



New Jersey  
**NATURAL LANDS TRUST**

**AGENDA**

**NATURAL LANDS TRUST MEETING**

**April 16, 2015**

**Location: Office of Natural Lands Management**

**501 E. State Street, 5 Station Plaza**

**4th Floor Large Conference Room**

**Trenton, NJ**

**12:00 PM**

**I. Statement of Open Public Meetings Act**

**II. General Public Comment**

**III. Financial Report**

-Third Quarter and Fourth Quarter 2014 Financial Reports, for decision

**IV. Minutes of October 3, 2014 meeting, for decision**

**V. Unfinished Business**

-Petty's Island, Pennsauken Township, Camden County, status update (no enclosure)

-Delaware Bay Migratory Shorebird Fund Subcommittee Report (no enclosure)

-Hamilton Preserve, Hamilton Township, Atlantic County-D'Imperio Memorandum of Understanding, for decision

**VI. New Business**

-Mystic Island Preserve, Little Egg Harbor Township, Ocean County- Restoration Plan, for decision

-Calendar Year 2015 Spending Authorization, for decision

-Bennett Bogs Preserve-The Nature Conservancy Land Donation Offer, Lower Township, Cape May County, for decision

-Bearshead-O'Flynn/GA Land Donation Management Assignment Offer, Hamilton Township, Atlantic County, for decision

-New Jersey Wetlands Mitigation Council Resolution Approving Expenditures, for affirmation

-Draft 2014 Annual Report Text, for decision

-2015 Meeting Dates, for discussion (no enclosure)

**VII. Adjourn**

THE NEW JERSEY NATURAL LANDS TRUST  
STATEMENT OF FINANCIAL POSITION  
SEPTEMBER 30, 2014

(See Accountant's Review Report)

	Fixed Asset Fund	General Fund	Hyponex	Petty's Island	Petty's Island Cultural	Shorebird	Wetlands Acquisition	Wetlands Mitigation	TOTAL
<b>ASSETS</b>									
<b>Current Assets</b>									
Cash and Cash Equivalents	\$ -	\$ 632,369	\$ 10,140	\$ 359,438	\$ 307,398	\$ 5,640	\$ 15,551	\$ 2,808,630	\$ 4,139,166
Tenants Escrow	-	3,034	-	-	-	-	-	-	3,034
Accrued Interest Receivable	-	8,925	510	1,780	1,023	-	-	40,008	52,246
Total Current Assets	-	644,328	10,650	361,218	308,421	5,640	15,551	2,848,638	4,194,446
<b>Fixed Assets</b>									
Land	38,079,629	-	-	-	-	-	-	-	38,079,629
Equipment	2,364	-	-	-	-	-	-	-	2,364
Vehicles	15,544	-	-	-	-	-	-	-	15,544
Accumulated Depreciation	(17,908)	-	-	-	-	-	-	-	(17,908)
Total Fixed Assets	38,079,629	-	-	-	-	-	-	-	38,079,629
<b>Other Assets</b>									
Investments-Long Term (FMV)	-	1,271,741	129,945	385,560	804,764	248,115	-	6,051,849	8,891,974
Due From Related Fund	-	444	-	-	-	-	-	-	444
Total Other Assets	-	1,272,185	129,945	385,560	804,764	248,115	-	6,051,849	8,892,418
<b>TOTAL ASSETS</b>	<b>\$38,079,629</b>	<b>\$ 1,916,513</b>	<b>\$ 140,595</b>	<b>\$ 746,778</b>	<b>\$ 1,113,185</b>	<b>\$ 253,755</b>	<b>\$ 15,551</b>	<b>\$ 8,900,487</b>	<b>\$ 51,166,493</b>
<b>LIABILITIES &amp; NET ASSETS</b>									
<b>Liabilities</b>									
Due To Related Fund	\$ -	\$ -	\$ -	\$ 444	\$ -	\$ -	\$ -	\$ -	\$ 444
Security Deposits Payable	-	2,792	-	-	-	-	-	-	2,792
Total Liabilities	-	2,792	-	444	-	-	-	-	3,236
<b>Net Assets</b>									
Unrestricted	-	1,994,678	-	-	-	-	-	-	1,994,678
Permanently Restricted	38,079,629	-	136,186	782,446	1,134,902	262,989	15,551	9,081,214	38,079,629
Temporarily Restricted	-	(80,957)	4,409	(36,112)	(21,717)	(9,234)	-	(180,727)	11,413,288
Unrealized Gain/Loss	-	1,913,721	140,595	746,334	1,113,185	253,755	15,551	8,900,487	(324,338)
Total Net Assets	38,079,629	1,916,513	140,595	746,778	1,113,185	253,755	15,551	8,900,487	51,163,257
<b>TOTAL LIABILITIES &amp; NET ASSETS</b>	<b>\$38,079,629</b>	<b>\$ 1,916,513</b>	<b>\$ 140,595</b>	<b>\$ 746,778</b>	<b>\$ 1,113,185</b>	<b>\$ 253,755</b>	<b>\$ 15,551</b>	<b>\$ 8,900,487</b>	<b>\$ 51,166,493</b>

The accompanying notes are an integral part of the financial statements.

THE NEW JERSEY NATURAL LANDS TRUST  
STATEMENT OF ACTIVITIES AND NET ASSETS  
FOR THE NINE MONTH PERIOD ENDED SEPTEMBER 30, 2014

Statement 2

(See Accountant's Review Report)

	Trust Funds							TOTAL	
	Fixed Asset Fund	General Fund	Hyponex	Petty's Island	Petty's Island Cultural	Shorebird	Wetlands Acquisition		Wetlands Mitigation
<b>Revenue (Restricted)</b>									
Contribution Income	\$ -	\$ 91,448	\$ -	\$ 125,000	\$ -	\$ -	\$ -	\$ 336,000	\$ 552,448
<b>Expense</b>									
Materials and Supplies	\$ -	\$ 1,352	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,352
Services	-	10,400	-	-	-	-	-	-	10,400
Maintenance	-	13,787	-	-	-	-	-	-	13,787
Annual Report	-	198	-	-	-	-	-	-	198
Capital	-	23,364	-	-	-	-	-	-	23,364
Educational Programming	-	-	-	16,203	-	-	-	-	16,203
Other Authorized Expenditures	-	91,448	-	29,709	-	35,000	-	157,265	313,422
Depreciation Expense	-	-	-	-	-	-	-	-	-
<b>Total Expenses</b>	\$ -	\$ 140,549	\$ -	\$ 45,912	\$ -	\$ 35,000	\$ -	\$ 157,265	\$ 378,726
<b>Other Income</b>									
Rent Income	-	21,500	-	-	-	-	-	-	21,500
Interest/Dividend Income	-	24,582	1,624	8,577	13,740	6,147	1	113,406	168,077
Miscellaneous Income	-	14,908	-	-	-	-	-	-	14,908
Gain or Loss on Sale	-	-	-	-	-	-	-	-	-
<b>Total Other Income</b>	\$ -	\$ 60,990	\$ 1,624	\$ 8,577	\$ 13,740	\$ 6,147	\$ 1	\$ 113,406	\$ 204,485
<b>Excess Revenues Over Expenses</b>	\$ -	\$ 11,889	\$ 1,624	\$ 87,665	\$ 13,740	\$ (28,853)	\$ 1	\$ 292,141	\$ 378,207
<b>Net Asset Balance Dec 31, 2013</b>	\$ 38,079,629	\$ 1,918,612	\$ 140,090	\$ 663,903	\$ 1,109,018	\$ 281,142	\$ 15,550	\$ 8,680,024	\$ 50,887,968
Land Acquisition	-	-	-	-	-	-	-	-	-
Unrealized Loss/Gain	-	(16,780)	(1,119)	(5,234)	(9,573)	1,466	-	(71,678)	(102,918)
Adjustment for Prior Period	-	-	-	-	-	-	-	-	-
<b>Net Asset Balance Sept 30, 2014</b>	\$ 38,079,629	\$ 1,913,721	\$ 140,595	\$ 746,334	\$ 1,113,185	\$ 253,755	\$ 15,551	\$ 8,900,487	\$ 51,163,257

The accompanying notes are an integral part of the financial statements.

THE NEW JERSEY NATURAL LANDS TRUST  
STATEMENT OF FINANCIAL POSITION  
DECEMBER 31, 2014

(See Accountant's Review Report)

	Fixed Asset Fund	General Fund	Hyponex	Petty's Island	Petty's Island Cultural	Shorebird	Wetlands Acquisition	Wetlands Mitigation	TOTAL
<b>ASSETS</b>									
<b>Current Assets</b>									
Cash and Cash Equivalents	\$ -	\$ 832,211	\$ 65,601	\$ 361,289	\$ 307,822	\$ 25,547	\$ 15,552	\$ 2,663,717	\$ 4,271,739
Tenants Escrow	-	3,034	-	-	-	-	-	-	3,034
Hirst Pond Endowment	-	25,000	-	-	-	-	-	-	-
Accrued Interest Receivable	-	4,133	370	2,120	3,776	-	-	26,231	36,630
Total Current Assets	-	864,378	65,971	363,409	311,598	25,547	15,552	2,689,948	4,311,403
<b>Fixed Assets</b>									
Land	38,079,629	-	-	-	-	-	-	-	38,079,629
Equipment	2,364	-	-	-	-	-	-	-	2,364
Vehicles	15,544	-	-	-	-	-	-	-	15,544
Accumulated Depreciation	(17,908)	-	-	-	-	-	-	-	(17,908)
Total Fixed Assets	38,079,629	-	-	-	-	-	-	-	38,079,629
<b>Other Assets</b>									
Investments-Long Term (FMV)	-	1,085,045	75,065	385,046	805,754	221,527	-	5,551,734	8,124,171
Due From Related Fund	-	444	-	-	-	-	-	-	444
Total Other Assets	-	1,085,489	75,065	385,046	805,754	221,527	-	5,551,734	8,124,615
<b>TOTAL ASSETS</b>	<b>\$38,079,629</b>	<b>\$ 1,949,867</b>	<b>\$ 141,036</b>	<b>\$ 748,455</b>	<b>\$ 1,117,352</b>	<b>\$ 247,074</b>	<b>\$ 15,552</b>	<b>\$ 8,241,682</b>	<b>\$ 50,540,647</b>
<b>LIABILITIES &amp; NET ASSETS</b>									
<b>Liabilities</b>									
Due To Related Fund	\$ -	\$ -	\$ -	\$ 444	\$ -	\$ -	\$ -	\$ -	\$ 444
Due to Endowment Account	-	25,000	-	-	-	-	-	-	25,000
Security Deposits Payable	-	2,792	-	-	-	-	-	-	2,792
Total Liabilities	-	27,792	-	444	-	-	-	-	28,236
<b>Net Assets</b>									
Unrestricted	-	2,022,301	-	-	-	-	-	-	2,022,301
Permanently Restricted	38,079,629	-	-	-	-	-	-	-	38,079,629
Temporarily Restricted	-	-	137,766	778,715	1,144,898	253,984	15,552	8,508,427	10,839,342
Unrealized Gain/Loss	-	(100,226)	3,270	(30,704)	(27,546)	(6,910)	-	(266,745)	(428,861)
Total Net Assets	38,079,629	1,922,075	141,036	748,011	1,117,352	247,074	15,552	8,241,682	50,512,411
<b>TOTAL LIABILITIES &amp; NET ASSETS</b>	<b>\$38,079,629</b>	<b>\$ 1,949,867</b>	<b>\$ 141,036</b>	<b>\$ 748,455</b>	<b>\$ 1,117,352</b>	<b>\$ 247,074</b>	<b>\$ 15,552</b>	<b>\$ 8,241,682</b>	<b>\$ 50,540,647</b>

The accompanying notes are an integral part of the financial statements.

THE NEW JERSEY NATURAL LANDS TRUST  
STATEMENT OF ACTIVITIES AND NET ASSETS  
FOR THE TWELVE MONTH PERIOD ENDED DECEMBER 31, 2014

Statement 2

(See Accountant's Review Report)

	Trust Funds							TOTAL	
	Fixed Asset Fund	General Fund	Hyponex	Petty's Island	Petty's Island Cultural	Shorebird	Wetlands Acquisition		Wetlands Mitigation
<b>Revenue (Restricted)</b>									
Contribution Income	\$ -	\$ 91,448	\$ -	\$ 125,000	\$ -	\$ -	\$ -	\$ 336,000	\$ 552,448
<b>Expense</b>									
Materials and Supplies	\$ -	\$ 1,385	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,385
Services	-	11,140	-	-	-	-	-	-	11,140
Maintenance	-	40,211	-	-	-	-	-	-	40,211
Annual Report	-	198	-	-	-	-	-	-	198
Capital	-	26,539	-	-	-	-	-	-	26,539
Educational Programming	-	-	-	16,203	-	-	-	-	16,203
Other Authorized Expenditures	-	91,448	-	29,709	-	45,094	-	849,844	1,016,095
Depreciation Expense	-	-	-	-	-	-	-	-	-
<b>Total Expenses</b>	\$ -	\$ 170,921	\$ -	\$ 45,912	\$ -	\$ 45,094	\$ -	\$ 849,844	\$ 1,111,771
<b>Other Income</b>									
Rent Income	-	25,800	-	-	-	-	-	-	25,800
Interest/Dividend Income	-	36,497	2,085	10,428	14,163	8,702	2	161,520	233,397
Miscellaneous Income	-	39,908	-	-	-	-	-	-	39,908
Gain or Loss on Sale	-	-	-	-	-	-	-	-	-
<b>Total Other Income</b>	\$ -	\$ 102,205	\$ 2,085	\$ 10,428	\$ 14,163	\$ 8,702	\$ 2	\$ 161,520	\$ 299,105
<b>Excess Revenues Over Expenses</b>	\$ -	\$ 22,732	\$ 2,085	\$ 89,516	\$ 14,163	\$ (36,392)	\$ 2	\$ (352,324)	\$ (260,218)
<b>Net Asset Balance Dec 31, 2013</b>	\$ 38,079,629	\$ 1,918,612	\$ 140,090	\$ 663,903	\$ 1,109,018	\$ 281,142	\$ 15,550	\$ 8,680,024	\$ 50,887,968
Land Acquisition	-	-	-	-	-	-	-	-	-
Unrealized Loss/Gain	-	(19,269)	(1,139)	(5,408)	(5,829)	2,324	-	(86,018)	(115,339)
Adjustment for Prior Period	-	-	-	-	-	-	-	-	-
<b>Net Asset Balance Dec 31, 2014</b>	\$ 38,079,629	\$ 1,922,075	\$ 141,036	\$ 748,011	\$ 1,117,352	\$ 247,074	\$ 15,552	\$ 8,241,682	\$ 50,512,411

The accompanying notes are an integral part of the financial statements.

**MINUTES OF THE  
NATURAL LANDS TRUST MEETING  
October 3, 2014**

**12:00 PM**

**Office of Natural Lands Management, Trenton, New Jersey**

Chairman Catania called the meeting to order at 12:05 PM and roll was taken. A quorum of trustees was present. At least one of the trustees was a state governmental representative.

The Open Public Meetings Act notice was read as follows: Notice of the date, time, location and agenda, to the extent known, was forwarded to three newspapers of general circulation, and provided to the Secretary of State in accordance with the Open Public Meetings Act. It was also noted that such notice was provided on the Trust's website in compliance with the Act requiring State, regional, and local authorities, boards, and commissions to establish a website providing specific information in order to facilitate transparency in government.

*In attendance were:*

Michael Catania, Chairperson

James Hall, Vice Chairperson

Emile DeVito, Trustee

Matt Spayth, Trustee representative for the  
State Treasurer

Judeth Yeany, DEP Trustee

Larry Torok, DEP Trustee

Ed Mulvan, for Rich Boornazian, Trustee  
representative for the DEP Commissioner

Ryan Benson, DAG, Trust Counsel

Robert J. Cartica, Executive Director

Martin Rapp, Trust Staff

Cari Wild, Trust Staff

*Absent were:*

Theresa Lettman, Trustee/Secretary- Treasurer

Steve Eisenhauer, Trustee

Thomas Gilmore, Trustee

State House Commission representative (not appointed)

*Guests:*

Kelly Wenzel, New Jersey Audubon Society

David Jenkins, DEP Endangered and Nongame Species Program

Anthony Petrongolo, DEP Division of Fish & Wildlife

Amanda Dey, DEP Endangered and Nongame Species Program

Miriam Dunne, DEP Division of Fish & Wildlife

**General Public Comment:** None

The **March 28, 2014 minutes** were reviewed. DAG Benson suggested that the minutes be amended to reflect the Board's intention to review and update its *Guidelines for Conveyance of Land* at the next meeting. Mr. Torok motioned to approve the minutes. Mr. Hall seconded the motion and the minutes were unanimously approved by a vote of 6 to 0 with Mr. Mulvan abstaining.

**Financial Report:** Mr. Cartica outlined the Financial Statements for the quarters ending March 31, 2014 and June 30, 2014. Mr. Hall motioned to approve the Financial Statements. Mr. Mulvan seconded the motion and the Financial Statements were unanimously approved by a vote of 7 to 0.

### **Unfinished Business:**

Ms. Wild provided the Board with a **Petty's Island, Pennsauken Township, Camden County Status Report** including notice of renewal of the Trust's contract with New Jersey Audubon Society (NJAS) for educational programming and stewardship at the Petty's Island Preserve. The contract awarded to NJAS on November 1, 2011 was a one-year contract with provision for renewal for four additional one-year terms. Ms. Wild noted that the Trust and NJAS have had a very successful third year, as will be explained in detail by Ms. Wenzel, and the Trust will renew its contract with the NJAS and its subcontractors, Delaware Riverkeeper and Cooper River Watershed Association, for another year. In a power point presentation, Ms. Wenzel provided details regarding NJAS's educational and stewardship activities at Petty's Island over the past year along with their community relations efforts, especially with public and charter schools in Camden County. Through its contract with NJAS, the Trust has provided hundreds of members of the general public with access to Petty's Island.

Mr. Catania provided the **Delaware Bay Migratory Shorebird Subcommittee Report**. The subcommittee is exploring many possibilities including funding through DEP-approved supplemental environmental projects. Mr. Catania reported that the Doris Duke Charitable Foundation recently provided the Conserve Wildlife Foundation of New Jersey with an \$85,000 discretionary grant to support the Delaware Bay Horseshoe Crab Mortality Project. Of the estimated 200,000 to 250,000 horseshoe crabs bled by the biomedical industry each year to obtain lysate, perhaps as many as 10 to 15 percent of the animals, do not survive the bleeding procedure. This funding will study whether there are alternate ways to implement the procedure to reduce mortality.

### **New Business:**

Ms. Dey presented the Delaware Bay Migratory Shorebird Project 2015 Budget Request for the Conserve Wildlife Foundation (CWF) and for the Endangered and Nongame Species Program (ENSP). Ms. Dey advised the Board that the annual amount the Trust provides to CWF and ENSP is critical because it helps develop the scientific support for regulatory actions such as horseshoe crab harvesting restrictions and red knot listing. Ms. Dey indicated that the peak count of the stopover population of red knots on Delaware Bay during 2014 was approximately 25,000, which is roughly the same as the prior two years. Mean horseshoe crab egg density in 2014 was 2,332 eggs/sq. meter. The distribution of red knots indicates that the majority are foraging in New Jersey where beach closures protect foraging birds from human disturbance. Ongoing low egg densities observed in New Jersey reflect egg depletion. Counts in January 2014 of red knots on their main wintering area in Tierra del Fuego, Argentina increased to 14,200 from 10,105 in 2014, but decreased from the count of 14,770 in 2012.

The proposed 2014 shorebird budget is \$58,800, \$44,000 less than the \$102,800 budgeted in 2014. In 2014, only \$64,973 was actually expended. The large discrepancy between what was budgeted and actually spent was the result of uncertainty as to what, if any, federal funds would

become available for Delaware Bay Migratory Shorebird Project activities. Ms. Dey has done a tremendous job in obtaining federal funding in the past couple of years. Therefore, less funding from the Trust's Shorebird Fund is needed this year.

Mr. Catania requested that, as with prior budgets, the 2015 shorebird budget should be approved with a rider authorizing a reallocation of expenses between categories subject to a limitation of the total budgeted amount. He also requested that the Board consider authorizing a \$35,000 upfront payment to CWF in order to fund Delaware Bay shorebird work to be done in May and June 2015 with receipts for such work to be provided at a later time. Mr. DeVito motioned to approve the 2015 budget with the reallocation rider and upfront \$35,000 payment. Mr. Mulvan seconded the motion and the 2015 shorebird budget was approved by a vote of 7 to 0.

Ms. Wild introduced the Division of Fish and Wildlife's request for the **Paulinskill River Greenway Conservation Easement Management Fund Expenditure**. In September 2003 the Trust voted to accept a conservation easement over the Paulinskill River Wildlife Management Area (WMA) along with a management fund, which was required under the terms of a federal Consent Decree between the property owner Hyponex and the Army Corps of Engineers. The Trust's Hyponex Fund currently stands at approximately \$140,000, but \$20,000 of that will be used to reimburse the Trust's General Fund for a biodiversity inventory that was conducted at the Paulinskill River WMA leaving approximately \$120,000. When the Trust accepted the easement it acknowledged that likely uses for the fund included the construction and restoration of water intake structures. Disbursements from the Hyponex Fund estimated to exceed \$15,000 are required to be approved by the Board.

Miriam Dunn presented the Division of Fish and Wildlife's proposal for the construction of water intake structures in partnership with Ducks Unlimited, which will be applying for a North American Wetlands Conservation Act (NAWCA) grant. Mr. Torok questioned whether any endangered or threatened plants would be impacted by the proposal. Ms. Dunn indicated that there are no rare plants in the area of proposed construction but that they would consult with the New Jersey Natural Heritage Program to confirm that. Ms. Yeany advised that the US Fish and Wildlife Service may require an easement as a condition of the NAWCA grant that may conflict with the Trust's easement. Ms. Dunn indicated that she will raise that issue with the US Fish and Wildlife Service and Ducks Unlimited and coordinate with the Trust regarding any such requirements. Mr. DeVito motioned to approve a disbursement from the Hyponex Fund up to \$100,000 towards this project. Mr. Torok seconded the motion and the disbursement was approved by a unanimous vote of 7 to 0.

Mr. Cartica presented the **Endangered and Nongame Species Program Memorandum of Agreement (MOA)** between the Trust and the Division of Fish and Wildlife, Endangered and Nongame Species Program (ENSP) to manage the mitigation funds the ENSP is to receive from Tennessee Gas as part of the Construction Work Plan, Northeast Upgrade Project. The Trust will manage these funds as the Tennessee Gas Pipeline (TGP) Fund. Under the MOA, the Board will approve disbursements from the TGP Fund provided they are included in an Annual Work Plan that has been approved by the Endangered and Nongame Species Advisory Committee as consistent with the Construction Work Plan. For its management efforts, the Trust will be compensated 20% of the monies that are received by ENSP from Tennessee Gas under the Construction Work Plan, which will be used by the Trust to establish the TGP Acquisition Fund to be used for the acquisition of habitat for species impacted by the Northeast Upgrade Project as well as for the cost of services consistent with the management of the TGP funds. Mr. Hall

motioned to authorized Mr. Catania to execute the MOA subject to review and approval by the NJ Attorney General's Office. Mr. Mulvan seconded the motion, and Mr. Catania was authorized to execute the MOA by a unanimous vote of 7 to 0.

Mr. Cartica presented the **Division of State Forestry Services Memorandum of Agreement (MOA)** between the Trust and the Division of State Forestry Services (SFS) to manage the mitigation funds the SFS receives from Tennessee Gas as part of the Construction Work Plan, Northeast Upgrade Project. The Trust will manage these funds as the Tennessee Gas Pipeline (TGP) Plant Fund. Under the MOA, the Board will approve disbursements from the TGP Plant Fund provided they are included in an SFS approved Annual Work Plan. For its management efforts, the Trust will be compensated 20% of the monies that are received by the SFS from Tennessee Gas under the Construction Work Plan, which will be used by the Trust to establish the TGP Acquisition Fund to be used for the acquisition of habitat for species impacted by the Northeast Upgrade Project as well as for the cost of services consistent with the management of the TGP funds. Mr. Hall motioned to authorize Mr. Catania to execute the MOA subject to review and approval by the NJ Attorney General's Office. Mr. Mulvan seconded the motion, and Mr. Catania was authorized to execute the MOA by a unanimous vote of 7 to 0.

The Board considered the **Revisions to Guidelines for Conveyance of Land**. Ms. Wild explained that the revisions include language to clarify that a conveyance must have no practicable, feasible and available alternative and is required to satisfy a compelling public need or yield a significant public interest. They also specify that replacement lands should have a geographical, hydrological or ecological nexus to the conveyance. The revisions include updates to Green Acres technical requirements regarding appraisal and surveys. Based on a suggestion by Steve Eisenhauer regarding surveys, the Guidelines will require that in addition to the Green Acres standards, orange fiberglass markers will be installed at corners and significant points. The reference to the conveyance supporting the State Development Redevelopment Plan (State Plant) will be deleted since the current State Plan is not being used and the intended replacement, the State Strategic Plan, has not been adopted. The requirement to send conveyance applications to a list of environmental organizations will also be deleted because the Trust website can readily provide information to interested environmental organizations. There were some housekeeping changes as well to fix typos. Mr. DeVito motioned to approve, effectively immediately, the revisions to the *Guidelines for Conveyance of Land* including the suggested revisions by the New Jersey Attorney General's Office. Ms. Yeany seconded the motion, and a roll call vote was taken:

Mr. DeVito: Yes  
Mr. Hall: Yes  
Mr. Mulvan: Yes  
Mr. Spayth: Yes  
Mr. Torok: Yes  
Ms. Yeany: Yes  
Mr. Catania: Yes

With seven yes votes, four of them by officials of state government, the motion was unanimously passed.

The Board considered the **Burlington Island-Burlington City/GA Land Management Assignment Offer in Burlington City, Burlington County**. Ms. Yeany recused herself from

the matter based on the advice from the NJ Attorney General's Office that by virtue of her employment within the Green Acres Program her vote may present an appearance of conflict notwithstanding that she has no personal or financial stake in Trust management assignments. Ms. Wild advised that staff has not had an opportunity to inspect the island or evaluate rumors regarding trespass incidents. Ms. Wild also requested that a project area should be established to include the northern half of Burlington Island. Mr. DeVito motioned to accept the Land Management Assignment Offer subject to inspections, and to approve a Burlington Island Project Area to include the northern portion of Burlington Island. Mr. Torok seconded the motion, and the offer was accepted by a vote of 6 to 0 with Ms. Yeany abstaining.

The Board considered the **2013 Annual Report**. Ms. Wild reported that no comments were received on the report approved by the Board on March 28, 2014, and that the report has been finalized and posted on the Trust's website.

The remaining **2014 meeting date** is: December 5, 2014.

Mr. DeVito advised the Board that he attended a meeting in Glen Gardner Borough, Hunterdon County regarding U.S. Concrete's proposed expansion of its quarry. Based on what he heard at the meeting, Glen Gardner Borough does not seem to be in favor of the expansion.

Mr. Mulvan motioned for the meeting to be adjourned. Mr. Hall seconded the motion, and the meeting was adjourned at 2:20 PM by a unanimous vote of 7 to 0.

Respectfully submitted,

Theresa Lettman  
Secretary/Treasurer

**D'IMPERIO PROPERTY SITE GROUP  
&  
NEW JERSEY NATURAL LANDS TRUST  
AMENDMENT TO MEMORANDUM OF UNDERSTANDING**

THIS AMENDMENT TO MEMORANDUM OF UNDERSTANDING (AMOU), dated this \_\_\_\_ day of \_\_\_\_\_, 2015, by and between D'Imperio Property Site Group ("D'Imperio") and the New Jersey Natural Lands Trust (the "Trust") (D'Imperio and Trust each also referred to individually as "party" and collectively as "parties") is entered into concerning lands owned by the Trust at Block 1131, Lot 1 in Hamilton Township, Atlantic County, known as the "Hamilton Preserve".

WHEREAS, the Trust was created by Law of 1968, chapter 425, as amended (N.J.S.A. 13:1B-15.119 et seq.), as a body corporate and politic in but not of the Division of Parks and Forestry of the Department of Environmental Protection, and the statutory purposes of the Trust include the preservation of land in its natural state for enjoyment by the public and the protection of elements of natural diversity; and

WHEREAS, the Trust has the authority to make, enter into and perform all contracts and agreements necessary or incidental to the performance of its duties, the maintenance of its properties and the execution of its statutory powers; and

WHEREAS, the Trust has the statutory authority to cooperate with and assist, insofar as practicable, any agency of the State or any of its political subdivisions, and any private agency or person in furtherance of the purposes of the Trust; and

WHEREAS, D'Imperio is responsible for conducting an on-going site remediation case at the D'Imperio Property Superfund Site (Site) under the requirements of an Administrative Order (AO) between the United States Environmental Protection Agency (USEPA) and D'Imperio; and

WHEREAS, the AO requires D'Imperio to delineate the extent of the plume of contamination from the Site into groundwater as part of the remediation; and

WHEREAS, D'Imperio and the Trust entered into a Memorandum of Understanding (MOU) dated August 7, 2013 concerning remediation activities of D'Imperio at the Hamilton Preserve; and

WHEREAS, D'Imperio delineated the groundwater plume, as informed by monitoring wells, to the edge of the Hamilton Preserve, necessitating the need to install additional monitoring wells at locations within the Hamilton Preserve as depicted on **Exhibit A** to the MOU in order to confirm the delineation of the groundwater plume; and

WHEREAS, D'Imperio has determined through the sampling of the monitoring wells at locations within the Hamilton Preserve that the plume has migrated in a southwesterly direction since the date of the MOU, partially below the Hamilton Preserve; and

WHEREAS it is the mutual goal of D'Imperio and the Trust to permit the monitoring and remediation of the groundwater plume to proceed; and

WHEREAS, due to the location of the groundwater plume, it is necessary to install one extraction well and one observation well, as well as associated piping and electrical connections to the D'Imperio remediation system, on the Hamilton Preserve; and

WHEREAS, there is no other available location for the proposed extraction well and observation well that will ensure the hydraulic capture and remediation of the contaminated groundwater plume as required by USEPA; and

WHEREAS, D'Imperio submitted to the Trust a Conceptual Groundwater Extraction Well Plan (attached hereto as **Exhibit B** and incorporated herein by reference); and

WHEREAS, the Lower Cohansey Detached Plume Optimization Implementation Work Plan approved by USEPA, a copy of which has been provided to the Trust, necessitates the installation of a groundwater extraction well and an observation monitoring well in approximately the locations depicted on **Exhibit A** attached hereto and two other extraction wells located on the property of the Mays Landing Village Condominium Association; and

WHEREAS, the Trust's Board reviewed this matter on March 20, 2015 at a duly noticed public meeting and, through a resolution of the Board, has authorized the Chairman to enter into this AMOU with D'Imperio; and

WHEREAS, the Administrator of the Office of Natural Lands Management in the Division of Parks and Forestry serves as the Executive Director of the Trust and can provide for coordination between the Trust and D'Imperio.

NOW, THEREFORE, in consideration of these mutual promises and pursuant to the authority of N.J.S.A. 13:1B-15.122 and 13:1B-15.123, it is understood by and between the parties hereto as follows:

1. The Trust grants D'Imperio and its contractors and subcontractors authority to access the Hamilton Preserve to the extent necessary to implement the Conceptual Groundwater Extraction Well Plan; provided, however, that such plan as approved by USEPA shall not exceed the installation of one extraction well and one observation monitoring well, nor the clearing of more than one transect being no greater than 250' in length and 12' wide and no more than a total of 3,000 square feet being cleared or disturbed.
2. D'Imperio shall undertake the Conceptual Groundwater Extraction Well Plan and the Lower Cohansey Detached Plume Optimization Implementation Work Plan in full compliance with all applicable federal, State and local laws, regulations, permits and

other approvals and in a manner that, to the greatest extent reasonably possible, minimizes site disturbance. D'Imperio shall inventory all trees in excess of 4 inches caliper within the proposed transects and provide such inventory to the Trust. Any proposed removal of trees greater than 9 inches diameter at breast height (dbh) shall be undertaken only after consultation with and approval by the Trust.

3. D'Imperio shall comply with the previously approved Site Restoration Plan attached as **Exhibit C** to the MOU for all activities authorized under the MOU and AMOU.
4. Within sixty (60) days of the effective date of this AMOU, D'Imperio shall submit a check to the Trust made payable to the Trust in the amount of \$25,000.00, which amount represents a payment (i) in reimbursement for staff time and resources involved in reviewing the information that has been presented by D'Imperio in order to develop this AMOU; and (ii) for a reasonable estimate of additional staff time and resources involved in reviewing and assisting in the activities and actions that D'Imperio will be undertaking pursuant to this AMOU.
5. D'Imperio shall send written email notification to the Trust fourteen (14) calendar days prior to undertaking any activities authorized by the MOU or AMOU at the Hamilton Preserve with the exception of routine well sampling.
6. If the site work is reasonably determined by the Trust to be in violation of the Conceptual Groundwater Extraction Well Plan or the Site Restoration Plan, the Trust may demand the funds in escrow pursuant to the MOU and use said funds to provide temporary and permanent site stabilization/proper closure.
7. By execution of this AMOU, and so long as D'Imperio is in compliance with the terms hereof, the Trust consents to D'Imperio applying for any licenses, permits or other approvals related to Conceptual Groundwater Extraction Well Plan or the Lower Cohansey Detached Plume Optimization Implementation Work Plan. As necessary, the Trust, as owner of the property on which the Conceptual Groundwater Extraction Well Plan will be undertaken, will execute to the extent required and hereby provides consent to D'Imperio to file all applications to obtain permits and approvals for the Conceptual Groundwater Extraction Well Plan or the Lower Cohansey Detached Plume Optimization Implementation Work Plan. D'Imperio will be responsible for all application fees and other costs associated with applying for and obtaining all necessary permits and approvals and for complying, with the reasonable cooperation of the Trust as necessary as owner of the Hamilton Preserve, with all terms and conditions of these permits and approvals.
8. This AMOU authorizes only D'Imperio's Conceptual Groundwater Extraction Well Plan outlined in Exhibit B. To the extent that any additional contamination is found in groundwater below the Hamilton Preserve, necessitating additional monitoring, irrigation and/or extraction wells or other remediation, a separate approval by the Trust is required.

9. **ANNUAL REPORTING.** D’Imperio shall submit to the Trust an annual report of the Conceptual Groundwater Extraction Well Plan activities undertaken during the prior calendar year, along with copies of all documents, including permits, if any, relating to such Conceptual Groundwater Extraction Well Plan, along with the report it submits to the Trust annually pursuant to the MOU. To the extent D’Imperio is required to monitor restoration activities for the areas subject to the Conceptual Groundwater Extraction Well Plan, it shall submit copies of its monitoring reports to the Trust upon submittal to NJDEP.
10. **NOTIFICATIONS.** All notices, reports, requests, or authorizations required to be given hereunder shall be delivered to the Trust at the following addresses, unless D’Imperio has been notified of a change of address:

The New Jersey Natural Lands Trust  
Mail Code 501-04  
PO Box 420  
501 East State Street  
Trenton, NJ 08625-0420  
Email: [NatLands@dep.state.nj.us](mailto:NatLands@dep.state.nj.us)

All other notifications shall be as stated in Paragraph 18 of the MOU.

11. **TERM.** The term of this AMOU shall extend until D’Imperio has completed the implementation of the Conceptual Groundwater Extraction Well Plan and the Lower Cohansey Detached Plume Optimization Implementation Work Plan. D’Imperio shall provide the Trust with a copy of D’Imperio’s Project Coordinator’s written determination regarding completion of the Conceptual Groundwater Extraction Well Plan, and the parties’ respective obligations under this AMOU shall terminate.
12. **BINDING EFFECT.** All of the terms, conditions, and covenants to be observed and performed by the parties under this AMOU shall be applicable to and binding upon their employees, agents, contractors, successors and assigns, as the case may be.
13. **ASSIGNMENT.** This AMOU shall not be assigned by either party hereto without the prior written consent of the other party.
14. **NO THIRD PARTY BENEFICIARIES.** There are no third party beneficiaries to this AMOU and this AMOU shall not create any third party rights, claims or causes of action against the parties.
12. **MODIFICATION.** No provision of this AMOU shall be modified without the express written approval thereof by the Trust and D’Imperio.
13. **SEVERABILITY/WAIVER.** All agreements and covenants contained herein are severable, and in the event any of them shall be held to be invalid by any competent court, this Agreement shall be interpreted as if such invalid agreements or covenants were

not contained herein. Should one or more covenants or conditions be waived, such waiver shall not be deemed to waive or render unnecessary the consent or approval of the waiving party to or of any subsequent similar act by the other party.

14. **NOT A CONVEYANCE.** It is expressly understood that this AMOU does not in any way whatsoever grant or convey any permanent easement, lease, fee or other interest in the Hamilton Preserve to D'Imperio.
15. **EFFECT ON MEMORANDUM OF UNDERSTANDING.** The parties to this AMOU agree that it is an amendment to the MOU, which shall remain in full force and effect. To the extent there is any difference, discrepancy or inconsistency between this AMOU and MOU, the terms of this AMOU shall be deemed to control. All terms of the MOU not inconsistent with this AMOU shall be deemed to be incorporated herein and made a part hereof.
16. **EFFECTIVE DATE.** The undersigned are authorized to sign this AMOU and to bind their respective parties to the terms and provisions of this AMOU. This AMOU shall become effective upon execution by the parties.

NEW JERSEY NATURAL LANDS TRUST

D'IMPERIO PROPERTY SITE GROUP

By Szaferman, Lakind, Blumstein &  
Blader, P.C., Authorized Representatives

By: \_\_\_\_\_  
Michael Catania, Chairperson

By: \_\_\_\_\_  
Bruce M. Sattin, Esquire

Reviewed and approved as to form:

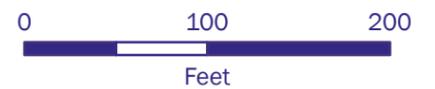
\_\_\_\_\_  
Ryan Benson  
Deputy Attorney General  
State of New Jersey



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getm



**EXHIBIT A**  
**CONCEPTUAL TRANSECT/DRILLING LOCATIONS WITHIN HAMILTON PRESERVE AND MLVCA**  
**D'IMPERIO PROPERTY SITE HAMILTON TWP, ATLANTIC CO. NEW JERSEY**



**Exhibit B to the  
Amendment to Memorandum of Understanding between the  
D’Imperio Property Site Group and the New Jersey Natural Lands Trust  
Conceptual Groundwater Extraction Well Plan**

**March 10, 2015**

**INTRODUCTION**

It will be necessary for contractors retained by the D’Imperio Property Site Group (Group) to gain access to the Hamilton Preserve property (Block 1131, Lot 1 as shown on Exhibit A) in order to construct and operate a groundwater extraction well (LC-7-E) and install an adjacent observation monitoring well (OBW-LC-7E). The extraction well and associated appurtenances relate to ongoing groundwater remediation of the D’Imperio Property Superfund Site. The Hamilton Preserve is owned by the New Jersey Department of Environmental Protection (NJDEP) and is administered by the New Jersey Natural Lands Trust (Trust). One of three extraction wells must be installed at the Hamilton Preserve due to the configuration and location of the groundwater plume and the lack of other options for access to the plume to achieve hydraulic capture and clean-up. The two other extraction wells will be installed at the Mays Landing Village Condominiums located north of the Preserve, but those wells alone would not be capable of providing capture of the full plume width.

This Conceptual Groundwater Extraction Well Plan (Plan) presents the general scope of activities to be performed at the Hamilton Preserve as part of the Lower Cohansey Aquifer Detached Plume (LCDP) remediation program. This work is being performed by the Group under the auspices, oversight and requirements of the United States Environmental Protection Agency (USEPA) in accordance with a CERCLA Administrative Order between the USEPA and the Group. The specific details of the LCDP remediation are described in the USEPA-approved document titled “Lower Cohansey Detached Plume (LCDP) Optimization Implementation Work Plan, D’Imperio Property Site” (Work Plan) prepared by Brown and Caldwell, (December 22, 2014). The detached plume to be remediated is migrating in a southwesterly direction and is partially located beneath Hamilton Preserve parcel in the area along Babcock Road. Construction and operation of the extraction well, as described in this Work Plan, will provide hydraulic capture and clean-up of the LCDP on the Hamilton Preserve parcel.

Monitoring of the LCDP groundwater remediation will also require access to existing monitoring wells located within the Hamilton Preserve. These monitoring wells were recently installed in accordance with the existing Memorandum of Understanding (MOU) dated August 7, 2013.

The LCDP plume is quite deep (110 to 130 feet) and is overlain by un-impacted aquifers. Accordingly, there is no apparent exposure pathway that would impact either human health or the environment.

The purpose of this Plan is to provide a general summary of the portion of the LCDP extraction well construction and operation work that will be required on the Hamilton Preserve parcel. The general limited area, proposed to be accessed on the Hamilton Preserve parcel, is depicted on the figure labeled “Conceptual Extraction Well Drilling Location(s) within Hamilton Preserve” (Exhibit A). Within this limited area of the Hamilton Preserve, one (1) narrow transect has previously been approved by the Trust for installation of a monitoring well. Per the existing MOU, this transect had been cleared to a limited extent last year in order to provide vehicle access for subsurface drilling. The existing transect may require some additional limited clearing for the installation of the new extraction well, new observation well, subsurface pipeline and electrical connection. This extraction well will connect to the remainder of the

offsite conveyance system located across Babcock Road at the Mays Landing Village Condominiums (extraction wells LC-8-E and LC-9-E). The Group will work closely with the USEPA and the Trust to minimize potential impacts and will promptly perform restoration activities, as described below.

## **SCOPE OF INSTALLATION ACTIVITIES AND PROPERTY ACCESS**

Exhibit A illustrates the approximate area on Hamilton Preserve parcel needed for access to perform the described activities. The required tasks and the approximate schedule per the USEPA-approved LCDP Work Plan are described below.

The LCDP Work Plan identifies one (1) extraction well and a paired observation well to be located within the Hamilton Preserve parcel. The approximate location of those wells is provided in Exhibit A but could shift as the engineering design is completed. The engineering design will be provided to the Trust upon completion.

### **Clearing of Well Access Transect**

**Description:** The current access transect established under the existing MOU is oriented approximately perpendicular to Babcock Road. This transect will be utilized for access to the extraction well and observation well drilling location(s). Ingress/egress will be from Babcock Road. The existing transect will be re-cleared to facilitate installation of the new wells. It is anticipated this re-clearing will be up to approximately 12 feet wide to accommodate drilling equipment and up to approximately 150 feet long (250 ft is the limit under the existing MOU). The transect may be somewhat wider, e.g., 20 feet, in the vicinity of the drilling location(s) to accommodate temporary installation activities and materials laydown requirements. The specific location and transect length will be surveyed and presented in the engineering design.

As consistent with the existing MOU, the transect will be cleared to the minimum degree necessary to allow access by the drilling equipment and support vehicle. This may include clearing of undergrowth, minimal leveling of the ground surface, and the cutting of very small trees and brush. Efforts will be made to minimize the clearing activities and associated environmental impact from the establishment of each transect, including avoidance of large trees (>9" caliper) to the extent practical. A freshwater wetlands delineation performed by Brown and Caldwell on August 28-29, 2013 indicates that there are no wetlands or wetlands transition areas within the area proposed transect.

**Duration and Schedule:** The re-clearing of the access transect will require approximately one or two days.

### **Subsurface Extraction Well Drilling**

**Description:** Drilling of extraction well LC-7-E will be performed to depths of approximately 150 feet below ground surface along the aforementioned transect. The extraction well will be constructed of 8-inch diameter PVC casing and temporarily protected with a larger diameter steel protective casing and a locked cap set that is approximately 2-3 feet high. An observation well will be installed directly adjacent to the extraction well to a depth of approximately 130 ft. BGS. The observation well will be constructed of a 2-inch diameter PVC casing with a steel protective casing and locked cap, similar to the previously installed monitoring wells.

The subsurface drilling task will be performed by a truck-mounted drill rig and associated support vehicles. No borings or wells other than those deemed necessary to perform the LCDP remediation will be installed.

**Duration and Schedule:** Subsurface drilling work of extraction well LC-7E will require approximately 4 to 5 days.

## **Underground Conveyance Connection Construction**

Upon completion of the extraction well, an underground conveyance connection will be constructed to connect the extraction well to the D'Imperio remediation system. This construction will include the installation of piping and electrical connections in a four-foot (4') deep trench from the extraction well on Trust property to the point where it crosses beneath Babcock Road, along the same transect alignment that was used for well drilling access. In addition, the temporary extraction well stick-up will be cut down to a point below ground surface and will be buried in a below-ground, concrete vault. The vault will be accessed via a hatch mounted flush with the ground surface with dimensions of approximately four-feet square. The construction work will be performed with the use of an excavator and other associated equipment. The construction trench will be immediately backfilled with compacted native soil and the area will be restored, as described below.

**Duration and Schedule:** Construction of the underground conveyance connections from each extraction well to the Babcock Road crossing will require 2 to 3 weeks to complete.

## **Site Restoration**

**Description:** The well access, including the area around the extraction well(s) and the backfilled construction trench, will be restored upon completion of the subsurface drilling and construction work. The restoration may include regrading, placement of new topsoil, re-seeding, and planting of small trees and shrubs as consistent with the existing Trust-approved Site Restoration Plan. The restoration will be conducted using only native species. In addition, gates composed of metal posts and PVC-covered chain barriers will be placed across the transect where it meets Babcock Road to prevent the disturbed area from being utilized for off-road vehicle access. The restoration specifications will be developed in consultation with the Trust and will be documented in an Amendment to existing Site Restoration Plan. In conjunction with the Amended Site Restoration Plan, an amendment to the Invasive Species Management Plan will be prepared which will include the means and methods for controlling invasive species (such as *Polygonum cuspidatum*, "Japanese Knotweed") that may be identified within the project limits during and following investigation activities.

**Duration and Schedule:** The restoration will be initiated immediately upon completion of the subsurface drilling and construction. Planting will be performed at a time that is appropriate to maximize survival using appropriate native species per the direction of the Trust and/or the Cape-Atlantic Soil Conversation District.

## **Long-Term Operation of Maintenance**

**Description:** Periodic access to the extraction well(s) will be required to perform routine operation and maintenance (O&M) and monitoring activities. To the extent possible, O&M access will be conducted on foot and will require no vehicular access. Certain O&M work, e.g., pump replacement, may require the infrequent use of truck-mounted equipment. In addition, the site restoration may require periodic inspection and maintenance, e.g., replanting, until the plantings have become established per the Site Restoration Plan, and/or amendments.

**Duration and Schedule:** Periodic O&M activities will require 15-minute visits and will generally be on a weekly schedule. More frequent testing, e.g., daily, may be required during the post-construction startup period. It is anticipated that the operation of the extraction well will be performed for at duration of approximately 5 years. If the clean-up process is of a longer duration, the MOU may require subsequent amendment.

## **System Decommissioning**

**Description:** The extraction, and observation wells will be decommissioned when they are no longer required and with the concurrence of USEPA. Well decommissioning will be performed in accordance

with New Jersey requirements [N.J.A.C. 7:9D] in which the wells will be sealed and the aboveground portions of the extraction and observation wells and associated well vault(s) will be removed. The underground conveyance connections will be permanently disconnected and will be properly abandoned in-place or removed. The transect gate will be removed if requested by the Trust.

**Duration and Schedule:** Decommissioning will be performed in accordance with regulatory approval.

### **Permits**

Various permits are required for the work that is described above. The Group will acquire these as "Permit-equivalents" given the fact that this work is being performed for a Superfund site:

- Drilling permits from the NJDEP will be required for each of the boring locations.
- A Soil Erosion and Sediment Control (SESC) permit will be required in the event that greater than 5,000 ft<sup>2</sup> will be disturbed for the establishment of the drilling transects.
- One or more land use permits may be required if transect construction drilling is required within wetlands, wetlands transition areas, flood hazard areas or other regulated land use areas, although not currently anticipated at this time.

### **Mobilization/Demobilization**

**Storage/Disposal:** Drilling fluids, soil cuttings, and development water associated with well drilling will be removed from the drill site after each work day.

**Equipment and Materials:** Equipment and materials may be moved onto the property, stored at the property for the work to be done on the property and moved off the property as needed during the course of the work. No materials, other than the well vault hatch and observation well casing will remain visible on the property after the completion of the work.



LC-1E

LC-1E



# MEMO

**To:** Michael Catania, Chairperson of the Board of Trustees, New Jersey Natural Lands Trust

**From:** Leah Yasenchak, BRS Inc. /New Jersey Future

**CC:** Matthew Brener, P.E., BRS, Inc.  
Jason Worth, P.E., Principal Engineer, T&M Associates  
Garrett Loesch, Township Administrator / CMFO, Little Egg Harbor Township

**Date:** March 12, 2015

**Re:** **Proposal to Construct Living Shoreline, Natural Lands Trust Mystic Island Preserve  
Little Egg Harbor Township, Ocean County**

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## ***Introduction***

New Jersey Future, BRS, Inc., and T&M Associates, on behalf of the Township of Little Egg Harbor, present the following proposal for consideration by the Board of Trustees of the New Jersey Natural Land Trust. The intent of the proposed project is to create new natural *living shoreline* improvements to fortify and re-establish vegetated shoreline and marsh habitat in two critically damaged areas at the Natural Land Trust Mystic Island Preserve. In conjunction with these shoreline improvements, additional site amenities are being investigated to improve public access and provide educational opportunities including public parking spaces, an overlook platform, a bench and kiosk.

The two target areas are located within the Mystic Island Preserve alongside Iowa Court, a 1,400 linear foot cul-de-sac on Osborne Island in Little Egg Harbor Township. The storm impacts of Hurricane Sandy significantly damaged approximately 250-300 feet of adjacent vegetated shoreline at the cul-de-sac and contributed to the erosion of another 500 feet of shoreline located 800 feet to the north of the cul-de-sac. The location of the project area is presented in Exhibit 1 attached to this proposal. The location of the two target shoreline restoration areas are presented in Exhibit 2. Photographs of the two target restoration areas are provided in Exhibit 3.

The proposed project is part of a larger ecosystem restoration project being completed by the Township of Little Egg Harbor and neighboring Tuckerton Borough with funds provided by the National Fish and Wildlife Foundation (NFWF) through the Hurricane Sandy Coastal Resiliency Competitive Grants Program. The purpose of the NFWF-funded work is to protect and preserve the fragile tidal wetlands that border the communities of Little Egg Harbor Township and the Borough of Tuckerton.

The creation of a natural living shoreline involves the use of natural vegetation, such as submerged aquatic vegetation, fill, and biodegradable organic materials in order to stabilize and prevent the loss of vegetated shorelines and associated habitat. The restored shoreline will preserve natural habitat and increase the resiliency of the Mystic Island Preserve and Iowa Court against future storm surge and wave

attack from Barnegat Bay during storm events. A historical shoreline map showing the erosion of the shoreline extent over time is provided in Exhibit 4.

### ***Implementation***

*Design* - Based upon the hydro-dynamics, terrestrial, and ecological parameters at this location, a living shoreline improvement is recommended for both areas. Due to the more severely eroded and exposed area of the cul-de-sac, a stone toe in conjunction with upland fill and vegetation is proposed. For the second area which appears more stable and less vulnerable, a coir log toe with upland fill and vegetation is recommended. The source of the upland fill will be dredged materials most likely to be recovered from planned dredging operations in the nearby Iowa Court lagoons. The use of this fill, however, is subject to approval by NJDEP as part of the permitting process for completing the dredging operations. The dredged material will be subjected to multiple analytical tests to confirm environmental and physical quality appropriate for the planned re-use prior to the commencement of dredging operations. All analytical reports regarding the quality of the dredged material will be provided to the Natural Lands Trust as they are received.

Implementation of these improvements is intended to repair and fortify the existing vegetated shorelines, which provide wave damage protection to the adjacent street and residences under moderate storm conditions. The proposed improvements are in keeping with the existing natural features of the area. Typical cross-sections of the proposed design showing the improvement details are provided in Exhibit 5.

As indicated, new site amenities are being investigated to improve public access. Such improvements include construction of public parking spaces (estimated two spaces), an overlook platform, a bench and kiosk. These types of amenities will promote public access to the area without impairing the natural vista, while providing educational information regarding natural shoreline protection and the habitat for the various species of vegetation and marine life present.

*Engineering* - The work will be designed on behalf of Little Egg Harbor Township by the engineering team at T&M Associates. T&M is the Municipal Engineer for Little Egg Harbor and will be overseeing all aspects of the design and installation of the NFWF-funded program including the development of the living shoreline. T&M has experience working with other living shoreline projects including the implementation of a large shoreline restoration project currently underway at Berkley Island County Park in Barnegat Bay, which is similar to the environmental and physical conditions at the Mystic Island Preserve target project locations.

The Berkeley Island Park was severely damaged by Superstorm Sandy, and large portions of its shoreline and associated habitat were heavily eroded. The Berkeley Island project is being completed by T&M in conjunction with the Stephens Institute of Technology, which is developing living shoreline engineering standards and methods for the New Jersey Department of Environmental Protection (NJDEP).

*Permitting* - The creation of a living shoreline may require multiple approvals from the NJDEP Division of Land Use Regulation, depending on the special areas impacted by the project. The creation of a living shoreline is the NJDEP preferred method for shoreline stabilization over harder, structural methods of shoreline stabilization. Currently, there are no existing exemptions or permits-by-rule for the creation of living shorelines. However, Coastal General Permit 29 allows for the creation of living shorelines. If the

proposed project does not meet the requirements of this coastal general permit, a CAFRA or Waterfront Development Individual permit and/or a Coastal Wetlands permit may be required.

NJDEP has established an inter-departmental living shoreline working group that has been tasked with providing pre-permitting consultations and support in working through the regulatory requirements of these type projects to facilitate the permitting and reducing delays to implementation.

Schedule – It is expected that the design, permitting, and implementation of the living shoreline at the two target areas at the Mystic Island Preserve will take approximately two years.

### ***Long-Term Monitoring and Maintenance***

Living shoreline projects require on-going monitoring and maintenance to ensure the success of the project. The Barnegat Bay Partnership, through its well-respected Coastal Monitoring Program will conduct this monitoring, following a monitoring protocol modeled on the one recently adopted by the NJ DEP. The Partnership has been playing a leading role in the development of living shoreline monitoring guidelines for NJDEP, and will ensure that the monitoring implemented at this site meets all DEP requirements. The New Jersey Corporate Wetlands Restoration Partnership has provided funding for the first two years of what is anticipated to be a five-year monitoring program.

A detailed monitoring and maintenance manual will be created along with the living shoreline design to establish schedule and procedures for regular monitoring and maintenance activities to ensure the least possible impact to the reestablished shoreline and habitat.

### ***Next Steps***

Should this proposal be approved by the Natural Land Trust, the next step will be for Little Egg Harbor to provide to the Trust a draft Memorandum of Agreement (MOA) establishing the rules for Right-of-Entry onto Natural Lands Trust property for purposes of implementing, monitoring and maintaining the project by Little Egg Harbor, its partners and consultants.

Upon approval, testing of sediments and the design of the living shoreline will commence. Once the project has been permitted, the implementation phase of the work will begin. The completion of this project will provide many long-lasting, permanent environmental and quality of life benefits for both the Natural Lands Trust Mystic Island Preserve and the communities that adjoin it.

### ***Exhibits***

This proposal is accompanied by the following exhibits:

1. Project Area Map
2. Target Area Site Locations
3. Photographs
4. Historic Shoreline Map
5. Typical Living Shoreline Design Cross Sections
6. Conceptual Plan

**EXHIBIT 1**  
**PROJECT AREA MAP**



**EXHIBIT 2**  
**TARGET AREA SITE LOCATIONS**

**PROPOSED LIVING SHORELINE IMPROVEMENTS  
NATURAL LANDS TRUST MYSTIC ISLAND PRESERVE**



**EXHIBIT 3**  
**PHOTOGRAPHS**

**Proposal to Construct Living Shoreline, Natural Lands Trust Mystic Island Preserve  
Little Egg Harbor Township, Ocean County**

*Figure 1: Area 1 - Iowa Court Cul-de-Sac*

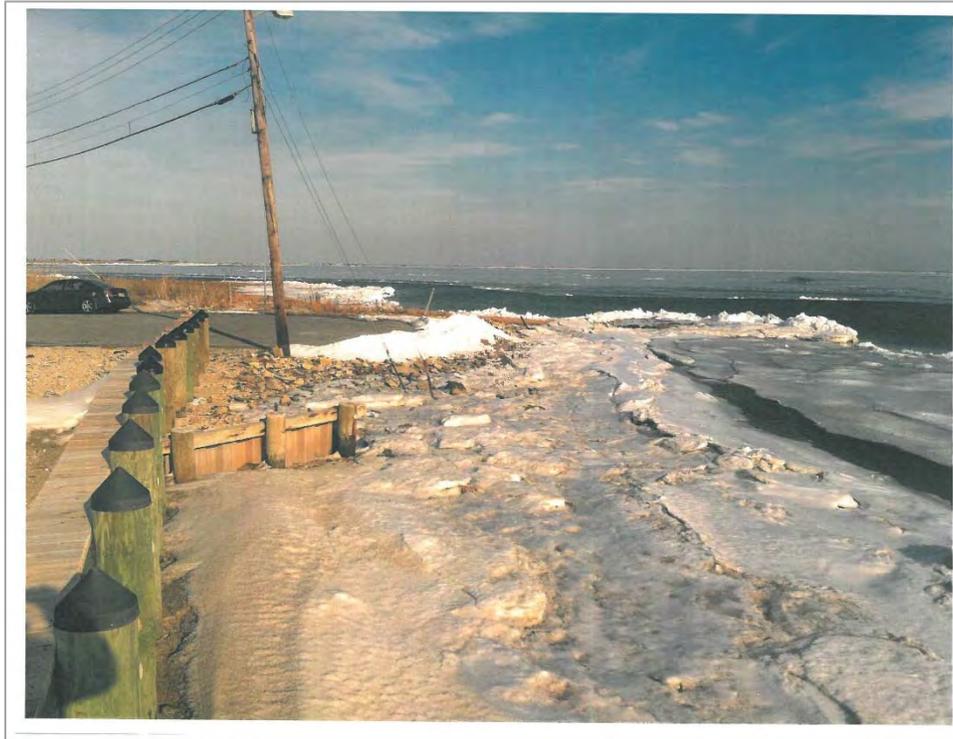


*Figure 2: Area 1 - Iowa Court Cul-de-Sac*



**Proposal to Construct Living Shoreline, Natural Lands Trust Mystic Island Preserve  
Little Egg Harbor Township, Ocean County**

*Figure 3: Area 1 – Shoreline at the Iowa Court Cul-de-Sac*



*Figure 4: Area 1 – concrete debris at the Iowa Court Cul-de-Sac*



**Proposal to Construct Living Shoreline, Natural Lands Trust Mystic Island Preserve  
Little Egg Harbor Township, Ocean County**

*Figure 5: Area 1 – View south towards the Bay*



*Figure 6: Marsh between Area 1 and Area 2*



**Proposal to Construct Living Shoreline, Natural Lands Trust Mystic Island Preserve  
Little Egg Harbor Township, Ocean County**

*Figure 7: Area 2 – eroded shoreline, facing south*



*Figure 8: Area 2 – eroded shoreline, facing south*



**Proposal to Construct Living Shoreline, Natural Lands Trust Mystic Island Preserve  
Little Egg Harbor Township, Ocean County**

*Figure 9: Area 2 – eroded shoreline, facing south*



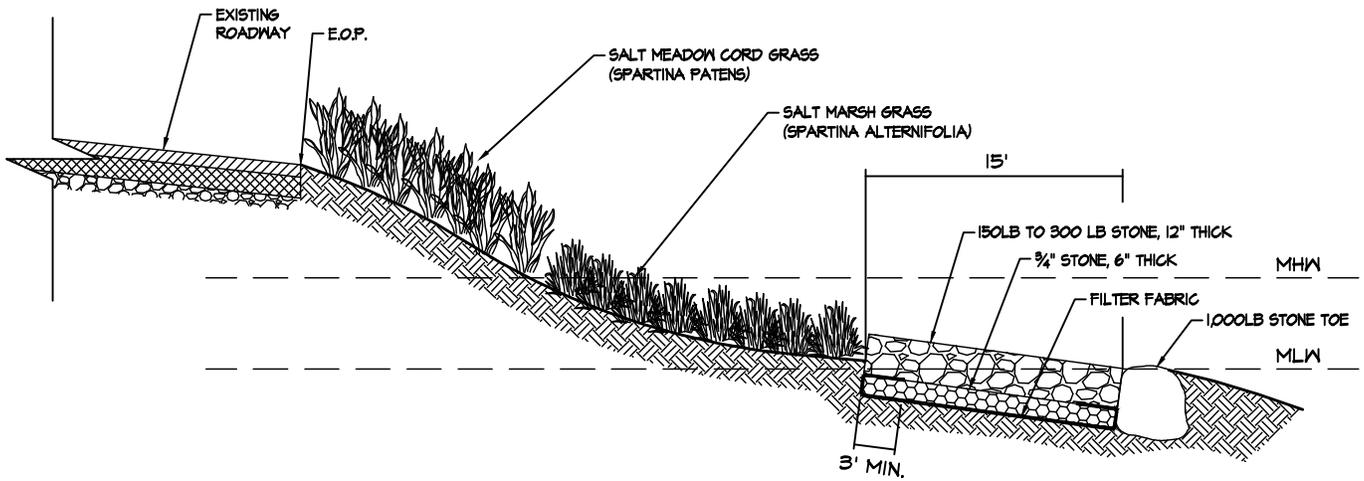
*Figure 10: Area 2 – sandy wash out area*



**EXHIBIT 4**  
**HISTORIC SHORELINE MAP**

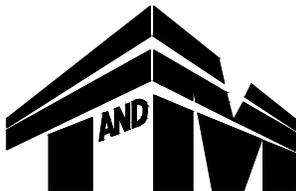


**EXHIBIT 5**  
**TYPICAL LIVING SHORELINE DESIGN CROSS SECTIONS**



LIVING SHORELINE TYPICAL SECTION I

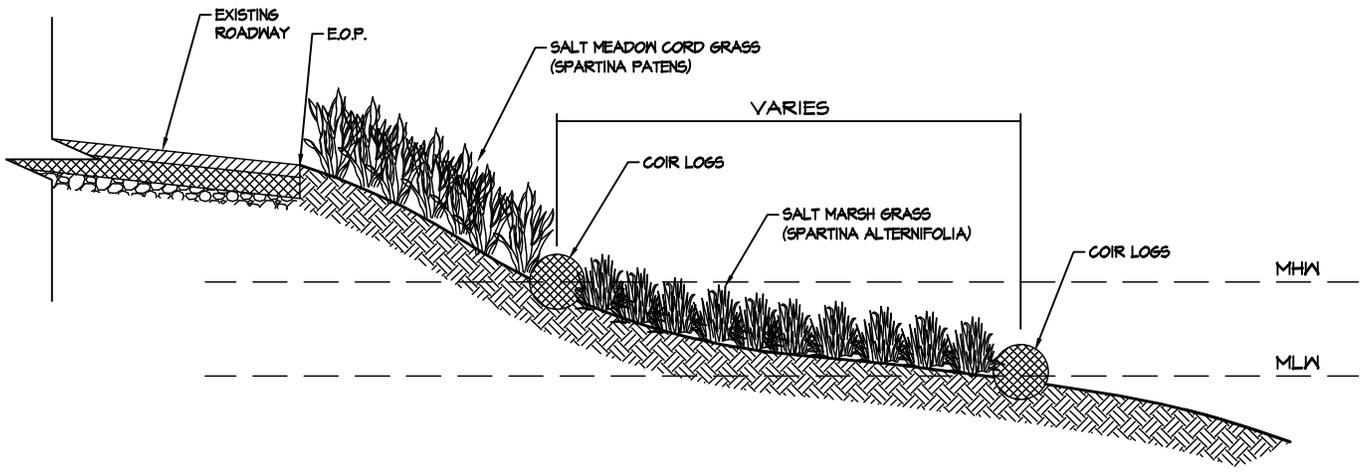
NOT TO SCALE



LITTLE EGG HARBOR LIVING SHORELINES

LIVING SHORELINE  
TYPICAL SECTIONS

LITTLE EGG HARBOR TOWNSHIP, OCEAN COUNTY, NJ



LIVING SHORELINE TYPICAL SECTION II  
 NOT TO SCALE



LITTLE EGG HARBOR LIVING SHORELINES

LIVING SHORELINE  
 TYPICAL SECTIONS

LITTLE EGG HARBOR TOWNSHIP, OCEAN COUNTY, NJ

**EXHIBIT 6**  
**CONCEPT PLAN**





**NEW JERSEY NATURAL LANDS TRUST  
SPENDING AUTHORIZATION FOR  
CALENDAR YEAR 2015**

	<u>2014 Authorization</u>	<u>2014 Expenditure</u>	<u>2015 Authorization</u>
<b>MATERIALS AND SUPPLIES</b>	<b>\$2,000</b>	<b>\$1,385</b>	<b>\$2,000</b>

**General Printing, Office Supplies and Mail Services - \$2,000**

Includes routine office supplies, photocopying, reference materials and publications, maps and reproduction of maps, creating signage, and similar expenses. Production and printing of the Annual Report is not included under this category. If needed, this item will fund additional functions for outreach and volunteers for management and acquisition.

<b>SERVICES</b>	<b>\$36,700</b>	<b>\$11,140</b>	<b>\$36,700</b>
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**Travel - \$700**

Includes funds for refreshments for Board meetings, travel and parking reimbursement for meetings of Board of Trustees, and staff reimbursement for occasional use of personal vehicles.

**Information Processing - \$1,000**

Includes computer repairs and purchase of software.

**DAG Expenses – \$20,000**

Includes charges assessed to the Trust for professional services provided by staff of the Attorney General's office.

**Other Professional Services - \$15,000**

Includes cost of professional accounting services, maintenance of the Trust's website, title searches and filing fees for land donations, legal advertisement of Board of Trustees meeting dates, membership fees and bank service charges. Also includes routine professional service contracts for surveys and preparation of deeds. Minimal back taxes are included as part of this line; however, substantial tax payments will be included in each offering brought to the Board.

	<u>2014 Authorization</u>	<u>2014 Expenditure</u>	<u>2015 Authorization</u>
<b>MAINTENANCE AND FIXED CHARGES</b>	<b>\$73,000</b>	<b>\$40,211</b>	<b>\$57,100</b>

**General Maintenance of Buildings, Grounds, Equipment and Vehicle - \$23,000**

Includes funds for maintenance of rental units (including furnace or roof replacement, road regrading, power restoration, and other emergency measures), gates and access, safety/stabilization needs, tree trimming and removal, encroachment surveys, etc., as needed. Major planned maintenance and capital improvement projects are not included within this authorization and would be submitted individually, together with a recommended funding source, to the Board for consideration.

**Conservation/Preserve Management Projects - \$34,100**

The following planned projects are relevant to the Trust’s mission of preservation of biodiversity. The costs for each project are gross estimates and quotes have not yet been sought.

- Bear Swamp at Red Lion/Retreat – biodiversity inventory: \$22,000
- Congleton – Beaver Run mussel survey: \$1,000.00
- Papakating Creek – Papakating Creek mussel survey: \$1,000.00
- Straders Pond – buck moth and dragonfly/damselfly survey: \$1,000.00
- Hainesville Woods – small whorled pogonia/plant survey: \$1,000.00
- Crossley – Wrangle Branch curly grass fern/swamp pink survey: \$1,000.00
- Mt. Rascal – invertebrate/herptile survey: \$1,000.00
- Mankiller/Hamilton/Bears Head – vernal pond/plant/treefrog survey: \$1,000.00
- Milford Bluffs/Gravel Hill – grassland bird survey: \$1,000.00
- High Mountain – plant survey: \$1,000.00
- Milford Bluffs/Bear Creek – monarch butterfly pollinator planting and mowing: \$1,000.00
- Various preserves – bog turtle survey/habitat management: \$2,100

<b>ANNUAL REPORT</b>	<b>\$250</b>	<b>\$198</b>	<b>\$250</b>
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**2013 Annual Report - \$250**

The requested authorization includes the cost of graphic layout and development of the annual report for posting on the Trust’s website.

<b>CAPITAL</b>	<b>\$35,000</b>	<b>\$26,539</b>	<b>\$5,000</b>
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**Miscellaneous Equipment Purchase and Replacement - \$35,000**

This budget allows for purchase of a new truck to replace the Trust’s Dodge Dakota and for miscellaneous small equipment purchases used for land management and office function.

<b>TOTAL SPENDING AUTHORIZATION</b>	<b>\$146,950</b>	<b>\$79,473</b>	<b>\$101,050</b>
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**The New Jersey Natural Lands Trust  
LAND OFFERING FORM**

**Site Name:** Bennett Bogs-The Nature Conservancy  
**ID#:** 070-01

**Donor(s):** The Nature Conservancy  
**Address:** 200 Pottersville Road  
**City, State, Zip:** Chester, NJ 07930  
**Phone:** 609-861-4128  
**Agent/Contact:** Anne-Marie Gillesberg

**Municipality:** Lower Township  
**County:** Cape May  
**Frontage:** Shunpike and Tabernacle Roads  
**Block:** 498/501  
**Lot:** 11/1.01, 2.05, 33.04 and 40

**Acreage/dimensions:** 24.597 acres

**Zoning:**

**Assessed value:** \$432,100.00  
**Annual taxes:** Exempt  
**Improvements:** None

**Offer restrictions:** None  
**Offer contingencies:** None  
**ROWs or easements:**  
**Type of Acquisition:** Fee

**Property taxes paid through end of year transfer:** N/A  
**Property taxes paid by:** N/A  
**Farmland assessed:** No

**Estimated annual management costs:**  
**Land management fund donation:** \$25,000

**Who will prepare deed:** Trust will prepare deed  
**Intended date of closing:**  
**Will property survey & monuments be provided:** No, as exist

## **Description of Offering**

The Nature Conservancy (TNC) offers its Bennett Bogs Preserve as a Land Donation to the Trust. The preserve is comprised of five separate tax parcels all located in Lower Township, Cape May County, some contiguous and others not. The parcels total approximately 25 acres. TNC began acquiring land for this preserve in 1984 to expand and buffer a 6.5-acre property donated to New Jersey Audubon Society (NJAS) in 1950 as NJAS's first sanctuary. For many years, TNC and NJAS co-managed their respective properties as a collective unit.

## **Ecological Description**

TNC's preserve and NJAS's sanctuary are both fully within the Bennett Bogs Natural Heritage Priority Site. This preserve is on the outer coastal plain of the Cape May peninsula, eight miles from its southern point. It is a low-lying area of mesic coastal plain mixed-oak forest. The Bennett Bogs are not true bogs but rather a grouping of intermittent coastal plain ponds.

Originally there were five ponds in the wetland system but today, as a result of development, there are only three. The pond known as the southern pond is fully on NJAS's sanctuary, the pond known as the woods or back pond is fully on TNC's preserve, and the remaining pond known as the northern pond straddles both properties. Historically, the ponds were seasonally wet depending on rainfall amounts. Over the years, however, surrounding development may have altered the hydrology resulting in recently-observed lower water levels which, in turn, may be affecting vegetation in the bogs.

More than 250 plant species have been identified at the ponds including a large number of state endangered plant species such as cypress-swamp sedge, black-fruit spike rush, wrinkled jointgrass, rare-flower beaked-rush, coast flat sedge, Virginia thistle, snowy orchid, Barton's St. John's wort, and thread-leaf beaked-rush as well as other rare plant species such as hairy primrose-willow, smooth orange milkweed, and aster-like boltonia. In recent years, Bennett Bogs has succeeded to woody vegetation such as persimmon, red maple, and sweetgum, which is now pervasive in the ponds. There is a history of mowing at the ponds as far back as 1907 but it appears that no active management has occurred recently and that no mowing has been done for more than five years. This absence of mowing, in combination with the altered hydrology, may explain the increase in woody growth and subsequent habitat changes.

## **Management Issues and Concerns**

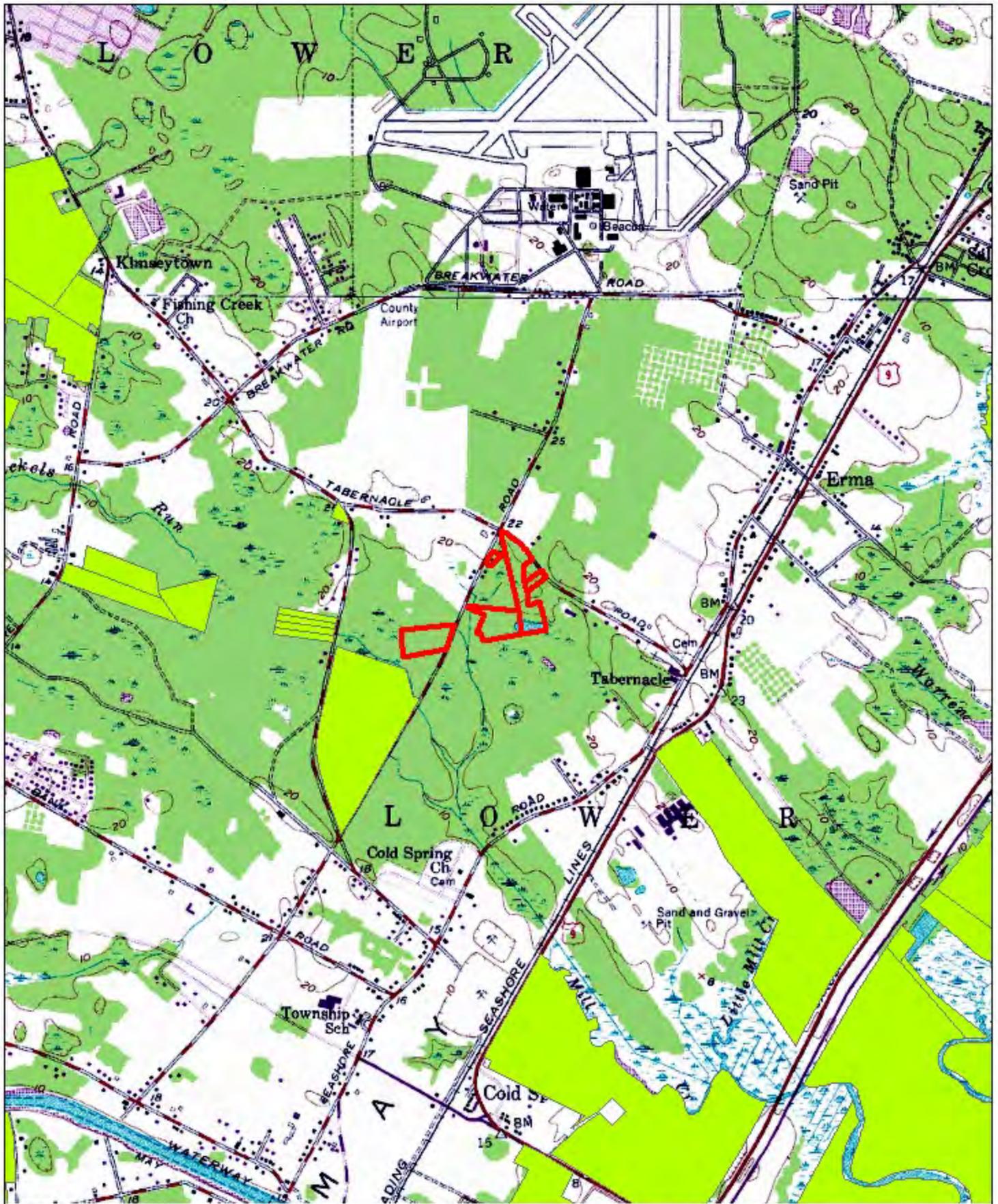
This will be a new preserve. Staff expects the woody vegetation in the ponds to pose management challenges. Staff has been advised that various groups and individuals are planning one or more work days to remove some of the woody vegetation. Even assuming that some initial management is done, the Trust must be prepared to undertake regular mowing to thwart succession. In addition, herbicide application may be required to eradicate patches of common reed in the ponds. A small parking area located on the offer currently serves the preserve and sanctuary but has become overgrown with vegetation limiting its availability. It will require some maintenance such as brush removal and gravel application. It is hoped that the Trust and NJAS will work cooperatively on this and other management activities at Bennett Bogs.

### **Acquisition Criteria**

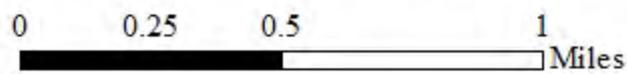
This property meets the Board's acquisition criteria for Endangered Species Habitat since it includes suitable habitat for state or federally listed plant or animal species. There is an offer of a stewardship endowment in the amount of \$25,000.

### **Staff Recommendations**

Staff recommends the approval of this Land Donation Offer as its new Bennett Bogs Preserve. It should also be noted that the NJ Natural Heritage Program strongly encourages the Trust to accept this donation offer.



**New Jersey Natural Lands Trust**  
**Bennett Bog Preserve**  
 25 Acres, Lower Township, Cape May County





**New Jersey Natural Lands Trust**  
**Bennett Bog Preserve**  
**25 Acres, Hamilton Township, Atlantic County**





**The New Jersey Natural Lands Trust  
LAND OFFERING FORM**

**Site Name:** Bearshead-O'Flynn/Green Acres  
**ID#:** 054-25

**Donor(s):** Green Acres, NJDEP  
**Address:** PO Box 412  
**City, State, Zip:** Trenton, NJ 08625  
**Phone:** 609-984-0608  
**Agent/Contact:** Rich Osborn

**Municipality:** Hamilton Township  
**County:** Atlantic  
**Quad Name:**  
**Frontage:**

**Blocks:** 529  
**Lots:** 12

**Acreage/dimensions:** 9.71 acres  
**Zoning:**  
**Assessed value:** \$4,900  
**Annual taxes:**  
**Improvements:** None

**Offer restrictions:** None  
**Offer contingencies:** None  
**ROWs or easements:** None  
**Type of Acquisition:** Assignment

**Property taxes paid through end of year transfer:** Yes  
**Property taxes paid by:** Green Acres

**Farmland assessed:**

**Estimated annual management costs:**  
**Land management fund donation:** N/A

**Owner will prepare deed:** Green Acres will prepare deed  
**Intended date of closing:**  
**Owner will provide property survey & monuments:** Green Acres will provide survey

**Description of Offering:**

This 9.71 property located in Hamilton Township, Atlantic County has been offered to Green Acres as a land donation. The property is located just outside of the Trust's Bearshead Project Area boundary.

**Ecological Description:**

The property is completely forested of which about 50 percent is forested wetlands. The forest is primarily pitch pine lowlands and pine-oak forest. The entire property is ranked 3 under the Landscape Project as habitat for animal species such as the state threatened barred owl. The property falls within the South River drainage area.

**Management Issues and Concerns:**

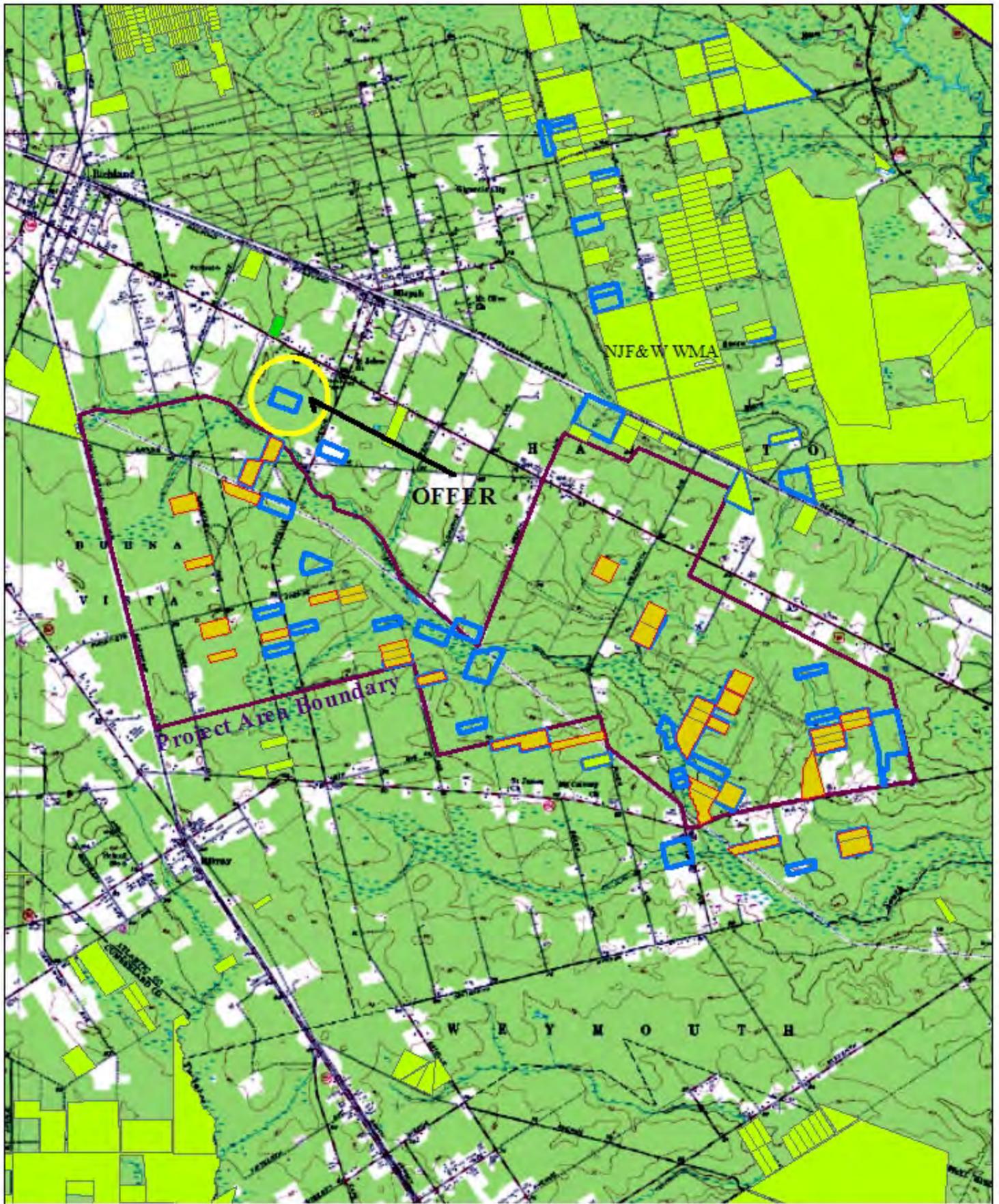
This addition to Bearshead Preserve will be evaluated and inspected by Green Acres for contamination and other potential hazards. Based on its proximity to the existing Bearshead Preserve, staff does not expect management of this additional property to pose any management concerns.

**Acquisition Criteria:**

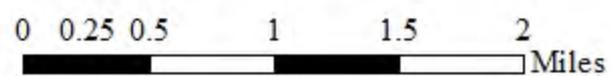
This property meets the Board's acquisition criteria as Endangered Species Habitat for state or federally listed plant or animal species or suitable habitat for such species that are documented as existing on adjacent lands. As a Green Acres Land Management Assignment, there is no offer of a land management donation.

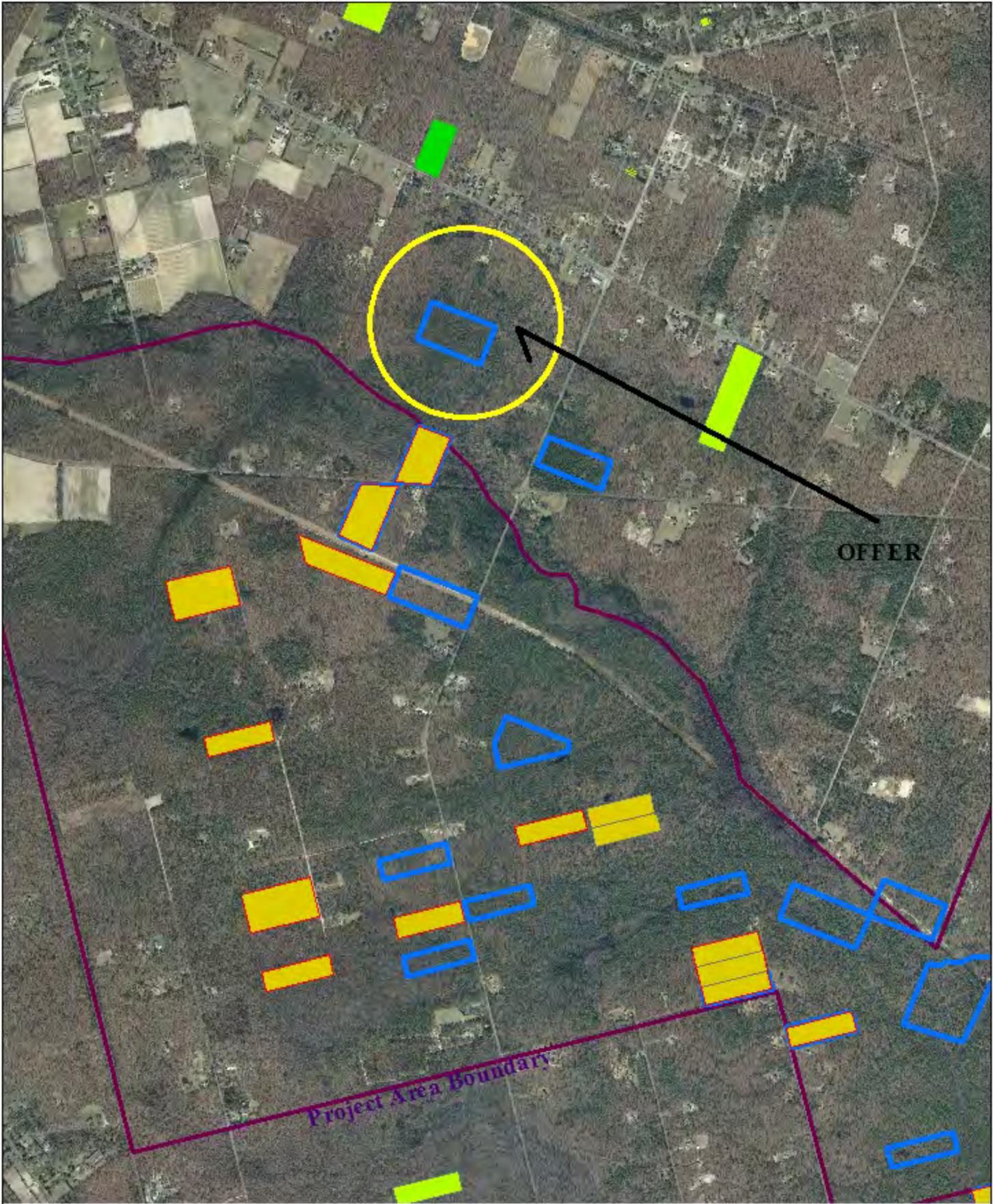
**Staff Recommendations:**

Staff recommends the Board accept management assignment of this land donation as addition to the Trust's Bearshead Preserve.

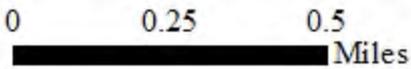


**New Jersey Natural Lands Trust**  
**Bears Head Preserve**  
 Acres, Hamilton Township, Atlantic County





**New Jersey Natural Lands Trust**  
**Bears Head Preserve**  
**Acres, Hamilton Township, Atlantic County**



**RESOLUTION OF THE NEW JERSEY NATURAL LANDS TRUST  
APPROVING DISBURSEMENTS TOTALING \$565,649.08 FROM THE WETLANDS  
MITIGATION FUND TO THE GREEN TRUST ALLIANCE**

**WHEREAS**, the New Jersey Wetlands Mitigation Council (hereinafter “Council”), and the New Jersey Natural Lands Trust (hereinafter “Trust”), entered into a Memorandum of Understanding (hereinafter “MOU”) dated April, 28, 2004 to establish a framework for the transfer and management of funds and real estate donated to the Council; and

**WHEREAS**, the MOU does not create any substantive standards under which mitigation proposals will be reviewed or impose any legal obligations on the public. It is intended to avoid unnecessary duplication of effort between the Council and Trust; and

**WHEREAS**, the Council was created by Law of 1987, c.156 (N.J.S.A. 13:9B-14) as a public body in but not of the Department of Environmental Protection, and the statutory responsibilities of the Council include the governance of the Wetlands Mitigation Bank and the disbursement of funds from the Bank to finance mitigation projects, the purchase of land to provide areas to restore or enhance degraded wetlands, and the purchase of land to preserve wetlands and transition areas determined to be of critical importance in protecting wetlands; and

**WHEREAS**, based on its statutory authority to receive moneys and invest same in an interest-bearing account, under the MOU the Trust has agreed to manage moneys that are collected by the Council and to invest such moneys in an account known as the Wetlands Mitigation Fund; and

**WHEREAS**, under the MOU the Council retained authority to determine what moneys it collects should be transferred into the Wetlands Mitigation Fund and to determine how those moneys are spent. The MOU specified that the Council shall continue to exercise its discretion over the Wetlands Mitigation Fund as to the selection of appropriate real estate acquisitions, restoration projects, mitigation projects and research projects that meet the statutory goals of the Freshwater Wetlands Protection Act except with respect to the specific transfer of funds to the Trust for the purchase of land as provided in paragraph 3 of the MOU. The Executive Director of the Trust shall disburse the moneys for projects approved by a resolution of the Council; provided, however, that disbursements exceeding \$250,000 shall require the authorization of the Trust’s Board, which shall act on any request for such authorization within ten working days after the Executive Director’s receipt of a request for disbursement from staff to the Council; and

**WHEREAS**, projects that are approved by a resolution of the Council are hereby deemed to be in furtherance of the purposes of the Trust on the basis that they are required by law to be in accordance with the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq., specifically N.J.S.A. 13:9B-15) as well as to preserve natural diversity; and

**WHEREAS**, the Council approved a resolution on August 5, 2014 approving grant funding to Green Trust Alliance, Inc. (GTA) for the enhancement of an urban floodplain and wetlands associated within four Middlesex County Parks: Deep Run Preserve, Old Bridge Township; Thompson Park Conservation Area, Monroe Township; Jamesburg Park Conservation Area, Helmetta Borough; and Pin Oak Conservation Area, Woodbridge Township; and

**WHEREAS**, on October 2, 2014 the Council submitted to the Trust a request for advance payments to GTA totaling \$565,649.08; and

**WHEREAS**, all four Middlesex County Parks require a “change in use” hearing and public notification prior to the imposition of the easement that is part of the planned enhancements. DEP, however, indicated that it did not object to the requested advance payments since DEP’s Land Use permitting and other issues associated with the projects are still to be resolved, and the “change in use” process can be conducted in parallel with (or even before) the permitting process.

**NOW THEREFORE BE IT RESOLVED** that the Trust finds the enhancement of an urban floodplain and wetlands associated within four Middlesex County Parks to be consistent with the intent of the MOU between the Council and the Trust and authorizes the Executive Director or the Secretary-Treasurer to make disbursements totaling \$565,649.08 to the GTA, subject to the conditions outlined in the attached resolution of the Council as attested to by Ms. Claudia Rocea, Acting Chairperson, on August 5, 2014.



## **New Jersey Natural Lands Trust 2014 Annual Report**

### **Statement of Purpose**

The New Jersey Natural Lands Trust was created by the Legislature in 1968 as an independent agency with the mission to preserve land in its natural state for enjoyment by the public and to protect natural diversity through the acquisition of open space. The Trust preserves land primarily by donations of open space through acquisition of title in fee simple or of conservation easements, and manages its properties to conserve endangered species habitat, rare natural features, and significant ecosystems. The Trust invites passive use by the public for recreational or educational purposes wherever such use will not adversely affect ecological communities and biological diversity.

The Trust also recognizes that ownership and management alone are not enough to achieve its mission. Public education is an integral function of protecting natural diversity. The Trust distributes information designed to convey a conservation ethic for the protection of open space and its natural values.

#### **New Jersey Natural Lands Trust contact information:**

New Jersey Natural Lands Trust  
Mail Code 501-04  
P.O. Box 420  
Trenton, NJ 08625-0420  
Phone (609) 984-1339  
Fax (609) 984-1427  
Email: [NatLands@dep.state.nj.us](mailto:NatLands@dep.state.nj.us)  
[www.njnlt.org](http://www.njnlt.org)

Cover:

Cover Photo Credit:

## Index of Preserves Referenced Within the 2014 Annual Report

### Atlantic County

Bearshead Preserve ~  
Hamilton Preserve ~  
Hirst Ponds Preserve ~  
Mankiller Preserve ~

### Burlington County

Moorestown Preserve ~

### Camden County

Petty's Island Preserve ~

### Essex County

Great Piece Meadows Preserve ~

### Hunterdon County

Sweet Hollow Preserve ~

### Ocean County

Crossley Preserve ~  
Warren Grove Bogs Preserve

### Sussex County

Congleton Preserve ~  
Hainesville Woods Preserve ~

### Warren County

High Rocks Preserve ~

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**In 2014 ...** the New Jersey Natural Lands Trust brought approximately 1,208 new acres under Trust stewardship, making the Trust responsible for over 29,000 acres managed as a system of more than 120 preserves throughout the state.

One of the acquisitions creates a new Trust preserve--The **Hirst Ponds Preserve** in Galloway Township, Atlantic County. The remaining acquisitions were additions to the existing **Bearshead, Congleton, Great Piece Meadows, Hainesville Woods, Hamilton, High Rock Mountain, Mankiller, Moorestown, Sweet Hollow and Warren Grove Bogs** preserves.

### Red Knots Listed But Still Threatened

After many months of speculation, on December 9, 2014, the U.S. Fish and Wildlife Service announced that the rufa red knot (*Calidris canutus rufa*) will be added to its list of federally threatened species. A “threatened” designation recognizes that the species is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. According to the Service, since the 1980s the red knot population has fallen by about 75 percent in key areas, including Delaware Bay and Tierra del Fuego.

While making the announcement, Service Director Dan Ashe remarked, “The red knot is a remarkable and resilient bird known to migrate thousands of miles a year from the Canadian Arctic to the southern tip of South America. Unfortunately, this hearty shorebird is no match for the widespread effects of emerging challenges like climate change and coastal development, coupled with the historic impacts of horseshoe crab overharvesting, which have sharply reduced its population in recent decades.”

The red knot’s incredible migration of nearly 20,000 miles includes a critical stopover along the Delaware Bay to refuel on horseshoe crab eggs. Since 2012, the Atlantic State Marine Fisheries Commission has implemented an adaptive management framework that ties crab harvest levels to red knot populations. In New Jersey a horseshoe crab harvest moratorium has been implemented, which has helped to stabilize crab populations and facilitate red knot recovery.

When long-time red knot researcher Dr. Amanda Dey of the New Jersey Department of Environmental Protection’s Endangered and Nongame Species Program informed the Trust of the red knot’s listing she noted, “Federal listing would not have been possible if not for the NJ Natural Lands Trust. The Trust came in early, recognizing the importance of the [Delaware] Bay long before over-harvest of horseshoe crabs threatened the shorebird stopover. The Trust increased its support when the harvest exploded, allowing biologists to gather data on impact to shorebirds and limit commercial harvest before crabs were completely decimated. This bought time for red knots.”

Dr. Dey added that “the Trust supported our large volunteer team allowing us to conduct a research effort unlike any in the world. Nearly 20 years of data have been gathered, the critical connection between shorebird weight gain and horseshoe crabs was proven, and the mechanism of red knot declines was clarified helping to explain declines in other Arctic-nesting shorebirds. Innovations developed on Delaware Bay--such as marking birds with engraved leg flags--mean population size and survival can be estimated and red knot recovery can be measured. Light-sensitive geolocators, deployed on Delaware Bay, allow us to see annual migration routes, stopover and wintering sites of red knots for the very first time. This information provides the basis for hemispheric protection of important shorebird areas.”

Exacerbating the existing habitat challenges for the red knot, the Delaware Bay beaches took a direct hit from Superstorm Sandy. Sandy essentially washed out Delaware Bay beaches. Even worse, the washout exposed a thick layer of muck strewn with old pilings, jagged pieces of concrete, and other rubble placed by humans in an attempt to hold back the Bay, essentially leaving no place along New Jersey’s Delaware Bay shoreline for horseshoe crabs to lay their eggs. Stepping up to the rescue was an amazing public/private partnership that included the Trust and local public works agencies, state and federal wildlife agencies, multiple non-profit conservation organizations, academic institutions and concerned individuals with major grants being provided by the National Fish and Wildlife Foundation and the NJ Recovery Fund (a consortium of private foundations administered by the Community Foundation of NJ), as well as additional funding from the Trust and the NJ Corporate Wetlands Partnership. Through this heroic united effort several miles of critical horseshoe crab and shorebird habitat were restored.

“This effort underscores the important role played by the Natural Lands Trust,” stated Michael Catania, Chair of the Trust. “As a unique public/private partnership, with members representing both environmental non-profits as well as public agencies, the Trust is uniquely qualified to help coordinate efforts to protect species like the red knot. We applaud this listing, and the Trust will continue to work with our partners to help restore the habitats needed by red knots and many other endangered and threatened species.”

So what does all this mean for the red knot? Even with the Service’s listing there remain many challenges to the red knot’s survival. To overcome these challenges more research, more education, and more conservation efforts are necessary. One key example is to support the use of alternative bait for conch and eel and further reductions of mid-Atlantic bait harvests of horseshoe crab. Another key action is to improve practices for collection of horseshoe crab blood--the precursor of the *Limulus* ameobocyte lysate (LAL) test. Lysate from horseshoe crab blood is used in this test, which is critical to detecting bacterial contamination in pharmaceutical products. Although horseshoe crabs are returned to the sea after being bled, 15 to 30 percent do not survive. A proprietary synthetic substitute for lysate does exist. However, LAL from horseshoe crab blood is the FDA standard, and it will likely remain so unless crabs decline further or demand for LAL rapidly increases, making a synthetic LAL more economically viable.

The Trust plans to continue to support red knot and horseshoe crab conservation efforts but its long-standing Delaware Bay Shorebird Fund is being quickly depleted. The fund, created in the 1990s, has supported much of what is known today about the red knot. As Dr. Dey has noted, “It is right to say that the federal listing, the new habitat restoration effort, and most of what we know about red knots in the Western Hemisphere\*, is a direct result of the Trust’s help and support.” The big challenge for the Trust is to find funding sources to replenish its Delaware Bay Shorebird Fund to continue this important support.

\*This is a partial list of the numerous publications, masters and doctoral theses were possible because of trapping efforts in Delaware Bay and Chile supported by the Trust. {hot link }

## **Hirst Ponds Preserve**

In 2014 The Nature Conservancy (TNC) donated Hirst Ponds to the Trust as its newest preserve. The Hirst Ponds Preserve is approximately 375 acres and comprised of 22 separate tax parcels all located in Galloway Township, Atlantic County, some contiguous and others not.

TNC began acquiring land in the area in 1984 to protect a pair of large, high-quality coastal plain intermittent ponds. The smaller of the two ponds, to the north and known as Barkswood Pond (so named for an adjacent dog kennel), contains occurrences of the globally rare, state endangered Hirst Brothers’ panic grass, state endangered Boykin’s lobelia as well as two other rare plants, rose-color coreopsis and mudbank crown grass. It is also known for a historic occurrence of the state endangered slender arrowhead. The larger pond, known as Labonsky Pond, sits at the southern end of the preserve and also contains occurrences of Hirst Brothers’ panic grass, Boykin’s lobelia and four other rare plants, rose-color coreopsis, mudbank crown grass, narrow-leaf primrose-willow and floating heart.

The two ponds on this preserve collectively contain one of only two known occurrences of Hirst brothers' panic grass in New Jersey. With the Trust's acquisition of the Hirst Ponds Preserve, all of New Jersey's populations of Hirst brothers' panic grass will be in public ownership. The species' presence is sporadic and has not been observed at this location since 2003. This is not surprising, however, given that coastal plain intermittent ponds are inherently variable, with plants responding to hydrologic changes so that many years may elapse before conditions are again suitable. The species was discovered in these ponds in the late 1950s by Frank and Robert Hirst and was described as a plant new to science in 1961. An accompanying article tells the fascinating background story of the Hirst brothers and their discovery.

In 1998 Hirst brothers' panic grass was added to the federal candidate species list, which means that it is a species that the U.S. Fish and Wildlife Service has determined warrants listing under the Endangered Species Act but awaits formal listing. Although Hirst brothers' panic grass will receive no substantive or procedural protection under the Endangered Species Act until formal listing, the Service encourages consideration of candidate species in project planning.

**David's article about the Hirst brothers will go here....**

### **High Rock Mountain Pinnacle Preserved**

Perseverance equals preservation. For many years, the Trust and New Jersey Green Acres Program (Green Acres) sought to preserve the summit of High Rock Mountain overlooking Mountain Lake in Liberty Township, Warren County. This year, mostly due to the unflagging efforts of Larry Fink of Green Acres, we were able to add 122 acres to the High Rock Preserve with a good portion of it being the summit!

This new addition was acquired from the Mehl Family who had previously operated a mobile home park on a portion of the property. Prior to the state's acquisition, all vestiges of the mobile home park were removed and the now-vacant area along Tamarack Road serves as an informal parking area for the general public seeking to access open space in the area.

With the newest addition, the High Rock Mountain Preserve is over 200 acres and serves an important link in a chain of open space connecting a portion of the Jenny Jump State Forest to the Trust's 90-acre Mountain Lake Bog Preserve.

The Mountain Lake Bog Preserve protects a glacially-formed wetland that contains a calcareous fen providing habitat for rare plants as well as a black spruce and tamarack swamp. Interestingly, back in 2001, it was the very same Mehl Family that sold the state the portion of the Mountain Lake Bog Preserve that includes the calcareous fen. As is typical, this calcareous fen occurs at the base of a terminal moraine slope, which traverses the High Rock Mountain Preserve.

Come enjoy a moderately difficult hike from the parking area at Tamarack Road through the boulder field forest up to the newly-preserved High Rock Mountain Preserve summit. The summit has rocky balds from which you can relax and enjoy scenic vistas of Mountain Lake and the surrounding area.

## Petty's Island Update

Petty's Island Preserve became an even more interesting place to visit in 2014. The Trust installed 13 wayside exhibits along the trail at the southern portion of the island. These waysides tell some of the countless fascinating stories about the history of Petty's Island—stories of the Lenape, Quakers, Ben Franklin, William Cramp, and, of course, Blackbeard. The waysides also highlight Petty's Island's diverse natural resources, from the mudflats to the wetlands to the forests, and the ecologically significant habitats they provide to numerous plant and animal species.

In 2014 the Trust again partnered with NJ Audubon Society (NJAS), along with its subcontractors Delaware RiverKeeper Network and Cooper River Watershed Association, to provide public and educational programming. In addition, NJAS coordinated a clean-up event where volunteers removed a significant amount of trash and debris from the eastern shore of the island. What is really exciting is that the cleaned-up shoreline has remained clean. We worried that daily tides would wash up new litter, but we are happy to report that's not happening!

One of the most popular NJAS programs is the Petty's Island History Walk led by Robert Shinn, who represents the Cooper River Watershed Association and Camden County Historical Society. The Philadelphia Inquirer followed up on his most recent walk with this story [http://www.philly.com/philly/news/local/20140930\\_An\\_enchanted\\_island\\_-\\_in\\_New\\_Jersey.html#Qv8JMLARJhwA34Yv.99](http://www.philly.com/philly/news/local/20140930_An_enchanted_island_-_in_New_Jersey.html#Qv8JMLARJhwA34Yv.99) {hot link}. For information about upcoming programs, please check the NJAS program page at <http://www.njaudubon.org/Go/Petty>{hot link}

In addition to programming activities, NJAS has also started migratory and breeding bird studies on the island. This information will supplement the [2010 Petty's Island Plant and Animal Inventory](#) {hot link} during which 141 different bird species were observed, 54 of which were found to be breeding on the island.

On February 21, 2014 the Trust and NJAS convened a Petty's Island stakeholders meeting to share the latest happenings at Petty's Island as well as to seek input and ideas about educational, recreational and interpretative opportunities the island's extensive cultural, historic and natural resources may provide. We had a full house and lots of great ideas were exchanged. Everyone seemed excited for the Trust to explore the feasibility of the Crowley triple ramp structure as a possible location for the future Petty's Island Cultural and Environmental Education Center.

During 2014, at the request of Andy Kricun, Executive Director of the Camden County Municipal Utilities Authority's (CCMUA), the Trust attended a number of stakeholder meetings about the CCMUA's 24-acre property across the channel from Petty's Island. In 2013 CCMUA generously donated a conservation easement in this property to the Trust as part of the Petty's Island Preserve ensuring that it would not be developed other than for recreational or environmental education purposes. However, issues such as illegal dumping and off-road vehicle use continue to pose challenges to the preservation of the ecological resources on the property. The proximity of the nest of a breeding pair of bald eagles to the property heightens the need to protect the eagle and its habitat but limits the access needed to address some of the

dumping and illegal off-road vehicle issues. The stakeholder group is striving to find the right balance. Admirably, notwithstanding these challenges, CCMUA is committed to exploring ways to open the parcel up to passive recreational uses for the public's enjoyment.

Finally, the Trust continued its work with the William Penn Foundation on a vision to coordinate and strengthen the Delaware Watershed's regional system of existing and emerging environmental education and outdoor recreation centers, which would include the future Petty's Island Cultural and Environmental Education Center. The William Penn Foundation's generous grant to the Trust in the amount of \$87,500 has enabled the Trust to conduct studies which will help to expedite our ability to provide high quality access to the incredible natural resources at the Petty's Island Preserve.

### **Down In Sweet Hollow: Gligore Farm Acquisition Keeps The Mountains Just As They Are**

By Martin Rapp, Preserve Manager, New Jersey Natural Lands Trust

It was a thoughtful gesture for Mr. Melvin Wolock, to donate an 11-acre parcel next to the stream by his house in 1994. But now 20 years later, it is easy to see how without the Trust's early involvement at Sweet Hollow the forested landscape and clear waters of Hakihokake Creek might be very different today.

Not much has changed in Sweet Hollow from the very early days of the early 20th Century when Sweet Hollow was a secluded country getaway for folks from the cities. Back then, small simple cabins or even platform tent sites were common on the mountainside and along the Hakihokake Creek that flowed through the narrow steep valley. Located in and amongst those cabins was a small cluster of cabins, houses and associated outbuildings: the Gligore Farm. It was here several generations of the Gligore family were born and raised. The farm likely originated around 1900 when a small house and a barn were erected. Water came from a dug spring. Pigs, goats, chickens and ducks were tended for food and income. In the early days, gathering of large stones and boulders served to create small pastures and areas of tillable ground. Eventually the piled stone walls outlining the fields helped to serve as a fence. This is the farm where Andy Gligore was born, was raised. As he hiked along wood trails and down dirt lanes he would learn the ways of the mountains that he came to love. Aside from service time in the U.S. Army during WWII, where he landed on Omaha Beach in the D-Day invasion at Normandy, France, Andy didn't stray too far from Sweet Hollow.

I first met Andy when he chased me down in his pickup truck. Stepping out of his truck, all I remember was a waft of white wavy hair, a corduroy jacket, and a fusillade of cuss words. Explaining I was an employee of the State only poured gas on this fiery discussion. But things settled down to a reasonable tone soon after I mentioned the Sweet Hollow Preserve. He was particularly protective of his side of the mountain, and wasn't particularly welcoming to people from the city or the State.

Apparently, stories of neighbors' encounters with Andy were not too different from mine. Andy never married. He worked as a truck driver and with his earnings bought up more land on the

mountain. He bought up adjacent family parcels and the land from the city folks who no longer came to vacation at their cabins in Sweet Hollow. He bought land along the streamside of Hakiwokake Creek which he had to ford in his truck to get to his cabin. He built himself a small pond, where it's told he took a dip with a bar of soap on occasion.

I never met Andy again. By the time of his death in 2009, Andy had amassed a big chunk--25 acres--of beautiful mountain forest land. His niece Liz and great-nephew Errin Pesaresi now feel that for all his mountain gruff the preservation of the farm turned out the way Andy would have liked it to all along: just as it always was.

The piles and rows of scrap metal Andy collected but never turned in for cash are all cleaned up, along with the lifetime of odd possessions amassed from a depression era experience of make-due skills and old fashioned self-sufficiency. Even the cabin where he was born and the barn where the goats were penned are gone. But one last remnant remains hidden, deep in the woods. It's an old blue Studebaker Hawk, parked at the top of the mountain high above his old cabin. As told to me, Andy uncoiled a long wire from his TV, 500 feet up the mountainside to tie onto the Studebaker antenna. Sure beats a cable bill.

## **Great Piece Meadows Preserve Biodiversity Inventory and Research after Twenty-five Years**

For the past few years the Trust has taken on the task of performing a thorough biodiversity inventory of one selected Trust preserve every year. These inventories act as a baseline for natural resource information pertinent to each preserve: a complete list of plants, animals, and ecological communities on the property. Most importantly, it documents threatened and endangered species and their habitats. Biologists, botanists, ecologists and experts in other fields of natural history put many long hours on the ground exploring each preserve, seeking out species and recording valuable data in order to prepare a final report.

In 2014 the Trust selected the 1,777-acre Great Piece Meadows Preserve. Great Piece is a massive wetland system straddling a wide bend in the Passaic River located in Fairfield Township, Essex County, and Montville and Lincoln Park Townships in Morris County. Great Piece--like its "sister" regional wetlands Troy Meadows, Black Meadows and Bog and Vly Meadows--shares its ice age origins as part of ancient Glacial Lake Passaic. Other wetlands along the Passaic River, such as Great Swamp National Wildlife Refuge, illustrate the significance and preserve the value of these habitats.

Detailed survey of wildlife or plants at Great Piece Meadows had not been done in more than 25 years. Some early research studies pointed out how Great Piece was the "melting pot" for a unique New Jersey salamander species, the Tremblay's salamander (*Ambystoma tremblayi*). "Twenty-five years ago, when I began my career as biologist with the New Jersey Endangered and Nongame Species Program, Tremblay's salamander was classified as an endangered species," said Martin Rapp, Preserve Manager for the Trust. Tremblay's was recognized as a genetic hybrid cross between a blue-spotted salamander (*Ambystoma laterale*) and a Jefferson's salamander (*Ambystoma jeffersonianum*). In New Jersey, Tremblay's was only known from the Glacial Lake Passaic basin wetlands such as Great Piece. At the time it was thought that these

same wetlands were the only known New Jersey location for the blue-spotted salamander. Blue-spotted salamanders have in since been found outside of the Passaic basin. But herpetologists and geneticists still can't agree if Tremblay's is even a species at all.

During Mr. Rapp's 25-year career much of the regional land use has changed. Pressures from development and industry and flooding impacts still continue or have increased. At the center of this dense development and industry, this thousand-plus acres known as Great Piece Meadows has remained relatively unspoiled. Jill Dodds of Biostar Associates, Inc. was hired to conduct the inventory. Jill recruited Elizabeth Johnson and Deborah Kratzer to assist with the work. Ms. Johnson did her graduate research on the blue-spotted salamander in the Passaic basin wetlands, so her experience was valuable. Their field work included hundreds of field hours turning logs for salamanders, spying into tree tops and across open meadows for birds or butterflies, and scanning the forest floor for a host of plant life. Special attention was paid to relocate known populations of species that had gone unseen for decades.

Of key interest was the sheer number of blue-spotted salamanders discovered during their study. These were found throughout the swamp under logs, in breeding ponds, and moving about on the forest floor during rainy spring nights. Curiously, however, aside from a single red-backed salamander, ever salamander found was blue-spotted. Other finds include a successful hunt for the state endangered Louisiana sedge (*Carex louisianica*). Until this survey only one small clump of the species was known from Great Piece--the only known clump in New Jersey--but Biostar's searching found Louisiana sedge growing far and wide at Great Piece Meadows, helping to secure the existence of this species in the State, for now. Newly documented were several stands and possibly the largest NJ record of the state-listed swamp cottonwood (*Populus heterophylla*). Also of interest were some spectacular stands of state endangered large water plantain (*Alisma triviale*). What wasn't found is also noteworthy. No remarkable finds of birds or butterflies. No rookeries of great blue herons, marsh birds like American bitterns or rare species of butterfly. As Albert Einstein put it, "If we knew what it was we were doing, it would not be called research, would it?"

## **Hainesville Woods – A New Step in Protecting Biodiversity**

For many years the New Jersey Chapter of the Nature Conservancy (TNC) worked across the state to identify and acquire properties that were critical in the protection of habitat for state endangered and threatened species. TNC did an excellent job in acquiring, monitoring and managing these properties for a wide range of unique plants and animals, but has begun to shift their resources and expertise to assist governments and other non-profits with a regional, landscape approach for protection of biodiversity. As part to this shift in focus, TNC has been re-evaluating their land holdings with an eye towards transferring selected preserves to other conservation groups. TNC has viewed the Trust as an obvious choice to take over management of preserves with rare and endangered plant species, and the Trust has been eager to oblige.

Hainesville Woods Preserve, as it will now be called, is one such example. For decades TNC worked to acquire the 176-acre tract comprised of many adjoining properties. Collectively, these protect an extensive parcel of mature hardwood forest. When combined with adjoining woodlands of the much larger Stokes State Forest this massive forest provides habitat for wide

ranging animals like bobcat and black bear. Hermit thrush and many warblers like the solitude of the interior forests. The forest also protects an important headwater for the Big Flatbrook, recognized as one of New Jersey's premier trout streams.

Upon visiting the Hainesville Woods Preserve it is striking to see the extensive system of old stone walls built generations ago by early settlers. The landscape has long since reforested and now these walls lie darkened under the shade of tall oaks, maples and hickories. The Trust will continue the important plant monitoring efforts initiated by TNC and will carry on protection of the rarest and richest of biodiversity in New Jersey.

### **Trust Makes a Clean Sweep of Illegal Dumping**

The woods can look so nice as the autumn leaves fall. It's a delight to see bright colors of red, gold, brown strewn across the landscape. Visitors to Trust preserves often enjoy hiking in the fall, just to experience these vivid colors. And when they do they should expect no less than a positive experience with nature.

However, the colors of trash and litter are not true to nature. No one likes to have their experience blemished by unsightly litter and trash left behind by the inconsiderate, disrespectful and unlawful few. It should not be too much to ask that individuals and businesses legally dispose of their trash and debris. But some simply can't be bothered.

Piles of trash are an all too common a sight on our public lands and open spaces. The New Jersey Department of Environmental Protection has begun the "Don't Waste Our Open Space" initiative to reverse the problem of illegal dumping on our parks, forests, wildlife management areas and Natural Lands Trust preserves. The Trust is an active partner in this important effort.

In 2014 the Trust conducted four cleanups on its preserves. Some cleanups were big, some small, but each time the cleanup improved a preserve for both visitors and wildlife. Recently volunteers and workers from the Trust, New Jersey Audubon Society and Conserve Wildlife Foundation met in the pine forest of the Trust's Crossley Preserve to begin a cleanup of many years worth of debris. A 30-yard dumpster could hardly contain the pick-up truck loads of old carpet, lumber and construction waste collected from throughout the forest. Piled next to the dumpster were 75 tires. Pulled from the woods and wetlands, these tires when filled with stagnant water are ideal breeding areas for biting, infecting mosquitos. In total, even with volunteers, it cost the Trust over one thousand dollars to collect and remove this debris. We can all agree that this money and time should have been put to a better purpose.

The NJDEP Don't Waste our Open Space initiative is working with State Park Police and Fish and Wildlife Conservation Officers to enforce laws against dumping. The Trust was able to provide State Park Police with names and addresses found within a waste pile on its 4-Mile Branch Preserve in Gloucester County. After collecting the needed evidence the Park Police made a case and caught the dumpers. Fines and penalties soon followed.

Boy Scout Troop 2010 from Hardwick Township, Warren County helped with a cleanup at the Trust's Hardwick Meadows Preserve, this time by a different offender. Perhaps resulting from a

careless mistake, black bears caused quite a mess while rummaging through homeowner's trash cans. Living in bear country comes with responsibility. The neighbor's poor handling of trash provided the bear with an unhealthy meal which the bruin dragged through the wetlands and woods, scattering garbage all along the way. Neighbors, Boy Scouts and Township officials all got involved to see this problem corrected and cleaned so it shouldn't happen again. Using Hardwick Township's Clean Communities funds, the Boy Scouts scrambled into thickets only a bear might get into. After the cleanup the Troop donated their Clean Communities grant earnings towards another worthy neighborhood cause. The Trust is grateful for the willingness and call to action of the Boy Scouts to help improve the appearance of the Hardwick Meadows Preserve.

To help keep our eyes open on preserves, in 2014 the Trust purchased a remote trail camera to assist with catching dumpers. Secretly mounted, the camera automatically emails images of vehicles and dumpers directly to the Trust's office. Use of the camera is just another way to monitor illegal activities so enforcement authorities can respond even more quickly, 24 hours a day. If you observe trash or dumping activity on a Trust preserve or other public open spaces contact [www.Stopdumping.nj.gov](http://www.Stopdumping.nj.gov) or call 1 877 WARNDEP (1-877 927-6337).

## **Hunting Update**

During the 2014-2015 hunting season over 4,082 hunters registered at Trust preserves through its website: [www.njnlt.org](http://www.njnlt.org). The Trust allows deer hunting only at many of its preserves to maintain biodiversity. The deer population in New Jersey is far greater than the ecosystem can sustain. Over-browsing by deer depletes native vegetation resulting in impacts to animal and plant habitat, such as decreased food sources and increased invasive plants.

In order to hunt at selected Trust preserves, hunters access the Trust's website, electronically submit information to the Trust, and print their own hunter registration letter with the required accompanying preserve map. The Trust is able to use this information to sort hunter registrations by preserve. Trust staff may reach out to hunters registered at a specific preserve to determine their interest in volunteering for clean-ups and maintenance projects. The Trust continues to use a "lottery" system for the ever-popular but limited hunting opportunities at our Limestone Ridge Preserve and Thomas F. Breden Preserve at Milford Bluffs.

It is important to note that the Trust does not allow hunting for waterfowl, small game, turkey or bear, as it maintains that only over-browsing by deer poses a threat to biodiversity. In addition, Sunday bow hunting is not authorized on Trust preserves as it is on state wildlife management areas and private property during deer season.

While hunting on Trust preserves, all rules and regulations in the New Jersey Division of Fish and Wildlife game code must be followed. Hunting deer by bow and arrow, shotgun or muzzleloader are acceptable, depending on the preserve. No target shooting or discharge of weapons other than for deer hunting purposes is permitted. Permanent deer stands are not allowed, and portable deer stands, while permitted, must be removed after the hunting season is completed or are subject to confiscation by the Trust.

## Thanks to Our Volunteers

The Trust would like to acknowledge and thank its many volunteers for their invaluable contributions to the maintenance of Trust preserves. If you are interested in becoming a Trust volunteer monitor or attending a workday, please contact the New Jersey Natural Lands Trust at 609-984-1339, or email [NatLands@dep.state.nj.us](mailto:NatLands@dep.state.nj.us).

## Donations

The New Jersey Natural Lands Trust gratefully extends its thanks to the following who have donated land, funds or services to the Trust in 2014 to help preserve and protect New Jersey's natural diversity:

**Camden County Historical Society**  
**CITGO Petroleum Corporation**  
**Duke Farms**  
**Covanta Camden Energy Recovery Center**

**William Penn Foundation**  
**Boy Scout Troop 2010, North Warren, NJ**  
**Clean communities Program of Hardwick Township, Warren County, NJ**

For more information about how you can make a donation to further the Trust's mission to acquire, preserve and manage natural lands for the protection of natural diversity, please call 609-984-1339.

*The New Jersey Natural Lands Trust financial report is available upon request.*

## Stefan Martin Prints for Sale to Benefit the Trust

In 1984, the Trust commissioned a series of limited edition prints created exclusively for the Trust by New Jersey wood engraver Stefan Martin. Each of the three prints highlights an object of the Trust's preservation efforts: the State-endangered Peregrine Falcon, titled "Peregrine Falcon;" a northern New Jersey stream habitat titled, "Morning Stream;" and a grouping of three Pine Barrens Gentian, titled "Gentian." After Stefan Martin's death in a 1994 fishing accident, a fellow artist noted that Martin was "absolutely one of the most important artists in New Jersey. He won many awards, was nationally known, and very well-loved."

Unframed prints are \$150 each, or \$400 for all three (a \$50 savings). Remaining as of this writing are 202 "Peregrine Falcon," 125 "Morning Stream," and 17 "Gentian" prints.

To order, contact the Trust at 609-984-1339, or email [NatLands@dep.state.nj.us](mailto:NatLands@dep.state.nj.us) and indicate which print or prints you would like to order and your name and phone number. We will get back to you with ordering details.

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**NATURAL LANDS TRUST**

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