

Adopted June 30, 2017

CMP POLICY & IMPLEMENTATION COMMITTEE MEETING

Richard J. Sullivan Center
Terrence D. Moore Room
15 C Springfield Road
New Lisbon, New Jersey
April 28, 2017 - 9:30 a.m.

MINUTES

MEMBERS IN ATTENDANCE: Sean Earlen (Chairman), Paul E. Galletta, Ed McGlinchey, and Richard Prickett

MEMBER PRESENT BY CONFERENCE CALL: Ed Lloyd

MEMBERS ABSENT: Candace Ashmun and Robert Barr

STAFF PRESENT: Executive Director Nancy Wittenberg, Larry L. Liggett, Susan R. Grogan, John Bunnell, Brad Lanute, Robyn A. Jeney, Paul D. Leakan and Betsy Piner. Also present (by telephone) was Mary Maples with the Governor's Authorities Unit

1. Call to Order

Chairman Earlen called the meeting of the Comprehensive Management Plan (CMP) Policy and Implementation (P&I) Committee to order at 9:35 a.m.

2. Pledge Allegiance to the Flag

All present pledged allegiance to the Flag.

3. Adoption of minutes from the March 24, 2017 CMP Policy & Implementation Committee meeting

Commissioner McGlinchey moved the adoption of the March 24, 2017 meeting minutes. Commissioner Prickett seconded the motion with a request that the comment attributed to him at the bottom of page 5 be changed from ...*"obvious to any intruder that he has trespassed"* to ...*"obvious to everyone that this is a special place"* as he did not feel he would have used the words as transcribed. Commissioner McGlinchey moved the adoption of the revised minutes and Commissioner Galletta seconded the motion. The minutes were adopted with all Committee members present voting in the affirmative.

4. Executive Director's Reports

Barnegat Township Ordinance 2017-05, adopting the Shoreline Sand & Gravel and Compass Point Redevelopment Plan

Ms. Grogan said that Barnegat Township Ordinance 2017-05 adopts a Redevelopment Plan for the Shoreline Sand and Gravel and Compass Point Redevelopment Area within the Township's Regional Growth Area (RGA). Mr. Leakan projected Exhibit #1 from the Executive Director's Report on the SmartBoard. Ms. Grogan provided a description of the existing conditions of the 140-acre Redevelopment Area and orientation with other land uses in the vicinity, including Ocean Acres (Barnegat) to the south and Ocean Acres (Stafford) farther to the south, a large age-restricted development to the north on the other side of West Bay Avenue and some open space on either side of the site. She said to the east is Barnegat Crossings, a mixed use project approved by the Commission about a year ago with commercial development on the ground floor and apartments above, with a mandatory PDC obligation. The project is currently under construction.

Ms. Grogan said the Redevelopment Area contains two tracts, the larger of which is the Shoreline Sand and Gravel Mixed Use Zoning District, some 113 acres of former gravel mine, and the smaller Compass Point Redevelopment Zoning District consisting of 27 acres of existing vacant lots that pre-date the Pinelands. She said the only structures on the site are the buildings associated with the Shoreline mining facility.

Ms. Grogan said the Redevelopment Plan contains detailed standards, with the Shoreline tract to be developed as either a Lifestyle Planned Community or a Planned Adult Community, the latter of which has a more limited range of residential use options. A non-residential component is included under both scenarios and the Plan requires that 10% of all residential units be made affordable to low- and moderate-income households. Pinelands Development Credits will be required on 30% of the units, excluding affordable housing units, up to the percentage required to be set-aside in the ordinance. The maximum net residential density is 7.15 units per acre, excluding lands devoted to nonresidential use and assisted living, congregate care or nursing home facilities.

She said the goal of the Compass Point District is to develop residential age-restricted single-family, detached, fee-simple homes at a maximum density of 4.3 units per acre. Like the Shoreline District, Compass Point includes an affordable housing component as well as a 30% PDC obligation.

Ms. Grogan said staff had worked with the Township to confirm that this area was appropriate for this level of intense development. She said there had been extensive threatened and endangered species studies completed and accepted for northern pine snake as part of an earlier application. There is infrastructure available. Ms. Grogan said this will be a long-term project and involves two different redevelopers, who may decide to submit a general development plan for the entire parcel. She said staff was comfortable recommending approval of this ordinance.

In response to Chairman Earlen's question if there were a builder for the project, Ms. Grogan said, yes for the Compass Point Area. She added that prior to the adoption of the ordinance by the Township, the redeveloper had held a series of community meetings and, according to the Township, had done a good job of explaining the project to the residents. She said that no one

had attended the Commission's public hearing and that one public comment had been received by the Commission.

Commissioner McGlinchey's asked if the affordable housing component were changed, would the applicant need to come back to the Commission. Ms. Grogan said that Barnegat may decide to have the affordable units built elsewhere. In that case, the redeveloper would contribute to a trust fund. Absent affordable units, more PDCs would be required in the new redevelopment area because no units would be exempt. The Township may amend the redevelopment plan in the future to make this change; however, such an amendment would not require formal Commission review and approval.

Commissioner Prickett asked if perhaps a footnote was needed in case the project changes.

Chairman Earlen responded that the Township is negotiating with the Fair Share Housing Center and probably doesn't want to tip its hand.

Commissioner McGlinchey moved the recommendation to the Commission to certify Barnegat Township Ordinance 2017-05. Commissioner Galletta seconded the motion and all voted in favor.

5. Presentation on a research proposal

Mr. Bunnell made a presentation on a research proposal the Science Office was developing in conjunction with the United States Geological Survey (USGS) (*Attachment A to these minutes and also posted on the Commission's web site at:*

<http://www.nj.gov/pinelands/home/presentations/Effects%20of%20Land%20use%20on%20water%20quality%20and%20microorganisms%20in%20natural%20ponds,%20excavated%20ponds,%20and%20stormwater%20basins.pdf>).

Mr. Bunnell said the United States Environmental Protection Agency (EPA) has released a Request for Proposal (RFP) for a new two-year round of funding. The Science Office wants to take advantage of this opportunity and is still developing a study design. He said his office has undertaken projects in the past to measure the impacts of development and agriculture at on-stream sites, such as stream sites and impoundments. Five years ago his office began to assess the effects of land use at off-stream sites, such as ponds. The EPA-funded study of natural ponds initiated in 2012 included the mapping of some 2,700 open water and herbaceous ponds of which, ultimately, 99 were selected for further study. For three years, his office monitored hydrology, pH, and specific conductance and surveyed plants, frogs and toads, fish and dragonflies and damselflies. He noted that the EPA encourages the creative use of indicators and the inclusion of dragonflies and damselflies was such an innovation.

An EPA funded study of created wetlands was initiated in 2013 for which some 1,700 excavated ponds and 1,400 stormwater basins were mapped. He said 52 excavated ponds and 46 stormwater basins were selected for three years of monitoring of hydrology, pH, and specific conductance and surveying of plants, frogs and toads, and fish.

Mr. Bunnell said a component of the second study was the examination of pesticides and pathogens in amphibians. He introduced, from the audience, Ms. Kelley Smalling (with the USGS), with whom his office had partnered on this project. This study had sampled water, sediment, tadpole food, and tadpoles for pesticides in eight natural ponds, eight excavated ponds and eight stormwater basins from both high and low surrounding land use intensity. Tadpoles were also swabbed for amphibian pathogens.

Mr. Bunnell reviewed some draft results of these studies highlighting the following: the mapping had resulted in an increase in the number of wetlands known in the Pinelands; there is a strong relationship between land use and pH among all wetlands types; basins displayed the highest pH values and were sites where introduced species were found mostly; both natural and excavated ponds displayed good water quality; ponds and excavated ponds contained fewer chemicals than stormwater basins; and, more pesticides were found at degraded vs. reference sites.

Mr. Bunnell said the new proposed study, *Effects of land use on water quality and microorganisms in natural ponds, excavated ponds, and stormwater basins* would use the existing pool of 197 sites from which would be selected a number of natural ponds, excavated ponds and stormwater basins. He said Ms. Smalling would partner on this project. Mr. Bunnell discussed the water quality monitoring that would be done, including that of Chloride (a byproduct of the use of road salt), metals and pesticides in the water (and possibly in sediments although this is a more costly endeavor). He said from a selection of the various natural and excavated ponds and stormwater basins, the study will involve sampling microorganisms and aquatic invertebrates. Mr. Bunnell said the New Jersey Department of Environmental Protection is also interested in partnering on the study. Mr. Bunnell reviewed the proposed schedule, cost and products and said that he would be seeking support from various entities.

Mr. Bunnell said he was asking for the Committee's support before proceeding with the considerable work required to submit the proposal.

In response to Commissioner Galletta's question as to the distinction between natural ponds and excavated ponds, Mr. Bunnell said that natural ponds were formed tens of thousands of years ago and excavated ponds are those dug by humans. He added that the excavated ponds mapped were those about the size or smaller than the natural ponds and the large excavation associated with sand and gravel operations were avoided. Excavated ponds tend to have a higher pH than natural ponds probably because of the lack of Sphagnum moss in the excavated ponds.

Mr. Bunnell says the Science Office will seek letters of support from other agencies and the Commission's own Science Advisory Committee which, he said, has met rarely in recent years. He said the Committee includes Rick Lathrop (Rutgers University Grant F. Walton Center for Remote Sensing & Spatial Analysis), John Dighton (the Rutgers Pinelands Field Station) Peter Oudemans (Rutgers Marucci Blueberry and Cranberry Research and Extension Center), Tim Reilly (USGS) and Walter Bien (Drexel University).

In response to Chairman Earlen's question if there were funds available for the Commission's 25% match, Ms. Wittenberg confirmed there were.

In response to questions from Commissioner Prickett regarding heavy metals and pesticides, Mr. Bunnell said the data from the 24 sites that had been studied over the past three years will be analyzed in 2017. He said no one has measured metals but the Science Office has looked at 98 pesticides in the 24 sites.

From the audience, Ms. Smalling said USGS now analyzes for some 115 to 120 pesticides.

Mr. Bunnell said that there are reference sites in the middle of Brendan Byrne State Forest where DDT remains persistent.

Commissioner Prickett said plants are good indicators of water quality and now the study of microorganisms might help in the remediation of poor conditions in order to keep out the invasive species. He said this was great science.

The Committee indicated its support for Mr. Bunnell to pursue the grant application.

6. Review of local communications facilities regulations and approved comprehensive plans for the Pinelands Area

Mr. Lanute provided an overview of the CMP's local communications facilities (LCF) regulations as well as a history of their implementation followed by Mr. Liggett's presentation of current proposals for new technologies and potential amendments to previous cell tower plans (*See Attachment B to these minutes and also posted on the Commission's web site at: <http://www.nj.gov/pinelands/home/presentations/LCF%20Regulations%20Review%20-%20P&I%20Meeting%204.28.pdf>*).

Mr. Lanute noted that the CMP seeks to protect significant scenic resources of the Pinelands by limiting the height of structures to 35 feet outside of the Pinelands Regional Growth Area (RGA) and Pinelands Towns (PT). He noted that this had precluded the development of new communications towers in approximately 89% of the Pinelands Area. Mr. Lanute provided background on emerging cellular technology in the early 1990s and provided an illustration of how towers are sited geographically in order to provide service coverage. He then provided a timeline of events that led to the adoption of the CMPs LCF regulations in 1995.

Mr. Lanute reviewed the key principles of the adopted LCF regulations. He said that they were designed to minimize the number of towers in the Pinelands Area's most ecologically-sensitive areas as well as to ensure that when new towers are sited outside the RGA and PT, they minimize visual impact. He described the demonstrations that wireless providers must provide in order to site a new tower outside the RGA and PT, including the development of a comprehensive plan for such facilities by providers of like service. He noted the elements required to be included in these comprehensive plans and discussed the process of amending such plans. In particular, he described how amendments build upon the siting arrays of previously approved plans. Mr. Lanute projected a map of the Pinelands Area illustrating the sites that were described as existing or proposed within the original tower plan approved in 1998. He then reviewed the process for siting individual towers proposed within the plan, including

details on the siting policy in regards to search areas and the hierarchy of preferred management area locations.

Mr. Lanute briefly reviewed the six approved comprehensive plans, noting again that each subsequent plan builds upon the siting arrays approved in all previously approved plans. He then provided a brief summary of the build-out of the proposed LCF's included within the approved plans. He noted that the total number of on-air facilities does not necessarily translate to the total number of communications towers as facilities can collocate on buildings, electric transmission lines and other suitable structures.

Mr. Liggett discussed the emerging wireless technologies of the present. He described the data-intensive nature of new wireless devices and said that additional network capacity is required to compensate for additional demands for service.

Mr. Liggett discussed a request from the Pinelands counties participating in the Comprehensive Public Safety Tower Plan, referred to as the OIT Plan, to increase their agreed-upon search area from a one-mile radius to a three-mile radius. He also described their request for additional siting flexibility on publically-owned land. He said that an amendment to the OIT plan will be before this Committee within the next few months.

In response to Chairman Earlen's question, Mr. Liggett said the Counties may not place LCFs on deed restricted lands.

Mr. Liggett also noted that the larger proposed search area will not apply to commercial providers as they are included in different comprehensive plans and are fundamentally different in both technology and siting preferences.

Mr. Liggett described Verizon's proposal to deploy Small Network Nodes in order to improve network capacity in high-demand areas. These are antennas placed on existing or new utility poles within the public right of way and will complement, not substitute for, existing towers. He projected photos of installed small network nodes. He said, for the Commission, a new utility pole is considered development but it might not raise any CMP issues. However, if dozens of new poles are proposed along one road, it might be a concern. For the municipalities and counties, there may be aesthetic and safety issues. Staff is awaiting further information requested from Verizon regarding their deployment efforts.

Mr. Liggett then described the efforts of Mobilitie, LLC, a wireless infrastructure builder working with Sprint, to deploy wireless facilities in public rights of way. He stated that their proposal involves two types of towers: small cell facilities ranging between 35' and 75' in height and transport facilities approximately 125' in height. He projected illustrations of each type of facility as well as photos of existing facilities provided by Mobilitie. He noted that these are built in the right-of way, not on private land, very close to the road and very visible. Mr. Liggett said Mobilitie has proposed 25 of these new towers in the Pinelands, 12 of which are in the height restricted area. Mr. Liggett said staff may be asking Mobilitie to move some of those towers outside the Pinelands Area.

In response to a comment from Chairman Earlen regarding whether the health risks of radiation from small node facilities have been studied, Mr. Liggett said the Federal Communications Commission has studied health impacts from cellular facilities and declared it not to be an issue. He said he was not aware if a similar finding had been made for the small node facilities. He also noted that these small node facilities have very little power.

In response to questions from Commissioner Galletta, Mr. Liggett said the small node structures are sited on traffic light poles, wooden utility poles, etc. and whether or not they need guard rails is a public safety issue outside the Commission's purview.

Mr. Lanute said the Commission has received an ordinance from Monroe Township dealing with small node technology and staff anticipates seeing more such ordinances.

Mr. Liggett said Verizon and Mobilitie are asking for blanket approvals for their plans. He noted that, in New Jersey, municipalities cannot charge rent for use of a right-of-way.

In response to a question from Commissioner Prickett if there were any opportunity for the Commission to obtain more money for processing ordinances, Mr. Liggett said the Commission can ask for an escrow for the review of a tower plan amendment, as when a radiofrequency engineer is needed to provide input. For the development application for a tower, there is an application fee.

Ms. Grogan said the CMP does not authorize the Commission to charge a fee for ordinance review.

7. Public Comment

Ms. Marianne Clemente, a resident of Barnegat Township, said that she had arrived too late to hear the Barnegat presentation. *Chairman Earlen responded that a copy would be provided to her; a copy of the draft resolution and Executive Director's Report were given to her immediately following the conclusion of this meeting.* She also noted that she has a pond on her property and invited the Science Office to study it if they choose to do so. Finally she asked if the EPA funding would be awarded prior to the potential dissolution of the EPA.

Ms. Katie Smith, with the Pinelands Preservation Alliance, commended the Science Office on this excellent proposal and thanked the P&I Committee for supporting this endeavor.

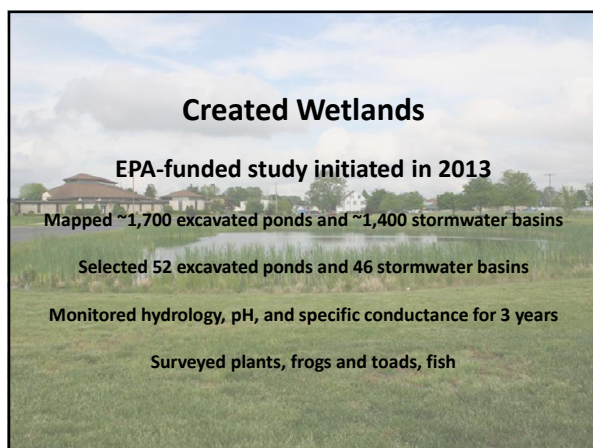
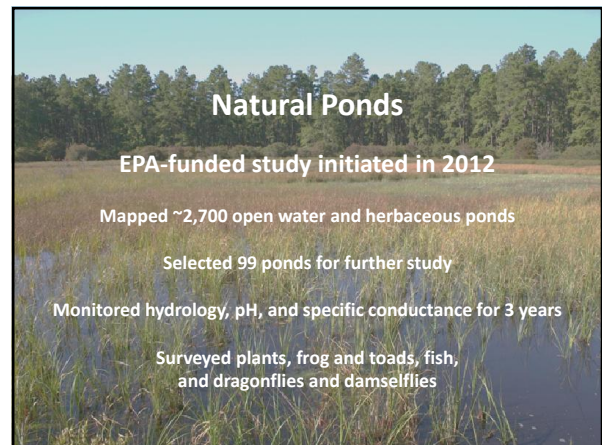
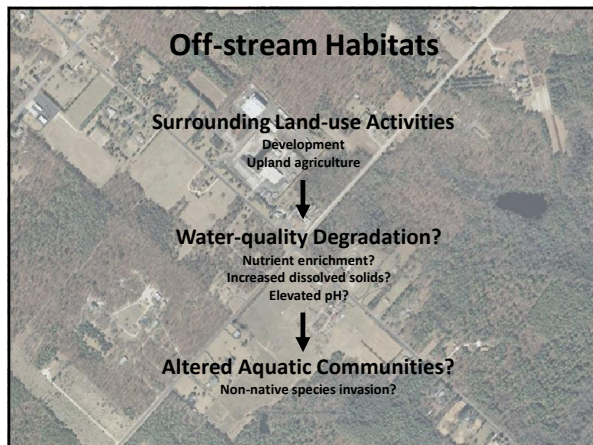
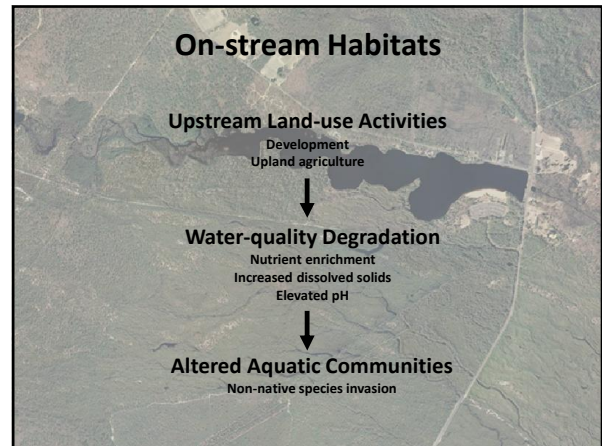
There being no other items of interest, the meeting adjourned at 11:00 a.m. (moved by Commissioner Prickett and seconded by Commissioner McGlinchey.)

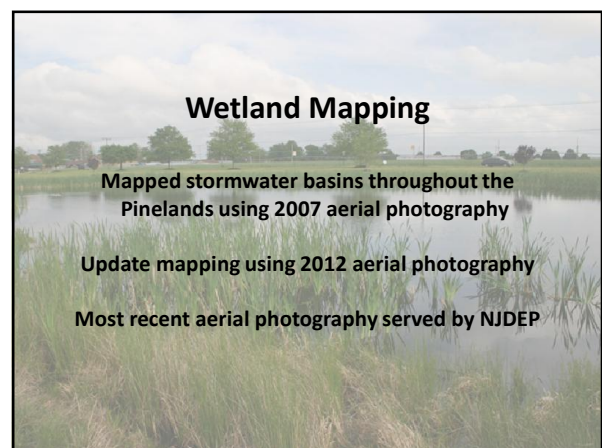
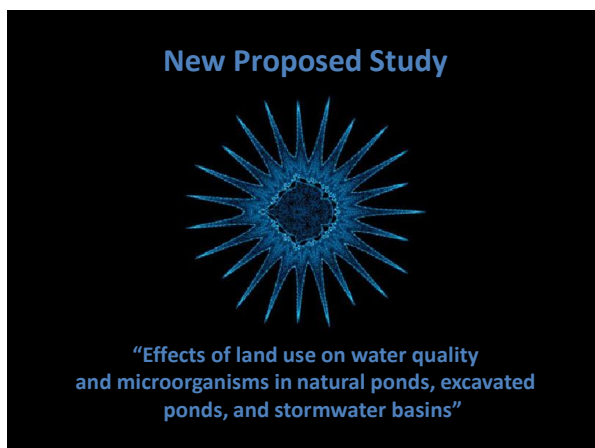
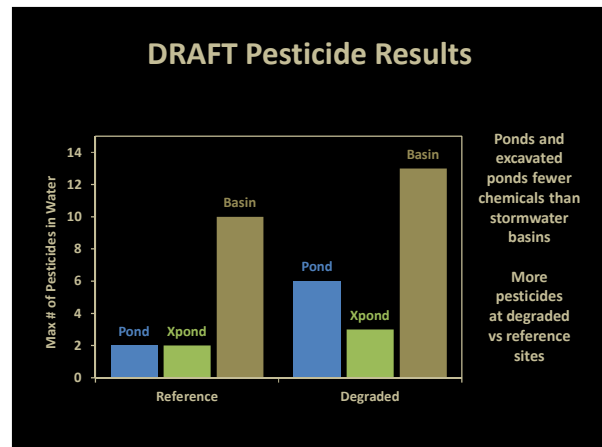
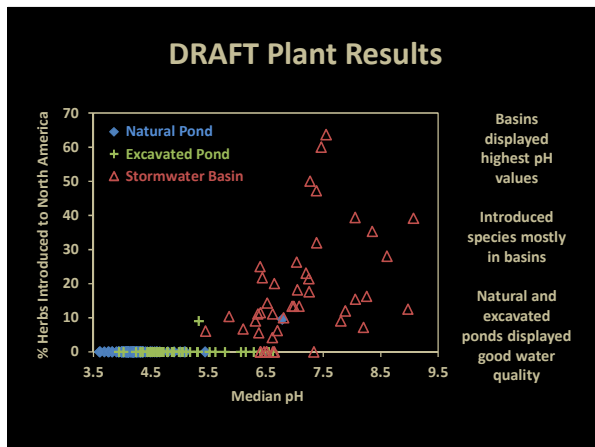
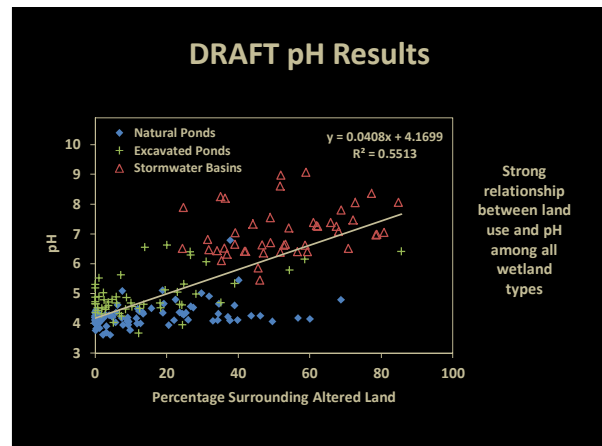
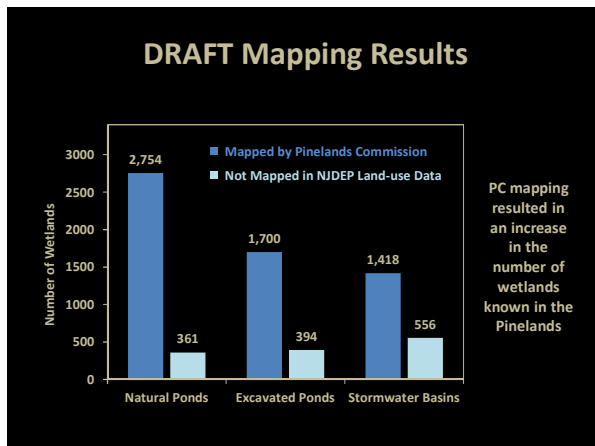
Certified as true and correct:



Betsy Piner,
Principal Planning Assistant

Date: May 11, 2017







Site Selection and Water Quality

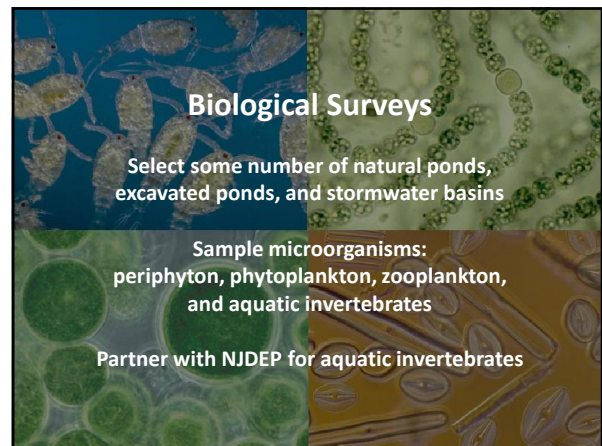
Use the existing pool of 197 sites and hydrology data

Select some number of natural ponds, excavated ponds, and stormwater basins

Partner with Kelly Smalling from USGS

Monitor pH, SC, DO, Cl, NO₂+NO₃, NH₄ (maybe PO₄) in the water

Sample metals and pesticides in water and maybe sediments

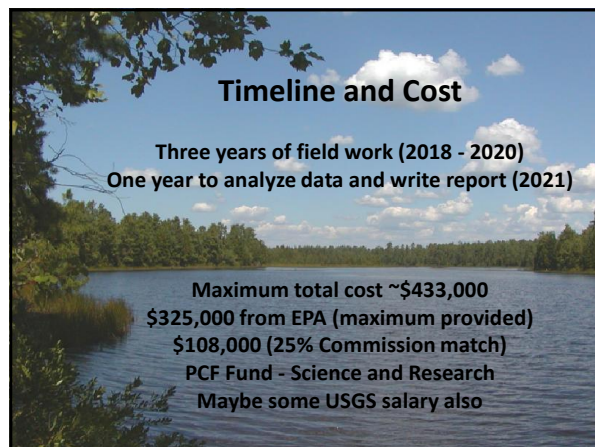


Biological Surveys

Select some number of natural ponds, excavated ponds, and stormwater basins

Sample microorganisms: periphyton, phytoplankton, zooplankton, and aquatic invertebrates

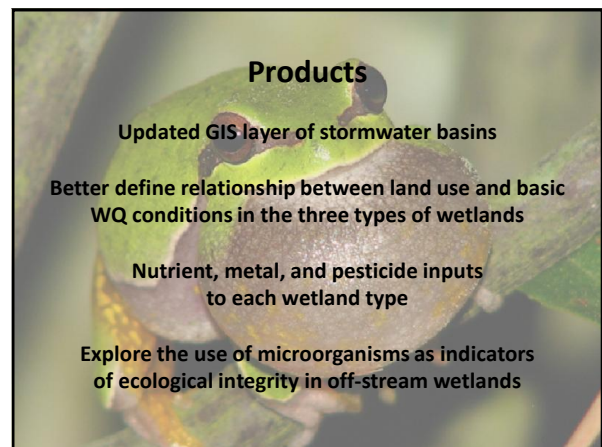
Partner with NJDEP for aquatic invertebrates



Timeline and Cost

Three years of field work (2018 - 2020)
One year to analyze data and write report (2021)

Maximum total cost ~\$433,000
\$325,000 from EPA (maximum provided)
\$108,000 (25% Commission match)
PCF Fund - Science and Research
Maybe some USGS salary also



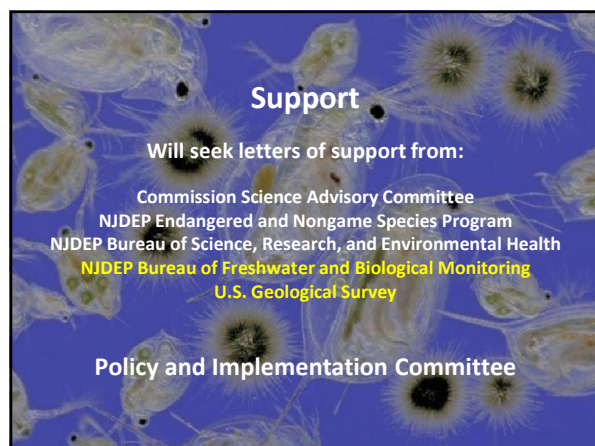
Products

Updated GIS layer of stormwater basins

Better define relationship between land use and basic WQ conditions in the three types of wetlands

Nutrient, metal, and pesticide inputs to each wetland type

Explore the use of microorganisms as indicators of ecological integrity in off-stream wetlands



Support

Will seek letters of support from:

Commission Science Advisory Committee
NJDEP Endangered and Nongame Species Program
NJDEP Bureau of Science, Research, and Environmental Health
NJDEP Bureau of Freshwater and Biological Monitoring
U.S. Geological Survey

Policy and Implementation Committee

Local Communications Facilities & The CMP

Policy & Implementation Committee
April 28, 2017



Overview

Why are we discussing this now?

- Pinelands Area Counties EMS
- Verizon Wireless/Tilson
- Mobilitie

Discussion on these developments to follow the review

Why is it beneficial to review?

- Complex
- History matters

Background



CMP Height Regulations 1981-1995

Purpose:

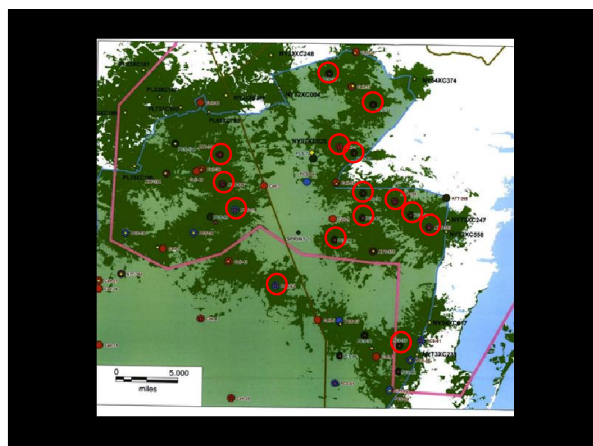
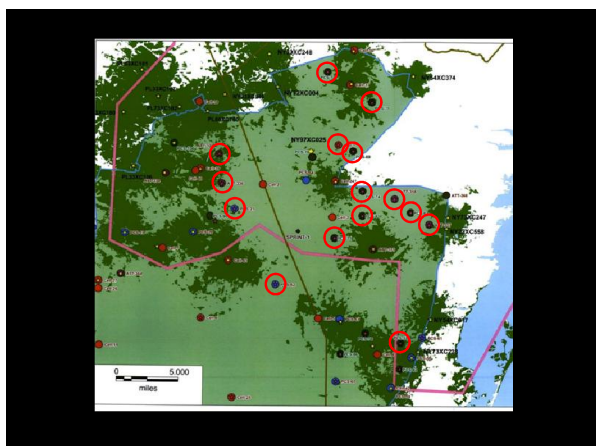
- Protect the significant scenic resources of the Pinelands Area

Height Limits:

- Regional Growth Area, Pinelands Towns = No limit
- Everywhere else = 35 foot limit
 - Some exemptions included
 - ...But not communications towers
 - 89% of the Pinelands Area

New Technology (c. 1994)





1995 CMP Amendment

1994 - 2nd Plan Review implementation

- Cellular industry representatives raise concerns with height limitations
- Pinelands Commission recognized legitimate need/federal regulations
- Balance network coverage & protecting scenic resources

1994 - Plan Review Committee

- Deliberate over revised regulations - multiple meetings

1995 - Rules adopted, effective August 21, 1995

- Local Communications Facilities (LCF)

May be first ever regional tower siting program



Key principles

RGA and Pinelands Towns no height limits

Everywhere else - LCF can build up to 200 feet, provided that:

- Demonstrate need
- Colocation on existing suitable structures
- Design towers to accommodate other providers
- Siting standards for new towers
- Comprehensive planning
 - Applications for individual applications after

Comprehensive Planning

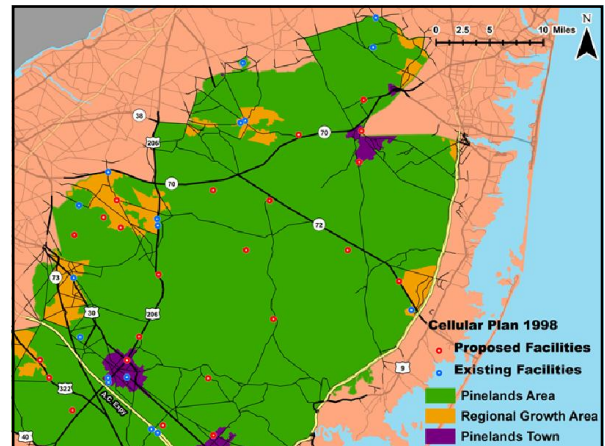
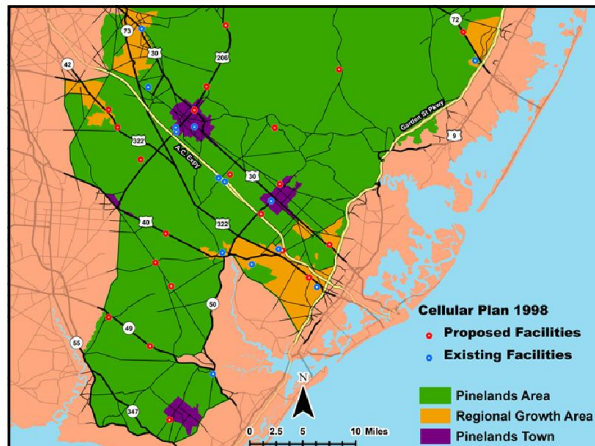
Plan submitted by providers of like service

- 5 and 10 year plan horizons
- Approximate location of all facilities
- Demonstrate least number of facilities necessary in:
 - PAD, FA, SAPA, select Villages
- Demonstrate likely consistency with LCF regulations

Requires certification from Commission

Amendments

- Builds upon planned network array of previous plans to ensure least number in PAD, FA, SAPA, and some Villages



Individual Applications

RGA and Pinelands Towns

- CMP environmental standards

Everywhere else –must be consistent with

- CMP environmental standards
- CMP LCF standards
- approved plan
- approved siting policy

Siting policy

- Provides flexibility in final siting
- Ensures least number in PAD, FA, SAPA, and select Villages
- Search area – based on technical considerations (typically 1 mile)
 - Hierarchy of preferred management areas



Summary of Comprehensive Plans

Plan	Certified	Participants
Cellular Plan	9/11/1998	Bell Atlantic Mobile; Comcast/Cellular One; Nextel
PCS Plan	1/14/2000	Sprint; Omnipoint
AT&T Plan	12/12/2003	AT&T
T-Mobile Plan	11/10/2011	T-Mobile
Sprint Plan	11/8/2013	Sprint
County Public Safety Tower Plan	5/11/2012	Pinelands Counties

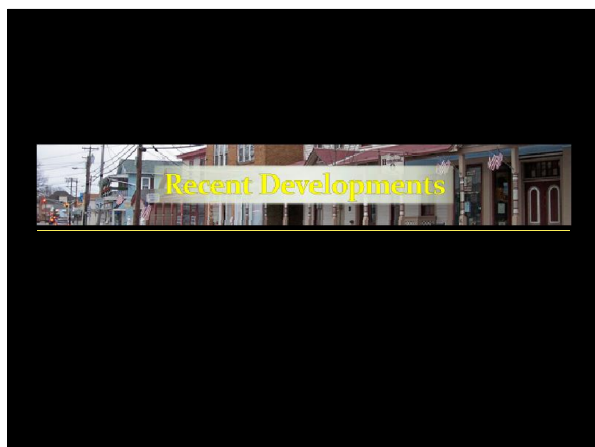
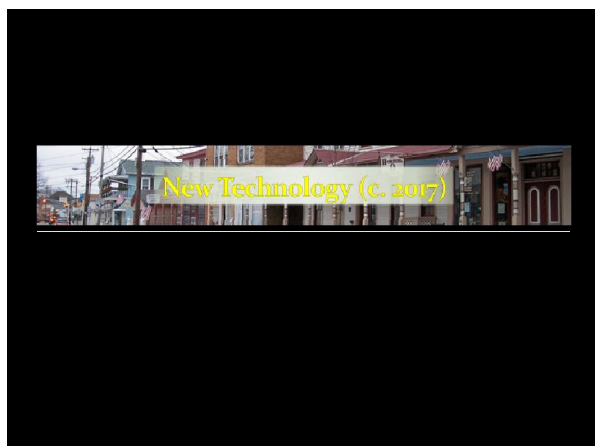
Original Provider	Succeeded by
Bell Atlantic Mobile	Verizon
Comcast	Cingular Wireless -> AT&T
Nextel	Sprint
Omnipoint	T-Mobile

Summary of Build-Out

LCF Planned Locations	On-Air	Not On-Air	Total
Commercial Wireless Carriers	105	58	167
RGA/Town	52	20	72
RDA/APA/MF/Select Villages	25	15	40
PAD/FA/SAPA/Select Villages	29	23	52
County Public Safety Tower Plan	25	21	46
RGA/Town	12	5	17
RDA/APA/MF/Select Villages	7	10	17
PAD/FA/SAPA/Select Villages	6	6	12

*Not all "on-air" locations are new towers

**Planned locations typically have multiple carriers



County Public Safety Tower Plan

Siting Policy Amendment

- Expand search area - 3 mile radius
- Consider developed, publically-owned lands

Timeline

- Official submittal late May
- June P&I Review
- July Commission Review

Verizon Wireless/Tilson

Small Network Node Deployment

- Also known as oDAS
- Weaker signal range than towers (500 - 1,000 feet)
- Complementary not substitute for towers
- Improves network capacity
- Public R-O-Ws on Utility Poles
- Minimal issues for Pinelands Commission
- Municipalities and Counties?

Verizon Wireless Small Network Node




Existing Utility Pole Under 35 ft? New Utility Pole

Mobilitie

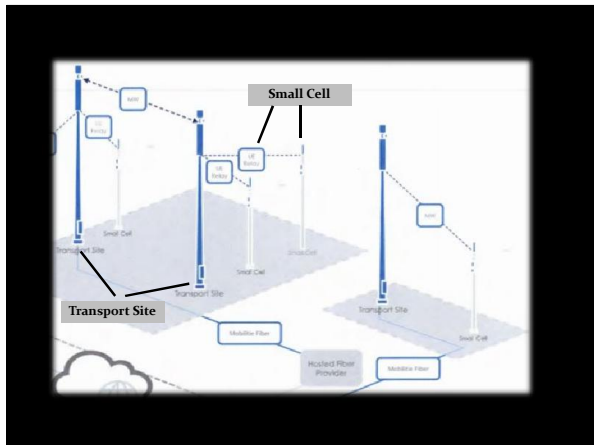
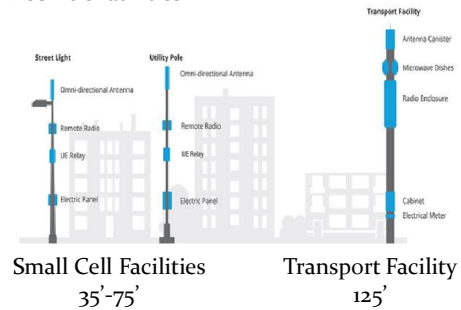
Neutral Host Provider

Working with Sprint in N.J.

Small Cell and Transport Facility Deployment

- **Small Cell Facility (weak range; capacity)**
 - Public R-O-Ws on utility poles
- **Transport Facility (stronger range; coverage)**
 - Public R-O-Ws

Mobilitie Facilities



Transport Facility



Small Cell Facility



Summary

Public Safety Tower Plan

- Siting Policy Amendment in development
- June P&I review

Verizon Small Network Node Deployment

- Awaiting more information from Verizon
- Working with municipalities regarding ordinances

Mobility Small Cell and Transport Facility Deployment

- Applications are beginning to come in
- Potential plan amendments if not aligned with approved plans