



**RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION**

NO. PC4-14- 23

**TITLE:** Approving With Conditions an Application for a Public Development (Application Number 2001-0438.005)

Commissioner McGlinchey moves and Commissioner Earlen seconds the motion that:

WHEREAS, the Pinelands Commission has reviewed the Findings of Fact, Conclusion and the recommendation of the Executive Director that the following application for a Public Development be approved with conditions:

**App. No. 2001-0438.005 Applicant: WILLIAMSTOWN FOOTBALL HUDDLE CLUB/ TO BE OWNED BY MONROE TOWNSHIP BOARD OF EDUCATION**

Municipality: Monroe Township  
Management Area: Regional Growth Area  
Proposed Development: Construction of a 2,400 square foot athletic weight room building (Date of Report: June 19, 2014).

WHEREAS, no request for a hearing before the Office of Administrative Law concerning the Executive Director's recommendation has been received; and

WHEREAS, the Pinelands Commission hereby adopts the Findings of Fact and Conclusion of the Executive Director; and

WHEREAS, pursuant to N.J.S.A. 13A-5h, no action authorized by the Commission shall have force or effect until ten (10) days, Saturdays, Sundays and public holidays excepted, after a copy of the minutes of the meeting of the Commission has been delivered to the Governor for review, unless prior to expiration of the review period and Governor shall approve same, in which case the action shall become effective upon such approval; and

WHEREAS, the Pinelands Commission hereby determines that the proposed public development conforms to the standards for approving an application for Public Development set forth in N.J.A.C. 7:50-4.57 if the conditions recommended by the Executive Director are imposed.

**NOW, THEREFORE BE IT RESOLVED** that the following application for Public Development is hereby approved subject to the conditions recommended by the Executive Director.

**App. No. 2001-0438.005 Applicant: WILLIAMSTOWN FOOTBALL HUDDLE CLUB/ TO BE OWNED BY MONROE TOWNSHIP BOARD OF EDUCATION**

Municipality: Monroe Township  
Management Area: Regional Growth Area  
Proposed Development: Construction of a 2,400 square foot athletic weight room building (Date of Report: June 19, 2014).

**Record of Commission Votes**

AYE NAY NP ABS				AYE NAY NP ABS				AYE NAY NP ABS			
Ashmun			X	Galletta			X	Prickett	X		
Avery			X	Jackson	X			Quinn			X
Brown	X			Jannarone	X			Rohan Green			X
DiBello	X			Lloyd	X			Witt			X
Earlen	X			McGlinchey	X			Lohbauer	X		

Adopted at a meeting of the Pinelands Commission  
Nancy Wittenberg  
Nancy Wittenberg  
Executive Director

Date: July 11, 2014  
Mark S. Lohbauer  
Mark S. Lohbauer  
Chairman



State of New Jersey  
 THE PINELANDS COMMISSION  
 PO Box 359  
 NEW LISBON, NJ 08064  
 (609) 894-7300  
 www.nj.gov/pinelands



Chris Christie  
 Governor

Kim Guadagno  
 Lt. Governor

General Information: Info@njpines.state.nj.us  
 Application Specific Information: AppInfo@njpines.state.nj.us

Mark S. Lohbauer  
 Chairman

Nancy Wittenberg  
 Executive Director

June 19, 2014

Frank Fucetola  
 Williamstown Football Huddle Club  
 700 North Tuckahoe Road  
 Williamstown, NJ 08094

Re: Application # 2001-0438.005  
 Block 13001, Lot 24  
 Monroe Township

Dear Mr. Fucetola:

The Commission staff has completed its review of this application for the construction of a 2,400 square foot athletic weight room building. The proposed building will be owned by the Monroe Township Board of Education. Enclosed is a copy of a Public Development Application Report. On behalf of the Commission's Executive Director, I am recommending that the Pinelands Commission approve the application with conditions at its July 11, 2014 meeting.

Any interested party may appeal this recommendation in accordance with the appeal procedure attached to this document. If no appeal is received, the Pinelands Commission may either approve the recommendation of the Executive Director or refer the application to the New Jersey Office of Administrative Law for a hearing.

Prior to any development, the applicant shall obtain any other necessary permits and approvals.

Sincerely,

Charles M. Horner, P.P.  
 Director of Regulatory Programs

Enc: Appeal Procedure

- c: Secretary, Monroe Township Planning Board (via email)
- Monroe Township Construction Code Official (via email)
- Monroe Township Environmental Commission (via email)
- Secretary, Gloucester County Planning Board (via email)
- John Helbig





Chris Christie  
Governor

Kim Guadagno  
Lt. Governor

## State of New Jersey

### THE PINELANDS COMMISSION

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Mark S. Lohbauer  
Chairman

Nancy Wittenberg  
Executive Director

General Information: Info@njpinelands.state.nj.us  
Application Specific Information: AppInfo@njpinelands.state.nj.us

## PUBLIC DEVELOPMENT APPLICATION REPORT

June 19, 2014

Frank Fucetola  
Williamstown Football Huddle Club  
700 North Tuckahoe Road  
Williamstown, NJ 08094

Application No.: 2001-0438.005

Location: Block 13001, Lot 24  
Monroe Township

This application proposes the construction of a 2,400 square foot athletic weight room building on the above referenced 44.29 acre lot in Monroe Township. The proposed building will be owned by the Monroe Township Board of Education. The Monroe Township Middle School is located on the lot.

### STANDARDS

The Commission staff has reviewed the proposed development for consistency with all standards of the Pinelands Comprehensive Management Plan (CMP). The following reviews the CMP standards that are relevant to this application:

#### Land Use (N.J.A.C. 7:50-5.28(a))

The proposed development is located in a Pinelands Regional Growth Area. The proposed development is a permitted land use in a Regional Growth Area.

#### Vegetation Management Standards (N.J.A.C. 7:50-6.23 & 6.26)

The proposed development will be located over existing maintained lawn and impervious areas. The proposed clearing and soil disturbance is limited to that which is necessary to accommodate the proposed development.

The Landscaping and Revegetation guidelines of the CMP recommend the use of grasses that are tolerant of droughty, nutrient poor conditions. Based upon the limited area of disturbance and the proposed use of that area, the applicant does not propose any revegetation.

## PUBLIC COMMENT

The CMP defines the proposed development as "minor" development. The CMP does not require public notice for minor public development applications. The application was designated as complete on the Commission's website on May 27, 2014. The Commission's public comment period closed on June 12, 2014. No public comment was submitted to the Commission regarding this application.

## CONDITIONS

1. Except as modified by the below conditions, the proposed development shall adhere to the plan, consisting of two sheets, prepared by Adams, Rehmann & Heggan Associates, Inc., both sheets dated May 1, 2014.
2. Disposal of any construction debris or excess fill may only occur at an appropriately licensed facility.
3. Any proposed revegetation shall adhere to the "Vegetation" standards of the CMP. Where appropriate, the applicant is encouraged to utilize the following Pinelands native grasses for revegetation: Switch grass, Little bluestem and Broom-sedge.
4. Prior to any development, the applicant shall obtain any other necessary permits and approvals.

## CONCLUSION

As the proposed development conforms to the standards set forth in N.J.A.C. 7:50-4.57, it is recommended that the Pinelands Commission **APPROVE** the proposed development subject to the above conditions.



Chris Christie  
Governor

Kim Guadagno  
Lt. Governor

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Mark S. Lohbauer  
Chairman

Nancy Wittenberg  
Executive Director

General Information: [Info@njpines.state.nj.us](mailto:Info@njpines.state.nj.us)  
Application Specific Information: [AppInfo@njpines.state.nj.us](mailto:AppInfo@njpines.state.nj.us)

### PINELANDS COMMISSION APPEAL PROCEDURE

The Pinelands Comprehensive Management Plan (N.J.A.C. 7:50-4.91) provides an interested party the right to appeal any determination made by the Executive Director to the Commission in accordance with N.J.A.C. 7:50-4.91. An interested party is someone who has a specific property interest sufficient to require a hearing on constitutional or statutory grounds. Only appeal requests submitted by someone meeting the definition of an interested party will be transmitted to the New Jersey Office of Administrative Law for a hearing. Any such appeal must be made in writing to the Commission within eighteen days of the date of the Executive Director's determination and must include the following information:

1. the name and address of the person requesting the appeal;
2. the application number;
3. the date on which the determination to be appealed was made;
4. a brief statement of the basis for the appeal; and
5. a certificate of service (a notarized statement) indicating that service of the notice has been made, by certified mail, on the clerk of the county, municipal planning board and environmental commission with jurisdiction over the property which is subject of this decision.

Within 15 days following receipt of a notice of valid appeal, the Executive Director shall initiate the procedures for assignment of an Administrative Law Judge to preside at the hearing pursuant to the Administrative Procedures Act, N.J.S.A. 52:14B-1 et seq., and the procedures established by the Office of Administrative Law. The time, date and location of such hearing shall be designated by the Office of Administrative Law.



**RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION**

NO. PC4-14- 24

**TITLE:** Approving With Conditions an Application for a Public Development (Application Number 2011-0049.002)

Commissioner Earlen moves and Commissioner McGlinchey seconds the motion that:

WHEREAS, the Pinelands Commission has reviewed the Findings of Fact, Conclusion and the recommendation of the Executive Director that the following application for a Public Development be approved with conditions:

App. No. 2011-0049.002 Applicant: OCEAN COUNTY ENGINEERING DEPARTMENT

Municipality: Jackson Township  
Management Area: Regional Growth Area, Forest Area & Rural Development Area  
Proposed Development: 13,600 linear feet of road pavement widening of CR 528/527 (Date of Report: June 20, 2014).

WHEREAS, no request for a hearing before the Office of Administrative Law concerning the Executive Director's recommendation has been received; and

WHEREAS, the Pinelands Commission hereby adopts the Findings of Fact and Conclusion of the Executive Director; and

WHEREAS, pursuant to N.J.S.A. 13A-5h, no action authorized by the Commission shall have force or effect until ten (10) days, Saturdays, Sundays and public holidays excepted, after a copy of the minutes of the meeting of the Commission has been delivered to the Governor for review, unless prior to expiration of the review period and Governor shall approve same, in which case the action shall become effective upon such approval; and

WHEREAS, the Pinelands Commission hereby determines that the proposed public development conforms to the standards for approving an application for Public Development set forth in N.J.A.C. 7:50-4.57 if the conditions recommended by the Executive Director are imposed.

NOW, THEREFORE BE IT RESOLVED that the following application for Public Development is hereby approved subject to the conditions recommended by the Executive Director.

App. No. 2011-0049.002 Applicant: OCEAN COUNTY ENGINEERING DEPARTMENT

Municipality: Jackson Township  
Management Area: Regional Growth Area, Forest Area & Rural Development Area  
Proposed Development: 13,600 linear feet of road pavement widening of CR 528/527 (Date of Report: June 20, 2014).

**Record of Commission Votes**

	AYE	NAY	NP	ABS		AYE	NAY	NP	ABS		AYE	NAY	NP	ABS
Ashmun			X		Galletta			X		Prickett	X			
Avery			X		Jackson	X				Quinn			X	
Brown	X				Jannarone	X				Rohan Green			X	
DiBello	X				Lloyd	X				Witt			X	
Earlen	X				McGlinchey	X				Lohbauer	X			

Adopted at a meeting of the Pinelands Commission  
Nancy Wittenberg  
Nancy Wittenberg  
Executive Director

Date: July 11, 2014  
Mark S. Lohbauer  
Mark S. Lohbauer  
Chairman



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Chris Christie  
Governor

Kim Guadagno  
Lt. Governor

General Information: Info@njpines.state.nj.us  
Application Specific Information: ApplInfo@njpines.state.nj.us

Mark S. Lohbauer  
Chairman

Nancy Wittenberg  
Executive Director

June 20, 2014

Frank S. Scarantino, P.E.  
Ocean County Engineer  
Ocean County Engineering Department  
P.O. Box 2191  
Toms River, NJ 08754

Re: Application # 2011-0049.002  
East Veteran's Highway (Route 528/527)  
Jackson Township

Dear Mr. Scarantino:

The Commission staff has completed its review of this application for 13,600 linear feet of road pavement widening and associated improvements within the above referenced right-of-way in Jackson Township. Enclosed is a copy of a Public Development Application Report. On behalf of the Commission's Executive Director, I am recommending that the Pinelands Commission approve the application with conditions at its July 11, 2014 meeting.

Any interested party may appeal this recommendation in accordance with the appeal procedure attached to this document. If no appeal is received, the Pinelands Commission may either approve the recommendation of the Executive Director or refer the application to the New Jersey Office of Administrative Law for a hearing.

Prior to any development, the applicant shall obtain any other necessary permits and approvals.

Sincerely,

Charles M. Horner, P.P.  
Director of Regulatory Programs

Enc: Appeal Procedure  
c: Secretary, Jackson Township Planning Board (via email)  
Jackson Township Construction Code Official (via email)  
Jackson Township Environmental Commission (via email)  
Secretary, Ocean County Planning Board (via email)  
Frank Seney





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Chris Christie  
 Governor  
 Kim Guadagno  
 Lt. Governor

General Information: Info@njpines.state.nj.us  
 Application Specific Information: AppInfo@njpines.state.nj.us

Mark S. Lohbauer  
 Chairman  
 Nancy Wittenberg  
 Executive Director

**PUBLIC DEVELOPMENT APPLICATION REPORT**

June 20, 2014

Frank S. Scarantino, P.E.  
 Ocean County Engineer  
 Ocean County Engineering Department  
 P.O. Box 2191  
 Toms River, NJ 08754

Application No.: 2011-0049.002

Location: East Veteran's Highway (Route 528/527)  
 Jackson Township

This application proposes 13,600 linear feet of road pavement widening and associated improvements within the above referenced right-of-way in Jackson Township.

East Veteran's Highway is an existing two lane paved county road. Within the project area, the existing road pavement averages approximately 25 feet in width. The proposed widening will increase the average paved road width to 35 feet. After the proposed improvements, the road will continue to be two lanes. The proposed pavement widening begins approximately 1,700 feet west of Dunhill Road and ends approximately 2,100 feet east of Cranberry Harvest Court.

**STANDARDS**

The Commission staff has reviewed the proposed development for consistency with all standards of the Pinelands Comprehensive Management Plan (CMP). The following reviews the CMP standards that are relevant to this application:

Land Use (N.J.A.C. 7:50-5.28(a), 5.26(b)10, and 5.2(b))

The proposed development is located primarily in a Pinelands Regional Growth Area, partially in a Pinelands Rural Development Area and partially in a Pinelands Forest Area. The CMP defines a road as public service infrastructure. Public service infrastructure is a permitted land use in a Pinelands Regional Growth Area and a Pinelands Rural Development Area. The CMP (N.J.A.C. 7:50-5.2(b)) permits the fifty percent expansion of a nonconforming use provided the area of the expansion does not exceed fifty percent of the area of the use or the capacity of the use, whichever is applicable, existing on January 14, 1981. The portion of the proposed development located within the Forest Area constitutes less than a fifty percent expansion of the road that existed on January 14, 1981.



#### Wetlands Standards (N.J.A.C. 7:50-6.13)

There are wetlands located within 300 feet of the proposed development. The CMP permits road improvements (linear improvements) in wetlands and the required buffer to wetlands provided the applicant demonstrates that certain conditions are met. The applicant has demonstrated that there is no feasible alternative to the proposed road widening that does not involve development in wetland buffers or that will result in a less significant adverse impact to wetland buffers. In addition, the proposed road widening will not result in a substantial impairment of the resources of the Pinelands. With the conditions below, all practical measures are being taken to mitigate the impact on the wetland buffers. The applicant has indicated that the proposed road widening will improve traffic safety. The applicant has demonstrated that the need for the proposed road widening overrides the importance of protecting the wetland buffer.

#### Vegetation Management Standards (N.J.A.C. 7:50-6.23 & 6.26)

The proposed development will be located within existing grassed areas. The proposed clearing and soil disturbance is limited to that which is necessary to accommodate the proposed development.

The Landscaping and Revegetation guidelines of the CMP recommend the use of grasses that are tolerant of droughty, nutrient poor conditions. To stabilize disturbed areas, the applicant proposes to utilize a seed mixture which meets that recommendation.

#### Threatened and Endangered Species Standards (N.J.A.C. 7:50-6.27 & 6.33)

The applicant completed a threatened and endangered plant species habitat assessment for the proposed development. The assessment determined that the project area does not contain suitable habitat for any threatened or endangered plant species. Based upon the proposed limits of disturbance, the location of existing development and a review of available information, the Commission staff determined that a survey for the presence of threatened or endangered plant and animal species was not required.

#### Stormwater Management Standards (N.J.A.C.7:50-6.84(a)6)

The applicant has demonstrated that the proposed development is consistent with the CMP stormwater management standards. The applicant will be constructing underground stormwater infiltration trenches.

### **PUBLIC COMMENT**

This applicant has provided the requisite public notice. Newspaper public notice was completed on November 1, 2013. The application was designated as complete on the Commission's website on May 30, 2014. The Commission's public comment period closed on June 12, 2014. No public comment was submitted to the Commission regarding this application.

### **CONDITIONS**

1. Except as modified by the below conditions, the proposed development shall adhere to the plan, consisting of 17 sheets, prepared by Remington, Vernick & Vena Engineers and dated as follows:

Sheets 1, 2 & 5-16 - September 2012; revised to September 2013

Sheets 3, 4 & 17 - September 2012; revised to February 2014

2. Disposal of any construction debris or excess fill may only occur at an appropriately licensed facility.
3. Any proposed revegetation shall adhere to the "Vegetation" standards of the CMP. Where appropriate, the applicant is encouraged to utilize the following Pinelands native grasses for revegetation: Switch grass, Little bluestem and Broom-sedge.
4. Prior to any development, the applicant shall obtain any other necessary permits and approvals.
5. Appropriate measures shall be taken during construction to preclude sedimentation from entering wetlands and shall be maintained in place until all development has been completed and the area has been stabilized.

### CONCLUSION

As the proposed development conforms to the standards set forth in N.J.A.C. 7:50-4.57, it is recommended that the Pinelands Commission **APPROVE** the proposed development subject to the above conditions.



Chris Christie  
Governor

Kim Guadagno  
Lt. Governor

## State of New Jersey

### THE PINELANDS COMMISSION

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Mark S. Lohbauer  
Chairman

Nancy Wittenberg  
Executive Director

General Information: [Info@njpines.state.nj.us](mailto:Info@njpines.state.nj.us)  
Application Specific Information: [AppInfo@njpines.state.nj.us](mailto:AppInfo@njpines.state.nj.us)

### PINELANDS COMMISSION APPEAL PROCEDURE

The Pinelands Comprehensive Management Plan (N.J.A.C. 7:50-4.91) provides an interested party the right to appeal any determination made by the Executive Director to the Commission in accordance with N.J.A.C. 7:50-4.91. An interested party is someone who has a specific property interest sufficient to require a hearing on constitutional or statutory grounds. Only appeal requests submitted by someone meeting the definition of an interested party will be transmitted to the New Jersey Office of Administrative Law for a hearing. Any such appeal must be made in writing to the Commission within eighteen days of the date of the Executive Director's determination and must include the following information:

1. the name and address of the person requesting the appeal;
2. the application number;
3. the date on which the determination to be appealed was made;
4. a brief statement of the basis for the appeal; and
5. a certificate of service (a notarized statement) indicating that service of the notice has been made, by certified mail, on the clerk of the county, municipal planning board and environmental commission with jurisdiction over the property which is subject of this decision.

Within 15 days following receipt of a notice of valid appeal, the Executive Director shall initiate the procedures for assignment of an Administrative Law Judge to preside at the hearing pursuant to the Administrative Procedures Act, N.J.S.A. 52:14B-1 et seq., and the procedures established by the Office of Administrative Law. The time, date and location of such hearing shall be designated by the Office of Administrative Law.



**RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION**

NO. PC4-14- 25

**TITLE:** Approving With Conditions an Application for a Waiver of Strict Compliance (Application Number 1999-0082.001)

Commissioner Way moves and Commissioner Jackson seconds the motion that:

WHEREAS, the Pinelands Commission has reviewed the Findings of Fact, Conclusion and the recommendation of the Executive Director that the following application for a Waiver of Strict Compliance be approved with conditions:

App. No. 1999-0082.001 Applicant: Robert Boehm

Municipality: Jackson Township  
Management Area: Rural Development Area  
Proposed Development: Single family dwelling (Date of Report: June 19, 2014).

WHEREAS, no request for a hearing before the Office of Administrative Law concerning the Executive Director's recommendation has been received; and

WHEREAS, the Pinelands Commission hereby adopts the Findings of Fact and Conclusion of the Executive Director; and

WHEREAS, pursuant to N.J.S.A. 13A-5h, no action authorized by the Commission shall have force or effect until ten (10) days, Saturdays, Sundays and public holidays excepted, after a copy of the minutes of the meeting of the Commission has been delivered to the Governor for review, unless prior to expiration of the review period and Governor shall approve same, in which case the action shall become effective upon such approval; and

WHEREAS, the Pinelands Commission hereby determines that the requested Waiver conforms to the standards for approving an application for a Waiver of Strict Compliance based on extraordinary hardship as set forth in N.J.A.C. 7:50-4.62, N.J.A.C. 7:50-4.63 and N.J.A.C. 7:50-4.65 if the conditions recommended by the Executive Director are imposed.

NOW, THEREFORE BE IT RESOLVED that the following application for a Waiver of Strict Compliance is hereby approved subject to the conditions recommended by the Executive Director:

App. No. 1999-0082.001 Applicant: Robert Boehm

Municipality: Jackson Township  
Management Area: Rural Development Area  
Proposed Development: Single family dwelling (Date of Report: June 19, 2014).

**Record of Commission Votes**

AYE NAY NP ABS				AYE NAY NP ABS				AYE NAY NP ABS			
Ashmun			X	Galletta			X	Prickett	X		
Avery			X	Jackson	X			Quinn			X
Brown	X			Jannarone	X			Rohan Green			X
DiBello	X			Lloyd	X			Witt			X
Earlen	X			McGlinchey	X			Lohbauer	X		

Adopted at a meeting of the Pinelands Commission  
Nancy Wittenberg  
Nancy Wittenberg  
Executive Director

Date: July 11, 2014  
Mark S. Lohbauer  
Mark S. Lohbauer  
Chairman



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Chris Christie  
 Governor

Kim Guadagno  
 Lt. Governor

General Information: Info@njpines.state.nj.us  
 Application Specific Information: AppInfo@njpines.state.nj.us

Mark S. Lohbauer  
 Chairman

Nancy Wittenberg  
 Executive Director

**REPORT ON AN APPLICATION FOR A WAIVER OF STRICT COMPLIANCE**

June 19, 2014

Robert Boehm  
 10 Cape Court  
 Howell, NJ 07731

Re: Application # 1999-0082.001  
 Block 16601, Lot 9  
 Jackson Township

Dear Mr. Boehm:

The Commission staff has completed its review of the above referenced application for a Waiver of Strict Compliance (Waiver). Based upon the facts and conclusions contained in this Report, on behalf of the Commission's Executive Director, I am recommending that the Pinelands Commission approve the application with conditions at its July 11, 2014 meeting.

**FINDINGS OF FACT**

This application proposes to develop one single family dwelling served by an onsite septic system on the above referenced 45.4 acre parcel in Jackson Township. The parcel is located in Jackson Township's RD zoning district and in a Pinelands Rural Development Area. In this zoning district, the Township's certified land use ordinances establish a residential density requirement of one dwelling unit per 3.8 acres.

The parcel has been inspected by a member of the Commission's staff. In addition, the appropriate resource capability maps and data available to the staff have been reviewed.

A Waiver of Strict Compliance for the development of a single family dwelling on the parcel was previously approved pursuant to the provisions of the Pinelands Comprehensive Management Plan (CMP, N.J.A.C. 7:50-4.63) on February 10, 2000 and again on September 9, 2005. The CMP (N.J.A.C. 7:50-4.70(c)) provides that any Waiver approved based upon N.J.A.C. 7:50-4.63 shall expire five years after the Waiver is approved by the Commission unless all necessary construction permits have been issued and other CMP specified requirements are met. Based on the submitted information, the two Waivers previously approved by the Commission have expired.



A portion of the parcel is wetlands as defined in the CMP (N.J.A.C.7:50-6.5(a)). The wetland continues onto adjacent lands. Any development of the parcel would be located within 300 feet of wetlands. Based on the quality and location of the wetlands, the proposed development will cause a significant adverse impact on the wetlands. As there will be a significant adverse impact on wetlands located within 300 feet of the proposed development, the applicant is requesting a Waiver from the buffer to wetlands requirements contained in N.J.A.C. 7:50-6.14.

The CMP (N.J.A.C. 7:50-4.65(b) 6.) requires that for an applicant to qualify for a Waiver to develop a single family dwelling in a Pinelands Rural Development Area, it must be demonstrated that no development, including clearing and land disturbance, will be located on or within 50 feet of wetlands. The applicant has demonstrated that no development, including clearing and land disturbance, will be located on or within 80 feet of wetlands.

The parcel includes all contiguous land in common ownership on or after January 14, 1981. The proposed single family dwelling will be the sole principal use of the parcel. The development of a single family dwelling on the parcel will not require any lot area or residential density variances pursuant to Jackson Township's certified land use ordinances. A single family dwelling can be developed on the parcel without violating any of the criteria contained in N.J.A.C. 7:50-4.65 (b) if the conditions recommended below are imposed.

Only if the parcel is developed in accordance with the conditions recommended below will the adverse impacts on the wetlands be minimized.

#### PUBLIC COMMENT

The applicant has provided the requisite public notice. Public notice to all property owners within 200 feet of the parcel was completed on April 17, 2014. Newspaper public notice was completed on April 17, 2014. The application was designated as complete on the Commission's website on May 28, 2014. The Commission's public comment period closed on June 12, 2014. No public comments regarding this application were submitted to the Pinelands Commission.

#### CONCLUSION

The CMP (N.J.A.C. 7:50-4.62) sets forth the standards which must be met before a Waiver can be approved. The CMP (N.J.A.C. 7:50-4.62(a)) requires that for an application to be approved based on extraordinary hardship the applicant must demonstrate that the conditions of either N.J.A.C. 7:50-4.63(a) or (b) have been met.

N.J.A.C. 7:50-4.63(a) sets forth five conditions which must be met for an applicant to qualify for an extraordinary hardship pursuant to that subsection.

The first condition is that the only relief sought is from one or more of the standards contained in the CMP (N.J.A.C. 7:50-6) for certain specified development. One of the specified categories of development is as follows:

- vii. A single family dwelling on a parcel within a Rural Development Area that complies with the density and lot area standards set forth in N.J.A.C. 7:50-5.26(a) and (c);

This application is only for a Waiver from the wetlands buffer requirements. The applicant is seeking to develop a single family dwelling on a lot within a Pinelands Rural Development Area that complies with the residential density and lot area standards set forth in N.J.A.C. 7:50-5.26(a) and (c). The proposed single family dwelling on the 45.4 acre lot meets the residential density and lot area standards established in this portion of the Pinelands Rural Development Area in Jackson Township's certified land use ordinances. As a result, the applicant meets the criteria set forth in N.J.A.C. 7:50-4.63(a)1vii.

The second condition is that the parcel includes all contiguous land in common ownership on or after January 14, 1981, including lands which are contiguous as a result of ownership of other contiguous lands. Since the parcel includes all such contiguous land, the applicant meets the criteria set forth in N.J.A.C. 7:50-4.63(a)2.

The third condition is that the proposed use will be the sole principal use on the entire contiguous parcel, except as expressly provided in N.J.A.C. 7:50-5.1(c). As the proposed single family dwelling will be the sole principal use on the parcel, the applicant meets the criteria set forth in N.J.A.C. 7:50-4.63(a)3.

The fourth condition is that all necessary municipal lot area and density variances have been obtained if the parcel is located in a municipality whose master plan and land use ordinances have been certified by the Pinelands Commission. Jackson Township's master plan and land use ordinances have been certified by the Pinelands Commission. The certified ordinances do not require any municipal lot area or density variances. As a result, the applicant meets the criteria set forth in N.J.A.C. 7:50-4.63(a)4.

The fifth condition is that the development of the lot will not violate any of the criteria contained in N.J.A.C. 7:50-4.65(b). N.J.A.C. 7:50-4.65(a) precludes the granting of a Waiver which permits a parcel to be developed unless such development will be consistent with the purposes and provisions of the Pinelands Protection Act, the Federal Act and the CMP and will not result in a substantial impairment of the resources of the Pinelands Area. N.J.A.C. 7:50-4.65(b) sets forth the circumstances which do not comply with N.J.A.C. 7:50-4.65(a). With the conditions recommended below, the proposed development will not violate any of the circumstances contained in N.J.A.C. 7:50-4.65(b). As a result, the application meets the criteria set forth in N.J.A.C. 7:50-4.63(a)5.

Since the applicant meets all the conditions set forth in N.J.A.C. 7:50-4.63(a), the applicant has demonstrated that an extraordinary hardship exists pursuant to N.J.A.C. 7:50-4.62(a).

The CMP (N.J.A.C. 7:50-4.62(d)1.iii) requires the acquisition and redemption of 0.25 Pinelands Development Credits (PDCs) whenever a Waiver provides relief from one or more of the standards of N.J.A.C. 7:50-6. As the applicant is obtaining a Waiver from the minimum buffer to wetlands standard contained in N.J.A.C. 7:50-6.14, a condition is included to require the applicant to purchase the requisite 0.25 PDCs.

With the conditions recommended below, the applicant meets the requirements contained in N.J.A.C. - 7:50-4.62(d).

To meet the requirements of N.J.A.C. 7:50-4.62, N.J.A.C. 7:50-4.63(a) and N.J.A.C. 7:50-4.65, the Pinelands Commission staff has determined that the parcel must be developed in accordance with the following conditions:

1. Except as modified by the below conditions, the proposed development shall adhere to the plot plan prepared by East Coast Engineering, Inc., dated October 21, 1999 and last revised March 10, 2000.
2. The septic system shall be located in an area where the seasonal high water table is at least 5 feet below the natural ground surface and in the area shown on the above referenced plan.
3. Appropriate measures shall be taken prior to construction to preclude sedimentation from entering freshwater wetlands.
4. Sufficient dry wells or a comparable alternative shall be installed to contain all stormwater runoff from the house.
5. The driveway shall be constructed of crushed stone or other permeable material.
6. The septic system shall be located at least 200 feet from all freshwater wetlands. All other development, including clearing and land disturbance, shall be located at least 80 feet from all wetlands. No development, including clearing and land disturbance, shall occur except as shown on the above referenced plan.
7. Except as provided in N.J.A.C. 7:50-5.1(c), the single family dwelling approved herein shall be the sole principal use of the parcel.
8. Prior to Commission issuance of a letter advising that any county or municipal approval or permit may take effect, the Commission must receive a letter from the Pinelands Development Credit Bank indicating that the requisite 0.25 Pinelands Development Credits have been acquired and submitted to the Pinelands Development Credit Bank for redemption.
9. This Waiver shall expire July 11, 2019 unless all necessary construction permits have been issued by that date. The Waiver shall also expire if any construction permit is allowed to expire or lapse after July 11, 2019, or if any renewal or extension of any permit or approval or issuance of a new construction permit is necessary after that date.
10. Prior to Commission issuance of a letter advising that any county or municipal approval or permit may take effect, a copy of an amended recorded deed for the parcel containing all of the above conditions shall be submitted to the Pinelands Commission. The deed shall also specify that the conditions are being imposed pursuant to a Waiver of Strict Compliance referring to the application number. The deed shall state that the conditions are enforceable by the Pinelands Commission, Jackson Township, the Ocean County Health Department, and any other party of interest.

With the above conditions, the applicant qualifies for a Waiver of Strict Compliance from the requirements of N.J.A.C. 7:50-6.14.

Since the applicant meets the provisions of N.J.A.C. 7:50-4.62, N.J.A.C. 7:50-4.63(a) and N.J.A.C. 7:50-4.65 for the development of a single family dwelling on the parcel, it is recommended that the Pinelands Commission APPROVE the requested Waiver of Strict Compliance subject to the above conditions



APPEAL

The CMP (N.J.A.C. 7:50-4.91) provides an interested party the right to appeal this recommendation in accordance with N.J.A.C. 7:50-4.91. An interested party is someone who has a specific property interest sufficient to require a hearing on constitutional or statutory grounds. Only appeal requests submitted by someone meeting the definition of an interested party will be transmitted to the New Jersey Office of Administrative Law for a hearing. Any such appeal must be made in writing to the Commission within eighteen days of the date of this Report and must include the following information:

1. the name and address of the person requesting the appeal;
2. the application number;
3. a brief statement of the basis for the appeal; and
4. a certificate of service (a notarized statement) indicating that service of the notice has been made, by certified mail, on the clerk of the county, municipal planning board and environmental commission with jurisdiction over the property which is subject of this decision.

If no appeal is received, the Pinelands Commission may either approve the determination of the Executive Director or refer the application to the New Jersey Office of Administrative Law for a hearing.

Recommended for Approval by: \_\_\_\_\_



Charles M. Horner, P.P., Director of Regulatory Programs

- c: Secretary, Jackson Township Planning Board (via email)  
 Jackson Township Construction Code Official (via email)  
 Jackson Township Environmental Commission (via email)  
 Secretary, Ocean County Planning Board (via email)  
 Ocean County Health Department (via email)  
 Nicholas Montenegro, Montenegro, Thompson, Montenegro & Genz  
 Jean Montgomerie



**RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION**

NO. PC4-14- 26

**TITLE:** To Authorize the Executive Director to Modify the Cooperative Agreement with the National Park Service for Pinelands Monitoring

Commissioner Lloyd moves and Commissioner McGlinchey seconds the motion that:

WHEREAS, commencing in 1994, the Commission authorized the Executive Director to enter into Cooperative Agreements, Task Agreements and Modifications to the Cooperative Agreements with the National Park Service providing funding for Pinelands monitoring; and

WHEREAS, in June 2013, the Commission authorized the Executive Director to enter into Cooperative Agreement P13AC00554 providing an additional \$256,500 for this long term environmental and economic monitoring program; and

WHEREAS, the National Park Service has prepared the attached Modification 0001 to Cooperative Agreement P13AC00554 providing an additional \$284,100 for this long term environmental and economic monitoring program; and

WHEREAS, pursuant to N.J.S.A. 13:18A-5h, no action authorized by the Commission shall have force or effect until ten (10) days, Saturdays, Sundays, and public holidays excepted, after a copy of the minutes of the meeting of the Commission has been delivered to the Governor for review, unless prior to expiration of the review period the Governor shall approve same, in which case the action shall become effective upon such approval.

NOW, THEREFORE BE IT RESOLVED that the Executive Director is authorized to enter into Modification # 0001 to Cooperative Agreement P13AC00554 with the National Park Service, consistent with the attached Modification Agreement, to continue the Long Term Economic and Environmental Monitoring Programs.

**Record of Commission Votes**

AYE NAY NP ABS				AYE NAY NP ABS				AYE NAY NP ABS					
Ashmun			X	Galletta			X	Prickett	X				
Avery			X	Jackson	X			Quinn			X		
Brown	X			Jannarone	X			Rohan Green			X		
DiBello	X			Lloyd	X			Witt			X		
Earlen	X			McGlinchey	X			Lohbauer	X				

Adopted at a meeting of the Pinelands Commission  
Nancy Wittenberg  
Nancy Wittenberg  
Executive Director

Date: July 11, 2014  
Mark S. Lohbauer  
Mark S. Lohbauer  
Chairman

Modification **0001** to Cooperative Agreement **P13AC00554**  
between  
the **National Park Service, Pinelands National Reserve**, and  
**New Jersey Pinelands Commission**

1. General

The purpose of this modification is to provide additional funding to continue the **New Jersey Pinelands Long-term Environmental and Economic Monitoring Program** under Cooperative Agreement **P13AC00554** between the **New Jersey Pinelands Commission** and the **National Park Service (NPS)**.

2. Modification

The following modifications are hereby made:

Article III – Statement of Work

The Statement of Work is changed to add:

**A. The Cooperator Agrees To:**

1. Continue to analyze the second round of water-quality and plant and animal data, initiate a comparison of the results of the two rounds of surveys, and begin to explore ranking the stream and impoundment sites from the second round using the multiple-indicator approach developed from the Mullica River data and applied to the Rancocas Creek and Barnegat Bay data. If funding and staff resources allow, a report that describes the relationship between land use and the various water-quality and plant and animal indicators will be initiated in 2014.
2. Continue to monitor pH and specific conductance on a bimonthly basis at the network of 47 Pinelands-wide sites, initiate an analysis of the pH and specific conductance data from 2005 - 2013 to determine whether any trends in these parameters occurred during that period, examine the relationship between nitrogen and phosphorus and land use, and include the results of the trend and nutrient analyses in the report in #1.
3. Continue to monitor water levels monthly at the 35 forest plots and 30 of the 37 ponds, visit the seven ponds with continuous recorders quarterly to download the water-level data and maintain the recorders, initiate an analysis to summarize the hydrologic regimes associated with the forest-plots and ponds and to examine the relationship of water-level fluctuations among all of the -level monitoring sites, and include the results of this analysis in the report in #1.
4. Continue to monitor calling anurans monthly from March - June at these 20

ponds, initiate an analysis of the 1996 - 2013 vocalization data to assess trends in species occurrence and numbers calling during the period, and include the results of this analysis in the report in #1.

5. Initiate an analysis of the anuran-survey and wetland-forest vegetation data collected as part of the Wetland-buffer Study.
6. Select and install staff gages in the remaining natural ponds for the Pond-vulnerability Study and initiate the water-level and water-quality monitoring and plant and animal surveys for a portion of the 100-pond sample.
7. Select and install staff gages in the remaining excavated ponds and stormwater basins for the Created-wetland Study and initiate water-level and water-quality monitoring and plant and animal surveys for a portion of both types of wetlands.
8. Continue to provide coordination and outreach and host the Pinelands Research Series.
9. Complete and issue the 2013 Pinelands Long-Term Economic Monitoring Program Annual Report and present findings to Pinelands Commission and Pinelands Municipal Council. In mid-2014, collect 2013 economic and census data; analyze selected data; develop maps and charts; produce the 2014 Pinelands Long-Term Economic Monitoring Report and report findings in late 2014.

Continue to determine need/possibility for supplemental data to aid in analysis of current Pinelands economic conditions; collect necessary data; and report findings in future annual economic monitoring reports.

Identify gaps in data or needs for additional special studies to expand upon current economic monitoring program; determine what resources are required; and begin procurement of resources for analysis.

10. Continue to review current status of the Pinelands Development Credit program; assess the impact of possible changes, and conduct *ad hoc* analyses for planned rule-making, which will include supply and demand status updates.
11. Provide content and support for an update of the economic impacts of the Commission's regulations from 2003 through 2012 for the 4<sup>th</sup> Five-Year Comprehensive Management Plan progress report to be completed in 2014.

#### **Special Studies (funding and time permitting)**

12. Reexamine the impacts of municipalities that are "split" by the Pinelands boundary on the long-term economic monitoring program; investigate whether GIS and/or additional data can offer more accurate analysis than the current method (10% rule); and

locate and secure data resources. Investigate if the use of ESRI estimates should be continued for future reports.

13. Revisit the Municipal Fiscal Health Special Study to determine needs for an update; reexamine methods for determining fiscal stress; and complete study/update, if a need is determined.
14. Initiate a review of the nearly twenty-year-old New Jersey Pinelands Long-term Environmental and Economic Monitoring Program that was established to evaluate the long-term ecological and economic consequences of the Comprehensive Management Plan.

**B. The NPS will:**

1. Provide financial assistance in the amount of \$284,100 for the cooperator to complete the items in this modification and Attachment B – Approved Project Proposal entitled “New Jersey Pinelands Long-term Environmental and Economic Monitoring Program: Proposal for FY2014 Funding of Upcoming Activities.
2. Provide the **Cooperator** with information on all relevant NPS environmental and economic resource related legislation, policies, guidelines, objectives, and research and monitoring activities related to Pinelands resources and issues;
3. Assist, when necessary and based on personnel availability, with field sampling activities;
4. Assist, where appropriate, with description, interpretation, evaluation, and dissemination of monitoring data; and
5. Provide personnel, when available, to serve on technical advisory committees to the environmental and economic programs, review program plans, methodology, data, and reports on a periodic basis, evaluate program progress, and provide recommendations on program and policy goals and strategies. Assist in planning and development of the proposed review of the overall Long-term Environmental and Economic Monitoring Program.

**C. Both parties agree to:**

1. Meet together periodically, and with other cooperators, to coordinate activities and track progress and expenditures for individual projects; and
2. As appropriate, plan and develop interpretive and educational materials and programs about individual projects, such as brochures, news releases, media contacts, signs, exhibits,

field trips, and school activities, and acknowledge involvement of all partners in published materials and project information/publicity.

<b>BUDGET SUMMARY</b>		
Enter category totals here		
Category	NPS Funds	Total
<b>1. Personnel</b>	133,120	\$133,120
<b>2. Fringe Benefits</b>	67,890	\$67,890
<b>3. Travel</b>	3,000	\$3,000
<b>4. Equipment</b>	7,363	\$7,363
<b>5. Supplies and Materials</b>	\$18,431	\$18,431
<b>6. Contractual Services</b>	\$11,293	\$11,293
<b>7. Construction</b>		
<b>8. Other</b>	\$1,951	\$1,951
<b>9. Indirect Costs</b>	\$41,052	\$41,052
<b>TOTAL PROJECT COSTS</b>	<b>\$ 284,100</b>	<b>\$284,100</b>

Personnel costs: See Attachment C: FY14/15 Personnel Costs

Article VI – Award and Payment: Add the following after each individual section.

- A. The NPS has approved this project according to the Cooperator’s proposal entitled, “New Jersey Pinelands Long-term Environmental and Economic Monitoring Program: Proposal for FY2014 Funding of Upcoming Activities,” included as Attachment B. In addition to

the proposal, the following documents have been submitted by the Cooperator/Recipient prior to award:

1. SF-424, Request for Federal Financial Assistance
2. SF-424A, Budget Information, Non-construction Programs
3. SF-424B, Assurances, Non-construction Programs
4. Certification Regarding Lobbying
5. Attachment C- FY14/15 Personnel Costs

- B. Financial Assistance:** NPS will provide funding to **Cooperator** in an amount not to exceed \$284,100 for the work described in Article III and in accordance with the approved budget. Any award beyond the current fiscal year is subject to availability of funds. The following funds are obligated under this Modification:

**Account Number: Cost Center - PPNENEJE00**  
**Functional Area - PPMPSAS1Z.YP0000**

**Total NPS Share: \$284,100**

**Summary of Funds Obligated:**

<b>P13AC00554</b>	<b>\$256,500</b>
<b>Modification 0001</b>	<b><u>\$284,100</u></b>
<b>Total</b>	<b>\$540,600</b>

Article IX – Reports and/or Deliverables:

Under Section E, the following additional deliverables are added for 2014-2015 as follows:

1. A report will be initiated that includes a discussion of the relationships between land use and the various water-quality and plant and animal indicators; the results of a trend analysis in pH and specific conductance data from 2005 – 2013; the relationship of water-level fluctuations among all of the water-level monitoring sites; and an analysis of the 1996 - 2013 vocalization data and trends in species occurrence and numbers calling during the period.
2. The 2013 Pinelands Long-Term Economic Monitoring Program Annual Report will be completed on or before December 31, 2014.
3. An update of the economic impacts of the Commission's regulations from 2003 through 2012 for the 4<sup>th</sup> Five-Year Comprehensive Management Plan progress report will be completed on or before December 31, 2014.

3. This modification shall become effective upon signature by the NPS Contracting Officer. All other terms and conditions shall remain the same. In WITNESS HEREOF, the parties hereto have executed this modification on the dates set forth below.

**New Jersey Pinelands Commission**

**NPS**

\_\_\_\_\_  
Nancy Wittenberg  
Executive Director

Date

\_\_\_\_\_  
Agreements Officer

Date

PGC/pc  
Pinelands/FY 2014/Resource Monitoring Modification/  
Pinelands Resource Monitoring Modification 0001\_dem07092014



Attachment C: FY 14/15 Personnel Costs

New Jersey Pinelands (PINE) Resource Monitoring Program, Position and Hourly Rate Information for FY 2014 Modification

7/2/14 PC Version (matches p. 8)

**Environmental Monitoring**

Position	Hourly Rate	Total Hours	Total Amount
Chief Scientist	\$49.40	670	\$33,098.00
Research Scientist (3)	\$41.20	1143	\$47,091.60
Research Technician	\$20.70	283	\$5,858.10
Administration	\$25.00	58	\$1,450.00
Fringe			\$44,623.83
<b>Total Personnel</b>			<b>\$132,121.53</b>

**Economic Monitoring**

Position	Hourly Rate	Total Hours	Total Amount
Planning Manager	\$66.70	149	\$9,938.30
Planner	\$25.80	1085	\$27,993.00
Assistant (s)	\$28.60	220	\$6,292.00
Administration	\$25.00	56	\$1,400.00
Fringe			\$23,267.88
<b>Total Personnel</b>			<b>\$68,891.18</b>

PGC/pc

Pinelands/FY 2014/

Resource Monitoring Modification/

FY 2015 Rates and Hours for NPS-Edited\_2 LLL REVISED 7-2-2014 for CA Modification 7-9-2014

*PINELANDS COMMISSION*

**NEW JERSEY PINELANDS LONG-TERM  
ENVIRONMENTAL AND ECONOMIC  
MONITORING PROGRAM**

*PROPOSAL FOR FY2014 FUNDING OF UPCOMING ACTIVITIES*



**Mark S. Lohbauer  
Pinelands Commission Chairman**

**Nancy Wittenberg  
Executive Director**

**DECEMBER 2013**

# **NEW JERSEY PINELANDS LONG-TERM ENVIRONMENTAL-MONITORING PROGRAM**

*PROPOSAL FOR FY2014 FUNDING OF UPCOMING ACTIVITIES*

**DECEMBER 2013**

**THE PINELANDS COMMISSION**

**Mark S. Lohbauer, Chairman**

**Candace McKee Ashmun**

**Alan W. Avery, Jr.**

**William J. Brown**

**Joseph DiBello**

**Sean W. Earlen**

**Leslie M. Ficcaglia**

**Paul E. Galletta**

**D'Arcy Rohan Green**

**Robert Jackson**

**Edward Lloyd**

**Ed McGlinchey**

**Richard H. Prickett**

**Gary Quinn**

**Francis A. Witt**

**Nancy Wittenberg, Executive Director**

**PINELANDS COMMISSION SCIENCE OFFICE**

**John F. Bunnell, Chief Scientist**

**Kim J. Laidig, Principal Research Scientist**

**Patrick M. Burritt, Research Scientist**

**Sarah R. Smith, Research Scientist**

**Rebecca French-Mesch, Research Technician**

**Pinelands Commission**

**P.O. Box 359**

**New Lisbon, NJ 08064**

**609-894-7300**

**[www.nj.gov/pinelands](http://www.nj.gov/pinelands)**

## INTRODUCTION

In the early 1990's, the Pinelands Commission initiated a Long-term Environmental-monitoring (LTEM) Program with the ultimate goal of evaluating the ecological consequences of the Comprehensive Management Plan. The main objectives of the LTEM Program are to characterize the effect of existing land-use patterns on aquatic and wetland resources and to monitor long-term changes in these resources. More information on the monitoring program can be found at <http://www.state.nj.us/pinelands/science/current/ltem/>.

The federal budget sequestration resulted in a decrease in funding for the LTEM Program in 2013. Due to this reduction, the uncertainty regarding future funding, and a decrease in Science Office staff, Commission scientists focused on completing LTEM field work in 2013 and deferred some of the data-analysis and report-writing tasks. This report briefly describes the current status of the monitoring program and related studies, work completed in 2013, and activities proposed for 2014. A two-year schedule that covers the monitoring program and related studies is also included.

## WATERSHED SURVEYS

From 1992 through 2003, Commission scientists completed water-quality (pH and specific conductance), vegetation, fish, and anuran (frog and toad) surveys to characterize the effect of existing land-use patterns on streams and impoundments in the four major Pinelands watersheds: the Mullica River, Rancocas Creek, Great Egg Harbor River, and Barnegat Bay. In general, results of the surveys in the four watersheds demonstrated that watershed-wide developed and upland-agricultural land uses were linked to elevated pH and specific conductance values and the presence of non-native plants and animals in Pinelands streams and impoundments.

These results reflected Commission pilot studies conducted in the Mullica River watershed and showed that pH and specific conductance and vegetation, fish, and anuran assemblages provide good measures of land-use-related watershed disturbance in the Pinelands. Specific conductance and pH are inexpensive, reliable, and easily measured field parameters that are correlated with much more costly and episodic water-quality parameters, such as nitrogen and phosphorus, which are also often undetectable in Pinelands surface waters. Although Commission survey sites are co-located with New Jersey Department of Environmental Protection (NJDEP) aquatic-invertebrate sites, Commission scientists rely on vegetation, fish, and anuran assemblages as biological metrics because they are more readily identifiable in the field, don't require intensive laboratory time or chemicals, and, most importantly, better reflect the amount of land use in Pinelands watersheds compared to aquatic invertebrates.

The four watershed reports and the data collected are available at the web page provided in the Introduction. From 2007 - 2012, Commission scientists completed a second round of water-quality and plant and animal surveys in the four watersheds and data from the second round were prepared for analysis. In 2013, Commission scientists summarized the most current land-use data for the Pinelands National Reserve, state designated Pinelands Area, nine Commission management-area units, four major watersheds, and the 258 stream and impoundment sites surveyed during the second round. Although analysis of the water-quality data was initiated, analysis of the plant and animal survey data was not.

In 2014, Commission scientists will continue to analyze the water-quality and plant and animal data from the second round of watershed surveys. Although sampling methods differed somewhat between the first and second round of surveys, we will compare the results of the two rounds to assess changes that may have occurred between survey rounds, determine if the refinement in methods affected the results, and evaluate which sampling methods would be most appropriate to use for future monitoring. The greatest difference in sampling methods between the two survey rounds was that Mullica River stream sites in the first round were all 100-m stream reaches, whereas stream sites located in the other three watersheds for the first round and all four watersheds for the second round were 20-m stream reaches. To minimize the differences in stream length sampled, we will compare normalized measures that are largely independent of sampling length, such as the percentage of native and non-native species at a site rather than native and non-native species richness and abundance. We will also explore ranking the stream and impoundment sites from the second round using the multiple-indicator approach developed from the Mullica River data and applied to the Rancocas Creek and Barnegat Bay data. A report that describes the relationship between land use and the various water-quality and plant and animal indicators will be initiated in 2014.

#### **PINELANDS-WIDE WATER-QUALITY MONITORING**

In 2005, a network of 47 benchmark stations was selected from the pool of sites sampled during the initial four watershed surveys for monitoring long-term trends in pH and specific conductance throughout the region. As mentioned previously, pH and specific conductance represent good surrogate measures of the effects of land use because they are both correlated with nutrient concentrations and are both strongly related to land use in Pinelands watersheds. These 47 sites have been sampled for plants and animals during the first and second survey rounds mentioned previously and will also be surveyed during future biological monitoring rounds. The 47 sites are distributed throughout the Pinelands, represent a range of pH and specific conductance values, and, with a few exceptions, have been monitored monthly during the eight-month growing season (March through October) of each year since 2005. We focus on growing-season sampling because water-quality gradients show greater contrast during this period and many sites are accessible only by unimproved sand roads that are unpredictable and can become difficult to traverse in the winter. Analysis of these data demonstrated that sampling could be reduced from a monthly (8 samples/year) to a bimonthly (4 samples/year, which is similar to quarterly sampling) regimen without sacrificing the ability to adequately summarize water-quality conditions at the sites. The bimonthly sampling regimen was instituted in 2012 and will continue into the future. Samples were also collected from these sites in April, June, August, and October 2012 and January 2013 for analysis of nitrogen and phosphorus, and the analyses were completed by the Rutgers University Division of Pinelands Research. Because of the high cost of nutrient analyses, if funding allows, we intend to complete periodic nutrient sampling at these sites in the future.

In 2014, we will continue to monitor pH and specific conductance on a bimonthly basis at this network of sites. We will initiate an analysis of the pH and specific conductance data from 2005 - 2013 to determine whether any trends in these parameters occurred during that period and examine the relationship between nitrogen, phosphorus, and land use. Results of the trend and nutrient analyses will be included in the report mentioned above.

## WATER-LEVEL MONITORING

Water-level monitoring at forest plots and intermittent coastal-plain ponds continued in 2013. The year of initiation, duration, and frequency of water-level monitoring vary widely among the different groups of the forest and pond sites monitored (Table 1). In 2012, continuous water-level recorders were installed in three new ponds and one previously established pond, bringing the total number of ponds with continuous recorders to seven (Table 1). The addition of these four ponds greatly increased the geographic distribution of ponds with continuous recorders in the region and will further our understanding of intermittent-pond hydrology throughout the Pinelands. In 2012, Ranavirus, which is an emerging-amphibian pathogen of international significance, was discovered at one of the 14 ponds monitored since 1996. We installed a staff gage in the pond so that water-level values can be determined using binoculars and without entering the pond. Additionally, we initiated a decontamination procedure to prevent the spread of Ranavirus and other amphibian diseases among all study ponds.

In 2014, we will continue to monitor water levels monthly at the 35 forest plots and 30 of the 37 ponds. The seven ponds with continuous recorders will be visited quarterly to download the water-level data and maintain the recorders. We will also initiate an analysis to summarize the hydrologic regimes associated with the forest-plots and ponds and to examine the relationship of water-level fluctuations among all of the water-level monitoring sites. Results of this analysis will be included in the report that will be initiated in 2014.

Table 1. Initiation year and frequency of water-level measurements for various groups of forest plots and intermittent ponds established as part of the Commission long-term environmental-monitoring program. Continuous water-level recorders collect data hourly.

Site Groups	Initiation Year	Measurement Frequency
5 Forest Plots	1987	monthly
30 Forest Plots	2004	monthly
14 Ponds	1996	13 monthly, 1 continuous
15 Ponds	2004	13 monthly, 2 continuous
5 Ponds	2010	4 monthly, 1 continuous
3 Ponds	2012	continuous

## ANNUAL ANURAN SURVEYS

Since 1996, annual nighttime anuran-vocalization surveys have been conducted monthly from March - June at 20 ponds, including the group of 14 ponds noted in Table 1 as well as six additional ponds. These 20 ponds were selected as long-term anuran-monitoring stations because they are located on the western side of the Mullica River watershed along the interface between forest land and developed/agricultural landscapes. Eleven frog species and one toad species have been heard calling from these ponds, and 18 of the ponds serve as breeding habitat for the state-threatened Pine Barrens treefrog.

In 2014, we will continue to monitor calling anurans monthly from March - June at these 20

ponds. Although an initial analysis of vocalization data was completed in the 1990's as part of the Mullica River watershed report, we intend to analyze the full 1996 - 2013 vocalization data set and assess trends in species occurrence and numbers calling during the period. Results of this analysis will be included in the report that will be initiated in 2014.

### **STREAM-FLOW MONITORING**

The Commission and the USGS continued to implement two cooperative stream-gaging programs, one funded by the Camden County Municipal Utilities Authority and one funded by the Monroe Township Municipal Utilities Authority. These projects were specifically designed to determine whether groundwater withdrawals and subsequent wastewater transfers reduce discharge in Mullica River and Great Egg Harbor River streams. An initial trend analysis of streams in the Mullica River watershed revealed that no changes in streamflow occurred during the 1991 - 1998 period. Commission scientists completed a second trend analysis for the 1991 through 2002 period, which resulted in ambiguous findings. Subsequent analyses were completed annually from 2005 through 2011 and all resulted in no significant detectable impacts of water withdrawals on streamflows. For the Great Egg Harbor River watershed, streamflow trend analyses completed annually from 2005 through 2011 resulted in no significant detectable impacts of water withdrawals on streamflows. Due to a reduction in Science Office staff, no trend analyses were completed in 2012 and 2013. The Commission Planning Office is now managing both programs and, with the USGS, intends to re-evaluate the need for, and objectives of, the monitoring.

### **WETLAND-BUFFER STUDY**

Although most previous Commission research focused on the effect of upstream land use on streams and impoundments, the impact of surrounding land use on off-stream wetlands, such as intermittent ponds and forest stands, has not been well documented. In 2008, the Commission received an EPA grant to quantify the relationship between the proximity of developed lands and the ecological integrity of anuran-breeding ponds and wetland-forest vegetation. Although not a component of the LTEM Program, this study contributes to the overall goals of the program by providing information on the effect of surrounding land use, rather than upstream land use, on anuran assemblages and forest vegetation. Five of the ponds established as part of the wetland-buffer study were incorporated into the water-level component of the monitoring program in 2010 (Table 1). In 2009 and 2010, all of the field work associated with the wetland-buffer study was completed, but progress on the project stopped in order to obtain two new EPA grants (see descriptions below), which allowed for the hiring of new Science Office staff. In late 2012, the Commission hired Sarah Smith, a research scientist, and Rebecca French-Mesch, a research technician.

In 2014, we will initiate an analysis of the anuran-survey and wetland-forest vegetation data collected as part of the study and submit a final report to the EPA in 2015.

### **POND-VULNERABILITY STUDY**

In 2011, the Commission received a grant from the EPA to evaluate the vulnerability of Pinelands ponds to the impacts of surrounding land use. Although not a component of the

LTEM Program, the results of this study will also contribute to the goals of the program by providing information on the impact of surrounding land use on off-stream pond ecology. The study will also yield an assessment of the current ecological integrity of Pinelands ponds and the future vulnerability of ponds to potential land-use impacts at full build out. As with past EPA-funded studies, some of the ponds surveyed as part of this study will likely be incorporated into the water-level monitoring network in the future.

In 2012 and 2013, we used digital aerial photography and identified approximately 3,000 natural ponds throughout the Pinelands. Ponds on public land will be visited to record the occurrence of off-road-vehicle and other human activities. Water-quality and hydrologic monitoring and vegetation, anuran, and odonate (dragonfly and damselfly) surveys will be completed for 100 ponds that represent a range of surrounding land-use conditions. Relationships between surrounding land-use conditions and water-quality, hydrologic, and biological indicator-based metrics will be determined. In 2013, 85 of the targeted 100 ponds were selected for the study and staff gages were installed in 81 of these ponds for measuring water levels.

In 2014, we will select and install staff gages in the remaining natural ponds and initiate the water-level and water-quality monitoring and plant and animal surveys for a portion of the 100-pond sample.

#### CREATED-WETLAND STUDY

Like natural wetlands, created wetlands can provide the habitat necessary for wetland-dependent plants and animals, especially in human-dominated landscapes where natural wetlands may have been degraded or eliminated. However, it is not known what the impacts of land use might be on these habitats or to what extent created wetlands can function like natural Pinelands wetlands (e.g., Do created wetlands have similar water quality and hydroperiod conditions as natural wetlands and do created wetlands support native Pinelands plants and animals?). Two types of created wetlands commonly found in the Pinelands are shallow excavations that intercept the groundwater (excavated ponds) and excavations designed to receive stormwater (stormwater basins). In 2012, the Commission received an EPA grant to compare attributes from natural ponds from the Pond-vulnerability Study described above and two types of created wetlands: excavated ponds and stormwater basins. Although not a component of the LTEM Program, several excavated ponds are currently monitored for water levels and calling anurans and some of the excavated ponds surveyed as part of this new study may be eventually incorporated into the LTEM program. This study will increase our knowledge regarding the comparability of water quality, hydrology, and plant and animal assemblages in natural and created wetlands; the impact of surrounding land use on the ecology of created wetlands (which are afforded the same protection as natural wetlands in the Pinelands); the location and current condition of reference (i.e., minimally disturbed) and degraded created wetlands; the location of rare species and which wetlands might be sources for non-native species; stormwater basins that may not be processing stormwater properly; which ecological receptors are more vulnerable to current-use pesticides and emerging-amphibian pathogens; and the relationship between pesticides, amphibian pathogens, and land use.



In 2013, we used digital-aerial photography to identify about 2,000 excavated ponds and 1,700 stormwater basins. Water-quality and hydrologic conditions and vegetation, anurans, and fish assemblages will be surveyed at a sample of 50 excavated ponds and 50 stormwater basins that represent a range of land-use conditions. Four degraded (i.e., maximum surrounding land use) and four reference (i.e., minimum surrounding land use) sites each from the pool of natural ponds (from the previous study), excavated ponds, and stormwater basins will be selected to analyze for emerging-amphibian pathogens in larval anurans and current-use pesticides in water, sediments, larval-anuran food, and larval anurans. USGS and Montclair University scientists are collaborating on the pathogen and pesticide component of the study. The functional equivalency of natural and created wetlands will be assessed by comparing all of the biotic and abiotic factors between the natural ponds, excavated ponds, and stormwater basins. In 2013, we selected 44 of the proposed 50 excavated ponds and installed staff gages in 41 of the 44 ponds to measure water levels.

In 2014, we will select and install staff gages in the remaining excavated ponds, select and install staff gages in 50 stormwater basins, and initiate water-level and water-quality monitoring and plant and animal surveys for a portion of both types of wetlands.

#### COORDINATION AND OUTREACH

In 2013, Commission scientists were involved in numerous coordination and outreach activities associated with the LTEM Program. Commission scientists presented a summary of current research projects to the Commission Science Advisory Committee and sought its input on the direction of future LTEM activities (the SAC is composed of five members from academic and government institutions); gave a presentation on Pinelands frogs and toads at the 24th Annual Pinelands Short Course; presented a summary of Commission research to representatives from the William Penn Foundation, the Academy of Natural Sciences at Drexel University, and various conservation groups; and presented the results of an impoundment fish and anuran study at the Northeast Partners in Amphibian and Reptile Conservation (NEPARC) annual meeting.

Commission scientists led regional high school students through water-quality and fish-sampling stations during the annual World Water Monitoring Day at Batsto Village; the Ocean County Vocational Technical School's Marine Academy of Technology and Environmental Science aquatic ecology class on a field trip to an impoundment to learn about aquatic plants, and a Rowan University engineering professor to several LTEM stream sites to discuss a potential stream temperature modeling study. Scientists also met with the NJDEP Bureau of Freshwater and Biological Monitoring (BFBM) staff to describe the water-quality and aquatic-survey components of the LTEM Program and to discuss assisting the NJDEP with the development of an Index of Biotic Integrity for outer coastal-plain fish. Rancocas Creek and Barnegat Bay watershed data were provided to the NJDEP BFBM staff and frog and toad habitat-use data was given to a University of New Mexico professor. Commission scientists reviewed a manuscript for the *Journal of Herpetology* that focused on frog assemblages in active and abandoned cranberry bogs, information regarding Pinelands frog conservation for an American Museum of Natural History publication; and a proposal to study the distribution and habitat of the new species of leopard frog recently identified from the northeastern United States.

In early 2012, the Commission launched the Pinelands Research Series, which is a forum for scientists to present their Pinelands-related research and a free event that is open to the public. Because the talks are attended by a diverse audience from state and federal agencies, academic institutions, conservation groups, consultants, and the general public, they are an unprecedented means for distributing information among a wide range of stakeholders in the Pinelands region. Eleven presentations were hosted in 2012 and 10 in 2013. Topics included parasites in food webs, northern pine snakes, Pinelands ponds, prescribed fire and soil disturbance, gypsy moths and fire, emerging-amphibian pathogens, eastern fence lizards, changes in plant communities, southern pine beetles, timber rattlesnakes, plant diseases, plant taxonomy, benthic invertebrates, chemicals and amphibian diseases, fish assemblages, Pine Barrens treefrogs, soil microfauna, groundwater modeling, forest fungi and pollution, mercury and leaf fungi, and bat populations. Many of the presentations are available on the Commission web page. Presenters were from the Pinelands Commission, USDA Forest Service, USDA Natural Resources Conservation Service, U.S. Geological Survey, NJDEP, Conserve Wildlife Foundation of New Jersey, Stockton College, University of Delaware, and Rutgers, Montclair, Drexel, Dartmouth, and Florida State universities.

In 2014, Commission scientists will continue to provide coordination and outreach and host the Pinelands Research Series. Results of various analyses described in this report will also be presented as future Research Series events.

<b>TWO-YEAR SCHEDULE FOR THE LONG-TERM ENVIRONMENTAL-MONITORING PROGRAM AND RELATED STUDIES.</b>		
<b>LTEM Component</b>	<b>1/14-12/14</b>	<b>1/15-12/15</b>
Watershed Surveys	Continue analysis of second round of survey data	Complete analysis of second round of survey data
Pinelands-wide Water-quality Monitoring	Continue to monitor pH and specific conductance at the 47 sites and initiate the water-quality trend analysis	Continue to monitor pH and specific conductance at the 47 sites and complete trend analysis
Water-level Monitoring	Continue to monitor forest-plot and pond water levels and initiate analysis of the hydrologic data	Continue to monitor forest-plot and pond water levels and complete hydrologic analysis
Annual Anuran Surveys	Continue vocalization surveys at the 20 ponds and initiate analysis of the survey data	Continue vocalization surveys at the 20 ponds and complete survey-data analysis
Wetland-buffer Study	Analyze the anuran-survey and wetland-forest vegetation data	Submit final report to the EPA
Pond-vulnerability Study	Complete the selection of ponds and initiate water-quality, hydrology, plant, anuran, and odonate surveys	Continue water-quality, hydrology, plant, anuran, and odonate surveys
Created-wetland Study	Complete the selection of excavated ponds and stormwater basins and initiate water-quality, hydrology, plant, anuran, and fish surveys	Continue water-quality, hydrology, plant, anuran, and fish surveys
LTEM Reports	Initiate comprehensive report that includes the results of the analysis of the watershed-survey, Pinelands-wide water-quality, water-level, and anuran-survey data and complete a 2014 annual-progress report/proposal	Complete the comprehensive report and the 2015 annual-progress report/proposal

**ESTIMATED LONG-TERM ENVIRONMENTAL MONITORING EXPENSES IN  
2014 AND 2015 TO BE FUNDED MODIFICATION #01 TO COOPERATIVE  
AGREEMENT P13AC00554.**

<b>EXPENSES</b>	<b>1/14-12/14</b>	<b>1/15-12/15</b>	<b>TOTAL</b>
<b>PERSONNEL</b>			
<u>SALARIES</u>			
CHIEF SCIENTIST	\$12,000	\$21,000	\$33,000
RESEARCH SCIENTISTS (3)	17,000	30,000	47,000
RESEARCH TECHNICIAN	2,500	3,500	6,000
ADMINISTRATION	500	1,000	1,500
<u>FRINGE BENEFITS (51%)</u>	16,320	28,305	44,625
<b>TOTAL PERSONNEL</b>	<b>\$48,320</b>	<b>\$83,805</b>	<b>\$132,125</b>
<b>PROFESSIONAL SERVICES</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>
<b>SUPPLIES AND EQUIPMENT</b>	<b>4,000</b>	<b>8,600</b>	<b>12,600</b>
<b>OTHER (1)</b>	<b>500</b>	<b>980</b>	<b>1,480</b>
<b>INDIRECT COSTS (2)</b>	<b>8,920</b>	<b>15,775</b>	<b>24,695</b>
<b>TOTAL</b>	<b>\$61,740</b>	<b>\$109,160</b>	<b>\$170,900</b>

(1) INCLUDES TRAVEL, MEALS, AND OTHER MISCELLANEOUS EXPENSES.

(2) INDIRECT COSTS ARE CALCULATED AT THE NEGOTIATED RATE OF 16.89% OF DIRECT COSTS

# NEW JERSEY PINELANDS LONG-TERM ECONOMIC MONITORING PROGRAM

*PROPOSAL FOR FY2014 FUNDING OF UPCOMING ACTIVITIES*

DECEMBER 2013

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## INTRODUCTION

In the mid-1990s, the Commission initiated a long-term economic-monitoring program with the ultimate goal of evaluating the economic consequences of the Comprehensive Management Plan. The main objective of the program is to continually evaluate the health of the economy of the Pinelands region in an objective and reliable way. These objectives have typically been accomplished by two means: through the publication of an annual report of indicators and through the commissioning of *ad hoc* special studies. The annual report takes the “temperature” of the regional economy, while the special studies have, in the past, taken a more in-depth look at specific topics.

Discussed below is a description of the work completed from January 2013 through December 2013, the current status of the monitoring program, and upcoming activities.

### **Annual Long-Term Economic-Monitoring Report**

The 2012 Long-Term Economic Monitoring Report was released in April of 2013 and after some revisions to the Municipal Fact Book, the report was re-released in July of that year. Data collection for the 2013 Annual Report began in mid-2013. Scheduled for release in early 2014, the 2013 Report will be the 16<sup>th</sup> such report compiled by the Pinelands Commission.

#### Core Variables Updated

Fifteen of the 21 core variables were updated in the 2013 Report, with the latest data available. The variables that were not updated were those that are released on multi-year intervals such as the decennial U.S. Census and the five-year Census of Agriculture. The October shutdown of federal agencies has contributed to the delay of certain data.

#### Improved Data Sources

In an effort to have data available at a finer scale than municipal borders, the Pinelands Commission purchased a GIS-based data package from the software company ESRI. ESRI produces current and five-year estimates at the block-group level. These estimates will be used in the 2013 report to better measure economic conditions inside the Pinelands Area boundary.

#### Improved Readability

Large sections of the 2013 Report have been re-written in an effort to make the report easier to read. Additionally, significant changes have been made to the layout of the report and the Municipal Fact Book to further this goal.

Once compiled, electronic copies of the 2013 Annual Report and paper copies of the Executive Summary will be distributed to advisory groups, stakeholder organizations, selected state and federal agencies, county and municipal governments, libraries, and various environmental, trade, and other non-profit organizations. The full report, as well as the executive summary, will be accessible via the Pinelands Commission’s website at <http://www.nj.gov/pinelands>.

## PROJECTS

### **Pinelands Development Credit Supply & Demand Study (On-going Project)**

In the fall of 2005, the Pinelands Commission staff began a reexamination of the effectiveness of the Pinelands Development Credit (PDC) program. The PDC program is an integral tool in the implementation of the Comprehensive Management Plan. In order to facilitate the process of directing growth to appropriate areas in the Pinelands region, the PDC program was established to create a market for development rights in the Pinelands. Owners of properties in designated sending areas are afforded the opportunity to “sever” their development interests in their properties and sell those rights to land developers in receiving areas. The developers then use these rights to increase the maximum permitted development densities in regional growth areas, thereby directing growth from preservation areas to more suitable growth areas. Thus, owners of land in preservation areas are financially compensated for deed-restricting their land from future development.

Since the PDC program is market-driven, its ultimate success depends upon a healthy balance between supply and demand pressures in the land development market in the Pinelands. Initially, the PDC program was slow to be used by both developers and land owners in the region. However, there had been quite a bit of activity in the PDC market before the current recession, with the price of a development right rising from an initial value of \$2,250 in 1985 to as much as \$40,000 in 2006. In recent years (mid-2012 to early-2014), PDCs have sold for about \$9,500 per right.

The Pinelands Development Credit Supply & Demand Study not only comprehensively reviewed which aspects of the PDC program have performed well, it also examined new ideas on how to further stimulate PDC use. The study was, and continues to be, relied upon by the Policy and Implementation Committee as it considers the prudence of new rules for the PDC program. Upon completion of the Commission’s fourth five-year progress report (see below), it is expected that the Committee will resume its examination of the PDC program with the LTEM program providing necessary supporting analyses. Data is being updated for this review.

### **Fourth Five-Year Progress Report (In Progress)**

The Comprehensive Management Plan (N.J.A.C. 7:50-1 *et seq*) requires that, at least every five years after its adoption, the Commission’s Executive Director comprehensively review the Plan itself, as well as all actions taken pursuant thereto by the Commission or the Executive Director. The purpose of the review process is to evaluate the impact of the Commission’s regulations on the region’s economy, update and amend the Plan as needed, and perform other *ad hoc* analyses. Although it was anticipated that this review would begin in 2011, the project has been delayed for a number of reasons. In June 2012 the Commission and staff began the Plan review process. A Report will be published in mid-2014 summarizing the Commission’s activities and accomplishments since 2002. A chapter on the LTEM program will be included.

### **Special Study: “Split Towns” (In Progress)**

The Commission began a special study in 2012 on the topic of “split towns” in the Pinelands. This special study will examine the problem of split towns, an issue that has confronted the Commission since it first began rigorously examining the region’s economy.

The state-designated Pinelands Area encompasses portions of seven counties within southern New Jersey: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Ocean. There are 53 municipalities that are completely or partially within the Pinelands Area. Most of the variables monitored in the Commission’s annual report are obtained at the municipal level, since this is typically the most precise level of geography available. Municipal values are then aggregated into Pinelands and Non-Pinelands regions, based on a so-called “10% rule.” Any municipality with at least 10% of its land within the Pinelands Area is considered to be a Pinelands municipality (i.e., within the Pinelands Area for purposes of the annual report). All of the remaining municipalities within southern New Jersey (i.e., the seven counties mentioned above and Salem County) are considered to be Non-Pinelands municipalities (i.e., outside of the Pinelands Area for purposes of the report). Of the 53 municipalities completely or partially within the Pinelands Area, 47 were considered to be Pinelands municipalities and six were considered to be Non-Pinelands municipalities.

Although it is less than ideal, this method of aggregating values based on the 10% rule has, in the past, been the most viable method for comparing Pinelands municipalities with Non-Pinelands municipalities based on data currently available. The drawbacks of this approach have always been readily acknowledged by the Commission. Many municipalities are split by the Pinelands Area boundary, so activities and phenomena present outside the Pinelands Area boundary are counted as occurring inside the Pinelands Area and *vice versa*. In some cases, areas inside a Pinelands municipality, but outside the Pinelands Area boundary, are growing rapidly. This growth can distort the Pinelands aggregate, indicating that the Pinelands is growing rapidly, while in reality much of the growth is occurring just outside of the Pinelands Area boundary.

Obtaining data at a sub-municipal level can circumvent this problem. For instance, the population for each Pinelands municipality was calculated at the block level using census data to obtain population counts for areas of Pinelands municipalities inside and outside the Pinelands Area boundary. The results of the count showed that, in 2010, approximately 313,000 people lived within the Pinelands Area boundary, while approximately 557,000 people lived outside of the boundary, but within Pinelands municipalities. Population between 2000 and 2010 grew 13% within the boundary and 35% outside of the boundary within Pinelands municipalities. The census block analysis further revealed that certain municipalities with as much as 30% of their land within the Pinelands Area had practically no residents at all within the Pinelands Area. Clearly, the Pinelands aggregates are including a measurable amount of Non-Pinelands activity. It is likely that the opposite effect also occurs, albeit on a smaller scale.

Analysis has shown that simply altering the 10% rule in favor of a 20%, 25%, or even 30% rule yields no significant difference in the value of the aggregates. As a result, other methods of obtaining sub-municipal data will be explored. The Commission believes that, through the use of GIS, it may be possible to attribute certain data to relatively precise geographic locations thereby allowing the Commission to more accurately access data within those municipalities split by the Pinelands Area boundary than would otherwise have been possible using the 10% rule. Doing so



would enable the Commission to more accurately evaluate the impact of its policies upon those areas within the Pinelands Area and to better compare portions of southern New Jersey within the Pinelands Area to those outside. The Commission intends to examine only a select number of core variables as part of this special study. It is hoped that the results of this study will buttress the Commission's use of the 10% rule, revise it, or eschew it in favor of a more precise methodology.

Beginning with the 2013 Report, the block group data purchased from ESRI provides current and five-year estimates to some of the variables in the Report and may allow for a better split between the Pinelands and the Non-Pinelands data. At the conclusion of the 2013 Report's release, the use of this data will be evaluated and its continued use will be determined.

#### **COORDINATION AND OUTREACH**

In early 2014, the findings of the 2013 Report will be presented to the Pinelands Commission at a public meeting. The findings will then be presented to the Pinelands Municipal Council at a later date. Compact discs and electronic downloads of this and prior year's reports are made available to the public at no cost.

**TWO-YEAR SCHEDULE FOR THE LONG-TERM ECONOMIC-MONITORING PROGRAM**

Topic	1/14-12/14	1/15-12/15
Annual Long-Term Economic-Monitoring Report	2013 Report and summary to be issued early 2014. 2014 Report & summary to be issued late 2014.	2015 Report & summary to be issued late 2014.
Supplemental Data for Annual Report	Determine need and possibility of supplemental data.	Determine need and possibility of supplemental data.
Plan Review Project 1: Pinelands Development Credit Supply & Demand Study	Conduct <i>ad hoc</i> analyses for planned rule-making.	Conduct <i>ad hoc</i> analyses for planned rule-making.
4 <sup>th</sup> 5-Year CMP Progress Report	Supply content and support for the completion of the Plan Review.	
Special Study: "Split Towns"	Report on GIS and 2010 Census efforts. If useful, secure outside data.	Continue as needed if funding is available
Special Study: "Evaluation of Fiscal Stress in Pinelands Municipalities"	Re-examine Fiscal Impact Study. Update if feasible and advisable.	Continue as needed if funding is available
Additional Special Studies	Identify need based on findings in annual reports. Identify needed resources, secure resources, and schedule.	Continue as needed if funding is available

**ESTIMATED LONG-TERM ECONOMIC MONITORING EXPENSES IN 2014 AND 2015 TO BE FUNDED BY MODIFICATION #01 TO COOPERATIVE AGREEMENT P13AC00554.**

<b>EXPENSES</b>	<b>1/14-12/14</b>	<b>1/15-12/15</b>	<b>TOTAL</b>
<b>PERSONNEL</b>			
<u>SALARIES</u>			
PLANNING MANAGER	\$3,000	\$7,000	\$10,000
PLANNER	8,000	20,000	28,000
ASSISTANT(S)	2,000	4,300	6,300
ADMINISTRATION	500	820	1,320
<u>FRINGE BENEFITS (51%)</u>	6,885	16,380	23,265
<b>TOTAL PERSONNEL</b>	<b>\$20,385</b>	<b>\$48,500</b>	<b>\$68,885</b>
PROFESSIONAL SERVICES	0	0	0
SUPPLIES AND EQUIPMENT	5,000	11,000	16,000
OTHER (1)	280	385	665
INDIRECT COSTS (2)	4,335	10,115	14,450
<b>TOTAL</b>	<b>\$30,000</b>	<b>\$70,000</b>	<b>\$100,000</b>

(1) INCLUDES TRAVEL, MEALS, AND OTHER MISCELLANEOUS EXPENSES.

(2) INDIRECT COSTS ARE CALCULATED AT THE NEGOTIATED RATE OF 16.89% OF DIRECT COSTS.