



State of New Jersey
THE PINELANDS COMMISSION
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PHILIP D. MURPHY
Governor
SHEILA Y. OLIVER
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RICHARD PRICKETT
Chairman
SUSAN R. GROGAN
Acting Executive Director

PINELANDS CLIMATE COMMITTEE MEETING

July 14, 2021
9:30 a.m.

Pinelands Commission YouTube link:

<https://www.youtube.com/channel/UCBgpC8sbR3Acrjo7ppxs3Uw>

To Provide Public Comment, Please Dial: 929-205-6099 Meeting ID: 833 5477 1666

Agenda

1. Call to Order
2. Adoption of the May 19, 2021 Committee meeting minutes
3. Presentation on Forest Carbon & Climate Information by the New Jersey Forest Service
4. Public comment



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MEMORANDUM

To: Members of the Climate Committee

From: Susan R. Grogan 
Acting Executive Director

Date: July 8, 2021

Subject: Meeting materials

Enclosed please find the agenda for the Committee's upcoming meeting on Wednesday, July 14, 2021. Also included are the minutes from the May 19, 2021 Committee meeting. Members of the New Jersey Forest Fire Service will be providing an overview of their latest available forest carbon metrics and measurements information.

The Committee meeting will be conducted through Zoom.

The public will be able to view and participate in the meeting through the following YouTube link:
<https://www.youtube.com/channel/UCBgpC8sbR3Acrjo7ppxs3Uw>



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Climate Committee Meeting

This meeting was conducted remotely.
All participants were present via Zoom conference.

YouTube link: <https://www.youtube.com/channel/UCBgpC8sbR3Acrjo7ppxs3Uw>

Minutes May 19, 2021

MEMBERS IN ATTENDANCE: Chairman Mark Lohbauer, Edward Lloyd, Jerome Irick and Chairman Richard Prickett

STAFF PRESENT: Executive Director Nancy Wittenberg, Susan R. Grogan, Ernest Deman, Chuck Horner, Stacey Roth, Ed Wengrowski, Kim Laidig, Jessica Lynch and Paul Leakan

Governor's Authority Unit: Rudy Rodas

- 1. Call to Order at 9:33 a.m.**
- 2. Adoption of the April 21, 2021, Committee meeting minutes**
Chairman Prickett moved the adoption of the minutes from the April 21, 2021 meeting. Commissioner Lloyd seconded the motion. The minutes were adopted with all voting in favor.
- 3. Update on Forestry Legislation – 5 Bills at Senate Environment and Energy Committee hearing public testimony, April 21, 2021**

Stacey Roth, the Commission's Chief of Legal and Legislative Affairs, said the Senate Environment and Energy Committee held public testimony on the five Forest Stewardship bills on April 21st. The intent was for the committee to hear from experts and interested parties. No action was taken on the five bills. Ms. Roth briefly reviewed the five bills:

- Prescribed Burn (S3548) – sets minimum acreage goal of 50,000 acres.
- Forest Stewardship
 - S2001 requires the New Jersey Department of Environmental Protection (NJDEP) to develop Forest Stewardship Plans on state-owned land.
 - S3549 requires forest stewardship plans for lands acquired for recreation and conservation purposes.

- S3547 establishes a group called the Pinelands Forest Stewardship Working Group within the NJDEP. Its purpose is to evaluate coordination and cooperation between federal, state and local government entities and private landowners with respect to development and the approval of forest stewardship plans in the Pinelands, and to make recommendation as to how such coordination and cooperation can be improved.
- S3550 Municipal approval not required – This bill states that no municipal approval is required for forest stewardship plans.

In response to Chairman Lohbauer's question as to whether he should recuse himself, Ms. Roth said it is not necessary because it is general discussion.

Ms. Roth said she is in the process of providing a summary of the hearing that occurred before the Senate and is preparing comments as requested at the last Climate Committee Meeting. This information will be presented at the Policy and Implementation meeting.

Chairman Prickett asked why these bills are before the Senate Environment and Energy Committee, as opposed to a Natural Resource Committee. Ms. Roth stated the bills were initially advanced by the Chair of the Assembly Agriculture Committee. Bills then went to Appropriations to do an analysis of associated costs. That is where they are currently sitting. The Senate bills were picked up by Senator Bob Smith, Chair of the Senate Environment and Energy Committee.

4. Solar Energy Facility Regulations and Potential CMP Amendments

Planner Director Ms. Grogan said she would like to get ideas on the Comprehensive Management Plan (CMP) Amendments the Committee would like to advance. She also wants to discuss the Committee's specific comments and questions that were submitted after the last Climate Committee meeting. She suggested reviewing the list of possible amendments to see if there are some the Committee would like to discard immediately.

Chairman Lohbauer said the meeting packet includes email messages from Committee members, along comments and/or questions.

Chairman Prickett said he stated at the last meeting he is open to the possibility of putting solar arrays on all landfills. He said his concern is the access to those landfills and the amount of clearing that might be necessary for lengthy rights of way. He said he does not think the uncapped landfills are going to get capped and that this would be a wasted opportunity to do something environmentally beneficial. He said Mr. Wengrowski's comments regarding this were reassuring at the time. The Committee had talked about using ballast solar arrays, and he asked if they can be used. He said it would be interesting to know how many potential kilowatts could be associated with solar facilities on these landfills. He stated he does not want to see the responsibility of dealing with the environmental problems with the landfills severed as a result of solar arrays, nor the responsibility to cap them in the future. If the arrays were constructed, he would like to see the streams of pollutants going into ecological areas addressed in some way. He

would like staff to evaluate prior to an array being put on landfill to see if appropriate due to any erosion issues or any other issues. Staff would need the latitude to decide if solar arrays are appropriate on any particular landfill. He said he could be persuaded to do that, and he would like to hear what fellow Commissioners and staff have to say about it. He asked Chairman Lohbauer to address why he is not supportive of going in that direction.

Chairman Lohbauer said Chairman Prickett made a lot of compelling points. He said it is hard to argue that a landfill winds up being the best site in the Pinelands to place solar considering it is already disturbed, devoid of trees and contains vast acreage that is hard to come by in the Pinelands. He said it seems to check all the boxes the Commission has for solar facilities. He said his concern is that it might become an excuse for a landfill operator to not install a cap, which is the best means of protecting our water supply from contaminants leaching from a landfill. He said he has given it a lot of thought, and he agrees with Commissioner Prickett. He said the landfills being talked about have been closed for decades and if these landfills were going to be capped, it would have happened by now. He said he agrees it would be wrong to forsake the best opportunities for development of solar in the Pinelands over this issue.

Chairman Lohbauer said when an application is being analyzed by staff for a solar facility on an uncapped landfill, he would like the Commissioners to be reassured that there was no practical capping alternative, and this is the best possible outcome for the landfill. Such an analysis could be done in conjunction with the New Jersey Department of Environmental Protection (NJDEP).

Chairman Lohbauer said that once a solar facility is installed, a cap is no longer feasible.

Chairman Lohbauer said that with those caveats, and with the staff doing the analysis and after receiving a green light from the NJDEP, he could be persuaded to agree.

Ms. Grogan asked Mr. Wengrowski to explain the analysis that is conducted under the current rules.

Mr. Wengrowski said the Commission staff is currently reviewing seven or so landfills, where the landfill owners are pursuing either an exemption from capping or permission to do something short of an impermeable cap. Mr. Wengrowski said the staff developed a process to walk the applicants through that could ultimately allow them to put solar on that landfill, recognizing the standards that are currently in place. He said the burden they have now is the anti-degradation standard in the CMP, backed up by a couple different water quality standards that are in effect through NJDEP's regulations. These standards set the bar high for the developers to demonstrate the landfill is not degrading water quality. For the last several years, the Commission has required that a Licensed Site Remedial Professional (LSRP) oversee the investigation of these landfills. The LSRP's are asked to first establish the background water quality in an area upgradient of the landfill, far enough away so that there are no impacts to groundwater in that background water quality monitoring well. The upgradient wells are tested for a very broad range of

contaminants. The consultants are asked to look for all those contaminants in the downgradient groundwater monitoring wells. If monitoring wells downgradient of a landfill detect concentrations that are greater than those detected in the upgradient wells, the landfill is not meeting the Commission's anti-degradation water quality standard. He said around 2006, the point of compliance for determining if the anti-degradation standard is met was moved from groundwater monitoring wells that are immediate adjacent to the landfill boundary to the nearest wetland that would be receiving groundwater that is flowing under that landfill. This enables the Commission to factor in natural attenuation and dilution that occur in the subsurface. This is the process the landfill developers are pursuing today. If elevated levels of contaminants are found at wetlands that are downgradient compared to that background water quality, then the developer is told they need to perform an Ecological Evaluation, a process the NJDEP has developed. To date, the Commission has not yet received a completed Ecological Evaluation.

Mr. Wengrowski said he has had conversations with developers who said they cannot afford to install solar on the landfills if there is a finding by the Commission that an impermeable cap will be required. He said the language in the CMP has been revised to allow the Commission to approve closure measures that are equally protective as impermeable caps. However, all such measures are expensive. He said he is in the process of gathering cost information. One solar developer reported that they are doing an impermeable cap on a New Jersey landfill at a cost of \$440,000 per acre. An impermeable material capping supplier reported a cost of \$131,000 per acre of landfill, but qualified that cost is for the impermeable membrane and installation only, and there would be other costs involved.

Chairman Lohbauer asked if we have any results from the seven landfills currently under review. He also asked if they have installed monitoring wells at wetlands locations.

Mr. Wengrowski said one well in the wetlands near one landfill shows there is contamination in that wetland. However, the levels of contaminants are extremely low. This is why the Ecological Evaluation is required to determine whether the contaminants that are found would have any impact.

Chairman Lohbauer asked whether detection of any level of contaminant would constitute a violation of the anti-degradation standard.

Mr. Wengrowski said it does, with the caveat that if those degraded conditions do not pose an adverse impact ecological risk to the wetland, then it would be considered acceptable.

Chairman Lohbauer asked how the Commission determines what is adverse.

Mr. Wengrowski said that would be determined through the Ecological Evaluation. He noted the CMP contains ecologically based standards, not human health standards.

Ms. Grogan said the CMP standard is that the landfill pose no significant ecological risk to the wetlands. There is no further definition for what that means.

Chairman Prickett questioned whether these are hurdles that a solar array developer would not want to or be capable of jumping over.

Ms. Grogan reminded the Committee these are largely municipal landfills. The applicant/developer is often a private company that wants to install solar and has identified a landfill as a great location. The Commission is dealing with two entities, which makes the review process a bit awkward.

Mr. Wengrowski said in some cases the municipalities are working with the Commission through their consultants, and in many cases the consultants have been able to get funding through the NJDEP to offset the cost of the studies, testing and installation of wells. He said it does not seem like the solar developers have access to the same source of revenue.

Chairman Lohbauer asked Mr. Wengrowski to discuss the alternatives to an impermeable cap that might be available.

Mr. Wengrowski said that it is conceivable that a qualified Environmental Toxicologist could give us a written opinion saying that “At these levels, these contaminants are not going to adversely impact the wetland.” In that case, there is no need for an alternative. He said he has been told that the Ecological Evaluation study can cost between \$60,000 - \$100,000, with no certainty to its outcome. Another alternative would be a pump and treat system. These systems typically get installed at highly contaminated sites. Another alternative is technology that the Environmental Protection Agency (EPA) has identified known as a permeable reactive barrier, in addition to something that is referred to as a cut-off wall or a slurry wall.

Mr. Wengrowski said sometimes little is known about the landfills. He said some have solid waste that is buried below the water table. If groundwater is up into that solid waste mass and it is moving under a hydraulic gradient, whether a cap is on or not, contamination is still moving in the groundwater system. He said if that is found, in good conscience, he does not feel the Commission should require an impermeable cap on a landfill where the mechanism for transport is not infiltrating rainfall but is groundwater that is moving through the landfill.

Chairman Lohbauer asked what Mr. Wengrowski would recommend the Commission do to amend the CMP in this regard. He asked what ultimate outcome the Commission should be looking for as it seeks to facilitate these solar facilities on uncapped landfills.

Mr. Wengrowski said he thinks including the requirement for the Ecological Evaluation process gives all comfort that a landfill can go uncapped, and there could be no need for remediation. This is a process that been developed in the last couple of years. The NJDEP issued an Ecological Guidance document in 2018. He said he feels it is compatible with

Chairman Prickett's suggestion that we could allow solar projects to proceed if the Commission is assured that contamination is at such a low level that it is not causing any adverse impact.

Mr. Wengrowski said he would note that while we have an anti-degradation standard in the Pinelands, if you read the CMP, it says something to the effect that pollution is not permitted unless it is authorized under this Plan. Mr. Wengrowski used an example of a septic system, which is a pollutant but meets the CMP objectives.

Chairman Lohbauer said that makes sense, although the contaminants were inserted in these landfills before the CMP existed, before the Pinelands Commission existed. In all seven of these cases, the landfills were operating before 1980 and now they are closed, the contaminants are there, and the question is whether the Commission is going to allow an applicant to develop a project that would then preclude us in the future from taking better action to protect against the leaching of those contaminants into the groundwater.

Ms. Roth stated that municipal landfills can be a source of significant contamination. Sufficient studies must be done to have an understanding in terms of the types of waste and the types of plumes that are being generated from the landfills. She said the Commission should be cautious about changing its water quality and anti-degradation standards.

Commissioner Lloyd said this discussion has been very informative. He said that he agrees that these landfills are not going to be capped but if a solar facility is going to disturb a landfill that might affect water quality, he thinks the Commission must be concerned.

Commissioner Lloyd said drinking water impacts are very important given the aquifer and that Maximum Contaminant Levels (MCL) under the Drinking Water Act for PFAS, for instance, are around 10 PPT. He said there are very low levels that can still have an impact on drinking water and the Commission has to be conscious of that.

Commissioner Lloyd asked if these solar units could be placed on a ballast and whether that could avoid disturbing the landfill.

Mr. Wengrowski said that in every instance that he is aware of, the solar developers want to mount these solar panels on concrete ballasts. In order to put them on piles, they would have to drive those piles through the landfill, and, in most cases, they would be friction piles. He said you must get enough of a pile in the ground so that the frictional forces acting on that pile along the length of the pile will keep it from settling. The installation of friction piles can be an expensive process. NJDEP strictly controls disturbance of these inactive landfills. The ballast systems are suitable for solar PV mounted arrays because even when differential settlement occurs within the landfill, the concrete ballast may settle in a similar fashion, but that settlement does not affect the capability of that solar system to produce electricity. Mr. Wengrowski said he visited the Pennsauken landfill

and witnessed solar arrays supported by concrete ballasts on top of the impermeable landfill cap.

Mr. Wengrowski said the Commission contracted with the United States Geological Survey (USGS) to perform a screening-level analysis of groundwater contamination at existing, inoperable and uncapped landfills. The screening-level analysis was conducted to determine the potential risk for landfill leachate to reach potential receptors. These potential receptors of landfill leachate include wetlands, surface water bodies and land parcels that might contain wells. When the Commission asks a consultant to develop a geohydrologic framework for landfill sites, the Commission expects that all irrigation well and potable drinking water wells will be identified and tested for landfill leachate contaminants. He said if those tests results come back identifying elevated Maximum Contaminant Levels then we would expect the LSRP to notify the appropriate Public Health officials so that action could be taken.

Chairman Lohbauer asked if that were the case, then is that something that would be happening already with or without the solar facility?

Mr. Wengrowski said, yes, the contamination could already be occurring, however it may be currently undetected. Because of proposed development of a solar facility at a landfill, the Commission and the LSRPs are evaluating these groundwater conditions. New potable water wells are tested by certified laboratories and lab results are reviewed by local health officials before a well is permitted to be put into service. Existing potable wells are tested during property transfers as a result of the New Jersey Private Well testing act. Other than at those times, many private wells go untested for significant periods of time.

Chairman Lohbauer said it would seem prudent to require that solar facilities on uncapped landfills only be installed using the ballast method.

Commissioner Irick said the Commission should not reduce its anti-degradation standard because it impacts more than just solar facilities. He said he feels strongly that ballast systems should be the only system used on landfills whether they are capped or not. He noted that in the event technology improves in the future, ballast systems are very flexible and may be able to accommodate some type of resin capping or sprayed on chemical that can solidify and provide a cap.

Chairman Lohbauer said unless the Commission comes up with some language to relax the standard, for example when an ecological evaluation determines the degradation it is not ecologically significant, the Commission will not be able to permit any kind of solar facility development on these uncapped landfills.

Commissioner Lloyd said he does not agree with the analysis or the approach. He said he thinks if the Commission could require ballasts and show that there's non-degradation,

then that meets our standards. He said he does not want to create any exception to the anti-degradation standard. He said if created here, other applicants will expect the same treatment. Then the anti-degradation standard all but disappears.

Chairman Lohbauer confirmed that Commissioner Lloyd was stating that he feels applying alternative methods for capping short of the impermeable cap will meet CMP standards. Commissioner Lloyd said yes. He said if the Commission were to allow the use of ballast-mounted solar and the use of the ballast does not affect the water quality, Commissioner Lloyd feels this meets the anti-degradation standards.

Director Grogan said she thinks the issue is the interplay between the landfill standards in the CMP and the solar standards in the CMP. She asked the Committee members if they would be comfortable saying a solar facility can be sited at a landfill if it is a ballast type facility and the Commission is satisfied that the ballast system is not going to adversely affect the landfill or make the situation worse. This is an amendment that could be made to the solar rules. She said she thinks it would be possible without changing the water quality standards, but it should be considered whether the landfill standards could remain the same. The solar standards could be modified to permit solar facilities on existing landfills without triggering the need for analysis of what has been going on in the landfill for 40 years. This would acknowledge that the landfill will continue to do what it is now doing, with the solar having no impact. She said she is not prepared to recommend such an amendment, but she can see a way to writing such a rule and allowing for solar facilities to proceed, assuming they use the right technology and the Commission is satisfied they are not making anything at the landfill worse. If we do not do that, we will continue to get hung up on what type of analysis the Commission is going to require of the landfill and what is happening at the landfill. She said the solar development is triggering the municipalities to come in to talk about landfill closure, which is good, but the reality is there is not enough money in some cases to fund the necessary analysis to determine if a cap is required, much less for the cap itself. She said the Commission must consider if they really want to allow these solar facilities, which typically are community solar facilities, that are trying to participate in the BPU Program. If the goal is to allow them at these old landfills, the Commission needs to acknowledge that it is unlikely to happen with the current landfill standards and the amount of funding and analysis that is required. She said it is a very lengthy and expensive process that could take years to get through.

Mr. Wengrowski said there is an application coming before the Commission for solar on a landfill that closed just prior to the operative date that otherwise would have required it to be subject to the CMP closure requirements. He said it is going to move more quickly since there is no need for them to do the type of groundwater analysis previously described. He said the Commission needs to recognize this is an example of an unmitigated landfill on which a solar facility may be able to be constructed.

In response to Director Grogan's question if NJDEP will still have something to say about that solar development, Mr. Wengrowski said that is true. NJDEP will require the 30-year period of monitoring after the landfill gets officially closed. NJDEP requires

groundwater monitoring wells to be installed in the vicinity of the landfill. The monitoring results to be submitted to NJDEP over the 30 years, and NJDEP will require remediation if needed.

Director Grogan asked whether NJDEP would require a soil cover or anything else on top of the landfill, Mr. Wengrowski said NJDEP regulations say that the cover that goes over the landfill must be at least as impermeable as the bottom material beneath that landfill.

Chairman Lohbauer asked if Director Grogan could draft some language to be considered by the Commission as an answer to this problem, and so that it might allow solar facilities to be installed on uncapped landfills.

Chairman Prickett asked the Commission if they felt there are enough potential generated kilowatts available on the uncapped landfills to spend this amount of time to make it worth this amount of work. He said the municipalities impacted would probably say yes, to have the solar as a revenue source.

Chairman Lohbauer responded that he does not know how that threshold would be set. He said he thinks that all renewable energy is precious.

Director Grogan said there are seven applications currently being worked on, but there are additional landfills and solar developments that will be proposed through various means.

Mr. Wengrowski said in response to Chairman Prickett's concern, he has asked a developer how many megawatts can be generated on a per-acre basis. He said staff will be doing a rough calculation of possible megawatts from the landfills. He said there is a lot of potential on these closed or inactive landfills.

Chairman Lohbauer said he feels it is the Commission's obligation to consider these amendments, to facilitate the growth of renewable energy, in a way that is consistent with the CMP.

Director Grogan said she feels it is important data to have if the Commission does move forward with amendments to the CMP.

Chuck Horner, the Commission's Director of Regulatory Programs, said there are some broader implications. He said that the Committee is currently discussing solar on landfills, but there are a host of other development types that municipalities will be interested in locating on top of landfills, ranging from cell towers, recreational fields, parking lots, municipal composting facilities and even offices.

Commissioner Irick said he could support language that would permit only ballast-mounted solar facilities on landfills

Chairman Lohbauer confirmed with Director Grogan that she will develop language to be discussed at future meeting.

Chairman Lohbauer asked if staff can respond to the questions/comments given by the Commissioners concerning possible amendments to solar regulations.

Ms. Grogan said that one question is whether the Commission is interested in requiring solar facilities to be installed to serve new development. She noted that Commissioner Irick suggested such a requirement be imposed on larger development, but not on small subdivisions (minor development).

Chairman Prickett chaired this portion of the meeting as Chairman Lohbauer stepped away (from 10:47 a.m. to 10:49 a.m.).

Commissioner Irick confirmed his proposal that there be some requirement for solar facilities on large-scale commercial development.

Chairman Lohbauer said he agrees it would be prudent of the Commission to impose a requirement on large developments in a time of climate crisis. If the Commission cannot make it mandatory, the Commission should require a developer to explain why they had not included solar in their project.

Commissioner Lloyd said he thinks the Commission should devise standards that require solar. He suggested adding the requirement with a possible relief factor. For example, solar could be required based on the size of the development except where the developer makes a demonstration that it is not feasible to do.

Chairman Lohbauer asked whether the Commission should be offering incentives to encourage developers to include renewable energy in proposed developments.

Commissioner Irick said he thinks the incentive is if the applicant is proposing a large-scale development, that they get approval for the large-scale development if the applicant includes solar. He said he does not feel the Commission should go out of the way to entice these large-scale developers.

Chairman Prickett said he does not like the idea of a mandate, but noted that a housing development with solar facilities would be desirable in today's market. He said he did not know whether requiring solar is the Commission's responsibility or within the Commission's authority.

Chairman Lohbauer said he thinks it is within the Commission's authority. The question is whether it is something that the Commission wants to do.

Ms. Roth said under the Pinelands Protection Act, the Commission has the authority to promulgate rules to implement the Act. She said the Commission has to look at how our regulations relate to the overall objectives that are articulated in the Act.

Chairman Lohbauer suggested deferring this discussion until the next meeting when Commissioner Avery could attend, as he had a very strong opinion about this, and we should allow him to participate in the discussion.

Chairman Irick said that regarding agriculture, he feels there should be an analysis of the soil types before a solar facility is allowed. He said that soils that promote a high-value agriculture crop should not be considered for solar.

Chairman Lohbauer said he has not wanted to permit development of solar facilities on arable land in the Pinelands. Such lands should be preserved first and foremost for agricultural production. He said that he became aware of literature that is developing in the field of Agrivoltaics, where solar arrays are located on farmland in a way that allows for continued agricultural production underneath the solar panels. This involves developing very tall solar panel structures, at least 14 feet above the surface of the farmland, and spacing of the panels for sunlight to penetrate. He said he will put together links of the material and send them for circulation among Committee members and staff.

Ms. Grogan said the current solar rules allow for solar facilities to be sited at existing mines or resource extraction operations in the Preservation Area District and Forest Area but cannot be on a portion of a mine that has a restoration obligation imposed by the CMP. This is like the landfill situation where we have the interplay of all the various CMP standards. This issue has been raised by both applicants and municipalities. She asked if there is an interest in amending the CMP to allow for solar installations at these sites. She said she feels this is worth exploring, that language could be written for review, and there are figures detailing how many old mines exist.

Chairman Lohbauer asked if Ms. Grogan could draft language, backed up with data, to help focus the discussion.

Commissioner Lloyd said he is intrigued with the possibility of using solar to prevent off-road vehicle (ORV) destruction.

Ms. Grogan said she is aware of a couple of situations where that has been proposed as one of the benefits of allowing a solar facility. She said that staff will work on drafting possible CMP amendments to be recommended to the full Commission.

5. Discussion of Operational Improvements at the Commission's Office

Chairman Lohbauer requested information on the Commission's office complex regarding its carbon footprint.

Ms. Grogan said she forwarded the list to Jessica Lynch, the Commission's Business Manager, and Commissioner Avery, so he is aware if these items need to be forwarded to the Personnel and Budget Committee (P&B) for consideration.

Ms. Lynch addressed the following:

- Heating and cooling of buildings – The Commission currently has multiple independent heating and separate air conditioning units; most were installed during 2004 – 2006 when the Richard J. Sullivan Center was built and renovations for other buildings were done. She said we do a lot of maintenance of air conditioning units. The A/C units are almost at their lifetime usage.
- Geo-thermal – She will address this at the next meeting. She said her concern with a geo-thermal system would be retrofitting the historic structures.
- The Commission spends approximately \$20,000/year for electricity. Chairman Lohbauer asked what that would convert to in kilowatt hours. Ms. Lynch said she will get that information.
- The Commission has started replacing light bulbs with LED where possible. Approximately 20% have been replaced thus far.
- Efficiency measures – She said the historic structures do not have the best insulation or windows; and there would be a significant cost to have the windows retrofitted.
- Solar Panels – Ms. Lynch said they cannot be placed on the roofs; they would need to be installed in parking lot areas.
- Generator – She said we would like to wait and see what the future hybrid work environment may be, in order to determine what capacity the Commission will need.
- Board of Public Utilities (BPU) Subsidized Program – She said we need to get more information regarding installing renewable energy.
- Treasury Department Process – The Commission does not own the buildings, and we need to go through the Division of Property Management and Construction (DPMC)
- Water – She said water is not a large bill and sewer is a larger expense. She suggested higher efficiency toilets.
- Vehicles – The Commission is independent of the state and does not have access to the state fleet. The Commission routinely filters out vehicles as they are less effective or out of necessity. She said her concern with new vehicles is making sure the vehicles can sustain the Commission’s field work. For example, we need to be able to pull vehicles out of the woods if necessary and be mindful of the vehicle weight. She said the P&B Committee would need to evaluate our current fleet and determine what vehicles to retire and consider what new vehicles would work for the Commission.
- Incentives – She said she will look into this further. There was a state contract through the State Board of Education who has contracted with a specific electrician to put in charging stations. The BPU started offering grants for charging stations. There are also Tesla-specific grants. We might be able to piggyback on either one of these opportunities. There is a minimal cost for a physical charging station. When we previously looked into it, it cost \$13,000 - \$20,000. The cost for electric would be a separate cost.

Chairman Lohbauer said we should continue this discussion during the next meeting and take up any suggestions by the Personnel and Budget Committee and staff.

6. Public comment

There was no public comment.

Commission Comments

Chairman Prickett said the Commission should look at a more holistic approach on sequestering carbon and how important maintaining the ecological integrity of the Pinelands is to sequestering carbon.

Chairman Lohbauer said he agrees the Commission should be maximizing support of carbon sequestration in the Pinelands.

Chairman Prickett moved the adjournment of the meeting. Commissioner Irick seconded the motion, and all agreed. The meeting adjourned at 11:25 p.m.

Minutes submitted as true and correct.



Carol A. Ebersberger
Business Specialist

Date: July 7, 2021

Climate Committee Meeting

This meeting was conducted remotely.
All participants were present via Zoom conference.

YouTube link: <https://www.youtube.com/channel/UCBgpC8sbR3Acrjo7ppxs3Uw>

Minutes July 14, 2021

MEMBERS IN ATTENDANCE: Chairman Mark Lohbauer, Edward Lloyd, Chairman Richard Prickett, and Shannon Higginbotham

STAFF PRESENT: Acting Executive Director Susan R. Grogan, Ernest Deman, Stacey Roth, Ed Wengrowski, Jessica Lynch, Jessica Noble, Charles Horner, and Paul Leakan

Governor's Authority Unit: Rudy Rodas

1. Call to Order at 9:33 a.m.

2. Adoption of the May 19, 2021 Committee meeting minutes

Commissioner Higginbotham moved the adoption of the minutes from the May 19, 2021, meeting. Chairman Prickett seconded the motion. The minutes were adopted with all voting in favor.

2. Presentation from the New Jersey Forest Service (NJFS), New Jersey Department of Environmental Protection

Bernard Isaacson, Courtney Compton, Lauren Gazerwitz and Bill Zipse from the NJFS made a presentation to the Committee entitled "Forest Carbon & Climate Information".

During their presentation, the group discussed Existing Frameworks, Profiles in Carbon, Changes in Store and Sustaining Solutions. To view the full PowerPoint presentation, please click here:

https://www.nj.gov/pinelands/home/presentations/PinelandsClimateCarbon_20210713.pdf.

Chairman Lohbauer thanked the NJFS staff for the wonderful presentation and all the information provided.

Chairman Prickett asked what the difference is ecologically between an intense burn and a prescribed burn. Mr. Zipse said that there is an ecological value to both types of fire. Ecological value and carbon value can differ from each other.

Mr. Isaacson said as far as carbon, an overarching goal in the State's Forest Action Plan is that we don't want the State Forest lands to become a net emitter. A big concern is

those types of fire that cause massive amounts of emissions and long-term net emitters. He said in terms of ecological value, intense fire is good; it's a forest at a different stage. From a carbon perspective, the goal is to make sure carbon is coming into the system and not being exported.

Mr. Zipse said he would be happy to share the NJFS data on this subject matter.

Chairman Lohbauer said he appreciates that because that is the goal of the Climate Committee: to propose a good carbon policy as a recommendation to the full Commission.

Acting Executive Director Susan R. Grogan said the presentation has been very useful and she is impressed with the level of detail, and all of the data that the NJFS is relying on will be very helpful for the Commission.

Chairman Lohbauer said he really values the collaboration that continues with the NJFS. He said it is critical for the work that is done at the Pinelands Commission.

4. Public Comment

Rhyan Grech of the Pinelands Preservation Alliance (PPA) extended condolences and sympathy on behalf of the PPA on the passing of Executive Director Nancy Wittenberg. Ms. Grech thanked Bill Zipse and the team from NJFS for a very informative presentation. She said she thinks it's important to balance all of the factors presented. She said given the current climate crises and its current disproportionate outsized influence on the Pinelands, the reason we are in this crisis is because of the careless overuse and the lack of protection for our natural resources. She said there has been a lot of forestry conversation in the State of New Jersey over the past year; PPA's concern is that New Jersey not be painted with a broad brush. She said the Pinelands is unique. She said the presentation did not mention the subject of pro-forestation, a low cost tool and potential solution. She said she would be interested to hear the NJFS' thoughts on pro-forestation.

In response to Ms. Grech's comment on pro-forestation, Mr. Zipse said New Jersey is one of the few states that identifies pro-forestation in their Action Plans as a strategy. He said to also consider the markets for non-extractive use of the forest, like carbon credit trading.

Chairman Prickett said he enjoyed presentation and he thinks it helps to provide a better understanding of what's good for the ecology of the Pinelands. He thanked the NJFS.

Commissioner Shannon Higginbotham thanked the NJFS for a wonderful presentation. She said it was very educational and she appreciated all the wonderful reference material.

Commissioner Ed Lloyd thanked Mr. Zipse and the NJFS team for a very informative presentation. He said he would like to pursue continued discussions about the threat of

the southern pine beetle as that seems to be the biggest threat to the Commission's climate change goals. Chairman Lohbauer agreed.

Chairman Lohbauer said he is hoping to work with the staff to review and analyze the Commission's operations to determine the Commission's carbon footprint and possible steps the Commission can take to reduce its carbon footprint.

Commissioner Higginbotham moved the adjournment of the meeting. Chairman Prickett seconded the motion, and all agreed. The meeting adjourned at 11:22 p.m.

Minutes submitted as true and correct.



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Date: August 31, 2021