

PINELANDS CLIMATE COMMITTEE MEETING

This meeting was conducted in-person and available remotely.

The public could view/comment through Pinelands Commission YouTube link:

<https://www.youtube.com/c/PinelandsCommission>

Zoom Meeting ID: 890 0604 8756

November 30, 2022

Immediately following the 9:30 a.m. Policy & Implementation Committee Meeting

MINUTES

MEMBERS IN ATTENDANCE: Chairman Mark Lohbauer, Commission Chair Laura E. Matos, Edward Lloyd, and Jerome H. Irick

MEMBERS ABSENT: Alan W. Avery, Jr.

OTHER COMMISSIONERS PRESENT: Theresa Lettman, Doug Wallner

STAFF PRESENT: Susan R. Grogan, Stacey P. Roth, Ed Wengrowski, Steven Simone, Ernest Deman, John Bunnell, Jessica Lynch, Paul Leakan, and Dawn Holgersen. Also present were Robert Davidow and Janice Venables from the Governor's Authorities Unit.

1. Call to Order

Chairman Lohbauer called the meeting to order at 11:44 a.m.

2. Adoption of the September 30, 2022 Committee meeting minutes

Chairman Lohbauer requested an edit to the minutes to remove the word "completely" shown on page six, paragraph six.

Commissioner Irick moved the adoption of the September 30, 2022 Committee meeting, with the revision. Commission Chair Matos seconded the motion. All voted in favor.

3. Discussion of Committee meeting schedule for 2023

Ms. Grogan said that a resolution will be presented at the next full Commission meeting with the Commission's meeting dates for 2023. She said it remains as the second Friday of the month, with the exception of the month of November. She said the Policy and Implementation (P&I) Committee will continue to meet on the last Friday of each month, also with the exception of the month of November. She said that dates are being considered for the Personnel and Budget (P&B) Committee.

Ms. Grogan suggested that the Committee meet on a separate day, instead of after the P&I Committee meetings. She expressed concern with the difficulty of preparing for two meetings on the same day. She also said the Committee sometimes appears to rush through its agenda as a result of the back-to-back meetings.

Ms. Grogan mentioned that the Committee previously met on Wednesday mornings, mid-month. She asked that the Committee for recommendations on available meeting dates.

Commissioner Lettman asked if the meetings could be held on a different Friday. Commission Chair Matos mentioned that it would be difficult for her to attend an additional Friday meeting. She also suggested to keep the hybrid meeting format. She agreed that the Committee should meet on a separate day.

Chairman Lohbauer said that his schedule is flexible. He also agreed that a separate meeting day is necessary to devote enough time to the agenda. He recommended a poll to see which day is most convenient.

Ms. Grogan said that she could send an email with suggested meeting dates. She also said that she does not recommend the Committee meet monthly.

Commission Chair Matos suggested that a decision be made on a day of the week to meet to facilitate planning for the year and minimize conflict.

Commissioner Lloyd said that his schedule is flexible, and that Wednesday is a good day of the week for him. He suggested to schedule the meetings monthly. He commented that cancelling a scheduled meeting would be easier than trying to add an additional meeting to the schedule after the fact. He said that a monthly meeting is necessary due to the importance of the Committee's mission.

Commission Chair Matos agreed on the importance of the Committee's mission. She expressed concern on the use of staff time to prepare for more frequent meetings. She said that having a separate meeting would provide more time to focus on the Committee's work.

Commissioner Irick commented on the strain of having back-to-back meetings. He expressed concern of his ability to attend three separate meetings in a single month.

Ms. Grogan recommended scheduling some additional meetings in lieu of meeting every month. She suggested to refrain from meeting in January to give staff time to prepare for the next meeting. She said the numerous climate initiatives that have been introduced recently take up some of the staff resources to address.

Ms. Grogan said she will draft a schedule with dates on Wednesdays and email it to the Commissioners.

Chairman Lohbauer said that he would like to see six meetings in 2023. He said most of the work will be to develop CMP amendments. He said that meetings should occur when staff are

ready to make presentations. He agreed with Commissioner Lloyd's suggestion to schedule monthly meetings that could be cancelled if necessary.

4. Update on state initiatives

Ed Wengrowski, the Commission's Environmental Technologies Coordinator, provided a presentation on New Jersey Department of Environmental Protection's (NJDEP) Inland Flood Protection Rule Proposal (*attached to these minutes*).

He said this rule ties directly to the Commission's new stormwater management rules. He said there is a courtesy copy of the rule available for review.

Mr. Wengrowski said the official rule will be published in the New Jersey Register on December 5, 2022. He said that will begin the public review period with a public comment period that will end on February 3, 2023.

He said the proposal contains new rules, amendments, and certain repeals to NJDEP's stormwater management rule. He said the stormwater management related amendments are the most applicable in the Pinelands. The proposal also contains new flood hazard area control rules.

He said when the Commission developed its new stormwater rules, it was anticipated that NJDEP would update the tables that would be used to define the volume of stormwater that needs to be managed on development sites.

Mr. Wengrowski said that National Oceanic and Atmospheric Administration (NOAA) tables are referenced that identify rainfall totals for two-, ten-, and one-hundred-year storms. He said the Commission requires stormwater best management practices (BMP) be designed to handle most storm volumes.

He said that NJDEP commissioned Cornell University to evaluate and update the data. He said the existing NOAA tables seem to be looking toward the past. Cornell was asked to both update the information with totals for the last ten years and make projections based on climate models.

Mr. Wengrowski explained the definition of fluvial flooding as being from rivers and caused by stormwater runoff from extreme precipitation, floodwaters that are moving through the watershed to the ocean, and that they can happen quickly and cause significant damage and loss of life.

He explained the definition of tidal flooding as being in coastal areas and are caused by tidal surge during storms, with significant damage caused by wave action that generally does not happen quickly and can be prepared for.

He said that current NJDEP and Federal Emergency Management Agency (FEMA) flood area maps are based on past hydrology from the 1970's and 1980's. He said this mapping generally

underestimates current flood potential as it does not account for increasing precipitation due to climate change.

Mr. Wengrowski defined the one-hundred-year flood to be more accurately described as a 1% flood. He said that within a given year, this flood has a 1% probability of occurring and this type of flooding occurs, on average, about once a century. He said that based on current NOAA 100-year flood data, the state has seen at about three to four of those storms in a single year.

He said the proposed inland protection rule addresses three issues important to the Commission that are related to increased precipitation due to climate change. He said the rule updates rainfall totals used by NJDEP by incorporating current and future rainfall data and projections. He said the rule updates flood hazard elevations and flood hazard areas by incorporating those rainfall totals. He also said this rule will automatically apply in the Pinelands Area as the new rainfall data will be incorporated into the CMP, which adopts NJDEP's stormwater rules by reference.

Mr. Wengrowski said that the updated tables with past rainfall totals saw a minimal change in two- and ten-year storms. He said there is more of an increase in the one-hundred-year storms. He said the table of future precipitation is projected to have significant increases in rainfall totals. He said that stormwater BMPs need to be designed to handle the projected amounts of rainfall in the future.

He said that the new rule will expand flood hazard areas based on increased rainfall data. He gave examples of flood hazard areas with a FEMA flood map for portions of Medford Lakes Borough and Hamilton Township.

In response to Commissioner Irick's question about flood maps, Mr. Wengrowski said that the Commission does not prepare flood hazard maps.

Commissioner Irick expressed concern with the expansion of the flood hazard area affecting development review. Mr. Wengrowski said that NJDEP reviews development in flood hazard areas.

Chairman Lohbauer asked what the impact will be on properties that will be added to the flood hazard area with the new rule. Mr. Wengrowski said that it will affect the potential for future development. He said that those properties would likely need to obtain flood insurance, which is not something the Commission is involved in. Chairman Lohbauer suggested to forward the subject to the Pinelands Municipal Council.

Ms. Grogan said that the changes in flood hazard areas relates to a previous discussion regarding proposing Pinelands management area changes so that development is not encouraged in the new flood hazard areas.

In response to Chairman Lohbauer's timeline question, Mr. Wengrowski said that a defined date for enacting the rule has not been established. He said that the rule was initially introduced as emergency rulemaking before it was brought through the normal process and may receive a large amount of public comment, which would take time to address. Ms. Roth included that the

NJDEP will have one year from the date of publication of the proposal in the New Jersey Register to file the notice of adoption.

5. Prioritization of potential amendments to the Pinelands Comprehensive Management Plan related to climate resilience

Chairman Lohbauer noted that Ms. Grogan provided a presentation in September outlining potential CMP amendments relating to climate resilience. He suggested the Committee give staff guidance on the priority of those amendments.

Ms. Grogan shared a slide show that was previously presented on July 29, 2022 regarding the Committee's Fiscal Year 2023 workplan (*attached to these minutes*). She said that CMP amendments and Pinelands management area boundary analysis are both items to review and recommend to the P&I Committee.

She said there are a list of solar related amendments to consider. She encouraged the Committee to proceed with review and rule writing that would include some of the suggestions for solar amendments. She said the solar amendments could then be implemented when reviewing development applications.

She described other potential amendments such as tree removal limitations for various types of development, tree replanting/reforestation requirements, and changing management area boundaries.

Ms. Grogan shared a slide show that was previously presented on September 30, 2022 regarding Chairman Lohbauer's CMP amendment recommendations (*attached to these minutes and available on the Commission's website through the following link:* <https://nj.gov/pinelands/home/presentations/9-30-2022%20Lohbauer%20amendments%20presentation.pdf>).

She said that the recommendation included a suggestion to establish language that references the NJ Global Warming Response Act and the need for mitigation. She said, in summary, many of the recommendations for CMP amendments will be to require applicants to address climate mitigation. She said that the amendments could be formed under a new section in the CMP.

She outlined the recommendations of policies to address carbon sequestration, climate-related energy, and climate-related stormwater management.

Chairman Lohbauer encouraged the Committee to discuss these suggestions and recommend some to the staff for draft rule language to review.

Commissioner Irick commented that some recommendations are controversial, and some may be easy to implement. He recommended the staff select some of the easiest to implement and draft amendment language.

Commission Chair Matos echoed the sentiment. She said the easier amendments could be put through the rulemaking process while working on the more difficult subjects on the side. Commissioner Lloyd suggested the Committee determine what should be accomplished in 2023. He said, given the staff resources, the Committee may want to focus on one recommendation instead of three. He recommended the Commissioners each provide three priorities next week that could be evaluated to provide one recommendation to forward to the staff.

Ms. Grogan provided clarification to Commissioner Lettman regarding the change of management area boundaries. She said that it is similar to the analysis that was done in Evesham many years ago. She said that the new maps could be reviewed to identify more ecologically sensitive areas that would benefit from being in a different management area.

Commissioner Lettman said those changes could provide better protection and asked if this analysis would be too much of a time-consuming effort. Ms. Grogan replied that reviewing the overlay of certain maps could be done, as it would not require much rule writing or developing standards.

Ms. Grogan recommended an examination of management area boundaries and amending solar energy facility rules as subjects to focus on. She said they could be done without a lot of additional research and time.

Commission Chair Matos suggested to look at information the NJ Board of Public Utilities (BPU) and other agencies have released lately as guidance on items to incorporate in CMP amendments for solar energy.

Chairman Lohbauer commented that he anticipates seeing more new development applications that will include solar energy facilities. Ms. Grogan agreed. She said that with the experience of implementing the current solar standards, staff have observed things that could be improved.

Chairman Lohbauer suggested a third priority be the introduction of climate mitigation policy to the CMP. He said that it relates to the objectives of the Commission. Ms. Grogan agreed with the importance of Chairman Lohbauer's suggestion. She said that it would require more staff resources to research.

Commissioner Lloyd recommended to continue with the analysis and proposal of changes to the management area boundaries and amending the solar rules. He said he would like to see other changes such as the use of pervious surfaces and no net loss of trees but would not want to overburden the staff.

Commissioner Irick agreed with Commissioner Lloyd's suggestion. He also asked to have legal research on the other recommendations to determine what could be more challenging on staff resources.

Commissioner Wallner also agreed with Commissioner Lloyd's suggestion. He added that he would like to see studies performed when recommending tree planting that would identify the practicality of such planting.

Chairman Lohbauer, on behalf of the Committee, requested the staff move forward with recommendations for solar amendments and changes to management area boundaries.

Commissioner Lloyd commented that the subjects of no net loss to tree and pervious surfaces could also be easy to research. He recommended the research of those topics and reiterated that he doesn't want to create extra burden. Ms. Grogan said that those matters are noted. She said that there may be ways to add them with other CMP amendments in progress.

6. Public comment

Heidi Yeh, from the Pinelands Preservation Alliance (PPA), stated that PPA would like the Committee to focus on two of its prior recommendations. The first is to adopt the list of Plant Species of Concern, which would protect an additional 55 species. The second is to adopt the previously drafted Pinelands Development Credit rules. She also provided a written copy of her comments (*attached to these minutes*).

Commissioner Irick inquired about having a discussion on warehouses. He expressed concern on the placement of warehouses on lands with prime farm soils. He suggested that warehouses be smaller and placed on State or County roads. Chairman Lohbauer said that it would be a subject to discuss with the P&I Committee.

Ms. Grogan said there have been recent applications for warehouses and staff is working closely with municipalities on redevelopment plans designed to accommodate such projects. She said that staff has recommended standards and potential PDC requirements to be included in those redevelopment plans, and that the general topic was previously discussed with the P&I Committee.

There being no further discussion, Commissioner Irick moved to adjourn the meeting. Commissioner Lloyd seconded the motion. The meeting concluded at 12:29 p.m.

Certified as true and correct:



Dawn Holgersen
Technical Assistant
February 3, 2023

NJDEP's Inland Flood Protection Rule

Pinelands Commission Climate Committee

November 30, 2022

1

NJDEP's Inland Flood Protection Rule

Courtesy copy is currently out for review

December 5, 2022 expected publication in the NJR

February 3, 2023 is the expected close of the 60-day public comment period

Proposed rule contains new rules, amendments and repeals to the DEP's Stormwater Management Rules (N.J.A.C 7:8) and the DEP's Flood Hazard Area Control Act Rules (N.J.A.C 7:13)

2

Fluvial vs. Tidal Flooding

Fluvial (Riverine)

- Caused by stormwater runoff from extreme precipitation events
- Floodwaters are moving through the watershed down to the ocean
- Can happen quickly (flash flooding) and cause significant damage and loss of life


Tidal (Coastal)

- Caused by tidal surge during coastal storms
- Significant damage caused by wave action
- Generally, does not happen quickly so there is time to prepare & evacuate

3

Fluvial flooding

- Current NJDEP and FEMA flood hazard area maps are "backward-looking" as they are based on past hydrology from 1970s - 1980's.
- Mapping generally underestimates today's flood potential as it does not account for increasing precipitation due to climate change.




4

100-year flood

More accurately described as a 1% flood

Within a given year, this flood has a 1% probability of occurring.

On average, a flood of this magnitude occurs about once a century



5

NJDEP's Proposed Inland Protection Rule

Addresses three issues important to the Pinelands Commission that are related to increased precipitation due to climate change:

1. Updates rainfall totals used by NJDEP for stormwater management and reducing flood risk by incorporating current (1999 -2019) and future (2050-2099) rainfall data and projections
2. Updates Flood Hazard Elevations and Flood Hazard Areas by incorporating current and future rainfall totals
3. Will automatically apply in the Pinelands Area as the new rainfall data will be incorporated into N.J.A.C. 7:8-5 which is adopted by reference in the Commission's most recent stormwater rule amendment to the CMP.

6

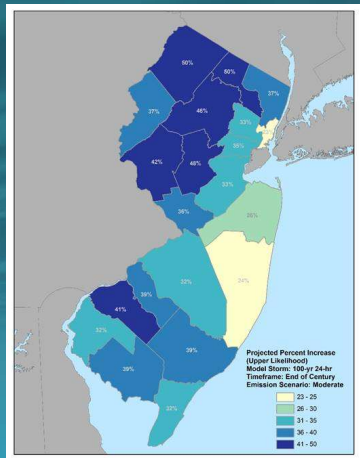
Current and Future Precipitation

Adjusting 1999 rainfall to 2019

County	2-year design storm	10-year design storm	100-year design storm
Atlantic	1.01	1.02	1.03
Burlington	0.99	1.01	1.04
Camden	1.03	1.04	1.05
Cape May	1.03	1.03	1.04
Cumberland	1.03	1.03	1.01
Gloucester	1.05	1.06	1.06
Ocean	1.00	1.01	1.03

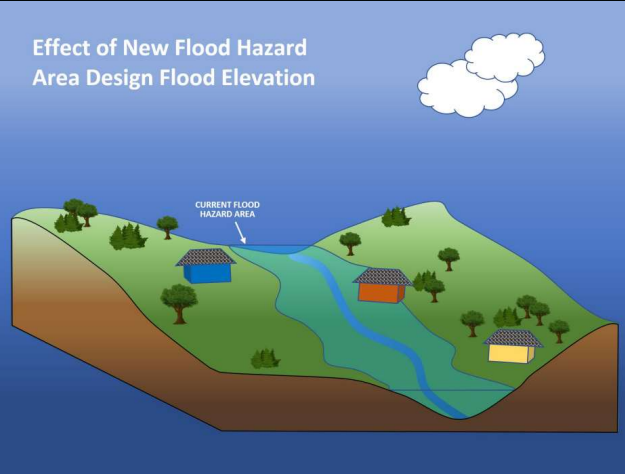
Adjusting 2019 rainfall for 2100 Projections

County	2-year design storm	10-year design storm	100-year design storm
Atlantic	1.22	1.24	1.39
Burlington	1.17	1.18	1.32
Camden	1.18	1.22	1.39
Cape May	1.21	1.24	1.32
Cumberland	1.20	1.21	1.39
Gloucester	1.19	1.23	1.41
Ocean	1.18	1.19	1.24

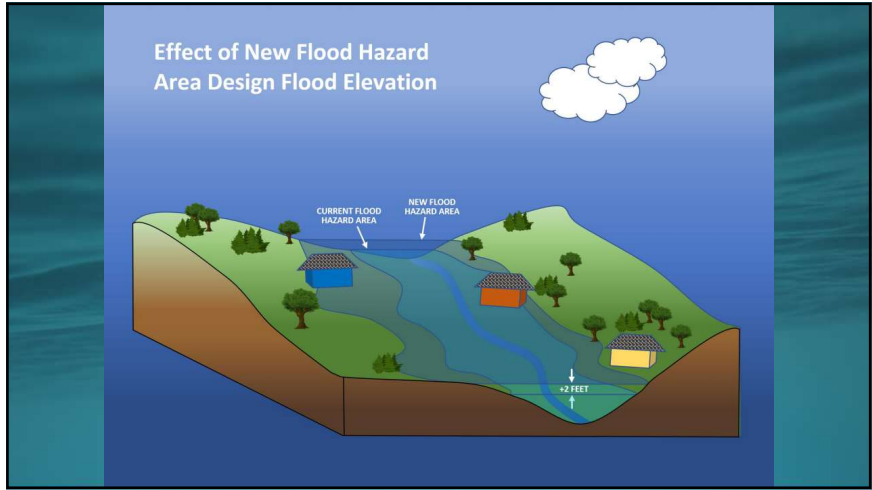


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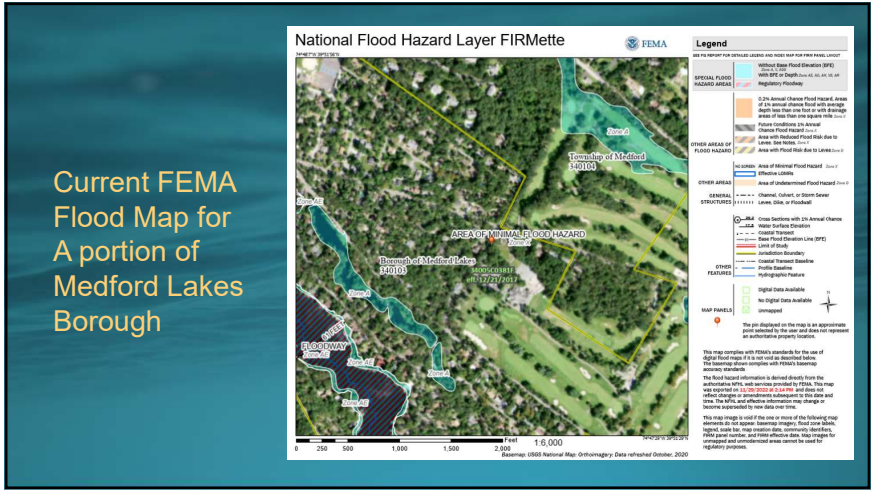
Effect of New Flood Hazard Area Design Flood Elevation



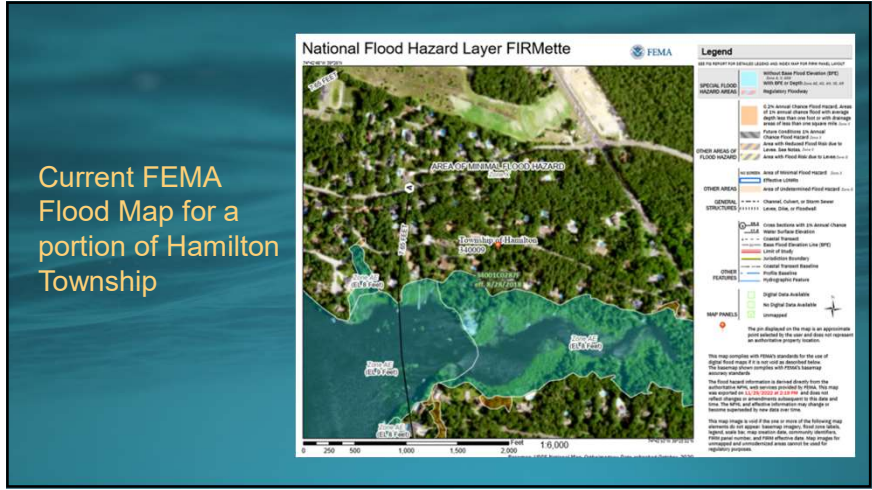
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9



10



11



1

Recommendation to P&B Committee

- Establish special "Climate" reserve account as part of FY23 budget
 - Office equipment: new and replacement
 - Solar energy facility consultant
 - Electric vehicle charging station
 - New Commission vehicles
 - Long-term plan for replacement of HVAC, etc.

2

Recommendations to P&I Committee

- CMP Amendments
- Pinelands management area boundary analysis

3

CMP Amendments

- Exempt principal solar facilities on rooftops and parking lots
- Expand siting opportunities for principal solar facilities in the RDA and/or APA and/or at old mines in PAD and FA
- Establish specific limitations on clearing and tree removal for principal solar facilities
 - Require installation on existing impervious surfaces (rooftops and parking lots) before allowing clearing for ground-mounted facilities
 - Require tree replacement on- or off-site
- Require that certain types of new development incorporate solar energy facilities
 - Major residential, commercial, industrial, public, redevelopment

4

CMP Amendments

- **Tree removal limitations for various types of development**
- **Tree replanting/reforestation requirements**
- **Management area boundaries (RGA, PV, PT)**



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December 2, 2022

Re: CMP Amendments to Address Climate Change

To the Climate Committee of the Pinelands Commission,

The March 2022 resolution of the Pinelands Commission tasks the Climate Committee with the responsibility to provide “recommended operational changes that would mitigate greenhouse gas emissions to the greatest extent feasible”, which is effectively addressed in Mark Lohbauer’s July 28th letter to the committee. However, we feel that the proposed measures are insufficient to address a second imperative from the resolution for the committee: to do the work of “identifying existing Comprehensive Management Plan (CMP) standards that may be strengthened and new CMP standards that may be adopted to mitigate the effects of climate change on the Pinelands environment...” Our March 2021 white paper outlines many of the ways that Pinelands species can be protected in the face of climate change, especially those Federally listed as Threatened and Endangered. These have not been substantially addressed in the proposals that we have seen thus far, and we are concerned that the committee will overlook this part of its mandate.

I am writing to highlight two of our previous proposals. One of these has already been developed by the Pinelands Commission, and just needs to be adopted, and for the other we propose the amendment language that should be straightforward for the commission to immediately implement in this first package of CMP amendments.

Our first recommendation is to adopt the list of Plant Species of Concern that have been identified by the state of New Jersey, protecting an additional 55 species along with the 111 that are already protected explicitly by the CMP or by the State Endangered List. We celebrate the fact that the Pinelands Commission provides more consistent and thorough protections for plant species than would otherwise be required by DEP. However, a semantic difference has caused a large number of species to be precluded from receiving the protections that they are due. To help these species survive the threat that climate change poses to them, we should take every action that we can to relieve the other pressures that they also face from human development. Please find additional supporting materials in the pages accompanying this letter.

The second recommendation is for the Pinelands Commission to adopt the rules that it already developed to reverse the incentives in the PDC system that have spurred lower density subdivision sprawl. The Commission has already developed an extensive amendment to the PDC program that was fully reviewed by the Commissioners and reviewed by the public, so PPA fully supports moving forward with

these previously identified changes. Please consult the “Pinelands Development Credit Study, Commission Staff Recommendations” document that was published on 8/31/07 for supporting materials.

As currently structured, the Pinelands CMP’s transferable development rights program requires developers to purchase PDCs as a condition of building at *higher* densities. This structure provides a financial incentive to build at lower density and provides no incentive to adopt any other beneficial design feature in a development plan. Thus, the current structure encourages exactly the kind of sprawl development that most harms environmental, scenic and cultural values. The current system has also been slow to generate demand for PDCs in some growth areas, as builders have stuck with lower density subdivision designs.

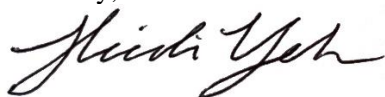
In general terms, we support a program in which the developer:

- 1) must buy PDCs to build at *low* density or with a reduced wetlands buffer as defined by the buffer delineation model;
- 2) need not buy PDCs, or must buy a much lower number of PDCs, if developer builds using design features such as:
 - retain a 300-foot buffer to wetlands
 - manage stormwater using only non-structural stormwater strategies
 - have multi-use structures

We also hope that the original amendment for applying the PDC program to include non-residential structures to create incentives for reducing impervious coverage will still be included for consideration in plan review. This change would only apply in a small number of cases.

We are committed to continuing to work with the committee to provide more ideas for how the CMP can be improved to address the challenges posed by climate change. We are also generally supportive of the other measures that Mark Lohbauer has proposed to the committee and applaud his leadership in this area.

Sincerely,



Heidi Yeh, Policy Director
Pinelands Preservation Alliance

Adopt List of Plant Species of Concern

The Problem:

The CMP recognizes the need to conserve the natural resources of the Pinelands, and strives to do so through its prohibitions on development at 7:50-6.27, “Development prohibited in the vicinity of threatened or endangered plants.” This section reads:

“No development shall be carried out by any person unless it is designed to avoid irreversible adverse impacts on the survival of any local populations of those plants designated by the Department of Environmental Protection as endangered plant species pursuant to N.J.A.C 7:5C-5.1 as well as the following plants, which are hereby found and declared to be threatened or endangered plants of the Pinelands”

This is followed by a list of 54 plant species. Unfortunately, this list of species in the CMP omits a number of Pinelands species that the State of New Jersey recognizes as threatened, so the CMP in its current form does not protect all threatened and endangered species of plants.

The solution:

We propose that section 7:50-6.27 be amended to read, “No development shall be carried out by any person unless it is designed to avoid irreversible adverse impacts on the survival of any local populations of those plants listed by the New Jersey Natural Heritage Program as ‘Endangered Plant Species and Plant Species of Concern’.”

Justification:

Although the Natural Heritage Program uses the phrase “species of concern” rather than the word “threatened,” these species of concern are indeed understood to be threatened. The Federal Endangered Species Act defines “threatened species” as “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” As defined in New Jersey’s Endangered Plant Species Program rules, “Plant Species of Concern” serves as the official “working list for transition of species to and from the Endangered Plant Species List,” and thus fits the federal model of “threatened” on which the CMP’s use of the term is based. All Plant Species of Concern at issue in the Pinelands are ranked with the following terms:

- S1: “critically imperiled”, with 1-5 known populations
- S2: “imperiled”, with 6-20 known populations)
- S3: “rare and may soon become imperiled if current trends continue”, with 21-50 known populations
- S4: More than 50 known populations
- SX/SH: “determined or presumed to be extirpated” or “historically present but no extant occurrences known”

These rankings clearly fall under the definition of “threatened” and these species should therefore be protected under 7:50-6.27 which prohibits development “in the vicinity of threatened or endangered

plants.” Making the proposed amendment would bring the Pinelands protections into alignment with the Highlands protection standards, which call for protection of *all* listed plant species of concern.

The following figure shows the number of species in each Heritage Rank that are currently protected in the Pinelands (gray and orange) as well as those that will remain unprotected until this amendment is passed by the Pinelands Commission (blue).

