

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.)

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

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

The agency proposal follows:

Summary

The New Jersey Pinelands Commission (Commission) proposes to amend Subchapter 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,

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:

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/water_supply/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/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").

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)6(i) 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