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ABBOTT MARSHLANDS COUNCIL

Report - 2015-2016
& Five-year Summary



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Abbott Marshlands Council Members



To learn more about The Abbott Marshlands or review the Cooperative Stewardship Plan:
abbottmarshlands.org

See TravelStorysGPS to download the river trail app, 'Paddling the Abbott Marshlands',
or the upland app, 'Walking the Abbott Marshlands'



INTRODUCTION

The Abbott Marshlands Council (formerly Abbott Marshlands Stewardship Council) was formed in October 2011 with the signing of the Cooperating Stewardship Agreement by the following organizations:

- State of New Jersey, Department of Environmental Protection
- State of New Jersey, Department of Transportation
- New Jersey Transit
- Delaware & Raritan Canal Commission
- County of Mercer
- Township of Hamilton
- City of Trenton
- PSEG
- D&R Greenway Land Trust
- Friends for the Abbott Marshlands
- Bordentown Township (signed in 2015)

The purpose of the Council is to support the goals and vision of the Cooperative Stewardship Plan – Hamilton – Trenton – Bordentown 2010 in preserving the Abbott Marshlands. Goals are:

- Protection and Preservation
- Stewardship
- Education
- Recreation
- Marsh Identity and Interpretation

A sixth goal, coordinated management and organization, was accomplished with the creation of the Council.

Council Standing Committees include: Education, Stewardship, Sign, and Recreation. These, along with the Friends for the Abbott Marshlands and the Tulpehaking Nature Center, provide guidance, as well as help for carrying out the achievements noted in this report.

This report highlights the activities and achievements of the Council, the committees, and its members during 2015-2016 and includes a five-year summary.

Marshlands Overview

The Abbott Marshlands encompass more than 3,000 acres, including approximately 1,250 acres of wetlands and 1,700 acres of uplands that are in public ownership. Among the wetlands are the northernmost tidal freshwater wetland along the Delaware River as well as non tidal ponds created by beaver. The forested uplands include mountain laurel and rhododendron thickets. The Marshlands' complex ecosystems support more than 1,200 plant and animal species including nesting bald eagles. The Marshlands have been designated a New Jersey Natural Heritage Priority Site by the NJ DEP Natural Heritage Program and as an Important Birding Area by the New Jersey Audubon Society. In addition, the Marshlands have

supported humans since prehistoric times with Native Americans living here beginning 13,000 years ago. In 1976, a portion was designated the Abbott Farm National Historic Landmark by the United States Department of Interior to recognize the archaeological significance of the area. Present day visitors can experience this amazing place on over 8 miles of walking trails and 11 miles of canoe/ kayak trails.

The Abbott Marshlands, all the more remarkable because of their location in an urban landscape, are an important cultural and natural resource that can be used for education, research, and recreation. The Council is committed to enhancing their preservation.



FIVE YEAR SUMMARY

Since the Council first assumed its responsibilities in 2012, the following have been the major accomplishment highlights.

- The Tulpehaking Nature Center (TNC) was dedicated in October 2014. The dedication followed an archaeological survey of the property prior to renovation at 157 Westcott Avenue. Its purchase was made possible by Green Acres Development Grants to D&R Greenway Land Trust that were matched by Mercer County. The TNC is owned, maintained, and staffed by Mercer County. Target audiences were surveyed for program and other preferences. The TNC offers varied programs to varied audiences.
- In 2014, the Friends for the Abbott Marshlands received the Dr. Ruth Patrick Excellence in Education Award "For vision and leadership in developing and implementing environmental education and outreach programs for the Abbott Marshlands near Trenton, New Jersey." The award was presented by the Water Resources Association of the Delaware River Basin; nomination was by PSEG, a member of the WRADRB.
- Way-finding signs were provided by NJ DOT and installed by partners and property owners.
- With input from many partners, the name for the marshlands was changed to Abbott Marshlands, from Hamilton – Trenton – Bordentown Marsh. This name recognizes the important archaeological legacy of the marsh and of Charles Conrad Abbott, a 19th and early 20th C archaeologist and naturalist, who lived on the bluffs near the marsh and who wrote extensively about it. An Indian name, Tulpehaking, meaning Land of the Turtles, was chosen for the nature center. The updated brochure reflects this change; a Spanish version is also available.
- Many activities brought attention to the cultural and natural history of the Marshlands. These include the Delaware River Sojourn day visit, archaeology workshops, and a teachers workshop for which site-specific lesson plans were developed. In addition, nearly monthly field and paddle trips have been provided by the Friends, TNC, and Sierra Club. The field trips help bring access to the Roebling Park, Northern Community Park, the Bordentown Bluffs, and the D&R Canal tow path trail to visitors. These have been complemented by History Weekend activities in April that focus on local historical sites, such as Point Breeze, home of Joseph Bonaparte, Napoleon's brother; Bow Hill Mansion, home of Joseph Bonaparte's mistress; the Watson House built in 1708; the Isaac Pearson House that dates from the Revolutionary War; and the D&R Canal built in 1833.
- To further understanding of the significance of the Abbott Marshlands wetlands, there were programs held on World Rivers Day (last Sunday in September) beginning in 2014, and for May – American Wetlands Month beginning in 2015.
- The TNC has hosted art exhibits and diverse programs, designed to enhance understanding of the Abbott Marshlands. In addition to the TNC exhibits, in 2014 to coincide with the opening of the nature center, the City of Trenton Museum at Ellarslie hosted 'The Abbott Marshlands – More than Meets the Eye' with displays of art, Voices for the Abbott Marshlands photographs, and artifacts from the State Museum that celebrated the rich legacy of the Abbott Marshlands.
- Trash pickups have been very successful in the amounts of trash removed and involvement of volunteers. These have been successful partnerships between the Friends, Sierra Club, and/ or the AmeriCorps Ambassador program.

2015-2016 OVERVIEWS

EDUCATION

Education integrates many aspects of Marshlands activities that include, for example, the nature center, the Education Committee, and the Friends for the Abbott Marshlands. Planning and implementation of a Wetlands Award and a Teachers Workshop involved all of these.

To bring attention to the Marshlands as a research resource, the Abbott Marshlands Wetlands Award is presented to a high school student project at the Mercer County Science Fair that best

addresses wetland ecology, wetland organisms, wetland issues and/or is carried out at the Abbott Marshlands. It is funded by the Friends. In 2015, the award was presented to Daisy DePaz, a Trenton Central High School senior for *"Does land use affect water quality: assessing the health of the Assunpink Watershed."* In 2016, it was presented to Jiyoung Kang, a Princeton High School junior for *"Impacts of Phragmites australis invasion on soil enzyme activities and methane emission of tidal marshes in Maryland, USA."*



Daisy DePaz & Kelly Rypkema
Photo: Peter Borg, Rider U

A Teachers Workshop was held on October 24, 2015. Activities were designed to illustrate the legacy of this world-class marsh, including its natural and cultural history.

Lesson plans, aligned to Common Core & Next Generation Science Standards, standards, were:

- The Rainbow Crow
(grade level: Pre-K)
- Lenape Life in the Abbott Marshlands
(grade levels: K-4)
- Animals & Energy Flow in the Abbott Marshlands
(grade levels: 4-8)
- Plant Chemicals for Medicine: Protection & Poison
(grade levels: 3-5)
- Estimating Water Quality by Macroinvertebrate Sampling
(grade levels 9-12)

The workshop was made possible by a William Penn Foundation grant to D&R Greenway Land Trust, and by the considerable time spent by committee members, other volunteers, and TNC staff. The workshop was a pilot for future programs/funding opportunities with William Penn Foundation.

STEWARDSHIP

Property Acquisition

In September 2016, purchase of the 72-acre Csapo Property was overseen by D&R Greenway Land Trust and funded by the NJ Green Acres Program and Friends for the Abbott Marshlands. This acquisition preserves and protects 60 acres of tidal marsh along Crosswicks Creek and 11 acres of spectacular upland woods along the bluffs. Ownership will be transferred to Delaware and Raritan Canal State Park.

Marsh Stewardship

Fall and spring trash clean ups, coordinated by the AmeriCorps Ambassador, involved more than 75 volunteers who removed more than 225 bags of trash as well as tires and other debris.

Using NJ DEP data bases, GEOWeb and DataMiner, the extent of environmental contamination was determined. A map was developed that showed remediation sites, contaminated ground water, underground storage tanks, discharge sites, and historic fill sites. This map will be used to develop grants to eliminate problems.

To underscore a commitment to protect water quality, the Friends for the Abbott Marshlands joined the Coalition for the Delaware River Watershed and supported the Delaware River Basin Conservation Act that was passed by Congress in 2016.

RECREATION

Roebling Park Assessment

Recreation Committee members toured Roebling Park in spring 2016 to assess areas in need of repair or improvement and made recommendations to Mercer County Park Commission.

Abbott Marshlands Recreation-focused Map

The Mercer County Park Commission will lead the development of a new map that will include recreational opportunities within the Marshlands. The Committee has coordinated with a representative of the NJ DEP Division of Fish and Wildlife to identify fishing and hunting areas.

In addition to many varied field trips sponsored by Friends and TNC, recreation has been enhanced by restoration of the historic White City Stairway in Roebling Park by Mercer County, as well as new signage at trailheads and access points, and apps for water and upland trails.

Improved Trail Maps

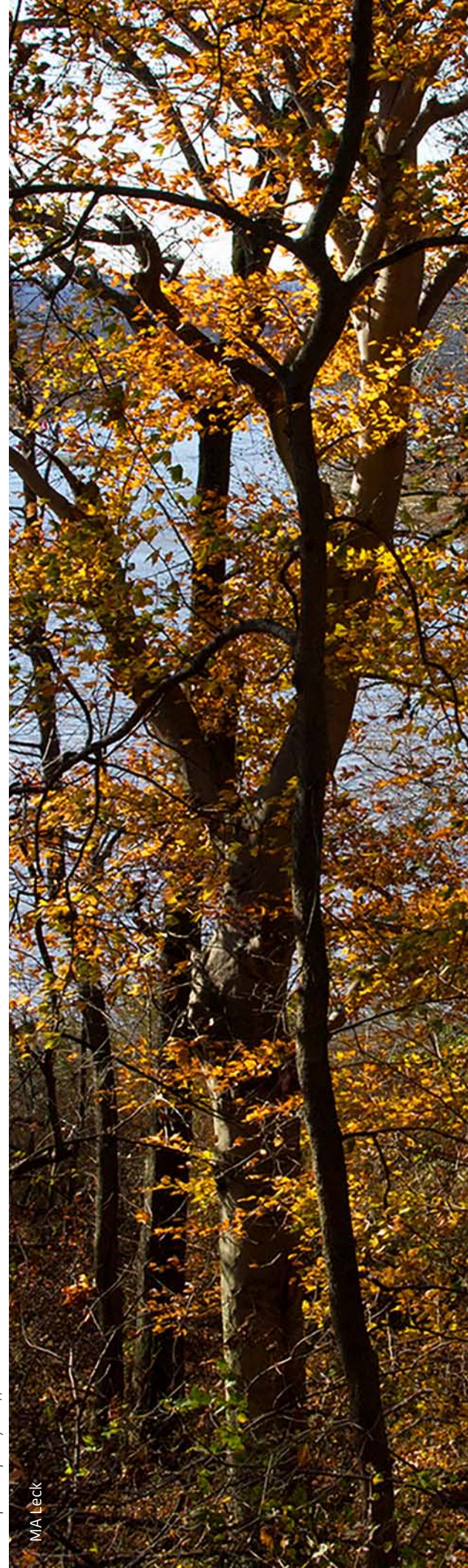
Mercer County Park Commission has engaged a trail expert to refine the Roebling Park trails to provide an accurate and clear map for new trailhead signs.

SIGNS & MARSH IDENTITY AND INTERPRETATION

Several initiatives, which join education, stewardship, and recreation activities, are underway and help accomplish the Council's Marshlands Identity and Interpretation goal.

These include:

- Wayfinding signs, as noted, have been installed. One totem with accompanying interpretive information has also been installed.
- A 2016 Recreational Trails Grant with supporting funding by PSEG will result in the installation, planned for fall 2017, of 14 signs that focus on trails and access.



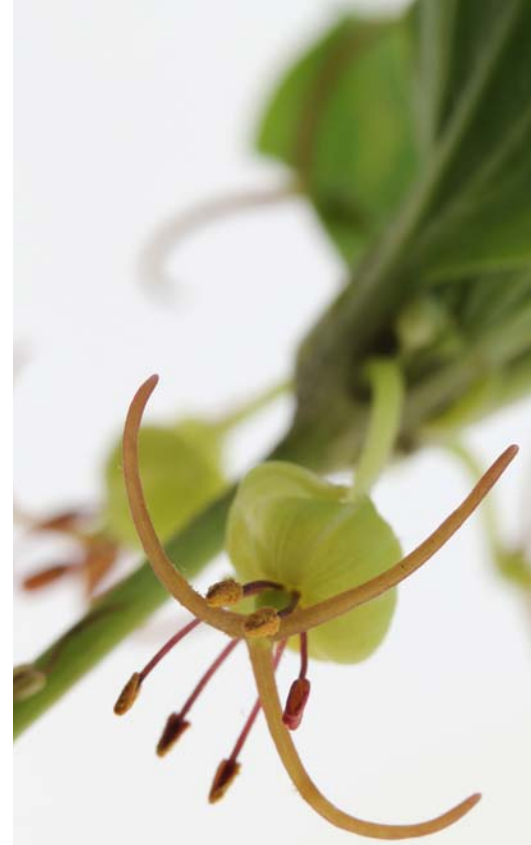
- There will be new trail maps for Roebling Park, Northern Community Park, Bordentown Bluffs, and the D&R Canal towpath, as well as for the entire Abbott Marshlands.
- Signs will be placed at the I-295 Scenic Overlook, at Bordentown Beach, and at the Light Rail Stop in Bordentown, all high visitation locations.
- An Abbott Marshlands River trail app, funded by a William Penn Foundation Grant to D&R Greenway, will be available in spring 2017. It will provide paddlers with a map and guide them along a series of 19 GPS identified sites along Crosswicks Creek and Watson's Creek. The app can be used with a smart phone on the water. An upland app, which uses the trail sign locations, information, and photos, will also be available in early 2017.
- Bordentown Township has received a Recreational Trails grant that will be used to upgrade the trail at Northern Community Park.

TULPEHAKING NATURE CENTER

Tulpehaking Nature Center program attendance continues to grow, more than doubling each year. It continues its successful partnership with CYO Mercer with expanded afterschool and summer camp nature programs for Trenton area youth. Students explore the marsh, practice their wildlife watching, and try their hand at some outdoor survival skills as part of becoming better acquainted with the world of nature that sits so close to their homes in the city.

The TNC has been invited to be part of a select group of environmental education centers along the Delaware River in an initiative sponsored by the William Penn Foundation, to engage with the public about the importance of our waterways. As one of the first outcomes of this project, during summer 2017 the nature center will host a Fellowship for an aspiring young person from Trenton or the surrounding community, providing first-hand experience and skills development in the fields of education and the environment.

Last year the nature center debuted 15 scout badge programs and a full roster of school programs aligned to Common Core and Next Generation Science Standards. Program bookings and attendance have continued to grow, with requests from the STEM Civics School in Trenton, the Princeton Waldorf School and others, including a series of programs for Lalor Elementary School.



Indian Cucumber Root
M A Leck

William Penn Foundation

Two William Penn Foundation initiatives specifically support goals of the Abbott Marshlands Council.

These are:

1. The Circuit Trail, a regional multi-use biking and walking network connecting nature centers and points of interest in the Delaware River Watershed, will encourage outdoor recreation and education.
2. A network of 23 cooperating nature centers that includes the Tulpehaking Nature Center encourages stewardship actions that protect water quality for the 15 million people and hundreds of species of plants and wildlife that depend on the Delaware River Watershed for life itself.

Through these initiatives, the Council will expand its outreach by introducing more people to the important resources of the Marshlands. At the same time, educational activities of the Tulpehaking Nature Center are enhanced.

FRIENDS FOR THE ABBOTT MARSHLANDS

The Friends take an active role in Abbott Marshland activities and provide strong support of the nature center. Since the TNC opened in October 2014, Friends have organized and/or supported six art exhibits. These bring the Marshlands to new audiences.

In 2015 and 2016, Friends for the Abbott Marshlands hosted 50 walks, paddle trips, history tours, and four clean ups. These included the Delaware River Sojourn, participation in American Wetlands Month – May, and World Rivers Day (last Sunday in September). Flyers were distributed at local libraries, D&R Greenway, and other appropriate venues. All bring recognition to the Abbott Marshlands and highlight their natural and cultural significance.

LOOKING AHEAD: GOALS FOR 2017-2018

In addition to continuing implementation of the Stewardship Plan goals, the following specific initiatives will be addressed. Through these the Abbott Marshlands Council will expand its reach by introducing more people to the important natural and cultural resources of the marsh and educational activities at the Tulpehaking Nature Center will be enhanced.

Education, Communication, and Awareness

Many of the accomplishments mentioned in this report, from TNC and Friends programs to the Council's Partners' Forum, will raise appreciation of the Abbott Marshlands. Successful initiatives will be continued and evolve as needs change. The creative energies of committees will continue to inform progress.

Better access to facilities and trails, which will serve to enhance education, awareness and communication, will be provided by:

- 14 new signs, including those at the I-295 Scenic Overlook, Bordentown Beach, and the Bordentown Light Rail Station
- updated trail maps
- river trail and upland trail apps
- proposed new recreation map
- updated website
- enhanced social media presence

In addition, from a broader regional perspective with William Penn Foundation support of the TNC, water quality will be improved as citizens become better educated about water.

Increased awareness and education will result in greater tourism and benefit to the region.

The newly created School Advisory Committee will help improve local awareness by working with schools in surrounding towns.



UPDATED WEBSITE

The website, now www.abbottmarshlands.org, was given a facelift in fall 2015 to make it compatible with mobile devices.

New Website Features

- Mobile device-compatible pages
- Link to Facebook
- Shortcuts to share on social media



Alice Grebanier
Featured in "Voices for the Marsh"

Focus on Volunteer Recruitment

Awareness building will require presence at more fairs and festivals. In addition, to further the goals of the Council (and the Cooperative Stewardship Plan), plans are needed to find college interns and engage volunteers to help with trail maintenance, research, TNC programs, and outreach via social media, local media, newsletters, etc. A volunteer coordinator is essential.

Enhanced Trail System

Planning has begun, as part of the William Penn Foundation Circuit Coalition initiative, to connect the D&R Canal Towpath on Duck Island to Trenton.

Mercer County is exploring the feasibility of a new connector trail that will allow hikers and bicyclists on the D&R Canal Towpath to visit the nature center. At present the railroad presents a barrier.

Improve and Remediate Marsh Ecosystems

Another area of concern is maintaining organism and habitat diversity for the future. To reduce the adverse impact of invasive species of particular concern, discussions are underway by Mercer County to seek funding to eliminate *Phragmites australis* (Reed Grass) in Roebling Park. Also, to understand better the amphibian and reptile diversity of the Marshlands, discussions have begun to undertake surveys to document these animals.

Partner's Forum

On May 29, 2015, the Abbott Marshlands Council held a Partners Forum with 31 participants.

Objectives were to:

- review progress since publication of the *Cooperative Stewardship Plan – Hamilton-Trenton- Bordentown Marsh -2010* and the signing of the agreement in 2011 that established the Council;
- solicit suggestions on Marshlands needs; and
- provide focus for future actions to carry out goals of the Cooperative Stewardship Plan.

Recommendations have informed Council and committee activities.



Ned Walthall

ABBOTT MARSHLANDS



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