes. The addition of four new parking spaces and the necessary travel lanes to access those spaces would create approximately 1,000 square feet of new regulated motor vehicle surface. Under the proposed amendments, parking lot expansions exceeding four parking spaces and highway acceleration and deceleration lanes, for example, would be subject to the enhanced stormwater quality and groundwater recharge standard. Increases in regulated motor vehicle surface below the 1,000 square feet threshold would not be subject to the TSS removal and groundwater recharge standard as they are considered to be de minimis for regulatory purposes.

The Commission's decision to set 1,000 square feet as the threshold for TSS removal was also based on the minimum size of non-residential development that requires Commission review. Under the review requirements and exemptions contained in the CMP at N.J.A.C.

7:504.1(a)8ii, the expansion of a parking lot by 1,000 square feet or less would not require application to the Commission and therefore would not require Commission review. The threshold for the recharge standard for minor nonresidential regulated motor vehicle surfaces at 1,000 square feet is thus consistent with the CMP's review requirements for non-residential development.

This proposed stormwater runoff quality standard provides greater protection of the Pinelands water resources than NJDEP's stormwater runoff quality standards provide. NJDEP's stormwater runoff quality standards at N.J.A.C 7:8-5.5 require 80 percent TSS removal and groundwater recharge from regulated motor vehicle surfaces when major development results in an increase of 10,890 square feet or more of regulated motor vehicle surface.

The Commission is making a minor, non-substantive change to the proposed amendments, at recodified N.J.A.C. 7:50-6.84(a)6iv(3)(A), to clarify that it will require 80 percent TSS removal from stormwater runoff from regulated motor vehicle surface for all development (major and minor) that results in an increase of greater than 1,000 square feet of regulated motor vehicle surface. Development that results in 1,000 square feet or less of regulated motor vehicle surface will not be subject to the 80 percent TSS removal requirement.

19. COMMENT: A commenter asked that the Commission consider expanding the recharge standards for minor non-residential development to require onsite infiltration if more than 500 square feet of regulated motor-vehicle surface is added (as opposed to the proposed 1,000 square feet). The commenter referenced the Commission's rule proposal summary which stated that chemicals from *individual* parking spaces warrant removal before they enter the groundwater table, adding that some municipalities have already considered using the 500 square foot benchmark. (7)

RESPONSE: The Commission does not believe that expansion of this provision to 500 square feet is appropriate given the CMP does not require review for the expansion of a parking lot of up to 1,000 square feet. Individual municipalities, however, may choose to apply a stricter standard in their land use ordinances if they believe they have the enabling authority to do so. See also response to comment #18, above.

Nitrogen Removal (recodified N.J.A.C. 7:50-6.84(a)6iv(6))

20. COMMENT: Several commenters enthusiastically supported the Commission's proposal to exceed NJDEP's standards regarding nitrogen removal, recognizing nitrogen as a significant source of harm to the Pinelands. One commenter also noted the downstream impacts of nitrogen on Barnegat Bay. (1, 5, 7)

RESPONSE: The Commission thanks the commenters for their support.

21. COMMENT: Two commenters expressed concern with the 65 percent nitrogen removal standard. One commenter explicitly opposed it; one asked how the Commission came up with standard; and both requested justification for having a specific nitrogen standard and requested scientific information, literature, studies, and Pinelands-specific studies to support the standard. (10, 14)

RESPONSE: The Commission's decision to establish a specific, quantitative nitrogen removal standard is based on: (1) the need for the development community to have a specific, quantitative standard to help improve the predictability and efficiency of regulatory reviews; (2) the unique characteristics of ground and surface water in the Pinelands and the need to afford these resources the highest levels of protection; (3) a longstanding objective of the Pinelands Commission to control the amount of nitrogen entering the environment, as reflected in the CMP; and (4) peer-reviewed scientific research.

In its experience reviewing stormwater management plans, the Commission has found that it is often difficult for stormwater management system designers and regulatory design reviewers to agree on whether a plan meets the NJDEP standard that nitrogen be removed from stormwater runoff to the “maximum extent feasible.” N.J.A.C 7:8-5. 5(f). The Commission believes that the “maximum extent feasible” standard does not provide the necessary predictability for the development community and often delays regulatory reviews. The Commission concluded that setting a quantitative standard that can be achieved by using the NJDEP’s NJ Stormwater Best Management Practices (BMP) Manual inserts specificity and clarity into the regulatory process for both designers and reviewers of stormwater management systems. The BMP Manual provides both individual BMP nitrogen removal rates as well as a simple way to calculate how BMPs can be arranged in series to attain 65 percent nitrogen removal.

Numerous scientific studies have demonstrated that unpolluted groundwater aquifers and surface waters in the Pinelands Area are characterized by very low concentrations of nutrients, including nitrogen, with natural nitrate-nitrogen concentrations being reported as low as 0.17 ppm. Pinelands surface waters are classified by NJDEP as Outstanding National Resource Waters and are identified as Pinelands (PL) waters. These PL water resources are afforded the highest level of protection under NJDEP’s Surface Water Quality Standards, N.J.A.C 7:9B. Similarly, groundwater in the Pinelands Protection Area, classified as Class 1-PL (Pinelands Protection Area) are known as Ground Water of Special Ecological Significance and, pursuant to NJDEP regulations, “background water quality” is to be maintained. (See N.J.A.C 7:9C).

The requirement to remove at least 65% of nitrogen in stormwater runoff from the water quality storm at major development sites is based on this mandate that waters of the Pinelands Area be afforded the highest level of protection from pollution.

The proposed removal standard is also consistent with a fundamental objective of the Pinelands CMP to control the amount of nitrogen that enters the Pinelands environment. N.J.A.C. 7:50-10.21(b). This objective is reflected in the CMP requirement, adopted in 2002, that total nitrogen concentrations in wastewater discharged from septic systems be reduced by 65 percent when septic systems are used on one-acre lots in the Pinelands Area. N.J.A.C. 7:50-10.21.

Multiple studies by the Pinelands Commission and others have demonstrated the connection between land use, the occurrence of nitrogen and other pollution-related contaminants, and changes in native Pinelands plant and animal assemblages. Land use that involves application of fertilizer or the deposition of pet waste degrades ambient Pinelands water quality, which allows the invasion and establishment of non-native plants and animals that can outcompete, prey upon, and eventually eliminate native Pinelands species. All but the Brown and Rhodehamel studies listed below are scientific research papers that were published in peerreviewed journal articles.

Brown, K. W. and Associates. 1980. An assessment of the impact of septic leach fields, home lawn fertilization and agricultural activities on groundwater quality. Prepared for the New Jersey Pinelands Commission, College Station, TX, 77840. March 1980, 108 pp.
Bunnell, J. F. and R. A. Zampella. 2008. Native fish and anuran assemblages differ between impoundments with and without non-native centrarchids and Bullfrogs. *Copeia* 2008:931-939.

Dow, C. L. and R. A. Zampella. 2000. Specific conductance and pH as indicators of watershed disturbance in streams of the New Jersey Pinelands, U.S.A. *Environmental Management*. 26:437-445.

Rhodehamel, E.C. 1970. A hydrologic analysis of the New Jersey Pine Barrens. New Jersey Department of Environmental Protection, Div. of Water Policy and Supply, Water Resources Circular No. 22.

Smalling, K. L., S. E. Breitmeyer, J. F. Bunnell, K. J. Laidig, P. M. Burritt, M. C. Sobel, J. A. Cohl, M. L. Hladik, K. M. Romanok, and P. M. Bradley. 2021. Assessing the ecological functionality and integrity of natural ponds, excavated ponds and stormwater basins for conserving amphibian diversity. *Global Ecology and Conservation* 30:e01765.

Zampella, R. A. 1994. Characterization of surface water quality along a watershed disturbance gradient. *Water Resources Bulletin* 30:605-611.

Zampella, R. A. and J. F. Bunnell. 1998. Use of reference-site fish assemblages to assess aquatic degradation in Pinelands streams. *Ecological Applications* 8:645-658.

Zampella, R. A. and K. J. Laidig. 1997. Effect of watershed disturbance on Pinelands stream vegetation. *Journal of the Torrey Botanical Society* 124:52-66.

Zampella, R. A., N. A. Procopio, R. G. Lathrop, C. L. Dow. 2007 Relationship of landuse/land-cover patterns and surface-water quality in the Mullica River Basin. *Journal of the American Water Resources Association* 43:594-604.

22. COMMENT: Several commenters expressed concern over the ability of applicants to prove they have achieved 65 percent nitrogen removal. Two commenters asked how the standard will be enforced. One commenter believes the rule should explicitly address how the standard will be enforced. (5, 7, 10, 14)

RESPONSE: As noted in our response to #21, above, the NJDEP BMP Manual provides nitrogen percentage removal rates for individual stormwater BMPs and also provides a methodology of how to calculate the percentage of nitrogen removed from stormwater when individual BMPs are arranged in series. When developing a stormwater management plan, an applicant will be required to evaluate the nitrogen removal from each stormwater BMP and to calculate the total nitrogen removal percentage when two or more BMPs are arranged in series. This computational method will be relied upon to confirm that the proposed stormwater management plan meets the Commission's minimum 65% nitrogen removal standard.

23. COMMENT: Two commenters suggested that a water quality assessment be performed prior to introducing a water quality standard such as nitrogen removal rates. One commenter compared nitrogen removal to removal of total suspended solids (TSS), stating that TSS removal is a secondary treatment standard so 80 percent removal of TSS does not need to be specifically justified. The commenter stated that nitrogen, however, is a nutrient subject to water

quality standards and that it is inappropriate to require a set percentage removal standard throughout the Pinelands without a specific water quality assessment. (10, 14)

RESPONSE: The Commission agrees that the requirement to remove 80 percent of TSS from stormwater runoff does not need to be justified; however, it is important to note that TSS removal accomplishes significant reductions in the pollutant load that adsorbs to solids suspended in stormwater runoff.

With respect to the nitrogen removal standard, as noted in the response to comment #21, above, numerous research studies by the Pinelands Commission and others have characterized ambient surface and groundwater quality in the Pinelands Area and have identified water quality impairments, including elevated nitrogen concentrations related to land use. Also as noted in #21, above, the NJDEP's Surface Water Quality Standards (see N.J.A.C 7:9B) and Groundwater Quality Standards (see N.J.A.C. 7:9C) establish "nondegradation" and "background water quality," respectively) as the applicable water quality standards in the Pinelands Area. The Commission disagrees that additional water quality assessments are needed to support the adoption of a minimum 65 percent nitrogen removal standard.

Further, the Commission believes it is appropriate to establish a quantitative removal standard for nitrogen. The March 1980 assessment by K.W. Brown and Associates cited in the response to comment #21, above, included a review of available information on the potential movement of nutrients (including nitrogen) to groundwater from fertilized lawns in light of the characteristics of Pinelands Area soils. Brown notes that lawn fertilization would be expected to add large amounts of nitrogen to the groundwater and even larger acreages than are required for septic fields would need to be set aside to allow dilution of the nitrogen laden stormwater to reach acceptable levels. Brown reports that up to 52 percent of nitrogen applied as inorganic N

may be leached to groundwater as nitrate. Slow release organic nitrogen sources are reported to leach approximately 33 percent of the applied nitrogen as nitrate to the groundwater aquifer.

Based on Brown's work in which various nitrogen fertilizer applications are anticipated each year, coupled with Rhodehamel's findings in the work cited in the response to comment #21, above, that an average of 20 inches of water infiltrates and percolates to groundwater annually, nitrate-nitrogen concentrations ranging from a high of 16.9 ppm (inorganic nitrogen fertilizer) to a low of 3.9 ppm (inorganic nitrogen fertilizer) would occur in groundwater beneath lawn areas.

Assuming lawn areas in the Pinelands Area are fertilized using (slow release) organic forms of nitrogen, Brown calculated the resultant nitrate-nitrogen concentrations in groundwater beneath the lawn area for the three fertilizer application scenarios presented below:

1. A 1,000 square foot house with a 1-car garage and 50 foot long driveway on a 0.25 acre lot. All land not occupied by the house and driveway will be lawn.
2. A 1,500 square foot house with a 2-car garage and 200 foot long driveway on a 1.0 acre lot. Eighty percent of the land not occupied by the house and driveway will be lawn.
3. A 2,000 square foot house with a 2-car garage, a 500 square foot utility building and 1.5 acres of lawn on a 5.0 acre lot.

Based upon a homeowner's fertilizing his or her lawn area with an inorganic (slow release) fertilizer formulation of 2 lb. N/1000 square feet in April-May and 1 lb. N/1000 square feet each June and August, the concentration of nitrate entering the groundwater aquifer from these three scenarios would be 10.7 ppm, 9.4 ppm and 3.9 ppm respectively with an average concentration of 8 ppm. Reducing the average value by 65 percent would result in water infiltrating to the underlying water table aquifer containing 2.8 ppm nitrate, which although still

above the Pinelands Area water quality standard of 2 ppm nitrate-nitrogen, is a vast improvement.

If the Commission required more than 65 percent nitrogen removal from stormwater runoff using green infrastructure (GI) BMPs, at least three GI BMPs in series would be required. The Commission has determined that these multiple measures are not feasible in most instances and that 65 percent removal is more easily achievable, provides a significant reduction in the concentration of nitrate entering the aquifer and is thus appropriate at this time.

24. COMMENT: Two commenters requested that the Commission follow NJDEP's lead regarding nutrient removal rates, stating that further study and evaluation are necessary for both a prudent rate of removal and the rate at which specific BMPs can achieve this result. One of the commenters noted that he is on the stakeholder subgroup that has been investigating the nutrient removal issue and that they are a long way away from agreeing that a numerical standard is appropriate, no less a specific percentage removal standard. They stated that there are no specific studies that address a statewide percentage total nitrogen removal standard and that the performance of BMPs to reduce nutrients is "all over the place." (10, 14)

RESPONSE: As noted in the response to comment #21, above, the requirement to remove at least 65 percent of nitrogen in stormwater runoff from the water quality storm at major development sites is based on a fundamental objective of the CMP to control the amount of nitrogen that enters the Pinelands environment. See N.J.A.C 7:50-10.21(b). Ample research has characterized the Pinelands Area as an ecologically sensitive environment, particularly vulnerable to excessive nitrogen loading that can lead to eutrophication, proliferation of invasive species and the decline of native Pinelands plants and animals. The lack of consensus among the stakeholder subgroup investigating the applicability of a statewide nutrient removal percentage has no relevance to the uniquely environmentally sensitive Pinelands environment.

The Commission is aware that the BMP Manual, Chapter 4, Table 4.2 “Typical Phosphorous and Nitrogen Removal Rates for BMPs” provides the “Total Nitrogen Removal Rates (%)” for various stormwater BMPs and that such values should be considered typical values based upon data from a range of research studies. While the reported total nitrogen removal rates may be based on a range of studies, the Commission believes that it is important to act now to protect Pinelands water resources by establishing minimum nitrogen removal rates from stormwater runoff. The Commission is relying on the best information currently available, including the existing assessments of Pinelands water quality, the known impacts of land use on the ecologically sensitive Pinelands ecosystem, the need to protect Pinelands water resources and the information provided by the NJDEP for typical nitrogen removal rates of various BMPs.

25. COMMENT: A commenter noted that BMPs will need to be studied and provided to address water quality standards as the stormwater rules only require water quality treatment from motor vehicle areas. (14)

RESPONSE: The Commission supports further research on the performance of stormwater BMPs and, in fact, applied jointly with the USGS New Jersey Water Science Center for grant funding to evaluate BMP nutrient attenuation performance in the Pinelands Area. However, the requested grant funding for that research was not provided.

26. COMMENT: A commenter noted that since the stormwater regulations only require water quality treatment from motor vehicle areas, there will have to be separate BMPs for vegetative areas. (10)

RESPONSE: The Commission recognizes that a design engineer may be required to utilize separate BMPs to meet all stormwater management standards for a given project.

27. COMMENT: Two commenters expressed concern that combining the runoff from motor vehicle and vegetative surfaces into one water quality BMP will exacerbate the requirement to restrict the drainage areas to 1 and 2.5 acres. (10, 14)

RESPONSE: The commenters did not provide specific examples to illustrate their concerns, but the Commission does not anticipate that combining runoff from the two surfaces will be problematic. The design engineer is not limited in the number of BMPs that could be utilized to meet all stormwater management standards. Additionally, the engineer may design the project so that the runoff from the motor vehicle and vegetated surfaces remain separate and are not combined into the same BMP.

28. COMMENT: Four commenters requested an exception for public roadway projects from the nitrogen removal requirement based on their assumption that the new standard is intended to address only nitrogen loading produced by fertilizer. Although the rule proposal summary references lawn and turf areas specifically intended for active human use, public roadway projects use fertilizer when initially establishing vegetation. The commenters thought that this description of lawn and turf areas is vague. For public roadway projects, fertilizer is applied only during initial construction activities in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey and is not a contributor to nitrogen loading in stormwater beyond the construction period. The commenters recommended that the Commission not classify roadway embankments, specifically limited access highways, as areas of “active human use” that would require nitrogen treatment. (6, 8, 11, 12)

RESPONSE: The amendments require a 65 percent reduction of the post-construction total nitrogen load “from the developed site, including permanent lawn or turf areas that are specifically intended for active human use...” (Proposed N.J.A.C. 7:50-6.84(a)6iv(6)). Vegetated areas associated with public roadway projects, are typically not managed in such a way that they

receive, or have the potential to receive, regular applications of fertilizer. Nor are they intended for active human use. They are therefore not considered to be permanent lawn or turf areas and are not required to meet the 65 percent reduction of the post-construction total nitrogen load rule amendment. The Commission recognizes that a one-time application of fertilizer may be necessary to establish a meadow area or stabilize a road shoulder. If there was no plan for routine or regular application of fertilizer in the future, such areas would not be considered part of the “developed site” for purposes of meeting this standard.

29. COMMENT: Four commenters said that it is impractical to use two green infrastructure BMPs in series to achieve the 65 percent nitrogen reduction in linear transportation projects. (6, 8, 11, 12)

RESPONSE: The Commission disagrees. Provided that the vegetated areas are not intended to receive, or have the potential to receive, regular applications of fertilizers, the standard would not apply to linear roadway projects. See response to Comment #28, above.

30. COMMENT: Two commenters stated that using two green infrastructure (GI) BMPs in series to achieve the 65 percent nitrogen reduction could require greater amounts of disturbance to achieve. The commenters recommended a lower nitrogen load requirement so that the limit can be met without BMPs installed in series and, if needed, without an infiltration basin. (11, 12).

RESPONSE: The Commission recognizes that the use of multiple GI BMPs in series would be required to achieve the minimum 65 percent reduction on total nitrogen in stormwater runoff. The Commission envisions that this would most often be accomplished by routing stormwater runoff through a Vegetative Filter Strip prior to discharge to a Small-Scale Infiltration Basin. Vegetative Filter Strips may consist of meadow cover, planted woods, existing forested areas and other vegetated areas that are not managed in such a way that they receive, or

have the potential to receive, regular applications of fertilizer. Where existing forested areas are present and can provide the requisite sheet flow, the Commission would expect that those forested areas be left intact and utilized for both TSS and nutrient removal. Planted woods and meadow cover, while requiring temporary disturbance, would also be suitable for use in combination with a Small Scale Infiltration Basin. The use of turf grass vegetation in a Vegetative Filter Strip, while identified as an acceptable vegetative cover per the NJDEPs BMP Manual, would not be suitable for use in the Pinelands Area given these areas are typically managed to receive, or have the potential to receive, regular applications of fertilizers.

Alternatively, the minimum 65 percent nitrogen removal requirement could be met by routing stormwater through an under-drained Small-Scale Bioretention System (such as a bioswale) with discharge to a Small-Scale Infiltration Basin. While the construction of a SmallScale Bioretention System would also require temporary disturbance, these systems can be vegetated with a Terrestrial Forested Community or Site-Tolerant Grasses both of which provide TSS removal and nutrient uptake as well as the removal of a wide range of pollutants with an esthetically pleasing appearance on the landscape.

The Commission has determined that the environmental benefits of nitrogen attenuation provided by these GI BMPs and the importance of ground water recharge to maintain groundwater levels in the Kirkwood Cohansey Aquifer outweigh the temporary disturbance associated with GI BMP construction.

31. COMMENT: Several commenters employed by or representing the transportation agencies expressed concern over the removal of nitrogen from water that has been infiltrated. Two other commenters involved with residential development in the Pinelands stated that to meet the nitrogen removal standard would require a minimum of two BMPs, but following infiltration of the water quality design storm, there will be insufficient flow left to send to

another BMP. These commenters stated that further complicating this is NJDEP's requirement that the lower percentage removal BMP be used first in a series. In addition, they said that the only way to achieve a 65 percent removal rate is to use a vegetative filter strip followed by an infiltration basin, which is highly impractical for residential subdivisions because lawn areas would have to sheet flow to an additional vegetated area, which can't be part of the lawn, and then sheet flow to an infiltration basin, resulting in multiple vegetated filter and infiltration basin BMPs on each lot. Three commenters requested that if the Water Quality design storm is being infiltrated, no additional treatment should be required to address the nitrogen removal criteria. (6, 8, 10, 11, 14)

RESPONSE: The Commission agrees that it will be necessary to use two GI BMPs in series to meet the minimum 65 percent nitrogen removal standard. However, as noted in the response to comment #30, above, this could be achieved either through the use of a Small-Scale Filter Strip followed by a Small-Scale Infiltration Basin or an under-drained Small-Scale Bioretention System followed by a Small-Scale Infiltration Basin. The Commission disagrees that the need to use the GI BMP that provides the lower nitrogen removal first in the treatment train is problematic or presents a further design complication. The Commission acknowledges that stormwater that flows over lawn areas in a residential subdivision and then directly into an infiltration BMP may now have to first flow through a vegetative filter strip that is not part of the maintained lawn area, prior to entering the infiltration BMP, to meet the standard. The Commission does not believe that smaller storm events, such as the Water Quality Design Storm, if partially infiltrated or evaporated prior to reaching the Small-Scale Infiltration Basin, are problematic. As noted in the responses to comments #21 and #24, above, the requirement to remove at least 65 percent of nitrogen in stormwater runoff from the water quality storm at major development sites is based on a fundamental objective of the Pinelands Comprehensive

Management Plan to control the amount of nitrogen that enters the Pinelands environment.

(N.J.A.C 7:50-10.21(b)). Further, the NJDEP's Surface Water Quality Standards at N.J.A.C 7:9B and Groundwater Quality Standards at N.J.A.C 7:9C impose non-degradation and background water quality standards that are the most protective of Pinelands water resources. As a result of the fundamental principal of the CMP, and the highly protective water quality standards that apply to the Pinelands Outstanding National Resource Waters and Ground Water of Special Ecological Significance, the Commission is committed to the minimum 65 percent nitrogen removal standard applicable to the Water Quality Design Storm.

32. COMMENT: Three commenters requested that Constructed Gravel Wetlands be approved as a BMP because it has 90 percent nitrogen removal rate (6, 8, 11)

RESPONSE: The Commission acknowledges that Subsurface Gravel Wetlands are an effective method of removing nitrogen. However, because the NJDEP does not recognize Subsurface Gravel Wetlands as a GI BMP and because nutrient reduction must be achieved through the use of GI BMPs before non-GI BMPs may be used, the Commission suggests that the commenters bring this matter to the attention of the NJDEP for consideration.

N.J.A.C. 7:50-6.84(a)6v

33. COMMENT: Three commenters recommended that the groundwater mounding analysis that is required for major development also be required for minor development, as it is indicative of whether the facilities will infiltrate. Failure to infiltrate could adversely impact adjacent properties, including the State Roadway system. (6, 8, 11)

RESPONSE: The proposed amendments impose stormwater infiltration requirements for minor development. The current rule does not impose any infiltration requirement on minor development, and therefore the proposed amendment will be more protective of adjacent

properties including the State Roadway system. The Commission does not agree that requiring a groundwater mounding analysis for each minor development is necessary since it is anticipated that, when compared to the current rule, the proposed amendments will result in the retention and infiltration of a greater volume of stormwater throughout the Pinelands Area, and that the rule will result in less stormwater runoff onto adjacent properties and roadways. While the Commission has chosen not to impose a requirement to provide a groundwater mounding analysis for minor development, such an analysis may be required by other government entities that have regulatory authority over the development.

34. COMMENT: Three commenters stated that the requirement for spatial distribution of smaller stormwater management measures may not always be practicable for public roadway projects and is the basis for NJDEP's plans to amend its stormwater management rules to allow flexibility for major developments associated with public roadways. The commenters requested that the rule continue to allow spatial distribution of smaller stormwater management measures "to the maximum extent practical" for public roadway projects and that the CMP state that it will incorporate any future amendments to NJDEP's stormwater management rules, N.J.A.C. 7:8-5 and 6, that provide flexibility for green infrastructure for roadways. (6, 8, 11)

RESPONSE: The Commission believes the proposed amendments provide sufficient flexibility for the placement of BMPs for major development associated with public roadways. These measures may include the use of two or more infiltration swales, bioretention basins, or vegetated conveyance swales situated on opposite sides of a roadway, or the use of subsurface porous infiltration pipe within linear stone trenches along portions of the proposed road improvements. Public roadway and other public projects that cannot meet the Commission's amended stormwater rules will continue to have the opportunity to request and receive

“exceptions” in accordance with N.J.A.C. 7:50-6.84(a)6vii, and by incorporation, N.J.A.C. 7:8-4.6.

Should DEP adopt amendments to N.J.A.C. 7:8-4.6, 5, and 6 in the future, such amendments will automatically be applicable to development in the Pinelands Area by virtue of the cross-references contained at N.J.A.C. 7:50-6.84(a)6 and N.J.A.C. 7:50-6.84(a)6vii(1) and (2), provided the amendments are not inconsistent with the modifications and supplementary provisions expressly set forth in the CMP. The words “as amended” were mistakenly deleted from the introductory paragraph of N.J.A.C. 7:50-6.84(a)6 and are being restored upon adoption of these amendments. Additionally, the Commission may choose to engage in a future rulemaking process, akin to the one it undertook in 2006 and this one, should DEP promulgate significant amendments to its stormwater management regulations that require modification for the Pinelands Area.

35. COMMENT: Three commenters requested that the pretreatment requirement in N.J.A.C. 7:50-6:84(a)6v(5) specifically indicate that sediment forebays within a basin meet the pretreatment criteria. (6, 8, 11)

RESPONSE: The use of sediment forebays as a method of pretreatment has been accepted, and will continue to be accepted, as a method of pretreating stormwater prior to entering a basin. The Commission has chosen not to identify specific methods of pretreatment in the rule given that many different structural and non-structural methods may be acceptable. Additionally, the Commission wishes to allow flexibility for the use of future technologies and methods to meet this standard.

36. COMMENT: Two commenters stated that the proposed requirement that "methods of treating stormwater prior to entering any stormwater management measure shall be incorporated into the design of the stormwater management measure to the maximum extent practical" needs

to be better defined. The commenters asked the Commission to identify the other methods of treating stormwater that are not stormwater management measures and asked how one incorporates these other methods of treatment into the design of the stormwater management measure if they are not part of the stormwater management measure. (10, 14)

37. RESPONSE: The requirement to pretreat stormwater “to the maximum extent practical” is in the current rule, recodified at N.J.A.C. 7:50-6.84(a)6v(5), and the requirement itself is not part of the proposed amendments. The Commission is merely proposing to separate this requirement from the other standards in that provision. As stated in the response to comment #35, above, the Commission has chosen not to identify specific methods of pretreatment in the rule as it recognizes that many different structural and non-structural methods may be acceptable. The Commission also wishes to allow flexibility for the use of future technologies and methods to meet this standard.

Exceptions (recodified N.J.A.C. 7:50-6.84(a)6vii)

37. COMMENT: Three commenters stated that a waiver from full compliance with CMP stormwater standards should be available for public roadway projects to recognize the benefit versus the impact of having to place required infiltration BMP in ecologically valuable areas. They offered the example of a major development project that increases impervious area by 100 square feet in a HUC14 watershed and the feasible locations of infiltration BMPs are in environmentally sensitive areas, such as threatened/endangered species habitat.) (6, 8, 11)

RESPONSE: The Commission shares the commenters’ concern regarding the potential impact of infiltration BMPs within environmentally sensitive areas. Both the current rule, recodified at N.J.A.C. 7:50-6.84(a)6vii, and the proposed amendments (through incorporation of N.J.A.C. 7:8-4.6) provide methods of managing stormwater offsite if the applicant demonstrates

that it is technically impracticable to meet one or more of the design and performance standards on-site. As part of this analysis in the proposed amendments, technical impracticability exists when the design and performance standard cannot be met for engineering, environmental, or safety reasons. Should that determination be made, N.J.A.C. 7:50-6.84(a)6vii provides the Commission with the ability to grant an exception from CMP stormwater standards for a major public development project. As is the case under the current rules, that exception will carry with it an obligation for offsite mitigation.

As discussed in the response to comment #16, above, the Commission does not believe it is necessary or appropriate to provide for waivers from full compliance with the proposed amendments for public roadway or any other projects in the Pinelands Area without mitigation.

38. COMMENT: A commenter requested that the Commission adopt NJDEP's provisions for waivers and exemptions for public development projects, allow for grandfathering, or delay application of the new standards after the rule is adopted. The commenter expressed concern that the absence of these provisions will make the transition to these revised regulatory standards very challenging for active applicants in various stages of design, including critically needed infrastructure projects that meet the definition of a major development. (11)

RESPONSE: Given the important natural resources it is charged with protecting, the Commission does not believe that adoption of NJDEP's waiver and exemption standards for public development projects is appropriate in the Pinelands Area. Both the current CMP and the proposed amendments provide the Commission with to the ability to grant an exception and allow for off-site mitigation for public development projects that cannot meet the on-site design and performance standards for green infrastructure, groundwater recharge, stormwater runoff quality, and stormwater runoff quality for public development projects. These exception

provisions have been in effect since 2006 and the Commission believes they will continue to be sufficient and appropriate.

The commenter's concern with the transition to the revised stormwater standards is valid and acknowledged. As is the case following adoption of any set of CMP amendments, the Commission will develop an implementation schedule that takes into consideration projects at various stages of the application process.

39. COMMENT: Two commenters noted a citation error in N.J.A.C 7:50-6.84(a)6vii(2),

which refers to the first part of the recharge standards at (a)6iv(1) instead of the off-site mitigation requirements at (a)6vii(1)(A). (11, 12)

RESPONSE: The Commission thanks the commenter for noting the citation error which has been corrected in this adoption.

40. COMMENT: A commenter noted an incorrect citation in N.J.A.C. 6:84(a)6vii(2), which states that "the Commission may grant an exception in accordance with the standards described at N.J.A.C. 7:50-4.6, as amended ..." N.J.A.C. 7:50-4.6 is a reserved section. (6)

RESPONSE: The Commission thanks the commenter for noting the citation error, which has been corrected to "N.J.A.C. 7:8-4.6" in this adoption. This corrected citation references the standards in NJDEP's stormwater management rule for granting municipal variances from the design and performance standards for stormwater management measures. By incorporating this provision into N.J.A.C. 6:84(a)6vii(2), the Commission will be applying these same standards to exceptions from the on-site design and performance standards for green infrastructure, groundwater recharge, stormwater runoff quality, and stormwater runoff quality and on-site recharge standards for public development projects.

41. COMMENT: Two commenters expressed support for the requirement that mitigation projects approved by variance be located within either the same HUC-14 or HUC-11 watershed as the parcel proposed for development but requested that the provision be amended to allow the mitigation project to be located outside the Pinelands Area. (5, 7)

RESPONSE: As stated in response to Comment #4, pursuant to the Pinelands Protection Act, the Commission's jurisdiction is limited to the boundaries of the State designated Pinelands Area. Given the Commission would not be able to approve or regulate mitigation projects conducted outside of the Pinelands Area, locating mitigation projects outside the Pinelands Area to address regulatory obligations within the Pinelands Area is not appropriate.

Maintenance standards (Recodified N.J.A.C. 7:50-6.84(a)6viii)

42. COMMENT: Several commenters expressed support for the maintenance plan requirements for major and minor development but noted that maintenance plans must be enforced because improper maintenance and monitoring of stormwater infrastructure can lead to malfunction or contribute to worsening stormwater issues. The commenters noted that failure to maintain stormwater management infrastructure is a documented, common, and serious problem that results in adverse impacts to water quality in watersheds and coastal waterbodies, such as Barnegat Bay. (1, 5, 7)

RESPONSE: The Commission appreciates the commenters' support of the maintenance plan requirements. While the Commission understands the commenters' concerns, it notes that the respective municipalities are responsible for enforcing implementation of stormwater maintenance plans, as required by the conditions in each municipality's Municipal Separate Storm Sewer System (MS4) NJPDES Permit. Further, it should be noted that major developments must include a deed notice on the property, which describes the stormwater

management measures associated with the project and includes the location of each in NAD 1983 State Plan New Jersey FIPS 2900 US Feet or Latitude and Longitude in decimal degrees.

The referenced maintenance plans must also be attached to the deed.

43. COMMENT: Two commenters stated that the responsibility for maintenance of stormwater management measures should be restricted to measures that only collect runoff from the owner/tenant parcel. (10, 14)

RESPONSE: Because improperly maintained stormwater BMPs impact the natural resources of the Pinelands environment as well as adjacent properties and roadways, the Commission disagrees with the comment and will continue to require that all stormwater BMPs be maintained in accordance with the proposed amendments.

Federal Standards Statement

Section 502 of the National Parks and Recreation Act of 1978 (16 U.S.C. § 471i) called upon the State of New Jersey to develop a comprehensive management plan for the Pinelands National Reserve. The original plan adopted in 1980 was subject to the approval of the United States Secretary of the Interior, as are all amendments to the plan.

The Federal Pinelands legislation sets forth rigorous goals that the plan must meet, including the protection, preservation, and enhancement of the land and water resources of the Pinelands. The adopted amendments are designed to meet those goals by imposing stringent stormwater management requirements on development in the Pinelands Area, which will provide greater protection of the Pinelands resources.

The Federal Clean Water Act (33 U.S.C. §§ 251 et seq.) regulates stormwater runoff and nonpoint source pollution control. The Federal Clean Water Act requires permits under Section 402 of that Act (33 U.S.C. § 1342) for certain stormwater discharges. Section 319 of the Clean

Water Act (33 U.S.C. § 1329) authorizes a Federal grant-in-aid program to encourage states to control nonpoint sources. The Commission's existing and amended rules are designed to control stormwater and minimize nonpoint source pollution and are fully consistent with the Federal requirements.

There are no other Federal requirements which apply to the subject matter of these amendments and new rule.

Full text of the adoption follows (additions to proposal indicated in boldface with asterisks ***thus***; deletions from proposal indicated in brackets with asterisks ***[thus]***):

7:50-6.84 Minimum standards for point and non-point source discharges

(a) The following point and non-point sources may be permitted in the Pinelands:

1.-5. (No change)

6. Surface water runoff in accordance with N.J.A.C. 7:8-4.6, 5, and 6, ***as amended,*** except as modified and supplemented as follows: i-iii.

(No change from proposal).

iv. Recharge standards:

(1)-(2) (No change from proposal).

(3) For minor development, as defined at N.J.A.C. 7:50-2.11, that involves any nonresidential use, the following standards shall apply:

(A) If the proposed development will result in an increase of ***greater than*** 1,000 square feet ***[or more]*** of regulated motor vehicle surfaces as defined at N.J.A.C. 7:8-1.2, the stormwater runoff quality standards contained at N.J.A.C.

7:8-5.5 shall apply. The water quality design storm volume generated from these surfaces shall be recharged onsite; and

(B) (No change from proposal).

(4)-(5) (No change from proposal).

(6) For all major development, as defined at N.J.A.C. 7:50-2.11, stormwater management measures shall be designed to achieve a minimum of 65 percent reduction of the post-construction total nitrogen load from the developed site, including ***those*** permanent lawn or turf areas that are specifically intended for active human use as described at N.J.A.C. 7:50-6.24(c)3, in stormwater runoff generated from the water quality design storm. In achieving a minimum 65 percent reduction of total nitrogen, the design of the site shall include green infrastructure in accordance with the BMP Manual and shall optimize nutrient removal. The minimum 65 percent total nitrogen reduction may be achieved by using a singular stormwater management measure or multiple stormwater management measures in series.

v- vi. (No change from proposal).

vii. Exceptions:

(1) (No change from proposal).

(2) For applications submitted pursuant to N.J.A.C. 7:50-4.51 through 4.60, the Commission may grant an exception in accordance with the standards described at ***N.J.A.C. 7:8-4.6*** [N.J.A.C.

7:504.6]*, as amended, from the on-site design and performance standards for green infrastructure, groundwater recharge, stormwater runoff quality, and stormwater runoff quality at N.J.A.C. 7:8-5.3, 5.4, 5.5, and 5.6 and on-site recharge standards set forth at (a)6iv above, provided the conditions set forth at ***(a)6vii(1)(A)*** ***[(a)6iv(1)*]** above are met.

(3)-(4) (No change from proposal).

viii-ix. (No change from proposal).

Summary of Oral Comments on Proposed Stormwater Management Amendments¹
Public Hearing September 1, 2021

1. Georgina Shanley, Citizens United for Renewable Energy

Ms. Shanley agrees with the comments of the Pinelands Preservation Alliance, noting that water is the lifeblood of the Pinelands and has to be protected. She applauds the Pinelands Commission for the strong protections that are included in the rule proposal.

2. Maria Pezzato, resident of Burlington County

Ms. Pezzato commends the Pinelands Commission for fighting against global warming and preserving the State's waters, especially the aquifer.

3. Wendy Brophy, former Tabernacle resident, current Ocean County resident

With guidance from Rutgers University, Ms. Brophy recently installed a rain garden and pollinator garden at her house that has been successful in combating flooding issues on her property. She explained that her community had once been forested but is now a housing development that has drainage issues when it rains. She feels that if her one rain garden can be so successful for one house, the State should adopt stronger stormwater management requirements. She agrees with the comments provided by the Pinelands Preservation Alliance and Georgina Shanley.

4. Charles Caruso, individual

Mr. Caruso stated that he is the Chairman of the Barnegat Bay Partnership Stormwater Work Group but that his comments are in his personal capacity.

He supports the proposed amendments and appreciates the efforts of the Pinelands Commission and staff to protect the resources of the Pinelands beyond what is provided for in DEP's stormwater rule. The proposed changes will strengthen and enhance stormwater management in the Pinelands area and downstream in Barnegat Bay while establishing reasonable requirements of builders and developers.

Major and minor development. Mr. Caruso supports the definitions of these terms in the proposed rule as they provide protection beyond that provided by the DEP rules. He believes, however, that the recharge standards for minor residential development should be expanded to include recharge from all impervious surfaces in the development, such as driveways, and not just from roofs.

Nitrogen removal. Mr. Caruso supports the new nitrogen removal standard as it recognizes nitrogen as a significant source of harm to both the Pinelands and the

downstream impacts on Barnegat Bay. He believes, however, that the rule should address enforcement of the nitrogen removal standard.

Municipal variances for private development. Mr. Caruso supports the requirement that mitigation projects approved by variance be located in same HUC 11 or HUC 14 watershed as the parcel proposed for development, but believes that the provision should be amended to allow the mitigation project to occur outside Pinelands Area.

Runoff requirement. Mr. Caruso opposes the proposal to remove the requirement for filing deed restrictions on open space that is excluded from stormwater runoff calculations. He concurs with the position of the Pinelands Protection Alliance on this proposed rule amendment and notes that the requirement protects Pinelands resources.

Maintenance. Mr. Caruso supports the proposed changes for maintenance of stormwater management infrastructure but believes the rule should include enforcement mechanisms in the event infrastructure is not maintained. He stated that failure to maintain infrastructure is fairly common and noted that this has been a serious problem in the past.

Applicability outside the Pinelands. Mr. Caruso believes that municipalities with land both outside and inside the Pinelands should be encouraged to apply the stricter stormwater management rules to areas outside the Pinelands.

¹ Two other individuals offered oral testimony at the public hearing but subsequently submitted their comments on writing. Rather than summarize their oral testimony, copies of their letters have been provided.



PINELANDS PRESERVATION ALLIANCE

Bishop Farmstead ♦ 17 Pemberton Road ♦ Southampton, NJ 08088

Phone: 609-859-8860 ♦ ppa@pinelandsalliance.org ♦ www.pinelandsalliance.org

September 17, 2021

Acting Executive Director Susan Grogan
New Jersey Pinelands Commission
15 Springfield Road
Pemberton, NJ 08068

Re: Proposed Stormwater Amendments to Pinelands Comprehensive Management Plan

Dear Acting Director Grogan,

Pinelands Preservation Alliance (PPA) would like to express support for the proposed amendments to the Comprehensive Management Plan (CMP) revising stormwater management standards for development within the Pinelands Area. PPA recognizes that the proposed changes would go a step further than the New Jersey Department of Environmental Protection's (DEP) revised rules at N.J.A.C. 7:8, offering additional protections to the natural resources of the Pinelands. These additional protections adhere to the spirit of the Pinelands Protection Act and are especially crucial in the face of climate change.

According to the Mullica River Watershed Stormwater Basin Assessment Project conducted by the Pinelands Commission in 2005, 70% of sampled stormwater management facilities did not function properly. Specifically, they were found to contain standing water beyond the proper infiltration time frame. The report "revealed severe deficiencies in the site selection and soil assessment methodologies, construction practices, post construction performance verification and long-term basin infiltration surface maintenance" of the sampled basins.

PPA is supportive of maintenance plan requirements for both major and minor development, as improper maintenance and monitoring of stormwater infrastructure can lead to malfunction, or even contribute to worsening stormwater issues. But maintenance plans are ineffective if they aren't followed. Despite the fact that the basins in the Mullica River study area all had some form of maintenance plan, "[f]ollow up site visits to these same basins indicated that the required basin maintenance is not occurring." Clearly, maintenance plans must be enforced and go beyond simple mowing: "Even though 57% of the basins appeared to be mowed, 74% of those had standing water present, indicating that mere mowing provides little or no benefit to basin hydraulic performance."

We applaud the Commission's proposal to exceed DEP's standards regarding nitrogen removal and minor development inclusion. The CMP already further protected surface waters and areas around high pollutant areas, and the new standards are appropriate to preserve the quantity and quality of the Kirkwood Cohansey aquifer water.

In recodified N.J.A.C. 7:50-6.84(a)6iii, the Commission proposes to remove a requirement for applicants to file a deed notice on any undeveloped area of the property in order to deduct it from stormwater calculations. We urge the Commission to leave this requirement in place. Deeds allow for accurate tracking of portions of properties that can come in useful years and landowners after the fact.

Pinelands Preservation Alliance thanks the Pinelands Commissioners and staff for the significant effort put forth to strengthen stormwater management requirements in the Pinelands.

Sincerely,

A handwritten signature in black ink, appearing to read "Rhyon Grech". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Rhyon Grech
Policy Advocate



State of New Jersey

DEPARTMENT OF TRANSPORTATION
P.O. Box 600
Trenton, New Jersey 08625-0600

PHILIP D. MURPHY
Governor

DIANE GUTIERREZ-SCACCETTI
Commissioner

SHEILA Y. OLIVER
Lt. Governor

September 14, 2021

Susan R. Grogan, P.P., AICP
Acting Executive Director
Pinelands Commission
PO Box 539
New Lisbon, NJ 08064

Re: Proposed Amendments to the Pinelands Comprehensive Management Plan

Dear Ms. Grogan,

NJDOT offers the following comments regarding the proposed changes to the Pinelands Comprehensive Management Plan:

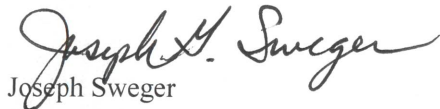
1. The revisions to the Pinelands CMP are in response to the recent updates to the NJDEP Stormwater Management (SWM) rules. In the June 21, 2021 NJ Register, 53 NJR 1085(a), NJDEP published a notice of readoption of the SWM rules, which state "The Department intends to propose further amendments to allow flexibility for major developments associated with public roadways in meeting the green infrastructure requirements at N.J.A.C. 7:8-5.3" to recognize the challenges associated with the newly adopted rules. The Pinelands cross-reference to the SWM rules should indicate that it will incorporate the future amendments to NJAC 7:8-5 and 6 that provide flexibility for green infrastructure for roadways.
2. At NJAC 7:50-6.84(a)6iv(3)(A), infiltration is proposed to be required when an excess of 1,000 sf of regulated motor vehicle surface is proposed for minor non-residential development. In addition to increases in roadway surface, "regulated motor vehicle surface" includes roadways that currently drain to vegetation, but will be collected into a storm sewer system under proposed conditions. If there is drainage issue that could have been resolved with a few additional inlets, infiltration Best Management Practices (BMPs) may now be required. This would result in project delays, and additional costs associated with design, right-of-way (ROW) acquisition, and maintenance for the additional BMPs. NJDOT requests that the Pinelands Commission reconsider this criterion or develop a waiver process for public roadway projects.

3. The requirement to create dispersed BMPs for compliance with the stormwater management criteria in NJAC 7:50-6.84(a)6v.(4) is proposed to be revised to remove “to the maximum extent practical.” The removal of this language limits the inflow drainage area into stormwater BMPs. The limitation of the drainage area for roadway projects is not practical due to the need to maximize the use of ROW, and the amount of the off-site inflow areas that flow into the State Roadway system. This is the basis of the NJDEP SWM rule change discussed above in Comment 1. NJDOT recommends that the term “maximum extent practical” remain in the language for public roadway projects.
4. At NJAC 6:84(a)6v(3), NJDOT recommends that groundwater mounding analysis be required for stormwater infiltration facilities for minor development as well as major development. Mounding analysis is indicative of whether the facilities will infiltrate and should be required for all development. Failure to infiltrate could adversely impact adjacent properties including the State Roadway system.
5. At NJAC 6:84(a)6v(5), NJDOT recommends that the pretreatment requirement specifically indicates that sediment forebays within a basin meet the pretreatment criteria.
6. There are locations where the water table is high and infiltration will not function. The new criteria require more infiltration BMPs. NJDOT recommends that NJAC 6:84(a)6vii indicate that where infiltration is not feasible within the project area, infiltration will not be required for minor non-residential development.
7. At NJAC 6:84(a)6vii(2), the proposed rule indicates that “the Commission may grant an exception in accordance with the standards described at NJAC 7:50-4.6, as amended ...” This section of the CMP is reserved and this appears to be an erroneous citation.
8. The summary indicates that the nitrogen removal standard targets nitrogen fertilizer applied to turf specifically intended for active human use. Transportation agencies do not include turf or lawn areas associated with active human use as defined in NJAC 7:50-6.24(c)3. (Active human use: Permanent lawn or turf areas shall be limited to those specifically intended for active human use such as play fields, golf courses and lawns associated with a residence or other principal non-residential use.) NJDOT does not fertilize areas except when initially establishing vegetation and we recommend that roadway runoff should not be required to reduce nitrogen by 65% for public roadway projects.
9. The BMPs in the NJ Stormwater BMP Manual Chapter 5 provide reductions in nitrogen from surface runoff. This chapter does not address the removal of nitrogen from water that is infiltrated. The proposed Pinelands rules require a 65% nitrogen removal for runoff from major development (disturbance in excess of 5,000 sf) and requires the use of Green Infrastructure (GI) BMPs to achieve this requirement. The highest nitrogen removal of a GI BMP in the NJ Stormwater BMP Manual is 50%. Therefore, two GI BMPs in series would be needed to address this standard, which is impractical in practice. NJDOT recommends that if the Water Quality design storm is being infiltrated, no additional treatment should be required to address the nitrogen removal criteria.
10. The Constructed Gravel Wetlands has a nitrogen removal rate of 90% and is not a GI BMP per NJDEP. NJDOT recommends that the Pinelands Commission recognize Constructed Gravel Wetlands as a GI BMP.

11. The rational method is the standard method for computing runoff for pipe sizing and has been used to demonstrate that there is no increase in flows at a discharge point. The Pinelands Commission, consistent with NJDEP, is proposing to limit the use of runoff calculations to the NRCS method. Under the SWM rules operative as of March 2, 2021, NJDEP will continue to allow the use of the rational method for pipe flows and capacity. NJDOT recommends that the rational method should still be acceptable when assessing peak flows, and that the NRCS method limits apply only for runoff volume calculations and the sizing of a stormwater management measure.
12. NJDOT recommends that the Pinelands Commission recognizes the intrinsic value and the linear nature of public roadway projects in the following ways:
 - Roadway projects cross multiple watersheds and the threshold for both major or minor development projects should be based on a watershed, not the project in its entirety.
 - In addition, the major and minor development thresholds should not include the temporary disturbance that will be restored upon the completion of the project.
 - An allowable de minimis impact for public roadway projects should be included in the Pinelands rules. (For example, a threshold of allowable impervious with no additional BMP required for each HUC14.)
 - A waiver from full compliance with the standards should be available for public roadway projects, to recognize the benefit vs. the impact of the placement of the infiltration BMP in ecologically valuable areas. (For example, if a major development project increases impervious area by 100 square feet in a HUC14 watershed and the feasible locations of infiltration BMPs are in environmentally sensitive areas, such as threatened/endangered species habitat.)

If you have any questions regarding these comments, please contact Sandra Blick at (609) 963-1102 or at sandra.blick@dot.nj.gov.

Sincerely,



Joseph Sweger
Executive Manager

Bureau of Landscape Architecture and Environmental Solutions



17 September 2021

Susan R. Grogan, Acting Executive Director
New Jersey Pinelands Commission
P.O. Box 359
New Lisbon, New Jersey 08064
VIA EMAIL

Re: Proposed amendments to NJAC 7:50-2.11, 3.39, and 6.84 (Pinelands Stormwater Management Rules)

Dear Ms. Grogan,

I am submitting these comments to the New Jersey Pinelands Commission regarding the proposed amendments to NJAC 7:50-2.11, 3.39, and 6.84, the Comprehensive Management Plan (CMP) stormwater rules, on behalf of the Barnegat Bay Partnership (BBP), which comprises federal, state, and local government agencies, academic institutions, nongovernmental organizations, and businesses working together to restore and protect a nationally significant estuary, the Barnegat Bay.

AUTHORITY

The BBP submits these comments pursuant to Section 320 of the Clean Water Act (33 U.S.C. §1330; as amended by P.L. 100-4, 114-162, and 116-337), which established the Barnegat Bay as an estuary of national significance. Section 320 further identifies important purposes of our management conference: addressing point and nonpoint sources of pollution, maintaining sustainable populations of fishes and wildlife, protecting their habitats, and assuring that the designated uses of the estuary are protected. In accordance with the BBP's Memorandum of Understanding Regarding the Roles and Responsibilities of Partners and its attendant charters and policies, the U.S. Environmental Protection Agency (EPA), N.J. Department of Environmental Protection (NJDEP), and N.J. Pinelands Commission neither participated in the development of these comments nor reviewed them for endorsement.

COMMENTS

The Barnegat Bay Partnership supports the Pinelands Commission's proposed amendments to the CMP Stormwater Rules. We appreciate the efforts of the Pinelands Commission to protect the resources of the Pinelands beyond what is provided for in the NJDEP stormwater rules and to further address the impact of climate change on stormwater runoff. The proposed changes will strengthen and enhance stormwater management in the Pinelands Area and downstream in the Barnegat Bay, while establishing reasonable requirements for home builders and developers. The BBP has specific comments in the following areas.

ONE OF 28 NATIONAL ESTUARY PROGRAMS ADMINISTERED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY.

Major and Minor Development

The BBP supports the proposed rule definitions of major and minor development, because the definitions enable better protection of Pinelands resources beyond that provided by the current NJDEP rules. However, we believe the recharge standards for minor residential development should be expanded to include recharge from all impervious surfaces (*e.g.*, driveways) and not just from roofs in the proposed development. We also ask that the NJDEP consider expanding the recharge standards for minor non-residential development to require onsite infiltration if more than 500 square feet of regulated motor-vehicle surface is added (as opposed to the proposed 1000 square feet). As the Pinelands Commission stated in its description of the rule amendments, even chemicals from *individual* parking spaces warrant removal before they enter the groundwater table. Some municipalities have already considered using the 500 square foot benchmark.

Nitrogen Removal

The BBP enthusiastically supports the new requirement of a nitrogen removal standard for major development. The Pinelands Commission recognizes nitrogen as a significant source of harm to the Pinelands flora and fauna, and that the NJDEP standard is not sufficiently protective of Pinelands resources. Nitrogen pollution promotes some invasive species, potentially reduces blueberry production, and may contribute to downstream impacts to receiving waterbodies, including the Barnegat Bay. The 65% removal standard is a good starting point; however, we encourage clarification of how the standard is achieved and enforced.

Municipal Variances for Private Development

The BBP supports the requirement that mitigation projects approved by variance be located within either the same HUC-14 or HUC-11 watershed as the parcel proposed for development, however, we believe that the provision *might* be amended to allow the mitigation project to be located outside the Pinelands Area. This change would be allowable, should the Pinelands Stormwater Rules be applied to the total area of municipalities that have areas both within and outside the Pinelands Area (see Applicability Outside the Pinelands Area below).

Runoff Requirements

The BBP opposes the proposed change at NJAC 7:50-6.84(a)6iii that would remove the requirement for filing a deed restriction on open space excluded from stormwater runoff calculations. We believe that the current rule, which permanently restricts those areas from development, is more protective of Pinelands habitats, biotic resources, and water quality throughout all Pinelands watersheds, including the Barnegat Bay.

Maintenance

The BBP supports the proposed rule changes for stormwater maintenance standards; the proposed changes would slightly modify stormwater maintenance plans for major development and now include requirements of maintenance plans for minor development. However, the BBP asks the Pinelands Commission and the NJDEP to clarify their review and enforcement of maintenance plans. Failure of maintenance of many stormwater BMPs historically has been a serious problem, which results in adverse impacts to water quality in watersheds and coastal waterbodies, such as Barnegat Bay.

Applicability Outside the Pinelands Area

Municipalities that have areas both within and outside the Pinelands Area should be encouraged to apply these stormwater rules that are superior to the NJDEP rules, both within and outside the Pinelands Area. Combined with our recommendation regarding municipal variances, this change would result in overall

improvements in water quality in Pinelands and adjoining areas, and give municipalities additional flexibility in their management of stormwater.

We hope that you find our comments to be constructive and consistent with the BBP's 2021 Comprehensive Conservation Management Plan, including our mission to protect water quality, habitats, and biotic resources throughout the Barnegat Bay and its contributing watershed, much of which lies within the Pinelands National Reserve. We hope you find that our comments are consistent with the Pinelands Comprehensive Management Plan and welcome the opportunity to discuss them in more detail. If you have any questions, please feel free to contact me (shales@ocean.edu) or Dr. Jim Vasslides (jvasslides@ocean.edu), our Program Scientist, at 732-255-0472.

Sincerely,



L. Stanton Hales, Jr., Ph.D.
Director

cc: Dr. Elizabeth Lacey, Stockton University, STAC Chair
Mr. Gregg Sakowicz, JCNERR, Rutgers University, STAC Vice-Chair
Ms. Karen Green, NOAA-NMFS, Advisory Committee Co-Chair
Mr. Charles Caruso, Pinelands Preservation Alliance, Stormwater Working Group Chair



SOUTH JERSEY
TRANSPORTATION AUTHORITY

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Sheila Y. Oliver
Lt. Governor

Diane Gutierrez-Scaccetti
Chair

Stephen F. Dougherty
Executive Director

September 15, 2021

Susan R. Grogan, P.P., AICP
Acting Executive Director
Pinelands Commission
PO Box 539
New Lisbon, NJ 08064

Re: Proposed Amendments to the Pinelands Comprehensive Management Plan

Dear Ms. Grogan,

The South Jersey Transportation Authority (SJTA) has been working closely the New Jersey Department of Transportation (NJDOT) and the New Jersey Turnpike Authority (NJTA), collectively reviewing proposed rule changes by the New Jersey Department of Environmental Protection (NJDEP) and the Pinelands Commission. So as not to provide duplicative comments, please be advised that the SJTA agrees with and supports the comments provide to you from the NJDOT in the attached letter.

Should you have any questions, please contact me at smazur@sjta.com or 609-820-2077.

Respectfully,



Stephen M. Mazur, PE, PP, PTOE, CME
Chief Engineer/Director of Engineering



State of New Jersey

DEPARTMENT OF TRANSPORTATION
P.O. Box 600
Trenton, New Jersey 08625-0600

PHILIP D. MURPHY
Governor

DIANE GUTIERREZ-SCACCETTI
Commissioner

SHEILA Y. OLIVER
Lt. Governor

September 14, 2021

Susan R. Grogan, P.P., AICP
Acting Executive Director
Pinelands Commission
PO Box 539
New Lisbon, NJ 08064

Re: Proposed Amendments to the Pinelands Comprehensive Management Plan

Dear Ms. Grogan,

NJDOT offers the following comments regarding the proposed changes to the Pinelands Comprehensive Management Plan:

1. The revisions to the Pinelands CMP are in response to the recent updates to the NJDEP Stormwater Management (SWM) rules. In the June 21, 2021 NJ Register, 53 NJR 1085(a), NJDEP published a notice of readoption of the SWM rules, which state "The Department intends to propose further amendments to allow flexibility for major developments associated with public roadways in meeting the green infrastructure requirements at N.J.A.C. 7:8-5.3" to recognize the challenges associated with the newly adopted rules. The Pinelands cross-reference to the SWM rules should indicate that it will incorporate the future amendments to NJAC 7:8-5 and 6 that provide flexibility for green infrastructure for roadways.
2. At NJAC 7:50-6.84(a)6iv(3)(A), infiltration is proposed to be required when an excess of 1,000 sf of regulated motor vehicle surface is proposed for minor non-residential development. In addition to increases in roadway surface, "regulated motor vehicle surface" includes roadways that currently drain to vegetation, but will be collected into a storm sewer system under proposed conditions. If there is drainage issue that could have been resolved with a few additional inlets, infiltration Best Management Practices (BMPs) may now be required. This would result in project delays, and additional costs associated with design, right-of-way (ROW) acquisition, and maintenance for the additional BMPs. NJDOT requests that the Pinelands Commission reconsider this criterion or develop a waiver process for public roadway projects.

3. The requirement to create dispersed BMPs for compliance with the stormwater management criteria in NJAC 7:50-6.84(a)6v.(4) is proposed to be revised to remove “to the maximum extent practical.” The removal of this language limits the inflow drainage area into stormwater BMPs. The limitation of the drainage area for roadway projects is not practical due to the need to maximize the use of ROW, and the amount of the off-site inflow areas that flow into the State Roadway system. This is the basis of the NJDEP SWM rule change discussed above in Comment 1. NJDOT recommends that the term “maximum extent practical” remain in the language for public roadway projects.
4. At NJAC 6:84(a)6v(3), NJDOT recommends that groundwater mounding analysis be required for stormwater infiltration facilities for minor development as well as major development. Mounding analysis is indicative of whether the facilities will infiltrate and should be required for all development. Failure to infiltrate could adversely impact adjacent properties including the State Roadway system.
5. At NJAC 6:84(a)6v(5), NJDOT recommends that the pretreatment requirement specifically indicates that sediment forebays within a basin meet the pretreatment criteria.
6. There are locations where the water table is high and infiltration will not function. The new criteria require more infiltration BMPs. NJDOT recommends that NJAC 6:84(a)6vii indicate that where infiltration is not feasible within the project area, infiltration will not be required for minor non-residential development.
7. At NJAC 6:84(a)6vii(2), the proposed rule indicates that “the Commission may grant an exception in accordance with the standards described at NJAC 7:50-4.6, as amended ...” This section of the CMP is reserved and this appears to be an erroneous citation.
8. The summary indicates that the nitrogen removal standard targets nitrogen fertilizer applied to turf specifically intended for active human use. Transportation agencies do not include turf or lawn areas associated with active human use as defined in NJAC 7:50-6.24(c)3. (Active human use: Permanent lawn or turf areas shall be limited to those specifically intended for active human use such as play fields, golf courses and lawns associated with a residence or other principal non-residential use.) NJDOT does not fertilize areas except when initially establishing vegetation and we recommend that roadway runoff should not be required to reduce nitrogen by 65% for public roadway projects.
9. The BMPs in the NJ Stormwater BMP Manual Chapter 5 provide reductions in nitrogen from surface runoff. This chapter does not address the removal of nitrogen from water that is infiltrated. The proposed Pinelands rules require a 65% nitrogen removal for runoff from major development (disturbance in excess of 5,000 sf) and requires the use of Green Infrastructure (GI) BMPs to achieve this requirement. The highest nitrogen removal of a GI BMP in the NJ Stormwater BMP Manual is 50%. Therefore, two GI BMPs in series would be needed to address this standard, which is impractical in practice. NJDOT recommends that if the Water Quality design storm is being infiltrated, no additional treatment should be required to address the nitrogen removal criteria.
10. The Constructed Gravel Wetlands has a nitrogen removal rate of 90% and is not a GI BMP per NJDEP. NJDOT recommends that the Pinelands Commission recognize Constructed Gravel Wetlands as a GI BMP.

11. The rational method is the standard method for computing runoff for pipe sizing and has been used to demonstrate that there is no increase in flows at a discharge point. The Pinelands Commission, consistent with NJDEP, is proposing to limit the use of runoff calculations to the NRCS method. Under the SWM rules operative as of March 2, 2021, NJDEP will continue to allow the use of the rational method for pipe flows and capacity. NJDOT recommends that the rational method should still be acceptable when assessing peak flows, and that the NRCS method limits apply only for runoff volume calculations and the sizing of a stormwater management measure.
12. NJDOT recommends that the Pinelands Commission recognizes the intrinsic value and the linear nature of public roadway projects in the following ways:
 - Roadway projects cross multiple watersheds and the threshold for both major or minor development projects should be based on a watershed, not the project in its entirety.
 - In addition, the major and minor development thresholds should not include the temporary disturbance that will be restored upon the completion of the project.
 - An allowable de minimis impact for public roadway projects should be included in the Pinelands rules. (For example, a threshold of allowable impervious with no additional BMP required for each HUC14.)
 - A waiver from full compliance with the standards should be available for public roadway projects, to recognize the benefit vs. the impact of the placement of the infiltration BMP in ecologically valuable areas. (For example, if a major development project increases impervious area by 100 square feet in a HUC14 watershed and the feasible locations of infiltration BMPs are in environmentally sensitive areas, such as threatened/endangered species habitat.)

If you have any questions regarding these comments, please contact Sandra Blick at (609) 963-1102 or at sandra.blick@dot.nj.gov.

Sincerely,



Joseph Sweger
Executive Manager

Bureau of Landscape Architecture and Environmental Solutions

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NJSPE

EXECUTIVE DIRECTOR
PATRICK STEWART
NJSPE

Susan R. Grogan, P.P., AICP
Acting Executive Director Pinelands Commission
PO Box 359 New Lisbon, NJ 08064

Dear Acting Executive Director Pinelands Commission:

The New Jersey Society of Professional Engineers write to express no concerns with the pending "DEP stormwater rule" or "DEP rule" adoption. We do recognize in the proposed rule that the role of the Professional Engineer (PE) is vital in the Stormwater process. We agree and support the role of the PE in this process.

There are many powerful reasons both professional and personal for earning and maintaining a PE license. Only a licensed engineer, for instance, may prepare, sign, seal and submit engineering plans and drawings to a public authority for approval, or to seal engineering work for public and private clients.

For consulting engineers and private practitioners, licensure is a vital necessity. In fact, it is a legal requirement for those who are in responsible charge of work, be they principals or employees.

More and more with each passing day, government agencies, educational institutions and private industries are requiring that they hire and contract only with licensed professional engineers. This is a trend that is almost certain to continue in the future and we support that the pending DEP rule continues this trend regarding the role of the PE.

Sincerely,

Patrick Stewart, Executive Director
New Jersey Society of Professional Engineers

Tony D Environmental Perm

September 16, 2021

Proposal No. PRN: 2021-063

Via Email (planning@pinelands.nj.gov)

Susan R. Grogan, P.P., AICP Acting Executive Director Pinelands Commission
PO Box 359
New Lisbon, NJ 08064

Re: Proposal Number: PRN 2021-063.

Comments to Proposed Amendments: N.J.A.C. 7:50-2.11, 3.39, and 6.84

Dear Ms. Grogan,

Tony DEP is pleased to provide the below comments on the Pinelands Commission's proposal to amend N.J.A.C. 7:50-2.11, 3.39 and 6.84:

N.J.A.C. 7:50-6.84(a)6iv(6) - I seriously believe that you should not move forward with the requirement for a minimum of 65% nitrogen removal. Comments on/reasons for this are:

1. What is the justification for a specific % total nitrogen standard?
2. Are you relying on any specific scientific literature or studies to defend a specific blanket % removal standard?
3. Are there any Pineland specific studies on this?
4. TSS is a secondary treatment standard so 80% removal of TSS does not need to be specifically justified. Nitrogen, however, is a nutrient subject to water quality standards and it is inappropriate to require a set % removal standard throughout the Pinelands without a specific water quality assessment.
5. Why 65%?
6. How are you planning to have an applicant prove 65%?
7. NJDEP does not have a specific nitrogen removal standard and the NJDEP regulations only provide specific BMP % removals for TSS.
8. In adopting the new stormwater standard, NJDEP specifically states that, as part of the ongoing stakeholder process, the Department is currently exploring potential changes to the nutrient standard at N.J.A.C. 7:8-5.5(f) and should the Department determine that it is appropriate to amend the rules to incorporate numerical nutrient removal standards, additional information will be provided on the BMPs capable of achieving the standard as part of any future rule making and in amendments to the New Jersey Stormwater BMP manual. The Pinelands needs to wait for NJDEP to conclude that a numerical nutrient standard is appropriate and

utilize the BMP's that the Department concludes are capable of meeting the standard.

9. I am on the stakeholder subgroup that has been investigating the nutrient removal issue and we are a long way away from agreeing that a numerical standard is appropriate no less a specific % removal standard. There are no specific studies that address a statewide % total nitrogen removal standard and the performance of BMPs to reduce nutrients is all over the place.

10. Since the stormwater regulations only require water quality treatment from motor vehicle areas, there will have to be separate BMPs for vegetative areas.

11. Combining the motor vehicle and vegetation runoffs into one water quality BMP will exacerbate the requirement to restrict the drainage areas to 1 and 2.5 acres.

12. If you move forward now with a specific % removal standard, the only BMP performance information in NJDEP guidance is the chart in Chapter 4 of the BMP Manual which gives the following removal rates:

Table 4.2 - Typical Nitrogen Removal Rates for BMPs:

Bioretention Basin	30%
Constructed Stormwater Wetland	30%
Extended Detention Basin	20%
Infiltration Basin	50%
Pervious Paving	50%
Sand Filter	35%
Vegetative Filter	30%
Wet Pond	30%

The NJDEP regulations do not allow use of constructed stormwater wetlands, extended detention basins and wet ponds for water quality treatment.

As you can see, there are no BMPs that are given a 65% removal rate, so, using this chart would require a minimum of two BMPs since once you infiltrate the water quality storm there is no flow left to send to another BMP. Also, NJDEP requires that the lower % removal BMP be used first in series. This means that the only way to achieve 65% is to use a vegetative filter strip followed by an infiltration basin. This is impractical for residential subdivisions in that lawn areas would have to sheet flow to an additional vegetated area, which cannot be part of the lawn and then sheet flow to an infiltration basin. You will have multiple vegetated filter and infiltration basin BMPs on each lot.

6.84(a)6iii(1): The proposed requirement that "stormwater runoff shall not be directed in such a way as to increase the volume and rate of discharge into any wetland, wetlands transition area or surface water body from that which existed prior to development of the parcel" would appear to require that one has to infiltrate the increase in the 100-year storm runoff. This would be contrary to the Pinelands long established position that it only requires infiltrating the increase in the 10-year storm runoff and not the 100-year storm runoff.

iv(3)(A): What is the justification for regulating motor vehicle surfaces as small as 1,000 SF?

v(5): The proposed requirement that "methods of treating stormwater prior to entering any stormwater management measure shall be incorporated into the design of the stormwater management measure to the maximum extent practical" needs to be better defined. What are "other methods of treating stormwater" that are not stormwater management measures. How does one incorporate these other methods of treatment into the design of the stormwater management measure if they are not part of the stormwater management measure?

viii(2)(B): Responsibility for maintenance of stormwater management measures that may be assigned or transferred to the owner or tenant of the parcel should be restricted to measures that only collect runoff from the owner/tenant parcel.

Should you have any questions, please call me at 732-740-5725 or email me at the address listed below.

Very truly yours,

Tony D Environmental Permitting, LLC



Tony DiLodovico
President

TonyDEP.llc@gmail.com



UTILITY and TRANSPORTATION CONTRACTORS ASSOCIATION OF NEW JERSEY

Pinelands CMP Amendment Proposal
53 N.J.R. 1195(a)
Comment 11

Street Address: 1670 Highway 34 North; Farmingdale, NJ 07727
Mailing Address: P.O. Box 728; Allenwood, NJ 08720-0728
732-292-4300 FAX: 732-292-4310 www.utcanj.org



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September 16, 2021

Susan R. Grogan, P.P., AICP,
Acting Executive Director Pinelands Commission

VIA ELECTRONIC MAIL planning@pinelands.nj.gov

Re: Pinelands CMP Proposed Amendments (N.J.A.C. 7:50-2.11, 3.39, and 6.84)

Dear Ms. Grogan:

Please accept the following comments on the above referenced rule amendments on behalf of the Utility and Transportation Contractors Association of NJ (UTCA).

When the New Jersey Department of Environmental Protection (DEP) adopted its 2020 amendments to its stormwater management rule, UTCA agreed that the rule proposal was necessary to create clear standards for stormwater management techniques that can meet the "maximum extent practicable" test in the existing Stormwater Management rules at N.J.A.C. 7:8-5.3.

This rule proposal suffers from the lack of consultation with the leadership or staff at the NJ Department of Transportation or any other transportation agencies including but not limited to the NJ Turnpike Authority and South Jersey Transportation Authority. These public agencies have subject matter expertise in stormwater management as it related to public development throughout the area subject to Pinelands Commission (Commission) jurisdiction. These agencies have existing assets they need to manage and have planned projects to be proposed for approvals to implement their capital plans. We request that you take the comments you receive from them seriously and if necessary, repropose this regulatory reform with their input considered.

The UTCA supported aspects of the DEP 2020 amendments to its stormwater management rule including the following:

- The DEP proposal offered flexibility for the new requirement that major developments utilize green infrastructure to meet the "maximum extent practicable" standards of the Stormwater Management rules including, but not limited, to the ability to obtain a variance or waiver from strict compliance for enlargement of an existing public roadway or railway.
- The DEP proposal appropriately included a delayed operative date and "grandfathering" of major development applications to deal with fairness issues related to the transition to relevant new standards related to project design and layout

AFFILIATIONS

American Road & Transportation Builders Association
Clean Water Construction Coalition

In reviewing the proposal, we note that the Commission has decided not to adopt the DEP provisions for waivers and exemptions for public development projects at N.J.A.C. 7:50-5 nor allow for any grandfathering or appropriate delays of application of these new standards after the rule is adopted. The UTCA recommends that the Commission repropose this rule with these aspects resolved. The absence of these two provisions will make the transition to these revised regulatory standards very challenging for active applicants in various stages of design, including critically need infrastructure projects that meet the definition of a major development.

In addition, we ask that Pinelands Commission provide justification for the standard proposed at N.J.A.C. 7:50-3.39iv(3)(A) that would require additional recharge standards if there is an increase of 1,000 SF of regulated motor vehicle surfaces as defined at N.J.A.C. 7:81-2. Please provide justification as to why the Commission feels it is necessary to deviate from existing standards and how it concluded 1,000 SF is an appropriate standard. This is not explained in the proposal.

Thank you for the opportunity to comment on this proposal.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Kennedy', written over a horizontal line.

Dan Kennedy, P.P., MCRP

Director, Environmental and Utility Operations

About the UTCA of NJ

The Utility and Transportation Contractors of New Jersey is a non-profit trade association headquartered in Wall Township, New Jersey. Founded in 1965, UTCA represents approximately 1,000 member firms in the public and private sectors, active in all phases of heavy, highway, utility, and marine construction, as well as site work including remediation of brownfields and contaminated sites.



New Jersey Turnpike

1 TURNPIKE PLAZA - P.O. BOX 5042 - WOODBRIDGE, NEW JERSEY 07095
TELEPHONE (732) 750-5300

Pinelands CMP Amendment Proposal
53 N.J.R. 1195(a)
Comment 12

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GOVERNOR

SHEILA Y. OLIVER
LIEUTENANT GOVERNOR

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JOHN M. KELLER, *Executive Director*

September 16, 2021

Pinelands Commission
15 Springfield Road
New Lisbon, NJ 08064
ATTN: Ms. Susan R. Grogan, Acting Executive Director

VIA EMAIL to planning@pinelands.nj.gov

RE: Proposed Regulatory Amendments
Pinelands Comprehensive Management Plan
New Jersey Turnpike Authority Comments

Dear Ms. Grogan:

The New Jersey Turnpike Authority (NJTA) has been notified of the proposed revisions to the Pinelands Comprehensive Management Plan (N.J.A.C. 7:50). A review of the proposed revisions was completed by our consultant, HNTB. The NJTA concurs with the prepared comments below.

SUBCHAPTER 6 – MANAGEMENT PROGRAMS AND MINIMUM STANDARDS

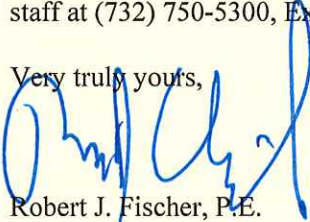
7:50-6.84 Minimum standards for point and non-point source discharges

- 7:50-6.84(a)6iv.(6): The Pinelands will require all Major Development projects be designed to achieve a minimum of 65 percent reduction in total nitrogen loads from the developed site, including permanent lawn or turf areas specifically intended for “active human use.”
 - COMMENT: The Pinelands is proposing a quantitative nitrogen removal standard for the “developed site,” which will include permanent lawn or turf areas “specifically intended for active human use.” This is presumably intended to address nitrogen loading produced by fertilizers, as the summary document specifically references “...permanent lawn and turf areas that are specifically intended for active human use, as nitrogen fertilizer applied to managed turf has long been identified as a significant source of nitrogen in stormwater...” The description of lawn and turf areas referenced in the proposed rules at 7:50-6.24(c)3 is vague. The Authority only applies fertilizer during initial construction activities in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey and is not a contributor to nitrogen loading in stormwater beyond the construction period. It should be recommended that the Pinelands does not classify roadway embankments, specifically limited access highways, as areas of “active human use” that would require nitrogen treatment.

- COMMENT: The Pinelands proposes to require all major development projects to achieve a minimum of 65 percent reduction of the post-construction total nitrogen load from the developed site. It is noted that none of the stormwater management structural measures included within the New Jersey Stormwater Best Management Practices (BMP) Manual have an accepted nitrogen removal rate of more than 50 percent. Based on the calculation requirements within Chapter Four of the BMP Manual, BMPs must be installed in series to achieve a nitrogen removal rate of 65 percent with one of the BMPs being an infiltration basin. It is recognized that the Pinelands continues to require pretreatment (i.e., BMPs in series) to the maximum extent practical within the CMP and infiltration basins are often needed to fulfill the recharge requirements of the CMP. However, BMPs installed in series are often difficult to implement in linear transportation projects and/or require greater amounts of disturbance to achieve. Additionally, there may be instances where the most suitable BMP is not an infiltration basin due to hydrologic conditions or other factors. It is recommended the Pinelands consider a lower nitrogen load requirement, so the limit can be met without BMPs installed in series and, if needed, without an infiltration basin.
- There is a typographic error in the text of proposed section 7:50-6.84(a)6vii.(2). The end of the statement includes an incorrect reference to the first part of the recharge standards, at (a)6iv(1), instead of the off-site mitigation requirements, at (a)6vii.(1)(A).

Please provide clarification on the items noted and consider the typographical errors identified. Should you have any questions or need additional information, please do not hesitate to contact Lamis Malak of my staff at (732) 750-5300, Ext. 8247 or malak@njta.com.

Very truly yours,



Robert J. Fischer, P.E.
Chief Engineer

RJF/LTM

cc: Lamis T. Malak, P.E., Deputy Chief Engineer – Design
File

FW: Proposed Regulatory Amendments to the Pinelands Plan

Grogan, Susan [PINELANDS] <Susan.Grogan@pinelands.nj.gov>

Fri 9/17/2021 12:32 PM

To: Wengrowski, Ed [PINELANDS] <Ed.Wengrowski@pinelands.nj.gov>; Szura, Brian [PINELANDS] <Brian.Szura@pinelands.nj.gov>

Cc: Roth, Stacey [PINELANDS] <Stacey.Roth@pinelands.nj.gov>; Green, Marci [PINELANDS] <Marci.Green@pinelands.nj.gov>

📎 1 attachments (2 MB)

Pinelands Hydrology Study.zip;

From: Hunter Birckhead <hunter.birckhead@colliersengineering.com>

Sent: Friday, September 17, 2021 12:27 PM

To: Grogan, Susan [PINELANDS] <Susan.Grogan@pinelands.nj.gov>; Horner, Charles [PINELANDS] <Charles.Horner@pinelands.nj.gov>; Berg, Gina [PINELANDS] <Gina.Berg@pinelands.nj.gov>; Lanute, Brad [PINELANDS] <Brad.Lanute@pinelands.nj.gov>; jon.bunnell@pinelands.nj.gov

Subject: [EXTERNAL] Proposed Regulatory Amendments to the Pinelands Comprehensive Management Plan

Dear members and staff of the Pinelands Commission,

We are responding to your Proposed Regulatory Amendments to the Pinelands Management Comprehensive Plan regarding storm water management.

Dr. Hawkins and I are members of the "ASCE Curve Number Hydrology Task Group." We have submitted updates to Chapter 9 NEH4 Part 630 Hydrology to USDA NRCS for their review. Among the recommended changes is the acknowledgment that the Curve Number Method IS NOT applicable in forest HSG A and B soils. We have conducted a hydrology study in McDonald's Branch within the National Pinelands Preserve which has confirmed our findings. We have enclosed two hydrology reports that have been submitted to USDA NRCS in Somerset NJ and Washington.

Many of the hydrology practitioners in Southern NJ are aware of the non-response of overland runoff from rainfall events in the forested HSG A (and perhaps B) in the Pinelands.

We would suggest an informal meeting with the Pinelands Commission Staff to discuss our findings on the proper use of the Curve Number in the Pinelands National Preserve and to address storm water management on a valid scientific basis.

Hunter Birckhead

Hunter Birckhead, P.E., CFM

Technical Manager

hunter.birckhead@colliersengineering.com


Main: 877 627 3772 | Direct: 732 704 5212 | Mobile: 609 213 2016

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Jeff Kolakowski
CHIEF EXECUTIVE OFFICER

Grant Lucking
CHIEF OPERATING OFFICER

Kyle Holder
DIR. OF LEGISLATIVE AFFAIRS

September 17, 2021

Susan R. Grogan, P.P., AICP,
Acting Executive Director Pinelands Commission
VIA ELECTRONIC MAIL
planning@pinelands.nj.gov

RE: Pinelands Stormwater Rule Proposal,
Proposed Amendments: N.J.A.C. 7:50-2.11, 3.39 and 6.84

Dear Susan R. Grogan, P.P., AICP:

The New Jersey Builders Association (NJBA) is pleased to provide the following comments on the proposed amendments to N.J.A.C. 7:50-2.11, 3.39 and 6.84.

Comments Regarding the Nitrogen Removal Standard

NJBA is aware of the negative effects of excess nitrogen in stormwater but requests additional information as to why the removal rate has been set at 65%. Scientific evidence should be provided regarding the 65% rate and additionally, Pinelands specific studies should be conducted due to the unique nature of the Pinelands ecosystem.

NJBA believes that a water quality assessment should be performed prior to introducing a water quality standard such as nitrogen removal rates.

NJBA notes that Best Management Practices (BMP's) for vegetative areas will need to be studied and provided to address water quality standards since the stormwater regulations only require water quality treatment from motor vehicle areas. Combining the motor vehicle and vegetation runoffs into one water quality BMP will exacerbate the requirement to restrict the drainage areas to 1 and 2.5 acres.

NJBA notes that utilization of the New Jersey Department of Environmental Protection (DEP) BMP Manual, Chapter 4, Table 4.2 performance information to meet the 65% removal rate presents major issues. Table 4.2 describes typical nitrogen removal rates for BMPs as follows: Bioretention Basin 30%, Constructed Stormwater Wetland 30%, Extended Detention Basin 20%, Infiltration Basin 50%, Pervious Paving 50%, Sand Filter 35%, Vegetative Filter 30%, Wet Pond 30%. DEP regulations do not allow the use of constructed stormwater wetlands, ex-tended detention basins or wet ponds for water quality treatment. Utilizing this chart of BMPs would require a minimum of two BMPs. Following infiltration of the Water Quality Design Storm (WQDS) there is insufficient flow left to send to another BMP. Furthermore, DEP requires that

Since 1948, the New Jersey Builders Association (NJBA) has been the State's leading trade association and voice of the homebuilding industry in Trenton. As a major influencer on the state's economic strength, its mission is to advocate for a sustainable and healthy economy and a more affordable and vibrant housing market. NJBA's diverse membership includes residential builders, developers, remodelers, subcontractors, suppliers, engineers, architects, lawyers, consultants and industry professionals that are involved in constructing entry-level to luxury units in for-sale, rental and mixed-use developments.

the lower % removal BMP be used first in a series. This means the only way to achieve a 65% removal rate is to use a vegetative filter strip followed by an infiltration basin. This is highly impractical for residential subdivisions in that lawn areas would have to sheet flow to an additional vegetated area, which cannot be part of the lawn, and then sheet flow to an infiltration basin. This would result in multiple vegetated filter and infiltration basin BMPs on each lot.

NJBA is concerned that applicants will be unable to prove or achieve a nitrogen removal rate of 65% and that insufficient information is available for applications to do so. The Pinelands Commission should explain how applicants can document achieving this standard. As aforementioned, DEP's BMP Manual has limited information regarding nutrient removal rates and none of the referenced BMPs provide removal rates higher than 50%. In adopting the new green infrastructure stormwater standard, DEP noted in response to comment 339:

“Currently, the Department has only certified MTDs, including media filters, for the removal of total suspended solids. There are no media filters certified for nutrient removal in New Jersey. However, as part of the ongoing stakeholder process noted in the introduction to this adoption, the Department is currently exploring potential changes to the nutrient standard at N.J.A.C. 7:8-5.5(f). Should the Department determine that it is appropriate to amend the rules to incorporate numerical nutrient removal standards, additional information will be provided on the BMPs capable of achieving the standard as part of any future rulemaking and in amendments to the New Jersey Stormwater BMP manual.”^{vi}

The Pinelands Commission should follow DEP's lead regarding nutrient removal rates as further study and evaluation are necessary for both the rate of removal that may be prudent and the rate at which specific BMPs achieve this result.

Miscellaneous Comments

NJBA requests clarification regarding 6.84(a)6iii(1) which proposes that "stormwater runoff shall not be directed in such a way as to increase the volume and rate of discharge into any wetland, wetlands transition area or surface water body from that which existed prior to development of the parcel." This appears to require infiltration of the increase in the 100-year storm runoff which is contrary to the Pinelands Commission's long-established position that it only requires infiltrating the increase in the 10-year storm runoff and not the 100-year storm runoff.

Regarding iv(3)(A), NJBA requests justification for the regulation of motor vehicle surfaces as small as 1,000 SF and why this number was chosen.

Regarding v(5), the proposed requirement that "methods of treating stormwater prior to entering any stormwater management measure shall be incorporated into the design of the stormwater management measure to the maximum extent practical," NJBA requests that clarification is provided regarding "other methods of treating stormwater" that are not stormwater management

measures. It is unclear how these other methods of treatment are incorporated into the design of a stormwater management measure if they are not part of the stormwater management measure.

NJBA believes viii(2)(B), the responsibility for maintenance of stormwater management measures that may be assigned or transferred to the owner or tenant of the parcel, should be restricted to measures that only collect runoff from the owner's/tenant's parcel.

NJBA appreciates the opportunity to provide comments on this rule proposal. Please feel free to contact us with any questions or requests for clarification.

Sincerely,

Grant Lucking
Chief Operating Officer
New Jersey Builders Association

CC: NJBA Environmental Counsel, Michael Gross, Esq.

ⁱ [52 N.J.R. 402\(a\)](#)

ENVIRONMENTAL PROTECTION

(a)

PINELANDS COMMISSION

Pinelands Comprehensive Management Plan Definitions; Standards for Certification of Municipal Master Plans and Land Use Ordinances; and Minimum Standards for Point and Non-Point Source Discharges

Proposed Amendments: N.J.A.C. 7:50-2.11, 3.39, and 6.84

Authorized By: New Jersey Pinelands Commission, Susan R. Grogan, Acting Executive Director.

Authority: N.J.S.A. 13:18A-6.j.

Calendar Reference: See Summary below for explanation of exception to calendar requirement.

Proposal Number: PRN 2021-063.

A **public hearing** concerning this notice of proposal will be held on:

Wednesday, September 1, 2021, at 9:30 A.M.

Richard J. Sullivan Center

15C Springfield Road

New Lisbon, New Jersey

Submit written comments by regular mail, facsimile, or email by September 17, 2021, to:

Susan R. Grogan, P.P., AICP

Acting Executive Director

Pinelands Commission

PO Box 359

New Lisbon, NJ 08064

Facsimile: (609) 894-7330

Email: planning@pinelands.nj.gov or through the Commission's website at <http://nj.gov/pinelands/home/contact/planning.shtml>

The name and mailing address of the commenter must be submitted with all public comments. Commenters who do not wish their names and affiliations to be published in any notice of adoption subsequently prepared by the Commission should so indicate when they submit their comments.

The agency proposal follows:

Summary

The New Jersey Pinelands Commission (Commission) proposes to amend Subchapter 2, Interpretations and Definitions, Subchapter 3, Certification of County, Municipal, and Federal Installation Plans, and Subchapter 6, Management Programs and Minimum Standards. The Pinelands Comprehensive Management Plan (CMP) has been guiding land use and development activities in the Pinelands since it took effect on January 14, 1981. The CMP has been amended many times, most recently in December 2020, through a set of amendments related to the Pilot Program for Alternate Design Wastewater Treatment Systems (see 52 N.J.R. 2177(a)).

This rulemaking is in response to amendments adopted by the New Jersey Department of Environmental Protection (DEP) on October 25, 2019, effective March 2, 2020, to its stormwater management rules at N.J.A.C. 7:8 (referred to as "DEP stormwater rule" or "DEP rule"). In those amendments (see 50 N.J.R. 2375(a)), the DEP replaced the requirement for use of nonstructural stormwater management strategies to the "maximum extent practicable" with a requirement for use of green infrastructure to meet its groundwater recharge, stormwater runoff quantity, and stormwater runoff quality standards. DEP relocated the nonstructural strategies to a different section of its rules (N.J.A.C. 7:8-2.4(g)), so that will now be something municipalities may address in the preparation of their stormwater management plans. Green infrastructure measures or best management practices are intended to mimic natural hydrologic conditions and, thus, typically incorporate infiltration and/or vegetation to a greater extent than traditional stormwater management methods. The DEP also clarified and modified its definition of major

development, which defines the scope of projects to which the amended rules apply. Lastly, it amended the stormwater management rules to require total suspended solids (TSS) be removed from runoff from motor vehicle surfaces and eliminated the TSS removal requirement for runoff from other impervious surfaces not traveled by automobiles, such as rooftops and sidewalks.

The Commission proposes to amend the stormwater management provisions of the CMP at N.J.A.C. 7:50-6.84(a)6 to harmonize them with the amended DEP rule in a manner consistent with the goals of the CMP and recognizing the special resources of the Pinelands that the Commission is charged with protecting. Related, minor changes are also being proposed to the definitions section of the CMP at N.J.A.C. 7:50-2.11 and to the certification requirements for municipal stormwater management plans at N.J.A.C. 7:50-3.39.

The last time the Commission made significant changes to the CMP stormwater management provisions was in 2006, in response to the DEP's 2004 adoption of its stormwater management rule. The Commission conducted an extensive review of the 2004 DEP rule to determine how to mesh the new rule with the CMP in a manner that was most appropriate for the Pinelands. It ultimately decided to adopt Subchapters 5 and 6 of the DEP stormwater rule by incorporating them into the CMP by reference, with modifications to provide additional protections to the resources of the Pinelands. Subchapter 5 of the DEP rule contains design and performance standards for stormwater management measures and Subchapter 6 contains safety standards for stormwater management basins. The modifications adopted by the Commission in 2006 included: a stricter stormwater recharge requirement; a prohibition against discharging stormwater into wetlands and streams; special treatment of stormwater runoff from high pollutant load areas; and an emphasis on soil testing and as-built certifications (see 38 N.J.R. 1829(b)). At the same time, the Commission developed a joint Pinelands-DEP model stormwater control ordinance for adoption by all municipalities located, in whole or in part, in the Pinelands Area.

The Commission has extensively compared the DEP's 2020 amendments to its stormwater management rule and has similarly determined that the CMP should continue to incorporate Subchapters 5 and 6 of the DEP rule, as amended. The Commission has also decided to incorporate by reference an additional provision of the DEP rule (N.J.A.C. 7:8-4.6) that addresses municipal variances from the design and performance standards for stormwater management measures.

To protect the resources of the Pinelands beyond what is provided for in the DEP stormwater rule and to further address the impacts of climate change on stormwater runoff, the Commission is again proposing to adopt additional, more stringent, stormwater management requirements, as discussed in detail below. These changes will strengthen and enhance stormwater management in the Pinelands Area while establishing reasonable requirements for home builders and developers.

The proposed amendments also update, correct, and clarify various provisions of the existing rules.

The proposed amendments were discussed and reviewed at multiple public meetings of the Commission and the Commission's CMP Policy & Implementation Committee in 2020 and 2021. If requested, Commission staff will also provide a presentation on the proposed amendments at a public meeting of the Pinelands Municipal Council (PMC). The PMC, created by the Pinelands Protection Act (N.J.S.A. 13:18A-1 et seq.), is made up of the mayors of the 53 municipalities in the Pinelands Area, or their designees. The PMC is empowered to review and comment upon changes to the CMP proposed by the Commission and advises the Commission on matters of interest regarding the Pinelands.

A more detailed description of the proposed amendments follows.

Subchapter 2

The Commission is proposing to add definitions of "HUC-11" or "hydrologic unit code 11" and "HUC-14" or "hydrologic unit code 14" to Subchapter 2, Interpretations and Definitions. The proposed amendments to Subchapter 6 introduce these terms, which are not currently defined in the CMP. HUC-11 and HUC-14 are subwatersheds delineated by the United States Geological Survey.

Subchapter 3

The CMP contains a series of standards that municipal master plans and land use ordinances must meet in order to be certified (approved) by the Commission. N.J.A.C. 7:50-3.39(a). One such standard, N.J.A.C. 7:50-3.39(a)viii, currently requires that Pinelands municipalities establish and implement mitigation plans as part of any municipal stormwater management plan and ordinance, adopted for purposes of compliance with DEP's requirements. In these mitigation plans, municipalities can identify potential stormwater mitigation projects for applicants that cannot meet CMP stormwater management requirements on the proposed development site. When a municipality grants a variance from the stormwater management requirements, it requires that the off-site mitigation project be selected from the list in the municipality's stormwater management plan, if such a list is included therein. These off-site mitigation projects could remediate existing stormwater problems or areas with existing impervious surfaces.

The Commission is proposing some minor changes to this certification standard so that it will be consistent with changes being proposed to the stormwater management provisions of the CMP at Subchapter 6. The term "exception" is being changed to "variance" throughout N.J.A.C. 7:50-3.39(a)2viii, to be consistent with the proposed changes to terms at recodified N.J.A.C. 7:50-6.84(a)6vii (existing N.J.A.C. 7:50-6.84(a)6vi).

The Commission is also proposing to remove language from N.J.A.C. 7:50-3.39(a)2viii(2) that allows a municipality to grant a variance from CMP stormwater management requirements if the municipality determines that stormwater management would more effectively be achieved through alternative measures. This language is vague and not consistent with the variance requirements in the DEP stormwater management rule at N.J.A.C. 7:8-4.6, which the Commission is proposing to adopt through incorporation.

The Commission is proposing, at N.J.A.C. 7:50-3.39(a)2viii(3), to require municipalities to specify, in their mitigation plans, that mitigation projects are to be located in the same HUC-14, as the parcel proposed for development, or the same HUC-11 within the Pinelands Area if no such projects are available. It may not always be feasible to find a mitigation site that is in both the Pinelands Area and the same HUC-14 as some HUC-14 watersheds extend beyond the boundary of the Pinelands Area and may contain very little land in the Pinelands Area. This is consistent with the Commission's proposed changes to DEP's variance standards set forth at N.J.A.C. 7:50-6.84(a)6vii(1)(A) and described in detail below.

The Commission is proposing to remove N.J.A.C. 7:50-3.39(a)2viii(4), which allows a municipality to collect a monetary contribution from a development applicant in lieu of requiring off-site stormwater mitigation measures. N.J.A.C. 7:50-3.39(a)2viii(5), which requires municipal expenditure of any such contributions within five years of their receipt, is also proposed for deletion. The Commission believes these provisions are not necessary as they have never been invoked by a municipality likely because of the administrative and financial burden resulting from this provision.

Subchapter 6

The stormwater management provisions of the CMP at N.J.A.C. 7:50-6.84(a)6 currently incorporate Subchapters 5 and 6 of the DEP stormwater rule. The Commission is proposing to incorporate an additional provision from the DEP rule, N.J.A.C. 7:8-4.6, Variance from the design and performance standards for stormwater management measures, into the CMP, with modifications discussed below. (See discussion on proposed change to the "Exceptions" section at proposed N.J.A.C. 7:50-6.84(a)6vii.)

Definitions (new N.J.A.C. 7:50-6.84(a)6i)

Many terms in the DEP stormwater rule are either not defined in the CMP or are defined differently. To avoid confusion over which definitions will apply in the Pinelands Area for stormwater management purposes, the Commission is proposing to add a new provision at N.J.A.C. 7:50-6.84(a)6i. This language clarifies that the DEP definitions at N.J.A.C. 7:8-1.2 are incorporated into the CMP's stormwater management provisions unless a term is defined differently in the CMP, in which case the CMP definition will apply.

The term "major development" is the most significant example of a term that is defined differently in the CMP and the DEP stormwater rule. Both rules rely upon this term to establish the scope of development projects that are subject to the CMP stormwater management requirements, but each defines it differently.

The CMP defines major development as "any division of land into five or more lots; any construction or expansion of any housing development of five or more dwelling units; any construction or expansion of any commercial or industrial use or structure on a site of more than three acres; or any grading, clearing or disturbance of an area in excess of 5,000 square feet." N.J.A.C. 7:50-2.11. The DEP stormwater rule defines major development as 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
4. A combination of 2 and 3 above that total 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..." N.J.A.C. 7:8-1.2.

As explained in greater detail below (in the discussion of proposed changes to the "Recharge" section of the CMP), the Commission decided in 2006 to rely upon the CMP definition of major development instead of adopting the DEP definition. The Commission is not proposing to change this practice, but new N.J.A.C. 7:50-6.84(a)6i will clarify that the CMP definition of terms such as "major development" will be used when the CMP has a different definition than the DEP rule.

All subsequent sections of the CMP stormwater management provisions will be recodified accordingly.

Runoff Rate and Volume, Runoff Quality, and Groundwater Recharge Methodologies (recodified N.J.A.C. 7:50-6.84(a)6ii)

When the Commission adopted subsections of the DEP stormwater rule into the CMP in 2006, it also added language directly from the DEP rule into some CMP provisions in addition to incorporating those provisions by reference. The Commission is proposing to remove some of this redundant language from the CMP, which is contained in the DEP rule at N.J.A.C. 7:8-5 and 6, as those subchapters are already incorporated into the CMP.

Both the DEP rule and the current CMP incorporate by reference publications of the Natural Resource Conservation Service (NRCS) that describe methodologies for the calculation of stormwater runoff. At proposed N.J.A.C. 7:50-6.84(a)6ii(1), (2), and (3), the Commission proposes to delete the details of those methodologies and simply refer to N.J.A.C. 7:8-5.7, the DEP provision that contains the details. The Commission, however, is proposing one modification to this DEP provision related to calculation methodologies. Specifically, the Commission is codifying its current practice of allowing only the NRCS methodology. Although DEP allows the use of the Rational Method for peak flow or the Modified Rational Method for hydrograph computation described at N.J.A.C. 7:8-5.7(a)1ii and 2, the Commission requires the NRCS methodology, because it is a more conservative methodology and, therefore, more protective of the resources of the Pinelands.

Both the CMP and the DEP rule require applicants to use existing rainfall data published by the National Oceanic and Atmospheric Administration (NOAA) to calculate the volume of stormwater runoff that must be managed. The website addresses that contain this rainfall data have been changed; therefore, updated references are being included at proposed N.J.A.C. 7:50-6.84(a)6ii(2).

Runoff Requirements (recodified N.J.A.C. 7:50-6.84(a)6iii)

The Commission is proposing to remove language related to stormwater runoff requirements at recodified N.J.A.C. 7:50-6.84(a)6iii, as these requirements are already contained in the DEP rule at N.J.A.C. 7:8-5.6. The Commission is also proposing to amend the current restrictions in the CMP that prohibits the direct discharge of stormwater runoff to any wetlands, wetlands transition area, or stream, at recodified N.J.A.C. 7:50-6.84(a)6iii(1). That same provision also prohibits stormwater runoff from

being directed in such a way as to increase the volume and rate of discharge into any surface water body that existed prior to development of the parcel. The Commission has always interpreted this latter restriction to also prohibit such runoff from increasing the volume and rate of discharge into any wetland or wetlands transition area. The Commission is proposing to amend recodified N.J.A.C. 7:50-6.84(a)6iii(1), to clarify that the prohibition extends to wetlands and wetlands transition areas.

The Commission is also proposing to remove language at recodified N.J.A.C. 7:50-6.84(a)6iii, that sets forth conditions an applicant must meet to be able to deduct the acreage of any undeveloped portion of a parcel from certain stormwater runoff calculations. The CMP currently allows an undeveloped area of the property to be deducted from the stormwater calculations only if the area has been permanently protected from future development or if the applicant files a deed notice stating that the area will be subject to stormwater management when it is proposed for development. Through practice, the Commission has realized that these conditions are unnecessary, as the stormwater rules would require any land that is not permanently protected to comply with stormwater management requirements once it is proposed for development. As a result, recodified N.J.A.C. 7:50-6.84(a)6iii, will continue to permit an applicant to deduct undeveloped acreage from stormwater runoff calculations. However, the filing of a deed notice on the undeveloped acreage will no longer be required.

Recharge Standards (recodified N.J.A.C. 7:50-6.84(a)6iv)

As explained in greater detail below, the Commission is proposing to expand the scope of development projects that will be required to implement stormwater management measures. These new measures will strengthen protection of Pinelands resources through a reduction in localized flooding and help to maintain water levels within the Kirkwood-Cohansey Aquifer. Like the current CMP, the scope of projects will be based on the CMP definitions of major and minor development.

When the Commission adopted portions of the DEP stormwater rule in 2006, it chose not to adopt the DEP definition of major development at N.J.A.C. 7:8-1.2. This definition establishes the scope of projects subject to the DEP's stormwater management requirements. The CMP definitions of major and minor development are the foundation for requirements throughout the CMP and the Commission concluded that adopting a set of definitions applicable only to stormwater management could cause confusion and create inconsistencies for the regulated community in the Pinelands.

For the same reasons, the Commission has again decided to use the CMP definitions of major and minor development for purposes of stormwater management. Although the CMP will continue to incorporate many of the DEP's stormwater management standards, the scope of projects subject to those standards (as well as additional Pinelands-specific standards in the CMP) will continue to be based on the CMP definitions of minor and major development, and not the DEP definition of major development.

While the DEP stormwater rule does not define or use the term minor development, the CMP uses both its definitions of minor and major development to help establish the scope of projects required to comply with stormwater management. The CMP defines major development as "any division of land into five or more lots; any construction or expansion of any housing development of five or more dwelling units; any construction or expansion of any commercial or industrial use or structure on a site of more than three acres; or any grading, clearing or disturbance of an area in excess of 5,000 square feet." The construction of four or fewer dwelling units is deemed minor residential development under the CMP. The construction or expansion of any commercial or industrial use or structure on a site less than three acres or any grading, clearing, or disturbance of an area less than 5,000 square feet is deemed minor nonresidential development. N.J.A.C. 7:50-2.11.

Minor Residential Development (N.J.A.C. 7:50-6.84(a)6iv(2))

To reduce the impact of stormwater runoff from minor residential development in the Pinelands Area, the Commission is proposing to require all minor residential development to comply with a limited stormwater management requirement. Currently, minor residential development in the Pinelands is not required to implement any stormwater

management measures unless the development involves the construction of new roads. N.J.A.C. 7:50-2.11 and 6.84(a)6vi(1).

The Commission analyzed recent residential development trends in the Pinelands Area to determine how much development was subject to the CMP's stormwater management requirements. It found that the overwhelming number of residential development applications completed with the Commission over the last 11 years were for minor development. Of 817 applications completed, 767 were for minor residential development (one to four units) and 50 were for major development (more than five units). Because most minor residential development does not include the construction of roads, most of the 767 developments were not required to implement any stormwater management measures under the existing CMP stormwater rule.

Based on this analysis, the Commission is proposing that all minor residential development be required to retain and infiltrate stormwater runoff solely from the roof(s) of the new dwelling(s). Expanding stormwater management to minor residential development in this manner will further reduce the volume of stormwater runoff and, thereby, reduce the potential for localized flooding. Redirecting rooftop runoff to green infrastructure measures that provide infiltration and groundwater recharge will help maintain water levels in the Kirkwood-Cohansey Aquifer. The minor residential development requirements are being added to the "recharge" section of the rule at proposed N.J.A.C. 7:50-6.84(a)6iv(2) and the exemption for minor residential development is being removed from recodified N.J.A.C. 7:50-6.84(a)6vi(1).

Minor residential development would be required to retain and infiltrate the stormwater volume generated on the roof(s) of the dwelling(s) through one or more green infrastructure best management practices including, but not limited to: dry wells, pervious pavement systems, or small scale bioretention systems, such as a rain garden. See proposed N.J.A.C. 7:50-6.84(a)6iv(2)(A).

The calculation of stormwater runoff volume will be based on the area of the roof and the 10-year storm. N.J.A.C. 7:50-6.84(a)6iv(2). A key difference between the stormwater management requirements for minor and major residential development is that major development will have to retain and infiltrate stormwater runoff generated from the net increase in all impervious surfaces, whereas minor residential development will only have to retain and infiltrate stormwater runoff generated from the roof(s) of the dwelling(s).

There may be limited situations where a project could be deemed minor residential development under the CMP and major development under the DEP stormwater rule. In those situations, the CMP will prevail and the stormwater standards for minor residential development will apply. For example, a two-lot subdivision in a Pinelands Rural Development Area, with one house proposed for development on each lot, would be deemed minor development under the CMP but could be deemed major development under the DEP stormwater rule, if it resulted in disturbance of more than one acre of land. Similarly, a single-family dwelling in a Pinelands Forest Area would also qualify as minor residential development under the CMP but could be defined as major development under the DEP rule if the CMP's 200-foot scenic setback requirement necessitated the clearing of an acre of land to accommodate a driveway or other improvements. In both of these examples, the development would be defined as minor residential under the CMP and be subject to the stormwater recharge standards at proposed N.J.A.C. 7:50-6.84(a)6iv(2). In most cases, the proposed changes to the CMP will result in a much larger amount of stormwater being retained and infiltrated than the DEP stormwater rule requires.

Minor Non-Residential Development (N.J.A.C. 7:50-6.84(a)6iv(3)(A))

The Commission is also proposing to expand the stormwater management requirements for minor non-residential development. The CMP defines minor non-residential development as the construction or expansion of any commercial or industrial use or structure on a site less than three acres, or any grading, clearing, or disturbance of an area less than 5,000 square feet (see N.J.A.C. 7:50-2.11). Such development is not required to comply with the current CMP's stormwater management requirements unless the cumulative development over a five-year period results in the grading, clearing, or disturbance of an area greater than 5,000 square feet. N.J.A.C. 7:50-6.84(a)6vi(1).

In deciding whether to extend stormwater management to minor non-residential development, the Commission concluded that the chemicals originating from motor vehicles, even in small areas, such as individual parking spaces, justify a requirement to capture and remove those pollutants before they enter the groundwater table. Proposed N.J.A.C. 7:50-6.84(a)6iv(3)(A) will require onsite infiltration of stormwater runoff from new motor vehicle surfaces in compliance with the DEP stormwater runoff quality standards described at N.J.A.C. 7:8-5.5, for any minor non-residential development that results in an increase of 1,000 square feet or more of regulated motor vehicle surface, as defined at N.J.A.C. 7:8-1.2. Only the stormwater generated on these surfaces will be required to be recharged onsite.

The Commission is requiring infiltration of a smaller volume of water from these motor vehicle surfaces than is currently required for major development in the Pinelands Area and smaller than is being proposed for minor residential development. Instead of requiring the stormwater runoff volume to be based on the 10-year storm, the volume of stormwater runoff generated from regulated motor vehicle surfaces of minor non-residential development will be based on the smaller "water quality design storm," which is 1.25 inches of rain over a 24-hour period. This smaller volume requirement is sufficient because most pollutants from motor vehicles get carried away in the first inch of rainfall, often referred to as the "first flush." By infiltrating the volume of stormwater runoff from that first inch of rainfall, many of the pollutants will be filtered out before mixing with groundwater.

In order to understand how many applications would likely be affected by the proposed extension of stormwater management requirements to certain minor nonresidential development, a review of past application activity was conducted. The Commission found that only 455 or 36 percent of the nonresidential development applications completed with the Commission over the last 11 years were required to manage stormwater in accordance with the CMP's stormwater management standards. The remainder (800 completed applications) did not qualify as major development and, therefore, were not required to manage stormwater. These 800 minor nonresidential applications were for a broad range of development types, many of which (small building additions, building demolitions, irrigation wells, and hiking trails) would likely not be impacted by the proposed requirement to infiltrate stormwater runoff from new regulated motor vehicle surfaces. Depending on their size and extent, minor nonresidential applications for road widening or the expansion of parking lots could be affected by the new standard; however, it was not possible to identify the exact number of prior applications that fit into this category without a more detailed review of site plans and other application materials.

The requirements for minor non-residential development will be added to the recharge section at proposed N.J.A.C. 7:50-6.84(a)6iv(3) and the exemption for minor non-residential development will be removed from existing N.J.A.C. 7:50-6.84(a)6vi(1).

The CMP will continue to require that minor nonresidential development involving the grading, clearing, or disturbance of an area in excess of 5,000 square feet within any five-year period be required to comply with the CMP stormwater management standards for major development. The Commission is proposing to relocate that requirement from N.J.A.C. 7:50-6.84(a)6vi(1) to (a)6iv(3)(B).

Application Requirements for Minor Development (new N.J.A.C. 7:50-6.84(a)6iv(4))

The application requirements for all minor development will be included in a new provision at N.J.A.C. 7:50-6.84(a)6iv(4). An applicant will be required to submit a plan, certified by a design engineer, showing detailed information and drawings of each green infrastructure stormwater management measure, in addition to soil profiles, soil permeability test elevation, soil permeability rate, and the elevation of, and vertical separation to, the seasonal high water table. An applicant will also have to submit the design engineer's certification that the infiltrated stormwater will not adversely impact basements or septic systems of the proposed development.

Stormwater Runoff from High Pollutant Loading Areas (HPLA) (recodified N.J.A.C. 7:50-6.84(a)6iv(5))

The Commission is proposing to clarify the CMP provision regarding treatment of stormwater runoff from HPLA at recodified N.J.A.C. 7:50-6.84(a)6iv(5). The HPLA requirements were added to the CMP in 2006 to address DEP's prohibition against the direct discharge of stormwater runoff from HPLAs to groundwater recharge systems. The only permissible option for stormwater runoff under the DEP rule would be discharge from HPLAs into surface waterbodies, such as wetlands and streams, which has long been prohibited in the CMP, for stormwater from all areas, not just HPLAs. To resolve this issue, the Commission began requiring applicants to remove 90 percent of the major pollutant load, also referred to as total suspended solids (TSS), from stormwater runoff from HPLAs before the runoff enters an infiltration basin (groundwater recharge system). This was agreed to by DEP and codified at existing N.J.A.C. 7:50-6.84(a)6iii(2)(C) in 2006.

This provision, however, inadvertently implies that the 90 percent TSS removal be attained before the stormwater runoff enters an infiltration basin. Despite how the provision was drafted, the Commission had always intended to allow the infiltration basin to serve as one of the devices used to achieve the 90 percent removal standard, as an infiltration basin itself can remove up to 80 percent of TSS. To correct this, the Commission is proposing to amend the TSS removal language at recodified N.J.A.C. 7:50-6.84(a)6iv(5), to clarify that 90 percent TSS removal can be achieved by routing stormwater runoff through one or more stormwater management measures, in series, which could include the infiltration basin itself. A key element of this proposed revision is removing references to "pretreatment" of the stormwater runoff, as pretreatment implies that 90 percent TSS removal has to occur prior to the runoff entering an infiltration basin.

This provision also currently mandates that applicants use specific types of devices to achieve 90 percent TSS removal. The Commission believes applicants should have more flexibility in how to achieve that removal standard. It is proposing to remove references to specific stormwater management devices and require only that applicants use stormwater management measures that are: (1) designed to remove TSS in accordance with the New Jersey Stormwater Best Practices Manual; or (2) certified by DEP. See recodified N.J.A.C. 7:50-6.84(a)6iv(5)(C)(I) and (II), existing N.J.A.C. 7:50-6.84(a)6iii(2)(C)(I)-(V).

Nitrogen Removal (new N.J.A.C. 7:50-6.84(a)6iv(6))

The Commission is proposing to add a quantitative nitrogen removal standard for major development at N.J.A.C. 7:50-6.84(a)6iv(6). This provision will require all major development to implement stormwater management measures designed to achieve a minimum of 65 percent reduction of the post-construction nitrogen load from the developed site from stormwater runoff generated from the water quality design storm. A "developed site" includes permanent lawn or turf areas that are specifically intended for active human use, as nitrogen fertilizer applied to managed turf has long been identified as a significant source of nitrogen in stormwater in New Jersey, and in the Pinelands specifically. Original New Jersey Pinelands Comprehensive Management Plan (November 1981); New Jersey Stormwater Best Management Practices Manual, Chapter 4 (Feb. 2004).

The original New Jersey Pinelands Comprehensive Management Plan, effective January 14, 1981, recognized that the ecosystem of the Pinelands cannot accept elevated concentrations of nitrogen without risk of irreparable harm. Elevated nitrogen levels in the sandy soils, surface waters, and shallow groundwater of the Pinelands can provide the opportunity for invasive plant and animal species to out-compete and displace native biota that is adapted to naturally low levels of these nutrients. Moreover, elevated nitrogen levels can reduce berry production in blueberry crops. Original New Jersey Pinelands Comprehensive Management Plan (November 1981).

Since its inception, the Commission has sought to control the release of nitrogen in the Pinelands. This fundamental concern is reflected throughout the CMP, which itself states that the CMP's water quality requirements include "provisions that are aimed at controlling the amount of nitrogen that enters the environment both because nitrogen in itself is a significant pollutant, but also because it often serves as an indicator of

changes in overall water quality.” N.J.A.C. 7:50-10.21(b). An example is the CMP’s onsite wastewater treatment system requirements, which are intended to reduce nitrogen loading where development densities preclude sufficient nitrogen dilution in groundwater. N.J.A.C. 7:50-6 Appendix A and 10.21.

The Commission has chosen to impose a stricter nitrogen removal requirement than DEP, because it believes that DEP’s nitrogen removal standard (removal to the “maximum extent feasible”) will not sufficiently protect Pinelands resources. See N.J.A.C. 7:8-5.5(f). The Commission’s decision to require 65 percent nitrogen removal from stormwater runoff in the CMP is consistent with its long history of controlling nitrogen to protect the ecosystem.

The proposed standard is attainable by combining two different best management practices in series. The New Jersey Stormwater Best Management Practices Manual (BMP Manual) provides a method to calculate total nitrogen removal rates achieved when BMPs are used in series. For example, based on the calculation method in the BMP Manual, stormwater routed through a vegetated swale and then discharged to an infiltration basin could achieve 65 percent removal of nitrogen.

Stormwater Management Measure Design, Siting, and Construction Standards (recodified N.J.A.C. 7:50-6.84(a)6v)

The Commission is proposing to update terminology at recodified N.J.A.C. 7:50-6.84(a)6v and vi by substituting the term “stormwater management measure” for “infiltration basin,” as an infiltration basin is now considered only one of several types of available stormwater management measures. The proposed amendments also clarify that the groundwater mounding analysis required at recodified N.J.A.C. 7:50-6.84(a)6v(3), would apply only to major development. Minor changes are also being proposed at recodified N.J.A.C. 7:50-6.84(a)6v(6) to maintain consistent use of terminology.

The standards contained at recodified N.J.A.C. 7:50-6.84(a)6v(4) will be clarified and reorganized by removing the following requirements: 1) limit site disturbance, as that is already addressed in the CMP at N.J.A.C. 7:50-6.23; 2) maximize stormwater management efficiencies, as the standard is vague and the CMP already requires stormwater management measures to be designed and maintained in accordance with the BMP Manual; and 3) maintain aesthetic conditions, as the standard is too subjective and the CMP already contains landscaping standards at N.J.A.C. 7:50-6.24 and 6.26.

Consistent with DEP’s new stormwater rule, the Commission is proposing to require stormwater management measures that are smaller in size and distributed spatially throughout a parcel, rather than a single, larger measure. The CMP currently requires applicants to achieve this goal “to the maximum extent practical” at N.J.A.C. 7:50-6.84(a)6v(4). This requirement will become mandatory by removing the language “to the maximum extent practical” at N.J.A.C. 7:50-6.84(a)6v(4). Further, by limiting the contributory drainage area to defined maximum acreages, the new rules eliminate the subjective nature of the prior maximum extent practical standard.

The stormwater pretreatment requirement, which is grouped together with other requirements at N.J.A.C. 7:50-6.84(a)6v(4), will become a separate requirement at N.J.A.C. 7:50-6.84(a)6v(5). To address some confusion about whether this standard requires treatment of stormwater runoff prior to the runoff entering an infiltration basin, the Commission is proposing to reword it to more succinctly require that methods of treating stormwater prior to entering any stormwater management measure are to be incorporated into the design of the measure to the maximum extent practical.

The Commission is also proposing to add a requirement that dry wells be designed to prevent access by amphibians and reptiles, as they become trapped in the dry wells.

As-Built Requirements (recodified N.J.A.C. 7:50-6.84(a)6vi)

The CMP at existing N.J.A.C. 7:50-6.84(a)6v requires testing of stormwater management measures after all construction has been completed to ensure that the measures are performing as designed. Amendments to the post-construction requirements at recodified N.J.A.C. 7:50-6.84(a)6vi would clarify that the requirements apply only to major development. The Commission is also proposing minor changes at

recodified N.J.A.C. 7:50-6.84(a)6vi to clarify that the test results required under this provision are to be reviewed either by a municipal engineer or other appropriate reviewing engineer in recognition of the fact that some development is proposed by county or State entities and, therefore, is not subject to municipal review and approval. The term “field permeability testing” is being shortened to “permeability testing” to acknowledge that some permeability testing is done in a lab and not in the field. Other non-substantive language changes are being proposed at recodified N.J.A.C. 7:50-6.84(a)6vi.

Exceptions (recodified N.J.A.C. 7:50-6.84(a)6vii)

The CMP currently allows for waivers and exceptions to be granted if an applicant for a private or public development project demonstrates that it cannot meet the CMP stormwater management standards on the site of the proposed development. (See N.J.A.C. 7:50-6.84(a)6vi(3) and (4)). The Commission is proposing to add more detail and clarity to this section, as described below, in order to strengthen off-site mitigation requirements.

Municipal variances from stormwater management requirements for private development

The Commission is proposing to clarify the circumstances under which Pinelands municipalities can grant variances from the CMP’s stormwater management requirements.

Currently, a Pinelands municipality can grant a variance (currently called a “waiver”) for a private, major development application in the Pinelands Area that cannot meet CMP stormwater management requirements on the parcel proposed for development. (See N.J.A.C. 7:50-6.84(a)6vi(3)). Municipalities will continue to have the discretion to grant such variances, but the proposed amendments at N.J.A.C. 7:50-6.84(a)6vii(1) will now incorporate the municipal variance provision of the DEP stormwater rule at N.J.A.C. 7:8-4.6, with modifications specific to the Pinelands Area.

The municipal variance provisions of the DEP rule were not incorporated in the CMP by the Commission in 2006. However, the DEP rule, as amended in 2020, now includes more detailed off-site mitigation requirements that, with some modifications, the Commission believes will adequately protect environmental resources in the Pinelands.

Incorporation of N.J.A.C. 7:8-4.6 into the CMP at new N.J.A.C. 7:50-6.84(a)6vii(1), would provide municipalities the authority to grant variances from the following stormwater management standards: 1) on-site design and performance standards for green infrastructure; 2) groundwater recharge; and 3) stormwater runoff quality standards. Municipalities will also be able to grant variances from the CMP’s on-site recharge standards at recodified N.J.A.C. 7:50-6.84(a)6iv.

To further protect the resources of the Pinelands, the Commission is proposing to modify DEP’s variance standards. Proposed N.J.A.C. 7:50-6.84(a)6vii(1)(A) will require that all mitigation projects approved by variance be located in the Pinelands Area and within either the same HUC-14 or HUC-11 watershed as the parcel proposed for development. The DEP variance provisions at N.J.A.C. 7:8-4.6 require mitigation projects to be located in the same HUC-14 watershed. However, it may not always be feasible to find a mitigation site that is in both the Pinelands Area and the same HUC-14. Some HUC-14 watersheds extend beyond the boundary of the Pinelands Area and contain very little land in the Pinelands Area. If an applicant can demonstrate that there are no available locations for off-site mitigation within that portion of the HUC-14 in the Pinelands Area, the Commission is proposing to allow a mitigation project to be identified in the next largest watershed, the HUC-11. If a mitigation project is proposed for the HUC-11, rather than the HUC-14, it must still be located within the Pinelands Area.

The CMP currently requires that any proposed mitigation project be consistent with the municipal stormwater management plan certified by the Commission pursuant to N.J.A.C. 7:50-3, unless that plan does not identify appropriate parcels or projects where mitigation may occur. This provision will remain unchanged but will be recodified as N.J.A.C. 7:50-6.84(a)6vii(1)(B).

The Commission is also proposing at N.J.A.C. 7:50-6.84(a)6vii(5)(C), to require that the total volume of stormwater infiltrated off-site as part of a mitigation project approved by a municipality equal or exceed the on-site volume required by the CMP at proposed N.J.A.C. 7:50-6.84(a)6iv.

Exceptions from stormwater requirements for public development projects

The Commission is proposing to clarify and strengthen the off-site mitigation requirements for public development projects at proposed new N.J.A.C. 7:50-6.84(a)6vii(2). It has decided not to adopt the DEP provisions for waivers and exemptions for public development projects at N.J.A.C. 7:50-5, as the DEP rule imposes less stringent requirements on public linear projects, such as roads, for off-site mitigation and provides a blanket exemption from implementing stormwater management measures for utility lines, including pipelines, with no requirement for off-site mitigation.

In addition to the DEP provisions being less stringent than the current CMP off-site mitigation requirements for stormwater management, they are also fundamentally inconsistent with the way the Commission has traditionally addressed public development in the Pinelands Area that cannot meet other standards in the CMP. Such development must either seek a Waiver of Strict Compliance to relieve an extraordinary hardship or satisfy a compelling public need or seek a Memorandum of Agreement (MOA) with the Commission that provides for a deviation from the CMP standards. N.J.A.C. 7:50-4.61 through 4.70 and 4.52(c)2. In either case, waiver or MOA, offsetting measures are required to ensure the protection of Pinelands resources. These offsetting measures often take the form of land preservation or redemption of Pinelands Development Credits.

To maintain consistency in the treatment of public development projects throughout the CMP, the Commission is proposing that off-site mitigation continue to be required whenever the Commission grants relief from CMP stormwater standards for a public development application. To provide stronger protection of Pinelands environmental resources, the Commission is proposing, at N.J.A.C. 7:50-6.84(a)6vii(2), to strengthen the off-site mitigation requirements by requiring that public development projects meet the same conditions and requirements that private development projects are required to meet to receive a municipal variance from stormwater management standards. This provision would apply to both linear projects, such as a roadway and utility lines, and nonlinear projects, such as a parking lot for a public school.

It should be noted that only a handful of applicants have applied for exceptions, which going forward will be called variances, since the CMP was amended in 2006 to allow for them. Most of these exception applications were for road and sidewalk widening projects that could not meet stormwater management requirements because the projects traversed freshwater wetlands. The Commission required offsetting measures to mitigate the effects of the projects. For example, the applicant for one road widening project was required to offset the proposed increase in impervious surfaces and changes in rates of runoff by removing an area of existing pavement that was located in the same drainage area as the proposed improvements.

Another public development project involved the construction of a commuter parking lot across from a train station on the site of a previous soil remediation project. Stormwater management measures could not meet the depth to seasonal high or permeability rate standards of the CMP. The Commission required the applicant to offset the increase in impervious surfaces by removing sections of existing pavement from two nearby roads that were located within the same drainage area as the commuter parking lot. The applicant also was required to install a manufactured treatment device (MTD) to treat stormwater from the parking lot prior to the stormwater entering the existing stormwater conveyance infrastructure.

The Commission's standards for exceptions and mitigation will continue to be more stringent than those applicable in the rest of the State in order to provide additional protection for the resources of the Pinelands and remain consistent with long-standing Commission policy.

Other Changes to "Exceptions" Provision

The provision that prohibits the application of any provision in DEP's stormwater rule that allows for exemptions and waivers from the stormwater standards, unless explicitly allowed in the CMP, will be recodified as N.J.A.C. 7:50-6.84(a)6vii(3).

The Commission is also proposing to add N.J.A.C. 7:50-6.84(a)6vii(4) to explicitly ban the granting of variances or exceptions from the CMP's prohibition against discharging stormwater runoff into wetlands and streams.

Maintenance Standards (recodified N.J.A.C. 7:50-6.84(a)6viii)

The Commission is proposing to clarify that the CMP's existing stormwater maintenance standards, existing N.J.A.C. 7:50-6.84(a)6viii, apply only to major development. Minor, non-substantive language changes are also proposed at recodified N.J.A.C. 7:50-6.84(a)6viii(1)(A) to clarify that maintenance plans for major development are required pursuant to the DEP rule and must be supplemented in accordance with the CMP.

The Commission is also proposing to add maintenance standards for minor development at N.J.A.C. 7:50-6.84(a)6viii(2), which are less stringent than for major development. Specifically, for minor development, a maintenance plan will be required in accordance with N.J.A.C. 7:50-6.84(a)6viii(2)(A). Such a maintenance plan must include a copy of the stormwater plan required pursuant to N.J.A.C. 7:50-6.84(a)6iv(4) and a description of all required maintenance activities and the frequency of such maintenance activities. Proposed N.J.A.C. 7:50-6.84(a)6viii(2)(B) is being added to permit the assignment or transfer of stormwater maintenance responsibilities to the owner or tenant of the parcel that is the subject of the minor development application.

New Jersey Stormwater Best Practices Manual (recodified N.J.A.C. 7:50-6.84(a)6ix)

Minor, non-substantive changes are being proposed at recodified N.J.A.C. 7:50-6.84(a)6ix.

As the Commission has provided a 60-day comment period on this notice of proposal, this notice is exempted from the rulemaking requirement at N.J.A.C. 1:30-3.3(a)5.

Social Impact

By continuing to incorporate key provisions of the DEP's recently amended stormwater management rule, while retaining and adding more stringent measures to further protect the resources of the Pinelands, the Commission anticipates that this rulemaking will have a positive social impact in the Pinelands Area. Protection of resources in the Pinelands benefits society within the Pinelands and in the surrounding areas.

The social benefits from the DEP's amended stormwater management rule are described in detail in its 2019 notice of proposal at 50 N.J.R. 2375(a) and include reducing flooding potential, improving water quality, increasing groundwater recharge, protecting stream channel integrity, reducing erosion, maintaining the adequacy of bridges and culverts, improving air quality, reducing heat island effect, and decreasing energy use. Through incorporation of key provisions of DEP's rule, these benefits will extend to the Pinelands Area.

In addition to the benefits listed above, the Commission's modifications to the DEP's stormwater requirements will have an even greater positive social impact in the Pinelands Area, as the modifications will provide enhanced protection of Pinelands resources. Requiring stormwater management for minor residential and nonresidential development will result in the infiltration of more stormwater, removal of more pollutants from stormwater runoff prior to its entering groundwater, maintenance of the water levels of the vital Kirkwood-Cohansey Aquifer, and the further reduction of localized flooding in the Pinelands.

The Commission's more stringent nitrogen removal requirement will also have a positive social impact, as the unique ecology of the Pinelands Area is especially sensitive to nitrogen. Fertilizer on lawn and turf has been identified as the largest source of nitrogen pollution in the State and the Commission's quantitative nitrogen removal requirement will extend to newly developed permanent lawn and turf areas. This is expected to result in greater nitrogen removal from the stormwater flowing from these areas.

The stricter conditions for off-site mitigation will also provide additional protections of Pinelands resources by ensuring that all mitigation for private or public development be required to offset the effects of stormwater runoff from the proposed development within the same watershed and that the offsets occur within the Pinelands Area.

To be granted an exception from meeting stormwater requirements onsite, a public project will have to meet the same conditions and be subject to the same standards as a private development that cannot meet the stormwater requirements onsite. This standard for granting an exception is more stringent than DEP's waiver and exemption standards for public

linear projects. This provides greater protection for the resources of the Pinelands. It is also consistent with how the Commission handles public development projects in other CMP provisions.

Each of the stricter stormwater management measures being proposed by the Commission will result in societal benefits by affording enhanced protection of the resources in the Pinelands.

Economic Impact

The Commission's rulemaking is expected to have little to no economic impact and in some areas, a positive impact. The DEP summarized the economic impact of its amended stormwater rule at 50 N.J.R. 2375(a). This statement addresses only those economic impacts of the modifications to the DEP rule that the Commission is proposing in the CMP, as well as some additional proposed changes to the CMP's stormwater provisions.

The following parties may be economically affected by the proposed amendments to the CMP: land developers, suppliers of green infrastructure components (such as plants, pervious pavement, bioretention soil mixes), property owners, applicants, and review agencies.

Land Developers

The Commission does not expect that its proposed green infrastructure requirement for minor residential development will significantly affect the cost of a development project. Developers will be required only to retain and infiltrate stormwater runoff generated from the roof(s) of the dwellings, which in most cases will be a much smaller total volume than that which is required for major development. Developers will likely have to install only one, or possibly two, green infrastructure best management practices (BMPs), such as a rain garden and/or dry well(s), to infiltrate stormwater runoff from the roof(s) of the dwelling(s). Green infrastructure BMPs should not add any significant cost to the development project. For example, rain gardens can be installed in lieu of more conventional landscape plantings, providing similar esthetic benefits, and additional environmental benefits. In addition to replenishing groundwater, properly located drywells can also direct roof runoff away from residences, preventing costly damage from moisture and seepage into basements.

The proposed requirements for stormwater management by minor nonresidential projects are also not expected to result in a significant cost increase. If a minor nonresidential development involves more than 1,000 square feet of impervious surface used by motor vehicles, the developer will be required to infiltrate the stormwater runoff from only those new impervious surfaces, with measures designed to reduce the post-construction load of total suspended solids (TSS) in the runoff generated from the water quality design storm. A green infrastructure BMP required to infiltrate the water quality design storm is relatively small, about one-fourth the size of an infiltration BMP designed to infiltrate the runoff volume from the larger 10-year, 24-hour storm.

Applicants for both minor residential and non-residential development will be required to conduct soil tests and submit plans certified by a design engineer as part of the application process, and a maintenance plan, which will result in additional new costs. These additional costs may be partially offset by having the engineer perform the tests in conjunction with soil testing performed for an onsite septic system and/or testing performed to identify the distance between the seasonal high-water table and the basement floor. Because proper design and operation of an infiltration BMP, such as a rain garden, a dry well, or an infiltration basin is highly dependent on a thorough evaluation of site-specific soil and groundwater conditions, the evaluation of the site by a licensed professional engineer is considered essential.

In its 2019 rulemaking, at 50 N.J.R. 2375(a), the DEP cited United States Environmental Protection Agency (USEPA) research showing that, for the majority of 17 case studies, low impact development, which includes the use of green infrastructure BMPs, such as bioretention systems, grass swales, and pervious paving systems, resulted in reduced overall costs (15 to 80 percent) when compared to conventional designs, which include underground vaults, manufactured treatment devices, curbs, and gutters (USEPA, 2007). In only a few cases were the initial low impact development costs higher than those for conventional designs. The research also showed that in all cases, the use of low impact development

resulted in reduced volumes and pollutant loadings, as well as non-monetized benefits such as improved aesthetics, expanded recreational opportunities, and increased property values (USEPA, 2007). Additional information on costs associated with green infrastructure can be found at DEP's rulemaking at 50 N.J.R. 2375(a).

The proposed amendments to the requirement that developers remove 90 percent of TSS from stormwater runoff in high pollutant load areas (HPLA) are intended to clarify the intent of the existing CMP rule language at N.J.A.C. 7:50-6.84(a)6iii(2)(C). The CMP currently implies that stormwater runoff from HPLA must be pretreated to achieve the 90 percent TSS removal prior to infiltration. The amendment will clarify that the requirement can be met by routing stormwater runoff through one or more stormwater management measures, which could include a bioretention system alone or an infiltration basin as the last BMP in the treatment train. Importantly, the 90 percent TSS removal would not need to be attained prior to infiltration, but can instead be met through infiltration. This will significantly reduce costs associated with installation of stormwater management measures. For example, a gas station could use an infiltration basin to help meet the 90 percent TSS removal requirement and might not need to use multiple TSS removal BMPs before the stormwater enters an infiltration basin, as the CMP currently implies.

Providing more flexibility to developers in how they meet the 90 percent TSS removal requirement can also reduce costs. Whereas, the CMP currently identifies specific types of green infrastructure BMPs that must be used to meet the 90 percent TSS reduction requirement, the proposed changes will give a developer greater latitude on which BMPs it can use, potentially reducing costs.

Likewise, the proposed clarification that developers are required only to treat stormwater runoff prior to entering infiltration basins to the maximum extent practical could reduce costs to developers.

There are no anticipated increased costs to developers who seek municipal variances or exceptions from the onsite stormwater management requirements under the proposed changes to the CMP.

Suppliers of Green Infrastructure Inputs

With the extension of stormwater management requirements to minor development in the Pinelands Area, the Commission expects a positive economic impact to the local providers of select fill soils, native plants, and other materials related to the construction of green infrastructure -- beyond the positive economic impact already anticipated based on the expanded requirements for green infrastructure for major development.

Property Owners

Property owners who are also the land developers of minor development projects will incur the same costs associated with installation of green infrastructure as would land developers.

Property owners who acquire parcels of land that were created as part of a minor development project will incur modest, additional costs associated with maintaining the required stormwater management measures. As the DEP explained in its 2019 rulemaking, at 50 N.J.R. 2375(a), green infrastructure maintenance is equal to, or lower than, the maintenance cost of conventional stormwater management measures. The Commission is proposing modified stormwater management for minor development that will necessitate a few small structures. For example, it is unlikely that a minor residential development will require a large retention basin, which would be more costly to construct and maintain. Likewise, green infrastructure BMPs can be used to meet the stormwater management requirements for minor nonresidential development and for reduction in total suspended solids from high pollutant loading areas.

As DEP reported in its rulemaking, at 50 N.J.R. 2375(a), green infrastructure has direct and indirect economic and social benefits that may increase the value of properties containing, or in the vicinity of, green infrastructure over those containing or near conventional stormwater management BMPs.

Applicants and Review Agencies

The proposed stormwater management requirements for minor development may result in increased costs for municipalities and local review agencies who will be required to review the stormwater plans associated with such development applications. However, the specific and

objective green infrastructure requirements and design details in the DEP's Stormwater BMP Manual will provide clear direction to both designers and reviewers of stormwater management design plans.

The Commission does not expect municipalities to incur any additional costs associated with the proposed standards for granting variances from the onsite stormwater management requirements. The CMP currently authorizes municipalities to grant such variances and the proposed changes provide additional guidance and specificity to municipalities in reviewing variance applications.

As the DEP explained in its rulemaking, at 50 N.J.R. 2375(a), most review agencies are municipalities who own and operate a municipal separate storm sewer system. Because green infrastructure reduces the volume of stormwater through infiltration, evapotranspiration, or reuse, downstream storm sewer systems will receive less stormwater volume from sites managed with green infrastructure than sites managed with conventional stormwater facilities. As a result, review agencies may see less additional expenditures related to stormwater management due to a reduction in stormwater volume leaving private development sites and entering the municipal storm sewer system.

Finally, Pinelands municipalities will also incur costs because of the need to revise their stormwater management plans and stormwater control ordinances to conform with the proposed amendments, once adopted. The Commission will continue with its normal practice of drafting and providing model ordinances for municipalities to consider, thereby offsetting some of these costs. While the adoption of master plan and ordinance amendments represents a cost to municipalities, it is expected to be nominal.

Environmental Impact

The Commission anticipates that the proposed stormwater management amendments will have significant environmental benefits. The amendments are expected to minimize impacts of increased stormwater runoff due to climate change and result in enhanced protection of the Pinelands Area. Specifically, they will result in the infiltration of more stormwater, removal of more pollutants from stormwater runoff prior to entering groundwater, maintenance of water levels of the Kirkwood-Cohansey Aquifer, and the further reduction of localized flooding in the Pinelands.

By incorporating key provisions of the DEP rule into the CMP and by modifying many of those provisions to impose additional and more stringent requirements, the environmental benefits described by the DEP at 50 N.J.R. 2375(a) will be even greater in the Pinelands Area.

Requiring stormwater management for the runoff from the roofs of minor residential development will result in the infiltration of a much greater amount of stormwater. As discussed in the Summary above, the vast majority of completed applications for residential development in the Pinelands Area over the past 11 years were for minor development. Those developments were required to manage stormwater runoff only if the proposed development involved the construction of roads. The proposed rulemaking will capture much more stormwater runoff for infiltration and is expected to help reduce localized flooding and maintain Kirkwood-Cohansey Aquifer water levels.

Similarly, by expanding stormwater management to minor non-residential development, the rulemaking is expected to have a positive environmental impact through the greater removal of pollutants from stormwater runoff. The onsite infiltration of stormwater runoff from motor vehicle surfaces for any minor non-residential development that results in an increase of 1,000 square feet or more of regulated motor vehicle surface, as defined at N.J.A.C. 7:8-1.2, will ensure that most of the pollutants leaked from motor vehicles and deposited by tire wear on these sites will get captured before infiltrating through the soils and into groundwater.

Setting a specific nitrogen removal standard of 65 percent will help maintain the ecological balance within the Pinelands Area, as an overabundance of nitrogen in water can upset that balance and adversely affect the environment. This is especially so in the Pinelands Area, which is particularly sensitive to nitrogen. The original New Jersey Pinelands Comprehensive Management Plan from 1981 recognized that the ecosystem of the Pinelands cannot accept elevated concentrations of nitrate without risk of irreparable harm. Elevated nitrogen levels in the

sandy soils of the Pinelands can upset the nutrient balance that the plants rely upon, with negative impacts that range from harming local populations of threatened and endangered plant species to reducing berry production in blueberry crops. Original New Jersey Pinelands Comprehensive Management Plan (November 1981). The nitrogen removal requirement will also extend to newly developed permanent lawn and turf areas, as fertilizer on lawn and turf has been identified as the largest source of nitrogen pollution in the State.

The proposed conditions for off-site recharge of stormwater will provide stronger environmental protection of the Pinelands Area. The CMP will require off-site mitigation for both private and public projects that cannot meet the stormwater management requirements on the parcel of land to be developed. By requiring off-site mitigation for all public development projects, the CMP will continue to be more restrictive than the DEP rule and, in turn, more protective of the Pinelands environmental resources. The current prohibition against discharging stormwater runoff into wetlands will also continue to apply to offsite mitigation, offering more ecological protection of the Pinelands Area.

The CMP will also continue to require that all underground and above-ground utility line projects meet the stormwater runoff requirements. This is more stringent than the DEP rule, which exempts utility lines from meeting the groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements. Under the proposed amendments to the CMP, utility line projects will be eligible for off-site mitigation if they cannot meet the requirements onsite.

Requiring green infrastructure to manage stormwater runoff will also have positive impacts on the environment by helping reduce carbon dioxide, a greenhouse gas that is a significant contributor to climate change. The vegetation that green infrastructure often relies upon to filter pollutants from stormwater can sequester carbon from the atmosphere and enhance carbon sequestration in soils. In addition, transitioning from concrete-based stormwater management infrastructure to green infrastructure will reduce greenhouse gas emissions associated with the manufacturing of concrete infrastructure.

The Commission's stormwater management standards, including those for exceptions and mitigation, will continue to be more stringent than those applicable in the rest of the State under the DEP stormwater rule, but will provide better protection of the Pinelands and remain consistent with long-standing Commission policy.

Federal Standards Statement

Section 502 of the National Parks and Recreation Act of 1978 (16 U.S.C. § 471i) called upon the State of New Jersey to develop a comprehensive management plan for the Pinelands National Reserve. The original plan adopted in 1980 was subject to the approval of the United States Secretary of the Interior, as are all amendments to the plan.

The Federal Pinelands legislation sets forth rigorous goals that the plan must meet, including the protection, preservation, and enhancement of the land and water resources of the Pinelands. The proposed amendments are designed to meet those goals by imposing stringent stormwater management requirements on development in the Pinelands Area, which will provide greater protection of the Pinelands resources.

The Federal Clean Water Act (33 U.S.C. §§ 251 et seq.) regulates stormwater runoff and nonpoint source pollution control. The Federal Clean Water Act requires permits under Section 402 of that Act (33 U.S.C. § 1342) for certain stormwater discharges. Section 319 of the Clean Water Act (33 U.S.C. § 1329) authorizes a Federal grant-in-aid program to encourage states to control nonpoint sources. The Commission's existing and proposed rules are designed to control stormwater and minimize nonpoint source pollution and are fully consistent with the Federal requirements.

There are no other Federal requirements that apply to the subject matter of these amendments.

Jobs Impact

The Commission anticipates that this rulemaking will not have any significant impact on job creation and retention in New Jersey beyond the minimal impacts cited by the DEP at 50 N.J.R. 2375(a). Engineering and other professional work will be needed to comply with the stormwater management construction and maintenance requirements for minor residential and non-residential development in the Pinelands Area, but

overall, the Pinelands Commission does not believe that the rulemaking will result in a significant impact on jobs.

Agriculture Industry Impact

The rulemaking will not impact agricultural uses in the Pinelands Area, as agricultural activities are not included in the CMP definitions of major and minor development and, thus, not subject to the stormwater management requirements. The positive impacts on the environment, such as reduced flooding, improved water quality, increased groundwater recharge, and increased protection of stream channel integrity, could benefit the agricultural industry.

Regulatory Flexibility Analysis

In accordance with the New Jersey Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq., the Commission has evaluated whether the proposed amendments will impose any reporting, recordkeeping, and other compliance requirements on small businesses. Most businesses in the Pinelands Area may be characterized as small in size and employment compared to the rest of New Jersey. However, the proposed amendments do not differentiate by size of business and thus will impact all businesses equally.

Small businesses proposing minor development in the Pinelands Area may be required to construct and maintain stormwater management measures, albeit to a lesser extent than is required for major development. Additional costs may also be incurred from hiring professional consultants, such as engineers. Small businesses proposing major development will have to comply with the Commission’s more stringent, quantitative nitrogen removal standard.

The impact of the new stormwater management requirements for minor and major development is not unique to small businesses; the costs that may be incurred by small businesses are the same as to any individual person or homeowner undertaking minor or major development, as defined in the CMP.

The Commission has balanced the costs imposed on small businesses by the proposed amendments against the environmental benefits to be achieved by the new stormwater management requirements and determined that it would be inappropriate to exempt small businesses from these requirements. As noted above in the Environmental Impact statement, the additional, more stringent stormwater management requirements being proposed by the Commission will result in the infiltration of more stormwater, removal of more pollutants from stormwater runoff prior to entering groundwater table, maintenance of water levels of the Kirkwood-Cohansey Aquifer, and the further reduction of localized flooding in the Pinelands.

Housing Affordability Impact Analysis

The Commission does not anticipate this rulemaking will have a significant impact on the affordability of housing. Minor residential development will be required to retain and infiltrate stormwater runoff generated from the roof(s) of the dwellings by installing green infrastructure best management practices. In most cases, developers will have to install only one or two green infrastructure best management practices (BMPs), such as a rain garden and dry well. This requirement is not expected to add any significant cost associated with housing or have an effect on the affordability of housing.

Smart Growth Development Impact Analysis

N.J.S.A. 52:14B-4 requires that proposed amendments be evaluated to determine their impacts, if any, on housing production in Planning Areas 1 or 2, or within designated centers, under the State Development and Redevelopment Plan (State Plan). Planning Areas 1 and 2 do not exist in the Pinelands Area. Likewise, the State Plan does not designate centers within the Pinelands Area. Instead, N.J.S.A. 52:18A-206.a provides that the State Plan shall rely on the Pinelands CMP for land use planning in the Pinelands. The Commission has evaluated the impact of the proposed amendments on Pinelands management areas designated by the CMP that are equivalent to Planning Areas 1 and 2 and designated centers, namely, the Regional Growth Areas, Pinelands Villages, and Pinelands Towns.

These three management areas are designated for development by the CMP and are equivalent to designated centers under the State Plan. The rulemaking will not increase the amount of permitted residential development in these management areas and are not expected to result in

any changes in housing density within designated centers or in any other portions of the Pinelands Area.

There will be no effect on new construction in Planning Areas 1 and 2, as designated by the State Development and Redevelopment Plan, as these State Planning Areas do not exist in the Pinelands Area.

Racial and Ethnic Community Criminal Justice and Public Safety Impact

The Commission has evaluated this rulemaking and determined that it will not have an impact on pretrial detention, sentencing, probation, or parole policies concerning adults and juveniles in the State. Accordingly, no further analysis is required.

Full text of the proposal follows (additions indicated with boldface **thus**; deletions indicated in brackets [thus]):

SUBCHAPTER 2. INTERPRETATIONS AND DEFINITIONS

7:50-2.11 Definitions

When used in this Plan, the following terms shall have the meanings ascribed to them.

...
“HUC-11” or “hydrologic unit code 11” means an area within which water drains to a particular receiving surface water body, also known as a subwatershed, which is identified by an 11-digit hydrologic unit boundary designation, delineated within New Jersey by the United States Geological Survey.

“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 subwatershed, which is identified by a 14-digit hydrologic unit boundary designation, delineated within New Jersey by the United States Geological Survey.

...

SUBCHAPTER 3. CERTIFICATION OF COUNTY, MUNICIPAL, AND FEDERAL INSTALLATION PLANS

7:50-3.39 Standards for certification of municipal master plans and land use ordinances

(a) Municipal master plans and land use ordinances, and any parts thereof, shall be certified only if:

- 1. (No change.)
- 2. They include provisions that:
 - i.-vii. (No change.)

viii. Establish and implement a mitigation plan as part of any municipal stormwater management plan and ordinance adopted in accordance with N.J.A.C. 7:8-4.2(c)11 that:

(1) Identifies those measures necessary to offset the granting of [exceptions to] **variances from** the standards set forth [in] **at** N.J.A.C. 7:50-6.84(a)6i through v;

(2) Specifies that [exceptions to] **variances from** the standards set forth [in] **at** N.J.A.C. 7:50-6.84(a)6i through v will be considered only in cases where an applicant is able to demonstrate **in accordance with N.J.A.C. 7:8-4.6** that such standards cannot be met on a particular parcel [or where the municipality determines that stormwater management would more effectively be achieved through alternative measures]; **and**

(3) Requires that any [off-site] mitigation measures identified pursuant to (a)2viii(1) above occur within the Pinelands Area and within the same [drainage area] **HUC-14** as the parcel proposed for development, **unless no such mitigation project is available, in which case the mitigation measures shall be located within the Pinelands Area and same HUC-11 as the parcel proposed for development; and**

[4] Allows for monetary contributions to be made to the municipality in lieu of performing the off-site mitigation measures identified pursuant to (a)2viii(1) above, with the amount of any such in-lieu contribution being equivalent to the cost of implementing and maintaining the stormwater management measures for which an exception is granted; and

(5) Requires that the municipality expend any contributions collected pursuant to (a)2viii(4) above within five years of their receipt; and

- ix. (No change.)
- 3.-13. (No change.)
- (b) (No change.)

SUBCHAPTER 6. MANAGEMENT PROGRAMS AND MINIMUM STANDARDS

7:50-6.84 Minimum standards for point and non-point source discharges

(a) The following point and non-point sources may be permitted in the Pinelands:

1.-5. (No change.)

6. Surface water runoff in accordance with N.J.A.C. 7:8-4.6, 5, and 6, [as amended,] except as modified and supplemented [pursuant to the following] as follows:

i. For purposes of this section, the definition of terms adopted by the New Jersey Department of Environmental Protection at N.J.A.C. 7:8-1.2 are incorporated herein by reference, unless a term is defined differently at N.J.A.C. 7:50-2.11, in which case the definition in this chapter shall apply.

[i.] **ii.** Runoff rate and volume, runoff quality, and groundwater recharge methodologies:

(1) [Runoff] **Stormwater runoff** rates and volumes shall be calculated in accordance with [the USDA Natural Resources Conservation Service (NRCS) Runoff Equation, Runoff Curve Numbers, and Dimensionless Unit Hydrograph, as described in the NRCS National Engineering Handbook Part 630 - Hydrology and Title 210 - Engineering, 210-3-1 Small Watershed Hydrology (WINTR-55) Version 1.0, incorporated herein by reference, as amended and supplemented. Information regarding these methodologies is available from the Natural Resources Conservation Service website at http://www.wsi.nrcs.usda.gov/products/W2Q/H&H/Tools_Models/WinTr55.html or at Natural Resources Conservation Service, 220 Davidson Avenue, Somerset, New Jersey 08873; (732) 537-6040. Alternative methods of calculation may be utilized, provided such alternative methods are at least as protective as the NRCS methodology when considered on a regional stormwater management area basis;] **N.J.A.C. 7:8-5.7, except that the Rational Method for peak flow and the Modified Rational Method for hydrograph computations shall not be used; and**

(2) Stormwater runoff shall be calculated using NRCS methodology by separately calculating and then combining the runoff volumes from pervious and directly connected impervious surfaces within each drainage area within the parcel;

(3) Calculations of stormwater runoff from unconnected impervious surfaces shall be based, as applicable, upon the Two-Step Method described in the New Jersey Stormwater Best Management Practices Manual developed by the New Jersey Department of Environmental Protection, dated February 2004, incorporated herein by reference, as amended and supplemented and available at <http://www.njstormwater.org/bmp-manual2.htm>, or the NRCS methodology; and]

(4) (2) In calculating stormwater runoff using the NRCS methodology, the appropriate 24-hour rainfall depths as developed for the parcel by the National Oceanic and Atmospheric Administration, https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=nj, shall be utilized. [Information regarding these rainfall data is available from the National Oceanic and Atmospheric Administration (NOAA) at <http://www.hdsc.nws.noaa.gov/hdsc/pfds/index.html> or DOC/NOAA/National Weather Service, Office of Hydrologic Development, Hydrometeorological Design Studies Center, Bldg. SSMC2 W/OHD13, 1325 East-West Highway, Silver Spring, Maryland 20910-3283; (301) 713-1669 extension 154.]

[ii] **iii.** Runoff shall meet the requirements [in (a)6ii(4) and (5) below and one of (a)6ii(1), (2) or (3)] **at N.J.A.C. 7:8-5.6 and (a)6iii(1) and (2) below:**

(1) The post-development stormwater runoff hydrographs generated from the parcel by a two-year, 10-year and 100-year storm, each of a 24-hour duration, shall not exceed, at any point in time, the parcel's pre-development runoff hydrographs for the same storms; or

(2) Under post-development site conditions:

(A) There shall be no increase in pre-development stormwater runoff rates from the parcel for the two-year, 10-year and 100-year storm; and

(B) Any increased stormwater runoff volume or change in stormwater runoff timing for the two-year, 10-year and 100-year storms shall not increase flood damage at or downstream of the parcel. When performing this analysis for the pre-development site conditions, all off-site development levels shall reflect existing conditions. When performing

this analysis for post-development site conditions, all off-site development levels shall reflect full development potential in accordance with those municipal land use ordinances certified by the Commission pursuant to N.J.A.C. 7:50-3; or

(3) The peak post-development stormwater runoff rates for the parcel for the two-year, 10-year and 100-year storms shall be 50, 75 and 80 percent, respectively, of the parcel's peak pre-development stormwater rates for the same storms. Peak outflow rates from onsite stormwater measures for these storms shall be adjusted where necessary to account for the discharge of increased stormwater runoff rates and/or volumes from areas of the parcel not controlled by onsite measures. These percentages need not be applied to those portions of the parcel that are not proposed for development at the time an application is submitted to the Commission pursuant to N.J.A.C. 7:50-4, provided that:

(A) Such areas have been permanently protected from future development by conservation easement, deed restriction, or other acceptable legal measures; or

(B) A deed notice has been filed stating that such areas will be subject to the standards of this section at the point in time they are proposed for development in the future;]

(4) (1) There shall be no direct discharge of stormwater runoff from any point or nonpoint source to any wetland, wetlands transition area, or surface waterbody. In addition, stormwater runoff shall not be directed in such a way as to increase the volume and rate of discharge into any **wetlands, wetlands transition area, or surface water body** from that which existed prior to development of the parcel; and

(5) (2) To the maximum extent practical, there shall be no direct discharge of stormwater runoff onto farm fields [so as] to protect farm crops from damage due to flooding, erosion, and long-term saturation of cultivated crops and cropland.

[iii.] **iv.** Recharge standards:

(1) For all major development[s], as defined at N.J.A.C. 7:50-2.11, the total runoff volume generated from the net increase in impervious surfaces by a 10-year, 24-hour storm shall be retained and infiltrated onsite;

(2) For all minor development, as defined at N.J.A.C. 7:50-2.11, that involves the construction of four or fewer dwelling units, the runoff generated from the total roof area of the dwelling(s) by a 10-year, 24-hour storm shall be retained and infiltrated as follows:

(A) Installation of one or more green infrastructure stormwater management measures designed in accordance with the New Jersey Stormwater Best Management Practices (BMP) Manual as defined at N.J.A.C. 7:8-1, incorporated herein by reference, as amended and supplemented, and available at <https://www.nj.gov/dep/stormwater/bmp-manual2.htm> (hereinafter referred to as "BMP Manual" or "New Jersey Stormwater Best Management Practices Manual"). Appropriate green infrastructure stormwater management measures include, but are not limited to:

I Dry wells;

II Pervious pavement systems; and

III Small scale bioretention systems, including rain gardens;

(3) For minor development, as defined at N.J.A.C. 7:50-2.11, that involves any nonresidential use, the following standards shall apply:

(A) If the proposed development will result in an increase of 1,000 square feet or more of regulated motor vehicle surfaces as defined at N.J.A.C. 7:8-1.2, the stormwater runoff quality standards contained at N.J.A.C. 7:8-5.5 shall apply. The water quality design storm volume generated from these surfaces shall be recharged onsite; and

(B) If the proposed development involves the grading, clearing, or disturbance of an area in excess of 5,000 square feet within any five-year period, the standards for major development set forth at (a)6i through ix shall also apply;

(4) In order to demonstrate compliance with the requirements at (a)6iv(2) or (3) above, applications for minor development shall include at least the following information:

(A) A plan, certified by a design engineer, that includes the type and location of each green infrastructure stormwater management measure and a cross section drawing of each such measure showing the associated soil profile, soil permeability test elevation, soil

permeability rate, and the elevation of, and vertical separation to, the seasonal high water table;

(B) A design engineer's certification that each green infrastructure stormwater management measure will not adversely impact basements or septic systems of the proposed development;

[(2)] **(5)** In high pollutant loading areas (HPLA) and areas where stormwater runoff is exposed to source material, as defined at N.J.A.C. 7:8-[5.4(a)2iii(1) and (2)]**5.4(b)3i and ii**, the following additional water quality standards shall apply:

(A) (No change.)

(B) The stormwater runoff originating from HPLAs and areas where stormwater runoff is exposed to source material shall be segregated and prohibited from co-mingling with stormwater runoff originating from the remainder of the parcel **unless it is first routed through one or more stormwater management measures required at (a)6iv(5)(C) below;**

(C) The stormwater runoff from HPLAs and areas where stormwater runoff is exposed to source material shall [be subject to pretreatment to achieve 90 percent removal of total suspended solids] **incorporate stormwater management measures designed to reduce the post-construction load of total suspended solids (TSS) by at least 90 percent in stormwater runoff generated** from the water quality design storm established [in] at N.J.A.C. 7:8-5.5[(a)](d) [prior to infiltration, using: one or more of the following measures, designed in accordance with the New Jersey Best Stormwater Management Practices Manual developed by the New Jersey Department of Environmental Protection, dated February 2004, incorporated herein by reference, as amended and supplemented] **using one or more of the measures identified at (a)6iv(5)(C)I and II below. In meeting this requirement, the minimum 90 percent removal of total suspended solids may be achieved by utilizing multiple stormwater management measures in series:**

[(I) Bioretention system;

(II) Sand filter;

(III) Wet ponds, which shall be hydraulically disconnected by a minimum of two feet of vertical separation from the seasonal high water table and shall be designed to achieve a minimum 80 percent removal of total suspended solids;

(IV) Constructed stormwater wetland; and]

I Any measure designed in accordance with the New Jersey Stormwater Best Management Practices Manual to remove total suspended solids. Any such measure must be constructed to ensure that the lowest point of infiltration within the measure maintains a minimum of two feet of vertical separation from the seasonal high-water table; and

[(V)] **II** (No change in text.)

(D) If the potential for contamination of stormwater runoff by petroleum products exists onsite, prior to being conveyed to the [pretreatment facility] **stormwater management measure** required [in (a)6iii(2)(C)] at **(a)6iv(5)(C)** above, the stormwater runoff from the HPLAs and areas where stormwater runoff is exposed to source material shall be conveyed through an oil/grease separator or other equivalent manufactured filtering device providing for the removal of petroleum hydrocarbons.

(6) For all major development, as defined at N.J.A.C. 7:50-2.11, stormwater management measures shall be designed to achieve a minimum of 65 percent reduction of the post-construction total nitrogen load from the developed site, including permanent lawn or turf areas that are specifically intended for active human use as described at N.J.A.C. 7:50-6.24(c)3, in stormwater runoff generated from the water quality design storm. In achieving a minimum 65 percent reduction of total nitrogen, the design of the site shall include green infrastructure in accordance with the BMP Manual and shall optimize nutrient removal. The minimum 65 percent total nitrogen reduction may be achieved by using a singular stormwater management measure or multiple stormwater management measures in series.

[iv.] v. [Infiltration basin] **Stormwater management measure** design, siting, and construction standards:

(1) Stormwater [infiltration facilities] **management measures designed to infiltrate stormwater** shall be designed, constructed, and maintained to provide a minimum separation of at least two feet between

the elevation of the lowest point of [the bottom of the] infiltration [facility] and the seasonal high water table;

(2) Stormwater [infiltration facilities] **management measures designed to infiltrate stormwater** shall be sited in suitable soils verified by [field] testing to have permeability rates between one and 20 inches per hour. A factor of safety of two shall be applied to the soil's [field-tested] permeability rate in determining the infiltration [facility's] **measure's** design permeability rate. If such soils do not exist on the parcel proposed for development or if it is demonstrated that it is not practical for engineering, environmental, or safety reasons to site the stormwater infiltration [basin] **measure(s)** in such soils, the stormwater infiltration [basin] **measure(s)** may be sited in soils verified by [field] testing to have permeability rates in excess of 20 inches per hour, provided that stormwater is routed through a bioretention system prior to infiltration. Said bioretention system shall be designed, installed, and maintained in accordance with the New Jersey Stormwater Best Management Practices Manual [developed by the New Jersey Department of Environmental Protection, dated February 2004, incorporated herein by reference, as amended and supplemented];

(3) [Groundwater] **For all major development, as defined at N.J.A.C. 7:50-2.11, groundwater** mounding analysis shall be required for purposes of assessing the hydraulic impacts of mounding of the water table resulting from infiltration of stormwater runoff from the maximum storm designed for infiltration. The mounding analysis shall provide details and supporting documentation on the methodology used. Groundwater mounds shall not cause stormwater or groundwater to breakout to the land surface or cause adverse impacts to adjacent water bodies, wetlands, or subsurface structures, including, but not limited to, basements and septic systems. Where the mounding analysis identifies adverse impacts, the [infiltration facility] **stormwater management measure** shall be redesigned or relocated, as appropriate;

(4) [To the maximum extent practical, stormwater management measures on a parcel shall be designed to limit site disturbance, maximize stormwater management efficiencies, maintain or improve aesthetic conditions and incorporate pretreatment as a means of extending the functional life and increasing the pollutant removal capability of structural stormwater management facilities.] The use of stormwater management measures that are smaller in size and distributed spatially throughout a parcel, rather than the use of a single, larger [structural] stormwater management measure shall be required [to the maximum extent practical];

(5) Methods of treating stormwater prior to entering any stormwater management measure shall be incorporated into the design of the stormwater management measure to the maximum extent practical;

[(5)] **(6)** To avoid sedimentation that may result in clogging and reduction of infiltration capability and to maintain maximum soil infiltration capacity, the construction of stormwater **management measures that rely upon** infiltration [basins] shall be managed in accordance with the following standards:

(A) No stormwater [infiltration basin] **management measure** shall be placed into operation until its drainage area has been completely stabilized. Instead, upstream runoff shall be diverted around the [basin] **measure** and into separate, temporary stormwater management facilities and sediment basins. Such temporary facilities and basins shall be installed and utilized for stormwater management and sediment control until stabilization is achieved in accordance with N.J.A.C. 2:90, Standards for Soil Erosion and Sediment Control in New Jersey;

(B) If, for engineering, environmental, or safety reasons, temporary stormwater management facilities and sediment basins cannot be constructed on the parcel in accordance with [(a)6iv(5)(A)] **(a)6v(6)(A)** above, the stormwater [infiltration basin] **management measure** may be placed into operation prior to the complete stabilization of its drainage area provided that the [basin's] **measure's** bottom during this period is constructed at a depth at least two feet higher than its final design elevation. When the drainage area has been completely stabilized, all accumulated sediment shall be removed from the [infiltration basin] **stormwater management measure**, which shall then be excavated to its final design elevation; and

(C) To avoid compacting [an infiltration basin's subgrade soils,] **the soils below a stormwater management measure designed to infiltrate**

stormwater, no heavy equipment, such as backhoes, dump trucks, or bulldozers shall be permitted to operate within the footprint of the stormwater [infiltration basin] **management measure**. All excavation required to construct a stormwater [infiltration basin] **management measure that relies on infiltration** shall be performed by equipment placed outside the [basin] **footprint of the stormwater management measure**. If this is not possible, the soils within the excavated area shall be renovated and tilled after construction is completed. Earthwork associated with stormwater [infiltration basin] **management measure** construction, including excavation, grading, cutting, or filling, shall not be performed when soil moisture content is above the lower plastic limit; and

(7) Dry wells shall be designed to prevent access by amphibian and reptiles.

[v.] **vi. As-built requirements for major development, as defined at N.J.A.C. 7:50-2.11:**

(1) After all construction activities have been completed on the parcel and finished grade has been established in [the infiltration basin] **each stormwater management measure designed to infiltrate stormwater**, replicate post-development [field] permeability tests shall be conducted to determine if as-built soil permeability rates are consistent with design permeability rates. The results of such tests shall be submitted to the municipal engineer **or other appropriate reviewing engineer**. If the results of the post-development [field] permeability tests fail to achieve the minimum required design permeability rate, utilizing a factor of safety of two, the [infiltration basin] **stormwater management measure** shall be renovated and re-tested until [such minimum] **the** required permeability rates are achieved; and

(2) After all construction activities and required [field] testing have been completed on the parcel, as-built plans, including as-built elevations of all stormwater management measures shall be submitted to the municipal engineer **or other appropriate reviewing engineer to serve as a document of record**. Based upon that [the municipal] engineer's review of the as-built plans, all corrections or remedial actions deemed [by the municipal engineer to be] necessary due to the failure to comply with design standards and/or for any reason concerning public health or safety, shall be completed by the applicant. In lieu of review by the municipal engineer, the municipality may engage a licensed professional engineer to review the as-built plans and charge the applicant for all costs associated with such review.

[vi.] **vii. Exceptions:**

(1) The standards set forth in (a)6i through v above shall not apply to minor residential development, provided such development does not involve the construction of any new roads, or to minor non-residential development, provided such development does not involve the grading, clearing or disturbance of an area in excess of 5,000 square feet within any five-year period;

(2) The use of nonstructural strategies in accordance with N.J.A.C. 7:8-5.3 shall not be required for development which would create less than one acre of disturbance;

(3) Provided an applicant for major development pursuant to N.J.A.C. 7:50-4.31 through 4.50 is able to demonstrate that the standards set forth in (a)6i through v above cannot be met on the parcel proposed for development or that stormwater management would more effectively be achieved through alternative measures, strict compliance with said standards may be waived at the discretion of the municipality in which the proposed development is located, provided the municipal stormwater management plan certified by the Commission pursuant to N.J.A.C. 7:50-3 specifies the circumstances under which such alternative measures would be appropriate and identifies those parcels or projects elsewhere in the Pinelands Area where any off-site mitigation would be permitted to occur;

(4) Provided an applicant for major public development pursuant to N.J.A.C. 7:50-4.51 through 4.60 is able to demonstrate that the standards set forth in (a)6i through v above cannot be met on the parcel proposed for development or that stormwater management would more effectively be achieved through alternative measures, an exception may be granted at the discretion of the Commission, provided any such measures occur within the Pinelands Area and within the same drainage area as the parcel proposed for development and are sufficient to offset the granting of the

exception. The proposed alternative measures must be consistent with the stormwater management plan certified by the Commission pursuant to N.J.A.C. 7:50-3 for the municipality in which the proposed development is located, unless said stormwater plan does not provide for appropriate mitigation for the particular exception being granted or identify appropriate parcels or projects where off-site mitigation may occur; and]

(1) For applications submitted pursuant to N.J.A.C. 7:50-4.31 through 4.50, a municipality may grant a variance in accordance with N.J.A.C. 7:8-4.6, as amended, from the on-site design and performance standards for green infrastructure, the standards for groundwater recharge, stormwater runoff quality, and stormwater runoff quality at N.J.A.C. 7:8-5.3, 5.4, 5.5, and 5.6, and the on-site recharge standards set forth at (a)6iv above, provided that:

(A) All mitigation projects shall be located in the Pinelands Area and in the same HUC-14 as the parcel proposed for development. If the applicant demonstrates that no such mitigation project is available, the municipality may approve a variance that provides for mitigation within the same HUC-11 as the parcel proposed for development, provided the mitigation project is located in the Pinelands Area;

(B) The proposed mitigation project shall be consistent with the stormwater management plan certified by the Commission pursuant to N.J.A.C. 7:50-3 for the municipality in which the parcel proposed for development is located, unless said stormwater plan does not identify appropriate parcels or projects where mitigation may occur; and

(C) Any variance from the on-site recharge standards set forth at (a)6iv above shall require that the total volume of stormwater infiltrated by the mitigation project equals or exceeds the volume required at (a)6iv above.

(2) For applications submitted pursuant to N.J.A.C. 7:50-4.51 through 4.60, the Commission may grant an exception in accordance with the standards described at N.J.A.C. 7:50-4.6, as amended, from the on-site design and performance standards for green infrastructure, groundwater recharge, stormwater runoff quality, and stormwater runoff quality at N.J.A.C. 7:8-5.3, 5.4, 5.5, and 5.6 and on-site recharge standards set forth at (a)6iv above, provided the conditions set forth at (a)6iv(1) above are met.

[5] **(3) Unless specifically included [in (a)6vi(1) through (4)] at (a)6iv(1) and (2) above, the exemptions, exceptions, applicability standards, and waivers of strict compliance for stormwater management described [in] at N.J.A.C. 7:8 shall not apply.**

(4) No variances or exceptions shall be granted from (a)6iii(1) above, which prohibits the direct discharge of stormwater runoff to any wetlands, wetlands transition area, or surface waterbody and the direction of stormwater runoff in such a way as to increase in volume and rate of discharge into any wetlands, wetlands transition area, or surface water body from that which existed prior to development of the parcel.

[vii.] **viii. Maintenance standards:**

(1) For all major development, as defined at N.J.A.C. 7:50-2.11, the following standards shall apply:

[1] **(A) Maintenance plans shall be required pursuant to N.J.A.C. 7:8-5.8 and shall be supplemented [so as] to include reporting of inspection and repair activities. Said plans shall include accurate and comprehensive drawings of all stormwater management measures on a parcel, including the specific latitude and longitude and block/lot number of each stormwater management measure. Maintenance plans shall specify that an inspection, maintenance, and repair report will be updated and submitted annually to the municipality;**

[2] **(B) (No change in text.)**

[3] **(C) An adequate means of ensuring permanent financing of the inspection, maintenance, repair, and replacement plan shall be implemented and shall be detailed in the maintenance plan. Financing methods shall include, but not be limited to[.];**

[A] **I The assumption of the inspection and maintenance program by a municipality, county, public utility, or homeowners association;**

[B] **II (No change in text)**

(2) For all minor development, as defined at N.J.A.C. 7:50-2.11, the following standards shall apply:

(A) Maintenance plans shall be required for all stormwater management measures installed in accordance with (a)6iv(2) and (3) above. The BMP Manual may be utilized as a guide for developing maintenance plans that shall include, at a minimum:

I A copy of the certified plan required pursuant to (a)6iv(4) above;

II A description of the required maintenance activities for each stormwater management measure; and

III The frequency of each required maintenance activity; and

(B) Responsibility for maintenance of stormwater management measures may be assigned or transferred to the owner or tenant of the parcel.

[viii.] ix. Unless specifically mandated pursuant to (a)6i through [vii] viii above, the New Jersey Stormwater Best Management Practices Manual [developed by the New Jersey Department of Environmental Protection, dated February 2004, as amended,] may be utilized as a guide in determining the extent to which stormwater management activities and measures meet the standards of (a)6i through [vii] viii above.

HIGHER EDUCATION

(a)

SECRETARY OF HIGHER EDUCATION

Rules and Procedures for Implementation of the Higher Education Capital Improvement Fund Act Proposed Readoption with Amendments: N.J.A.C. 9A:12

Proposed New Rule: N.J.A.C. 9A:12-1.8

Authorized By: Dr. Brian K. Bridges, Secretary of Higher Education.

Authority: N.J.S.A. 18A:72A-1 et seq., and P.L. 2012, c. 42.

Calendar Reference: See Summary below for explanation of exception to calendar requirement.

Proposal Number: PRN 2021-065.

Submit written comments by September 17, 2021, to:

Eric Taylor, Esq.
Director, Office of Licensure
Office of the Secretary of Higher Education
1 John Fitch Plaza, 10th Floor
PO Box 542
Trenton, NJ 08625-0542
Email: eric.taylor@oshe.nj.gov

The agency proposal follows:

Summary

Enacted in September 1999, the Higher Education Capital Improvement Fund Act, N.J.S.A. 18A:72A-72 et seq., and P.L. 1999, c. 217, (Act) established the \$550 million Higher Education Capital Improvement Fund (“capital improvement fund” or “improvement fund”) in the New Jersey Educational Facilities Authority (Authority). Grants from the capital improvement fund assist New Jersey four-year public and private colleges and universities in addressing deferred maintenance and other capital needs on their campuses.

The primary purpose of the capital improvement fund is to finance the repair of academic (that is, instructional, laboratory, communications, or research) and administrative facilities. The Act also provides for alternative uses of fund moneys under certain circumstances, such as replacing a building when to do so is less costly than repairing it, and improving, expanding, constructing, or reconstructing academic facilities or technology infrastructure if the institution’s Federal grant recoveries will be maximized or if deferred maintenance is otherwise not covered. A 2002 amendment to the Act allows up to 20 percent of a grant to be used in student support facilities for deferred maintenance or for improvement, expansion, construction, or reconstruction. More recent amendments to

the Act, in 2012, (Amending Act) reflect the replacement of the Commission on Higher Education with the Secretary of Higher Education (Secretary) as the State entity statutorily responsible for the coordination and planning of higher education in New Jersey. The Act provides for the issuance of bonds by the Authority with a maximum amount outstanding at any one time not to exceed \$550 million. As bonds are paid off, new bonding capacity is created. The Secretary of Higher Education in consultation with the Authority, promulgates the implementing rules that specify approval processes for institutional projects supported by the capital improvement fund and ensures that the moneys are distributed consistent with the intent of the Act. Grants were approved for the allocations of the initial \$550 million of bonds. Some of the bonds have now been paid off, thereby resulting in the ability to issue additional bonds to fund new projects. The issuance of additional bonds is subject to the approval of the State Treasurer.

Pursuant to N.J.S.A. 52:14B-5.1.c, the rules governing the capital improvement fund grants were scheduled to expire on May 6, 2020. Pursuant to Executive Order No. 127 (2020) and P.L. 2021, c. 104, any chapter of the New Jersey Administrative Code that would otherwise have expired during the Public Health Emergency originally declared in Executive Order No. 103 (2020) was extended through January 1, 2022. Therefore, this chapter has not yet expired and is extended 180 days from the later of the existing expiration date or the date of publication of this notice of proposed readoption, whichever is later, which date is January 15, 2022, pursuant to N.J.S.A. 52:14B-5.1.c, Executive Order No. 244 (2021), and P.L. 2021, c. 104.

The Secretary of Higher Education is proposing to readopt these rules with amendments and a new rule to provide for the allocation of moneys available if the State Treasurer authorizes new bonds as a result of the retirement of bonds previously issued by the Authority. For this rulemaking, an administrative review was conducted by the Secretary along with an extensive consultation with the Authority; this process resulted in suggested revisions to the current capital improvement fund rules.

As the Secretary has provided a 60-day comment period on this notice of the proposal, this notice is excepted from the rulemaking calendar requirements, pursuant to N.J.A.C. 1:30-3.3(a)5. The rules proposed for readoption with amendments and a new rule are organized in seven sections, as follows.

N.J.A.C. 9A:12-1.1 sets forth that the rules implement the Act and establishes that the rules have been adopted to provide the mechanism by which eligible institutions may apply for and receive grants from the capital improvement fund. It is proposed that this section be updated to incorporate a cross-reference to the most recent legislative update to the Act.

N.J.A.C. 9A:12-1.2 provides definitions for the terms used in the rules proposed for readoption with amendments and a new rule and includes a cross-reference to the definitions section of the Act and the Amending Act. The proposed amendments would edit the definition of “technology infrastructure” to reflect current terminology, inserting the word “networking” to replace “linkages.” The words “transport services and network interconnections, as well as” are proposed for deletion to simplify the language.

N.J.A.C. 9A:12-1.3 sets forth the eligibility requirements for the grant program. Similarly, at N.J.A.C. 9A:12-1.3(e)4, the additions of the numerical values of “(1/3)” and “(1/2)” are proposed in the clause regarding debt service.

N.J.A.C. 9A:12-1.4 delineates the grant application process, including the required contents of applications. The Secretary proposes to add N.J.A.C. 9A:12-1.4(a)15 and 16. New paragraph (a)15 states that “any information regarding the prioritization of deferred maintenance projects, including those supported by a review done by an outside facilities data analytics and planning company” and paragraph (a)16 to state “documentation supporting the energy efficiency of the proposed project, including manufacturer information or engineer reports.”

N.J.A.C. 9A:12-1.5 contains the application review and approval process, including the criteria the Secretary will use in reviewing applications for grants from the capital improvement fund. Amendments at N.J.A.C. 9A:12-1.5(b) are designed to realign the objectives of the capital improvement fund with the original intent of the statute, as well as



RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION

NO. PC4-21- 32

TITLE: Scheduling Regular Pinelands Commission Meeting dates for 2022

Commissioner Lloyd moves and Commissioner Lohbauer seconds the motion that:

WHEREAS, the Open Public Meetings Act requires that the Pinelands Commission establish an annual schedule of regular meetings prior to January 10th of each year; and

WHEREAS, due to the COVID-19 pandemic, it is anticipated that the Pinelands Commission will continue to hold its regular monthly meetings and committee meetings virtually through Zoom; and

WHEREAS, the public can livestream these meetings through the Commission's YouTube channel and can provide comment during the public comment portion of the meetings by dialing the phone number and entering the code displayed on the YouTube screen during each meeting. The number and code are also provided on each meeting agenda, which is posted on the Commission's website (www.nj.gov/pinelands/) in advance of the meeting; and

WHEREAS, when it is safe to do so, the Pinelands Commission will resume in-person meetings and will use the Richard J. Sullivan Center for Environmental Policy and Education in New Lisbon, Pemberton Township, as the regular site for all such meetings; and

WHEREAS, any meeting scheduled to be held in-person at the Richard J. Sullivan Center or at another alternate, temporary meeting place, rather than virtually through Zoom, will be advertised at least 48 hours in advance in accordance with the requirements of the Open Public Meetings Act; and

WHEREAS, pursuant to N.J.S.A. 13:18A-5h, no action authorized by the Commission shall have force or effect until ten (10) days, Saturdays, Sundays and public holidays excepted, after a copy of the minutes of the meeting of the Commission has been delivered to the Governor for review, unless prior to expiration of the review period the Governor shall approve same, in which case the action shall become effective upon such approval.

NOW, THEREFORE BE IT RESOLVED that the Pinelands Commission shall conduct its meetings on the following dates in 2022, beginning at the specified time, unless notice is otherwise provided in accordance with the Open Public Meetings Act:

Friday, January 14, 2022 (9:30 a.m.)
Friday, February 11, 2022 (9:30 a.m.)
Friday, March 11, 2022 (9:30 a.m.)
Friday, April 8, 2022 (9:30 a.m.)
Friday, May 13, 2022 (9:30 a.m.)
Friday, June 10, 2022 (9:30 a.m.)

Friday, July 8, 2022 (9:30 a.m.)
Friday, August 12, 2022 (9:30 a.m.)
Friday, September 9, 2022 (9:30 a.m.)
Friday, October 14, 2022 (9:30 a.m.)
Thursday, November 10, 2022 (9:30 a.m.)
Friday, December 9, 2022 (9:30 a.m.)

BE IT FURTHER RESOLVED that the Acting Executive Director is directed to publish notice of this schedule in the Commission's official newspapers, file copies of the schedule with the Secretary of State of the State of New Jersey and Pinelands county and municipal clerks, post a copy of the notice in the Commission's offices and post the annual schedule on the Commission's website (www.nj.gov/pinelands).

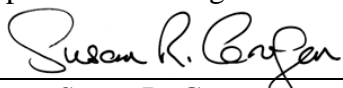
Record of Commission Votes

	AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*
Avery	X				Jannarone			X		Quinn			X	
Christy	X				Lloyd	X				Rohan Green			X	
Higginbotham	X				Lohbauer	X				Prickett	X			
Irick	X				Pikolycky	X								

*A = Abstained / R = Recused

Adopted at a meeting of the Pinelands Commission

Date: December 10, 2021



 Susan R. Grogan



Acting Executive Director

Richard Prickett
 Chairman



RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION

NO. PC4-21-33

TITLE: **Approving** With Conditions Applications for **Public Development** (Application Numbers 1982-2904.003 & 2006-0322.002)

Commissioner Avery moves and Commissioner Lohbauer seconds the motion that:

WHEREAS, the Pinelands Commission has reviewed the Public Development Application Reports and the recommendation of the Acting Executive Director that the following applications for Public Development be approved with conditions:

1982-2904.003

Applicant: **Egg Harbor Township**
Municipality: Egg Harbor Township
Management Area: Pinelands Regional Growth Area
Date of Report: November 17, 2021
Proposed Development: Construction of a public recreational facility including a multi-purpose field, recreational courts and a 62 space parking lot; and

2006-0322.002

Applicant: **New Jersey Department of Transportation**
Municipality: Dennis Township
Management Area: Pinelands Forest Area
Pinelands Village
Date of Report: November 15, 2021
Proposed Development: Construction of an electronic traffic advisory sign with associated development within the State Route 47 right-of-way.

WHEREAS, no request for a hearing before the Office of Administrative Law concerning the Acting Executive Director’s recommendation has been received for any of these applications; and

WHEREAS, the Pinelands Commission hereby adopts the Conclusion of the Acting Executive Director for each of the proposed developments; and

WHEREAS, the Pinelands Commission hereby determines that each of the proposed public developments conform to the standards for approving an application for public development set forth in N.J.A.C. 7:50-4.57 if the conditions recommended by the Acting Executive Director are imposed; and

WHEREAS, pursuant to N.J.S.A. 13A-5h, no action authorized by the Commission shall have force or effect until ten (10) days, Saturdays, Sundays and public holidays excepted, after a copy of the minutes of the meeting of the Commission has been delivered to the Governor for review, unless prior to expiration of the review period and Governor shall approve same, in which case the action shall become effective upon such approval.

NOW, THEREFORE BE IT RESOLVED that Application Numbers 1982-2904.003 & 2006-0322.002 for public development are hereby **approved** subject to the conditions recommended by the Acting Executive Director.

Record of Commission Votes

	AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*
Avery	X				Jannarone			X		Quinn			X	
Christy	X				Lloyd	X				Rohan Green			X	
Higginbotham	X				Lohbauer	X				Prickett	X			
Irick	X				Pikolycky	X								

*A = Abstained / R = Recused

Adopted at a meeting of the Pinelands Commission

Date: December 10, 2021

Susan R. Grogan
Acting Executive Director

Richard Prickett
Chairman



State of New Jersey

THE PINELANDS COMMISSION

PO Box 359

NEW LISBON, NJ 08064

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www.nj.gov/pinelands



PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

General Information: Info@pinelands.nj.gov
Application Specific Information: AppInfo@pinelands.nj.gov

RICHARD PRICKETT
Chairman
SUSAN R. GROGAN
Acting Executive Director

November 17, 2021

Donna L. Markulic (via email)
Egg Harbor Township
3515 Bargaintown Road
Egg Harbor Township, NJ 08234

Re: Application # 1982-2904.003
Block 2913, Lot 2
Block 2914, Lot 1
Block 2915, Lot 1
Egg Harbor Township

Dear Ms. Markulic:

The Commission staff has completed its review of this application for construction of a public recreational facility including a multi-purpose field, recreational courts and a 62 space parking lot. Enclosed is a copy of a Public Development Application Report. On behalf of the Commission's Acting Executive Director, I am recommending that the Pinelands Commission approve the application with conditions at its December 10, 2021 meeting.

Any interested party may appeal this recommendation in accordance with the appeal procedure attached to this document. If no appeal is received, the Pinelands Commission may either approve the recommendation of the Acting Executive Director or refer the application to the New Jersey Office of Administrative Law for a hearing.

Prior to any development, the applicant shall obtain any other necessary permits and approvals.

Sincerely,

Charles M. Horner, P.P.

Director of Regulatory Programs

Enc: Appeal Procedure

c: Secretary, Egg Harbor Township Planning Board (via email)
Egg Harbor Township Construction Code Official (via email)
Egg Harbor Township Environmental Commission (via email)
Atlantic County Department of Regional Planning and Development (via email)
Robert A. Watkins (via email)



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PHILIP D. MURPHY
 Governor
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 Lt. Governor

General Information: Info@pinelands.nj.gov
 Application Specific Information: AppInfo@pinelands.nj.gov

RICHARD PRICKETT
 Chairman
 SUSAN R. GROGAN
 Acting Executive Director

PUBLIC DEVELOPMENT APPLICATION REPORT

November 17, 2021

Donna L. Markulic (via email)
 Egg Harbor Township
 3515 Bargaintown Road
 Egg Harbor Township, NJ 08234

Application No.: 1982-2904.003
 Block 2913, Lot 2
 Block 2914, Lot 1
 Block 2915, Lot 1
 Egg Harbor Township

This application proposes construction of a public recreational facility including a multi-purpose field, recreational courts and a 62 space parking lot located on the above referenced 11.01 acre parcel in Egg Harbor Township. There is an existing public recreational facility located on a portion of the parcel.

In addition to the multi-purpose field, recreational courts, and parking lot, the applicant proposes the construction of a playground and a gazebo.

STANDARDS

The Commission staff has reviewed the proposed development for consistency with all standards of the Pinelands Comprehensive Management Plan (CMP). The following reviews the CMP standards that are relevant to this application:

Land Use (N.J.A.C. 7:50-5.28)

The parcel is located in a Pinelands Regional Growth Area. The proposed public recreational facility is a permitted land use in a Pinelands Regional Growth Area.

Vegetation Management Standards (N.J.A.C. 7:50-6.23 & 6.26)

The proposed development will be located within existing grassed areas and wooded areas. Approximately 2.84 acres of forest will be cleared to accommodate the proposed development. The CMP (N.J.A.C. 7:50-6.23(a)1) provides that all clearing shall be limited to that which is necessary to accommodate development that is permitted by the CMP and, where practical, all clearing shall avoid wooded areas. The proposed recreational facility will occupy the entire parcel. The proposed clearing and soil disturbance is limited to that which is necessary to accommodate the permitted development.

The Landscaping and Revegetation guidelines of the CMP recommend the use of grasses that are tolerant of droughty, nutrient poor conditions. The applicant proposes to utilize a seed mixture which meets that recommendation.

Water Quality Standard (N.J.A.C. 7:50-6.83)

The proposed public recreational facility will be serviced by public sanitary sewer.

Stormwater Management Standards (N.J.A.C. 7:50-6.84(a)6)

The applicant has demonstrated that the proposed development is consistent with the CMP stormwater management standards. To meet the stormwater management standards, the applicant will be constructing a stormwater infiltration basin.

Cultural Resource Standards (N.J.A.C. 7:50-6.151)

The Commission staff reviewed the application for evidence of cultural resources on the parcel. Based upon the lack of potential for significant cultural resources on the parcel, a cultural resource survey was not required.

PUBLIC COMMENT

The applicant has provided the requisite public notices. Notice to required landowners within 200 feet of the above referenced parcel was completed on September 29, 2021. Newspaper public notice was completed on October 1, 2021. The application was designated as complete on the Commission's website on November 1, 2021. The Commission's public comment period closed on November 12, 2021. No public comment was submitted to the Commission regarding this application.

CONDITIONS

1. Except as modified by the below conditions, the proposed development shall adhere to the plan, consisting of 10 sheets, prepared by Mott Watkins Associates, LLC and dated as follows:
 - Sheets 1, 8 & 10 - June 10, 2021 with no revisions
 - Sheets 2, 3, 6 & 7 - June 10, 2021 and revised to September 29, 2021
 - Sheets 4, 5 & 9 - June 10, 2021 and revised to September 28, 2021
2. Disposal of any construction debris or excess fill may only occur at an appropriately licensed facility.
3. Any proposed revegetation shall adhere to the "Vegetation" standards of the CMP. Where appropriate, the applicant is encouraged to utilize the following Pinelands native grasses for revegetation: Switch grass, Little bluestem and Broom-sedge.
4. Prior to any development, the applicant shall obtain any other necessary permits and approvals.

CONCLUSION

As the proposed development conforms to the standards set forth in N.J.A.C. 7:50-4.57, it is recommended that the Pinelands Commission **APPROVE** the proposed development subject to the above conditions.



State of New Jersey

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PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

General Information: Info@pinelands.nj.gov
Application Specific Information: AppInfo@pinelands.nj.gov

RICHARD PRICKETT
Chairman

SUSAN R. GROGAN
Acting Executive Director

PINELANDS COMMISSION **APPEAL PROCEDURE**

The Pinelands Comprehensive Management Plan (N.J.A.C. 7:50-4.91) provides an interested party the right to appeal any determination made by the Executive Director to the Commission in accordance with N.J.A.C. 7:50-4.91. An interested party is someone who has a specific property interest sufficient to require a hearing on constitutional or statutory grounds. Only appeal requests submitted by someone meeting the definition of an interested party will be transmitted to the New Jersey Office of Administrative Law for a hearing. Any such appeal must be made in writing to the Commission and received by the Commission's office no later than 5:00 PM on December 6, 2021 and include the following information:

1. the name and address of the person requesting the appeal;
2. the application number;
3. the date on which the determination to be appealed was made;
4. a brief statement of the basis for the appeal; and
5. a certificate of service (a notarized statement) indicating that service of the notice has been made, by certified mail, on the clerk of the county, municipal planning board and environmental commission with jurisdiction over the property which is subject of this decision.

Within 15 days following receipt of a notice of valid appeal, the Executive Director shall initiate the procedures for assignment of an Administrative Law Judge to preside at the hearing pursuant to the Administrative Procedures Act, N.J.S.A. 52:14B-1 et seq., and the procedures established by the Office of Administrative Law. The time, date and location of such hearing shall be designated by the Office of Administrative Law.



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PHILIP D. MURPHY
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Lt. Governor

General Information: Info@pinelands.nj.gov
Application Specific Information: AppInfo@pinelands.nj.gov

RICHARD PRICKETT
Chairman
SUSAN R. GROGAN
Acting Executive Director

November 15, 2021

Brenna Fairfax (via email)
New Jersey Department of Transportation
1035 Parkway Avenue
Trenton, NJ 08625

Re: Application # 2006-0322.002
State Route 47
Dennis Township

Dear Ms. Fairfax:

The Commission staff has completed its review of this amended application for construction of an electronic traffic advisory sign with associated development within the State Route 47 right-of-way. Enclosed is a copy of an Amended Public Development Application Report. On behalf of the Commission's Acting Executive Director, I am recommending that the Pinelands Commission approve the application with conditions at its December 10, 2021 meeting.

Any interested party may appeal this recommendation in accordance with the appeal procedure attached to this document. If no appeal is received, the Pinelands Commission may either approve the recommendation of the Acting Executive Director or refer the application to the New Jersey Office of Administrative Law for a hearing.

Prior to any development, the applicant shall obtain any other necessary permits and approvals.

Sincerely,

Charles M. Horner, P.P.
Director of Regulatory Programs

Enc: Appeal Procedure

c: Secretary, Dennis Township Planning Board (via email)
Dennis Township Construction Code Official (via email)
Dennis Township Environmental Commission (via email)
Secretary, Cape May County Planning Board (via email)



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PHILIP D. MURPHY
 Governor
 SHEILA Y. OLIVER
 Lt. Governor

General Information: Info@pinelands.nj.gov
 Application Specific Information: AppInfo@pinelands.nj.gov

RICHARD PRICKETT
 Chairman
 SUSAN R. GROGAN
 Acting Executive Director

AMENDED PUBLIC DEVELOPMENT APPLICATION REPORT

November 15, 2021

Brenna Fairfax (via email)
 New Jersey Department of Transportation
 1035 Parkway Avenue
 Trenton, NJ 08625

Application No.: 2006-0322.002
 State Route 47
 Dennis Township

This application proposes construction of an electronic traffic advisory sign with associated development within the State Route 47 right-of-way in Dennis Township.

On August 9, 2019, the Commission approved this application for the construction of the electronic traffic advisory sign, the installation of 12,379 linear feet of fiber optic cable and the construction of 190 linear feet of guiderail, equipment cabinets and a paver pad for maintenance vehicle parking.

As part of that prior Commission approval, approximately 1,201 linear feet of fiber optic cable was to be installed overhead on existing utility poles for two sections of the proposed development. During construction, the applicant determined that the installation of the fiber optic cable on the existing utility poles was not feasible. The applicant now proposes to install the two sections of the fiber optic cable by trenching within the existing road shoulder.

The applicant indicates that the proposed development will be utilized to inform motorists of traffic congestion and to assist the New Jersey Department of Transportation with emergency management and congestion mitigation.

STANDARDS

The Commission staff has reviewed the proposed development for consistency with all standards of the Pinelands Comprehensive Management Plan (CMP). The following reviews the CMP standards that are relevant to this application:

Land Use (N.J.A.C. 7:50-5.23(b)12 & 14 and (N.J.A.C. 7:50-5.27(a))

The proposed development is located partially in a Pinelands Forest Area and partially in the Pinelands Villages of North Dennis and Dennisville.

The proposed electronic sign is located in a Pinelands Forest Area. As a traffic directional and informational sign, the proposed electronic sign is a permitted use in a Pinelands Forest Area.

Approximately 4,600 linear feet of the proposed fiber optic cable (public service infrastructure) is located in a Pinelands Forest Area. The proposed fiber optic cable is a permitted use in a Pinelands Forest Area as it is intended to primarily serve only the needs of the Pinelands.

Approximately 7,779 linear feet of the proposed fiber optic cable (public service infrastructure) is located in the Pinelands Villages of North Dennis and Dennisville. The proposed fiber optic cable is a permitted use in a Pinelands Village.

Wetlands Standards (N.J.A.C. 7:50-6.13)

There are wetlands located within 300 feet of the proposed development. A portion of the proposed fiber optic cable that is proposed under existing grassed road shoulders will be located in the required buffer to wetlands. The fiber optic cable will be located approximately 25 feet from wetlands at its closest point.

The CMP permits fiber optic cables (linear improvements) in the required buffer to wetlands provided the applicant demonstrates that certain CMP specified conditions are met. The applicant has demonstrated that there is no feasible alternative to the proposed development that does not involve development in the required buffer to wetlands or that will result in a less significant adverse impact to the required buffer to wetlands. In addition, the proposed development will not result in a substantial impairment of the resources of the Pinelands. With the conditions below, all practical measures are being taken to mitigate the impact on the required buffer to wetlands. The applicant has represented that the proposed development is necessary to improve the safety of the existing roadway. The applicant has demonstrated that the need for the proposed development overrides the importance of protecting the wetlands buffer.

Vegetation Management Standards (N.J.A.C. 7:50-6.23 & 6.26)

The proposed development will be located within an existing maintained grassed road shoulder. The proposed soil disturbance is limited to that which is necessary to accommodate the proposed development.

The Landscaping and Revegetation guidelines of the CMP recommend the use of grasses that are tolerant of droughty, nutrient poor conditions. The existing grasses within the maintained road shoulder are non-native. The applicant proposes to replant non-native lawn grasses along the maintained road shoulder.

Cultural Resource Standards (N.J.A.C. 7:50-6.151)

A cultural resource survey was prepared for this application. It was determined that there were no cultural resources eligible for Pinelands designation within the project area.

PUBLIC COMMENT

The applicant has provided the requisite public notices. Newspaper public notice was completed on October 27, 2021. The application was designated as complete on the Commission's website on

October 29, 2021. The Commission's public comment period closed on November 12, 2021. No public comment was submitted to the Commission regarding this application.

CONDITIONS

1. Except as modified by the below conditions, the proposed development shall adhere to the plan, consisting of 12 sheets, prepared by Michael Baker International, Inc. and dated as follows:

Sheet 1 - December 14, 2018; revised to October 2021
Sheets 2-4, 6, 7, 10 & 12 - December 14, 2018
Sheet 5 - July 17, 2019
Sheets 8, 9 & 11 - December 14, 2018; revised to September 2021
2. Disposal of any construction debris or excess fill may only occur at an appropriately licensed facility.
3. Any proposed revegetation shall adhere to the "Vegetation" standards of the CMP. Where appropriate, the applicant is encouraged to utilize the following Pinelands native grasses for revegetation: Switch grass, Little bluestem and Broom-sedge.
4. Prior to any development, the applicant shall obtain any other necessary permits and approvals.
5. Appropriate measures shall be taken during construction to preclude sedimentation from entering wetlands and shall be maintained in place until all development has been completed and the area has been stabilized.

CONCLUSION

As the proposed development conforms to the standards set forth in N.J.A.C. 7:50-4.57, it is recommended that the Pinelands Commission **APPROVE** the proposed development subject to the above conditions.



State of New Jersey

THE PINELANDS COMMISSION

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PHILIP D. MURPHY
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SHEILA Y. OLIVER
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General Information: Info@pinelands.nj.gov
Application Specific Information: AppInfo@pinelands.nj.gov

RICHARD PRICKETT
Chairman

SUSAN R. GROGAN
Acting Executive Director

PINELANDS COMMISSION **APPEAL PROCEDURE**

The Pinelands Comprehensive Management Plan (N.J.A.C. 7:50-4.91) provides an interested party the right to appeal any determination made by the Executive Director to the Commission in accordance with N.J.A.C. 7:50-4.91. An interested party is someone who has a specific property interest sufficient to require a hearing on constitutional or statutory grounds. Only appeal requests submitted by someone meeting the definition of an interested party will be transmitted to the New Jersey Office of Administrative Law for a hearing. Any such appeal must be made in writing to the Commission and received by the Commission's office no later than 5:00 PM on December 3, 2021 and include the following information:

1. the name and address of the person requesting the appeal;
2. the application number;
3. the date on which the determination to be appealed was made;
4. a brief statement of the basis for the appeal; and
5. a certificate of service (a notarized statement) indicating that service of the notice has been made, by certified mail, on the clerk of the county, municipal planning board and environmental commission with jurisdiction over the property which is subject of this decision.

Within 15 days following receipt of a notice of valid appeal, the Executive Director shall initiate the procedures for assignment of an Administrative Law Judge to preside at the hearing pursuant to the Administrative Procedures Act, N.J.S.A. 52:14B-1 et seq., and the procedures established by the Office of Administrative Law. The time, date and location of such hearing shall be designated by the Office of Administrative Law.



RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION

NO. PC4-21-34

TITLE: **Approving** With Conditions an Application for **Public Development** (Application Number 2007-0318.001)

Commissioner Avery moves and Commissioner Higginbotham seconds the motion that:

WHEREAS, the Pinelands Commission has reviewed the Public Development Application Report and the recommendation of the Acting Executive Director that the following application for Public Development be approved with conditions:

2007-0318.001

Applicant: NJDEP, NJ Forest Service
Municipality: Bass River Township
Little Egg Harbor Township
Management Area: Pinelands Preservation Area District
Date of Report: November 18, 2021
Proposed Development: 1,304 acres of forestry and the creation of approximately 13 miles of forest fire fuel break.

WHEREAS, no request for a hearing before the Office of Administrative Law concerning the Acting Executive Director’s recommendation has been received for this application; and

WHEREAS, the Pinelands Commission hereby adopts the Conclusion of the Acting Executive Director for the proposed development; and

WHEREAS, the Pinelands Commission hereby determines that the proposed public development conforms to the standards for approving an application for public development set forth in N.J.A.C. 7:50-4.57 if the conditions recommended by the Acting Executive Director are imposed; and

WHEREAS, pursuant to N.J.S.A. 13A-5h, no action authorized by the Commission shall have force or effect until ten (10) days, Saturdays, Sundays and public holidays excepted, after a copy of the minutes of the meeting of the Commission has been delivered to the Governor for review, unless prior to expiration of the review period and Governor shall approve same, in which case the action shall become effective upon such approval.

NOW, THEREFORE BE IT RESOLVED that Application Number 2007-0318.001 for public development is hereby **approved** subject to the conditions recommended by the Acting Executive Director.

Record of Commission Votes

	AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*
Avery	X				Jannarone			X		Quinn			X	
Christy	X				Lloyd				A	Rohan Green			X	
Higginbotham	X				Lohbauer		X			Prickett	X			
Irick				A	Pikolycky	X								

*A = Abstained / R = Recused

Adopted at a meeting of the Pinelands Commission Date: December 10, 2021

MOTION FAILED

Susan R. Grogan
Acting Executive Director

Richard Prickett
Chairman



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General Information: Info@pinelands.nj.gov
 Application Specific Information: AppInfo@pinelands.nj.gov

RICHARD PRICKETT
 Chairman
 SUSAN R. GROGAN
 Acting Executive Director

November 18, 2021

John Sacco, State Forester (via email)
 NJDEP, NJ Forest Service
 Mail Code 501-04
 PO Box 3420
 Trenton, NJ 08625

Re: Application # 2007-0318.001
 Allen Road right-of-way
 Oswego Road right-of-way
 Blocks/Lots: See Attachment A
 Bass River Township
 Little Egg Harbor Township

Dear Mr. Sacco:

The Commission staff has completed its review of this application for 1,304 acres of forestry and the creation of approximately 13 miles of forest firebreak. Enclosed is a copy of a Public Development Application Report. On behalf of the Commission's Acting Executive Director, I am recommending that the Pinelands Commission approve the application with conditions at its December 10, 2021 meeting.

Any interested party may appeal this recommendation in accordance with the appeal procedure attached to this document. If no appeal is received, the Pinelands Commission may either approve the recommendation of the Acting Executive Director or refer the application to the New Jersey Office of Administrative Law for a hearing.

Prior to any forestry or the creation of the forest firebreak, the applicant shall obtain any other necessary permits and approvals.

Sincerely,

Charles M. Horner, P.P.
 Director of Regulatory Programs

Enc: Appeal Procedure

c: Secretary, Bass River Township Planning Board (via email)
 Bass River Township Construction Code Official (via email)
 Secretary, Burlington County Planning Board (via email)

Oliver Clifford, Construction Official, Little Egg Harbor Township (via email)
Robin Schilling, Planning Board Secretary, Little Egg Harbor Township (via email)
Robin Florio, Planning Board Secretary, Ocean County (via email)
Bill Zipse (via email)
Dave Garrison (via email)
Jason Howell (via email)



State of New Jersey

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Chairman

SUSAN R. GROGAN
Acting Executive Director

General Information: Info@pinelands.nj.gov
Application Specific Information: AppInfo@pinelands.nj.gov

PUBLIC DEVELOPMENT APPLICATION REPORT

November 18, 2021

John Sacco, State Forester (via email)
New Jersey Department of Environmental Protection, NJ Forest Service
Mail Code 501-04
PO Box 3420
Trenton, NJ 08625

Application No.: 2007-0318.001
Allen Road right-of-way
Oswego Road right-of-way
Blocks/Lots: See Attachment A
Bass River Township
Little Egg Harbor Township

This application proposes 1,304 acres of forestry and approximately 13 miles of forest firebreak on the above referenced 1,383 acre parcel and on either side of Oswego Road and Allen Road in Bass River Township and Little Egg Harbor Township.

Forest thinning is proposed to occur in a pine-dominated forest type and a pine-shrub oak forest type. The applicant represents that the acreage subject of the proposed forestry contains an abnormally high density of tree and shrub layer and is classified as overstocked. The applicant further represents that this overstocking creates a very high forest fire fuel load and encourages the persistence of ladder fuels, which in turn lead to a very high risk of wildfire.

Approximately 1,041 acres of pine-dominated forest type will be thinned twice. The applicant proposes that this acreage will be “thinned low and from below.” This type of thinning cuts and removes those trees that are the shortest in height and smallest in diameter. The applicant indicates that these trees generally act as forest fire “ladder fuels” by connecting the plants and shrubs on the ground with the upper canopy of taller trees. The proposed “low and from below” thinning will reduce the forest from 2,173 trees per acre to 226 trees per acre. Canopy cover will be reduced from 64% to 43%.

Approximately 255 acres of pine-shrub oak forest type will be subject to a variable density thinning treatment. This thinning will reduce the forest from 2,000 trees per acre to 77 trees per acre. Canopy cover will be reduced from 71% to 30%.

Approximately 8 acres of pine-shrub oak forest type along the western outside edge of the Allen Road firebreak will be subject to a “feathered” variable density thinning treatment. The applicant indicates that this type of thinning means the creation of a gradual transition in tree density from 0 trees per acre

created by the proposed forest firebreak to 34 trees per acre for a distance back from the proposed forest firebreak of 70 feet. Canopy cover will be reduced from 71% to 19% by the “feathered” variable density thinning treatment. The applicant indicates that this “feathered” treatment is intended to reduce the harsh forest edges and create a more visually appealing aesthetic between the proposed forest firebreak and the variable density thinning treatment.

To control invasive species that could inhibit the regeneration of pine in the pine-shrub oak forest type, the application proposes a combination of mechanical site preparation methods and herbiciding.

The application also proposes the creation of a forest firebreak along both sides of Allen Road. The forest firebreak will be created by clearing all trees within a 30 foot wide strip for approximately five miles on either side of Allen Road between the southern boundary of the Warren Grove Gunner Range and Stage Road. The application also proposes the creation of a 30 foot wide forest firebreak along both sides of Oswego Road for approximately eight miles between Cutts Road and County Route 539. In total, the proposed forest firebreak will result in the clearing of approximately 79 acres of forest.

Mowing, drum chopping, disking and spot application of herbicide are proposed to maintain the forest firebreak.

Mowing of the forest firebreak on an ongoing basis constitutes a routine and customary maintenance activity and does not require application to the Commission.

Drum chopping, disking and the spot application of herbicides do not constitute routine and customary maintenance activities. The CMP (N.J.A.C. 7:50-6.45) provides that permits and approvals authorizing forestry activities shall be valid for a period of 10 years. After December 10, 2031, any proposed drum chopping, disking or spot application of herbicides for the proposed forestry and the forest firebreak requires application to the Commission.

The applicant also proposes road maintenance activities to include grading and the addition of gravel to the existing sand/gravel roadway. Routine and customary road maintenance activities do not require application to the Commission.

For Allen Road and that portion of Oswego Road located in Bass River Township, the Township tax map indicates that both roads are 66 foot wide municipal road rights-of-way. In Little Egg Harbor Township, the Township tax map indicates that Oswego Road has a 30 foot wide municipal road right-of-way. A portion of Allen Road is comprised of broken deteriorated pavement and a portion is sand. Oswego Road is entirely a sand road. Both roads range in width from 13 feet to 24 feet. A condition is included in this recommended approval requiring that the applicant obtain any necessary municipal authorization to undertake vegetation removal or maintenance activities within either of the two road rights-of-way.

The application also proposes to undertake prescribed burning on the parcel. Prescribed burning does not require application to the Commission.

STANDARDS

The Commission staff has reviewed the proposed forestry and forest firebreak for consistency with all standards of the Pinelands Comprehensive Management Plan (CMP). The following reviews the CMP standards that are relevant to this application:

Land Use (N.J.A.C. 7:50-5.22(a)3 & (b)4)

The proposed forestry and forest firebreak are located in the Pinelands Preservation Area District. Forestry is permitted in the Pinelands Preservation Area District.

Forestry (N.J.A.C. 7:50-6.41)

The application proposes herbiciding in association with the proposed forestry and forest firebreak. The CMP permits herbicide treatment as a forestry practice for site preparation provided the following five conditions are met:

1. Condition One: The proposed treatment is identified in an application submitted to the Pinelands Commission.

The submitted Pinelands application identifies the proposed herbicide treatment.

2. Condition Two: Control of competitive plant species is clearly necessary.

For the proposed forestry in the pine dominated forest type, the applicant represents that herbiciding is clearly necessary to control invasive plant species, encourage native grasses and facilitate the regeneration of pine. For the proposed forestry in the pine-shrub oak forest type the applicant represents that herbiciding is clearly necessary to control invasive plant species that inhibit the regeneration of pine.

3. Condition Three: Control of competitive plant species by other non-chemical means is not practical.

For the proposed 1,304 acres of forestry and the 13 miles of forest firebreak, the applicant represents that non-chemical means is not practical considering the number of multiple entries per year for an approximate five year period that would be required to control growth, thereby greatly increasing impacts to the site and resulting in very high costs.

4. Condition Four: All chemicals shall be expressly labeled for forestry use and shall be used and mixed in a manner that is consistent with relevant State and Federal requirements.

For the proposed forestry and the forest firebreak, the applicant has indicated that the chemicals proposed for use are labeled for forestry use and will be applied by a licensed pesticide applicator.

5. Condition Five: In pine-shrub oak native forest type, herbicide treatments shall only be permitted as a method to temporarily suppress shrub-oak understory in order to facilitate pine regeneration. All such herbicide treatments shall be applied in a targeted manner so that there will be no significant reduction in tree or shrub-oak re-sprouting outside those areas subject to the herbicide treatment.

For the proposed forestry in the pine-shrub oak forest type, the applicant has indicated that herbicides will only be applied in a targeted manner for areas where invasive plant species become established in the understory that inhibit the regeneration of pine, when all other mechanical site preparation methods are exhausted.

The applicant has demonstrated that the five conditions to permit the use of herbicide for forestry will be met.

Threatened and Endangered Species Standards (N.J.A.C. 7:50-6.27 & 6.33)

Available information identifies known sightings of threatened and endangered (T&E) animal and wetland associated plant species in the vicinity of the proposed forestry and the forest firebreak. The applicant represents that the New Jersey Department of Environmental Protection (NJDEP), Division of Fish and Wildlife, Endangered and Nongame Species Program, Office of Natural Lands Management and the Natural Heritage Review Group reviewed and approved the proposed activities. The Commission staff reviewed the proposed forestry and forest firebreak to determine whether it was designed to avoid irreversible adverse impacts on habitats that are critical to the survival of any local populations of T&E animal species and irreversible adverse impacts on the survival of any local populations of T&E plant species.

To avoid potential irreversible adverse impacts on any T&E avian species that may be present, the applicant proposes to conduct visual surveys to identify and mark any trees containing potential T&E avian species cavities or nests. Any identified and marked trees will not be harvested.

To avoid any irreversible adverse impacts on habitats that are critical to the survival of any local populations of T&E snake species, the applicant proposes that the proposed forestry and the creation of the forest firebreak shall only occur between April 15 to November 15, the period when the concerned snake species are active.

To avoid potential irreversible adverse impacts on the survival of any local populations of Pine Barrens treefrog, the applicant proposes that a 100 foot buffer shall be maintained between the proposed forestry and proposed forest firebreak to potential Pine Barrens treefrog breeding habitat.

There are known sightings of wetland associated T&E plant species in the project area. To avoid potential irreversible adverse impacts on the survival of any local populations of wetland associated T&E plant species, the applicant proposes to maintain a 100 foot buffer to any identified T&E plant species. This Public Development Application Report contains a condition requiring that, prior to undertaking the proposed forestry and creating the forest firebreak, the applicant shall conduct visual surveys to identify any wetlands associated T&E plant species within 100 feet of the proposed forestry and forest firebreak.

The proposed forestry is designed to avoid irreversible adverse impacts on habitats that are critical to the survival of any local populations of T&E animal species and irreversible adverse impacts on the survival of any local populations of T&E plant species.

Wetlands Standards (N.J.A.C. 7:50-6.6)

There are wetlands located within the area proposed for forestry and the forest firebreak. The CMP permits forestry in both wetlands and the required buffer to wetlands. To maintain consistency with the T&E species protection standards, the application proposes to maintain a 100 foot buffer to any wetlands containing potential Pine Barrens treefrog breeding habitat and a 100 foot buffer to any wetlands associated T&E plant species. Other than the proposed buffers to maintain consistency with the T&E species protection standards, all other forestry will maintain an 80 foot buffer to wetlands and the proposed firebreak will maintain a 50 foot buffer to wetlands.

Cultural Resource Standards (N.J.A.C. 7:50-6.151)

No new or temporary access roads are proposed as part of this application. Minimal soil disturbance caused by the proposed forestry and forest firebreak will occur. As a result, a cultural resource survey was not required for the proposed forestry or forest fire fuel break.

PUBLIC COMMENT

The applicant has provided the required public notices. Newspaper public notice was completed on March 13, 2021. Notice to required landowners within 200 feet of the above referenced parcel was completed on March 16, 2021. The application was designated as complete on the Commission's website on June 22, 2021. The Commission's public comment period closed on July 9, 2021.

The Commission received one oral comment at its August 13, 2021 meeting and one written comment (attached) regarding this application. Each commenter will receive a copy of this Report on an Application for Public Development.

Public Comment:

- Written Commenter (Dave Garrigan): The commenter requested an explanation of the "low and below" thinning proposed and when the project would start.

Staff Response: The applicant has indicated that low and from below thinning means that the cutting/removal of the shortest in height and smallest in diameter trees will occur up to the specified density. The commenter may wish to discuss with a representative of the NJDEP, Forest Service as to when the project would start.

- Oral Commenter (Jason Howell): The commenter raised concerns regarding critical T&E species habitat within the project area, increased vehicle speed upon project completion and the change in landscape.

Staff Response: The application was reviewed by New Jersey Division of Fish and Wildlife, Endangered and Nongame Species Program, NJDEP Office of Natural Lands Management, the NJDEP Natural Heritage Review Group and Commission staff. It was concluded that no irreversible adverse impacts will occur on habitats critical to the survival of any local populations of T&E animal species or on any local populations of T&E plant species known to be in the project area. The Commission staff appreciates the commenter's concerns regarding possible increased vehicle speed on the concerned roads. The CMP contains no relevant standards or regulations addressing maintenance of existing roads and vehicle speed on those roads. The

commenter may wish to discuss this concern regarding possible increased vehicle speed with appropriate representatives of Bass River Township and Little Egg Harbor Township. The Commission staff also appreciates the commenter's concerns regarding the proposed change in the landscape. The CMP permits forestry in all parts of the Pinelands Area, including the Preservation Area District. Forestry can result in a change in the visual appearance of the landscape. Other than requiring buffers between parcel boundaries and areas of clearcutting, coppicing and seed tree cutting, none of which are proposed by this application, the CMP does not directly regulate the visual appearance of lands that are subject to forestry.

CONDITIONS

1. The proposed forestry activities shall adhere to the "Proposal for Silvicultural Activity on State Forest and Park Lands New Jersey State Forestry Service," dated December 9, 2020 as amended to November 10, 2021.
2. Prior to any forestry or creation of the forest firebreak proposed in this application, the applicant shall obtain any other necessary permits and approvals.
3. To avoid irreversible adverse impacts on habitats that are critical to the survival of any local populations of T&E snake species, all forestry and the creation of the forest firebreak shall occur between April 15 and November 15, the time period when the snakes are active.
4. To avoid potential irreversible adverse impacts on any T&E avian species, prior to undertaking the proposed forestry and forest firebreak, visual surveys to identify and mark any trees containing potential T&E avian species cavities or nests shall be conducted and any tree containing potential T & E avian species cavities or nests shall not be harvested.
5. To avoid irreversible adverse impacts on habitats that are critical to the survival of any local populations of T&E Pines Barrens treefrog, a 100 foot buffer to potential treefrog breeding habitat shall be maintained.
6. To avoid irreversible adverse impacts on habitats that are critical to the survival of any local populations of wetlands associated T&E plant species, prior to undertaking the proposed forestry and forest firebreak, the applicant shall conduct visual surveys to identify and mark any wetlands associated T&E plant species located within 100 feet of the proposed forestry and forest firebreak and a 100 foot buffer shall be maintained to any identified wetlands associated T&E plant species.
7. No vegetation removal shall occur in the Allen Road right-of-way or the Oswego Road right-of-way until any municipal authorization that may be necessary is obtained from Bass River Township and Little Egg Harbor Township.
8. No forest thinning or creation of a forest firebreak shall occur after December 10, 2031 unless a new application has been completed with and approved by the Pinelands Commission.

CONCLUSION

As the proposed forestry and forest firebreak conforms to the standards set forth in N.J.A.C. 7:50-4.57, it is recommended that the Pinelands Commission **APPROVE** the proposed forestry and forest firebreak subject to the above conditions.



State of New Jersey
THE PINELANDS COMMISSION
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NEW LISBON, NJ 08064
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SHEILA Y. OLIVER
Lt. Governor

General Information: Info@pinelands.nj.gov
Application Specific Information: AppInfo@pinelands.nj.gov

RICHARD PRICKETT
Chairman
SUSAN R. GROGAN
Acting Executive Director

PINELANDS COMMISSION **APPEAL PROCEDURE**

The Pinelands Comprehensive Management Plan (N.J.A.C. 7:50-4.91) provides an interested party the right to appeal any determination made by the Executive Director to the Commission in accordance with N.J.A.C. 7:50-4.91. An interested party is someone who has a specific property interest sufficient to require a hearing on constitutional or statutory grounds. Only appeal requests submitted by someone meeting the definition of an interested party will be transmitted to the New Jersey Office of Administrative Law for a hearing. Any such appeal must be made in writing to the Commission and received by the Commission's office no later than 5:00 PM on December 6, 2021 and include the following information:

1. the name and address of the person requesting the appeal;
2. the application number;
3. the date on which the determination to be appealed was made;
4. a brief statement of the basis for the appeal; and
5. a certificate of service (a notarized statement) indicating that service of the notice has been made, by certified mail, on the clerk of the county, municipal planning board and environmental commission with jurisdiction over the property which is subject of this decision.

Within 15 days following receipt of a notice of valid appeal, the Executive Director shall initiate the procedures for assignment of an Administrative Law Judge to preside at the hearing pursuant to the Administrative Procedures Act, N.J.S.A. 52:14B-1 et seq., and the procedures established by the Office of Administrative Law. The time, date and location of such hearing shall be designated by the Office of Administrative Law.

ATTACHMENT "A"

Allen Road, Road Maintenance/Firebreak
Oswego Road, Road Maintenance/Firebreak
Forest Management

Bass River Township (B, L)

49, 12	78, 6	83, 2B	83, 26	100, 7	103C, 18
65, 4	78, 6A	83, 2D	83, 27	100, 7	103C, 19
64, 10	78, 6A	83, 2E	83, 28	100, 9	103C, 20
65, 5	78, 6B	83, 2F	83, 28	100, 9	103C, 21
65, 5	78, 6C	83, 5	91, 5A	100, 166	103C, 22
73, 11	78, 6C	83, 6	94, 13	100, 166	103F, 1
73, 14	78, 8	83, 6	94, 5	101, 34	103F, 2
73A, 1	78, 10	83, 8	94, 6	101, 34	103F, 3
73B, 1	78, 10	83, 9	94, 8	101, 36	103F, 4
73C, 1	78, 11	83, 9	94, 9	101, 36	103F, 5
73D, 1	78, 11	83, 9A	94, 9A	101, 37	103F, 6
73E, 1	78, 12	83, 9A	94, 10	101, 37	103F, 7
73G, 2	78, 12	83, 9B	94, 11	101, 37	103F, 8
73H, 1	78, 13	83, 9B	94, 12	101, 39	103F, 9
73K, 3	78, 15	83, 9C	95, 9	101, 39	103G, 1
73K, 4	78, 15	83, 9C	95, 8	101, 39	103H, 1
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73K, 6	78, 16	83, 10	96E, 9	101, 42	103J, 1
73K, 7	78, 16	83, 10	96E, 10	101, 44	105, 2
73K, 8	78, 16	83, 11	96E, 24	101, 44	105, 4
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77, 4	78, 17	83, 12	96E, 33	103, 2	
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77, 7	78, 19	83, 15	96E, 44	103, 6	
77, 16	78, 20	83, 15	96E, 45	103, 167	
77, 17	78, 20	83, 16	96E, 46	103, 168	
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77, 27	78, 21	83, 17	96E, 48	103, 170	
77, 41	78, 21	83, 18	96E, 49	103, 171	
77, 42	78, 21	83, 18	96E, 50	103, 172	

¹Little Egg Harbor Township (B, L)

49, 1
49, 10
49, 3
49, 4
49, 5
49, 6
49, 7
50, 1
50, 5
50, 6
51, 6
51, 7
51, 8
52, 1
52, 3
52, 4
52, 5
52, 6
53, 1
54, 3
58, 1
59, 1
59, 3
59, 8
62, 2
62, 3
62, 7
64, 1

Bass River Township (B, L)

77, 42	78, 23	83, 18	96E, 51	103, 173	
77, 42	78, 33	83, 21	96E, 52	103, 174	
77, 43	78, 33	83, 21	96E, 53	103, 175	
77, 43	82, 2	83, 21	96E, 54	103, 208	
78, 1	82, 2	83, 22	96E, 55	103, 209	
78, 1	82, 4	83, 22	97A, 1	103, 214	
78, 2	82, 4	83, 22	97D, 1	103B, 2	
78, 2	83, 1	83, 23	101, 1	103B, 7	
78, 4	83, 2	83, 23	100, 3	103B, 9	
78, 4	83, 2	83, 25	100, 3	103B, 11	
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78, 5	83, 2A	83, 25	100, 3A	103B, 13	
78, 6	83, 2B	83, 26	100, 7	103C, 17	

Written Public Comment

From: Dave Garrison <bangodango@verizon.net>
Sent: Tuesday, March 16, 2021 4:27 PM
To: Info, PC <info@pinelands.nj.gov>
Subject: General Information Submissions or Questions

Below is the result of your feedback form. It was submitted by
Dave Garrison (bangodango@verizon.net) on Tuesday, March 16, 2021 at 16:27:02

email: bangodango@verizon.net

subject: General Information Submissions or Questions

Name: Dave Garrison

Street Address: 53. North. Maple. Ave.

Town/City: New. Grenta

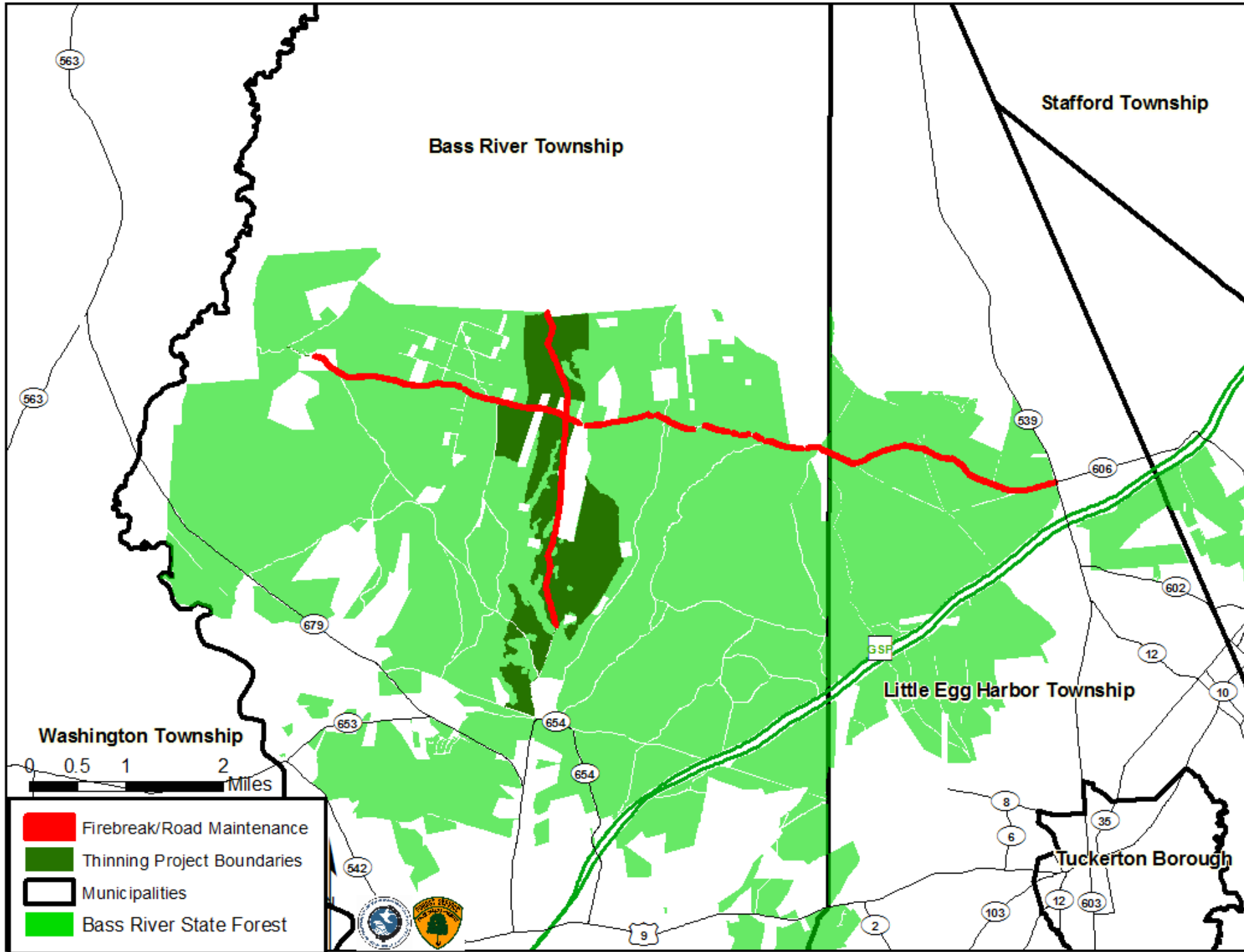
State: N.J.

Zip Code: 08224-0343

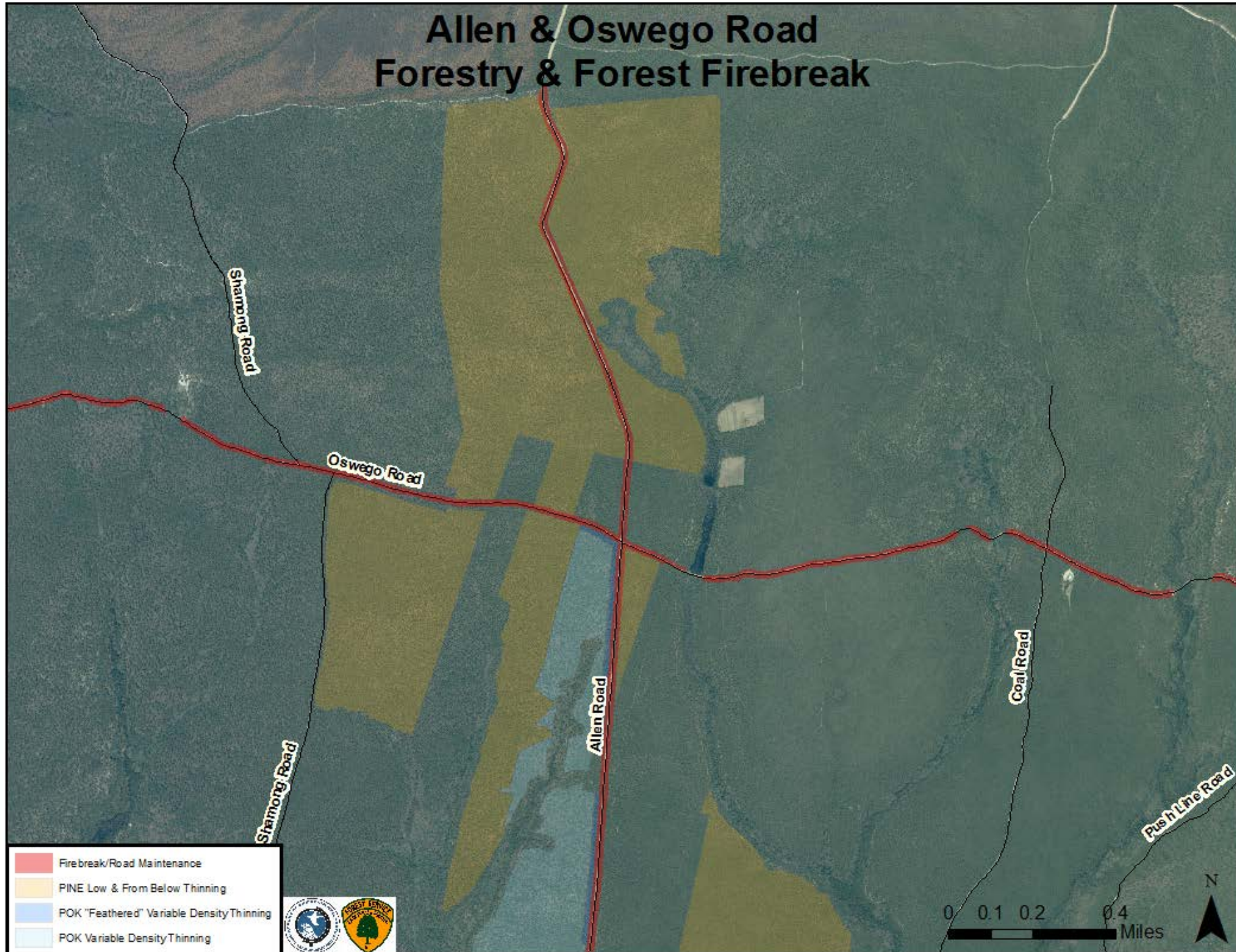
Phone Number: 6096619459

Message: In reference to application 2007-0318.001 what does Low & From Below Thinning mean And when is this project going to start, Time & Date Thank you

Submit: Submit



Allen & Oswego Road Forestry & Forest Firebreak



- Firebreak/Road Maintenance
- PINE Low & From Below Thinning
- POK "Feathered" Variable Density Thinning
- POK Variable Density Thinning



Allen & Oswego Road Forestry & Forest Firebreak

