



New Jersey Highlands
Water Protection and Planning Council

ANNUAL REPORT 2019

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State of New Jersey
 Highlands Water Protection and Planning Council
 100 North Road (Route 513)
 Chester, New Jersey 07930-2322
 (908) 879-6737
 (908) 879-4205 (fax)



PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

CARL J. RICHKO
Chairman

LISA J. PLEVIN
Executive Director

A Message from the Chairman and Executive Director

Dear Friends of the New Jersey Highlands,

As the release of this report has been delayed due to Covid-19, we would be remiss not to acknowledge the dramatic challenge facing us all. In these difficult times, the work of public servants is more crucial than ever, and we offer our sincere thanks to all those working to maintain the health and safety of New Jersey’s residents.



On behalf of the New Jersey Highlands Water Protection and Planning Council, we are pleased to present this 2019 Annual Report.

In 2019, the Highlands Council continued to support municipalities and counties in numerous efforts to protect the natural resources and strengthen the diverse economies of the Highlands Region. Some highlights include our work advancing lake management, stormwater management, and watershed management planning projects. These efforts were particularly relevant last year, given the Harmful Algal Blooms that plagued lakes throughout the state.

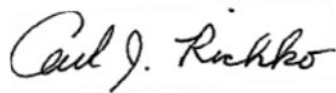
Highlands staff also worked in conjunction with government and nonprofit partners, and through the Highlands Development Credit Bank, to protect hundreds of acres via deed restrictions or outright land purchases. Land preservation continues to be a vital component of implementing the Highlands Act and the Regional Master Plan (RMP).

Internally, the Highlands Council worked to strengthen the RMP through amendments and procedures that further define our processes and allow our mission to move forward. We also initiated several projects that improved our Geographic Information Systems (GIS) capabilities, which provide the backbone of the Highlands Council’s work.

In 2019, we also focused on the importance of a regional approach to the many challenges facing the Highlands. Several major projects were launched, including a far-reaching stormwater management

study, county planning projects with Hunterdon and Warren Counties, and a Highlands Regional Economic Sustainability Plan project.

As we look forward in 2020, we anticipate that the municipalities and counties of the Highlands Region will face unprecedented challenges. The Highlands Council remains committed to assisting them and to ensuring the ongoing protection of the New Jersey Highlands Region.



Carl J. Richko, Chairman
Highlands Water Protection and Planning Council



Lisa J. Plevin, Executive Director
Highlands Water Protection and Planning Council



Please note that Highlands Council financial reporting follows a Fiscal Year that begins July 1 and ends June 30, while this 2019 Annual Report summarizes activities for the calendar year. For this reason, the Statement of Activities and Financial Report found on page vi, includes portions of both Fiscal Year 2019 and Fiscal Year 2020.

Complete Highlands Council Financial Reports are available on the Highlands Council website at: www.nj.gov/njhighlands/news/audit_reports.html.

Executive Director Certification

As required by State Executive Order #37, all State authorities are required to certify that during the preceding year, the authority has, to the best of its knowledge, followed all of the authority's standards, procedures, and internal controls. I hereby certify to the best of my knowledge that, during the 2019 calendar year, all of the Council's standards, procedures, and internal controls were followed.



Lisa J. Plevin
Executive Director
New Jersey Highlands Water Protection and Planning Council

Highlands Water Protection and Planning Council 2019



Carl J. Richko, Chairman
West Milford, Passaic County
Former Mayor,
West Milford Township



Kurt Alstede, Vice Chairman
Chester Township, Morris County
Founder, Alstede Farms
Former Councilman,
Chester Township



Robert F. Holtaway, Treasurer
Bedminster, Somerset County
Former Mayor,
Bedminster Township



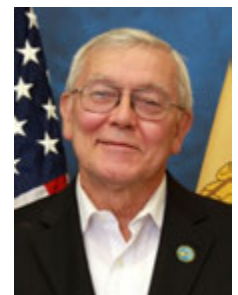
Tracy Carluccio
East Amwell, Hunterdon County
Deputy Director, Delaware
Riverkeeper Network



Timothy P. Dougherty
Morristown, Morris County
Mayor, Town of Morristown



Michael R. Dressler
Cresskill, Bergen County
Bergen County Surrogate



Michael Francis
Hopatcong, Sussex County
Mayor, Hopatcong Borough



Bruce James
Clifton, Passaic County
Freeholder, Passaic County



Michael Sebetich
Hawthorne, Passaic County
Retired Professor of Biology,
William Paterson University



James A. Visioli
Dover, Morris County
Former Alderman,
Dover Town



Richard Vohden
Andover, Sussex County
Former Freeholder,
Sussex County



Robert G. Walton
Hampton, Hunterdon County
Former Freeholder,
Hunterdon County

The Highlands Council

The Highlands Council is a 15-member appointed body tasked with implementation of the Highlands Act. The Council is advised in its actions by a staff of planning, science, geographic information system (GIS) and administrative professionals, based in Chester, NJ. There are currently three vacancies on the Council.

Protecting the New Jersey Highlands

The New Jersey Highlands Region stretches from the banks of the Delaware River in Warren and Hunterdon Counties to the New York State border along northern Sussex, Passaic, and Bergen Counties (see map right). The Highlands Region covers approximately 1,300 square miles and includes 88 municipalities and portions of seven counties (Bergen, Hunterdon, Morris, Passaic, Somerset, Sussex, and Warren).

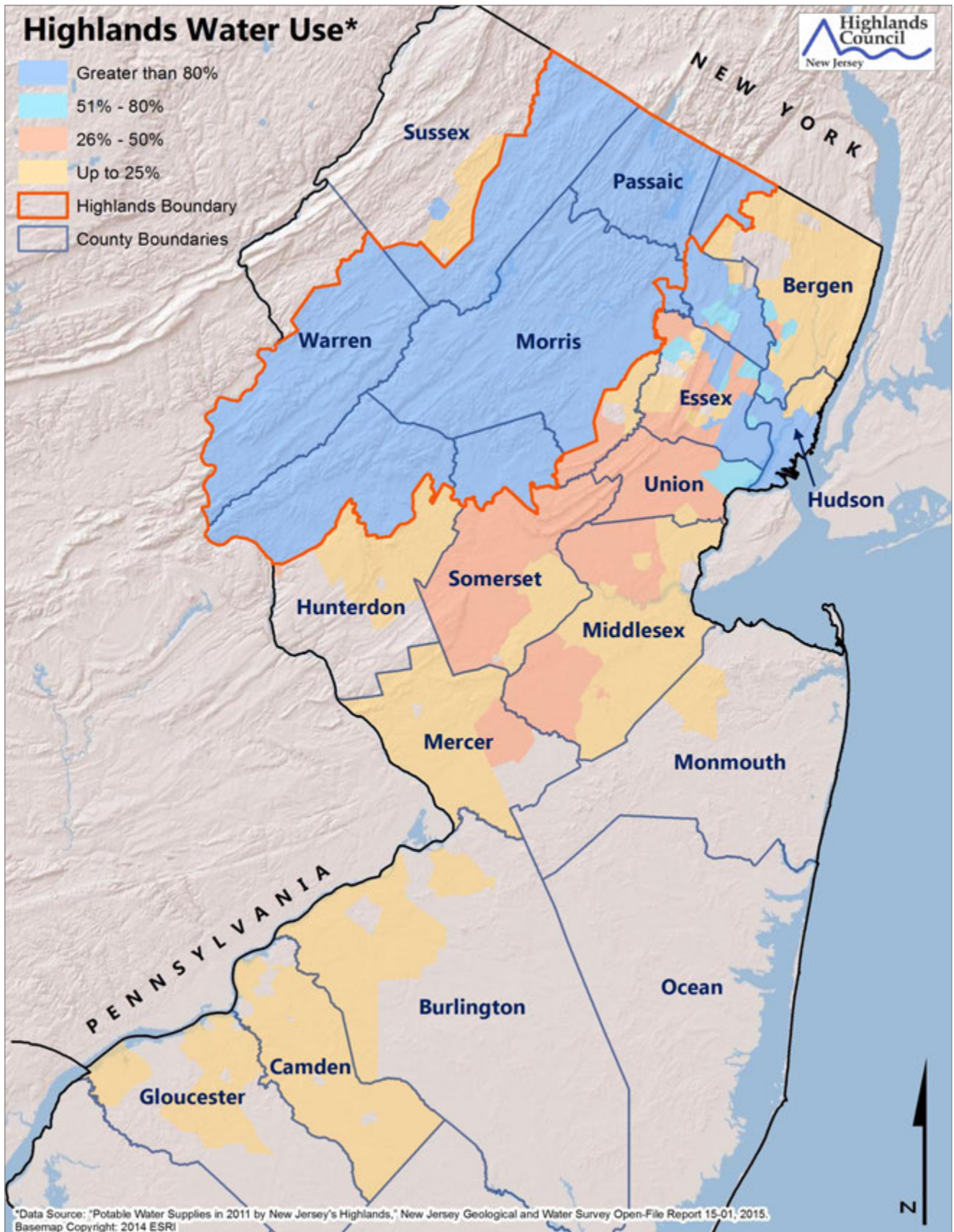
Although the region covers less than 15% of the state's land area, it provides drinking water to more than 300 municipalities that are home to 70% of New Jersey's population. Recognizing the significant natural, cultural and agricultural value of the region, the State Legislature of New Jersey passed the New Jersey Highlands Water Protection and Planning Act (Highlands Act) in 2004, to protect both the natural resources and the economic viability of communities within the region.

The Highlands Act established the New Jersey Highlands Water Protection and Planning Council (Highlands Council) as a regional planning agency and charged it with the creation and adoption of a regional master plan to protect and enhance the natural resources within the New Jersey Highlands. The Highlands Regional Master Plan (RMP) was adopted by the Highlands Council in 2008.

The Highlands Council works in partnership with municipalities and counties in the Region to encourage a comprehensive regional planning approach to implementation of the Highlands Act. This implementation is guided by the Regional Master Plan (RMP).



The federal Highlands Region stretches from Southeastern Pennsylvania through parts of New Jersey, New York and into Connecticut. Recognizing the significance and value of the resources within this region, the State Legislature of New Jersey passed the Highlands Water Protection and Planning Act (the Highlands Act) in 2004.



The Highlands Region covers less than 15% of the state's land area, but provides drinking water to more than 300 municipalities that are home to 70% of New Jersey's population. While the region's forests and open spaces retain and filter large quantities of water, sprawl development has impacted communities and impaired nature's ability to do that job. Because families, farms and businesses all depend on a steady supply of clean water, and water resources do not follow municipal boundaries, a regional approach is required to protect and conserve the vital natural resources of the Highlands.

Statement of Activities and Financial Report

period ending December 31, 2019

General Operating Budget FY19 - July 1, 2018 through June 30, 2019	
REVENUES:	
State of New Jersey Appropriation FY19	\$ 2,315,000.00
Balance from FY18	\$ 138,871.80
Miscellaneous Revenues & Reimbursements	<u>\$ 9,458.53</u>
Total	\$ 2,463,330.33
EXPENDITURES:	
Salaries	\$ 1,666,874.95
Materials and Supplies	\$ 27,862.59
Other Operating Expenses	\$ 114,322.94
Maintenance and Repairs	\$ 235,627.98
Equipment, Additions, and Improvements	\$ 104,902.04
Transfer to RMP Account	\$ 148,125.05
Balance through June 30, 2019	<u>\$ 165,614.78</u>
Total	\$ 2,463,330.33
General Operating Budget for Portion of FY20 - July 1, 2019 through December 31, 2019	
REVENUES:	
State of New Jersey Appropriation FY20	\$ 2,315,000.00
Highlands Balance from FY19	\$ 165,614.78
Miscellaneous Revenues & Reimbursements	<u>\$ 3,000.00</u>
Total	\$ 2,483,614.78
EXPENDITURES:	
Salaries	\$ 814,450.02
Materials and Supplies	\$ 13,416.39
Other Operating Expenses	\$ 51,294.95
Maintenance and Repairs	\$ 124,372.00
Equipment, Additions, and Improvements	\$ 31,505.01
Balance through June 30, 2020	<u>\$ 1,448,576.41</u>
Total	\$ 2,483,614.78
Regional Master Plan Budget for Portion of FY20 - July 1, 2019 through December 31, 2019	
REVENUES:	
Balance from FY19	\$ 1,791,427.95
Miscellaneous Revenues & Reimbursements	<u>\$ 10,000.00</u>
Total	\$ 1,801,427.95
EXPENDITURES:	
Contracts Paid to Date	\$ 179,566.43
Balance on Approved Contracts	\$ 924,832.33
Balance through June 30, 2020	<u>\$ 697,029.19</u>
Total	\$ 1,801,427.95

❖ Implementing the Regional Master Plan

The Highlands Regional Master Plan (RMP) provides a framework for implementing the Highlands Act at the local level. Programs are outlined in the RMP for management of Natural Resources; Water Resources and Utilities; Agricultural Resources; Historic, Cultural, Archaeological and Scenic Resources; Transportation; Future Land Use; Landowner Equity; Sustainable Economic Development; and Air Quality. Grant funding is available to support this work.

Conformance with the RMP is required by the Highlands Act throughout the Preservation Area and is voluntary in the Planning Area. The conformance process involves the revision of local planning and regulatory documents to integrate the land use provisions and resource management protections of the Highlands Act, so that those documents align with the goals, policies and objectives of the RMP.

Funding Implementation Projects

The Highlands Plan Conformance grant program is a reimbursement-based program in which municipalities and counties work in collaboration with Highlands Council staff to identify and prioritize projects that help implement the Highlands Act and Regional Master Plan (RMP) at the local level. The Highlands Act requires the Highlands Council to provide this funding and established the Highlands Protection Fund to support this work.

Since the Plan Conformance grant program was established in 2008, the Highlands Council has provided 75 municipalities and 5 counties with reimbursements totaling \$6.8 million for Plan Conformance activities.

In 2019, the Highlands Council provided a total of \$415,171 in reimbursements to 14 municipalities and two (2) counties for completion of Plan Conformance tasks. Below is a summary of representative grant reimbursements from 2019.

2019 Plan Conformance Grant Reimbursements*		
Plan/Activity	Number of Grantees	Total Investment
Build Out, Fair Share Plans, Implementation Plan Updates	6	\$69,690.55
Highlands Center Plans, Redevelopment Plans, Sustainable Economic	6	\$62,658.38
Water Use and Conservation Management Plans	4	\$20,628.49
Wastewater or Alternative Wastewater Management Plans	3	\$62,839.76
Master Plan Reexamination Reports	3	\$26,855.00
Habitat Plans, Stream Restoration Plans	3	\$32,062.75
Stormwater Management Plans	1	\$63,916.00

**This table represents a portion of total reimbursements made in calendar year 2019.*



Harmony Township, Warren County

The Critical Role of Counties in Regional Planning

In 2019, the Highlands Council adopted revised Plan Conformance procedures that recognized the unique role of county governments in implementation of the Highlands Act and RMP. For counties within the Highlands, conformance is focused on areas most relevant to county jurisdiction, including roadway improvements and stormwater systems. In addition, the Highlands Council can offer grant funding to support county initiatives that advance other RMP priorities such as Sustainable Economic Development, Tourism, Farmland Preservation, and Agricultural Retention and Expansion.

Currently, Passaic and Somerset Counties have approved Plan Conformance petitions, and the Highlands Council is working with the other five Highlands counties in various capacities. In 2019, the Highlands Council continued its successful partnership with Hunterdon County and initiated a new project with Warren County.

- **Hunterdon County.** The Highlands Council has been working in partnership with Hunterdon County for several years as the county continues its focus on sustainable economic activities. The Highlands Council funded three phases of a comprehensive Tourism Study, which was completed in 2019 and led to the development and launch of an exciting new initiative, the Hunterdon Tourism Partnership. The Partnership is a nonprofit organization that will work to help implement the recommendations in the study. Hunterdon County has also been actively pursuing conformance with the Highlands RMP, following a resolution passed by the Freeholder Board authorizing the submission of a petition for Plan Conformance. In 2019, the County submitted numerous draft documents for the petition, which is expected to be completed before the end of 2020.

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- **Warren County.** In early 2019, Highlands Council staff began meeting with Warren County to discuss opportunities to support county efforts that align with the goals of the Highlands RMP. Through these meetings, the County identified the need for a Transportation Study that will examine the impact of truck and automobile traffic in industrially zoned areas of the county. A scope of work was submitted and approved in the fall and members of the Highlands Council staff attended a kickoff meeting with all constituent municipalities in December. The project is expected to be completed in 2020.

Improving the Regional Master Plan

In 2018 the Highlands Council completed its first-ever review of the RMP and memorialized the findings in the Monitoring Program Recommendation Report (MPRR). In 2019, the Highlands Council adopted two important addenda to the RMP and released revisions to existing procedures, based on recommendations from the MPRR.

Addendum 2019-1: Highlands Redevelopment Area Designation Procedures

Adopted in March 2019, this addendum summarizes the Council's process for designating a Highlands Redevelopment Area as required by the Highlands Act.

Addendum 2019-2: Plan Conformance Procedures

Adopted in July 2019, this addendum outlines the process by which a municipality or county revises its local master plan and development regulations to bring them into alignment with the goals, requirements, and provisions of the Highlands Act and the RMP.

Project Review Procedures and Standards

In June 2019, the Highlands Council published Project Review Procedures and Standards. The document describes the process by which Highlands Council staff conduct statutorily required reviews and provides the standards against which projects are reviewed.

Extended Outreach Efforts Yielding Results

In 2018, the Highlands Council launched a renewed effort to engage with municipalities, counties and the public. These successful efforts continued into 2019. Of particular note, as a result of this outreach, four municipalities and one county that had never worked with the Council, or had slowed activities, passed resolutions or initiated new projects in 2019.

- The Town of Boonton in Morris County completed an Initial Assessment Report and in 2019 presented it to the planning board and the governing body. The Highlands Council anticipates the Town will move forward with plan conformance in 2020.
- Franklin Borough in Sussex County passed a Plan Conformance resolution in January and submitted an Initial Assessment Report that was approved by the Highlands Council staff in June.
- Parsippany-Troy Hills Township in Morris County began work on examining local documents for alignment with the RMP in 2019. Highlands Council staff approved the Township's work

plan and in early 2020, the municipality adopted a Planning Area Petition Ordinance. Parsippany-Troy Hills had previously rescinded its Planning Area petition.

- Washington Borough in Warren County passed a Plan Conformance resolution in February.
- Warren County received approval from the Highlands Council in October for funding to support transportation planning. This project kicked off in December.

In addition, the Highlands Council staff attended a record number of conferences and other events in 2019. The Highlands Council participated as speakers and/or had informational tables at key events throughout the state. A few highlights include:

- Staff led an informational session about the benefits of Plan Conformance at the Northwest Jersey Rivers Conference in March. The presentation provided an overview of how the Council works in partnership with municipalities and counties, highlighting Highlands-funded projects in the Delaware River Watershed.
- The Highlands Council partnered with the NJ Brownfields Interagency Working Group to host a Redevelopment Forum in May at the Highlands Council office in Chester. The workshop provided municipalities and redevelopment professionals in the Highlands with active guidance on rehabilitating contaminated and/or abandoned properties for community, economic and environmental benefit.
- Staff led a tutorial of our interactive mapping tools for environmental commissioners at the annual Association of New Jersey Environmental Commissions (ANJEC) Congress in October.
- The Highlands Council hosted a Complete Streets Training in October in partnership with the North Jersey Transportation Planning Authority (NJTPA), the Voorhees Transportation Center (VTC) at Rutgers University, the New Jersey Department of Transportation, and Sustainable Jersey. The session was well attended with representation from many Highlands communities.
- For the sixth year, the Highlands Council had an exhibit booth at the annual New Jersey League of Municipalities conference, where staff interacted with more than 100 individuals and provided information about the work of the Council. In the fall, the Highlands Council participated in the Sussex County Harvest, Honey and Garlic Festival for the ninth year and Warren County Preservation Day for the fourth year.



❖ Keeping Highlands Lakes Healthy

In 2019, residents of the Highlands Region became acutely aware of the importance of proper lake management. Headlines throughout the summer splashed the term “Harmful Algal Bloom” or “HAB” and anyone who had not heard the phrase before quickly became familiar with it.

A HAB is an algal bloom that can be dangerous to people, animals or the environment. Some HABs produce chemicals that can be toxic to humans and animals through contact or if ingested or inhaled. These toxins can also accumulate in fish and shellfish and can cause illness when consumed. A number of factors contribute to the development of HABs, many of which can be controlled through proactive lake management.

The Highlands RMP contains several goals related to lake management and accordingly, the Highlands Council offers grant funding and expertise to help municipalities manage and help prevent HABs. The Highlands Plan Conformance process recommends and can fund a variety of plans, including stormwater management, septic system management and maintenance, wastewater management, alternative wastewater planning, stream corridor protection and restoration, and more. The Highlands Council is currently funding several significant lake management projects that will help to reduce HABs in the future.

Lake Hopatcong

Although several lakes in the region – including Greenwood Lake, Lake Musconetcong, and Budd Lake – were affected by HABs in 2019, none received as much public attention as Lake Hopatcong, the largest freshwater lake in New

Jersey. The lake was closed to swimming for nearly the entire summer season due to a persistent HAB. Local businesses were devastated, and residents and visitors were unable to enjoy this valuable natural resource.

The HAB which occurred last summer at Lake Hopatcong appears to be the result of several factors happening at once: significant rainfall, warm weather, stagnant water and excessive nutrient loading, specifically phosphorus. Phosphorus can be present in fertilizers and detergents and can be released from failing septic systems. It also can be naturally occurring in certain soils. Phosphorus overloads going into a lake can occur from stormwater runoff, wildlife droppings, failing septic systems, an overabundance of lake weeds, and erosion.

A Highlands Council-funded update to Lake Hopatcong’s 2006 Lake Restoration Plan was already in progress as the HAB developed last



Lake Hopatcong State Park, Hopatcong Borough, Sussex County

summer. The update was specifically designed to expand the plan's recommendations and suggest additional ways to reduce phosphorus. The data collected has been instrumental in helping scientists recommend solutions. The grant award to the Lake Hopatcong Commission for this project was \$109,000. All these efforts will contribute to improved lake health.

All restrictions on Lake Hopatcong were lifted by October. The Highlands Council continues to work closely with the Lake Hopatcong Commission, the Lake Hopatcong Foundation, the NJDEP, and the municipalities around the lake to support lake management efforts that can help reduce or prevent future HABs.

Greenwood Lake

For Greenwood Lake, which also experienced a very significant HAB in the summer of 2019, the Highlands Council funded an important update to Greenwood Lake Commission's Watershed Implementation Plan (WIP). The project provided an update to a 2006 Lake Restoration Plan, which had resulted in a significant reduction in the targeted phosphorus load but required an update to better reflect current lake conditions. While the WIP focused on the New Jersey end of the watershed, since the Commission is a bi-state organization, information and findings will be shared with the New York end of the watershed.

The Draft WIP was presented to the Greenwood Lake Commission in January 2020. It incorporates the results of a concerted water quality sampling effort with numerous recommended implementation projects designed to address pollutant loading. The award to the Greenwood Lake Commission for the creation of the WIP was \$91,000.

Ringwood Borough Lakes

Ringwood Borough has numerous small lakes, some of which are privately owned and managed and some are owned by the Borough. While no lakes in Ringwood experienced HABs in 2019, Cupsaw Lake was affected in 2018, closing the beach to all recreation. The Borough Lakes Committee and the Borough Council collaboratively requested grant funding from the Highlands Council for the preparation of a Watershed-Based Assessment of watersheds feeding four lakes in the Borough. This regional approach to watershed planning recognizes that lakes are on the receiving end of impairments from the watersheds that feed them. These impairments include uncontrolled stormwater runoff, failing septic systems, nuisance weed production, stream corridor degradation, and other non-point sources of pollutants.

Recommendations for projects to improve each lake's watershed quality will be developed following the collection of water quality data and intensive pollutant loading modelling. The grant awarded to Ringwood Borough was \$91,555.

Inter-Agency Coordination and Outreach

Throughout the remainder of 2019 and continuing into 2020, the Highlands Council coordinated closely with the NJDEP, the lead agency responsible for monitoring and responding to the HABs. Highlands staff also increased outreach to municipalities regarding grant opportunities for planning projects that will contribute to improved lake health and could reduce future algal blooms. By late October 2019, the majority of HAB advisories in the New Jersey Highlands had been lifted.

In November and December, Governor Murphy announced over \$13 million in funding to local communities for HAB prevention. The Highlands Council continues to work with the

NJDEP and affected towns and counties, to ensure the coordination and maximum effectiveness of available grant funds.

❖ **Advancing Preservation Projects**

The Highlands Council operates two land preservation programs: The Highlands Open Space Partnership Funding Program (OSP) and Highlands Development Credit Purchase Program (HDCPP). Both programs are designed to increase protection of Highlands resources, while also advancing landowner equity priorities through acquisition or deed restriction of land throughout the region. They also fill a unique need among other preservation programs in the state since parcels of any size may qualify and the programs will consider applications for land that is forested, agricultural and/or mixed use. The programs are administered under the provisions of N.J.A.C. 7:70, Highlands Open Space Partnership Funding and Highlands Development Credit Purchase Program.

Open Space Partnership Funding Program

The Highlands Council OSP is a matching grant program that is open to government and nonprofit entities. The Highlands Council provides up to a 50% match for acquisitions in fee simple or via deed restriction. Funding provided by the Highlands Council may only be used by project partners to support acquisition costs as payments to property owners.



Highlands Open Space Preservation Property, Bedminster Township, Somerset County | photo by Norm Goldberg

Since launching in 2016, the OSP has preserved more than 2,800 acres. In 2019, the Highlands Council completed two transactions in collaboration with project partners, preserving more than 140 acres.

2019 Open Space Partnership Funding Program Closings				
Property Location	Acres	Project Partners	Total Acquisition Cost	Highlands Council Contribution
Washington Township, Warren County	95.05	Warren County	\$446,725.60	\$223,362.80
Bedminster Township, Somerset County	48.71	Lamington Conservancy, SADC	\$1,669,500.00	\$400,000.00

Highlands Development Credit Purchase Program

The HDCPP is a deed restriction program open to individual property owners wishing to retain ownership of their property while placing a conservation easement on the land. In 2019, the Highlands Council completed 11 HDC transactions, permanently protecting resources on 618 acres and providing more than \$4.9 million to property owners. For complete details on the HDC Purchase Program, see the Highlands Development Credit Bank Report beginning on page 19.

Highlands Conservation Act Grant

The federal Highlands Conservation Act (HCA) Grant Program provides financial assistance for land preservation projects in the four-state federal Highlands Region, which includes Pennsylvania, New York and Connecticut, in addition to New Jersey. Since 2016, the Highlands Council has been the lead New Jersey state agency in the program.

In December 2019, the Highland Council was notified of a \$2.6 million award and in February 2020, the Council received notification of a \$927,000 award for HCA applications submitted in 2019. To date, the Highlands Council has been awarded more than \$13 million for land preservation projects through the HCA program. In all, more than 830 acres have been permanently protected and another 1,600 acres are pending in this program.

Highlands Trail

In July, the Highlands Council voted to award a contract to the New York-New Jersey Trail Conference (NY/NJ Trail Conference) to provide digital mapping and create a signage system for the New Jersey portion of the Highlands Trail.



The Highlands Trail is a long-distance trail created by the NY/NJ Trail Conference in 1993. It currently runs 180 miles from the Delaware River in New Jersey to the Hudson River in New York, just north of Bear Mountain. Future plans are to continue the trail to the Connecticut border and to complete a Pennsylvania portion. Today, the New Jersey route is mapped and

partially blazed along established trails through existing parks and preserved open spaces with some road walking to provide connections. The route is designed to highlight the natural beauty of the Highlands and emphasize its critical importance to the region. The Trail also represents a unique opportunity to connect trail users with local businesses and expand tourism in the region.

Currently, users must navigate the route by stitching together multiple trail maps and guides. This project will create one consistent Highlands Trail map from end-to-end that will be published as a digital, interactive map available on the free Avenza Maps mobile app. Users will be able to download the map for use in areas with poor or no cell service. Additional trail blazes will help clarify the route and road-crossing signs will assist hikers along the way. Roadside signage will also direct users to trailheads along the route. Promotional maps and materials will be created and available for viewing at established kiosks. The approved award is for an amount not to exceed \$29,755 and the project is expected to be completed by early 2021.

❖ Improving Regional Stormwater Management

Stormwater runoff does not recognize municipal or county boundaries. When rain, snow and ice run off pavement and other impervious surfaces they are routed through drains and pipes to streams, ponds or lakes. This runoff can span and travel across multiple municipalities and counties. Numerous studies have found a direct correlation between the percentage of impervious surface and degraded water quality. The Highlands RMP includes goals, policies, and objectives related to improving stormwater management practices throughout the region.

Rutgers Stormwater Project

While municipalities are required by the state to develop local stormwater management plans for their towns, a wider perspective on stormwater can have far-reaching benefits. In July, the Highlands Council approved a \$264,000 contract with the Rutgers University Cooperative Extension (RCE) Water Resources Program to develop a regional stormwater management plan for a portion of the New Jersey Highlands.

The RCE Water Resources Program is an award-winning, statewide effort to identify and address



Source: New Jersey Future website

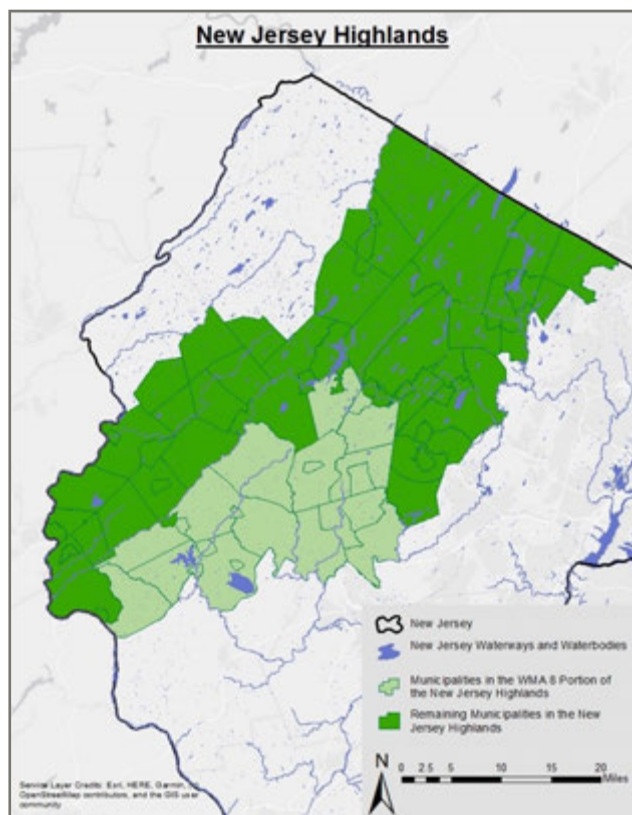
community water resources issues using sustainable and practical, science-based solutions. The Highlands Council project is unique in its use of a three-pronged approach that includes the following tasks:

1. Preparation of an Impervious Cover Assessment (ICA)
2. Preparation of an Impervious Cover Reduction Action Plan (RAP)
3. Creation of a Green Infrastructure (GI) Feasibility Study

Regional stormwater management planning efforts culminating in proposed green infrastructure implementation projects will be developed targeting the North and South Branch Raritan River watershed, also known as the NJDEP Watershed Management Area (WMA) 8 (see map, left). There are 27 municipalities in WMA 8; however, the RCE Water Resources Program has already completed plans for three of the WMA 8 municipalities, so this project includes completion of the above tasks for the remaining 24 municipalities.

Although the assessments will be completed on a municipal basis, the recommended corrective actions and suggested mitigation projects included in the final plans will reflect a regional perspective. Municipalities within the watershed will be able to use the resulting information to augment or replace existing stormwater mitigation planning documents.

The project kicked off in October and is expected to be completed by the end of 2020. Highlands Council staff has been working closely with the project team, who has been coordinating directly with the municipalities to share findings and results as they become available. As of publication, all ICAs have been completed. Project materials are available at: www.water.rutgers.edu/Projects/NJHighlandsCouncil/NJHC.html.



Map showing location of WMA 8 in the context of the New Jersey Highlands Region
Source: RCE Water Resources Program website

Stormwater Compliance Training

In September, the Highlands Council hosted a training session in stormwater management compliance for Highlands municipalities and counties. Representatives from the NJDEP helped lead a hands-on session, highlighting an ArcGIS-based mapping and inventory application. Participants learned how to use the application to collect stormwater infrastructure data, integrate existing data from other sources, and monitor compliance with MS4 permitting requirements. Attendees represented 34 Highlands municipalities and counties.

❖ Strengthening GIS Capabilities

The Highlands RMP is based on detailed data describing the nature and extent of numerous natural and built resources in the New Jersey Highlands. That data is captured in geographic information systems (GIS) that must be continually updated, refined and maintained. Essentially every goal, policy and objective, and every program described and prescribed in the RMP, relates in some way to this data.

The daily operation of the Highlands Council depends upon the availability and accuracy of this information. It is an integral part of Plan Conformance, project reviews, open space and HDC acquisitions, and all major projects and programs. In addition, this data is made available to the public free on the Highlands Council website via download and interactive mapping tools used by municipalities, counties, non-profits, businesses and residents throughout the region.

In 2019, the Highlands Council approved the two following projects related to its robust GIS program.

Regional Municipal Zoning Data Layer Update

Municipal zoning within the Highlands Region is a key factor in many policy decisions made by the Council. It informs build-out estimates for the region and is part of wastewater management planning, water use planning, center planning, land use planning, and many other aspects of the Highlands Council's work.

The municipal zoning GIS data layer is a composite of all municipal zoning maps and ordinances within the region. As there is no central repository for municipal zoning information, updating the layer requires extensive administrative effort to gather, compile and digitize the data.

The Highlands Council's Municipal Zoning data layer was created in 2005. In March 2019, the Highlands Council awarded a \$49,500 contract to Neglia Engineering to update the data layer. The project was completed and implemented on the Highlands Council interactive map and made available as a downloadable dataset in November.



Interactive Environmental Resource Inventory

In September 2019, the Highlands Council awarded a \$274,633 contract to T&M Associates to develop an Interactive Environmental Resource Inventory (ERI).

ERIs provide an index of natural resources and environmental features within a particular municipality or county. They provide municipalities and counties with valuable information that is used in master planning, land use regulation development, and project reviews. They may also be used by project applicants to identify environmental resources on a property prior to proposing a particular project.

Typically, ERIs are static documents comprised of text, maps, graphical and tabular data that provide baseline documentation used to measure and evaluate resource management and protection issues. They are costly to create and most municipalities will only update ERIs once every ten years in conjunction with a master plan update. As a result, ERIs quickly become outdated.

The goal of developing an online interactive ERI is to reduce costs while providing municipalities with real-time resource data that is always current. The interactive ERI will provide every municipality and county in the Highlands Region with immediate access to a full ERI that never needs manual updating. In addition, within the scope of the project, each municipality and county will be provided with its own customized web-based ERI portal. Significantly, data will be scalable at the property, multiple property, subwatershed, municipal, county and regional levels.

A kickoff meeting for this project was held in February 2020 and project work is expected to be completed in 2021. The project contract also includes two years of hosting and maintenance from the vendor.

❖ Driving Economic Sustainability in the Highlands Region

The very first page of the New Jersey Highlands Water Protection and Planning Act clearly acknowledges that the long-term health and sustainability of the Highlands Region relies on both natural resource protection and economic vitality. Accordingly, the Highlands RMP outlines several goals, policies, and objectives related to sustainable economic development. These include policies to maintain and expand the existing job base, enhancement of the agriculture industry, expansion of tourism and recreation, and support for innovative technology and entrepreneurial businesses in the region.

While many of the goals of the RMP related to economic development have been addressed through local Sustainable Economic Development plans, Highlands Center Designation planning, and redevelopment efforts, the first-ever review of the Highlands RMP recognized the need to do more. Importantly, the 2018 Monitoring Program Recommendation Report included a specific recommendation to develop a comprehensive sustainable economic development plan for the Highlands Region.

In response, Council assembled a steering committee to help guide the process of

developing an Economic Sustainability Plan for the Highlands Region. The steering committee includes one representative from each of the seven counties in the Highlands. Committee members were selected based on their expertise in economic sustainability planning. The team also includes a member of the Highlands Council and Highlands Council planning staff members.

A kickoff meeting was held in April 2019 and the steering committee assisted Highlands staff in developing a comprehensive Request for Proposals (RFP) that was issued in the fall of 2019. It specified six tasks: 1) Development of a Stakeholder Outreach Plan; 2) Development of an Economic Profile for the Highlands Region; 3) Analysis of Economic Growth Potential in the Highlands Region; 4) Development of Economic Growth Strategies; 5) Development of an Implementation Action Plan; and 6) Economic Sustainability Plan for the Highlands Region.

The Council received seven qualified proposals from teams across the country. A contract is expected to be awarded in 2020. Once the project has launched, the steering committee will also aid in the development of a larger Technical Advisory Committee (TAC) to serve as stakeholders throughout the process.

A thriving Highlands Region must offer desirable places to live and work, while at the same time retaining the natural qualities that make the Region special. Many business leaders are increasingly recognizing that a high-quality environment is an important factor in attracting a skilled labor force. The natural and cultural resources of the Region are also fiscal resources in and of themselves, supporting economic growth opportunities for travel, tourism, and recreation. It is anticipated that the Economic Sustainability Plan will enable stakeholders within the Highlands Region to better leverage these opportunities.



Downtown Dover, Morris County

❖ Considering the Implications of Climate Change in the Highlands Region

Although the Highlands RMP discusses Air Quality and Transportation, it does not directly address climate change. In 2018, the Highlands Council released its first-ever Monitoring Program Recommendation Report, which recognized the need for a more thorough consideration of climate change as a component of the RMP.

In November 2019, the Highlands Council was invited to participate in Governor Murphy’s Interagency Council on Climate Resilience. Established by Executive Order (EO) 89 the Climate Council was created to lead an exchange of knowledge and develop policies to enhance the resilience of New Jersey to the impacts of climate change. EO 89 also directs the Climate Council to produce a Statewide Climate Change Resilience Strategy, to promote

the long-term resilience of the State’s economy, resources, and communities.

Based on the Highlands Council’s work in the region over the past 15 years, it appears that climate change in the Highlands Region could contribute to increasingly compromised conditions. These concerns become particularly acute related to water supply and water quality issues, as more severe precipitation and more severe droughts are predicted. Key areas of concern include stormwater and wastewater management, forest and habitat protection, and impacts on agriculture.

The Highlands Council’s participation in the Climate Council will help ensure the unique perspectives and needs of the Highlands Region are considered when crafting a state-wide response to climate change.



Pinwheel Vista, Appalachian Trail, Vernon Township, Sussex County

Plan Conformance Status

as of May 2020

Petition Status indicated by color <i>(see key at end of chart)</i>	Petitioning for:		Exemption Certification	Center Designation
	Preservation Area	Planning Area		
BERGEN COUNTY	✓			
Mahwah Township	✓	✓	✓	✓
Oakland Borough	✓		✓	
HUNTERDON COUNTY	✓	✓		
Alexandria Township	✓		✓	
Bethlehem Township	✓	✓	✓	
Bloomsbury Borough	✓	N/A		
Califon Borough	✓	N/A	✓	
Clinton Town	✓	✓		
Clinton Township	✓	✓	✓	
Glen Gardner Borough	✓	N/A	✓	
Hampton Borough	✓			
High Bridge Borough	N/A	✓	✓	
Holland Township	✓	✓		
Lebanon Borough	N/A	✓		✓
Lebanon Township	✓	✓	✓	
Milford Borough	N/A			
Tewksbury Township	✓	✓		
Union Township	✓	✓		
MORRIS COUNTY	✓			
Boonton Town	N/A			
Boonton Township	✓			
Butler Borough	N/A			
Chester Borough	N/A	✓		
Chester Township	✓	✓	✓	
Denville Township	✓			
Dover Town	N/A			
Hanover Township	N/A			
Harding Township	N/A			
Jefferson Township	✓		✓	
Kinnelon Borough	✓	✓		
Mendham Borough	N/A			
Mendham Township	N/A			
Mine Hill Township	N/A			
Montville Township	✓		✓	
Morris Plains Borough	N/A			
Morris Township	N/A			
Morristown Town	N/A			
Mountain Lakes	N/A			
Mount Arlington Borough	✓		✓	
Mount Olive Township	✓		✓	
Netcong Borough	N/A			
Parsippany-Troy Hills Twp.	N/A	✓		
Pequannock Township	✓			
Randolph Township	✓	✓		✓
Riverdale	N/A			
Rockaway Borough	N/A			
Rockaway Township	✓	✓		
Roxbury Township	✓			
Victory Gardens Borough	N/A			
Washington Township	✓	✓	✓	✓
Wharton Borough	N/A	✓		✓

Plan Conformance Status

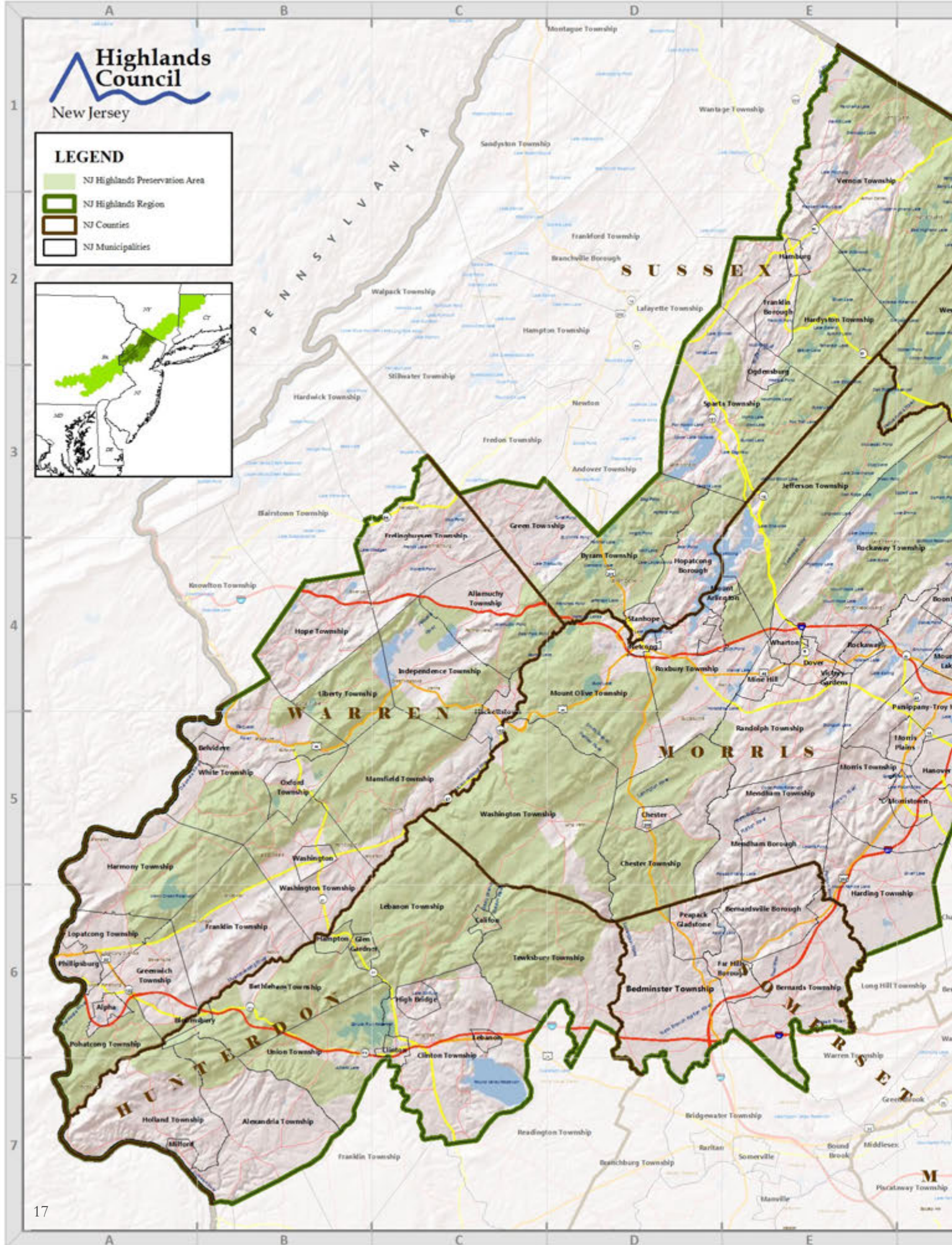
as of May 2020

Petition Status indicated by color <i>(see key at end of chart)</i>	Petitioning for:		Exemption Certification	Center Designation
	Preservation Area	Planning Area		
PASSAIC COUNTY	✓			
Bloomington Borough	✓			
Pompton Lakes Borough	N/A			
Ringwood Borough	✓	N/A	✓	
Wanaque Borough	✓			
West Milford Township	✓	N/A	✓	
SOMERSET COUNTY	✓			
Bedminster Township	✓		✓	
Bernards Township	N/A			
Bernardsville Borough	N/A			
Far Hills Borough	N/A	✓		
Peapack Gladstone Borough	N/A			
SUSSEX COUNTY	✓			
Byram Township	✓	✓	✓	✓
Franklin Borough	N/A	✓		
Green Township	✓			
Hamburg Borough	N/A			
Hardyston Township	✓		✓	
Hopatcong Borough	✓	✓	✓	✓
Ogdensburg Borough	✓			
Sparta Township	✓		✓	
Stanhope Borough	N/A	✓		
Vernon Township	✓		✓	
WARREN COUNTY				
Allamuchy Township	✓		✓	
Alpha Borough	N/A	✓		✓
Belvidere Town	N/A			
Franklin Township	✓		✓	
Frelinghuysen Township	N/A			
Greenwich Township	✓	✓		
Hackettstown Town	✓	✓	✓	✓
Harmony Township	✓		✓	
Hope Township	N/A			
Independence Township	✓			
Liberty Township	✓			
Lopatcong Township	✓	✓	✓	✓
Mansfield Township				
Oxford Township	✓	✓	✓	✓
Phillipsburg Town	N/A	✓		✓
Pohatcong Township	✓	✓	✓	✓
Washington Borough	N/A	✓		
Washington Township	✓		✓	
White Township	✓			

Petition approved, whole municipality
Petition approved, Preservation Area only
Petition filed, not approved
No petition filed
No petition filed, petition not required

LEGEND

- NJ Highlands Preservation Area
- NJ Highlands Region
- NJ Counties
- NJ Municipalities



Highlands Municipalities

- Alexandria Township, 7B
- Allamuchy Township, 4C
- Alpha Borough, 6A
- Bedminster Township, 6D
- Belvidere, 5A
- Bernards Township, 6E
- Bernardsville Borough, 6E
- Bethlehem Township, 6B
- Bloomington Borough, 3G
- Bloomsbury Borough, 6A
- Boonton, 4F
- Boonton Township, 4F
- Butler Borough, 3F
- Byram Township, 4D
- Califon Borough, 6C
- Chester Borough, 5D
- Chester Township, 5D
- Clinton, 6C
- Clinton Township, 7C
- Denville Township, 4E
- Dover, 4E
- Far Hills Borough, 6E
- Franklin Borough, 2E
- Franklin Township, 6B
- Frelinghuysen Township, 4C
- Glen Gardner Borough, 6B
- Green Township, 3C
- Greenwich Township, 6A
- Hackettstown, 5C
- Hamburg Borough, 2E
- Hampton Borough, 6B
- Hanover Township, 5F
- Harding Township, 6E
- Hardyston Township, 2E
- Harmony Township, 5A
- High Bridge Borough, 6C
- Holland Township, 7A
- Hopatcong Borough, 4D
- Hope Township, 4B
- Independence Township, 4C
- Jefferson Township, 3E
- Kinnelon Borough, 3F
- Lebanon Borough, 6C
- Lebanon Township, 6C
- Liberty Township, 4B
- Lopatcong Township, 6A
- Mahwah Township, 2H
- Mansfield Township, 5C
- Mendham Borough, 5E
- Mendham Township, 5E
- Milford Borough, 7A
- Mine Hill Township, 4E
- Montville Township, 4F
- Morris Plains Borough, 5F
- Morris Township, 5E
- Morristown, 5F
- Mount Arlington Borough, 4E
- Mount Olive Township, 4D
- Mountain Lakes Borough, 4F
- Netcong Borough, 4D
- Oakland Borough, 3G
- Ogdensburg Borough, 3E
- Oxford Township, 5B
- Parsippany-Troy Hills Township, 4F
- Peapack-Gladstone Borough, 6D
- Pequannock Township, 4G
- Phillipsburg, 6A
- Pohatcong Township, 6A
- Pompton Lakes Borough, 3G
- Randolph Township, 5E
- Ringwood Borough, 2G
- Riverdale Borough, 3G
- Rockaway Borough, 4E
- Rockaway Township, 4E
- Roxbury Township, 4D
- Sparta Township, 3E
- Stanhope Borough, 4D
- Tewksbury Township, 6C
- Union Township, 7B
- Vernon Township, 1E
- Victory Gardens Borough, 4E
- Wanaque Borough, 3G
- Washington Borough, 5B
- Washington Township (Warren), 5B
- Washington Township (Morris), 5C
- West Milford Township, 2F
- Wharton Borough, 4E
- White Township, 5B



Highlands Development Credit Bank Annual Report

The Highlands Act charged the Highlands Council with developing a Transfer of Development Rights (TDR) program as a way of addressing landowner equity issues while advancing the regional planning goals of the Act (P.L. 2004, c. 120 C.13:20-13). The Council adopted a TDR Program as part of the Highlands Regional Master Plan and established the Highlands Development Credit Bank (HDC Bank) in 2008.

In a TDR program, eligible landowners in Sending Zones may apply for and receive Highlands credit allocations reflective of lost development potential, which they can then sell to purchasers who buy the credits. The credits then permit the purchaser to build in a Receiving Zone at a density greater than otherwise permitted in the underlying zoning.

Through the end of 2019, the Highlands Council had allocated 3,973.75 Highlands Development Credits (HDCs). Until voluntary Receiving Zones are established, the HDC Bank is serving as the sole purchaser of these HDCs.



HDC Property, Mount Olive, Morris County

The HDC Bank is supported in its work by Highlands Council staff and the Landowner Equity and Land Preservation Committee. In 2019, the HDC Bank held one public meeting. Information and materials related to this meeting, including agendas, resolutions, and meeting minutes are available on the 2019 calendar page of the Highlands Council website. Additional information regarding the HDC Bank is available via the “Highlands Development Credits (TDR Program)” link on the Highlands Council homepage. (www.nj.gov/njhighlands/hdcbank)

Highlands Development Credit Purchase Program (HDCPP)

The HDCPP is designed to address the landowner equity goals of the Highlands Act and Regional Master Plan by compensating landowners for lost development potential through TDR transactions in which property owners retain the land but place a deed restriction on their property limiting future

development. In the HDCPP, valuations are based on the development potential of the property prior to the passage of the Highlands Act, along with a comprehensive analysis of the natural resources present on the property. A number of credits is determined and an offer is made using an established per-credit price. This program is administered under the provisions of N.J.A.C. 7:70.

In 2019, the Highlands Council completed 11 HDC transactions, permanently protecting resources on 618 acres and providing more than \$4.9 million to property owners.

2019 Highlands Development Credit Purchase Program Easement Recordings					
Municipality	County	Acres	No. of HDCs	Consideration	HDC Easement Recorded
Alexandria	Hunterdon	92.9	49.25	\$788,000.00	1/8/2019
Lebanon Township	Hunterdon	72.19	16.75	\$268,000.00	4/29/2019
Lebanon Township	Hunterdon	112.84	31.50	\$504,000.00	5/28/2019
Pohatcong Township	Warren	53.14	6.75	\$108,000.00	6/10/2019
Tewksbury	Hunterdon	46.69	44.25	\$708,000.00	7/15/2019
Tewksbury	Hunterdon	45.94	44.25	\$708,000.00	9/12/2019
Tewksbury	Hunterdon	11.52	24.50	\$392,000.00	10/16/2019
Tewksbury	Hunterdon	42.55	23.00	\$368,000.00	10/16/2019
Tewksbury	Hunterdon	70.05	44.25	\$708,000.00	11/20/2019
Mount Olive	Morris	53.14	25.75	\$412,000.00	11/20/2019
Tewksbury	Hunterdon	16.65	26.25	*	12/5/2019

**Property owners in the HDC Purchase Program may choose to record a deed of easement (DOE) on their property, while retaining ownership of the HDCs. In these cases, the HDC Bank has not purchased the credits. The property owner may choose to sell the credits any time in the future, but the property and the resources contained within it remain permanently protected through the DOE.*

As of December 31, 2019, the HDC Bank had certified 1,686.5 credits, permanently protecting more than 2,200 acres. In addition, through the purchase of 1,626 of those credits, the Bank has provided over \$26 million to property owners in the Highlands Region. See HDC Registry on the following pages for all HDC recorded easements.

Highlands Development Credit Registry

As of December 31, 2019

Holder/Owner of HDC Credits	Property Owner at time of HDC Purchase	Municipality	County	Block	Lot(s)	HDC Easement Recorded	No. of HDCs	Consideration	Acres
HDC Bank	Ronald May	Bethlehem Twp	Hunterdon	9	6	7/22/2010	4	\$ 64,000.00	15.45
HDC Bank	OFP, LLC	Washington Twp	Morris	37	4 & 9	8/25/2010	83	\$ 1,328,000.00	93.19
HDC Bank	Julian B. Varettoni	Mount Olive	Morris	8301	13	4/27/2011	23.25	\$ 372,000.00	2.31
HDC Bank	Marie A. Accetturo	Oxford	Warren	24	4 & 20	5/3/2011	23	\$ 368,000.00	44.13
HDC Bank	Marie A. Accetturo	White	Warren	16	45		1	\$ 16,000.00	18.29
HDC Bank	Joyce C. Davis	West Milford	Passaic	6902	23	12/13/2011	30.25	\$ 484,000.00	6.95
HDC Bank	Anton Company Limited Partnership	Independence	Warren	23	3	12/29/2011	24.75	\$ 396,000.00	41.54
HDC Bank	Valley Ridge Development Company	West Milford	Passaic	8002	4	1/5/2012	122.5	\$ 1,960,000.00	26.23
HDC Bank	Moira and Mark Kendra	Washington Twp	Warren	40	33.01	2/24/2012	8	\$ 128,000.00	39.16
HDC Bank	Karen Koerner	Franklin Twp	Warren	15	11.03	2/24/2012	42	\$ 672,000.00	9.69
HDC Bank	Anita Schmidt	Liberty Twp	Warren	21.01	20.01	7/9/2012	3	\$ 48,000.00	10.54
HDC Bank	Marie B. Fox	Rockaway Twp	Morris	40801	85.01	11/29/2012	27.75	\$ 444,000.00	24.73
HDC Bank	Welch Family Estate, LP	Vernon	Sussex	73	5	3/11/2013	1.75	\$ 28,000.00	17.59
HDC Bank	Moira and Mark Kendra	Washington Twp	Warren	40	109	4/16/2013	2	\$ 32,000.00	4.59
HDC Bank	Joseph Vicari	Bethlehem Twp	Hunterdon	8	11 & 12.01	5/24/2013	20.5	\$ 328,000.00	75.2
HDC Bank	Genesis Real Estate LLC	Ringwood Boro	Passaic	877	16	7/19/2013	26.25	\$ 420,000.00	42.36
HDC Bank	Mountain Ridge Estates Inc.	Sparta	Sussex	19	110	9/30/2013	63.75	\$ 1,020,000.00	110.69
HDC Bank	David Newhouse	White	Warren	16	24, 24.15	9/26/2013	4.5	\$ 72,000.00	14.5
HDC Bank	Matthew and Jeanne Smetana	Sparta	Sussex	35002 (formerly 6.25)	10, 11 (formerly 70.01, 70.02)	12/19/2014	7	\$ 112,000.00	6
HDC Bank	Estate of Roberta Brush	Union Twp	Hunterdon	15	1	1/15/2015	1.75	\$ 28,000.00	26.27
HDC Bank	Estate of Roberta Brush	Union Twp	Hunterdon	15	1	1/15/2015	1.75	\$ 28,000.00	-
HDC Bank	Estate of Roberta Brush	Union Twp	Hunterdon	15	1	1/15/2015	1.75	\$ 28,000.00	-
HDC Bank	Thomas Wagner	Union Twp	Hunterdon	25	21	8/12/2016	11	\$ 176,000.00	43.21
HDC Bank	LeMad Corporation, Inc.	Clinton Township	Hunterdon	68	6	11/1/2016	86.25	\$ 1,380,000.00	9.9
HDC Bank	Trust of Everett True	Oxford Twp	Warren	2	12	8/1/2017	12	\$ 192,000.00	20.55
HDC Bank	Trust of Everett True	Oxford Twp	Warren	2	14	8/1/2017	20.5	\$ 328,000.00	34.52
HDC Bank	Trust of Everett True	Oxford Twp	Warren	2	18.03	8/1/2017	23.75	\$ 380,000.00	48.89
HDC Bank	Trust of Everett True	Wash. Twp (W)	Warren	4	4	8/1/2017	1.75	\$ 28,000.00	13.83
HDC Bank	Mervyn Haines	Wash. Twp (M)	Morris	20	52	8/1/2017	3.5	\$ 56,000.00	10.89
HDC Bank	Mariner's Bank	Vernon	Sussex	240	4	8/8/2017	24.75	\$ 396,000.00	118.4
HDC Bank	Richard and Jodie Sparling	Jefferson	Morris	387	8	8/31/2017	5.75	\$ 92,000.00	10.27
HDC Bank	Tariq Mahmood	Mount Olive	Morris	5300	16	10/17/2017	29.75	\$ 476,000.00	10.46
HDC Bank	William J Tierney	West Milford	Passaic	11106	13, 17	11/20/2017	2.5	\$ 40,000.00	1.35
HDC Bank	The Ringwood Industrial Partnership	Ringwood Boro	Passaic	508	2	12/21/2017	88.75	\$ 1,420,000.00	38.37
HDC Bank	The Ringwood Industrial Partnership	Ringwood Boro	Passaic	508	2.29	12/21/2017	74	\$ 1,184,000.00	19.36
HDC Bank	John A. Runge	Rockaway Twp	Morris	40701; 40703	21; 8, 9	11/21/2017	5.5	\$ 88,000.00	18.1
HDC Bank	Alex Zikas	White	Warren	68	59	11/29/2017	8	\$ 128,000.00	19.34

Highlands Development Credit Registry

As of December 31, 2019

Holder/Owner of HDC Credits	Property Owner at time of HDC Purchase	Municipality	County	Block	Lot(s)	HDC Easement Recorded	No. of HDCs	Consideration	Acres
HDC Bank	Bi-County Development	Jefferson	Morris	555	4	12/26/2017	147.75	\$ 2,364,000.00	162.79
HDC Bank	Terence Allan	Sparta	Sussex	4	45.01	12/21/2017	18.75	\$ 300,000.00	16.84
HDC Bank	Kazella Trust	Hopatcong	Sussex	40005	18	12/8/2017	5.5	\$ 88,000.00	27.4
HDC Bank	Beverly Attinson	Bethlehem Twp	Hunterdon	33	12	1/16/2018	18	\$ 288,000.00	51.59
HDC Bank	Anthony Liberti	West Milford	Passaic	6803	4	2/16/2018	30.25	\$ 484,000.00	16.11
HDC Bank	Barry Shandor	Harmony Twp	Warren	24	10.07	2/26/2018	2.25	\$ 36,000.00	1.79
HDC Bank	David Newhouse	White	Warren	13	21	3/19/2018	14	\$ 224,000.00	30.74
HDC Bank	Route 173 Associates	Bethlehem Twp	Hunterdon	18	2	5/15/2018	20	\$ 320,000.00	2.23
HDC Bank	Dennis J. Murphy	Lebanon Twp	Hunterdon	37	25	6/15/2018	4	\$ 64,000.00	29.65
HDC Bank	Joe Santoro/Santoro Education of Lifeskills Foundation, Inc.	Roxbury Twp	Morris	9203	1	6/29/2018	42.25	\$ 676,000.00	10.26
HDC Bank	Highview Farm LLC	Liberty Twp	Warren	10	4	7/13/2018	51.75	\$ 828,000.00	90.9
HDC Bank	Highview Farm LLC	Liberty Twp	Warren	11	43	7/13/2018	1.5	\$ 24,000.00	4.7
HDC Bank	Highview Farm LLC	Liberty Twp	Warren	11	44	7/13/2018	4.25	\$ 68,000.00	7.14
HDC Bank	Clark Twining and Debra Borup	Lebanon Twp	Hunterdon	65	2	7/2/2018	2.25	\$ 36,000.00	6.33
HDC Bank	Michael Joyce and Bryan Szerlip-Joyce	Bedminster Twp	Somerset	2	8.02	8/10/2018	18.25	\$ 292,000.00	39.46
HDC Bank	Robert Shandor	Harmony Twp	Warren	24	10.06	8/20/2018	2.25	\$ 36,000.00	2.31
Trubek Hills, Inc.	-	Lopatcong Twp	Warren	90	13, 16.01	8/20/2018	26.25	*	60.35
HDC Bank	Robert Shandor Sr. Testamentary Trust	Harmony Twp	Warren	24	10.05	9/18/2018	2.25	\$ 36,000.00	2.47
HDC Bank	Hands in 4 Youth of NJ, Inc	West Milford	Passaic	13301	12	9/28/2018	7.25	\$ 116,000.00	11.54
HDC Bank	Hands in 4 Youth of NJ, Inc	Bloomingdale	Passaic	3005	5	9/28/2018	10	\$ 160,000.00	24.87
HDC Bank	Bloomsbury Orchards, LCC	Alexandria	Hunterdon	4	12	1/8/2019	49.25	\$ 788,000.00	92.9
HDC Bank	Douglas and Susan Tack	Lebanon Twp	Hunterdon	56	13.02	4/29/2019	16.75	\$ 268,000.00	72.19
HDC Bank	Eric and Marcie Metzler	Lebanon Twp	Hunterdon	56	10	5/28/2019	31.50	\$ 504,000.00	112.84
HDC Bank	Norene Koerner	Pohatcong Twp	Warren	110; 117	9; 3	6/10/2019	6.75	\$ 108,000.00	53.14
HDC Bank	Armin and Elissa Schlotterbeck	Tewksbury	Hunterdon	15	23	7/15/2019	44.25	\$ 708,000.00	46.69
HDC Bank	Carol Jean Miller	Tewksbury	Hunterdon	14	9.02	9/12/2019	44.25	\$ 708,000.00	45.94
HDC Bank	E. Wayne Nordberg	Tewksbury	Hunterdon	16	13	10/16/2019	24.50	\$ 392,000.00	11.52
HDC Bank	E. Wayne Nordberg	Tewksbury	Hunterdon	19	13.07	10/16/2019	23.00	\$ 368,000.00	42.55
HDC Bank	Joseph and Helen Jarowicz	Tewksbury	Hunterdon	13	8, 10	11/20/2019	44.25	\$ 708,000.00	70.05
HDC Bank	Interverse Enterprises, Inc.	Mount Olive	Morris	5300	38	11/20/2019	25.75	\$ 412,000.00	53.14
Gary and Deborah Enters	-	Tewksbury	Hunterdon	15	8.02	12/5/2019	26.25	*	16.65
Totals							1,686.5	\$ 26,144,000.00	2,263.93

**Property owners in the HDC Purchase Program may choose to record a deed of easement (DOE) on their property, while retaining ownership of the HDCs. In these cases, the HDC Bank has not purchased the credits. The property owner may choose to sell the credits any time in the future, but the property and the resources contained within it remain permanently protected through the DOE.*



State of New Jersey

Highlands Water Protection and Planning Council
100 North Road (Route 513)
Chester, New Jersey 07930-2322
(908) 879-6737
(908) 879-4205 (fax)
www.nj.gov/njhighlands

