



NJ AUDUBON SOCIETY
**CORPORATE
STEWARDSHIP
COUNCIL**

ESTABLISHING THE ROOTS OF CONSERVATION WITH OUR CORPORATE LEADERS

NJ AUDUBON
CORPORATE STEWARDSHIP COUNCIL
ANNUAL MEETING

NJM INSURANCE GROUP HEADQUARTERS
WEST TRENTON, NJ
NOVEMBER 29, 2017

CSC Executive Brief

The Corporate Stewardship Council (CSC) is a unique group of 18 New Jersey companies united behind a common goal of environmental sustainability and responsibility. Member companies include co-chairs **PSEG** and **Mannington Mills**, as well as **Atlantic City Electric/Pepco Holdings, Covanta Energy, Chemours, Eastern Propane, JCP&L, Johnson and Johnson, New Jersey American Water, New Jersey Manufacturers Insurance, Pfizer, Suez, Verizon, Trump National Golf Club-Bedminster, South Jersey Gas, Pine Island Cranberry Co. Inc., U.S. Silica and Crystal Springs Resort**. Former CSC members include New Jersey Natural Gas, Merck, and Eagle Ridge Golf Course. Ex-officio CSC members are the New Jersey Department of Environmental Protection (NJDEP) and the United States Fish and Wildlife Service (USFWS).

Many companies own or manage land in New Jersey that is located in ecologically sensitive or valuable areas. The Council recognizes the opportunity for these lands to play a critical role in the restoration of valuable habitats and recovery of declining populations of threatened plants and animals and offers a means for member companies to participate directly in habitat conservation.

Each member company works closely with staff at the New Jersey Audubon Society to evaluate habitat restoration or enhancement potential on its property or affiliated sites. Once identified, the partners work together to develop and implement a conservation plan intended to improve upon existing conditions and enhance habitat for rare wildlife and plants. The New Jersey Audubon Society will work with each member company to identify potential sources of outside funding for restoration projects. Member companies may also choose to take advantage of a number of other benefits available to their employees including volunteer work days with New Jersey Audubon staff, onsite environmental programming, and access to New Jersey Audubon staff for advice on shared environmental concerns.

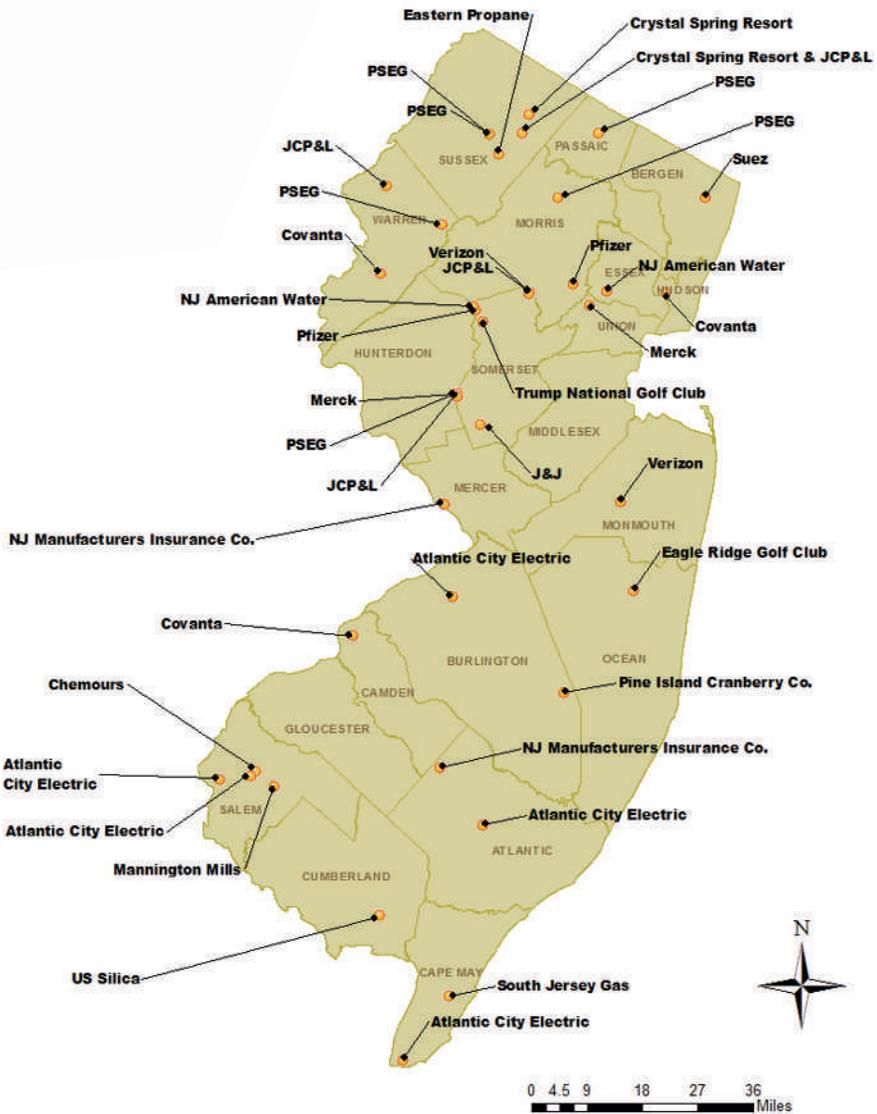
Please enjoy the enclosed summary of the extraordinary projects and accomplishments realized by our members during the third year of the Corporate Stewardship Council. Many other members continue to work with NJAS to develop their projects. In the near future, implementation of these plans in preparation will greatly enhance the diversity and impact of these projects that help to achieve the mission of New Jersey Audubon.



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CORPORATE STEWARDSHIP PROJECTS THROUGHOUT NEW JERSEY



This map was prepared by G. MacGregor, New Jersey Audubon, 2015

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Atlantic City Electric

In 2017, Atlantic City Electric (now Pepco Holdings) began working in partnership with NJ Audubon, NJDFW and the Landis Sewerage Authority of Cumberland County to create habitat enhancements along its transmission lines that run through the Landis property and into state-owned wildlife management areas. The project site is located within the newly available USDA-NRCS Working Lands for Wildlife Bobwhite Quail Program focal region (see Pine Island Cranberry Company for related story).

Utilizing research conducted by NJ Audubon via a recent USDA-NRCS Conservation Innovation Grant on the use of a commodity crop Spelt (*Triticum aestivum var. spelta*), as an alternative crop that can provide grassland bird habitat, ACE approved its use on the line to replace the growing of annual rye. From a wildlife resource perspective, spelt is similar in structure to many of the native warm-season grasses and more importantly spelt is typically harvested AFTER July 15. This harvest time will not impact the critical breeding bird months (i.e., April – Mid July); unlike the harvesting of cool-season grass hay crops or other grain crops such as rye, oats, barley or wheat. Thus, the spelt grain can provide agricultural producers with economic diversity and stability while also providing critical habitat for grassland dependent birds.

Spelt (*Triticum aestivum var. spelta*) is a sub-species of common wheat. Spelt is used for both human consumption, as well as an alternative livestock feed. Spelt is similar in physical structure and growing-season to the typical native warm-season grasses and can accommodate the needs of grassland dependent birds and other wildlife including pollinators. Like most wind-pollinated plants, spelt produces large quantities of pollen. Bees are particularly attracted to the pollen and will collect it readily. The use of this surrogate crop also provides the producer with a viable commodity crop that already has an established and growing market in the United States, unlike the native warm-season grass for biofuel here in the Northeast. Furthermore, it can be planted with conventional equipment and is completely harvestable without the reliance on and/or restrictions of harvest presented under current USDA programs.

From an agriculture production standpoint, incorporating spelt into an existing crop rotation has benefits to natural resources overall with improvement to soil and water quality. Spelt typically uses less fertilizer (e.g., Spelt requires about 25-50% less nitrogen than wheat) and chemicals for weed control than conventional crops and it can be utilized as an alternative cover crop. Spelt is drought tolerant and does not require irrigation, making it similar to native grasses.

Since Landis Sewerage Authority only harvests the spelt for straw production in late summer, the grain seeds of the spelt will also provide nutritious wildlife forage, as well as, critical cover during breeding season and winter for many birds. Combined with the land management practices implemented by Landis in corporation with NJ Audubon, NJDFW, and the USDA-NRCS Working Lands for Wildlife Program the project has significant potential to be a model to resolve how to provide critical wildlife habitat, especially for Bobwhite Quail and other early successional reliant wildlife, on agricultural production land without sacrificing agricultural commodity (food) production.



Mannington Mills & Chemours

During a cold and wintery weekend in early December 2016, over 80 volunteers put on their hats and gloves and came out to help New Jersey Audubon's Stewardship staff plant 1,320 native trees and shrubs on a working farm in Salem County owned by Mannington Mills. The agricultural land that Mannington Mills owns is managed by a local farmer, who grows peppers, corn, soybeans, and spinach on site. The volunteers helped plant the bare root trees and shrubs along an irrigation pond that eventually connects with Fenwick Creek. This newly planted area will help to protect the waterway by filtering out runoff while providing food and cover for wildlife.

Students from the Salem County Vo-Tech School and Mannington Township School, along with staff from Corporate Stewardship Council members Mannington Mills and Chemours, came out and planted hundreds of trees and shrubs on just the first day. On the following day, the Quinton Boy Scouts, Alloway Daisy Girl Scouts, Salem County 4-H Club, and the Adventure Aquarium's Community & Urban Science Enrichment Program (CAUSE) came out to finish planting the remaining trees and shrubs.

The project is a part of the Delaware River Watershed Initiative, a multi-state effort designed to improve water quality and quantity throughout the watershed. In support of the DRWI, at this same site in Salem County, earlier in 2016 warm season grasses were installed between the field and the wetlands and pollinator habitat was planted along the roadside. Like the trees and shrubs, these strips of vegetation will help protect the waterways by catching eroding soil or nutrients that may runoff from the fields.

The work done on this property is supported by Mannington Mills, the local farmer, and the USDA's Natural Resources Conservation Service and Farm Service Agency. Work within the Delaware River Watershed is supported by the William Penn Foundation and the National Fish and Wildlife Foundation.



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Pine Island Cranberry Co.

According to the National Audubon Society, the Northern Bobwhite Quail (NBW) has suffered the most severe population decline of any North American bird (a rate of 82% in the last forty years). In New Jersey, Northern Bobwhite population trends are among the most negative of any state, in fact the species is believed to be functionally extinct in the state. This is primarily due to a change in farming practices, conversion of farmland to suburbia and an overall lack of early successional habitat, including young forest. This young forest-early successional habitat is critical for nesting, resting, escape cover, and food resources for the Bobwhite, as well as other species. However, according to the most recent (2015) Forest Inventory and Analysis (FIA) Program of the U.S. Forest Service statewide data for NJ, the 0-20 year-old forest age class (young forest) acreage has declined from 511,845 acres in ~ 1955, to the current level of 111,526 acres (2015). This represents a long-term average decline of roughly 6,672 acres/year. If the average continues, young forests (0-20 YO age class) will be statistically non-existent by the year 2032. This decline in young forest habitat does not bode well for sustaining species that rely on this habitat type for survival, including the Bobwhite Quail.

To address the loss of critical habitat to support Bobwhite in NJ and to bring attention to the need for active forest management in NJ, NJ Audubon (NJA) identified the Pine Island Cranberry Company (PICC), a member of the NJA Corporate Stewardship Council, as the model site in NJ to participate in a multiyear/multistate study on evaluating translocation of wild Bobwhite quail as a viable method of creating a sustainable wild population of Bobwhite back to its historic range.

Beginning in 2015, PICC, along with project partners NJ Audubon, Tall Timbers, NJDFW, the University of Delaware and Pine Creek Forestry conducted the first release of wild Bobwhite translocated from Georgia to the PICC study site. Since then, a total of 240 wild birds have been released and radio tracked via telemetry at the PICC site, a total of 39 nests have occurred (1st confirmed nesting of wild Bobwhite in NJ since the 1980s), 116 confirmed chicks have hatched, birds were confirmed to over-winter from year to year, a confirmed nest success of double-clutching and confirmed nest success of a male incubating nest to fruition were also achieved.

This success reflects the quality of habitat on the PICC site that was achieved through their land management. By performing active management on the land, a balance of different cover types for nesting, brood rearing, and foraging allowed for the translocated Bobwhite to take advantage of their naturally high reproductive potential. These positive preliminary project results coupled with the outstanding forestry stewardship practices at the PICC site were directly responsible for, the first time ever in New Jersey, the allocation of federal funding in 2017 through the USDA-NRCS Working Lands for Wildlife Program specifically for quail habitat restoration in NJ. This is significant for NJ, when you consider that the only other states that have pine savannahs (Al, FL, GA, KY, IL, IN, MO, NC, OH, SC VA) BUT have an established Bobwhite quail population were the only other recipients of the federal funding. This is a major opportunity for other private landowners and farmers to be part of the recovery of the Bobwhite in NJ and take advantage of a cost share program, that had never been offered in NJ before, and will help establish additional quality habitat for quail and other species, while also helping to address forest health issues such as fuel load reduction, control of forest diseases and pests, and ultimately successful regeneration and forest function.

In 2017 Pine Island Cranberry Company was awarded NJ's first ever Firebird Award by the National Bobwhite Conservation Initiative (NBCI) for their contributions to New Jersey's efforts toward habitat-based restoration of wild bobwhite populations.



Trump National Golf Club

In 2017 Trump National Golf Club installed additional acres of native warm-season grasses and wildflowers, as native warm-season grasses and wildflowers, as well as restored a 10,000-square foot wetland area with native plantings as part of its overall habitat improvements at its Bedminster, NJ. Trump National Golf Club began habitat restoration efforts on the property in 2014 with large scale invasive species removals, native grass seeding and riparian plantings to benefit migratory bird and pollinators. Since then, they have continued to provide stewardship efforts to maintain the habitat while incorporating additional areas of habitat restoration when possible.

All restoration efforts at the property (which is receiving global attention due to US President Donald Trump's frequent visits to the site), are part of the USFWS Partners in Fish and Wildlife Program. Though the installation of native plants at the property a variety of bird, amphibian and butterfly species have been documented to be actively utilizing the property as breeding grounds.

Everything from rare species such as Bobolink and Savannah Sparrow to common species such as Song Sparrow and Tree Swallow, to the brilliant Indigo Bunting and Baltimore Orioles are utilizing the new habitat areas. Numerous pollinators such as butterfly species and native bees are also thriving at the site because of the native vegetation that is providing suitable forage and breeding areas. Given this diversity of wildlife, it is not surprising that a golf course that is implementing habitat improvements are recognized as being increasingly important for nature conservation. The site basically offers comparatively stable areas within an ever-changing landscape in which wildlife can find refuge.

"Working with the USFWS and NJ Audubon has been a tremendous success on many levels. They have consulted on transforming vast acres of our property with native plant species which has enhanced the beauty of the course and increased wildlife habitat. The process has been both fun and educational for staff and membership." said David Schutzenhofer General Manager, Trump National Golf Club.



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PSEG

Since 2011, PSE&G has been working with the stewardship and research departments at New Jersey Audubon in an effort to maximize vegetation management requirements and wildlife needs, on power line right-of-way. PSE&G, co-chair of NJ Audubon Corporate Stewardship Council, is supporting the development of best-management practices for routine vegetation maintenance on the company's transmission line corridors in order to provide critical habitat for various species of conservation need.

Preliminary survey results are suggesting that a variety of target scrub-shrub bird species are using transmission line corridors in New Jersey for portions of their life-cycle including breeding and foraging areas. Additionally, data that has been collected via the survey work continues to suggest a link between improving habitat conditions via vegetation management along the right-of-ways for several herptile species, including two State Species of Special Concern, the Marbled Salamander and Eastern Box Turtle.

The Before After Control Impact (BACI) design used by NJ Audubon in this study, coupled with a Structured Decision Making approach, allows NJ Audubon to make scientifically based recommendations for modifying PSEG management protocols that improve critical habitat for rare, threatened and endangered species, while satisfying the company's regulatory requirements for vegetation management.

The BACI design allows NJ Audubon to identify the most effective management alternatives and model predicted outcomes, and results of post-management surveys allow us to verify and adjust the models, thus commencing an iterative Adaptive Resource Management (ARM) process.

Highlights of the 2017 survey work on the ROW are:

- Span-specific guidelines for 20 spans in the Newark Watershed/Sparta Mountain area that are critical GWWA habitat.
- Second year of finalized maintenance treatments implementation. Maintenance treatments will be implemented in stages over a 6-8 year period (began in 2016).
- Documented Golden-winged Warblers at the ROWs for 6 consecutive years



JCP&L and Crystal Springs Resort

Jersey Central Power & Light (JCP&L), Crystal Springs Resort, New Jersey Audubon, and the United States Fish and Wildlife Service (USFWS) have successfully collaborated to create new habitat for bees, butterflies and birds in Franklin, New Jersey.

The first collaborative project between CSC members spans along an existing JCP&L right-of-way (ROW) at the Black Bear Golf Club, located at the Crystal Springs Resort, and involves incorporating low-growth vegetation with native grasses and wildflowers to form a pollinator area.

“JCP&L is pleased to have collaborated with Crystal Springs Resort, New Jersey Audubon and USFWS in this unique and important habitat project,” said Jim Fakult, president of JCP&L. “We have worked together to protect the environment, remain good corporate stewards and create lasting value in the communities we serve.”

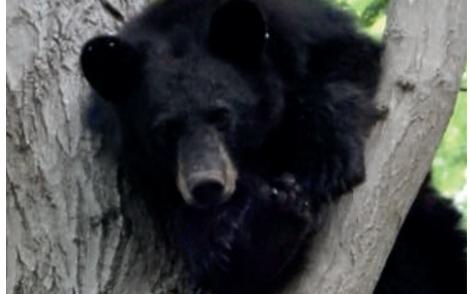
The Black Bear Golf Club is positioned in the middle of five recognized New Jersey Important Bird Areas. The work also included removing invasive no-native vegetation and encouraging more native vegetation to support native avian species including field sparrows, prairie warblers, blue winged warblers and indigo bunting.

“We are excited to be working with forward thinking stewardship partners like Jersey Central Power & Light and Crystal Springs Resort”. stated Eric Stiles, president and CEO of NJ Audubon, “Together we have taken the right steps in protecting some of our most valuable natural resources such as birds, pollinators and the habitat that supports them. This land management adds to the natural beauty that already greets resort guests.”

“The Crystal Springs Resort possesses incredibly beautiful and important habitat and we are thrilled to be partnering with New Jersey Audubon and JCP&L in pursuit of ongoing environmental stewardship,” said Art Walton, vice president of Crystal Springs Resort. “As a destination resort and community hub, we have a unique opportunity to promote our region’s natural assets for the benefit and enlightenment of many.”

The work with USFWS supports habitat development. “Crystal Springs Resort will have an important impact on wildlife habitat through its interest and commitment to land stewardship,” said Brain Marsh, former program coordinator for the USFWS Partners for Fish and Wildlife program. “With good land stewardship and working with other Corporate Stewardship Council members and partners, habitat values can be enhanced for rare pollinator insects and migratory birds on their properties.”

This work between JCP&L and Crystal Springs will increase biodiversity and benefits not only wildlife and other natural resources, such as improved soil health and water and air quality, but will also provide educational opportunities. Specifically, interpretative signage will be placed strategically around the course to offer to all the visit the property a chance to learn about the importance of native plants, habit



CSC Project Sites in Stewardship Mode or Project Development is Underway

The idea that Nature is incapable of sustaining itself without intervention by humans is troubling. The unfortunate reality is that human civilization has deprived many natural systems of their ability to self-regulate. Fire suppression, river damming and channelization, ditching, diking, and draining wetlands have suppressed restorative ecosystem processes like flood and fire. Additionally, the integrity of our natural ecosystems is adversely influenced by land use changes, climate change, changes in management techniques, non-native species and overpopulation of native damaging species. So as natural forces that shape ecosystems fade away, plant and animal species dependent upon habitat regeneration also disappear. As habitat diminishes in extent, remnant patches become increasingly fragmented and isolated from each other.

Even when large acreages are purchased or designated exclusively for species preservation, species could still disappear, along with their habitats, without active management. Acquisition and restoration alone is clearly not enough for them. These areas need long-term stewardship to sustainably maintain critical habitat for various species and proper ecosystem function.

Since land ownership is an investment for most or a business investment that helps drive the economy, no rational land owner would knowingly disregard their responsibilities toward stewardship of their investment. The New Jersey Audubon Corporate Stewardship Council recognizes this and is committed to restoring and MAINTING these natural resources and habitat for New Jersey's diverse flora and fauna.

New Jersey Audubon commends the other current CSC members that after site restoration or plan implementation, are stewarding their lands and CSC project sites and/or are working to develop projects because as land owners, NJA recognizes the demanding effort and responsibilities that each member has in the conservation of natural resources and the well-being of their communities. These CSC members include:

- Covanta Energy
- Suez
- US Silica
- South Jersey Gas
- NJ American Water
- Johnson & Johnson
- Verizon
- Eastern Propane
- NJM Insurance Group
- Pfizer

The CSC would also like to thank our ex-officio CSC members the New Jersey Department of Environmental Protection (NJDEP) and the United States Fish and Wildlife Service (USFWS) for their assistance, guidance and support for our projects.



What Makes the CSC Different from other Conservation Councils?

Ecological restoration *AND* stewardship of those restored or preserved lands are endeavors of public concern, even if it is conducted on privately owned land without public expenditure. A restored ecosystem that is MAINTAINED over time provides beneficial natural services well beyond property boundaries. We depend on ecological goods and services everyday for our health, social, cultural, and economic needs. Ecological functions are the base resources that sustain our lives. The sustainability of communities and economies depends upon our ability to restore *AND* steward the ecological functions of our landscapes for future generations.

CSC members understand that their projects must be supported by providing on-going stewardship activities. By performing these stewardship actions voluntarily as part of the CSC, our members show leadership in the business community by providing an example of corporate social responsibility towards our environment. Additionally, stewardship actions ensure the ecological integrity of the lands that our CSC members helped restore in previous years continue to provide valuable environmental services to all that live here. How we care for our environment through conservation and stewardship is the key to a meaningful, healthy and enjoyable existence.





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The New Jersey Audubon is a privately supported, not-for profit, statewide membership organization. Founded in 1897, and one of the oldest independent Audubon societies.

New Jersey Audubon fosters environmental awareness and a conservation ethic among New Jersey's citizens; protects New Jersey's birds, mammals, other animals, and plants, especially endangered and threatened species; and promotes preservation of New Jersey's valuable natural habitats.



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Photos courtesy of John Parke, Kristin Meistrell, Brittany Dobrzynski, Bill Dalton and Kristin Mylecraine, Ph.D.

Notes