RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION

NO. PC4-23-__06____

TITLE: To Appoint Susan R. Grogan as Executive Director of the New Jersey Pinelands Commission

Commissioner ____Lloyd_____ moves and Commissioner ____Avery_____ seconds the motion that:

WHEREAS, the position of Executive Director of the Pinelands Commission became vacant on June 24, 2021; and

WHEREAS, on June 24, 2021, in accordance with Article III, Section 5 of the Pinelands Commission's By-Laws, then-Chairman Richard Prickett designated Susan R. Grogan as Acting Executive Director and authorized her to exercise all powers delegated to the Executive Director by the Commission's By-Laws, actions of the Commission or otherwise granted pursuant to the provisions of the Pinelands Protection Act and the Pinelands Comprehensive Management Plan; and

WHEREAS, Ms. Grogan has worked at the Pinelands Commission since August 1988. She served as the Commission's longtime Chief Planner and was promoted as the Director of Planning in 2020. In her capacity as Chief Planner, Ms. Grogan authored many amendments to the Pinelands Comprehensive Management Plan, reviewed thousands of municipal ordinances and master plans to ensure conformance with Pinelands regulations, implemented the Pinelands Conservation Fund land acquisition program that has preserved nearly 9,000 acres to date and supervised Planning Office staff and a wide variety of projects; and

WHEREAS, Ms. Grogan has also served as the Executive Director of the Pinelands Development Credit Bank since 2011; and

WHEREAS, Ms. Grogan has demonstrated extraordinary skill in advancing numerous initiatives since being designated as the Commission's Acting Executive Director, including the adoption of amendments to the Pinelands Comprehensive Management Plan (CMP) that will better protect Pinelands resources by requiring the use of green infrastructure and other more stringent standards to manage stormwater, as well as proposing rule changes pertaining to the Kirkwood-Cohansey aquifer, working to prepare the Commission for future rule changes aimed at addressing climate change, recruiting and hiring several staff members to fill vacant positions, providing invaluable guidance to longtime and new Commission members, securing funding to help refurbish the historic Fenwick Manor farmhouse, overseeing the implementation of office-wide policies pertaining to COVID-19, and furthering efforts to reduce the Commission's carbon footprint at its headquarters; and

WHEREAS, prior to joining the Commission, Ms. Grogan was the Assistant Land Use Coordinator for Burlington County's Office of Economic Development, where she was responsible for implementing the county's farmland preservation program, among other responsibilities. Ms. Grogan holds a Masters of City and Regional Planning from Rutgers University and a Bachelors of Arts in Government and Sociology from the College of William and Mary. She is a licensed New Jersey Professional Planner and a member of the American Institute of Certified Planners; and

WHEREAS, the Acting Executive Director designation was to remain valid until such time as a quorum of the Commission acted to appoint an Executive Director; and

WHEREAS, the Pinelands Commission now wishes to appoint Susan R. Grogan as its Executive Director; 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 hereby appoints Susan R. Grogan to fill the position of Executive Director, with all terms of employment to be in accordance with the Personnel Policies of the Commission.

BE IT FURTHER RESOLVED that the Chair is authorized to offer the Executive Director position to Susan R. Grogan at her current level of compensation until such time as the Personnel & Budget Committee meets to determine an appropriate salary and salary range for the position, at which time any authorized increase in salary shall be retroactive to the date of this resolution.

Record of Commission Votes

	AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*
Asselta	X				Lettman			X		Pikolycky	X			
Avery	X				Lloyd	X				Wallner			X	
Christy	X				Lohbauer	X				Matos	X			
Holroyd	X				Mauriello	X								
Irick	X				Meade	X								

*A = Abstained / R = Recused

Adopted at a meeting of the Pinelands Commission Date: February 10, 2023

Jessica Noble
Secretary

Laura E. Matos
Chair

RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION

NO. PC4-23-___07_____

TITLE: Authorizing the Executive Director to Execute the First Amendment to the March 4, 1998 Memorandum of Agreement Between the Pinelands Commission and Atlantic County Regarding Development on the Western Lakeshore of Lake Lenape Park

Commissioner _____Irick_____ moves and Commissioner ____Lohbauer_____ seconds the motion that:

WHEREAS, the New Jersey Pinelands Commission (hereinafter "Commission") and the County of Atlantic (the "County" or "Atlantic County")(both of which are collectively referred to herein as the "Parties") entered into a Memorandum of Agreement ("MOA"), dated March 4, 1998 (the "1998 MOA"), which facilitated review of projects undertaken by the County in the "Atlantic County Park at Lake Lenape" ("Lake Lenape Park") located in Hamilton Township; and

WHEREAS, Lake Lenape Park consists of approximately 1,898 acres, which includes an approximately 330-acre water body known as Lake Lenape; and

WHEREAS, among other things, the 1998 MOA authorized Atlantic County to construct a 40 foot by 20 foot partially submerged concrete boat ramp and a 120 foot L-shaped floating dock proximate to the boathouse building in accordance with the plans entitled "Western Lake Shore Development Area – Lake Lenape," prepared by Chris R. Rehmann, P.E., L.S., dated July 29, 1991 and revised October 10, 1997; and

WHEREAS, certain development authorized by the 1998 MOA was not fully consistent with the Pinelands Comprehensive Management Plan (the "CMP") and, as a result, the March 1998 MOA was necessary to authorize a deviation from the following CMP standards: 1) N.J.A.C. 7:50-5.23(b)12, prohibiting the development of centralized wastewater treatment and collection facilities in a Forest Area absent an identified public health problem; and 2) N.J.A.C. 7:50-6.14, prohibiting development within 300 feet of a wetland unless it is demonstrated that such development will not result in a significant adverse impact on the wetlands; and

WHEREAS, in order to provide an equivalent level of protection of the resources of the Pinelands as would have been provided through strict application of the Pinelands CMP as required by N.J.A.C. 7:50-4.52(c)2, Atlantic County deed restricted approximately 1,822 acres of Lake Lenape Park as permanently preserved in its natural state; and

WHEREAS, by letter dated July 10, 2019, Atlantic County Administrator Gerald DelRosso asked for a meeting with the Commission's Executive Director to explore amending the March 1998 MOA to permit reconfiguration of the docks within Lake Lenape; and

WHEREAS, amendment of the1998 MOA is required because the Declaration of Restrictive Covenants signed by the County Administrator on May 29, 1998, and subsequently filed with the County Clerk, specifically referenced the 1998 MOA and, thus, had the unintended consequence of prescribing the precise location, size and configuration of the docks on Lake Lenape; and

WHEREAS, since 1998, public safety concerns have arisen between trucks backing onto the boat ramp adjacent to the L-shaped docks and other users of Lake Lenape; and

WHEREAS, after consultation with the Commission's CMP Policy and Implementation Committee between August 2019 and November 2022, the First Amendment to the 1998 MOA was drafted; and

WHEREAS, in order to provide flexibility in the placement of the docks in the vicinity of the boathouse on the Western Lakeshore of Lake Lenape, the First Amendment to the 1998 MOA eliminates the reference in Paragraph II.C.2(h) of the 1998 MOA to the "120 feet L-shaped dock varying in width from six (6) feet to eight (8) feet adjacent to the first aid/restroom/boathouse building" and instead creates a 300' x 200' (1.39 acre) rectangular area within which docks of various sizes and configurations may be constructed, as depicted on the plan entitled "Floating Dock General Location Area, Lake Lenape Park," prepared by Thomas A. Prendergast, PLS, County Surveyor, Atlantic County, Division of Engineering, last revised December 13, 2022; and

WHEREAS, to offset the loss of this 1.39 acre deed restricted portion of Lake Lenape, the First Amendment eliminates the authorization in the 1998 MOA to construct a dock at the group camping area elsewhere in Lake Lenape Park and requires the County to deed restrict a 300' x 200' rectangular section of Lake Lenape proximate thereto, as depicted on the plan entitled "Area of Deed Restriction" prepared by Thomas A. Prendergast, PLS, County Surveyor, Atlantic County, Division of Engineering, last revised December 13, 2022; and

WHEREAS, a public hearing to receive testimony on the proposed First Amendment to the 1998 MOA was duly advertised, noticed, and remotely held on January 4, 2023 at 9:30 a.m. with live broadcast on the Pinelands Commission's public YouTube channel and opportunity for the public to call-in during the live broadcast; and

WHEREAS, the Executive Director has submitted a report to the Commission recommending issuance of an order to execute the First Amendment to the 1998 MOA; and

WHEREAS, the Commission's CMP Policy and Implementation Committee has reviewed the Executive Director's report and has recommended that the Commission enter into the First Amendment to the 1998 MOA; and

WHEREAS, the Pinelands Commission has duly considered all public testimony submitted to the Commission concerning the First Amendment to the 1998 MOA and has reviewed the Executive Director's report; and

WHEREAS, the Pinelands Commission finds that the offsetting measures proposed by Atlantic County will provide an equivalent level of protection for the resources of the Pinelands as would be provided through strict application of the CMP; and

WHEREAS, the Commission, further finds that the First Amendment to the 1998 MOA, attached hereto, satisfies the standards of N.J.A.C. 7:50-4.52(c), which authorizes the Commission to enter into such agreements; and

WHEREAS, the Commission accepts the recommendation of the Executive Director; 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 Commission agrees to enter into the First Amendment to the 1998 MOA between the Commission and Atlantic County regarding Development on the Western Lakeshore of Lake Lenape Park, attached hereto.

BE IT FURTHER RESOLVED that the Commission authorizes the Executive Director to execute the First Amendment to the 1998 MOA between the Commission and Atlantic County.

Record of Commission Votes

	AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*
Asselta	X				Lettman			X		Pikolycky	X			
Avery	X				Lloyd	X				Wallner			X	
Christy	X				Lohbauer	X				Matos	X			
Holroyd	X				Mauriello	X								
Irick	X				Meade	X								

*A = Abstained / R = Recused

Adopted at a meeting of the Pinelands Commission Date: February 10, 2023

Susan R. Grogan
Executive Director

Laura E. Matos
Chair

State of New Jersey
THE PINELANDS COMMISSION
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SHEILA Y. OLIVER
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General Information: Info@pinelands.nj.gov
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LAURA E. MATOS
Chair
SUSAN R. GROGAN
Acting Executive Director

January 18, 2023

REPORT ON A PROPOSED FIRST AMENDMENT TO THE MARCH 4, 1998 MEMORANDUM OF AGREEMENT BETWEEN ATLANTIC COUNTY AND THE NEW JERSEY PINELANDS COMMISSION REGARDING DEVELOPMENT PROJECTS IN THE ATLANTIC COUNTY PARK AT LAKE LENAPE

FINDINGS OF FACT

Atlantic County has requested an amendment of the March 4, 1998 Memorandum of Agreement (the 1998 MOA") between it and the Pinelands Commission (the "Commission") that authorized the development of certain projects along the Western Lakeshore of Lake Lenape Park in Hamilton Township. The Proposed Amendment would eliminate the provision authorizing construction of a 120-foot L-shaped dock in varying widths from six to eight feet adjacent to the existing boat ramp and proximate to the first aid/restroom/boathouse (the "boathouse") building. Instead, the Proposed Amendment would authorize the County to install floating docks within a 300' x 200' rectangular area (1.39 acres) adjacent and parallel to the boathouse.

I. Background and Purpose of the 1998 MOA

Lake Lenape Park is owned by Atlantic County and located in Hamilton Township. It consists of approximately 1,898 acres, including an approximately 330-acre water body known as Lake Lenape. It is located within the Pinelands Area and in a designated Forest Area.

In 1998, Atlantic County was seeking to construct the following on the Park's western lakeshore: 1) wastewater treatment and facilities, 2) a water main, 3) a boat house, 4) boat ramps, 5) a playground, 6) restroom and shower facilities, 7) cabins, 8) camp sites, 9) docks, 10) access roads and 11) other related improvements. The proposed development was not fully consistent with the Forest Area (N.J.A.C. 7:50-5.23) and the wetland buffers (N.J.A.C. 7:50-6.14) standards of the Pinelands Comprehensive Management Plan (the "CMP").

The CMP authorizes the Commission to enter into an intergovernmental MOA to permit development that is not fully consistent with its standards, provided such MOA includes measures that afford, at a minimum, an equivalent level of protection for the resources of the Pinelands as would be provided through strict application of the Plan's standards (N.J.A.C. 7:50-4.52). In March 1998, the Commission and Atlantic County executed a MOA authorizing the above delineated development at Lake Lenape. In order the provide the required offset, Atlantic County deed restricted approximately 1,822 acres of Lake Lenape Park as permanently preserved in its natural state. The County also filed a deed notice restricting the use of the existing sanitary sewer line to the proposed interpretive center, boathouse building and the restroom and shower facilities for the six cabins and eleven campsites.

The Deed of Restrictive Covenants (DCR) filed by the County in May 1998 referenced and incorporated the terms of the MOA. An unintended consequence of this incorporation was the inclusion within the DCR of the specific dimensional requirements for the docks to be constructed proximate to the Boathouse. (See Paragraph C.2(h) of the 1998 MOA). As a result, the DCR limited the County's ability to relocate the docks or change the configuration without an amendment to the MOA authorizing same.

The County subsequently implemented several of the improvements authorized by the March 1998 MOA in the Western Lakeshore Area of Lake Lenape Park, including construction of a 40 foot by 20 foot partially submerged concrete boat ramp and a 120 foot L-shaped floating dock proximate to the Boathouse in accordance with the plans entitled "Western Lake Shore Development Area –Lake Lenape," prepared by Chris R. Rehmann, P.E., L.S., dated July 29, 1991 and revised October 10, 1997.

II. Safety Concerns Regarding the Existing Dock Configuration

By letter dated July 10, 2019, the Atlantic County Administrator requested a meeting with the Pinelands Commission staff to discuss amending the 1998 MOA to address reconfiguration of the docks proximate to the Boathouse at Lake Lenape. The County proposed removing the existing L-shaped dock adjacent to the boat ramp and replacing it with two new floating docks, a 50-foot long by 6-foot wide dock adjacent to the existing boat ramp and a 140-foot long by13-foot wide dock, independent of and down shore from the boat ramp.

As expressed in its August 23, 2019 presentation to the Commission's CMP Policy and Implementation Committee and, again, in its testimony during the public hearing on the proposed MOA Amendment, there are significant safety concerns associated with the existing configuration of the L-shaped dock adjacent to the boat ramp. Currently, the Boathouse and dock area at Lake Lenape is utilized by thousands of visitors. The current configuration serves as a funnel for access to the lake by various user groups.

The 1998 MOA did not anticipate the conflicts brought about by having vehicles backing trailers down the boat ramp next to the dock being used by kayakers and other small boats, motorboats, swimmers, fisherman, student sculler, etc. It did not anticipate students who scull on the lake being in the path of trucks backing up to use the boat ramp. It also did not anticipate the difficulty of maneuvering large sculls around the L-shaped dock.

These issues, as well as the increased use of the docks since 1998 and the age and condition of the existing docks, prompted the County to approach the Commission with a proposal to amend the 1998 MOA.

III. Proposed Offset Replacement

Initially, the County proposed replacing the existing L-shaped docks with two floating docks; a dock approximately 50 ft long adjacent to the existing boathouse and a second dock 140 ft long x 13 ft wide located at the far side of the Boathouse. These floating docks would not be permanent structures; they have no pilings and are not anchored to the lake bottom. Rather, the docks are kept in place with concrete weights. Following the discussion with Committee members at the August 23, 2019 CMP Policy & Implementation Committee, it was determined that a better approach would be to establish a 300 ft x 200 ft (1.39 acres) area within which the County would have the ability to place docks in whatever configuration would meet its needs.

In order to provide the necessary offset for the amendment, the County offered to deed restrict a comparable area (300 ft x 200 ft, 1.39 acres) located to the north of the camping area on the western lakeshore of Lake Lenape. This area had previously been approved for construction of a dock. The County considered this to be an appropriate offset given the proposed area had not yet been developed and was of a more pristine character than the area around the Boathouse.

IV. Findings

The County's testimony as discussed above supports the finding that the existing dock configuration required by the terms of the 1998 MOA is resulting in safety conflicts between the various users of the Boathouse area and Lake Lenape. These safety concerns need to be addressed.

Moreover, as evidenced by the County's testimony, developing an amendment to the 1998 MOA that once again restricts the County to the development of docks with specific dimensions and locations does not provide the County with the necessary flexibility to address changes in circumstances that arise over time. Providing the County with a 300 ft x 200 ft area adjacent to the Boathouse for installation of docks of various sizes and configurations will allow the County to address any safety concerns that may arise in the future.

Additional findings are included in the "whereas" paragraphs of the proposed MOA amendment and are incorporated herein by reference.

V. Basis for the First Amendment to the March 4, 1998 MOA

In order for the Commission to enter into a MOA with a governmental entity that permits development that may not be fully consistent with the land use and development standards (N.J.A.C. 7:50-5 and 6) of the Pinelands CMP, the governmental entity must demonstrate and the Commission must find that variations from the Plan are accompanied by measures that will, at a minimum, afford an equivalent level of protection for the resources of the Pinelands than would be provided through strict application of the CMP. N.J.A.C 7:50-4.52(c)2. As discussed above, the County has proposed to replace the 300 ft x 200 ft (1.39 acre) area proximate to the Boathouse with another area of the same shape and size on Lake Lenape and deed restrict this area against future development.

The 1998 MOA authorized the development of 76 acres of Lake Lenape Park and required that the remaining approximately 1,822 acres of the park be deed restricted against development. Through the MOA, the County was authorized to undertake various development projects including the development of the L-shaped dock proximate to the Boathouse and a similar L-shaped dock in the area it is now offering to deed restrict. The proposed MOA Amendment does not increase size of the area permitted for development in the park. Rather, the new area to be deed restricted is the same size as the area proximate to the Boathouse but is in its natural state. The County is also relinquishing its existing authorization to construct a dock in this area. As a result, the County has proposed an equivalent level of protection for the resources of the Pinelands as was provided previously under the 1998 MOA and as would be provided through strict application of the relevant standards of the Pinelands CMP.

VI. PUBLIC HEARING

Pursuant to N.J.A.C. 7:50-4.52(c)3, a public hearing to receive testimony concerning the proposed First Amendment to the March 4, 1998 MOA was duly advertised and noticed. The hearing was conducted by Acting Executive Director Susan R. Grogan and held virtually, via ZOOM on January 4, 2023 at 9:30 a.m. Two individuals attended the hearing.

At the outset of the public hearing, Acting Executive Director Grogan provided a summary of the terms of the MOA amendment being requested and the replacement offset proposed by the County. Ms. Grogan noted that written comment concerning the proposed amendment would be accepted by mail, fax or email until 5:00 p.m. on January 9, 2023.

Ms. Grogan advised the public that following the hearing, staff would prepare a report and recommendation concerning the MOA amendment for the Commission's review. This report would provide a summary of any testimony provided at the hearing and any written comments received before the record closed on January 9, 2023. Ms. Grogan further advised that the Commission's CMP Policy & Implementation Committee would discuss the proposed MOA Amendment and the staff's recommendation at its January 27, 2023 meeting, with consideration by the full Commission likely to occur on February 10, 2023.

The following testimony was received at the hearing:

Anthony Pagano, Assistant County Counsel, appeared on behalf of Atlantic County. Mr. Pagano testified that he had worked on the original 1998 MOA and circumstances had changed since that document was executed. He indicated that in 1998, the user conflicts that had been encountered over the recent years and the safety concerns attributable to such conflicts had not been anticipated. He testified that the boat ramp area is used by various user groups including fishermen, people wanting to recreate and jump into the lake and trucks backing boat trailers onto the boat ramp. He noted that the current dock configuration is a fixed structure located right up against the boat ramp. He stated that there have been problems with students who scull on the lake being in the path of trucks backing onto the boat ramp and that these user groups needed to be separated. He also noted that using a floating dock system will provide the County with needed flexibility as opposed to a permanent structure and will allow the County to move other users away from trucks backing onto the boat ramp. He said that this is an important safety issue to the County. As to the area being offered as an offset, he advised that the area had not been developed and is of a more pristine character than the area around the Boathouse. Given this, the County feels it is more appropriate to deed restrict this area and preserve it in its natural state, in exchange for the flexibility to address the County's needs for the area by the Boathouse where activity is occurring.

Eric Husta, Director, Atlantic County Parks, also appeared on behalf of Atlantic County. Mr. Husta said that he was there predominantly to answer any questions that the Acting Executive Director may have. He indicated that he echoed Mr. Pagano's testimony. He said that the increased usage of the park had caused the County to look at the dock area and its current configuration. He advised that given the existing L-shaped dock structure is aging out and needs repair or replacement, the County felt that now was the time to discuss its safety concerns with the Commission.

There being no further testimony, the hearing concluded at approximately 9:40 a.m.

No written comments were received regarding the proposed MOA Amendment.

VII. CONCLUSION AND RECOMMENDATION

The proposed amendment to the March 4, 1998 MOA between the Commission and Atlantic County will create a 300 ft x 200 ft rectangular area proximate to the existing Boathouse, within which the County will be permitted to install docks in whatever configuration it deems necessary to permit the park's visitors to use and enjoy the lake safely.

As discussed above, the County has proposed to deed restrict an area of the same size and shape of the lake in the vicinity of the existing camping area on the western lakeshore. In addition, the County is relinquishing the authorizations granted by the 1998 MOA to construct a L-shaped dock in this area. Unlike the area proximate to the Boathouse, the new offset area to be deed restricted remains undeveloped.

Moreover, development of the new docks within the 300 ft x 200 ft area proximate to the Boathouse will not require construction of permanent structures, pilings or anchors to the lake bottom. Rather, these docks will be secured using concrete weights.

Considering the above, the proposed MOA Amendment is accompanied by measures that, at a minimum, afford an equivalent level of protection of the resources of the Pinelands as required by N.J.A.C. 7:50-4.52(c)2. The Acting Executive Director therefore recommends that the Commission enter into the First Amendment to the March 4, 1998 Memorandum of Agreement with Atlantic County regarding development projects in the Atlantic County Park at Lake Lenape.

ENVIRONMENTAL PROTECTION

PINELANDS COMMISSION

Pinelands Comprehensive Management Plan

Fees; Definitions; Development Review (new); Water Quality

Proposed Substantial Changes: N.J.A.C. 7:50-2.11, 7:50-4.2 (new), and 6.86(d)iii

Proposed Non-substantial Changes: N.J.A.C. 7:50-2.11, 7:50-6.86(b), (d), (d)2i, (d)2ii, and(d)6

Notice of Proposed Substantial Changes Upon Adoption to Proposed Amendments

Proposed: September 5, 2022 at 53 NJR 9(1)

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

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

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

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

Wednesday, May 3, 2023 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 June 2, 2023, 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 New Jersey Pinelands Commission's website at http://nj.gov/pinelands/home/contact/planning.shtml.

The full 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.

Take notice that the New Jersey Pinelands Commission proposed amendments to the Pinelands Comprehensive Management Plan at N.J.A.C. 7:50-1.6, 2.11, and 6.86 on September 5, 2022 at 53 NJR 9(1) to strengthen protections to the Kirkwood-Cohansey aquifer and the ecology of the Pinelands Area. Public hearings were held on October 12 and November 2, 2022 and the public comment period closed on November 5, 2022. This notice of proposed substantial changes is published pursuant to N.J.S.A. 52:14B-4.10.

The Commission is proposing three substantial changes to the amendments in response to comments received. During the public comment period on the original notice of proposal, the Commission received comments expressing concern regarding the impact of the proposed amendments on the resource extraction industry in the Pinelands Area. Resource extraction in the Pinelands Area involves mining sand and gravel, typically by mechanical or hydraulic dredging, a process that uses water directly from water bodies created by excavations below the water table of the Kirkwood-Cohansey Aquifer.

The Commission is also proposing non-substantial changes to the amendments in response to public comments and one very minor agency-initiated change. These changes clarify language in the proposed amendments and correct a citation.

The following individuals and organizations submitted comments that gave rise to the substantial and non-substantial changes being proposed in this notice. The Commission has also responded to comments received from those same individuals, but which did not result in revisions to the original proposal. The Commission will respond to the remaining comments received, as well as any new comments, when it files a notice of adoption. The numbers in parentheses after each comment summarized below correspond to the following list of commenters.

1. William Layton, Executive Director (written comment) and Kyle England, CLB Partners (public hearing), NJ Concrete & Aggregate Association
2. Ryan Benson, Esq., (public hearing), Kevin Coakley, Esq. (written comment), and Brian Blum, CPG, LSRP (written comment), Clayton Companies
3. Robert S. Baranowski, Jr., Esq. (public hearing and written comment), Whibco, Inc.
4. Joseph Gallagher, Township Administrator, Winslow Township
5. Jeffrey L. Hoffman, State Geologist, New Jersey Department of Environmental Protection, Division of Water Supply and Geoscience
6. Robert Kecskes (public hearing and written comment)

Summary of comments

Resource extraction (N.J.A.C. 7:50-2.11; 4.2(b)6xi ((new)); 6.86(d)2iii)

1. COMMENT: Resource extraction operations use mechanical and hydraulic dredging that typically involves "nonconsumptive" water use. The water is returned to the source

with little or no change in the quality or quantity of water. The rule would impose a disproportionate regulatory burden on such nonconsumptive diversions and would not accomplish the purpose of protecting the aquifer. The proposed amendments are punitive of nonconsumptive uses as they do not account for aquifer replenishment in a closed-loop use. (1, 2, 3)

2. COMMENT: The proposed regulations will hurt the mining industry. Additional constraints on mining in the Preservation Area District, Forest Area, and Special Agricultural Production Area will hasten the demise of the industry. (1, 2, 3)

3. COMMENT: The proposed rule will force resource extraction operations to reduce production of mined sand, gravel, and crushed stone, resulting in a shortage of the products, which will threaten vital transportation projects and negatively impact the construction industry. The Commission should identify and protect these resources to ensure an uninterrupted, economical supply. The proposed rule is contrary to the federal ROCKS act (part of the Infrastructure and Jobs Act of 2021), designed to keep aggregate building materials sustainable. The general mid-Atlantic region is dependent on these already scarce materials used for construction of buildings and roads. (1, 2, 3)

4. COMMENT: The proposed rules will result in a shortage of sand, gravel, and crushed stone, which could result in the doubling of price for those materials. (2)

RESPONSE: The Commission thanks the resource extraction industry for its comments and explanations regarding the specific nonconsumptive uses of water for hydraulic dredging operations. Given that there are over 70 existing resource extraction operations in the Pinelands Area, approximately half of which are located in the Preservation Area District and Forest Area where the proposed rule would prohibit new diversions of 50,000 gallons of water per day or

more from the Kirkwood-Cohansey aquifer, the industry has raised valid concerns about the impact of the proposed rule.

In order to avoid unintended negative impacts on the resource extraction industry, the Commission is proposing a new provision at N.J.A.C. 7:50-6.86(d)2iii, which states that the standards at N.J.A.C. 7:50-6.86(d)3 through 9 will not apply to proposed diversions for resource extraction operations that constitute a nonconsumptive use, provided that the water returned to the source is not discharged to a stream or waterbody or otherwise results in offsite flow, and the diversion and return are located on the same parcel. A definition of "nonconsumptive use" is being added at N.J.A.C. 7:50-6.86-2.11 to mean the use of water diverted from surface or ground waters in such a manner that at least 90 percent of the diverted water is returned to the source surface or ground water at or near the point from which it was taken. This new definition focuses on water quantity and does not explicitly reference water quality, because all development in the Pinelands Area, including diversions from the Kirkwood-Cohansey aquifer, are required to meet the existing water quality standards of the Comprehensive Management Plan.

A resource extraction operation located in the Pinelands Area will continue to be required to apply to the Commission for any new or increased diversion. If the applicant for such a diversion can demonstrate as part of the application process that the proposed diversion meets the definition of nonconsumptive use at N.J.A.C. 7:50-2.11 and the conditions in new N.J.A.C. 7:50-6.86(d)2iii (described in the paragraph above), the water management standards at N.J.A.C. 7:50-6.86(d)3-9 will not apply, even if the proposed diversion involves the withdrawal of 50,000 gallons of water per day or more from the Kirkwood-Cohansey aquifer. To clarify the application process, the Commission is also proposing a new provision at its application requirement section, N.J.A.C. 7:50-4.2(b)6xi, to specify the information a resource extraction

operation must provide to the Commission. This application would most likely be submitted as part of an application for renewal of a resource extraction permit or as a separate application for development that would necessitate a modification of a New Jersey Department of Environmental Protection (DEP) Water Allocation Permit. The new provision requires submission of a hydrogeologic report that identifies the volume of the diversion, the volume of water to be returned to the source, a description of the route of return to the source, the methodology used to quantify the volume of water returned to the source and a description of any other existing or proposed water diversions or discharges on or from the parcel. A "parcel" will be considered as all tax lots that are a part of a resource extraction operation for which a municipal approval has been reviewed by the Commission, determined to be consistent with all CMP standards and allowed to take effect pursuant to N.J.A.C. 7:50-4.37 and 4.40. The report shall also include a map that depicts the location of the diversion, the location of the return to source, the location of all existing or proposed resource extraction operations and the location of all wetlands on or within 300 feet of the parcel on which the diversion is proposed.

5. COMMENT: Holders of current water allocation permits issued by the New Jersey Department of Environmental Protection (DEP) should be "grandfathered" under the proposed amendments. The proposed rules will prohibit new diversions or increases in diversions even though a resource extraction operation may have had a DEP-issued water allocation permit for many years. (1,2)

RESPONSE: There is no need for a grandfathering provision because under the proposed amendments, a holder of a current water allocation permit is not required to apply to the Commission for an existing diversion. The holder is required to complete an application only for a new diversion or an increase in allocation from either a single existing diversion source or from

combined existing and new diversion sources in the same HUC-11 watershed in the Kirkwood-Cohansey aquifer, that results in a total diversion of 50,000 gallons of water per day or more.

6. COMMENT: Disparate treatment of different Pinelands Management Areas is arbitrary and nothing in the Pinelands studies supports a prohibition on diversions in the Forest Area and Preservation Area District. Most mines are located in the Forest Area or Preservation Area District; therefore, the proposed standard at N.J.A.C. 7:50-6.86(d)3 is a problem. (2, 3)

RESPONSE: The Commission disagrees, as the Pinelands Protection Act, N.J.S.A. 13:8A, authorizes greater protections for the Forest Area and Preservation Area District based on the ecology of these management areas. The Commission recognizes, however, that certain nonconsumptive uses of water can be consistent with those necessary protections and, as discussed above, is proposing revisions to recognize that such uses can maintain the ecological values of these most ecologically valuable management areas.

7. COMMENT: The proposed amendments rely upon flawed studies that model "excessive" drawdown of up to 30% of streamflow, 6 inches of water table lowering, or pumping at 30% of groundwater recharge. (2)

RESPONSE: The Commission disagrees that the model is flawed. The studies provide insight into the level of impact that can occur before those impacts have significant adverse impacts on the Pinelands ecology.

8. COMMENT: The Pinelands Commission does not have the regulatory authority to require or issue permits or regulate water use. The New Jersey Department of Environmental Protection has exclusive authority to regulate water diversions and evaluate alternative source requirements where critical water areas are established. The Pinelands Protection Act does not

authorize the Pinelands Commission to help implement the Water Supply Management Act. (2, 3)

RESPONSE: The Commission respectfully disagrees with these statements. The Pinelands Protection Act, N.J.S.A. 13:8A, directs the Commission to regulate development and establish standards to allow development without a significant adverse impact to the resources of the Pinelands Area. The Act specifically authorizes the Commission to regulate land and water management. N.J.S.A. 13:18A-8d. This statutory authority to regulate water management is independent of the DEP's authority under the Water Supply Management Act. The Commission also notes that it does not issue permits; rather, it evaluates development applications and municipal approvals to ensure compliance with the standards established in the Comprehensive Management Plan, adopted to implement the Pinelands Protection Act.

9. COMMENT: The proposed rule is duplicative of DEP rules. (3)

RESPONSE: The Commission respectfully disagrees, as it is not issuing water allocation permits. The proposed rule establishes standards and criteria for diversions in the Pinelands Area, some of which are more stringent than those administered by the DEP. The Commission's evaluation of a diversion application does rely upon a modeling process similar to the DEP's in an effort to avoid the need for duplicative modeling by applicants in those situations where there is regulatory overlap.

10. COMMENT: One of the commenters noted that its resource extraction site is bisected by watershed management area boundaries and by the nature of the extraction operation, it cannot avoid interbasin transfers. (3)

RESPONSE: If a resource extraction company can demonstrate that its operation constitutes a nonconsumptive use of water, then by definition, there will be no interbasin transfer

of water. Nonconsumptive use is being defined to mean that at least 90 percent of the diverted water is returned to the source surface or ground water at or near the point from which it was taken. No interbasin transfer of water will occur if 90 percent of the diverted water is returned in this manner.

11. COMMENT: The Pinelands Protection Act already prohibits export of water greater than 10 miles so there is no need for interbasin transfer prohibition. (2)

RESPONSE: The Commission disagrees. The prohibition against interbasin transfer of water is not necessarily the same as the prohibition in the Pinelands Protection Act against exporting water greater than ten miles (N.J.S.A. 58:1A-7.1) as there could be instances where an interbasin transfer of water occurs within a ten-mile area. In addition, the proposed amendments merely strengthen the existing restriction against interbasin transfer at N.J.A.C. 7:50-6.86(a) and clarify that restriction by defining the basins.

12. COMMENT: Along with recognizing mining as a nonconsumptive use, the definition of "divert" or "diversion" should be modified to exclude "mining of sand or similar materials, as long as the mining is conducted by mechanical or hydraulic dredging" and state that such mining shall not be considered development. (3)

RESPONSE: The Commission believes that its proposed changes, described in the response to comments 1 through 4, above, sufficiently address the resource extraction industry's concerns regarding compliance with the proposed new water management standards when an operation involves nonconsumptive use of water. In addition, the suggested revision would conflict with the definition of "divert" and "diversion" in the DEP's water supply allocation rules at N.J.A.C. 7:19-1.3.

13. COMMENT: The definition of "allocation" at 7:50-6.86(b), and the standards at proposed (d)3 through (d)9, should also exclude the taking or discharge of water for mining of sand or other earthen materials, even if permitted pursuant to a Water Allocation Permit, Water Use Registration, Number, NPDES or NJPDES permit, as long as such mining is conducted by mechanical or hydraulic dredging. (3)

RESPONSE: The Commission believes that its proposed changes, described in the response to comments 1 through 4, above, sufficiently address the resource extraction industry's concerns regarding compliance with the proposed new water management standards when an operation involves nonconsumptive use of water.

14. COMMENT: The Commission's current 100,000 gallon per day threshold pumping volume at which a diversion would need to meet the existing standards at N.J.A.C. 7:50-6.86 adequately prevents excessive or nonessential diversions from the Kirkwood-Cohansey aquifer and does not need to be modified. (3)

RESPONSE: The Commission respectfully disagrees. The twelve studies on the impacts of diversions on the Kirkwood-Cohansey aquifer, described in the original rule proposal at 53 NJR 9(1) and at https://www.nj.gov/pinelands/science/complete/kc/, revealed a need to update the Comprehensive Management Plan to better protect the aquifer.

15. COMMENT: The Commission should identify and protect sand, gravel, and crushed stone resources to ensure an uninterrupted, economical supply. (1)

RESPONSE: The Commission does not have the statutory authority to directly protect sand, gravel and crushed stone resources, but the proposed revisions, described above, recognize the industry's nonconsumptive use of water and should help to ensure the continued production and supply of the resources.

Stream low flow margin (N.J.A.C. 7:50-2.11)

16. COMMENT: The definition of "stream low flow margin" should be the same as the one in the New Jersey Statewide Water Supply Plan. (5)

RESPONSE: The Commission is proposing to change the definition of stream low flow margin at N.J.A.C. 7:50-2.11 to make it consistent with the New Jersey Statewide Water Supply Plan. Specifically, the definition will clarify "September Median Flow" to mean a stream's normal dry-season flow and will replace the term and definition of "statistical flow" with "drought flow."

Interbasin transfer (N.J.A.C. 7:50-6.86(b))

17. COMMENT: There are unavoidable interbasin transfers because some diversions that are located near the border of the Atlantic and Delaware River Basins are pulling water from both basins. This is difficult for municipalities whose land areas straddle both basins and can be problematic for municipalities that currently depend on interbasin transfer for a potable water source and wastewater treatment. Winslow Township purchases 1.5 MGD from New Jersey American Water that is sourced from the Delaware River Basin and is mostly transferred to the Atlantic Basin. (4)

RESPONSE: The Commission thanks the commenter for raising this concern. The Commission is aware that for Winslow Township and other municipalities, water procurement involves the transfer of water between the Atlantic and Delaware River Basins and that these transfers are from diversions located outside the Pinelands Area. Therefore, the Commission is proposing to amend N.J.A.C. 7:50-6.86(b) to clarify that the prohibition against interbasin transfers applies only to transfers of water from sources within the Pinelands Area. It should be noted that water sourced from outside the Pinelands Area that is distributed to development

within the Pinelands Area through a public or community water system will not result in an interbasin transfer, as the water will be conveyed back out of the Pinelands Area through the public sanitary sewer system or completely consumed.

Water management standards/ 50,000 gpd threshold (N.J.A.C. 7:50-6.86(d))

18. COMMENT: The proposed rule does not clearly state that any proposed increase in diversion over 50,000 gpd triggers review. (4)

RESPONSE: In its initial proposal, the Commission expanded the scope of wells that will be subject to the water management standards by lowering the water volume threshold from 100,000 gallons of water or more per day to 50,000 gallons of water or more a day. The proposed amendments at N.J.A.C. 7:50-6.86(d) specify that the 50,000 gallon per day threshold includes all an applicant's existing diversions in the same HUC-11 watershed, in addition to the new or increased diversion. In response to the commenter's request for greater clarification, however, the Commission is proposing to add the word "and new" to N.J.A.C. 7:50-6.86(d) so that it reads "A new diversion or an increase in allocation from either a single existing diversion source or from combined existing and new diversion sources in the same HUC-11 watershed and in the Kirkwood-Cohansey aquifer, that results in a total diversion of 50,000 gallons of water per day or more (hereafter referred to as "proposed diversion") shall meet the criteria and standards set forth at (d)3 through 9 below." Examples and additional explanations of how this threshold will be calculated and applied can be found in the initial notice of proposal at 53 NJR 9(1).

Water management standards (N.J.A.C. 7:50-6.86(d)2i)

19. COMMENT: The citation at N.J.A.C. 7:50-6.86(d)2i is incorrect. N.J.A.C. 7:9-9 was repealed and replaced with N.J.A.C. 7:9D-3. (5)

RESPONSE: The Commission has corrected the citation in this notice.

Adverse Regional Impact (N.J.A.C. 7:50-6.86(d)6)

20. COMMENT: It is unclear which datasets in the Water Supply Plan the Commission will rely upon to determine whether a proposed diversion exceeds 20 percent of the stream low flow margin. It is unclear if the proposed rule is referring to allocations or peak reported use, which are estimated differently in the Water Supply Plan. Additionally, the information referred to is in Appendix A of the Water Supply Plan, which is not the referenced document. The correct reference is https://www.state.nj.us/dep/watersupply/pdf/wsp-appendix-a.pdf. (6)

RESPONSE: The Commission has revised proposed N.J.A.C. 7:50-6.86(d)6 to make the language consistent with the New Jersey Statewide Water Supply Plan and to specify that applicants should use Appendix A of that Plan. The revisions also include correcting the link to Appendix A, and specifying the exact datasets/tables applicants should use in Appendix A.

Summary of Agency-Initiated Changes

The Commission is clarifying N.J.A.C. 7:50-6.86(d)2ii by adding the word "proposed" before "diversion."

Effect of Proposed Changes on Impact Statements Included in Original Proposal

None of these changes affect the Social, Agriculture Industry or Racial and Ethnic Community Criminal Justice and Public Safety Impacts, the Federal Standards Statement, or the Housing Affordability and Smart Growth Development Impact Analyses as published in the original proposal. The following is a discussion on how the revisions change the Economic, Environmental, and Jobs Impact, as well as the Regulatory Flexibility Analysis.

Economic Impact

When the Commission initially proposed the amendments, it was not aware of the potential impacts on the resource extraction industry in the Pinelands Area or the construction industry in general. If the proposal remained unchanged, there would be a negative economic impact on both of those industries -- but with the proposed changes, it is anticipated that these impacts will be avoided.

There will, however, continue to be some costs for a resource extraction operation proposing a new or expanded diversion from the Kirkwood-Cohansey aquifer that meets the volume threshold specified at N.J.A.C. 7:50-6.86(d). Under the revisions, an operation will still have to apply for a diversion, but it will not have to conduct the hydrogeologic modeling required at N.J.A.C. 7:50-6.86(d) if it can demonstrate that the diversion constitutes a nonconsumptive use, the water returned to the source is not discharged to a stream or waterbody or otherwise results in offsite flow, and the diversion and return are located on the same parcel that is the subject of the application to the Commission. To demonstrate that the application meets these three standards, a resource extraction operation will have to provide a hydrogeologic report that identifies the volume of the diversion, the volume of water to be returned to the source, a description of the route of return to the source, the methodology used to quantify the volume of water returned to the source and a description of any other existing or proposed water diversions or discharges on or from the parcel. The report shall also include a map that depicts the location of the diversion, the location of the return to source, the location of all existing or proposed resource extraction operations and the location of all wetlands on or within 300 feet of the parcel on which the diversion is proposed.

Although there could be engineering and other professional costs associated with the preparation of the application and hydrogeologic report, the DEP requires similar information from a resource extraction operation that is applying for a modification to a water allocation permit (WAP). Thus, if the operation is simultaneously applying for a WAP modification, there should not be any significant additional costs associated with the application to the Commission.

Ultimately, the revisions will result in greater economic protection to the resource extraction industry and the associated construction industries.

Environmental Impact

The revisions should not have a negative impact on the environment. The revisions are being proposed to recognize that the nonconsumptive use of water by a resource extraction operation need not be subject to the new Kirkwood-Cohansey water management standards provided the specified conditions are met to ensure the protection of the aquifer and ecology. Specifically, a resource extraction operation will have to demonstrate that it meets the new definition of nonconsumptive use, that the water returned to the source is not discharged to a stream or waterbody or otherwise results in offsite flow, and that the diversion and return are located on the same parcel. All other CMP environmental standards will continue to apply to such proposed diversions, including those related to water quality.

Jobs Impact

The Commission does not anticipate that the revisions will have any significant impact on job creation and retention in New Jersey. Engineering and other professional work will be needed for the hydrogeologic report required at new N.J.A.C. 7:50-4.2(b)6xi, but the requirements for the report align closely with those currently imposed by the DEP on the resource extraction industry. Under the proposed amendments, however, the report requirements

will apply to a slightly larger group of proposed diversions in the Pinelands Area (those that will pump 50,000 gallons per day or more from the Kirkwood-Cohansey aquifer).

Regulatory Flexibility Analysis

The revisions do not alter the Commission's initial evaluation of whether the proposed amendments will impose any reporting, recordkeeping, and other compliance requirements on small businesses pursuant to the New Jersey Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq. As discussed above, resource extraction operations that are deemed small businesses may incur costs from hiring professional consultants, such as engineers, when proposing new or increased diversions in the Kirkwood-Cohansey reservoir.

The Commission has balanced the costs imposed by the proposed revisions on small resource extraction businesses against the environmental benefits to be achieved by ensuring that a diversion for resource extraction purposes should not have to comply with the proposed water management standards and determined that it would be inappropriate to exempt small businesses from these new application requirements.

Full text of the proposed changes to the proposed amendments follows (additions to proposal indicated in italicized boldface ***thus***; deletions from proposal indicated in italicized cursive brackets *[*thus*]*):

SUBCHAPTER 1. GENERAL PROVISIONS

7:50-1.6 Fees

(a) (No change from proposal.)

(b) (No change.)

(c) (No change from proposal.)

(d)-(l) (No change.)

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.

…

"Divert" or "Diversion" means the taking of water from a river, stream, lake, pond, aquifer, well, other underground source, or other waterbody, whether or not the water is returned thereto, consumed, made to flow into another stream or basin, or discharged elsewhere.

…

"Nonconsumptive use" means the use of water diverted from surface or ground waters in such a manner that at least 90 percent of the diverted water is returned to the source surface or ground water at or near the point from which it was taken.

…

"Stream low flow margin" means the difference between a stream's *normal dry-season flow (*September *M*edian *F*low*) and drought flow* *[*its statistical flow, which is the seven-day flow average in the 10-year period for the stream*]* **(7Q10) as reported in the New Jersey Statewide Water Supply Plan, New Jersey Department of Environmental Protection, 2017, New Jersey Water Supply Plan 2017-2022: 484p, http://www.nj.gov/dep/watersupply/wsp.html, as amended and supplemented.**

…

"Well" means a hole or excavation deeper than it is wide, that is drilled, bored, core driven, jetted, dug, or otherwise constructed for the purpose of the removal of, investigation of, or exploration for water.

…

"Zone of influence" means the area of ground water that experiences an impact attributable to a pumping well.

…

SUBCHAPTER 4. DEVELOPMENT REVIEW

7:50-4.2 Pre-application conference; application requirements

(a) (No change).

(b) Application requirements

1.-5. (No change).

6. Application for resource extraction: Unless the submission requirements are modified or waived pursuant to (b)3 above, an application filed pursuant to N.J.A.C. 7:50-4.13 or 4.33 for resource extraction shall include at least the following information:

i.-x. (No change).

xi. If the application includes a proposed diversion from the Kirkwood-Cohansey aquifer, a hydrogeologic report that identifies the volume of the diversion, the volume of water to be returned to the source, a description of the route of return to the source, the methodology used to quantify the volume of water returned to the source and a description of any other existing or proposed water diversions or discharges on or from the parcel. The report shall also include a map that depicts the location of the diversion, the location of the return to

source, the location of all existing or proposed resource extraction operations and the location of all wetlands on or within 300 feet of the parcel on which the diversion is proposed.

SUBCHAPTER 6. MANAGEMENT PROGRAMS AND MINIMUM STANDARDS

7:50-6.86 Water management

[(a) Interbasin transfer of water between watersheds in the Pinelands should be avoided to the Maximum extent practical. In areas served by central sewers, water-saving devices such as water saving toilets, showers and sink faucets shall be installed in all new development.]

[(b)] **(a)** Water shall not be exported from the Pinelands except as otherwise provided [in] **at** N.J.S.A. 58:1A-7.1.

[(c) All wells and all increases in diversion from existing wells which require water allocation permits from the New Jersey Department of Environmental Protection shall be designed and located so as to minimize impacts on wetlands and surface waters. Hydrologic analyses shall be conducted in accordance with the New Jersey Department of Environmental Protection Guidelines for Water Allocation Permits, with an Appendix on Aquifer-Test Analysis Procedures, New Jersey Geological Survey Report GSR 29, 1992, incorporated herein by reference, as contained in pages 53 through 91 of the Technical Manual for Water Supply Element, Bureau of Water Allocation, Water Allocation Permits dated May 19, 1993, as amended.

(d) All applications for the development of water supply wells or the expansion of existing water distribution systems shall address measures in place or to be taken to increase water conservation in all areas to be served by the proposed well or system. This shall include efforts

by water purveyors and local governments to reduce water demands by users and to reduce losses in the supply and distribution system.

(e) Except for agricultural uses, all new potable and non-potable water supply diversions of more than 100,000 gallons per day that utilize the Kirkwood-Cohansey aquifer as a source of water supply and new increases in existing potable and non-potable water supply diversions of over 100,000 gallons per day that utilize the Kirkwood-Cohansey aquifer may be permitted only if it is demonstrated that:

1. No viable alternative water supply sources are available; or

2. The proposed use of the Kirkwood-Cohansey aquifer will not result in any adverse ecological impact on the Pinelands Area.]

(b) A diversion that involves the interbasin transfer of water *from sources within* [in*]* **the Pinelands Area between the Atlantic Basin and the Delaware Basin, as defined at (b)1 and 2 below, or outside of either basin, shall be prohibited.**

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

(c) (No change from proposal.)

(d) A new diversion or an increase in allocation from either a single existing diversion source or from combined existing *and new* diversion sources in the same HUC-11 watershed and in the Kirkwood-Cohansey aquifer, that results in a total diversion of 50,000 gallons of water per day or more (hereafter referred to as "proposed diversion") shall meet the criteria and standards set forth at (d)3 through 9 below. "Allocation" shall mean a diversion permitted pursuant to a Water Allocation Permit or Water Use Registration Number issued by the New Jersey Department of Environmental Protection pursuant to N.J.A.C. 7:19.

1. (No change from proposal.)

2. The standards set forth at (d)3 through 9 below shall not apply to:

i. A new well that is to replace an existing well, provided the existing well is sealed in accordance with N.J.A.C. 7:9-9*D-3* and the new replacement well will:

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

(4) Be located within 100 feet of, and in the same HUC-11 watershed as, the existing well; *[*or*]*

ii. Any *proposed* diversion that is exclusively for agricultural or horticultural use*; or [.]*

iii. Any proposed diversion for a resource extraction operation that constitutes a nonconsumptive use, provided the water returned to the source is not discharged to a stream or waterbody or otherwise results in offsite flow, and the diversion and return are located on the same parcel.

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

6. A proposed diversion shall be deemed to have an adverse regional impact if it, combined with all *current depletive-consumptive net use* *[*existing permitted allocations*]* in the same HUC-11 watershed, exceeds 20 percent of the stream low flow margin for the year of peak use. ***For this analysis, applicants shall use Appendix A of*** *[*established in*]* **the New Jersey Statewide Water Supply Plan at *https://www.state.nj.us/dep/watersupply/pdf/wsp-appendix-a.pdf*** *[*https://www.nj.gov/dep/watersupply/pdf/wsp.pdf*]* ***as amended and supplemented, and refer to*** *[*for*]* **the HUC-11 watershed where the proposed diversion will be located (hereafter referred to as "the affected HUC-11 watershed").** ***Applicants shall use the tables in Appendix A entitled "Summary of HUC11 area, Low Flow Margin and***

Remaining Water" and specifically, the values for the HUC-11 Low Flow Margin in the column labeled LFM(mgd) and the values for current depletive-consumptive net use in the column labeled "Current Net Dep-Con (mgd)".

i.-iii. (No change from proposal.)

7.-9. (No change from proposal.)

RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION

NO. PC4-23-__08____

TITLE: To Authorize the Executive Director to Propose Substantial Changes Upon Adoption to the Proposed Amendments to the Comprehensive Management Plan Related to Water Management in Accordance with the Administrative Procedure Act

Commissioner ____Pikolycky_____ moves and Commissioner ____Holroyd_____ seconds the motion that:

WHEREAS, on July 8, 2022, the Pinelands Commission adopted Resolution PC4-22-25, authorizing the proposal of Comprehensive Management Plan amendments that provide clearer, quantifiable standards for assessing the ecological impacts of nonagricultural diversions from the Kirkwood-Cohansey aquifer, introduce new, quantifiable standards to protect the available water supply in the watershed in which a diversion will be located, expand the scope of wells that will be subject to the new standards, limit new or increased diversions from the Kirkwood-Cohansey to appropriate Pinelands management areas and clarify and expand water conservation requirements; and

WHEREAS, the proposed amendments were thereafter submitted to the Office of Administrative Law and published in the New Jersey Register on September 6, 2022; and

WHEREAS, public comments on the proposed amendments were accepted at public hearings held on October 12, 2022 and November 2, 2022 and in writing through November 5, 2022; and

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

WHEREAS, after review of the public comments, the Executive Director identified the need for revisions to the proposed amendments, largely to recognize the nonconsumptive use of water by the resource extraction industry in the Pinelands Area; and

WHEREAS, the Executive Director therefore drafted proposed substantial and non-substantial changes to the proposed Comprehensive Management Plan amendments and discussed them with the Commission's CMP Policy and Implementation Committee on November 30, 2022; and

WHEREAS, the proposed substantial and non-substantial changes to the Comprehensive Management Plan amendments have been reviewed by the Pinelands Commission; and

WHEREAS, the Pinelands Commission wishes to formally consider the Notice of Proposed Substantial Changes Upon Adoption to the Proposed Amendments to the Comprehensive Management Plan set forth in the attachment hereto, dated January 4, 2023; and

WHEREAS, the Administrative Procedure Act of 1968, as amended, and the Office of Administrative Law implementing regulations set forth a detailed procedure governing proposed rulemaking; and

WHEREAS, the Pinelands Commission also wishes to obtain the comments of the public, governmental agencies and the Pinelands Municipal Council on the Notice of Proposed Substantial Changes Upon Adoption, in accordance with the Pinelands Protection Act and Subchapter 7 of the Comprehensive Management Plan; 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:

1. The Commission hereby authorizes the Executive Director to submit the Notice of Proposed Substantial Changes Upon Adoption to Proposed Amendments to the Comprehensive Management Plan, attached hereto and dated January 4, 2023, and the required supporting documentation to the Office of Administrative Law for publication in the New Jersey Register;

2. The Executive Director shall transmit the Notice of Proposed Substantial Changes Upon Adoption to all Pinelands municipalities and counties and the Pinelands Municipal Council for review;

3. The public comment period on the Notice of Substantial Changes Upon Adoption shall extend 60 days from the date of publication of the proposal in the *New Jersey Register* and the Acting Executive Director shall affix the date of a public hearing to receive comments on the proposal; and

4. Subsequent to the comment period, the Executive Director shall expeditiously prepare proposed final amendments, with any pertinent changes to these amendments, for review by the Commission's CMP Policy and Implementation Committee, and shall submit same to the Commission for final action.

Record of Commission Votes

	AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*		AYE	NAY	NP	A/R*
Asselta	X				Lettman			X		Pikolycky	X			
Avery	X				Lloyd	X				Wallner			X	
Christy	X				Lohbauer	X				Matos	X			
Holroyd	X				Mauriello	X								
Irick	X				Meade	X								

*A = Abstained / R = Recused

Adopted at a meeting of the Pinelands Commission Date: February 10, 2023

Susan R. Grogan
Executive Director

Laura E. Matos
Chair

From: William Layton <bill@clbnj.com>
Sent: Friday, November 4, 2022 5:32 PM
To: Comments, PC [PINELANDS] <comments@pinelands.nj.gov>
Subject: Public Comment Submissions

Below is the result of your feedback form. It was submitted by
William Layton (bill@clbnj.com) on Friday, November 4, 2022 at 17:32:30
---

email: bill@clbnj.com

subject: Public Comment Submissions

Name: William Layton

Affiliation: New Jersey Concrete and Aggregate Association

Mailing Address: 130 West State Street Trenton, NJ 08608

Comment Topic: selected=

Message: On behalf of the NJ Concrete & Aggregate Association, we have provided some points below expressing our concerns in response to Water Diversion Regulations proposed by the New Jersey Pinelands Commission, as they pertain to crucial material mining operations as well as projects constructed by the Department of Transportation.

- We have a concern about the regulations - as they would pertain to mining operations - being based on "diversion" or "withdrawal", which in the case of mining operations does not take into account replenishment via "closed loop" type water management systems at mining sites (where groundwater is inadvertently penetrated due to excavation, used for material processing, then returned almost undiminished back to the immediate excavated area (not a distance away, or to a wetland or stream in nearly all cases) where groundwater replenishment can occur. The industry has come to an agreement with the NJDEP (informally) that allows the use of a 10% total loss due to evaporation, possible thermal loss, and incorporation into material (much/most of which would drain back into the excavation anyway). This figure, the 10% of the total diversion, is what is reported to NJDEP as "water use", a far more meaningful number in the case of mining operations, rather than total diversion (which is the basis for NJDEP Water Allocation Permitting applicability, but not for diversion reporting, which the NJDEP considers more critical). This should be taken into account in these proposed regulations.

- Mining operations are primarily located in the more sensitive areas of the Pinelands, those where future proposed restrictions would essentially prohibit new or increased diversions. Water diversions in the Pinelands Area need both Pinelands Commission approval (as a Certificate or Filing or "COF") for the diversion, followed thereafter by a Water Allocation Permit ("WAP") issued by the NJDEP. While this has been a requirement, in practice this has not happened consistently in the past, resulting in a number of mining operations that may lack that "initial" COF for a water diversion from years ago, when the WAP was initially issued by NJDEP (and copied to the Pinelands Commission). As a result, there are a number of mining operations (exact number unknown) that lack that initial COF, but have had WAP from the NJDEP for years. It is the request of NJCAA and the mining industry that these currently permitted (WAP)

mining operations, regardless of which management area they may be located in, be "grandfathered" to the existing limits of their current, approved WAP permits issued by NJDEP. We recognize that any increases or new diversions would require an initial COF for water diversion from the Pinelands Commission followed by NJDEP WAP approval, in accordance with any regulations currently proposed which may ultimately be enacted as law. The timing of this issue is critical as if the Commission does not grandfather these facilities - and they are required at this time to retroactively seek a COF for diversions permitted by NJDEP years ago - applications for these diversions would be made almost immediately by any mining facility lacking that initial COF prior to the enactment of these newly proposed regulations, which might otherwise prohibit the issuance of said COF (even retroactively) due to their locations in the more sensitive areas of the Pinelands.

- To ensure a continuing, uninterrupted and economical supply of sand, gravel and crushed stone, it is necessary to identify and protect existing aggregate resources in the state. This is of vital importance, not only in areas where supplies may be limited, but also in high-demand areas where sources are abundant. New Jersey already faces a shortage in cement, stone, asphalt and ready-mix concrete products.

- Mining operations are already severely constrained as to future growth in those areas in which diversions would be prohibited (e.g., Preservation, Forest, Special Agricultural), which is where most mining operations are located. Additional diversion, without impact, would not further the growth of these industries, and in fact would likely serve to hasten their demise in those areas by allowing for faster material withdrawal and resource exhaustion.

- Like many others, this proposed regulation will continue to serve to hurt the aggregates industry, which the Pinelands Area, southern NJ, the entirety of NJ, and the general mid-Atlantic region is dependent upon for the material to make the concrete, asphalt and other building materials that our homes, roads, schools, hospitals, and more are constructed of.

It is our feeling, if adopted as currently written without clarification, the industry will have to cut production by 50%. This will lead to a huge shortage, only exacerbating the current shortage and will threaten the contractors in our state's ability to complete vital DOT projects such as bridges, highways and local roads. In addition to a lack of materials, the shortage from these regulations could mean a doubling in material price. Given the current inflationary environment we live in today, these regulations, as currently written, will threaten the New Jersey Department of Transportation's Capital Program.

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November 3, 2022

VIA EMAIL AND FEDEX OVERNIGHT
Susan R. Grogan, P.P., AICP
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Pinelands Commission
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Re: Written Comments of Clayton Companies on Pinelands Rule Proposal Set Forth at 54 N.J.R. 1668(a)

Dear Ms. Grogan:

This firm represents Clayton Companies ("Clayton"), which mines sand in the Pinelands Region. We write to comment on the Pinelands Commission's proposed rule concerning diversions of water in the Pinelands, *i.e.*, 54 N.J.R. 1668(a) (the "Proposed Rule" or the "Rule Proposal"). These written comments supplement the oral remarks made by this firm at the public hearing on October 12, 2022.

Clayton submits that the Proposed Rule is *ultra vires* and unlawful on multiple grounds:

First, the Legislature did not empower the Pinelands Commission to regulate water supply, particularly diversions and water allocations.

Second, the Pinelands Commission is preempted from regulating water supply. The Legislature granted that power to the New Jersey Department of Environmental Protection ("NJDEP," "DEP", or the "Department") in the Water Supply Management Act, N.J.S.A. 58:1A-1 *et seq.* (the "WSM Act"), and NJDEP promulgated comprehensive regulations in that domain.

Third, the Rule Proposal is contradicted not only by NJDEP's regulations, but also by higher legal authorities, *i.e.*, statutes and perhaps even the U.S. Constitution. The Proposed Rule sets a different gallon per day threshold than does the WSM Act, ignores statutory procedures for limiting or reducing diversion amounts and requiring use of alternative water sources, and potentially results in an unconstitutional taking of rights to expand mining operations without just compensation.

Finally, the Rule Proposal is overbroad, arbitrary, and unreasonable inasmuch as it has no rational nexus to the problems it purports to solve. It fails to distinguish between consumptive

and nonconsumptive diversions, imposes heavier restrictions on certain Pinelands Management Areas and uses without any justification, provides no evidence that aquifer levels will actually decrease to the levels it modeled in its studies, and fails to meaningfully consider economic impacts.

The Rule Proposal is therefore *ultra vires* and *void ab initio* and should be withdrawn.

I. THE RULE PROPOSAL IS *ULTRA VIRES* BECAUSE THE LEGISLATURE DID NOT EMPOWER THE PINELANDS COMMISSION TO REGULATE WATER SUPPLY.

The Rule Proposal seems to invoke P.L. 2001, c. 165 as its authority for the Rule Proposal. See 54 N.J.R. at 1668. However, that statute only authorizes the Pinelands Commission to prepare a report. It states:

> The Pinelands Commission shall . . . assess and prepare a report on the key hydrologic and ecological information necessary to determine how the current and future water supply needs within the pinelands area may be met while protecting the Kirkwood-Cohansey aquifer system and while avoiding any adverse ecological impact on the pinelands area.
>
> [P.L. 2001, c. 165.]

This language clearly does not authorize the Commission to promulgate regulations relating to water or anything else. Nor does the remainder of the statute.

The Pinelands Protection Act, N.J.S.A. 13:18A-1 *et seq.*, does not support the Rule Proposal either. The Act does not grant the Pinelands Commission any power to regulate diversions or allocations of water:

- The section of the Pinelands Protection Act enumerating the powers of the Pinelands Commission does not list any power to regulate water. N.J.S.A. 13:18A-6. The only mention of water in that section states that the Commission has the power merely to "prepare and transmit to the Commissioner of Environmental Protection such ***recommendations*** for water quality standards for surface and ground waters in the pinelands area, or in tributaries and watersheds thereof, as the commission deems appropriate." N.J.S.A. 13:18A-6i (emphasis added).

- The section of the Pinelands Protection Act granting the power to prepare the Pinelands Comprehensive Management Plan is also unsupportive. See N.J.S.A. 13:18A-8. Although it mentions water, it does not bestow any power to regulate diversions and allocations of water. It is primarily focused on regulation of land, which of course indirectly impacts water. See, *e.g.*, N.J.S.A. 13:18A-8d (authorizing the Pinelands Commission to prepare a "***land use*** capability map and a statement of policies for planning and managing the development and use ***of land*** in the pinelands area") (emphasis added). With regard to water, it only authorizes the Pinelands Commission to: (1) prepare a "resource assessment" that "[d]etermines the amount and type of human development and activity which the ecosystem of the pinelands area can sustain . . ., with special reference to ground

and surface water supply and quality," among other things, N.J.S.A. 13:18A-8a; and (2) to include in its "***land use*** capability map and comprehensive statement of policies for planning and managing the development and ***use of land***" certain "policies" for protection of land and water, N.J.S.A. 13:18A-8d.

- While the Pinelands Protection Act expressly authorizes the Pinelands Commission to help prepare a "plan to implement the provisions of the [Clean Water Act] and the [Safe Drinking Water Act]," it includes no such authorization for the Pinelands Commission to help implement the WSM Act, the statute that governs diversions and allocations of water. See N.J.S.A. 13:18A-8j. That is because the Legislature made NJDEP solely responsible for regulating diversions and allocations of water, as is explained below.

II. THE RULE PROPOSAL IS *ULTRA VIRES* BECAUSE THE PINELANDS COMMISSION IS PREEMPTED FROM REGULATING WATER SUPPLY.

Comparison of the Pinelands Commission's powers with NJDEP's powers shows that all authority to regulate diversions and water allocations lies with NJDEP and not the Commission:

The Appellate Division of the New Jersey Superior Court stated as follows about NJDEP's power to regulate in this domain:

> Under the [WSM Act], the ***NJDEP*** has the ***exclusive*** authority to "control, conserve, and manage the ***water supply*** of the State ***and the diversions*** of that water supply."
>
> [United Water New Jersey, Inc. v. Boro. of Hillsdale, 438 N.J. Super. 309, 319 (App. Div. 2014) (citing N.J.S.A. 58:1A-5) (emphasis added).]

Even a cursory review of the WSM Act illuminates why the Appellate Division reached that conclusion.

NJDEP POWERS

The legislative findings and declarations section of the WSM Act makes clear that water supply should be regulated by an entity with Statewide purview, not a regional body such as the Pinelands Commission. It asserts that the "water resources ***of the State*** are public assets ***of the State*** held in trust for its citizens and are essential to the health, safety, economic welfare, recreational and aesthetic enjoyment, and general welfare, ***of the people of New Jersey***." N.J.S.A. 58:1A-2 (emphasis added). The "ownership of these assets is ***in the State*** as trustee ***of the people***." Ibid. (emphasis added). "[B]ecause some areas within the State do not have enough water to meet their current needs and provide an adequate margin of safety, the water resources of the State . . . must be planned for and managed ***as a common resource*** from which

the requirements of the ***several regions and localities in the State*** shall be met." Ibid. (emphasis added).

The WSM Act is unequivocal as to what entity with Statewide purview is charged with regulating the State's water supply:

> [T]o ensure an adequate supply and quality of water for citizens of the State . . . and to protect the natural environment of the waterways of the State, it is necessary that the State, ***through its Department of Environmental Protection***, have the power to manage the water supply by adopting a ***uniform*** water diversion permit system and fee schedule, a monitoring, inspection and enforcement program, a program to study and manage the State's water sources and plan for emergencies and future water needs, and regulations to manage the waters of the State during water supply and water quality emergencies.
>
> [N.J.S.A. 58:1A-2 (emphasis added).]

The WSM Act thus provides:

> The ***commissioner [of NJDEP[1]]*** shall have the power to adopt, enforce, amend or repeal . . . rules and regulations to ***control, conserve, and manage*** the ***water supply*** of the State ***and the diversions*** of that water supply to assure the citizens of the State an adequate supply of water under a variety of conditions and to carry out the intent of this act. These rules and regulations may apply ***throughout the State or in any region thereof*** and shall provide for the ***allocation*** or the ***reallocation*** of the waters of the State . . . .
>
> [N.J.S.A. 58:1A-5.]

Moreover:

- The "department [of Environmental Protection[2]]," not the Pinelands Commission, is empowered by the WSM Act to "[e]valuate and determine the adequacy of ground and surface water supplies and develop methods to protect aquifer recharge areas." N.J.S.A. 58:1A-15m (emphasis added).

- The "commissioner" of NJDEP, not the Pinelands Commission, is empowered to set "[s]tandards and procedures to be followed to maintain the minimum water levels and flow necessary to provide adequate water quality and quality." N.J.S.A. 58:1A-5e.

[1] See N.J.S.A. 58:1A-3 (defining "commissioner" as the "Commissioner of the Department of Environmental Protection").

[2] See N.J.S.A. 58:1A-3 (defining "department" as the "Department of Environmental Protection").

- The "commissioner" of NJDEP, not the Pinelands Commission, is empowered to institute a "permit system to allocate or reallocate any or all of the waters of the State, which system shall provide for the issuance of permits to diverters of more than 100,000 gallons per day[3] of the waters of the State." N.J.S.A. 58:1A-5a; see also N.J.S.A. 58:1A-6a(3) ("The ***department [of Environmental Protection]*** in developing the permit system . . . shall . .. . [r]equire any person diverting more than 100,000 gallons per day of any waters of the State . . . to obtain a diversion permit.") (emphasis added);

- NJDEP (through its permits), not the Pinelands Commission, shall "[f]ix[] the maximum allowable diversion" and "[identify[] and limit[] the use or uses to which the water may be put"). N.J.S.A. 58:1A-8b & -8c.

- The "commissioner" of NJDEP, not the Pinelands Commission, is empowered promulgate "[s]tandards and procedures to be followed by diverters to ensure that . . . [NJDEP] is provided with adequate and accurate reports regarding the diversion and use of water." N.J.S.A. 58:1A-5b(4); see also N.J.S.A. 58:1A-5c (stating the "commissioner" of NJDEP rules may also set "monitoring" and "reporting procedures").

- The "commissioner" of NJDEP, not the Pinelands Commission, is empowered to set "[s]tandards and procedures to be followed to determine the location, extent and quality of the water resources of the State ***and plan for their future use*** to meet the needs of the citizens of the State." N.J.S.A. 58:1A-5d (emphasis added). Similarly, the "department" of Environmental Protection, not Pinelands, is tasked with preparing, adopting, and maintaining the New Jersey Statewide Water Supply Plan. N.J.S.A. 58:1A-13a. That Plan "shall" touch on "***maintenance and protection of watershed areas***" and "[r]ecommendations for administrative actions to ensure the ***protection of ground and surface water quality and water supply sources***." N.J.S.A. 58:1A-13b(5) and -13b(7) (emphasis added). Notably, the Legislature required NJDEP to "consult with the Highlands Water Protection and Planning Council" before the "adoption of any revision to the New Jersey Statewide Water Supply Plan" concerning possible effects on the Highlands region. N.J.S.A. 58:1A-13d. By contrast, the Legislature did not include any such provision requiring consultation with the Pinelands Commission for revisions impacting the Pinelands Region. See ibid.

- The "commissioner" of NJDEP, not the Pinelands Commission, is empowered to "[p]erform any and all acts and issue such orders as are necessary to carry out the purposes and requirements of [the WSM Act]," N.J.S.A. 58:1A-15a, and to "[a]dminister and enforce the provisions of [the WSM Act] and rules, regulations and orders adopted, issued or effective thereunder," N.J.S.A. 58:1A-15b.

[3] This figure, which clashes with the threshold set by the Proposed Rule, is discussed further below.

Even a crisis of the type proclaimed by the Rule Proposal does not detract from NJDEP's sole power in this domain. The WSM Act states:

> In exercising the water supply management and planning functions . . ., particularly in a region of the State where excessive water usage or diversion present undue stress, or wherein conditions pose a significant threat to long-term integrity of a water supply source, including a diminution of surface water supply due to excess groundwater diversion, the ***commissioner [of NJDEP]*** shall . . . designate that region as an area of critical water supply concern.
>
> [N.J.S.A. 58:1A-6b (emphasis added).]

After such a designation, NJDEP "***in consultation with . . . local governing bodies*** . . . shall," among other things, "select and adopt appropriate water supply alternatives." N.J.S.A. 58:1A-6c(4) (emphasis added). Clearly, this language puts NJDEP in the primary position of power and limits local governing bodies such as the Pinelands Commission to merely being consulted. Only NJDEP can "revise the designation and impose further restrictions" if it determines "that the alternatives selected are not effective." N.J.S.A. 58:1A-6d.

NJDEP REGULATIONS

Not only is NJDEP authorized to regulate these matters, but it has actually promulgated relevant regulations at N.J.A.C. 7:19-1.1 *et seq*. Those regulations describe themselves as "***governing the establishment of privileges to divert water, the management of water quantity and quality***, the issuance of permits, and the handling of drought warnings, water emergencies and water quality emergencies." N.J.A.C. 7:19-1.1a (emphasis added). The NJDEP regulations thus "prescribe[] the application, review, notification and hearing procedures for establishing those [diversion] privileges," N.J.A.C. 7:19-1.1(a), and "establish[] the procedures for . . . areas of critical water supply concern . . . and water emergency allocation," N.J.A.C. 7:19-1.1(b).

Consistent with the WSM Act, the NJDEP regulations set the de fault threshold for regulated diversions at 100,000 gallons per day. See N.J.A.C. 7:19-1.10 ("No person shall divert water either from a single diversion source or from combined diversion sources at a rate in excess of 100,000 gallons of water per day without obtaining a Water Supply Allocation Permit or a Temporary Dewatering Permit, a Water Use Registration, or complying with the requirements for a Short Term Water Use Permit-by-Rule or Dewatering Permit-by-Rule in accordance with this chapter or a water usage certification in accordance with N.J.A.C. 7:20A."); N.J.A.C. 7:19-1.7(a) ("Any person presently diverting or claiming the right to divert more than 100,000 gallons of water per day and who does not hold a valid permit is subject to penalties provided for under N.J.A.C. 7:19-1.8 and shall apply for a permit immediately.").

The NJDEP regulations also "prescribe[] the procedures which shall be followed by applicants when applying for . . . water supply allocation permits . . . ." N.J.A.C. 7:19-2.1 & -2.2; see also United Water N.J. Inc., supra, 438 N.J. Super. at 320 (stating NJDEP "has adopted comprehensive regulations governing the water supply, which include a detailed application process for water supply allocation or diversion in the public interest," and citing N.J.A.C. 7:19-

2.2 as an example). These procedures include requirements for specific reports that must be provided. See, *e.g.*, N.J.A.C. 7:19-2.2(d) ("The applicant for the diversion of surface water shall provide information on the watershed, including . . . [among other things] [a] comprehensive hydrological evaluation of the proposed diversion . . . .").

Moreover, the NJDEP regulations set standards for who may obtain a permit to divert. See, *e.g.*, N.J.A.C. 7:19-2.2(f) & (g). These standards require the applicant to demonstrate, among other things, "[t]hat the diversion shall not exceed the natural replenishment or safe yield of the water resources or threat to exhaust such waters," and "[t]hat the plans for the proposed diversion are just and equitable to the other water users affected thereby, and that the withdrawal does not adversely affect other existing withdrawals, either ground or surface." N.J.A.C. 7:19-2.2(f). The applicant must also "substantiate[] the need for the proposed allocation and support[] the designated choice of water resource for the allocation." N.J.A.C. 7:19-2.2(g). The application will be denied if the applicant fails to establish any of the various items at N.J.A.C. 7:19-2.2(f) & (g), or if NJDEP "determines that a more viable alternative source of water is available, or if the proposed diversion is not in accordance with the New Jersey Statewide Water Supply Plan." N.J.A.C. 7:19-2.2(h). These regulations apply to increased diversions as well as new diversions. N.J.A.C. 7:19-2.2(c) ("An applicant whose application includes a new well, an increase in diversion capacity, and/or an increase in monthly or yearly allocation shall conduct a hydrogeologic test . . . .").

Similarly, those who already have a permit must continually meet certain standards and requirements. See, *e.g.*, N.J.A.C. 7:19-2.14. These include, among other things, a maximum allowable diversion and a requirement that the "permittee is responsible for mitigating adverse impacts on ground or surface waters or the users thereof caused as a direct result of their diversion." See, *e.g.*, N.J.A.C. 7:19-2.14(a)2 & 11. It also includes reporting requirements. See, *e.g.*, N.J.A.C. 7:19-2.14(a)3 (requiring "[t]hat the monthly diversion amount be reported on a quarterly basis on forms provided by the Department") & -2.14(a)7 (requiring "[t]hat the static water levels for ground water sources be determined and reported on the quarterly diversion"). The NJDEP regulations additionally address fee calculations for water allocation permits. See N.J.A.C. 7:19-3.1.

Perhaps most importantly, the NJDEP regulations institute a system, and criteria, for identifying and protecting aquifers that have reached dangerously low water levels. For example:

> The Commissioner [of NJDEP] shall, after notice and public hearing, designate as areas of critical water supply concern those areas in which the Department determines that adverse conditions exist, related to the ground or surface water, such that special measures are required to ensure the integrity and viability of the water supply source and to protect the public health, safety or welfare. The Department shall demonstrate that the designation is warranted through the use of a water supply availability study.
>
> [N.J.A.C. 7:19-8.2(a).]

In such areas of critical water supply concern, N.J.A.C. 7:19-8.3(a) indicates that NJDEP shall:

1. Study water supply availability;

2. Estimate future water supply needs;

3. Identify appropriate and reasonable alternative water supply management strategies, including, but not limited to:

    i. Water conservation;

    ii. Substitution of alternative water sources;

    iii. Participation in a Department approved regional water supply project;

    iv. Transfer of diversion rights;

    v. Artificial recharge of diversion sources; and

    vi. Substitution of water supply from a noncritical aquifer; and

4. Select and adopt water supply alternatives after notice and public hearing.

NJDEP "will not issue new or increased diversions from affected aquifers within an area of critical water supply concern," with limited exceptions. N.J.A.C. 7:19-8.3(i). In such areas, NJDEP can also "[modify the conditions of an existing water supply allocation permit or water usage certification in order to limit or reduce the quantity of water which may be diverted" and "[r]equire the permittee to use alternate sources of water." N.J.A.C. 7:19-8.3(c). NJDEP apparently considers the following to be "additional controls and requirements" for use in areas of critical water supply concern in certain, but not all, circumstances: "metering, additional reporting requirements, restrictions of inter-basin diversions of water for water supply or wastewater discharge, restriction of consumptive uses and water quality testing of wells." See N.J.A.C. 7:19-8.2(d). And the "Commissioner [of NJDEP] . . . may impose such additional restrictions and requirements during a water emergency [as] he deems necessary to alleviate the water emergency." N.J.A.C. 7:19-10.1.

Simply put, there is no need for the Proposed Rule given NJDEP's comprehensive regulatory scheme. The Proposed Rule actually interferes with and unnecessarily complicates NJDEP's regulation of water allocations and diversions. For example, whereas NJDEP has an elaborate process for restricting diversions in areas it designates as being of critical water supply concern, the Proposed Rule simply ignores that procedure, confounding the whole system. (See more on this topic below.)

Accordingly, the Pinelands Commission is preempted from regulating diversions and water allocations. As the Appellate Division explained:

> The NJDEP has adopted ***comprehensive*** regulations governing the water supply, which include a detailed application for water supply allocation ***or diversion*** in the public interest. See, *e.g.*, N.J.A.C. 7:19-2.2(a) to (f). Decisions as to the allocation ***and diversion of water*** . . . are conferred upon the ***NJDEP*** by the [WSM Act], and the NJDEP's ***pervasive*** authority in this area ***precludes*** local regulation . . . .."
>
> [United Water N.J., Inc., supra, 438 N.J. Super. at 320 (emphasis added).]

See also Tp. of Montville v. Lotta Lettuce J.T.S. Farms LLC, Docket No. A-6036-10T3, 2013 N.J. Super. Unpub. LEXIS 1424 (App. Div. 2013) ("Statewide legislation and DEP implementing regulations regarding water supply . . ., well construction . . ., and agricultural activities and water usage . . . together evince a clear intention to preempt local legislation . . . ."). The "confluence of the State's stewardship of the water supply, comprehensive oversight of well construction, and protection of farming activities demonstrably bespeak the need for a ***one-voice*** approach." Id. at 24. The one voice is NJDEP's voice, and there is no room for the Pineland's Commission's Rule Proposal.

III. THE RULE PROPOSAL IS *ULTRA VIRES* BECAUSE IT IS CONTRADICTED BY HIGHER LEGAL AUTHORITY.

Even if the Pinelands Commission had authority to regulate here (and it does not), its Proposed Rule actually clashes with the requirements of the Legislature. It might also be unconstitutional.

THE GALLONS PER DAY THRESHOLD

As is mentioned above, the WSM Act calls for the commissioner of NJDEP to institute a "permit system to allocate or reallocation any or all of the waters of the State,"

> which system shall provide for the issuance of permits to diverters of ***more than 100,000 gallons per day*** of the waters of the State.
>
> [N.J.S.A. 58:1A-5a (emphasis added).]

That ***100,000 GPD*** threshold is repeated multiple times in the WSM Act. For instance:

- "The department [of Environmental Protection] in developing the permit system . . . shall . . . [r]equire any person diverting more than ***100,000 gallons per day*** of any waters of the State . . . to obtain a diversion permit." N.J.S.A. 58:1A-6a(3) (emphasis added).

- "A person shall not divert more than ***100,000 gallons per day*** of any waters of the State . . . unless the person obtains a diversion permit or water usage certification, as appropriate, pursuant to [N.J.S.A. 58:1A-6]." N.J.S.A. 58:1A-7a (emphasis added).

This statutory authority directly contradicts the Proposed Rule. The Proposed Rule purports, without authority, to regulate diversions of half that 100,000 GPD figure (*i.e.*, 50,000

GPD), not to mention that it adds new diversion restrictions not contemplated by the statute or by NJDEP. See Rule Proposal at proposed N.J.A.C. 7:50-6.86(d).

The Legislature could have set a 50,000 GPD threshold for the Pinelands, but it chose not to do so. In fact, the Legislature did set a 50,000 GPD threshold for the Highlands Region, but did not do so for the Pinelands, stating in the WSM Act that NJDEP:

> shall establish a permit system to provide for review of allocation or reallocations, for other than agricultural or horticultural purposes, ***of waters of the Highlands*** . . . to provide for the issuance of permits for diversions either individually or cumulatively of more than ***50,000 gallons per day*** of waters ***of the Highlands in the Highlands preservation area***.
>
> [N.J.S.A. 58:1A-5.1 (emphasis added).]

PROCEDURE FOR LIMITING OR REDUCING DIVERSION AMOUNTS AND REQUIRING USE OF ALTERNATIVE SOURCES OF WATER

The Proposed Rule also contradicts the section of the WSM Act that states diversion permits "shall" include a provision:

> [p]ermitting the department [of Environmental Protection] to modify the conditions of a diversion permit issued . . . ***in a designated area of critical water supply concern*** in order to (1) limit or reduce the quantity of water which lawfully may be diverted to the safe or dependable yield of the resource; (2) transfer the point of diversion; or (3) require a permittee to utilize alternate sources of water, upon a determination that the existing diversion or continued use of the same source in excess of the safe or dependable yield, as the case may be, adversely impacts or threatens to adversely impact the water resources of the State.
>
> [N.J.S.A. 58:1A-8j.]

There is a process for designating a region as an "area of critical water supply concern"; such a designation cannot simply be declared. See N.J.S.A. 58:1A-6b; see also N.J.A.C. 7:19-8. Even in a designated area of critical water supply concern, such requirements for reduction and use of alternative sources are limited by N.J.S.A. 58:1A-7.3.

Despite the above, the Proposed Rule purports to limit or reduce the quantity of water that may be diverted and to require a permittee to utilize alternate sources of water without requiring that the area in question be a designated area of critical water supply concern. For example, proposed N.J.A.C. 7:50-6.86(d)3 limits diversions to specific areas without the need for prior designation of those areas as areas of critical water supply concern. Yet there is no statutory support for imposing restrictions in some areas and not others absent an NJDEP designation of an area as a critical water supply concern, defined in the NJDEP regulations as a "region of the State where excessive water usage or diversion presents undue stress, or wherein conditions pose a significant threat to the long-term integrity of a water supply source, including a diminution

of surface water due to excess groundwater diversion." N.J.A.C. 7:19-1.3.[4] Similarly, without any limitation to designated areas of critical water supply concern, proposed N.J.A.C. 7:50-6.86(d)4 prohibits a proposed diversion unless the "applicant demonstrates that no alternative water supply source is available or viable."[5]

INTERBASIN TRANSFERS

And whereas the Proposed Rule tries to regulate "interbasin" transfers of water, see proposed N.J.A.C. 7:50-6.86(b), the Legislature has already accounted for the transfer of Pinelands water:

> "The provisions of any law, rule or regulation to the contrary notwithstanding, no person shall transport, or cause to be transported, more than 10 miles outside the boundary of the Pinelands National reserve, any ground or surface water therefrom . . . ."
>
> [N.J.S.A. 58:1A-7.1.]

The most the Pinelands Protection Act has to say on the matter is that "[n]othing in this act shall be construed to authorize or permit the exportation of any ground or surface waters from the pinelands area." N.J.S.A. 13:18A-25a. In short, the Rule Proposal's prohibition on water transfers goes far beyond the regulation contemplated by the Legislature.

UNCONSTITUTIONAL TAKING WITHOUT JUST COMPENSATION

Finally, the Proposed Rule is tantamount to a taking of sand mines' property rights without just compensation in violation of the 5th Amendment to the United States Constitution. Mining

[4] N.J.A.C. 7:19-1.3 also defines "water supply critical aquifer" as an "aquifer within an area of critical water supply concern where there may be either insufficient water supply, shortage of ground water by overdraft, threat of salt water intrusion or contamination, or where other circumstances exist requiring the Department to impose special water supply management provisions by rule under N.J.A.C. 7:19-8."

[5] The Proposed Rule also contradicts the section of the WSM Act that states: "Every diversion permit issued . . . shall be renewed by [NJDEP] upon the expiration thereof, with any conditions deemed appropriate by [NJDEP], except that the [NJDEP] may, ***after notice and public hearing***, limit the quantity to the amount currently diverted, subject to contract, or reasonably required for a demonstrated future need." N.J.S.A. 58:1A-7b (emphasis added); see also N.J.A.C. 7:19-2.5(d) ("The Department will issue a permit renewal, with any conditions deemed appropriate by the Department, for the same allocation, except that the Department may, after notice and public hearing, if requested by the applicant, pursuant to N.J.A.C. 7:19-2.7 through 2.11, reduce the allocation to that quantity currently diverted, subject to contract, or reasonably required for a demonstrated future need."). Ignoring this statutory provision, the Proposed Rule purports to prohibit increases in diversion volume in certain regions of the Pinelands, as is mentioned above, without prior notice and public hearing. See Proposed Rule at proposed N.J.A.C. 7:50-6.86(d)3; see also 54 N.J.R. at 1670 ("[T]he Commission is proposing to limit new ***or increased*** diversions from the Kirkwood-Cohansey aquifer to the following Pinelands Management Areas . . . .") and at 1674 ("[T]he Commission is proposing to limit new ***or increased*** diversions from the Kirkwood-Cohansey aquifer to the Agricultural Production Area and the following growth-oriented Pinelands Management Areas . . . .") (emphasis added).

permits include certain rights to continued expansion of mining operations. If increased diversions are prohibited by the Proposed Rule, the Pinelands Commission will be negating those rights.

For all of these reasons, the Rule Proposal is contradicted by higher law and cannot stand.

IV. THE RULE PROPOSAL IS *ULTRA VIRES* BECAUSE IT IS OVERBROAD, ARBITRARY, AND UNREASONABLE

The Proposed Rule is also *ultra vires* because it is overbroad, arbitrary, and unreasonable inasmuch as its requirements have no rational nexus to the problems they purport to solve. This problem is discussed at length in the attached expert report prepared by Brian Blum, CPG, LSRP of Langan and dated November 2, 2022 (the "Expert Report").

LACK OF DISTINCTION BETWEEN CONSUMPTIVE AND NONCONSUMPTIVE DIVERSIONS

The Proposed Rule's most glaring flaw is its failure to distinguish between "consumptive" diversions and "nonconsumptive" diversions, as is explained in the Expert Report. In the WSM Act, the Legislature explained this distinction by defining "nonconsumptive use" as:

> The use of water diverted from surface or ground waters in such a manner that it returned to the surface or ground water at or near the point from which it was taken without substantial diminution in quantity or substantial impairment of quality.
>
> [N.J.S.A. 58:1A-3e.]

By contrast, "consumptive use" is defined as "any use of water diverted from surface or ground waters other than a nonconsumptive use." N.J.S.A. 58:1A-3e.

Even though the professed, overarching purpose of the Proposed Rule is "to better protect the aquifer," 54 N.J.R. at 1668, "there is no distinction or recognition in the New Rule between the diversion of water that is consumed or depleted versus water that is returned in an un-depleted manner." Expert Report at 2. As a result, sand mining operations (recognized by NJDEP as returning 95 percent or more of their diversions back to the water source, see Expert Report at 2, and not addressed at all in the Kirkwood-Cohansey Project studies)[6] are regulated as much as uses that return 0 percent of their diversions back to the water source. Imposing such a disproportionate regulatory burden on nonconsumptive diversions does not accomplish the purpose of protecting the aquifer, and none of the studies in the Kirkwood-Cohansey Project

[6] "There are no documented ecological impacts associated with water diversions for hydraulic dredging from manmade ponds as the water is returned to the water table in an undiminished manner. Therefore, mining operations do not affect water levels, stream flow, or the ecological environment." Expert Report at 3-4. See also N.J.A.C. 7:19-2.2(i). That section explicitly exempts "[s]and and gravel mining," along with other diversions of "[w]ater which is returned to its source without a substantial diminution in quantity," from the requirement that water allocation permit applicants submit to NJDEP a Water Conservation and Drought Management Plan. Ibid. N.J.A.C. 7:19-2.2(i) is thus another acknowledgement from NJDEP that sand mining is nonconsumptive and does not impair aquifer water levels.

provide any evidence to the contrary. See Expert Report at 1, 3. That imposition thus is overbroad, arbitrary, unreasonable, and *ultra vires*.

DISPARATE TREATMENT OF DIFFERENT PINELANDS MANAGEMENT AREAS AND USES WITHOUT JUSTIFICATION

The Proposed Rule is also overbroad, arbitrary, and unreasonable because it prohibits new and increased diversions in some Pinelands Management Areas and not others without any regard to relative impact on the aquifer. "Nothing in the Pinelands Studies supports the absolute prohibition of new or increased diversions in the Forest and Preservation Areas while imposing no such prohibition in other areas." Expert Report at 3. This apparent oversight leads to the incongruous result that new or increased sand mine diversions are absolutely prohibited in the Preservation Area (where virtually no development is allowed anyway, and only limited diversions are occurring) even if completely nonconsumptive, while agricultural diversions, which tend to be highly consumptive, are encouraged in the Agricultural Production Areas. See Expert Report at 3. In other words, without any supporting evidence, the Proposed Rules actually results, in some cases, in consumptive uses being regulated less than nonconsumptive uses simply because of geography.[7] Such a result does not further the professed regulatory goal of protecting the aquifer and is thus overbroad, arbitrary, unreasonable and *ultra vires*.

LACK OF EVIDENCE THAT AQUIFER LEVELS WILL DECREASE TO THE MODELED LEVELS

Even the premise on which the Proposed Rule is based is hollow. To demonstrate the need for additional protection of the aquifer, the Pinelands Commission relied on studies (the Kirkwood-Cohansey Project) that "simulated or modeled reductions in stream flow of up to 30 percent, lowering of groundwater levels by up to 6-inches (15 cm), or pumping withdrawal rates at upwards of 30 percent of the ground water recharge." Expert Report at 3. However:

> ***These studies present no evidence that existing groundwater levels in the Pinelands will be reduced to the extent simulated by models***. The Kirkwood-Cohansey Project studies have not established a nexus to actual hydrological impacts from the presumed diversions.
>
> [Expert Report at 3 (emphasis added).]

In other words, the basis for increased regulation is speculative, and certainly does not justify the dramatic regulatory steps that the Pinelands Commission is proposing. Nothing could be more arbitrary and unreasonable.

[7] This possibility is not hypothetical. Clayton actually has nonconsumptive sand mine operations in the Preservation Area that the Proposed Rule, as currently drafted, would prohibit from implementing new or increased diversions. Expert Report at 3, Figure 1. Meanwhile, highly consumptive agricultural uses are able to continue obtaining and increasing diversions in the Agricultural Production Areas, which depletes the aquifer.

LACK OF ECONOMIC CONSIDERATIONS

Similarly, the Proposed Rule is based entirely on studies of ecological impacts without any consideration of economic impacts. The statute that the Pinelands Commissions invokes as its authority for the Proposed Rule (which, as is explained above, authorizes only studies, not regulation) directs the Pinelands Commission to:

> assess and prepare a report on the key hydrologic and ecological information necessary to determine ***how the current and future water supply needs within the pinelands area may be met*** while protecting the Kirkwood-Cohansey aquifer system and while avoiding any adverse ecological impact on the pinelands area.
>
> [P.L. 2001, c. 165 § 1 (emphasis added).

This accounting for "water supply needs" is consistent with the Pinelands Protection Act itself, which requires the Pinelands' Commission's Comprehensive Management Plan to "[r]ecognize existing economic activities within the area and provide for the protection and enhancement of . . . ***those indigenous industries and commercial and residential developments which are consistent with such purposes and provisions***." N.J.S.A. 13:18A-8(d)(3) (emphasis added); see also N.J.S.A. 13:18A-56 (expressing concern about the "Pinelands comprehensive management plan and its accompanying land use regulations plac[ing] a number of restrictions on opportunities for economic development"); N.J.S.A. 13:18A-5b ("The membership of the entire commission shall include residents of the pinelands area who represent ***economic activities***, such as agriculture, in the area . . . .") (emphasis added). It is also consistent with the WSM Act, which declares that the "water resources of the State are . . . essential to the . . . ***economic welfare*** . . . of the people of New Jersey," among other things. N.J.S.A. 58:1A-2 (emphasis added). Nevertheless, the Commission chose to focus on the ecological aspect of its directives and completely ignored "water supply needs" and economic concerns.

The Rule Proposal itself (in its "Summary" section) describes the "series of studies that resulted from this law" accordingly: "The [Kirkwood-Cohansey] Project addressed two major questions: (1) hydrologic effects of groundwater diversions from the Kirkwood-Cohansey aquifer on stream flows and wetland water levels; and (2) the ecological effects of stream flow and groundwater-level changes on aquatic and wetland communities." 54 N.J.R. at 1668. Notably absent from those two major questions is the question of "how the current and future water supply needs within the pinelands area may be met." See ibid. Even the "Economic Impact" section of the Rule Proposal fails to address how the "water supply needs within the pinelands area" can/will be met. See id. at 1673

Apparently cognizant of the above shortcoming, the Pinelands Commission tries to make up for it in way that is not meaningful. It claims in the Rule Proposal that the Proposed Rule "ensur[es] a sufficient water supply for development in the more growth-oriented areas of the Pinelands Area." 54 N.J.R. at 1668. Specifically, while new and increased diversions are prohibited in certain Pinelands Management Areas, new and increased diversions are still permissible in other Pinelands Management Areas, subject to the Proposed Rule's new restrictions on diversions. See proposed N.J.A.C. 7:50-6.86(d)3.

However, the Rule Proposal does not mention any study supporting its conclusory statement that it has ensured a sufficient water supply for development in the more growth-oriented areas of the Pinelands Area. And it simply ignores whether there is a sufficient water supply for uses in the non-growth-oriented areas of the Pinelands. Further, the Proposed Rule totally ignores the economic impact from the loss of sand resources necessary for public and private construction projects which will occur if future sand mining is prohibited.

The Rule Proposal also fails to appreciate the distinction between securing water supply and meeting water supply needs. For purposes of "water supply needs," it does not matter if high water levels are maintained in the aquifer if no one can use the water—whether because of increased regulatory costs or outright prohibition. Unsurprisingly, the Pinelands Commission's failure to study how water supply needs could be met resulted in water supply needs being omitted from the Rule Proposal.

In short, the Proposed Rule is overbroad, arbitrary, and unreasonable.

CONCLUSION

For the reasons listed above, the Proposed Rule is *ultra vires* and should be withdrawn.

Respectfully submitted,

/s/Kevin J. Coakley

Kevin J. Coakley

Enclosure
cc: William Layton
Robert Baranowski, Esq.
William Clayton
Gordon Milnes, P.E.
Brian Blum, C,P.G., LSRP
William J. Castner, Esq.
Ryan A. Benson, Esq.

2 November 2022

Via email: planning@pinelands.nj.gov

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

Re: Pinelands Comprehensive Management Plan
Proposed Amendments – N.J.A.C. 7:50-1-6, 2.11, and 6.86
Langan Project No. 101022401

Dear Ms. Grogan:

I am employed by Langan Engineering and Environmental Services, Inc. On behalf of the Clayton Companies of Wall Township, New Jersey ("Clayton"), I have reviewed the above-referenced Proposed Amendments (referred to herein as the "New Rule") and have provided these comments challenging the propriety of the same. A copy of my C.V. is attached. As set forth therein, I have extensive experience with water diversion permits in New Jersey. In preparation for this assignment I visited the Clayton mine known as the Woodmansie mine in Woodland Township on October 10, 2022. I was able to freely and fully inspect mine operations.

Clayton mines sand from the Kirkwood-Cohansey Formation ("Kirwood-Cohansey") at four (4) locations in the following Townships within the Pinelands Area: Woodland, Jackson, and Lacey. While my observations herein apply to the Clayton mines, they also likely apply to all sand mines that utilize hydraulic dredging to mine sand.

The New Rule is inappropriately punitive with respect to diversions of groundwater that are associated with non-consumptive uses that are common to mines. The New Rule will severely impact Clayton's mining operations that rely on the diversion of water from the Kirkwood-Cohansey aquifer utilizing mechanical/hydraulic dredging procedures. Based on my review of the New Rule and the series of studies performed by the Pinelands Commission and known as the so-called "Kirkwood-Cohansey Project", I believe there is no demonstrated nexus between Clayton's diversion of water and the stream, wetlands, or ecological health of the Pinelands. The Proposed Amendments are broad and sweeping and will place an unsupported burden on Clayton's future operations without any empirical evidence to suggest that their permitted undiminished diversion and use of water will have a direct or material impact on the Pinelands environment. We recommend that the proposed New Rule be withdrawn or at minimum, that Clayton's mining operations be exempt from the New Rule or "grandfathered" so that future mining operations are not in any way affected by the New Rule or limited when water allocation permit renewals or permit modifications are put forth by Clayton in the future. In short, the New Rule is simply not justified as related to mine operations such as those operated by Clayton.

Background

Clayton has been mining sand from the Pinelands since the 1990s. Clayton's mining operations rely upon mechanical sand excavation to the water table to create a manmade pond and then utilizes the more energy efficient process of mechanical/hydraulic dredging. The dredge operation consists of mechanically cutting sand at the base of the manmade pond while simultaneously pumping (i.e., hydraulic or suction dredging) water with entrained sand through an approximate 18-inch diameter plastic pipe to a processing plant. At the processing plant, the sand is screened and sorted while the water diverted from the pond to extract the sand is returned to the pond in an undiminished or non-altered manner via pipes and overland flow. The water diverted from the pond acts only to entrain and transport the sand that is pumped during the dredging process. Water diverted from the pond, pursuant to existing permits from the NJDEP's Bureau of Water Allocation and Well Permitting, is not consumed with the exception of the potential for minimal evaporative loses.

Currently the NJDEP considers consumptive water use for sand mining as having an "undiminished return" of less than 10 percent consumptive, and "The New Jersey Water Supply Plan 2017-2022" (NJDEP, 2017) ("Water Supply Plan") is based on a 5% consumptive use rate for mining activities. In other words, the State Water Supply Plan assumes that 95% of water "diverted" for mining operations is returned to the water table in the same quantity and quality it was when diverted. Neither the New Rule nor any Pinelands' study supportive of the New Rule makes any mention of the findings of the Water Supply Plan. This assigned rate of 5% for mining is broad and not specific to Clayton's hydraulic dredging operation.

We understand the New Rule is focused on water withdrawals or "diversions" from the Kirkwood-Cohansey because of the potential to impact the character of the Pinelands environment. However, the New Rule fails to distinguish between the effects of "diversion" versus "consumptive use" of groundwater. The Water Supply Plan 2017-2022 (NJDEP 2017) establishes that "total withdrawal and total use can be somewhat misleading when it comes to hydrologic impacts, because not all water use results in a consumptive or depletive loss to the basin". The New Rule fails to recognize this distinction.

Additional Comments to the Proposed New Rule

The following additional comments are related to specific aspects of the New Rule for your consideration:

- (i) Consumptive Versus Non-Consumptive Use – the New Rule cites the multiple studies of the Kirkwood-Cohansey Project that were undertaken to document the potential for environmental/ecological impacts based on modelling scenarios that incorporate diversions of groundwater that might result in a direct imbalance to the water/hydrologic budget. Yet there is no distinction or recognition in the New Rule between the diversion of water that is consumed or depleted versus water that is returned in an un-depleted manner. Clayton's diversion of water has little, if any, impact of the water budget because the water is returned in an un-diminished manner.

The threats to ecological sustainability as presented in the Kirkwood-Cohansey Project studies relied on by the Pinelands Commission are based upon modelled scenarios of increased groundwater withdrawals that result in depletion of water and the associated lowering of water levels that result in stream flow reduction. While theoretical consumptive demand increases may result in lowering water levels, non-consumptive uses (undiminished return) will have little bearing on water levels and therefore will not result in a threat to ecological sustainability. Because Clayton's mining operations results in an undiminished use of groundwater, its operations have little threat to the overall ecological health of the Pinelands and the New Rule should not apply to them. Nothing in the Pinelands' studies supports the proposed New Rule as applied to mines.

- (ii) The Proposed Rule is Arbitrary With Respect to its Disparate Treatment of Different Pinelands Management Areas and Different Types of Uses – Whereas the New Rule prohibits new or increased diversions in the Preservation Area and certain other areas (see proposed N.J.A.C. 7:50-6.86(d)3), it aims only to regulate (but not prohibit) new or increased diversions from the Kirwood-Cohansey to Agricultural Production Areas and the more growth-oriented Pinelands Management Areas (e.g., Regional Growth Area, Pinelands Towns, Rural Development Area, Military and Federal Installation Area, and the 24 Pinelands Villages). Agricultural water uses are mostly consumptive and will have associated hydrological impacts to the watershed. By contrast, Clayton, whose water diversion is associated with little, if any, consumptive use, operates at Pinelands locations (see Figure 1) within the already heavily restricted Preservation Area (at two locations) and therefore their business stands to be directly impacted despite the fact that its diversion of water will not result in an associated hydrological or ecological impact. Nothing in the Pinelands Studies supports the absolute prohibition of new or increased diversions in the Forest and Preservation Areas while imposing no such prohibition in other areas.

  (iii) The Simulated Studies Are Flawed - The studies performed in connection with the Kirkwood-Cohansey Project simulated or modeled reductions in stream flow of up to 30 percent, lowering of groundwater levels by up to 6-inches (15 cm), or pumping withdrawal rates at upwards of 30 percent of the groundwater recharge. These studies using excessive hypothetical conditions create a flawed scenario of hydrological impacts. These studies present no evidence that existing groundwater levels in the Pinelands will be reduced to the extent simulated by models. The Kirkwood-Cohansey Project studies have not established a nexus to actual hydrological impacts from the presumed diversions. Therefore, while Clayton's operations don't come close to approaching the excessive hypothetical simulations of the Kirkwood-Cohansey Project's studies, the New Rule will prohibit diversions in the Preservation and Forest Areas and while only regulating diversions elsewhere

  (iv) Sand Mines Do Not Require Wells - The New Rule specifically addresses wells that are more often associated with a consumptive use such as farming or residential real estate. Clayton does not operate wells for the purpose of mining. Its diversions are for hydraulic dredging. The only well(s) at its sites are for domestic/sanitary purposes (e.g., for bathrooms) which use a de minimis quantity of water, as there are typically less than ten full-time employees per day associated with the mining operations.

Conclusion

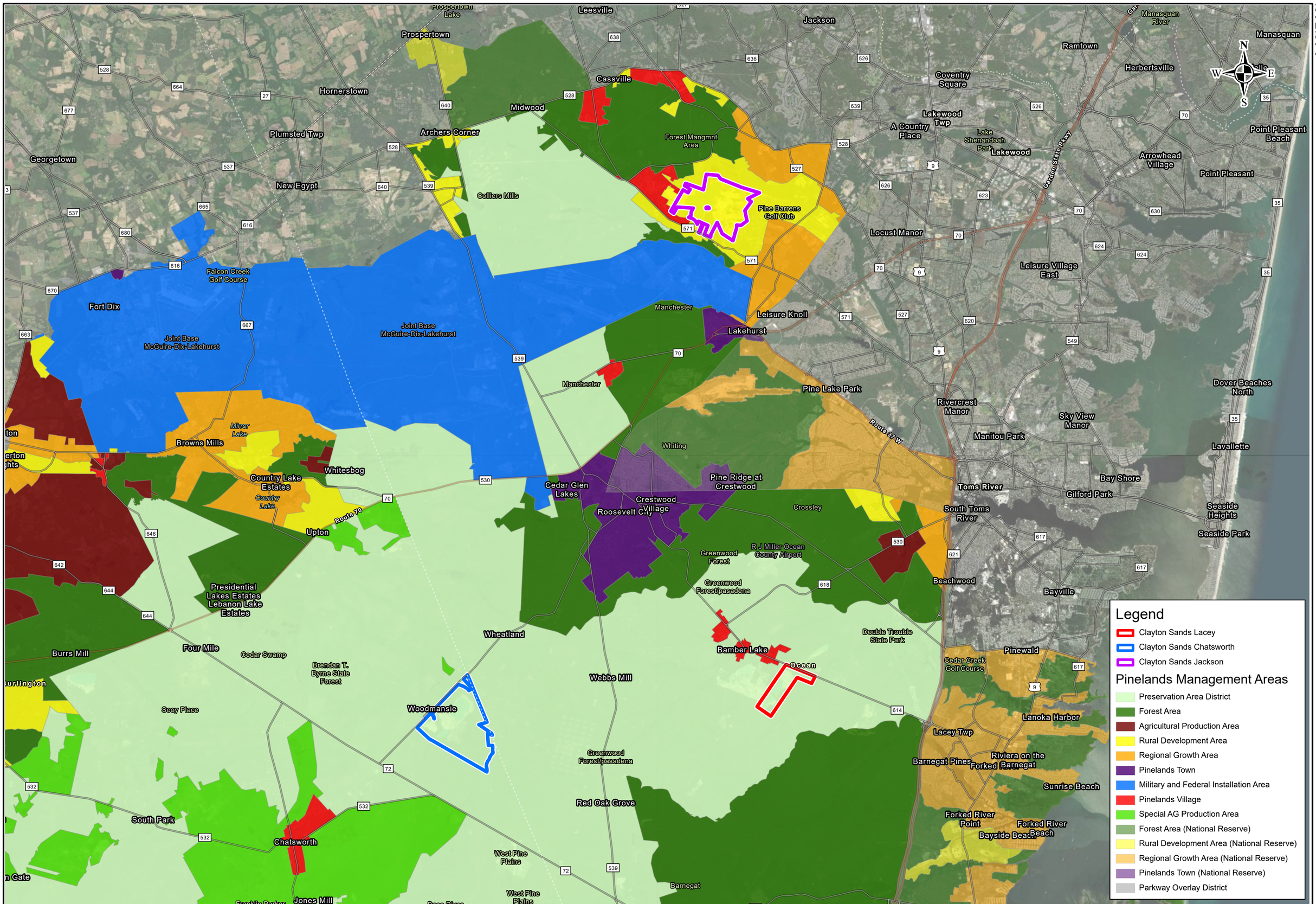
Clayton has been operating mines in the Pinelands for decades, each diverting water under NJDEP Water Allocation Permits. There are no documented ecological impacts associated with water diversions for hydraulic dredging from manmade ponds as the water is returned to the water table in an undiminished manner. Therefore, mining operations do not affect water levels, stream flow, or the ecological environment. However, the broad application of the New Rule, based on unrealistic and unsupported simulated groundwater water level drops and stream flow reductions, stand to directly impact Clayton's business despite there being no nexus between their mining operations and the ecological health of the Pinelands. Therefore, the New Rule should be withdrawn because it is not related to empirical data supportive of the rule.

Sincerely,
Langan Engineering and Environmental Services, Inc.

Brian A. Blum, CPG, LSRP
Associate Principal

BAB:mf
Attachments:
Figure 1 – Pinelands Management Areas
C.V. for Brian Blum

cc: Kevin J. Coakley, Esq.
William J. Castner, Esq.



Legend

- Clayton Sands Lacey
- Clayton Sands Chatsworth
- Clayton Sands Jackson

Pinelands Management Areas

- Preservation Area District
- Forest Area
- Agricultural Production Area
- Rural Development Area
- Regional Growth Area
- Pinelands Town
- Military and Federal Installation Area
- Pinelands Village
- Special AG Production Area
- Forest Area (National Reserve)
- Rural Development Area (National Reserve)
- Regional Growth Area (National Reserve)
- Pinelands Town (National Reserve)
- Parkway Overlay District

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Miles

NAME DATE

PROFESSIONAL XXXXXXXXXX
STATE LIC. No. XXXXX

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Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan

Project
PINELANDS PROPOSED RULE AMENDMENT
OCEAN COUNTY STATE

Drawing Title
PINELANDS MANAGEMENT AREAS

Project No.	101022401
Date	10/27/2022
Scale	1" = 2 Miles
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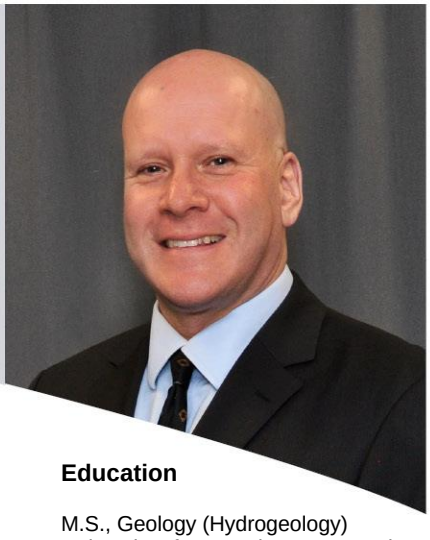
Brian Blum, CPG, LSRP

Associate Principal/Vice President
Hydrogeology, Geology, Geothermal Systems



37 years in the industry ~ 21 years with Langan

Mr. Blum is a hydrogeologist certified by the American Institute of Professional Geologists (AIPG-Certified Professional Geologist), a New York State licensed Professional Geologist, and a New Jersey-Licensed Site Remediation Professional (LSRP). He has over 37 years of experience in environmental contamination investigation and remediation mostly relating to groundwater impacts, water resource permitting and development for irrigation and water supply systems, and geothermal ground-coupling in support of constructing indoor heating and cooling systems.

Mr. Blum has managed a multitude of investigation and remediation projects ranging in size and scope from relatively small assessments to multi-million dollar, multi-discipline investigations that involved coordination and management of efforts in geology, hydrogeology, geochemistry, geophysics, groundwater modeling, air quality modeling, health risk assessment, baseline ecological evaluation, remedial engineering, site/civil engineering, and geotechnical engineering. Mr. Blum has managed some of the largest Industrial Site Recovery Act (ISRA)-related remedial investigations in New Jersey. As a result, he is extremely familiar with the environmental regulatory and site closure processes. Mr. Blum has developed expertise in delineating TCE sources and contaminant migration within fractured rock and has worked with the NJDEP in assessing impacts to water supplies and indoor areas via vapor intrusion. He has managed a unique, full-scale, remediation project integrating the construction of blast fracture trenches in a crystalline bedrock unit to enhance chemical oxidant (permanganates) delivery to the subsurface to mitigate the source of a trichloroethene (TCE) plume.

Mr. Blum has authored several published proceedings and presented at technical conferences mostly relating to innovative delineation and remediation of TCE in fractured media. He was also a participant on the DEP/Stakeholder Committee that drafted NJDEP's Vapor Intrusion Guidance Document. Was aslo He has given numerous American Institute of Architects (AIA) and American Council of Engineering Companies of New York accredited presentations on the "Fundamentals of Geothermal Ground Couples" to architectural and MEP engineering firms throughout the northeast U.S.

RELEVANT EXPERIENCE – Water Supply / Environmental / Geothermal Systems

WATER SUPPLY

Bluewater Industrial Partners, Montgomery, New York – An Aquifer Testing Plan and Engineer's Report for a New Water Supply System were developed in support of a potable water supply system for a new warehouse designed for e-commerce. The warehouse employs a total of over 1,000 workers (all shifts) and has a water supply capacity of 20,000

Education

M.S., Geology (Hydrogeology)
University of Massachusetts at Amherst

B.S., Geology
State University of New York at Binghamton

Professional Registration

Certified Professional Geologist (CPG)

Licensed Geologist in State of NY

Licensed Site Remediation Professional (LSRP) in NJ

Affiliations

American Institute of Professional Geologists

National Ground Water Association

Licensed Site Remediation Professional Association

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gallons per day (gpd) for average demands and 60,000 gpd for peak demands. Mr. Blum managed aquifer testing to establish viable safe yield and water quality from on-site supply wells.

F&S Produce Co., Inc., Rosenhayn, New Jersey - A Water Allocation Test Plan, Hydrogeologic Report, and Water Allocation Permit were prepared on behalf of the F&S Produce Company. The New Jersey DEP approved the Permit to divert groundwater rates of 350-gallons per minute (gpm), 7.75 million gallons per month, and 93 million gallons per year. The application to divert groundwater was also submitted to the Delaware River Basin Commission for review and approval. The water diversion is critical to food processing and cleaning operations. Water supply development included installing monitoring wells and conducted required aquifer pumping tests of existing production wells.

Village Grande at Bear Creek, West Windsor, New Jersey – An irrigation pilot study was undertaken to evaluate hydrological impacts associated with irrigation of turf and landscape areas. The pilot study consisted of monitoring groundwater diversion for irrigation vs. aquifer water-levels, surface water levels, and precipitation. The pilot study was implemented in order to settle a dispute between Village Grande Homeowner's Association, the developer of the property, and NJDEP regarding Water Allocation Permit limits and conditions.

Test Drilling and Aquifer Testing Program, American Cyanamid, West Windsor, NJ - A Water Allocation Test Plan, Hydrogeologic Report, and Water Allocation Permit were prepared on behalf of the American Cyanamid Company. The New Jersey DEP approved the Permit for a 600- gpm diversion of groundwater and surface water for a Non-Community, Non-Transient Public Supply. Water supply development included installing new supply wells and conducted required aquifer pumping and water quality tests.

Town of Harrison and Mobil Oil Company, Harrison, NY – Managed a hydrogeological investigation that supported a legal settlement in which a 500-gpm capacity well was refurbished for the municipality and an air stripping system (packed aeration tower) capable of treating volatile organic compounds was constructed.

Hydrogeologic Investigation, Hop Brook Drainage Basin, Town of Amherst, Amherst, Massachusetts - This study was used as a groundwater management plan that helped Amherst obtain funds from the Commonwealth of Massachusetts as part of their Aquifer Land Acquisition program. Drilling and aquifer testing activities lead to the design and development of a 1.5 million-gallon per day (mgd) municipal supply well.

Croton-On-The-Hudson, Westchester County, New York – A comprehensive aquifer drilling, exploration, and testing program was conducted for the town of Croton-On-The-Hudson. The results of the comprehensive program supported the design and development of an additional 2-mgd community water supply.

Aquifer Exploration and Testing, Southington, Connecticut - An aquifer exploration and testing program was conducted to prepare a water balance and calculate safe yields to develop a 2-mgd supply well for the town of Southington. The information obtained was used to design and construct a community potable supply well.

Industrial Supply Well Development, Carmel, New York - Conducted well drilling and aquifer testing for the development of industrial supply wells. The obtained water supply information was used as a management tool by IBM to determine the potential location of a new facility.

Sun Oil Company Facility, Yabucoa, Puerto Rico - Mr. Blum evaluated well efficiencies and safe yields of a well field. The study was used to determine which supply wells warranted redevelopment and whether additional wells were needed to meet facility demands.

General Electric, Vega Alta, Puerto Rico - Managed a large-scale RI/FS in Vega Alta, Puerto Rico. The project scope included an extensive field investigation precipitated by the contamination of a municipal wellfield. Well installation, groundwater sampling, water-level measurements, aquifer pumping tests, soil-gas surveys, geophysical surveys, soil borings, and trenching were conducted. Data collected were utilized in a groundwater flow model used to negotiate with the USEPA to modify a Record of Decision (ROD) calling for a costly pump-and-treat remedy of groundwater to a more pragmatic pump-and-treat remedy at half the original estimated cost. Technical and administrative tasks included cost tracking and scheduling; coordinating a team of 50 professionals in a multitude of disciplines; preparing monthly progress reports, technical reports and presentations; and participating in negotiations.

Town of Islip, Hauppauge, New York - Managed a multi-million dollar RI/FS at an active municipal landfill on Long Island, New York. A complex environmental investigation and conceptual remedial design was developed to cleanup groundwater within the “Sole Source Aquifer” of Suffolk County, New York.

Golf Club Water Supply – Conducted water supply-related permitting and/or irrigation-related feasibility studies and water supply development for the following golf clubs:

- Ardsley Country Club – Ardsley-on-Hudson, New York
- Beacon Hill Country Club – Atlantic Highlands, New Jersey
- Cobbs Creek Golf Club – Philadelphia, Pennsylvania
- Colonia Country Club – Woodbridge, New Jersey
- Hackensack Golf Club – Oradell, New Jersey
- Huntsville Golf Club – Shaverton, Pennsylvania
- Maidstone Club – East Hampton, New York
- Montclair Golf Club – West Orange, New Jersey
- Navesink Country Club – Middletown, New Jersey
- Plainfield Country Club – Edison, New Jersey
- Rumson Country Club – Rumson, New Jersey
- Saucon Valley Country Club – Bethlehem, Pennsylvania
- Shark River Golf Course – Neptune City, New Jersey
- Spring Brook Country Club – Morristown, New Jersey
- Spring Lake Golf Club – Spring Lake, New Jersey
- TPC Jasna Polana – Princeton, New Jersey
- White Beeches Country Club – Haworth, New Jersey

ENVIRONMENTAL

NJDEP LSRP

Mr. Blum is the LSRP for over 45 sites and has issued about 30 Response Action Outcomes (RAOs) since the inception of the LSRP program. Mr. Blum also performs routine remedial action permit compliance monitoring and maintenance for a portfolio of New Jersey industrial properties Highlighted below are selected projects in which an RAO has been issued where Mr. Blum was the LSRP of record.

PSE&G Former Front Street Gas Works, Newark, N.J. – Mr. Blum is the LSRP for the former Front Street MGP site, located along the west bank of the Passaic River. The site consists of two separate parcels that are separated by New Jersey Route 21 (McCarter Highway). Parcel 1 of the Site is located immediately adjacent to and west of the Passaic River and east of McCarter Highway, and Parcel 2 is located west of McCarter Highway. An RAO was issued in connection with both parcels. Parcel 1 remediation was completed along the Passaic riverbank within a 500 foot long, 15 foot wide cofferdam constructed to remove MGP impacted soils. The remedial activities consisted of the removal of approximately 29,500 tons of MGP-impacted, non-hazardous soil for off-site thermal desorption and disposal as well as excavation of 1,000 tons of lead hazardous soil for disposal.

Morgan Village Junior High School, Camden, New Jersey
Mr. Blum was retained as the LSRP by the New Jersey Schools Development Authority to evaluate environmental conditions and issue a Response Action Outcome (RAO) in connection with a portion of an Area of Concern that was incorporated into a new school built directly adjacent to an older school where environmental impacts to soil were documented. The scope of work included conducting a supplemental site investigation to delineate polynuclear aromatic hydrocarbons in soil above the Soil Remediation Standards and working with NJDEP to develop a creative RAO that allowed the SDA to obtain a temporary certificate of occupancy. Once the entire school site was fully constructed an unconditional Site RAO was issued by Mr. Blum.

New York Jets Training Center, Florham Park, NJ
Mr. Blum was retained as the LSRP for a relatively recent and minor petroleum spill that occurred at this sports facility. Langan has filed a spill report with the NJDEP and we have conducted post remediation monitoring and sampling in accordance with the Administrative Requirements for the Remediation of Contaminated Sites (ARRCS) regulations. Upon completion of post remediation sampling, Mr. Blum issued a RAO for the spill and related Area of Concern.

Federal Realty Investment Trust – Blue Star Shopping Center, Watchung, New Jersey
Mr. Blum served as the LSRP for a tetrachloroethene (PCE) release associated with historical dry cleaning operations at a tenant space in a commercial strip mall. An unrestricted use RAO was issued after the PCE impacts were delineated and mitigated. As part of the cleanup effort, a site-specific Impact to Groundwater Soil Cleanup Standard was established. The remediation effort included the removal and off-site disposal of 250 tons of hazardous soil. The soil remediation effort incorporated geotechnical elements because the building foundation needed to be secured while the PCE impacted soils were being excavated.

Scannell Properties # 139, LLC – Fed Ex Ground Parking Area, Woodbridge, New Jersey
Mr. Blum was retained as the LSRP for Site-wide soil areas of concern (for a total of 59 AOCs) related to former chemical manufacturing operations that triggered remediation pursuant to the Industrial Site Recovery Act. Scannell Properties, # 139, LLC, in connection with their purchase of a property in Woodbridge, assumed responsibility for environmental remediation associated with Sherwin Williams and PMC Specialties past industrial processes. Upon completion of site development that capped the Site, Mr. Blum filed a Deed Notice, applied for and obtained a Remedial Action Permit for soils and issued an RAO to Scannell.

Cranbury Brick Yard, LLC, Former Munitions Manufacturing Facility, Cranbury, New Jersey
Mr. Blum was retained as the LSRP for a total of 26 AOCs related to former munitions manufacturing operations that triggered remediation pursuant to terms of an Administrative Consent Order. Cranbury Brickyard, LLC, in connection with their purchase of the property, assumed responsibility for environmental remediation associated with the former manufacturing operations that ceased in the early 1950s. Upon completion of the RI, Mr. Blum has issued an unconditional RAO for 20 AOCs. Six AOCs have or are undergoing remediation. Once the site development is completed the remaining six AOCs will be issued a conditional RAO.

NYSDEC

Orange & Rockland Utilities, Inc., Middletown, New York – Developed and implemented a Supplemental Remedial Investigation (SRI) Work Plan aimed toward fulfilling delineation requirements in connection with a former manufactured gas plant (MGP) site. The work included a soil-gas survey, soil borings, monitoring well installation and associated sampling. The SRI work incorporated an evaluation of potential vapor intrusion into buildings in the immediate vicinity of MGP impacts to the environment. An RI report was submitted to NYSDEC in January 2004.

Orange & Rockland Utilities, Inc., Port Jervis, New York – Developed and implemented a Supplemental Remedial Investigation (SRI) Work Plan aimed toward fulfilling delineation requirements in connection with a former manufactured gas plant (MGP) site. The SRI work consisted of a soil-gas survey, indoor air sampling, soil borings, monitoring well installation, and a fish and wildlife assessment.

Cornell University, Lansing, New York - Managed an investigation and an interim remedial measures project to prevent migration of contaminants (mostly 1,4-dioxanne in groundwater) from both a former radiation disposal site and a former chemical disposal site in Lansing, New York.

General Electric, Hudson Falls and Ft. Edward, New York - Carried out field investigations, supervised test drilling, mapped groundwater quality patterns, and evaluated a remedial extraction system at industrial sites, contaminated with polychlorinated biphenyls (PCBs) and other organic compounds.

110 Sand and Gravel, Melville, New York - Supervised the installation of monitoring wells, conducted six aquifer pumping tests, and conducted geophysical logging and groundwater sampling as part of a work plan designed for a New York State Department of Environmental Conservation Part NYCRR 360 Application for solid waste disposal.

NJDEP ISRA

Mr. Blum is the project manager for numerous ISRA-related remedial investigations / remedial actions. Several on-going projects are at various stages of the ISRA process ranging from the preliminary assessment phase to final closure. Several closures have required the filing of a Deed Notice for impacted soils or notification of a Classification Exception Area for groundwater as part of the site remedy. Several of the projects summarized below involved and evaluation of vapor intrusion in residential settings, requiring community interaction.

Nokia (formerly Alcatel-Lucent Inc.), Murray Hill, New Jersey - Project Manager for an ISRA-related groundwater remediation project with a TCE plume in fractured rock. Remediation activities focused on delineating a TCE source in fractured basalt by employing creative site area mapping to expedite characterization. Geologic mapping and borehole televiewing were employed to delineate faults that have a major control on contaminant migration. An off-site soil-gas survey and associated indoor air monitoring was conducted to evaluate and remediate vapor intrusion to mostly residential buildings. Indoor air remediation of a residential building was performed by installing a sub-slab ventilation system. Groundwater-related remedial efforts have consisted of source removal, and in-situ chemical oxidation with both sodium and potassium permanganate. In-situ chemical oxidation was conducted in connection with the construction of blast fracture trenches in the bedrock to enhance oxidant delivery and contact with the TCE in bedrock. Remediation efforts eliminated TCE in groundwater by approximately 95% and NJDEP approved a Technical Impracticability (TI) waiver for the remaining groundwater plume and impacts to a surface water body.

Nokia formerly (Alcatel-Lucent Inc.), Chester, New Jersey - Project Manager for two neighboring ISRA-related groundwater remedial efforts involving mostly TCE groundwater plumes in fractured rock. An off-site vapor intrusion evaluation consisting of soil-gas and indoor air monitoring program was undertaken to evaluate potential vapor intrusion to residential and commercial buildings). Remediation consisted in in-situ chemical oxidation with sodium permanganate and deployment of “permanganate candles” in wells constructed within bedrock.

Novartis Pharmaceuticals Corporation, Summit, New Jersey – Project Manager for a Preliminary Site Assessment, Site Investigation and Remedial Investigation at a 65-year old facility with over 60 Areas of Concern (AOCs). The work included negotiations with NJDEP regarding AOC closure and investigative scope. Off-site sampling activities included sediment and surface water sampling of the Passaic River in support of an Ecological Exposure Assessment.

Exxon, USA, Linden, New Jersey - Managed a multi-million dollar Remedial Investigation of a 1,300-acre refinery / petroleum facility in Linden, New Jersey. Project scope included a multi-phased field investigation consisting of soil borings and drivepoint sampling, groundwater monitoring well installation and sampling, borehole geophysics, a ground penetrating radar study, surface-water sediment sampling, a tidal study, aquifer testing, and non-aqueous phase liquid (NAPL) delineation. The RI was considered by the New Jersey Department of Environmental Protection as one of the largest (in terms of scope and budget) environmental studies conducted in New Jersey, under state oversight. The RI was one of the first implemented under New Jersey’s

Technical Requirements for Site Remediation. All RI work was coordinated with interim remedial measures (IRMs) designed to mitigate environmental releases deemed an immediate threat.

Exxon, USA, Bayonne, New Jersey - Managed a multi-million dollar RI/IRM study at a 115-year old petroleum products blending and storage facility in Bayonne, New Jersey. An RI work plan, calling for an extensive field program to determine the nature and extent of contamination for remedial decision making, was developed. Fieldwork included borings and temporary well points for NAPL determination and delineation, and groundwater monitoring well installation and sampling. Activities were coordinated in connection with IRMs focused on containment and removal of hydrocarbon product from the subsurface.

Litigation Support

Confidential Client, West Caldwell, New Jersey – A large New Jersey Utility Company and a developer were represented in support of litigation involving the deposition of materials containing polycyclic aromatic hydrocarbons (PAHs) at a residential property in Essex County, New Jersey. Managed a soils investigation and provided deposition testimony substantiating a position to leave materials with PAH concentrations in place due to no demonstrated threat to human health or the environment.

Town of Harrison, Harrison, New York - Managed a groundwater resource investigation for a municipality in Westchester County, New York. Findings supported a legal settlement in which the municipality obtained a 500 gallons per minute (gpm) refurbished well with an air stripping system (packed aeration tower) capable of treating volatile organic compounds (VOCs).

Confidential Client, Tenafly, New Jersey - Provided technical support for allocation and arbitration of cleanup costs for a site in Tenafly, New Jersey. Mr. Blum represented the interests of a former owner of a chemical manufacturing facility that released chlorinated aliphatic hydrocarbons that impacted soils, groundwater, and surface water. Responsibilities included development and review of settlement terms, file review, and support for the interrogatories and deposition process.

Confidential Client, Trenton, New Jersey - Managed an underground storage tank (UST) site characterization and closure at property in Trenton, New Jersey. Site work was conducted in connection with litigation activities. The project involved representing a property owner who purchased a site that contained four USTs containing hazardous substances. Remediation costs were estimated to serve as the basis for settlement negotiations.

GEOTHERMAL SYSTEMS

Private Residence at 655 Park Avenue, New York, New York - Managed the permitting, design, and construction administration of a standing column well (SCW) required for a 12-ton residential cooling system. Permits and/or approvals were obtained from NYSDEC-Division of Mineral Resources, USEPA, NYCDOT, NYCDEP, MTA-NYC Transit, and the NYC Department of Parks and Recreation. A 1,500-foot deep SCW was installed in the sidewalk. Aquifer and water quality testing were conducted to evaluate the SCW's ability to yield sufficient water and to determine what effects the water quality would have on the well components and related pump and flow regulator appurtenances.

Columbia University Knox Hall, New York, New York - Managed the permitting and part-time construction administration associated with a four SCW system for heating and cooling of Knox Hall. Wells were installed to a total depth of 1,800 ft below grade. Aquifer testing and water quality testing revealed that the wells were not capable of yielding significant quantities of water and therefore could only be relied upon for minimum groundwater exchange. The water quality results were used to identify piping, pumps, and related flow appurtenances that were compatible with poor quality water. The work was conducted with close interaction between the owner, building architect, MEP engineer, general contractor, and drilling contractor who installed the four SCWs.

Brooklyn Botanic Gardens Visitor's Center – Managed the design of a 28 well, 400-foot deep vertical closed-loop geothermal cooling system. The design warranted detailed coordination with the owner, building architect, other design engineers, and the landscape architect to assure that the piping associated with the geothermal well system would not interfere with other components of the Visitor's Center design.

Visiting Nurse Association of Northern New Jersey, Morristown, New Jersey - Managed a hydrogeologic and environmental due diligence effort in support of installing a vertical closed-loop geothermal well field. Based on the favorable findings of the due diligence effort, a 400-foot deep test loop was installed and a 48-hour thermal conductivity test was conducted in support of the full-scale closed-loop well field design.

PROFESSIONAL ASSOCIATIONS

Licensed Site Remediation Professional Association
American Institute of Professional Geologists
National Ground Water Association

PUBLICATIONS

Blum, B.A. et al. 2008, "In Situ Oxidation of TCE Using Permanganate via Blast Fracture Trenches in the Preakness Basalt". Proceedings from the Battelle Environmental Conference entitled – "Remediation of Chlorinated and Recalcitrant Compounds".

Blum, B.A., et al. 2004, "In-Situ TCE Oxidation Using Potassium Permanganate in the Columnar-Jointed Preakness Basalt of New Jersey". Proceeding from the 2004 USEPA/NGWA Fractured Rock Conference: State of the Science and Measuring Success in Remediation.

Blum, B.A., and G.M. Fisher, 2000, "Trichloroethene Plume Source Area Delineation in the Preakness Basalt", Treating Dense Nonaqueous Phase Liquids (DNAPLs): Remediation of Chlorinated and Recalcitrant Compounds. Battelle Press, Columbus, Ohio, p. 25.

PRESENTATIONS (Past 10 Years)

Annual Environmental Workshop - developed an "in-house" Langan training workshop entitled "Vapor Intrusion". This workshop is given in October (beginning in 2007) and provides training to engineers and environmental scientists.

"Fundamentals of Geothermal Ground Couplings" – numerous American Institute of Architects (AIA) presentations have been and will continue to be

given to firms or AIA chapters in the northeast U.S. These presentations are registered with AIA for continual professional education. The presentations, often given with an MEP engineer teaming partner, serve as a primer for architects interested in learning about the installation of geothermal heating and cooling systems.

"Vapor Intrusion in New Jersey" – organized and participated as an instructor associated with vapor-intrusion related continued and professional education seminars at Rutgers and Montclair State Universities. These programs have been in place for six years.

October 6, 2021, LSRPA Course on "Successful Remediation – Pitfalls to Avoid, and Remediation In Bedrock". Presentation on "Bedrock Remediation in New Jersey and Technical Impracticability Waiver"

October 10, 2017, LSRPA and NJSWEP Annual Golf Network Event. "Getting Golf Greens Greener in the Garden State"

April 12, 2017, RTM Conference - Sustainable Property and Asset-Based Transactions: Closing Deals and Capturing Market Opportunities. "Vapor Intrusion – What's New and Hot Topics", Philadelphia, PA.

September 30, 2016, Langan Remediation Summit, Hamburg, NJ - "Vapor Intrusion – What's New".

October 15, 2014, Langan Remediation Summit, Hamburg, NJ - "Vapor Intrusion - Regulatory Framework and Mitigation".

June 5, 2014, New Life for Closed Gas Stations Conference, Orlando, FL. - "Digging Deeper on Design – Vapor Intrusion Risks & Solutions".

April 15, 2013, and April 10, 2014, Rutgers University Training Program, New Brunswick - "Vapor Intrusion in New Jersey".

June 5, 2012, Langan Engineering and Environmental Services Program on Integrating Site Remediation and Sustainable Redevelopment in Woodbridge, NJ – "Vapor Intrusion and Sustainable Redevelopment".

May 3, 2012, RTM Conference of Sustainable Property Transactions in Cambridge, Massachusetts – "Vapor Intrusion: Assessment and Remediation".

February 13 and 27, 2012, NJDEP Vapor Intrusion Technical (VIT) Guidance Training at NJDEP headquarters in Trenton, New Jersey. A technical presentation focused on reviewing pertinent aspects of the NJDEP's January 2012 VIT Guidance document.

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November 4, 2022

Via E-Mail (planning@pinelands.nj.gov)

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

Re: Comments on Pinelands Comprehensive Management Plan
Proposed Amendments: N.J.A.C. 7:50-1.6, 2.11,
and 6.86, 54 N.J.R. 1668(a)

Dear Ms. Grogan:

This firm represents Whibco of New Jersey, Inc. ("Whibco"). On behalf of Whibco, please accept the following comments on the proposed amendments to the Comprehensive Management Plan ("Rule Proposal") noted above, in addition to the comments provided verbally during the hearing on the Rule Proposal that was conducted virtually on October 12, 2022.

Whibco conducts permitted resource extraction activities on multiple sites throughout Cumberland County, including areas within the Pinelands. In connection with such activities involving the processing of sand or other earthen materials that are conducted by mechanical or hydraulic dredging, Whibco obtains water allocation permits from the State of New Jersey, Department of Environmental Protection ("NJDEP"). Such use is generally considered "nonconsumptive" under the Water Supply Management Act, meaning the water is "diverted from surface or ground waters in such a manner that it is returned to the surface or ground water at or near the point from which it was taken without substantial diminution in quantity or substantial impairment of quality." See N.J.S.A. 58:1A-3. Based on the above, Whibco offers the following comments on the Rule Proposal:

1. The Rule Proposal exceeds the Commission's regulatory authority. Under the Water Supply Management Act, only NJDEP is granted the power "to adopt, enforce, amend or repeal rules to control, conserve, and manage the water supply of the State and the diversions of that water supply. . . ." N.J.S.A. 58:1A-5. Under the Pinelands Protection Act, the Commission is given the authority only to make recommendations for water

quality standards for surface and ground waters in the Pinelands area, N.J.S.A. 13:18A-6(i), not develop its own procedures for allocations. NJDEP has the exclusive authority to implement such controls and requirements, including "metering, additional reporting requirements, restriction of inter-basin diversions of water for water supply or wastewater discharge, restriction of consumptive use and water quality testing of wells" in "areas of critical water supply concern." See N.J.A.C. 7:19-8.2. The proposed rule modifications attempt to establish new criteria for withdrawals, lowers the threshold pumping volumes from 100,000 gpd to 50,000 gpd that trigger applicability of new proposed standards, prohibits interbasin transfers, and proposes the use of the USGS MODFLOW model to calculate the zone of influence, which is not used by NJDEP. As such, the Rule Proposal would create a duplicative and inconsistent permitting system that conflicts with existing regulation of water allocation and diversion by the NJDEP.

2. The prohibition on interbasin transfers as set forth in the Rule Proposal disregards the location of existing and active mining sites that may be located in areas where WMA boundaries cross and divide existing operations, which would inhibit future permitting applications for new or increased allocation as needed to operate and expand to supply mining products as needed for construction and infrastructure improvements. All such existing sites should be acknowledged and accounted for in the Rule Proposal to allow for full utilization of the resources of these sites consistent with existing mining permits.

3. The Rule Proposal does not account for resource extraction as a non-consumptive use. Whibco's operations under its water allocation permits return over 90% of the water being pumped back into the aquifer. NJDEP rules recognize non-consumptive use as "the use of water diverted from surface or ground waters in such a manner that it is returned to the surface or ground water at or near the point from which it was taken without substantial diminution in quantity or substantial impairment of quality." N.J.S.A. 58:1A-3. The proposed rule should properly account for a non-consumptive use such as resource extraction that returns 90% of the water pumped back to the aquifer. This can be accomplished by adding a definition for "nonconsumptive use" to the CMP at N.J.A.C. 7:50-2.11, consistent with the definition at N.J.S.A. 58:1A-3 as set forth above, with mining to be further noted as an example of a nonconsumptive use: "Nonconsumptive use" means the use of water diverted from surface or ground waters in such a manner that it is returned to the surface or ground water at or near the point from which it was taken without substantial diminution in quantity or substantial impairment of quality; for purpose of this definition, mining or processing of sand or other earthen materials, as long as such mining is conducted by mechanical or hydraulic dredging, shall be considered a nonconsumptive use."

4. Nonconsumptive uses such as mining should be exempt from the Rule Proposal, and the CMP at N.J.A.C. 7:50-6.83 should be modified as follows: "(a) All development permitted under this Plan, or under a certified county or municipal master plan or land

use ordinance, shall be designed and carried out so that the quality of surface and ground water will be protected and maintained. For the purpose of this Part, agricultural use and nonconsumptive uses such as mining or processing of sand or other earthen materials, as long as such mining is conducted by mechanical or hydraulic dredging, shall not be considered development."

5. Along with recognizing mining as a nonconsumptive use, the definition of "Divert" or "Diversion" at N.J.A.C. 7:50-2.11 should be modified to exclude "mining of sand or similar materials, as long as the mining is conducted by mechanical or hydraulic dredging, shall not be considered development."

6. The definition of "Allocation" at proposed N.J.A.C. 7:50-6.86(d), and the standards set forth at proposed (d)(3) through (d)(9), should also exclude the "taking or discharge of water for mining of sand or other earthen materials, even if permitted pursuant to a Water Allocation Permit, Water Use Registration Number, NPDES or NJPDES permit, as long as such mining is conducted by mechanical or hydraulic dredging operations."

7. Unless mining is exempted as a nonconsumptive use, the standard of no drawdown within Forest Area as set forth in the Rule Proposal is problematic as active mine sites exist within these areas, and prohibition on new or increased diversion would inhibit utilization of existing permitted mining reserves and improperly restrict access to those resources. The Rule Proposal should expressly recognize and permit the continuation of existing mining sites including all reserve areas, and the non-consumptive nature of mining activities.

8. The Rule Proposal also needs to be reconciled with the Federal ROCKS Act, which was part of the Infrastructure and Jobs Act of 2021. The Federal ROCKS Act encourages the preservation of access to and reduction of costs for resources needed for infrastructure projects, such as stone, sand and gravel. Unless the Rule Proposal is revised consistent with the comments set forth herein, or withdrawn, the Rule Proposal would have the contrary effect of restricting access to resources needed for infrastructure projects and would increase the costs of these resources, contrary to the Federal ROCKS Act.

9. In response to comments received in connection with rule amendments promulgated in 1994, the Commission previously indicated that: "The proposed standards for water supply diversion in N.J.A.C. 7:50-6.86(e) prohibit diversions or increases in diversions of over 100,000 gallons per day that utilize the Kirkwood-Cohansey aquifer unless it is demonstrated that no alternative water sources are available and that no adverse ecological impact on the Pinelands Area will result. The Commission believes that these two standards will prevent excessive or nonessential diversions from the Kirkwood-Cohansey aquifer and that additional requirements, such as the purchase of Pinelands Development Credits, are unnecessary." See 26 N.J.R. 4803 (December 5,

1994). The Commission's reasoning as set forth above remains applicable and no modification of these standards is warranted.

Whibco reserves the right to submit additional or supplemental comments as may be warranted upon the publication of any amended or revised Rule Proposal concerning the subject matter set forth herein, and Whibco further reserves the right to seek judicial review of any final, adopted rule addressing the above issues.

Very truly yours,

Robert S. Baranowski, Jr.

RSB/amb

cc: Whibco of New Jersey, Inc.

JOSEPH GALLAGHER Jr., MPA
TOWNSHIP ADMINISTRATOR

November 2, 2022

planning@pinelands.nj.gov
Pinelands Commission Office
P.O. Box 359
New Lisbon, NJ 08064

Re: Written Formal Comments – Township of Winslow
Proposed Amendments to the Pinelands Comprehensive Management Plan

Dear Ms. Grogan:

In response to the public hearing held October 12, 2022 regarding the proposed amendments to the Pinelands Comprehensive Management Plan, the Township of Winslow provides the following comments.

1) Winslow Township seeks clarification as to the applicability of these regulations to existing wells and existing water allocation permit limits. The proposed regulations read as they apply to:

> *A new diversion or increase in allocation from either a single existing source or from combined existing diversion sources in the same HUC-11 watershed and in the Kirkwood-Cohansey aquifer, that results in a total diversion of 50,000 gallons of water per day or more (hereafter referred to as "proposed diversion") shall meet the criteria and standards set forth at (d)3 through 9 below. "Allocation" shall mean a diversion permitted pursuant to a Water Allocation Permit or Water Use Registration Number issued by the New Jersey Department of Environmental Protection pursuant to N.J.A.C. 7:19.* ***Proposed 7:50-6.86(d), New Jersey Register, Tuesday, September 6, 2022 (CITE 54 N.J.R. 1676)***

Therefore, it is understood that the existing Winslow Township wells, as they are currently

operating, do not need to meet the criteria and standards set forth at Proposed 7:50-6.86 (d)3 through 9 in the proposed regulations even though, they currently pump more than 50,000 gallons of water per day. In addition, it is understood that increased withdrawals from the Kirkwood-Cohansey aquifer are not subjected to the criteria and standards set forth at Proposed 7:50-6.86 (d)3 through 9 in the proposed regulations if the increased withdrawals are from existing wells and do not exceed existing water allocation limits specified in the Township's water allocation permit since this would not be a "new diversion" or "increase in allocation".

2) The Township seeks clarification for the threshold pumping volume at which a proposed diversion or increase in water allocation will be subjected to the new standards. The proposed rule indicates that a proposed diversion or requested increase in allocation must be at least 50,000 gallons per day to trigger the application of the criteria and standards set forth in the proposed regulations.

> *A new diversion or increase in allocation from either a single existing source or from combined existing diversion sources in the same HUC-11 watershed and in the Kirkwood-Cohansey aquifer, that results in a total diversion of 50,000 gallons of water per day or more (hereafter referred to as "proposed diversion") shall meet the criteria and standards set forth at (d)3 through 9 below. "Allocation" shall mean a diversion permitted pursuant to a Water Allocation Permit or Water Use Registration Number issued by the New Jersey Department of Environmental Protection pursuant to N.J.A.C. 7:19.* ***Proposed 7:50-6.86(d), New Jersey Register, Tuesday, September 6, 2022 (CITE 54 N.J.R. 1676)***

While it appears as though a new diversion or new increase in allocation of 50,000 gallons per day or more is the threshold pumping volume that would require the detailed criteria and standards put forth in **Proposed 7:50-6.86(d)3 through 9 ("proposed standards")**, various examples and explanations throughout the document indicate that if combined new and existing diversions exceed the 50,000 gallons per day threshold, this would trigger compliance with the new proposed standards. These examples are confusing and contradict the proposed regulatory language.

Example 1: The proposed amendments also specify that the 50,000 gallon per day threshold includes all of an applicant's existing diversions in the same HUC-11 watershed, in addition to the new or increased diversion. For example, if an applicant currently diverts 40,000 gallons of water a day and is proposing to divert an additional 20,000 gallons of water a day through a new well or from one of the applicant's existing wells in the same HUC-11 watershed, the new diversion will be subject to the new standards even though it is less than 50,000 gallons of water per day, as the total diversion would be 60,000 gallons of water a day. ***New Jersey Register, Tuesday, September 6, 2022 (CITE 54 N.J.R. 1670)***

Example 2: For example, if an applicant already has a DEP water allocation permit for 100,000 gallons a day and has applied to the Commission for a new well that will withdraw an additional

20,000 gallons a day under the same permit, the Commission will evaluate the ecological impacts from the total withdrawal of 120,000 gallons per day. The new standards and review process set forth in these amendments will apply. ***New Jersey Register, Tuesday, September 6, 2022 (CITE 54 N.J.R. 1671)***

Example 3: Of the 30 applications for new or increased diversions received by the Commission since 2017, it is estimated that only eight would have incurred these additional costs, either because of the new 50,000 gallons per day threshold or because the proposed rule clarifies that wells owned in common will be grouped for purposes of determining whether the 50,000 gallons per day threshold is exceeded. ***New Jersey Register, Tuesday, September 6, 2022 (CITE 54 N.J.R. 1673)***

Example 4: The proposed amendments expand the scope of diversions that will be subject to the stricter standards and criteria. The CMP's water management provisions currently apply only to total diversions of 100,000 gallons or more per day. The Commission is proposing to lower this threshold to total diversions of 50,000 gallons or more per day from the Kirkwood-Cohansey aquifer in the same HUC-11 watershed. The volume determination is based on all of an applicant's allocations under a water allocation permit, water use registration issued by the DEP, which will ensure that more wells will be subject to the proposed new standards and further protect the Pinelands ecology and water supply. ***New Jersey Register, Tuesday, September 6, 2022 (CITE 54 N.J.R. 1673)***

The proposed codified regulatory language in ***Proposed 7:50-6.86(d), New Jersey Register, Tuesday, September 6, 2022 (CITE 54 N.J.R. 1676)*** does not make any mention of the volume determination being based on all of an applicant's allocations under a water allocation permit and/or water use registration issued by the DEP. There is also no mention of combining existing and proposed volumes to determine if the 50,000 gallons a day threshold is exceeded and if the new diversion is now subjected to the proposed standards. This explanation is confusing and contradicts the proposed regulatory language.

3) Winslow Township disagrees with the prohibition of interbasin transfer.

> *A diversion that involves the interbasin transfer of water in the Pinelands Area between the Atlantic Basin and the Delaware Basin, as defined at (b)1 and 2 below, or outside of either basin, shall be prohibited.* ***Proposed 7:50-6.86(b), New Jersey Register, Tuesday, September 6, 2022 (CITE 54 N.J.R. 1676)***

The language in the current regulations "should be avoided to the maximum extent practical" is better suited to allow for unavoidable interbasin transfers. Basin boundaries don't translate directly to the aquifer and some diversions that are located near the border between the Atlantic and Delaware Basins are pulling water from both basins. This also makes things difficult for Townships that straddle both the Delaware and Atlantic Basins and can be problematic for municipalities that currently depend on interbasin transfer for a potable water source and wastewater treatment. Winslow Township currently purchases 1.5 MGD from New Jersey

American Water (NJAW) which is sourced from the Delaware Basin and is transferred mostly to the Atlantic Basin.

4) Winslow Township recommends the allowance of historical aquifer pump test data to determine if a proposed diversion will be deemed to have an adverse local impact in the Pinelands Area ***(Proposed 7:50-6.86(d)7, New Jersey Register, Tuesday, September 6, 2022 (CITE 54 N.J.R. 1676)).*** A request for a pump test waiver is currently accepted (as written in the regulations N.J.A.C. 7:19-2.2(c)) by the NJDEP Division of Water Supply and Geoscience for hydrogeological reports in certain instances where recent and applicable pump test data can be used to evaluate the hydrogeological impacts on the aquifer and watershed.

5) Winslow Township does not agree with the addition of the ***Proposed 7:50-6.86(d), New Jersey Register, Tuesday, September 6, 2022 (CITE 54 N.J.R. 1676)***. We believe it to be redundant with the current NJDEP water allocation permitting requirements, specifically for applicants that request a major modification to their water allocation permit. The language in the document states that the Commission wants to promote consistency with NJDEP review procedures:

The decision to consider all of an applicant's diversions in the same HUC-11 watershed requires the DEP to consider all diversions covered under one DEP Water Allocation Permit when evaluating new water allocation permit applications. Structuring the Commission's evaluation of water diversion impacts to groups of wells and diversions proposed or operated by the same applicant or owner mirrors the DEP requirement and should promote consistency between the two agency's review procedures. ***New Jersey Register, Tuesday, September 6, 2022 (CITE 54 N.J.R. 1670)***

The NJDEP already requires applicants to prepare an extensive and technical pump test work plan and hydrogeological report that fully encompasses evaluations of regional and local ecological impacts. Consistency between two agency's review procedures is essential yet can be very difficult when dealing with two different sets of regulations trying to enforce the same thing. The Commission's proposed regulations already differ from the NJDEP's with the requirements for local ecological impacts ***(Proposed 7:50-6.86(d)7, New Jersey Register, Tuesday, September 6, 2022 (CITE 54 N.J.R. 1676))*** that includes specific requirements for aquifer pump testing.

Summary

Overall, Winslow Township objects to the proposed regulations because they are superfluous and ask for the same requirements from an applicant as it would be for a Major Modification to a Water Allocation Permit. The NJDEP regulations for water allocation permits at N.J.A.C 7:19 are much more comprehensive and are sufficient to evaluate adverse ecological impacts in the Pinelands Area. The NJDEP regulations also include tasks such as compiling a well inventory list within a 1-mile radius, a contaminated sites search, and significant mapping requirements.

The addition of a second set of redundant regulations will be confusing for the applicant and difficult to enforce with another similar set of regulations. Applicants can potentially spend a lot of time and money on aquifer pump tests only to lead to an approval from the NJDEP but a denial from the Pinelands Commission or vice versa.

As it stands now, the Commission must provide an approval letter for water allocation permits and major modification requests in the Pinelands Area, therefore, the Commission currently has a say in the allowance of Kirkwood-Cohansey withdrawals in the Pinelands Area. With the Commission establishing their own independent review of Kirkwood-Cohansey withdrawals, this could lead to interagency conflicts between the NJDEP and the Pinelands Commission.

As mentioned during the hearing, Winslow Township objects to the proposed amendments based on the Pinelands Authority to determine water allocation. This authority was specifically given to the NJDEP and should remain with them to prevent conflicting regulations.

The Township appreciates the opportunity to provide comment regarding these proposed changes and looks forward to a response.

Regards,

Joseph Gallagher
Township Administrator

JG/mb

cc: Mayor and Township Committee (via email)
Stuart Platt, Township Solicitor, The Platt Law Group (via email)
Louis Bowman, Superintendent of Municipal Utilities, Township of Winslow (via email)
Monica Bell, Project Manager, Remington and Vernick Engineers (via email)
Steven Donohue, Utilities Engineer, Remington and Vernick Engineers (via email)
Dennis Yoder, Director of Engineering, Remington and Vernick Engineers (via email)

State of New Jersey

PHILIP D. MURPHY
GOVERNOR

SHEILA Y. OLIVER
LT. GOVERNOR

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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SHAWN M. LATOURETTE
COMMISSIONER

November 4, 2022

Susan R. Grogan, P.P., A.I.C.P.
Acting Executive Director
Pinelands Commission
P.O. Box 389
New Lisbon, NJ 08064

Re: Proposed Amendments to the Pinelands Comprehensive Management Plan
Proposal Number: PRN 2022-110

Dear Ms. Grogan:

The Division of Water Supply and Geoscience (DWSG) has reviewed the Pinelands Commission's (Commission) proposed amendments to the Pinelands Comprehensive Management Plan as published in the September 6, 2022, New Jersey Register (54 N.J.R. 1668(a)). DWSG provides these comments for your consideration. For organizational purposes, the comments are broken down into following categories: "Technical Manual 12-2," "Low Flow Margin," "Programmatic," and "General."

Technical Manual 12-2

1. Proposed N.J.A.C. 7:50-6.86(d)7 references DWSG's Technical Manual 12-2, "Hydrogeologic Testing and Reporting Procedures in Support of New Jersey Water Allocation Permit Applications" (TM 12-2). The purpose of TM 12-2 is to provide guidance on conducting aquifer tests and submitting hydrogeological reports in support of requests for new and revised water allocation permits under the Water Allocation Permits rules at N.J.A.C. 7:19. TM 12-2 was developed in consideration of the withdrawal limits under N.J.A.C. 7:19 (100,000 gallons per day or greater) and DWSG's standard evaluation criteria for impact analysis (one (1) foot of drawdown). The recommendations for number and location of observation wells, and pumping volume and duration, are based on the need to generate and observe sufficient groundwater drawdowns that can be analyzed for aquifer properties and then used to predict a one-foot drawdown zone of influence. Aquifer tests conducted using the document's guidance but with lower withdrawal rates may not produce data that can be accurately analyzed for aquifer parameters that in turn can be used to reliably predict a four-inch drawdown zone of influence. This may be especially true for the prolific Kirkland-Cohansey aquifer, where significant withdrawals are required to see measurable

drawdowns. DWSG recommends that the Commission consider a "Pinelands-specific" guidance based on TM12-2 so that aquifer tests are to more likely produce appropriate results that can provide insight to groundwater impacts at the proposed lower withdrawal rates and smaller allowed impacts.

2. DWSG notes that under the proposal, the potential impact of a new or increased diversion may be evaluated without consideration of all other existing diversions and the potential four-inch drawdown impact on wetlands and surface water bodies. Existing ground water conditions reflect current diversions and the need to base evaluations without considering all pre-existing diversions is not consistent with DWSG's evaluation methodology, including using the model impacts based upon one foot of drawdown.

Low Flow Margin

3. Proposed N.J.A.C. 7:50-6.86(d) references Hydrologic Unit Code 11 (HUC-11) watersheds. HUC-11s are no longer supported by the U.S. Geological Survey's and the Department's Watershed mapping groups. HUC-11s do 'neatly aggregate up' into larger HUCs (with smaller HUC numbers). DWSG will continue with HUC-11s for the Low Flow Margin (LFM) 2023 New Jersey Statewide Water Supply Plan (WSP) update, but then will most likely switch to HUC-12s for future analyses. DWSG recommends that the Commission shift to HUC-12s for consistency with its analyses.

4. DWSG's LFM results for some HUC-11s include diversions from unconfined aquifers that are not the Kirkland-Cohansey aquifer. Some of these same HUC-11s may also be only partially inside the Pinelands Area (Pinelands). The Commission's proposal does not address how to handle HUC-11s that are both in- and outside of the Pinelands, and which might include both the Kirkland-Cohansey aquifer as well as other aquifers.

5. DWSG's LFM results also include agricultural, horticultural and aquacultural water use and allocations. The proposed rule refers to these results, but the Department is unaware of the authority to regulate water withdrawals regulated pursuant to N.J.A.C. 7:20A under the proposed rule.

6. The Commission proposes at N.J.A.C. 7:50-2.11 to define "stream low flow margin" as "the difference between a stream's September median flow and its statistical flow, which is the seven-day flow average in the 10-year period for the stream (7Q10) as reported in the New Jersey Statewide Water Supply Plan, New Jersey Department of Environmental Protection, 2017, New Jersey Water Supply Plan 2017-2022: 484p, http://www.nj.gov/dep/watersupply/wsp.html, as amended and supplemented". DWSG notes that the WSP on page 19 defines "low flow margin" as "…the difference between the median September flow and the 7Q10 flow at the lowest elevation of each Hydrologic Unit Code (HUC) 11." The WSP defines September median and 7Q10 in its glossary. DWSG recommends that the Commission modify the proposed definition of "stream low flow margin" to reference the definition in the WSP.

7. Proposed N.J.A.C. 7:50-6.86(d)6 states "[a] proposed diversion shall be deemed to have an adverse regional impact if it, combined with all existing permitted allocations in the same HUC-11 watershed, exceeds 20 percent of the stream low flow margin for the year of peak use established in the New Jersey Statewide Water Supply Plan at

https://www.nj.gov/dep/water supply/pdf/wsp.pdf for the HUC-11 watershed where the proposed diversion will be located (hereafter referred to as 'the affected HUC-11 watershed')." DWSG recommends that the Commission clarify this language as it is unclear if the proposed rule is referring to allocations or peak reported use. The WSP considers allocations and peak water use, based on reported actual water use, which are two different factors and the WSP estimates them differently. Additionally, the information referred to is in Appendix A of the WSP, which is not the referenced document. The correct reference is https://www.state.nj.us/dep/watersupply/pdf/wsp-appendix-a.pdf.

8. The LFM method is designed to evaluate the net loss of water to a HUC-11 and as such considers consumptive and non-consumptive water uses plus imports and exports (e.g. 90% of a golf course irrigation is assumed to be consumptive and 10% is assumed to return to the local aquifer). The proposed rules do not appear to make this distinction. The proposal seems to refer to the diversion and assume that all of it is lost, which is incorrect. The proposed rule should be clarified so that the LFM refers to the net loss of the diversion to the HUC-11.

Programmatic

9. The proposal limits new or increased diversions from the Kirkwood-Cohansey aquifer in specific areas of the Pinelands including but not limited to Pinelands towns, villages, and rural development areas. Proposed new or increased diversions are not permitted in preservation, forest, or special agricultural areas. Under the proposal, there may be specific existing diversions in these restricted areas that could be impacted by this restriction. Notably, this would seem to impact diversions from sand quarries where water is returned to the source, minimally impacting the aquifer. Modifications are necessary for those facilities as they often relocate sources due to the nature of mining as well as changing of pumps and associated capacities, which often require modification of the permit. DWSG recommends that the Commission create exceptions to the proposed limitations.

10. Proposed N.J.A.C. 7:50-6.86(d)6 allows for the offset of potential impacts with alternatives which include the recharge of treated wastewater and, stormwater recharge. The offset of potential impacts also includes reduction of infiltration/inflow and water leak audits, which DWSG supports. DWSG encourages the Commission to provide a list of acceptable alternatives.

11. The proposal refers to agricultural activities which include some of the activities regulated by the Department in accordance with N.J.A.C. 7:20A but does not include reference to aquaculture which is clearly defined as agriculture in N.J.A.C. 7:20A. The Department has received multiple inquiries regarding proposed aquaculture facilities proposed in southern New Jersey, including in the Pinelands Area. Aquaculture should be included in this section and continue to be exempt from the proposed rule.

12. DWSG notes that, under the Commission's proposal, an existing diversion that exceeds 100,000 gallons per day and is permitted in accordance with N.J.A.C. 7:19 (and methodologies in TM 12-2) will be subject to the Commission's review and may not meet the new proposed standards proposed by the Pinelands.

General

13. The proposal summary and proposed N.J.A.C. 7:50-6.86(d)2i refer to N.J.A.C. 7:9-9. N.J.A.C. 7:9-9 was repealed and replaced by N.J.A.C. 7:9D-3 in 2001 (see 32 N.J.R. 2832(a), 33 N.J.R. 3194(a)). The Commission's proposal should be updated accordingly.

14. The Commission proposes to define at N.J.A.C. 7:50-2.11 the terms "divert" or "diversion," "well", and "zone of influence," which are also defined at N.J.A.C. 7:19-1.3. DWSG anticipates amending its definition of "well" to have "…the same meaning as the term defined at N.J.A.C. 7:9D." For consistency, DWSG recommends that the Commission follow the same approach for its proposed definitions.

15. The proposed reference to replacement wells at N.J.A.C. 7:50-6.86(d)2i is current with respect to DWSG's current policy for replacement wells and N.J.A.C. 7:19-1.5(b)3. This existing policy is more restrictive than what is being planned to be proposed in future rulemaking. DWSG suggests that the Commission amend the proposed rule language to state that a replacement well is any well considered a replacement well under N.J.A.C. 7:19.

16. Several references to N.J.A.C. 7:9D are inconsistent with those rules, including the requirement to decommission wells that are replaced. The Commission's proposal is more in line with how replacement wells are modified under the water allocation rules at N.J.A.C. 7:19-1.5. DWSG recommends that the Commission clarify its proposed requirements and their impacts on individual domestic wells, and the proposed requirements for Allocation Permit or Registration wells. Typically, replacement wells are needed on an emergency basis. See N.J.A.C. 7:19-1.4(a)4 for the Department's applicability provisions regarding emergency diversions from wells.

17. At proposed N.J.A.C. 7:50-6.86(b), the Commission states, "[a] diversion that involves the interbasin transfer of water in the Pinelands Area between the Atlantic Basin and the Delaware Basin, as defined at (b)1 and 2 below, or outside of either basin, shall be prohibited." DWSG interprets this as meaning that if there is an existing diversion that meets this criterion, it would now be prohibited. DWSG recommends that the Commission clarify this provision, including any process that would be followed if an applicable facility is identified.

18. Any references to the Department of Environmental Protection's (Department) Bureau of Water Allocation & Well Permitting should be updated as needed.

19. In the Department's anticipated proposal amending N.J.A.C. 7:19, a link between volumes of water (e.g., 100,000 gallons per day) and pumping rates (e.g., 70 gallons per minute) will be addressed. We would recommend the Commission include a similar link to identify new wells more readily being installed by their pump capacity and relationship to the volumetric regulatory thresholds.

DWSG appreciates the opportunity to submit these written comments in response to the proposal at 54 N.J.R. 1668 for the written record.

Respectfully submitted,

Jeffrey L. Hoffman, State Geologist
New Jersey Geological and Water Survey
Division of Water Supply & Geoscience

C: Trish Ingelido, Director, Division of Water Supply and Geoscience
Terry Pilawski, Chief, Bureau of Water Allocation and Well Permitting

MEMORANDUM

From: Robert Kecskes
To: Susan R. Grogan, Acting Executive Director, NJ Pinelands Commission
Re: Proposed Amendments to the Pinelands Comprehensive Management Plan
Date: November 4, 2022

Dear Ms. Grogan,
I congratulate the New Jersey Pinelands Commission (Commission) for its effort to protect the natural resources of the Pinelands region. The introduction of an approach to protect the region's natural resources from excessive withdrawals from the Kirkwood-Cohansey (Cohansey) aquifer is long overdue. I make the following comments on the proposed revisions to the Pinelands Comprehensive Management Plan:

LOW FLOW MARGIN METHOD

The use of the New Jersey Department of Environmental Protection (NJDEP) Low Flow Margin (LFM) method will be valuable in assessing new withdrawals from the Cohansey Aquifer. However, caution is needed due to its scale and the manner in which the LFM threshold results are understood and employed.

As you know, the LFM is defined as the difference between the median September flow and the 7Q10 flow at the lowest elevation of each HUC-11 watershed. The NJDEP uses 25% of the LFM as a statewide planning threshold of excessive depletive and consumptive water loss from unconfined aquifer wells and surface water intakes. It has determined that this percentage can be removed from a HUC-11 watershed without causing adverse ecological impacts. If there is more water loss by current depletive and/or consumptive water withdrawals than this threshold, a HUC-11 is considered to be stressed. If there will be more water loss by current depletive and/or consumptive water allocations than this threshold, a HUC-11 is considered to be stressed at full allocation. The LFM method is not meant to replace more rigorous groundwater or surface water modeling or other detailed hydrogeologic-hydrologic assessment methods. Instead, it provides an estimate of water availability. It serves as a screening tool that can identify watersheds with potential water availability shortages that may require more detailed evaluations. The HUC-11s in New Jersey range in size from 3 to 349 square miles, and average about 60 square miles. HUC-11s are aggregated together to form 20 Watershed Management Areas

The threshold is set at the very bottom of the HUC watershed, where all the water from throughout the watershed is discharged. The threshold essentially represents the entire cumulative amount of water that can be depletively or consumptively withdrawn from the watershed in question. The NJDEP arrived at the 25% of the LFM limit by testing it in various watersheds and concluding that withdrawals in excess of the limit contributed to aquatic resource impairment. In consideration of the exceptional resources of the Pinelands region, the Commission is now proposing that 20% of the LFM threshold serve as the water availability limit for the HUC-11 watersheds in the Pinelands region.

It goes to say that if one assumes that the LFM threshold is protective of a HUC 11 watershed, one should also believe that the threshold is protective of a HUC 14 watershed. I believe that most water professional would concur with this assertion. Allow me to give a very simplified example of why I am emphasizing this notion.

Let us say that Pinelands Commission staff are evaluating a new request for a 0.2 million gallon per day (mgd) water allocation (0.1 mgd to be used upon approval) to serve a growth area in a hypothetical 100-square mile HUC-11 watershed that is comprised of ten 10 square-mile HUC- 14s. The NJDEP estimates that this HUC-11 watershed's September flow is 20 mgd and the 7Q10 is 10 mgd, for a LFM of 10 mgd, which translates to a 2.5 mgd NJDEP LFM threshold and a 2.0 mgd Pinelands LFM threshold. Now, let's say that there is already 0.5 mgd of existing streamflow loss in this HUC-11 and a potential full allocation loss of 1 mgd from these existing users. However, since the new withdrawal would use 0.1 mgd upon approval and 0.2 mgd at full allocation, there would be at total loss of 0.6 mgd in this HUC-11 upon approval of the growth area's request and 1.2 mgd at full allocation, well below the NJDEP 2.5 mgd and Pinelands 2.0 mgd LFM thresholds. Planning approvals would likely thus be granted. Of course, the planning approval would not supersede the more rigid adverse local impact analysis on wetlands that the applicant would be required of the Commission.

Let us now say that the existing withdrawals and the newly proposed withdrawal were all in the same HUC-14 watershed. If each of the ten 10 square-mile HUC-14 watersheds were extrapolated to have a Pinelands LFM threshold that is one-tenth of the HUC-11 watershed, each would have a Pinelands LFM threshold of 0.2 mgd. This would result in a 300% exceedance of the HUC-14 watershed with the combined new and current withdrawals, and a 600% exceedance at full allocation. Consequently, the evaluation of the proposal at the HUC-11 watershed level would have resulted in a potential approval that would have critically impacted a part of the watershed that seemed reasonable when assessing it on such a large scale. Utilization of the larger HUC-11s for water availability analysis is essentially "diluting" the negative effects in the HUC-14 watersheds.

It is realized that there are issues with the "transfer" of streamflow statistical information from a large HUC-11 watershed down to a smaller HUC-14 watershed. However, it is quite likely that the transfer would yield reasonable results. Furthermore, it should not be forgotten that most of the streamflow statistics to estimate September and 7Q10 flows were transferred from stream gages that are not located in the actual HUC-11s that were evaluated, that a good deal of "averaging" occurred due to the variation in watershed characteristics, and that recent streamflow patterns are evolving due to climate change, etc. In other words, the LFM threshold is not as precise as we would like it to be.

Based on the potential to approve water withdrawal projects that can severely impact local resources without realizing it, consequently, it is recommended that the Pinelands Commission revise its proposed amendment so as to review proposed withdrawals from the Cohansey Aquifer at the HUC-14 watershed level with streamflow statistical data extrapolated from the HUC-11 data. I am also making the same recommendation to the NJDEP in its development of the recently initiated NJ Statewide Water Supply

Plan. As you probably know, the Highlands Council has employed the HUC-14 watersheds for its water availability analysis. For the Pinelands, this can be implemented in three different ways.

First, the United States Geological Survey (USGS) can develop the water availability assessment for the HUC-14 that a proposed Cohansey Aquifer well would be located in. The additional fee should not be excessive since much of the current and full allocation water withdrawal and wastewater discharge information has already been collected and located. It would be a matter of extrapolating and transferring this information from the HUC-11 watershed to the HUC-14 watershed, correlating stream gage and partial record station data, and evaluating local topography and watershed characteristics to re-estimate stream low flows.

Second, the Pinelands Commission and the NJDEP can coordinate with the USGS to develop water availability estimates for HUC-14 watersheds. If this approach was acceptable, I would approximate that the results could be available in about two years.

Third, the Pinelands Commission itself can develop these estimates by transferring the existing HUC-11 watershed LFM estimates down to the HUC-14 level, and assuming that LFM threshold for the larger watershed can be prorated to area occupied by the HUC-14 watershed. In the example above, the 100 square mile HUC-11 watershed generated a 20% of the LFM availability of 0.02 mgd per square mile. If a HUC-14 watershed in that HUC-11 watershed was 15 square miles, water availability for that HUC-14 watershed would be estimated at 0.3 mgd.

Whichever approach was used, it would be significantly more protective of the ecological resources of the Pinelands region. It would also provide a much improved “road map” for the Commission and applicants to employ to identify where and how much water is available and where potential offsets should be implemented.

I should also note that the NJDEP is considering making modifications to the LFM method that appear to make more water available to the HUC-11s as part of the next NJ State Water Supply Plan (2020 – 2050). I make this comment since the Commission is considering adopting the current LFM statistics. Among the changes are reducing the baseflow effects caused by withdrawals from unconfined aquifers; the current LFM method assumes that baseflow is reduced by 90% of the withdrawal. Using rolling averages of demand, rather than one peak year, is also being contemplated. In addition, agricultural withdrawal demand is likely to be reduced to reflect a recent pilot project. On the other hand, including the effects of upstream HUC-11 withdrawals on downstream HUC-11s is a much more realistic approach. Nonetheless, the number of HUC-11 watersheds with surplus water availability would somewhat increase in New Jersey. And none of these changes would resolve the potential impairment of HUC-14 watersheds from being over-utilized. I am in the process of request that the next NJ State Water supply Plan perform its water availability assessment at the HUC-14 levels, and that the streamflows and peak water demands that are used in the analysis consider the effects of climate change.

SURFACE WATER WITHDRAWALS

The proposed amendment does not appear to address potential impacts that would be associated with public surface water withdrawals. It would seem possible that a growth area near a large stream or river might chose that source over an aquifer. An intake on a large stream or river, even if it was within the LFM threshold, could theoretically reduce surface water flow levels that could trigger accelerated ground water discharge to the waterway, and thus potentially affect important wetlands.

OUT-OF-BASIN TRANSFERS

Several HUC-11 watersheds in the Pinelands region are affected by confined aquifer pumpage along the New Jersey shore. Leakage in the Pinelands HUC-11 recharge area induced by these confined aquifer withdrawals are reducing water availability in these recharge areas. In fact, confined aquifer pumpage is the primary cause of the current LFM threshold exceedance in two Pinelands HUC-11s and a major contributor to exceedance to the LFM threshold in several other HUC-11s. One can expect these exceedances to increase as demand in the New Jersey shore communities grow. The Commission should call this to the attention of the NJDEP so that it can be raised as an issue in the next NJ State Water Supply Plan.

Related to the above is the Commission's policy to steer withdrawals from within the Pinelands region toward confined aquifers rather than the Cohansey Aquifer. As suggested above, withdrawals from confined aquifers can reduce groundwater levels in their recharge areas. If the Commission steers too many entities in the Pinelands region to confined aquifers that have their recharge areas also in the region, it appears possible that excessive surface and ground water declines can result. This might be especially true as many shore town are also using the same confined aquifers. Consideration should be given on whether impact analysis should be conducted in such cases.

OFFSETS

In the event that a proposed diversion cannot meet the LFM threshold, the amendments allow applicants to offset the diversion on a gallon-for-gallon basis, so that the proposed diversion, combined with all other allocations in the watershed, no longer exceeds LFM threshold. It is suggested that the amendments consider requiring the offsets to be guided toward the portion of the watershed most impacted (i.e., near where the wetlands are most severely reduced or where major streamflow depletion might be occurring).

LAND SUBSIDENCE/SEA LEVEL RISE

A recent investigation conducted by Rutgers University concluded that groundwater pumpage in coastal New Jersey partially contributed to land subsidence that in turn increased the perils of sea level rise. It is hoped that the Commission would request more in-depth analysis of this phenomenon since subsidence and sea level rise will have such a large impact on the water resources of the Pinelands. See link below:
https://njclimateresourcecenter.rutgers.edu/climate_change_101/sea-level-rise-in-new-jersey-projections-and-impacts/

IRRIGATION SOIL MOISTURE SYSTEMS

The proposed amendment will be requiring mandatory soil moisture/rain sensors for all landscape irrigation systems. While rain sensors are certainly in order, the Commission should give some thought about requiring soil moisture sensors. As inferred, sensors trigger irrigation as drier conditions prevail. As the Pinelands region evolves into future drought conditions, these irrigation systems will be activated more frequently. If the customers using these systems are served by a purveyor that uses the Cohansey Aquifer, ground water levels will decline at a faster rate and spread further. Drought warnings are typically of little help. Some of the highest demand periods occur during drought warnings, primarily as a result of irrigation. It is recommended that the Commission reconsider this recommendation. Rather, using native vegetation for landscaping would be more prudent.

Before I end, I would like to provide you with some of my background. I have been involved in water issues for nearly 50 years including being involved in the development of the last three State Water Supply Plans. I have served as the Chief of the Water Supply Planning Section for 25 years, and I am now working as a part-time freelance environmental consultant.

Some of the above topics I described are rather complex. Please let me know if you have any questions.

Thank you and good luck with your proposed plan amendment!

Robert Kecskes
354 Pennington-Rocky Hill Road
Pennington, NJ 08534
Pennington, NJ 08534
609 915-0037
1roke@msn.com

1. Group R-1: Single or multiple station smoke alarms shall be installed and maintained as required by Section [907.2.10.1] **907.2.11.1** of the building subcode.

2. Groups R-2, R-3, R-4, R-5, and I-1: Smoke alarms shall be installed and maintained as required by Section [907.2.10.2] **907.2.11.2** of the building subcode or Section R314 of the one- and two-family dwelling subcode, as applicable.

3. (No change.)

(j)-(l) (No change.)

(m) Electrical Requirements: The following electrical requirements shall apply in changes of use:

1. When the character of the use of a building or portion thereof is changed to one of the following special occupancies as described [in] **at** Chapter 5 of the electrical subcode, the electrical wiring and equipment of the building or portion thereof that contains the proposed use shall comply with all applicable requirements of the electrical subcode regardless of whether a change of group is involved:

i.-iii. (No change.)

[iv. Gasoline Dispensing and Service Stations;]

iv. Motor Fuel Dispensing Facilities;

v. (No change.)

vi. Spray Application, Dipping, [and] Coating**, and Printing** Processes;

vii. (No change.)

viii. [Places of] Assembly **Occupancies**;

ix. Theaters, [Audience Areas of] Motion Picture and Television Studios**,** and Similar Locations;

x.-xi. (No change.)

2. (No change.)

(n)-(q) (No change.)

5:23-6.32 Additions

(a)-(f) (No change.)

(g) All additions shall comply with the requirements [of] **at** Chapter 11 of the building subcode for accessibility, where applicable.

1. The addition shall include accessible entrance(s) unless the requirement that [50] **60** percent of the building entrances be accessible has been met in the existing building. (For purposes of calculating the number of accessible entrances required, all entrances in the existing building and planned for the addition shall be included.)

i. (No change.)

2. (No change.)

(h)-(i) (No change.)

ENVIRONMENTAL PROTECTION

(a)

PINELANDS COMMISSION

Pinelands Comprehensive Management Plan Fees; Definitions; and Water Quality

Proposed Amendments: N.J.A.C. 7:50-1.6, 2.11, and 6.86

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 2022-110.

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

October 12, 2022, 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 November 5, 2022, to:

Susan R. Grogan, P.P., AICP
Acting Executive Director
Pinelands Commission
PO Box 359
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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 1, General Provisions; Subchapter 2, Interpretations and Definitions; and Subchapter 6, Management Programs and Minimum Standards of the Pinelands Comprehensive Management Plan (CMP). The 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 January 2022 through a set of amendments related to stormwater management (see 54 N.J.R. 138(b)).

The Kirkwood-Cohansey aquifer is a fresh-water reservoir underlying the New Jersey Pinelands and containing an estimated 17 trillion gallons of water. It is a source of potable and non-potable water to hundreds of thousands of people in South Jersey and sustains the ecology of the Pinelands by supporting wetlands and unique Pinelands vegetation and animal communities. As a result, withdrawals from the aquifer can impact the essential character of the Pinelands environment if they cause changes to habitats, reduce the quantity of water in the Preservation Area, or encourage inappropriate patterns of development. Water withdrawals are also referred to as diversions or wells throughout this rulemaking.

The current standards in the CMP that govern water withdrawals in the Pinelands Area were last amended in 1994. As explained in greater detail below, a series of studies on the impacts of diversions on the Kirkwood-Cohansey aquifer illuminated the need to update the CMP to better protect the aquifer. The proposed amendments strengthen protections to the Kirkwood-Cohansey aquifer and the Pinelands ecology while ensuring a sufficient water supply for development in the more growth-oriented areas of the Pinelands Area.

The New Jersey Legislature enacted a law in 2001 calling for a study of the ecological impacts of human activities, such as diversions, on the ecology of the Pinelands Area. The law directed the Commission, in cooperation with the Department of Environmental Protection, Rutgers University, the United States Fish and Wildlife Service, and the United States Geological Survey, to "assess and prepare a report on the key hydrologic and ecological information necessary to determine how the current and future water supply needs within the pinelands area may be met while protecting the Kirkwood-Cohansey aquifer system." (P.L. 2001, c. 165).

The series of studies that resulted from this law became collectively known as the Kirkwood-Cohansey Project (Project). The Project addressed two major questions: (1) the hydrologic effects of groundwater diversions from the Kirkwood-Cohansey aquifer on stream flows and wetland water levels; and (2) the ecological effects of streamflow and groundwater-level changes on aquatic and wetland communities.

Twelve separate studies were completed as part of the Kirkwood-Cohansey Project, which are described at https://www.nj.gov/pinelands/science/complete/kc/. They showed a direct correlation between simulated groundwater withdrawals and/or simulated streamflow reductions on the distribution and composition of wetland-forest communities, individual wetland species, and wetland-indicator groups. The studies assessed impacts from diversions on nine frog species, the Federally endangered wetlands plant swamp pink, fish and invertebrate assemblages, and vegetation types. Taken together, the studies predicted reductions in the plants and animals that are characteristic of undisturbed Pinelands ecosystems caused by groundwater withdrawals. In particular,

the studies showed that a decline of the water table by more than four inches in wetlands caused a sharp decline in wetlands vegetation and reduced the survival rates of three species of frogs found in the Pinelands, including the spring peeper, the southern leopard frog, and the State-threatened Pine Barrens tree frog.

Multiple studies in the Project assessed impacts related to water supply in terms of the water budget. These studies compared water inputs through rainfall and infiltration versus water losses through transpiration and pumping. A hydrologic framework study characterized the hydrogeology of the aquifer. A hydrologic assessment of three watersheds modeled changes to the water budget and created water table maps. An evapotranspiration study evaluated impacts to the water budget due to loss of water evaporated from surfaces or transpired by vegetation. Finally, a hydrologic modeling study was built on the other water budget studies by measuring groundwater and stream flow responses to groundwater withdrawal scenarios. Models were developed to estimate withdrawal impacts. The findings of the Kirkwood-Cohansey Project form the basis for most of the proposed amendments, which significantly strengthen the ecological protections of the Kirkwood-Cohansey aquifer. The Commission is proposing clearer, quantifiable standards for assessing the ecological impacts of non-agricultural diversions from the Kirkwood-Cohansey aquifer (hereinafter referred to as "adverse local impact") and introducing new, quantifiable standards to protect the available water supply in the watershed in which a diversion will be located (referred to in the rule as "adverse regional impact'').

The protections to the Kirkwood-Cohansey aquifer will also be strengthened by expanding the scope of wells that will be subject to the proposed standards. The threshold pumping volume at which a well will need to meet the standards at N.J.A.C. 7:50-6.86 is being reduced from 100,000 gallons per day to 50,000 gallons per day.

The proposed amendments require applicants for diversions in the Kirkwood-Cohansey aquifer to conduct specific tests, analyses, and modelling to demonstrate whether the proposed diversion will have an adverse regional or local impact.

To protect the more ecologically sensitive areas of the Pinelands Area, the Commission is proposing to limit new or increased diversions from the Kirkwood-Cohansey aquifer to the Agricultural Production Area and the more growth-oriented Pinelands Management Areas. In addition, a diversion will only be permitted if an applicant can demonstrate that no alternative water supply source is available or viable.

The amendments clarify the current water conservation requirements and impose notice requirements on well applicants in the Kirkwood-Cohansey aquifer to better address issues associated with potential limits on water available for future growth and water demand.

The only two amendments that do not apply solely to the Kirkwood-Cohansey aquifer are those related to inter- and intra-basin transfers of water. The Commission is proposing to strengthen and clarify provisions related to such transfers.

New definitions are being proposed at N.J.A.C. 7:50-2.11 for terms that are used in the proposed amendments at N.J.A.C. 7:50-6.86. The Commission is also proposing to amend its fee schedule at N.J.A.C. 7:50-1.6 to specifically address applications for wells, in addition to making minor, non-substantive changes to the existing fee rules.

The current water management rule is broader, in that it addresses diversions from all aquifers in the Pinelands Area, except for one provision that applies only to diversions in the Kirkwood-Cohansey aquifer. As explained in greater detail below, the Commission is proposing to eliminate the standards for diversions in the other aquifers and adopt standards that will apply only to diversions in the Kirkwood-Cohansey aquifer that are above the pumping threshold of 50,000 gallons per day or more. All other wells, however, will be considered development pursuant to N.J.A.C. 7:50-2.11 and subject to all other applicable provisions of the CMP. These include geothermal wells, wells not in the Kirkwood-Cohansey aquifer, and wells that are below the threshold pumping volume in the proposed new standards.

It is also important to note that the proposed new water management standards do not replace any development standards in the CMP. Well applicants must continue to comply with all other applicable standards in the CMP, including those related to the protection of threatened and endangered species at N.J.A.C. 7:50-6.27 and 6.33 and wetlands and wetlands transition areas at N.J.A.C. 7:50-6, Part 1.

Given the technical nature of the proposed standards and analysis, the United States Geological Survey (USGS) will be assisting the Commission in its review of diversion applications. To offset the costs of the USGS's review, the Commission intends to require escrow payments from diversion applicants pursuant to N.J.A.C. 7:50-1.7.

The proposed amendments were discussed and reviewed during various focus group and stakeholder meetings from 2015 to 2022 hosted by the Commission, through presentations at the New Jersey Water Supply Advisory Council, and during multiple public meetings of the full Commission and the CMP Policy and Implementation Committee. If requested, Commission staff will also provide a presentation on the proposed amendments at a public meeting of the Pinelands Municipal Council ("PMC" or "Council"). 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 Council 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 1

The Commission is proposing to amend its existing fee schedule to include a specific fee for certain well applications at N.J.A.C. 7:50-1.6. The current fee rule does not distinguish wells from other types of non-residential development and does not adequately represent the projected costs for reviewing well applications pursuant to the proposed new standards. The Commission is proposing an application fee of $6,000 for any well in the Kirkwood-Cohansey aquifer that is required to meet the criteria and standards at proposed N.J.A.C. 7:50-6.86(d). For all other wells, including geothermal wells and those that are not subject to the standards at proposed N.J.A.C. 7:50-6.86(d), the application fee will continue to be calculated based on construction costs as set forth at N.J.A.C. 7:50-1.6(c). The difference in the two fees reflects the more extensive review process that is concurrently being proposed at N.J.A.C. 7:50-6.86 for wells of a certain size in the Kirkwood-Cohansey aquifer.

Additional amendments to the existing fee schedule are proposed to correct a cross-reference at N.J.A.C. 7:50-1.6(c), relocate the existing text at N.J.A.C. 7:50-1.6(c) describing typical construction costs, so that it more logically follows the table provided in the subsection, and clarify, at N.J.A.C. 7:50-1.6(a), that development application fees, once submitted to the Commission, are not transferable to subsequent applicants.

Subchapter 2

New definitions are being added at N.J.A.C. 7:50-2.11 for terms in the proposed amendments at N.J.A.C. 7:50-6.86: "divert" or "diversion," "stream low flow margin," "well," and "zone of influence." The definitions of "divert" or "diversion" and "well" refer to withdrawals of water and are identical to those used by the New Jersey Department of Environmental Protection (hereafter referred to as "DEP") in its water supply allocation permits rules at N.J.A.C. 7:19-1.3. "Stream low flow margin" and "zone of influence" are hydrogeologic terms used to measure the impacts of a diversion on the available water supply and the hydrogeology surrounding the diversion, respectively.

Subchapter 6

The Commission is proposing amendments to the water management rule, at N.J.A.C. 7:50-6.86, which governs the transfer, exportation, and withdrawal of water in and from the Pinelands Area.

Export of Water Outside the Pinelands Area (recodified N.J.A.C. 7:50-6.86(a))

The Commission is proposing to recodify N.J.A.C. 7:50-6.86(b), which prohibits the export of water outside the Pinelands Area, except as provided for at N.J.S.A. 58:1A-7.1, as N.J.A.C. 7:50-6.86(a).

Interbasin Transfer of Water (recodified N.J.A.C. 7:50-6.86(b))

The proposed amendments clarify and strengthen the current restriction on transferring water between different basins in the Pinelands Area (interbasin transfer) by explicitly prohibiting such transfers and

identifying and defining two basins in the Pinelands Area at recodified N.J.A.C. 7:50-6.86(b).

The current rule, at existing N.J.A.C. 7:50-6.86(a), merely requires that interbasin transfers be avoided to the "maximum extent practical." The Commission is proposing to prohibit such transfers, to better align with the intent of the statute and reflect past policy, and to limit adverse impacts to the Pinelands environment related to the reduction in stream base flows that can result from interbasin transfers.

The current rule does not define the term "basin," which can describe many different drainage areas or watersheds. Using watershed management areas designated by the DEP, the Commission has clarified what the term "basin" means by delineating two basins in the proposed amendments: the Atlantic and Delaware basins. As used in this provision, the Atlantic Basin includes those portions of watershed management areas within the Pinelands Area that drain to the Atlantic Ocean, including the Barnegat Bay Watershed (WMA 13), the Mullica Watershed (WMA 14), the Great Egg Harbor Watershed (WMA 15), and the Cape May Watershed (WMA 16). The Delaware River Basin includes those portions of watershed management areas that drain to the Delaware River or the Delaware Bay, including the Rancocas Watershed (WMA 19) and the Maurice, Salem, and Cohansey Watershed (WMA 17). Delineating specific basins in this way reduces ambiguity in the existing rule.

Intrabasin Transfer of Water (new N.J.A.C. 7:50-6.86(c))

The Commission is proposing to add a provision to explicitly allow the transfer of water between HUC-11 watersheds within either the Atlantic or Delaware basins at proposed N.J.A.C. 7:50-6.86(c). HUC-11 watersheds are geographic areas delineated by the United States Geological Survey and are defined in the CMP at N.J.A.C. 7:50-2.11.

This provision is intended to add clarity and flexibility to the water management standards, as the current rule is unclear as to whether such transfers are permissible. The specific allowance of intrabasin transfers is designed to provide an opportunity to address the needs of future permitted growth in the Pinelands Area. If the intrabasin transfer involves water sourced from the Kirkwood-Cohansey aquifer, it must meet the criteria and standards set forth at proposed N.J.A.C. 7:50-6.86(d).

Diversions from the Kirkwood-Cohansey Aquifer (recodified N.J.A.C. 7:50-6.86(d))

The current standard in the CMP for non-agricultural diversions from the Kirkwood-Cohansey aquifer requires only that the diversion "not result in any adverse ecological impact on the Pinelands Area." Existing N.J.A.C. 7:50-6.86(e). The Commission is proposing to recodify this provision at N.J.A.C. 7:50-6.86(d) and strengthen it by: (1) defining "ecological impact" with specific, measurable standards; (2) requiring well applicants to conduct tests, analyses, and modelling to evaluate ecological impacts; and (3) expanding the scope of wells that will be subject to the new standards and requirements. Proposed N.J.A.C. 7:50-6.86(d).

Scope of proposed rule

The current water management standards for withdrawals from the Kirkwood-Cohansey aquifer apply only to diversions over 100,000 gallons of water per day. Existing N.J.A.C. 7:50-6.86(e). The Commission is proposing, at recodified N.J.A.C. 7:50-6.86(d), to expand the scope of wells that will be subject to the proposed new requirements by lowering that threshold to 50,000 gallons of water or more a day.

The proposed amendments also specify that the 50,000 gallon per day threshold includes all of an applicant's existing diversions in the same HUC-11 watershed, in addition to the new or increased diversion. For example, if an applicant currently diverts 40,000 gallons of water a day and is proposing to divert an additional 20,000 gallons of water a day through a new well or from one of the applicant's existing wells in the same HUC-11 watershed, the new diversion will be subject to the new standards even though it is less than 50,000 gallons per day, as the total diversion would be 60,000 gallons of water a day. The decision to consider all of an applicant's diversions in the same HUC-11 watershed is based upon DEP's Technical Memorandum 12-2 (TM 12-2), which requires the DEP to consider all diversions covered under one DEP Water Allocation Permit when evaluating new water allocation permit applications. Structuring the Commission's evaluation of water diversion impacts to groups of wells and diversions proposed or operated by the same applicant or owner mirrors the DEP requirement and should promote consistency between the two agency's review procedures.

There are two categories of wells in the Kirkwood-Cohansey aquifer that will not be subject to the new standards: (1) diversions to be used exclusively for agricultural or horticultural use; and (2) the replacement of an existing well with a diversion rate of 50,000 gallons of water per day or more, provided the existing well is sealed in accordance with N.J.A.C. 7:9-9 and the replacement well is approximately the same depth as the existing well, diverts from the same aquifer, has the same or lesser pump capacity, is within 100 feet of the existing well, and is in the same HUC-11 watershed as the existing well. N.J.A.C. 7:50-6.86(d)2.

The new standards proposed at N.J.A.C. 7:50-6.86(d) will apply only to diversions from the Kirkwood-Cohansey aquifer. All other wells will continue to be considered development pursuant to N.J.A.C. 7:50-2.11 and subject to all other applicable provisions of the CMP. These include geothermal wells, wells not in the Kirkwood-Cohansey aquifer, and wells that pump less than 50,000 gallons per day.

It should be noted that the DEP requires water allocation permits for diversions greater than 100,000 gallons per day. There could be instances under the Commission's proposed amendments where an applicant in the Pinelands Area is required to meet the CMP standards for a new or increased diversion but is not required to apply for a water allocation permit from the DEP for the same diversion because it is less than 100,000 gallons per day.

Permissible Areas

To protect the more ecologically sensitive portions of the Pinelands Area, the Commission is proposing to limit new or increased diversions from the Kirkwood-Cohansey aquifer to the following Pinelands Management Areas: Regional Growth Area, Pinelands Towns, Rural Development Area, Military and Federal Installation Area, and the 24 Pinelands Villages that are not located in the Pinelands Preservation Area. Not only is most existing development in the Pinelands Area located in these management areas, but the CMP also directs and encourages new development here as well. Requiring new and increased diversions to be located in the same management areas as the existing and new development to be served is fully in keeping with long-standing CMP requirements for other types of infrastructure. New and increased diversions from the Kirkwood-Cohansey aquifer will also continue to be permitted in the Agricultural Production Area, where the Commission is charged with maintaining agriculture as an essential element of the Pinelands region. Such diversions will not be permitted in the Preservation Area District, Forest Area, or Special Agricultural Production Area, which comprise the most ecologically sensitive portions of the Pinelands Area. Proposed N.J.A.C. 7:50-6.86(d)3.

Alternative Sources

Diversions from the Kirkwood-Cohansey aquifer are currently permitted only if there are no "viable alternative water supply sources" available. Existing N.J.A.C. 7:50-6.86(e)1. The Commission proposes to clarify this standard at N.J.A.C. 7:50-6.86(d)4 by permitting diversions only if an applicant demonstrates that no alternative water supply source is available or viable. The proposed amendment provides examples of alternative sources, which include non-Kirkwood-Cohansey aquifer sources and public water purveyors and suppliers. The Commission will maintain a list of alternative water supply sources, referenced in the proposed rule, which can be found on the Commission's website. If there is an alternative water supply source on the Commission's list that an applicant does not believe is viable, the applicant will have to demonstrate to the Commission the reason why the source is not viable. Reasons for lack of viability could include prohibitive cost, limits on available technology, and significant timing issues.

Adverse Ecological Impact

Existing N.J.A.C. 7:50-6.86(c) requires all wells to be "designed and located so as to minimize impacts on wetlands and surface waters" but provide no quantifiable measures to ensure the well meets that standard. Existing N.J.A.C. 7:50-6.86(e)2 is similarly vague as it requires well applicants in the Kirkwood-Cohansey aquifer to demonstrate that the diversion "will not result in any adverse ecological impact on the

Pinelands Area," without defining adverse ecological impact or providing any criteria for measuring the ecological impacts.

The amendments reframe the existing standards, adding clarity and measurable criteria. Proposed N.J.A.C. 7:50-6.86(d)5 defines "adverse ecological impact" as an adverse regional impact and/or adverse local impact, which are each explained in detail at N.J.A.C. 7:50-6.86(d)6 and 7. Quantifiable standards are being proposed at N.J.A.C. 7:50-6.86(d)6 and 7 to help determine whether a proposed withdrawal from the Kirkwood-Cohansey aquifer will have a regional or adverse local impact.

When determining impacts to the Kirkwood-Cohansey aquifer, the Commission will consider all of the applicant's allocations under one water allocation permit or water use registration issued by the DEP in the same HUC-11 watershed. Although the existing rule at N.J.A.C. 7:50-6.86(c) was always intended to require consideration of all allocations under one permit, the language was not clear and caused confusion. Proposed N.J.A.C. 7:50-6.86(d)1 clarifies that all allocations, in addition to the proposed diversion, will be included in the evaluation if they are under one DEP water allocation permit or water use registration. For example, if an applicant already has a DEP water allocation permit for 100,000 gallons a day and has applied to the Commission for a new well that will withdraw an additional 20,000 gallons a day under the same permit, the Commission will evaluate the ecological impacts from the total withdrawal of 120,000 gallons per day. The new standards and review process set forth in these amendments will apply.

Although the existing rule at N.J.A.C. 7:50-6.86(c) requires that all wells be designed to minimize impacts on wetlands and surface waters, the proposed amendments remove that requirement for wells outside the Kirkwood-Cohansey aquifer. The decision to eliminate the requirement is based on the fact that the Kirkwood Cohansey aquifer is the primary source of water supporting the Pinelands Area and Pinelands ecosystems. Drawdowns from other aquifers do not have the same impact on water availability and ecosystems in the Pinelands as do those from the Kirkwood-Cohansey aquifer. Wells proposed outside the Kirkwood-Cohansey aquifer will remain subject to the wetlands protection standards of the CMP, which apply to all development in the Pinelands Area. At the same time, wells in other aquifers will be required to meet other development standards in the CMP, including those at Subchapter 6 that prohibit certain impacts to wetlands (N.J.A.C. 7:50-6), vegetation (N.J.A.C. 7:50-6.23 through 6.27), and to fish and wildlife (N.J.A.C. 7:50-6.33 and 6.34).

Adverse Regional Impact

One of the major goals of the proposed rulemaking is to protect against decreases in regional water availability due to new or increased water diversions. A proposed diversion will be deemed to have an adverse regional impact if it, combined with all existing permitted allocations in the same HUC-11 watershed, exceeds a specific threshold at which water availability in that watershed will be deemed to be adversely impacted. Proposed N.J.A.C. 7:50-6.28(d)6. When determining whether a diversion meets this criteria, all allocations permitted and registered by the DEP in that HUC-11 watershed will be considered, not just the applicant's permitted allocations.

The water availability threshold proposed by the Commission is based on the stream low flow margin, which is defined in the proposed amendments at N.J.A.C. 7:50-2.11, and used by the DEP to estimate water availability throughout the State of New Jersey. Computations of the stream low flow margin are published in the New Jersey Statewide Water Supply Plan (Water Supply Plan) for each HUC-11 in the State. They are an estimate of the amount of water that would remain in a stream system during a specified drought period. The Water Supply Plan includes calculations for the volume of water that can be removed from an HUC–11 watershed without impacting the stream low flow margin and stressing the watershed based on all known allocations.

The Commission is proposing to restrict the amount of water that can be diverted from an HUC-11 watershed to 20 percent of the stream low flow margin. In the event a proposed diversion cannot meet this threshold, the amendments allow applicants to offset the diversion on a gallon-for-gallon basis, so that the proposed diversion, combined with all other allocations in the watershed, no longer exceeds 20 percent of the stream low flow margin. Proposed N.J.A.C. 7:50-6.86(d)6i. Examples of offset measures include: the recharge of previously non-infiltrated stormwater runoff in the Pinelands Area; the recharge of treated wastewater that is currently discharged through a regional sewage treatment plant that discharges treated wastewater into the Delaware River or Atlantic Ocean; development of a desalinization facility; and sewerage system inflow and infiltration abatement and/or water distribution infrastructure leak auditing and correction.

This same flexibility is being offered to an applicant who proposes a diversion in an HUC-11 watershed that is already constrained by withdrawals exceeding 20 percent of the stream low flow margin -- before the proposed diversion is even factored in. In those situations, the diversion will be allowed if the applicant can permanently offset the new diversion in the same manner as described at N.J.A.C. 7:50-6.86(d)5i. N.J.A.C. 7:50-6.86(d)6ii.

An applicant will be required to identify all offset measures and provide the Commission a detailed description of the measures, including the volume of water that will be offset, timeframes for implementing the offsets, a description of the entity that will be implementing the offset measures, and an explanation of the entity's authority to implement the measures. N.J.A.C. 7:50-6.86(d)6iii(2).

It should be noted that the Commission is proposing a more stringent standard for maintaining water availability than that advised by the DEP in the Water Supply Plan. As a tool for regional protection of the water table aquifer contributing to stream flows, the Water Supply Plan recommends limiting aquifer withdrawals to no more than 25 percent of the stream low flow margin. The Commission is proposing a lower threshold of total withdrawals from an HUC-11 watershed to better protect water supply in the Kirkwood-Cohansey aquifer. The more restrictive 20 percent of the stream low flow margin volume is intended to recognize climate change effects on aquifer recharge due to greater extremes in drought and rainfall patterns.

In addition, the five percent difference between the Commission's proposal and the DEP's threshold also accounts for water diverted for agricultural and horticultural purposes, which the Commission does not have the authority to review or limit. The lower stream low flow margin threshold being proposed by the Commission assures that the additional five percent of the stream low flow margin allowed by the DEP could be dedicated to agricultural and horticultural purposes.

The proposed amendments at N.J.A.C. 7:50-6.86(d)6 require an applicant to calculate the sum of the proposed diversion and all existing permitted allocations in the affected HUC-11 watershed. Using data from the Water Supply Plan, the applicant is required to show whether that sum exceeds 20 percent of the stream low flow margin for the year of peak use established in the New Jersey Statewide Water Supply Plan. Lastly, the applicant is required to submit a report to the Commission detailing the calculations and the impact of the proposed diversion on the available portion of the 20 percent stream low flow margin in the affected HUC-11.

Adverse Local Impact

Proposed N.J.A.C. 7:50-6.86(d)7 prohibits a proposed diversion from having an adverse impact on wetlands and the most ecologically sensitive areas in the Pinelands Area, also referred to as an "adverse local impact." The Commission is proposing specific, quantifiable standards to determine whether a well will have an adverse local impact. The standards are based on the studies of the Kirkwood-Cohansey Project, which revealed the adverse effects of aquifer withdrawals on the distribution of wetlands and wetland habitats necessary for the survival of threatened and endangered plant and animal species. The proposed amendments also update the methodologies at existing N.J.A.C. 7:50-6.86(c) for measuring the impact of a diversion on wetlands and surface water.

A diversion will be deemed to have an adverse local impact if it results in any drawdown of the water table in the most ecologically sensitive areas of the Pinelands, which include any portion of the Preservation Area District, a Forest Area, or a Special Agricultural Production Area in the affected HUC-11 watershed. A diversion will also be deemed to have an adverse local impact if it results in a drawdown of the water table by more than four inches of the wetland nearest to the "zone of influence," defined at N.J.A.C. 7:50-2.11 as the area of ground water in the affected HUC-11 watershed that experiences an impact attributable to the pumping well. N.J.A.C. 7:50-6.28(d)7.

The applicant is required to conduct tests and run models to establish whether the diversion will have an adverse local impact. N.J.A.C. 7:50-6.28(d)7i. The proposed application requirements clarify, strengthen, and update the testing methodologies at existing N.J.A.C. 7:50-6.86(c), which requires only that "hydrologic analyses" be conducted in accordance with DEP guidelines from a technical manual that has since been replaced with a newer manual with a different title. (Technical Memorandum 12-2, Hydrogeologic Testing and Reporting Procedures in Support of New Jersey Water Allocation Permit in effect at the time of application ("TM 12-2"). N.J.A.C. 7:50-6.28(d)7i(1)).

The applicant will first be required to submit an analysis of potential drawdown impacts using the Thiem analysis. After completing the Thiem analysis, the applicant is required to submit to the Commission a proposed hydrogeologic test (also known as a pump test) developed in accordance with TM 12-2. N.J.A.C. 7:50-6.28(d)7i(2). This design phase gives applicants the opportunity to demonstrate to the Commission how the pump test will provide accurate results.

The pump test design can be flexible, but the proposed rule lists the minimum required design elements, which include installation of a single pumping well, observation wells to monitor water levels and collect time-drawdown data, and at least one piezometer to measure surface water and water table decline at the wetlands nearest to the proposed well. Other locations to be monitored are the nearest boundaries of a Forest Area or a Special Agricultural Production Area, or the Preservation Area District in the same HUC-11 watershed. Where one of the designated boundaries is located further from, but in the same direction as, another management area boundary to be monitored (nested), the more distant boundary would not be required to have a piezometer. Where different management area boundaries are located in different directions from the proposed diversion (not nested, but adjacent), a piezometer would be required at each management area boundary. N.J.A.C. 7:50-6.28(d)7i(2)(A), (B), (C), and (D). The applicant may include additional observation wells or piezometers at additional locations in the design of the pump test. As pump test design is also required by the DEP, it is expected that applicants will also be conferring with the DEP Bureau of Water Allocation during pump test design to assure that the design meets requirements of that agency.

If an applicant is unable to gain access to properties where piezometers are required, the applicant may propose to install them at comparable locations if the alternate placement will adequately measure surface water and water table decline at the locations specified at N.J.A.C. 7:50-6.28(d)7i(2). In such circumstances, the applicant would be required to provide information to the Commission to show how the alternate locations will provide measurements of surface water and water table decline that are comparable to the measurements that would be taken at the preferred locations. Factors that would go into a determination of whether the alternate locations could produce comparable measurements include comparable distance from the preferred location, no known differences in other withdrawals between the preferred and alternate locations, and no known naturally occurring differences in hydrologic or hydrogeologic characteristics. An example of an alternate location that would not be approved is one where there is a 100,000 gallon per day well that is pumping between the proposed new well and the alternate location, but not between the proposed new well and the preferred location. Another example of an unacceptable alternate location is where the preferred location is a wetlands that is fed by groundwater, but the alternate location is known to be perched and fed only by infiltration (rain).

After completing the pump test, the applicant is required to submit to the Commission a hydrogeologic report prepared in accordance with TM12-2 that includes the testing procedures, data collected and analyzed, and evaluation of the effect of the proposed diversion on the Kirkwood-Cohansey aquifer. N.J.A.C. 7:50-6.28(d)7i(3). The Commission will notify the applicant regarding whether the pump test design, test, and report have been completed appropriately in a consecutively executed application process. Applicants will be encouraged to concurrently consult with the DEP, as a pump test is also required by that agency.

Using the results of the hydrogeologic test, the applicant is next required to calculate an estimated zone of influence created by the proposed diversion and submit a groundwater flow model using the modular hydrologic model of the United States Geological Survey, MODFLOW. The MODFLOW model will enable the applicant to calculate the zone of influence of the water table at the nearest boundaries of the Preservation Area District, Forest Area, and Special Agricultural Production Area in the affected HUC-11 watershed as well as the boundary of the wetland nearest to the proposed diversion in the same HUC-11 watershed. N.J.A.C. 7:50-6.28(d)7i(4).

Water Conservation

The current water management rule at existing N.J.A.C. 7:50-6.86(d) requires all well applicants to "address measures in place or to be taken to increase water conservation in all areas to be served by the proposed well or system." The Commission is proposing to reword this requirement and add clarity by defining water conservation measures as "measurable efforts by public and private water system operators and local agencies to reduce water demand by users and reduce losses in the water distribution system." N.J.A.C. 7:50-6.86(d)8. Examples of water conservation measures include implementation of the WaterSense water conservation program of the United States Environmental Protection Agency, or of the LEEDs building standards of the United States Green Building Council, implementation of a peak demand fee structure, or requiring mandatory soil moisture/rain sensors for all landscape irrigation systems.

The Commission will no longer require water saving devices to be installed in all new development in areas served by central sewers, as is currently required at N.J.A.C. 7:50-6.86(a). Instead, it is proposing at N.J.A.C. 7:50-6.86(d)8 to broaden the water conservation measures that will be deemed acceptable as part of a well application. The current water conservation requirement is limited to areas served by sewers and was meant to be an indirect conservation measure to limit the amount of water exported from the Pinelands Area by sewer pipes, by also targeting those areas likely to be served by public community water systems. The Commission is replacing this requirement with broader and more flexible conservation requirements that do not preclude the implementation of conservation measures in sewer service areas, but add options for conservation other than the difficult to enforce requirement to install water saving devices. At the same time, the proposed rule recognizes that there are some areas that may be served by public community water systems but are not connected to public sewers. While those areas may be considered to recharge any water used that is discharged to individual subsurface disposal systems, those areas may also be using large volumes of water for lawn irrigation or other consumptive uses.

Notice Requirements

Recognizing that a diversion in one municipality may affect the availability of water in another municipality, the Commission is proposing, at N.J.A.C. 7:50-6.86(d)9, to require that well applicants are required to notify the municipality and county in which the proposed diversion will be located, as well as all other municipalities and counties in the affected HUC-11 watershed of the proposed diversion. This requirement will apply to private well applicants, as well as public well applicants.

Notice for private and public well applicants is to include: a detailed description of the proposed diversion, including the source, location, quantity, and/or allocation of water to be diverted; and the potential impact of the proposed diversion on the volume of water in the affected HUC-11 watershed that will be available for future diversions. Private well applicants will also have to include in their notice: a statement advising that written comments on the application may be submitted to the Pinelands Commission; a statement advising that the application is available for inspection at the office of the Pinelands Commission; and the address and phone number of the Pinelands Commission. Public well applicants are also required to comply with the existing notice provisions at N.J.A.C. 7:50-4.53(e), which apply to all major public development.

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

Social Impact

The Kirkwood-Cohansey aquifer is a vital resource that sustains the Pinelands ecosystem and provides potable and non-potable water to hundreds of thousands of people, businesses, and farms in southern New

Jersey. The proposed amendments establish stricter standards for withdrawals from the aquifer, which will result in stronger protections to the ecosystem and greater protections to the supply of water for agricultural operations in the Pinelands Agricultural Production Area and permitted development in the more growth-oriented areas of the Pinelands Area. These enhanced protections to the Pinelands ecology and regional water supply are expected to have a positive social impact in the Pinelands Area, as protection of resources in the Pinelands benefits society within the Pinelands and in the surrounding areas. These stronger protections will ensure that existing users will be able to continue to rely on the Kirkwood-Cohansey aquifer for community water supplies, private home wells, and industrial and agricultural uses in southern New Jersey.

Economic Impact

The proposed amendments will have a positive economic impact on the growth-oriented areas of the Pinelands, as they limit new diversions from the Kirkwood-Cohansey aquifer to the Regional Growth Area, Pinelands Towns, Rural Development Area, Agricultural Production Area, Military and Federal Installation Area, and 24 specific Pinelands Villages. Wells that support new or existing development in these areas will be permissible if they meet the new proposed standards and criteria. For the existing residential and non-residential uses and agricultural operations that currently withdraw water from the Kirkwood-Cohansey aquifer, the rules are designed to ensure continued reliance on the aquifer. This translates into an economic benefit for those water users, as accessing new water sources, such as wells, distribution lines, or utility fees, could be very costly.

There will be added costs for applicants proposing new or expanded non-agricultural diversions of at least 50,000 gallons per day from the Kirkwood-Cohansey aquifer. An application fee of $6,000 has been established for all such proposed projects, and an escrow payment will be required to fund the USGS's review of the testing, modelling, and analysis required by the proposed amendments. Since 2017, the Commission has received 30 applications for new or increased diversions, most of which proposed withdrawals from the Kirkwood-Cohansey. Of those applications, only 13 would have been subject to the application fee and escrow requirements proposed in this rulemaking.

There will be additional costs associated with new non-agricultural withdrawals of between 50,000 to 100,000 gallons per day from the aquifer, as the proposed amendments require testing, modeling, and analyses to assess the ecological impact of the proposed withdrawal. The DEP already requires similar analyses and modeling for diversions of 100,000 gallons per day or more. By lowering the threshold to 50,000 gallons per day, the proposed amendments will result in smaller wells in the Pinelands Area incurring costs for testing, modeling, and analyses that are not currently required by the DEP rules. Of the 30 applications for new or increased diversions received by the Commission since 2017, it is estimated that only eight would have incurred these additional costs, either because of the new 50,000 gallons per day threshold or because the proposed rule clarifies that wells owned in common will be grouped for purposes of determining whether the 50,000 gallons per day threshold is exceeded. Based on its past application activity, and the limitations imposed in the proposed amendments, the Commission anticipates that the total number of applications for new and increased divisions in the Kirkwood-Cohansey aquifer will continue to be low, with a small percentage subject to the additional costs associated with the proposed amendments.

Additional costs may also be incurred to meet the proposed water conservation and offset requirements, which will vary depending on the type of measures that are implemented. For individual users served by the water system, however, conservation measures may reduce costs based on lower water usage. For the system owner, development costs could potentially be reduced through the Pinelands Infrastructure Trust, which provides low-cost loans and grants to municipalities developing infrastructure to support growth in Pinelands Regional Growth Areas.

In some instances, the proposed amendments will require that new development rely on water outside the Kirkwood-Cohansey aquifer—from alternative water sources in deeper aquifers or from water purveyors or public community system interconnections. The initial costs associated with deeper wells or creating more extensive water supply distribution systems and interconnections may initially be greater than the costs of a new well in the Kirkwood-Cohansey aquifer.

Environmental Impact

The Kirkwood-Cohansey aquifer contains at least 17 trillion gallons of fresh water that lies beneath a 3,000 square mile area of the Pinelands Area. It sustains a vast ecosystem by supplying water to almost all the wetlands, streams, and rivers in the Pinelands, as well as being the primary water source for people, business, and farms in and immediately around the Pinelands Area. The proposed amendments prohibit diversions that will adversely impact the Pinelands ecology and the local water supply based on clear, measurable standards. These enhanced protections are anticipated to have a positive environmental impact.

Through legislation enacted in 2001, the New Jersey Legislature directed the Pinelands Commission to study how future water supply needs can be met from the Kirkwood-Cohansey aquifer without adversely impacting the ecosystem. P.L. 2001, c. 165. The studies, conducted jointly by the Commission and other government and educational entities and known collectively as the Kirkwood-Cohansey Project, established a clear link between the aquifer and the ecosystem. Simulated groundwater withdrawals and streamflow reductions reduced the distribution and composition of wetland-forest communities, individual wetland species, and wetland-indicator groups. In turn, there was a reduction in the survival rate of certain animal and plant species, including the State-threatened Pine Barrens tree frog and Federally endangered wetland plant, swamp pink, when the water table in the wetlands declined. The study of frogs, in particular, demonstrated a sharp decline in populations when the water table was lowered by four inches. Taken together, the studies predicted that groundwater withdrawals will reduce the populations of plants and animals that are characteristic of undisturbed Pinelands ecosystems.

Based on these studies, the Commission is proposing to strengthen protections for wetlands, and the animal and plant species that rely on wetlands habitats for survival, by requiring an assessment of the ecological impact of a proposed diversion. The amendments will prohibit diversions that would result in the drawdown of the water table of any portion of the most ecologically sensitive Pinelands management areas: the Preservation Area District, Forest Area, and Special Agricultural Production Area. In less restrictive management areas, the amendments will prohibit diversions that result in the drawdown of the water table by more than four inches in wetlands nearest to the zone of influence (the area of ground water that experiences an impact attributable to a pumping well).

The proposed amendments expand the scope of diversions that will be subject to the stricter standards and criteria. The CMP's water management provisions currently apply only to total diversions of 100,000 gallons or more per day. The Commission is proposing to lower this threshold to total diversions of 50,000 gallons or more per day from the Kirkwood-Cohansey aquifer in the same HUC-11 watershed. The volume determination is based on all of an applicant's allocations under a water allocation permit, water use registration issued by the DEP, which will ensure that more wells will be subject to the proposed new standards and further protect the Pinelands ecology and water supply.

The proposed amendments also limit the adverse effects of withdrawals on the sustainability of the water supply in HUC-11 watersheds in the Kirkwood-Cohansey aquifer. Excessive withdrawals can diminish available water supply for existing uses such as community water systems, private home wells, businesses, agriculture, and ecosystems. The Commission is proposing a specific, measurable standard to assess and limit the impact of a proposed diversion on water availability in a particular watershed. The standard is based on the stream low flow margin, a tool formulated by the DEP for regional protection of the water table aquifer. The New Jersey Statewide Water Supply Plan (Water Supply Plan) includes estimates of this stream low flow margin for each HUC–11 watershed in the State. Withdrawals in any HUC-11 watershed that exceed a specific portion of that low flow margin are expected to reduce stream flows such that a stream may dry up during annual low flow periods or droughts, thus impacting wetlands habitats and species, existing human uses, and stressing the watershed. These calculations are based on all known allocations approved and registered by the DEP.

The Commission's rulemaking to limit aquifer withdrawals to no more than 20 percent of the stream low flow margin for each HUC-11 watershed will strengthen the protections of the water supply in the Pinelands Area, as the CMP does not currently impose specific limits on withdrawals. This threshold limit of 20 percent is also stricter than that recommended by the Water Supply Plan, which says that up to 25 percent of the stream low flow margin could be diverted without causing streams to dry up during annual low flow periods or droughts. The lower threshold will protect Pinelands plants, animals, and habitats, as well as existing withdrawals for public water supplies, agriculture, and other businesses. The Commission also chose a lower threshold in recognition that climate change may result in longer or more frequent drought periods.

When evaluating whether a proposed diversion meets this stream low flow margin threshold, the proposed amendments require the Commission to consider all the existing permitted allocations in the same HUC-11 watershed, not just the proposed diversion. This consideration mirrors the methodology by which the low flow margin is estimated in the Water Supply Plan and will ensure a more complete and accurate evaluation of how stressed the watershed will be from the proposed new diversion in light of all existing allocations.

Other provisions in the proposed amendments also serve to protect the environment, including the explicit prohibition on the interbasin transfers of water. Prohibiting such transfers is a key tool in limiting adverse environmental impacts related to the reduction in stream base flows that can result from the transfers. The restriction against interbasin transfers is also strengthened by defining the two basins between which water cannot be transferred.

To better protect the most ecologically sensitive areas of the Pinelands, the Commission is proposing to limit new or increased diversions from the Kirkwood-Cohansey aquifer to the Agricultural Production Area and the following growth-oriented Pinelands Management Areas: Regional Growth Area, Pinelands Towns, Rural Development Area, Military and Federal Installation Area, and 24 specific Pinelands Villages. This is expected to minimize future impacts to groundwater quantities in the Preservation Area District, the Special Agricultural Production Area, and the Forest Area.

The Commission is proposing to strengthen and clarify the water conservation requirement currently in the CMP by requiring documentation of measures that have been implemented or that are planned for implementation and requiring that the conservation efforts be measurable. The amendments also broaden the water conservation requirements of the current rule by requiring conservation to occur not just in areas served by centralized sanitary sewer systems, but throughout all areas to be served by the proposed diversion.

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 requirements and restrictions on groundwater withdrawals from the Kirkwood-Cohansey aquifer, which, in turn, will protect wetlands habitats and plants and animals that are characteristic of undisturbed Pinelands ecosystems, including at least one wetlands plant that is on the Federal endangered species list.

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. Engineering and other professional work will be needed to comply with the testing and modeling requirements in the proposed amendments. These requirements align closely with those currently imposed by the DEP, but under the proposed amendments, they will apply to a slightly larger group of wells (those that will pump 50,000 gallons per day or more). Overall, the Pinelands Commission does not believe that the rulemaking will result in a significant impact on jobs.

Agriculture Industry Impact

The rulemaking will have no direct impact on the agriculture industry, as exclusively agricultural uses are not deemed development under the CMP and do not require application to the Commission. The proposed amendments permit new and expanded diversions in the Pinelands Agricultural Production Area and explicitly exempt diversions exclusively for agricultural or horticultural use from complying with the new standards. It is anticipated that the amendments will indirectly benefit farm operations that rely upon the Kirkwood-Cohansey aquifer for water by protecting regional water supply.

The Kirkwood-Cohansey aquifer provides water for upland agriculture and for the cranberry bogs and blueberry farms throughout the Pinelands Area. Farmers depend on water from the aquifer for irrigation and cranberry growers use large amounts of water from the aquifer to maintain their bogs. The amendments strengthen the protections to the Kirkwood-Cohansey aquifer water supply, which, in turn, will benefit the agriculture industry in the Pinelands Area and surrounding areas.

The proposed standard for maintaining water availability could benefit the agricultural industry. The Commission is proposing to limit withdrawals from the Kirkwood-Cohansey aquifer to no more than 20 percent of the stream low flow margin for the HUC-11 watershed in which a proposed diversion is located. This represents a five percent difference between the Commission's rulemaking and the DEP's recommended threshold, which is 25 percent of the stream low flow margin. The difference in the threshold suggests that an additional five percent of the stream low flow margin might be allowed by the DEP for agricultural and horticultural purposes that the Commission does not regulate.

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 in terms of absolute costs.

Small businesses proposing new or increased diversions in the Kirkwood-Cohansey reservoir may incur costs from hiring professional consultants, such as engineers. Although under the current rules small businesses incur similar costs, the proposed rules require additional analyses and modeling, which could increase the costs. Also, where new or increased diversions require offsets on a gallon-per-gallon basis for withdrawals beyond 20 percent of the stream low flow margin, small businesses may incur costs associated with those offsets depending on the method of implementing the offsets. Similarly, businesses served by a water supply system that is the subject of an application for a new or increased withdrawal from the Kirkwood-Cohansey aquifer may also be required to institute water conservation measures and may, therefore, incur a cost depending on the method of implementing conservation.

The Commission has balanced the costs imposed on small businesses by the proposed amendments against the environmental benefits to be achieved by the amended well requirements and determined that it would be inappropriate to exempt small businesses from these requirements. As noted above in the Environmental Impact statement, the amendments impose stricter requirements on water withdrawals from the Kirkwood-Cohansey aquifer, which will result in healthier ecosystems and less threats to the plants and animals that thrive in those undisturbed ecosystems.

Housing Affordability Impact Analysis

The Commission does not anticipate this rulemaking will have a significant impact on the affordability of housing. Costs may be incurred by developers, municipalities, or utilities related to implementing conservation measures or offsets, where required. Those upfront costs may result in a minor incremental increase in housing costs where a community water supply is served by a new or increased diversion from the Kirkwood-Cohansey aquifer. Additional impacts to housing

affordability are expected to be minimal, as DEP already imposes similar requirements for well modeling and testing. There may be situations, however, where the regional impact to the aquifer cannot be offset and a housing project may be required to seek an alternative water supply source. The additional costs for extending the infrastructure would likely be passed along in housing prices.

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 is 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 in boldface **thus**; deletions indicated in brackets [thus]):

SUBCHAPTER 1. GENERAL PROVISIONS

7:50-1.6 Fees

(a) Except as provided [in] **at** (a)1 and 2 below, all applications required or permitted by any provision of this Plan shall be accompanied by a nonrefundable**, nontransferable,** application fee of $250.00 or a fee calculated according to the fee schedule set forth [in] **at** (b) through (l) below, whichever is greater. No application filed pursuant to this Plan shall be reviewed or considered complete**,** unless all fees required by this Part have been paid and any escrow required pursuant to N.J.A.C. 7:50-1.7 has been submitted.

1.-2. (No change.)

(b) (No change.)

(c) The application fee for a commercial, institutional, industrial, or other non-residential development application submitted pursuant to N.J.A.C. 7:50-4.14, 4.33, 4.52, or 4.66 shall be calculated in accordance with the following, based on typical construction costs, except as provided [in] **at** (c)1 through [9] **10** below: [Typical construction costs shall include all costs associated with the development for which the application is being submitted, including, but not limited to, site improvement and building improvement costs, but shall not include interior furnishings, atypical features, decorative materials or other similar features.]

Construction Cost	Required Application Fee
$0 - $500,000	1.25 percent of construction costs
$500,001-$1,000,000	$6,250 + one percent of construction costs above $500,000
Greater than $1,000,000	$11,250 + 0.75 percent of construction costs above $1,000,000

Typical construction costs shall include all costs associated with the development for which the application is being submitted, including, but not limited to, site improvement and building improvement costs, but shall not include interior furnishings, atypical features, decorative materials or other similar features. Supporting documentation of the expected construction costs shall be submitted as part of the application for development, unless the maximum fee pursuant to [(e)4] **(e)3** below is required, in which case no such documentation shall be necessary.

1.-7. (No change.)

8. For the demolition of a structure 50 years or older, the fee shall be $250.00; [and]

9. For the development of a solar energy facility, the fee shall be $1,500 plus $500.00 per acre of land to be developed, or portion thereof, including any off-site development[.]**; and**

10. For a well, the application fee shall be:

i. $6,000 for any well in the Kirkwood-Cohansey aquifer that is required to meet the criteria and standards at N.J.A.C. 7:50-6.86(d); or

ii. Calculated based upon construction costs as set forth in this subsection for wells that are not subject to the criteria and standards at N.J.A.C. 7:50-6.86(d).

(d)-(l) (No change.)

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.

. . .

"Divert" or "Diversion" means the taking of water from a river, stream, lake, pond, aquifer, well, other underground source, or other waterbody, whether or not the water is returned thereto, consumed, made to flow into another stream or basin, or discharged elsewhere.

. . .

"Stream low flow margin" means the difference between a stream's September median flow and its statistical flow, which is the seven-day flow average in the 10-year period for the stream (7Q10) as reported in the New Jersey Statewide Water Supply Plan, New Jersey Department of Environmental Protection, 2017, New Jersey Water Supply Plan 2017-2022: 484p, http://www.nj.gov/dep/watersupply/wsp.html, as amended and supplemented.

. . .

"Well" means a hole or excavation deeper than it is wide, that is drilled, bored, core driven, jetted, dug, or otherwise constructed for the purpose of the removal of, investigation of, or exploration for water.

. . .

"Zone of influence" means the area of ground water that experiences an impact attributable to a pumping well.

. . .

SUBCHAPTER 6. MANAGEMENT PROGRAMS AND MINIMUM STANDARDS

7:50-6.86 Water management

[(a) Interbasin transfer of water between watersheds in the Pinelands should be avoided to the maximum extent practical. In areas served by central sewers, water-saving devices such as water saving toilets, showers and sink faucets shall be installed in all new development.]

[(b)] **(a)** Water shall not be exported from the Pinelands except as otherwise provided [in] **at** N.J.S.A. 58:1A-7.1.

[(c) All wells and all increases in diversion from existing wells which require water allocation permits from the New Jersey Department of Environmental Protection shall be designed and located so as to minimize impacts on wetlands and surface waters. Hydrologic analyses shall be conducted in accordance with the New Jersey Department of Environmental Protection Guidelines for Water Allocation Permits, with an Appendix on Aquifer-Test Analysis Procedures, New Jersey Geological Survey Report GSR 29, 1992, incorporated herein by reference, as contained in pages 53 through 91 of the Technical Manual for Water Supply Element, Bureau of Water Allocation, Water Allocation Permits dated May 19, 1993, as amended.

(d) All applications for the development of water supply wells or the expansion of existing water distribution systems shall address measures in place or to be taken to increase water conservation in all areas to be served by the proposed well or system. This shall include efforts by water purveyors and local governments to reduce water demands by users and to reduce losses in the supply and distribution system.

(e) Except for agricultural uses, all new potable and non-potable water supply diversions of more than 100,000 gallons per day that utilize the Kirkwood-Cohansey aquifer as a source of water supply and new increases in existing potable and non-potable water supply diversions of over 100,000 gallons per day that utilize the Kirkwood-Cohansey aquifer may be permitted only if it is demonstrated that:

1. No viable alternative water supply sources are available; or

2. The proposed use of the Kirkwood-Cohansey aquifer will not result in any adverse ecological impact on the Pinelands Area.]

(b) A diversion that involves the interbasin transfer of water in the Pinelands Area between the Atlantic Basin and the Delaware Basin, as defined at (b)1 and 2 below, or outside of either basin, shall be prohibited.

1. The Atlantic Basin is comprised of Watershed Management Areas 13, 14, 15, and 16, as identified by the New Jersey Department of Environmental Protection at https://www.state.nj.us/dep/seeds/docs/watersheds.pdf.

2. The Delaware Basin is comprised of Watershed Management Areas 17, 18, 19, and 20 as identified by the New Jersey Department of Environmental Protection at https://www.state.nj.us/dep/seeds/docs/watersheds.pdf.

(c) A diversion involving the intrabasin transfer of water between HUC-11 watersheds in the same basin, Atlantic Basin or Delaware Basin as defined at (b) above, shall be permitted. If such an intrabasin transfer involves water sourced from the Kirkwood-Cohansey aquifer, the diversion shall meet the criteria and standards set forth at (d) below.

(d) A new diversion or an increase in allocation from either a single existing diversion source or from combined existing diversion sources in the same HUC-11 watershed and in the Kirkwood-Cohansey aquifer, that results in a total diversion of 50,000 gallons of water per day or more (hereafter referred to as "proposed diversion") shall meet the criteria and standards set forth at (d)3 through 9 below. "Allocation" shall mean a diversion permitted pursuant to a Water Allocation Permit or Water Use Registration Number issued by the New Jersey Department of Environmental Protection pursuant to N.J.A.C. 7:19.

1. When evaluating whether the proposed diversion meets the criteria set forth at (d)3 through 9 below, all of the applicant's allocations in an HUC-11 watershed, in addition to the proposed diversion, shall be included in the evaluation.

2. The standards set forth at (d)3 through 9 below shall not apply to:

i. A new well that is to replace an existing well, provided the existing well is sealed in accordance with N.J.A.C. 7:9-9 and the new replacement well will:

(1) Be approximately the same depth as the existing well;

(2) Divert from the same aquifer as the existing well;

(3) Have the same or lesser pump capacity as the existing well; and

(4) Be located within 100 feet of, and in the same HUC-11 watershed as, the existing well; or

ii. Any diversion that is exclusively for agricultural or horticultural use.

3. A proposed diversion shall be permitted only in the following Pinelands Management Areas:

i. Regional Growth Area;

ii. Pinelands Towns;

iii. Rural Development Area;

iv. Agricultural Production Area;

v. Military and Federal Installation Area; and

vi. The following Pinelands Villages: Milmay; Newtonville; Richland; Folsom; Cologne-Germania; Pomona; Mizpah; Nesco-Westcoatville; Port Republic; New Gretna; New Lisbon; Indian Mills; Tabernacle; Blue Anchor; Elm; Tansboro; Waterford Works; Winslow; Dennisville; Petersburg; Tuckahoe; Delmont; Dorchester; and Port Elizabeth-Bricksboro.

4. A proposed diversion shall only be permitted if the applicant demonstrates that no alternative water supply source is available or viable. Alternative water supply sources include, but are not limited to, groundwater and surface water sources that are not part of the Kirkwood-Cohansey aquifer, and public water purveyors and suppliers, as defined at N.J.A.C. 7:19-1.3. A list of alternative water supply sources is available at the offices of the Pinelands Commission and at https://www.nj.gov/pinelands/.

5. A proposed diversion shall not have an adverse ecological impact on the Kirkwood-Cohansey aquifer. Adverse ecological impact means an adverse regional impact and/or an adverse local impact, as described at (d)6 and 7 below.

6. A proposed diversion shall be deemed to have an adverse regional impact if it, combined with all existing permitted allocations in the same HUC-11 watershed, exceeds 20 percent of the stream low flow margin for the year of peak use established in the New Jersey Statewide Water Supply Plan at https://www.nj.gov/dep/watersupply/pdf/wsp.pdf for the HUC-11 watershed where the proposed diversion will be located (hereafter referred to as "the affected HUC-11 watershed").

i. If a proposed diversion is deemed to have an adverse regional impact, it shall be permitted only if an applicant permanently offsets the diversion on a gallon-for-gallon basis in accordance with the following:

(1) Offsets shall be implemented in the affected HUC-11 watershed and include, but are not limited to:

(A) The recharge of previously non-infiltrated stormwater runoff in the Pinelands Area;

(B) The recharge of treated wastewater that is currently discharged by a regional sewage treatment plant that discharges treated wastewater into the Delaware River or Atlantic Ocean;

(C) Development of a desalinization facility; and

(D) Sewerage system inflow and infiltration abatement and/or water distribution infrastructure leak auditing and correction.

ii. A proposed diversion in an HUC-11 watershed where water withdrawals already exceed 20 percent of the stream low flow margin established in the New Jersey Statewide Water Supply Plan shall be deemed to have an adverse regional impact unless an applicant can permanently offset the entire diversion in accordance with (d)6i(1) above.

iii. Unless the submission requirements are modified or waived pursuant to N.J.A.C. 7:50-4.2(b)3, all applications shall include the information required at N.J.A.C. 7:50-4.2(b)4 or 5, as well as the following:

(1) Using data on low flow margins in the New Jersey Statewide Water Supply Plan in effect at the time of application, the applicant shall calculate the sum of the proposed diversion and all existing permitted allocations in the affected HUC-11 watershed, and show whether that sum exceeds 20 percent of the stream low flow margin for the year of peak use established in the New Jersey Statewide Water Supply Plan. The applicant shall submit a report that includes all required calculations and a summary of the impact of the proposed diversion on the available portion of the 20 percent stream low flow margin in the affected HUC-11.

(2) The applicant shall identify all offset measures and provide to the Commission a detailed description of the measures, including the volume of water that will be offset, timeframes for implementing the offsets, a description of the entity that will be implementing the offset measures, and an explanation of the entity's authority to implement the measures.

7. A proposed diversion shall be deemed to have an adverse local impact in the Pinelands Area if it results in the drawdown of the water table as defined at N.J.A.C. 7:19-6.2 of any portion of the Preservation Area District, Forest Area, or Special Agricultural Production Area in the affected HUC-11 watershed, or of more than four inches of the wetlands nearest to the estimated zone of influence in the affected HUC-11 watershed.

i. Application requirements:

(1) The applicant shall submit an analysis of potential drawdown impacts using the Thiem method in accordance with the New Jersey Geological & Water Survey Technical Memorandum 12-2, Hydrogeologic Testing and Reporting Procedures in Support of New Jersey Water Allocation Permit in effect at the time of application (hereafter referred to as "TM 12-2").

(2) Upon completion of the Thiem analysis, the applicant shall submit a proposed hydrogeologic test procedure, developed in accordance with TM 12-2, which shall include, at a minimum, the installation of:

(A) A single pumping well;

(B) Observation wells to sufficiently monitor water levels while the test well is pumped at a constant rate;

(C) Observation wells to collect time-drawdown data for aquifer characterization; and

(D) At least one piezometer to measure surface water and water table decline at: the nearest boundaries of the Preservation Area District, Forest Area, or Special Agricultural Production Area in the affected HUC-11 watershed found in any direction from the proposed well location; and the wetlands nearest to the estimated zone of influence in the affected HUC-11 watershed.

I. If the applicant cannot gain access to the parcels at the locations listed at (d)7i(2)(D) above for placement of piezometer(s), the applicant may propose to install piezometers at comparable locations if the alternate placement will adequately measure surface water and water table decline at the locations listed at (d)7i(2)(D) above.

II. Piezometers shall be tested to ensure hydraulic responsiveness and the results of such testing shall be included in the report submitted pursuant to (d)7i(3) below;

(3) Following the Commission's review of the hydrogeologic test procedure, the applicant shall complete the test and submit a final hydrogeologic report prepared in accordance with the "Hydrogeological Report" section of TM 12-2, which shall describe the field procedures used, all data gathered, analysis of the data, and evaluation of the effect of the proposed diversion on the Kirkwood-Cohansey aquifer.

(4) Using the results of the hydrogeologic testing performed in accordance with (d)7i(3) above, the applicant shall calculate an estimated zone of influence created by the proposed diversion and submit a groundwater flow model using the modular hydrologic model of the United States Geological Survey, (MODFLOW) in use at the time of the application. The MODFLOW model shall calculate the zone of influence of the water table at: the nearest boundaries of the Preservation Area District, Forest Area, or Special Agricultural Production Area in the affected HUC-11 watershed; and the boundary of the wetland nearest to the proposed diversion in the same HUC-11 watershed.

8. An applicant for a proposed diversion shall provide written documentation of water conservation measures that have been implemented, or that are planned for implementation, for all areas to be served by the proposed diversion. Water conservation measures are measurable efforts by public and private water system operators and local agencies to reduce water demand by users and reduce losses in the water distribution system.

9. The following notice requirements shall apply to the proposed diversions:

i. For applications submitted pursuant to N.J.A.C. 7:50-4.31 through 4.50, the applicant shall provide notice of the application to the municipality and county in which the proposed diversion will be located, as well as all other municipalities and counties in the affected HUC-11 watershed. The notice shall state:

(1) The nature of the application submitted to the Pinelands Commission and a detailed description of the proposed diversion, including the source, location, quantity, and/or allocation of water to be diverted;

(2) The potential impact of the proposed diversion on the volume of water in the affected HUC-11 watershed that will be available for future diversions;

(3) That written comments on the application may be submitted to the Pinelands Commission;

(4) That the application is available for inspection at the office of the Pinelands Commission; and

(5) The address and phone number of the Pinelands Commission.

ii. For applications submitted pursuant to N.J.A.C. 7:50-4.51 through 4.60, the applicant shall provide notice of the application for public development pursuant to N.J.A.C. 7:50-4.53. In addition, the applicant shall provide notice of the application to all municipalities and counties in the affected HUC-11 watershed. The notice shall include the information required at N.J.A.C. 7:50-4.53(e), as well as the following:

(1) A detailed description of the proposed diversion, including the source, location, quantity and/or allocation of water to be diverted; and

(2) A statement of the potential impact of the proposed diversion on the volume of water in the affected HUC-11 watershed that will be available for future diversions.

iii. No application for which notice pursuant to (d)9i or ii above is required shall be deemed complete until proof that the requisite notice that has been given is received.

HIGHER EDUCATION

(a)

HIGHER EDUCATION STUDENT ASSISTANCE AUTHORITY

Primary Care Practitioner Loan Redemption Program

Proposed Readoption with Amendments: N.J.A.C. 9A:16

Authorized By: Higher Education Student Assistance Authority, Christy Van Horn, Chairperson.

Authority: N.J.S.A. 18A:71C-32 et seq.

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

Proposal Number: PRN 2022-109.

Submit written comments by November 5, 2022, to:

Marnie B. Grodman, Esquire
Administrative Practice Officer
Higher Education Student Assistance Authority
PO Box 545
Trenton, NJ 08625-0545
Email: Regulations@hesaa.org

The agency proposal follows:

Summary

The Higher Education Student Assistance Authority (Authority) proposes to readopt N.J.A.C. 9A:16 governing the Primary Care Practitioner Loan Redemption Program ("PCPLRP" or "Program"). Pursuant to N.J.S.A. 52:14B-5.1, this chapter was scheduled to expire on August 4, 2022. In accordance with N.J.S.A. 52:14B-5.1.c(2), the filing of this notice of proposal with the Office of Administrative Law prior to August 4, 2022, extended that date 180 days to January 31, 2023.

The Authority has reviewed the rules and determined that they continue to be necessary, reasonable, and proper for the purpose for which they were originally promulgated. The rules proposed for readoption with amendments will continue to provide the Authority with the ability to administer the Primary Care Practitioner Loan Redemption Program in an efficient and economic matter. Pursuant to N.J.S.A. 18A:71C-48, the Authority is statutorily responsible for the administration of the PCPLRP and for the promulgation of all rules to that effect. To ensure the continued efficient administration and operation of this program, the Authority is proposing the readoption of this chapter with amendments, all of which are summarized below.

Subchapter 1 sets forth the general provisions of the Program, explaining that the Program provides for the redemption of eligible