



***New Jersey Meadowlands Commission***  
***2013 Annual Report***



Explore the Meadowlands Carlstadt East Rutherford Jersey City Kearny Little Ferry Lyndhurst Moonachie North Arlington North Bergen Ridgely Rutherford Secaucus South Hackensack Teterboro Explore the Meadowlands Carlstadt East Rutherford Jersey City Kearny Little Ferry Lyndhurst Moonachie North Arlington North Bergen Ridgely Rutherford Secaucus South Hackensack Teterboro Explore the Meadowlands

The New Jersey Meadowlands Commission (NJMC) is the planning and zoning authority for the 30.4-square-mile Meadowlands District, which consists of portions of 14 municipalities in Bergen and Hudson counties.

The agency was created by an Act of the State Legislature in 1968 (*N.J.S.A. 13:17-1 et seq*) and tasked with a three-fold mandate: to provide for orderly development of the region, to provide facilities for the sanitary disposal of solid waste and to protect the delicate balance of nature.

At the time of its creation, the Meadowlands District was marred by dozens of orphaned landfills and a Hackensack River so polluted that barnacles couldn't survive. Over the past four decades, the NJMC, through its tireless efforts, has built a thriving economic engine and brought about a remarkable environmental revitalization.

By closing the landfills and planning for appropriate development, the Commission has attracted billions of dollars in new development while being sensitive to environmentally important wetlands. Today, the Commission continues to promote economic growth in the region by creating

redevelopment plans that propose to turn under utilized and abandoned properties into thriving homes for industry.

Simultaneously, the Commission has been preserving thousands of acres of wetlands and conducting scientific research aimed at reducing air pollution, improving water quality in the Hackensack River estuary and fostering a rebound of the region's wildlife. The NJMC's efforts in these areas have made the Meadowlands District a premier ecotourism destination. Thousands of visitors flock here each year to take NJMC pontoon boat and canoe tours of the Hackensack River, participate in guided bird walks and attend special nature-themed events.

Through its Meadowlands Environment Center, the Commission provides environmental science programs to schoolchildren and the general public that increase awareness of the critical importance of environmental protection and stewardship.

Thanks to its hard work, the NJMC has proven that economic growth and environmental preservation go hand-in-hand. Moving forward, the NJMC stands committed to helping the District continue to reach its full economic and environmental potential.



**MESSAGE FROM THE CHAIRMAN**



**RICHARD E. CONSTABLE, III**  
*Commissioner,  
 New Jersey Department  
 of Community Affairs  
 Chairman, New Jersey  
 Meadowlands Commission*

Since its formation by the State Legislature in 1969, the New Jersey Meadowlands Commission (NJMC) has been steadfast in its determination to transform the Meadowlands District from a region of orphaned landfills into an economic driver and urban environmental oasis. The results have been remarkable. Billions of dollars in development now occupy once fallow land while, at the same time, the NJMC has preserved 3,500 acres of environmentally sensitive wetlands and helped to create an extensive network of parks, trails and natural areas in the District.

In 2013, amidst the challenges of recovery and rebuilding from Superstorm Sandy, the Commission continued to successfully promote and support economic growth in the District while conducting innovative research to help preserve and improve the region's unique urban wetlands environment.

As detailed in this report, the District saw an increase in business activity, including companies that chose to move to and expand within the Meadowlands in the wake of the storm. This continued growth demonstrates the



incredible strength, resiliency and determination of area businesses. It also reaffirms the fact that the Meadowlands District, with its prime location and many resources, is a great place to grow a company.

Over the past 12 months, the Commission drew thousands of people to the District through its popular guided pontoon boat tours, bird walks and special events. Through its hard work, the NJMC has established the region as a top ecotourism destination. In addition, the NJMC provides valuable assistance to District municipalities through its Geographic Information Systems (GIS) digital mapping program. The Commission's GIS team

is at the forefront of creating web-based maps that provide emergency officials within the District with easily accessible, critical information.

The NJMC's success as a multi-faceted organization is a testament to the hard work and dedication of its staff and Board of Commissioners. We look forward to continuing to help grow the District's economy, better the environment and improve residents' quality of life.

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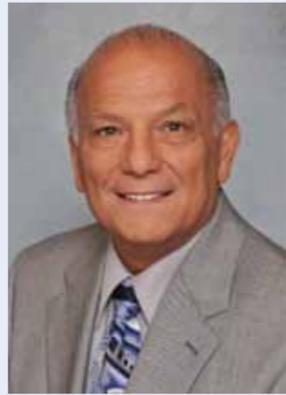
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## BOARD OF COMMISSIONERS



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Commissioner, Treasurer

## MESSAGE FROM THE EXECUTIVE DIRECTOR

received 397 certificate of occupancy applications in 2013, compared to 302 applications from Nov. 1, 2011, to Oct. 31, 2012 -- a 31 percent increase.

In this report, you will read about businesses that relocated, expanded or broke ground on new construction within the District in 2013.

These include a major project by Goya, which began construction on a 634,000-square-foot headquarters and distribution center in Jersey City. You will also learn about NJMC amendments to the Koppers Coke Redevelopment Plan, which covers a portion of Kearny. The redevelopment plan aims to help turn underutilized and abandoned properties into a thriving home for industry.

In 2013, the NJMC also reopened its parks and natural areas that had been closed due to damage caused by Superstorm Sandy and proudly rededicated its World Trade Center Memorial Cove in DeKorte Park, the home of the NJMC, on September 11.

In addition, the NJMC continued to promote the Meadowlands District as a premier ecotourism destination. Nearly 600 people attended our Fourth Annual Butterfly Day in July, while thousands more took pontoon boat and canoe tours of the Hackensack River and joined twice-monthly guided bird walks.

Since its creation in 1969, the NJMC has worked hard to transform the Meadowlands District from a dumping ground into an economic engine and environmental jewel. While we are pleased with our achievements, our work is not done. The NJMC will continue to strive every day to further build upon the foundation that has been set for economic growth and environmental revitalization in the Meadowlands District.

Entering 2013, the New Jersey Meadowlands Commission (NJMC) faced a crucial question: What would Superstorm Sandy's impact be on the Meadowlands District?

Would businesses leave the District or drop plans to expand? Or would the many benefits that the region offers supersede doubts about the District's ability to continue to drive North Jersey's economy?

The numbers, I am proud to report, point to the latter.

While the NJMC is aware that many businesses continue to struggle to rebuild, the Commission over the past year has seen an increase in applications by companies looking to complete construction projects in the District or move into the area. The NJMC

## EXECUTIVE TEAM

**BERNARD M. NANGLE**  
Deputy Executive Director  
CEO, Meadowlands Conservation Trust

**CHRISTINE SANZ, ESQ.**  
Chief Operating Officer / Chief Counsel

**EDWARD H. BULMER**  
Director of Finance / CFO  
Accounting and Finance  
Purchasing  
General Services  
Escrow Operations  
Municipal Shared Services

**ADAM LEVY, ESQ.**  
Director of Legal Affairs / Chief of Renewable  
Energy Project Development  
Legal Services  
Renewable Energy

**SARA SUNDELL, P.E., P.P.**  
Director of Land Use Management  
Chief Engineer  
Site Plan Review  
Planning  
Transportation  
Construction Code  
Plan Review/UCC Code Enforcement

**THOMAS MARTURANO, P.E., P.P.**  
Director of Solid Waste and Natural Resources  
Landfill Operations  
Enforcement  
Parks and Open Space  
Stormwater  
Wetlands / Natural Resources  
Facility Maintenance

**FRANCISCO ARTIGAS, PH.D**  
Director of Meadowlands Environmental  
Research Institute (MERI)  
GIS Programs  
Laboratory  
Library  
Environmental Data Monitoring  
Information Technologies

**BEVERLY SCHMIDT**  
Director of Human Resources  
Chief Compliance Officer  
Human Resources  
Ethics  
Compliance



## ECONOMIC GROWTH



The economic engine hummed at a rapid pace in the Meadowlands District in 2013 – evidence that despite fears of a Superstorm Sandy-related downturn, the region continues to be a great place to grow a business. Over the past year the NJMC welcomed several new companies to the District, saw existing businesses expand, and advanced a redevelopment plan that aims to revitalize underused and vacant industrial properties. All of this good news underscores the NJMC's ongoing commitment to furthering its goal of helping businesses thrive in the Meadowlands District. As a customer-service oriented agency, the Commission promotes a commerce-friendly atmosphere by offering assistance to businesses throughout the development application process. As the NJMC continues to make strides to foster economic growth in the area, those who choose to invest in the Meadowlands can rest assured that they have made a very wise choice.

*Left: aerial view of the Meadowlands. Right: top to bottom - HighRoad Press staff; Wawa Convenience Store and Fueling Station in Kearny; Goya facility under construction in Jersey City.*

## BUSINESS GROWTH

The NJMC's strong commitment to supporting and promoting a business-friendly climate in the Meadowlands District continued to produce great results in 2013. Several companies broke ground on new projects, expanded existing locations and moved to the region. In August, Goya Foods began construction on a 634,000-square-foot headquarters/distribution center in Jersey City. The facility is expected to be completed in 2014. Goya has since expanded the scope of its project to include an adjacent property, which will house a separate, 12,000-square-foot truck maintenance building. The company is maintaining its 240,000-square-foot facility in Secaucus, which is also located within the Meadowlands District.

In July, HighRoad Press, an award-winning commercial printing business, moved its printing operations from Manhattan to Moonachie. The company's CEO cited a desire to be closer to the company's New Jersey clients while maintaining proximity to Manhattan as the major reason for investing in a 38,000-square-foot home in the District. Flight Safety International in Moonachie was also busy this summer, beginning work on a 23,333-square-foot addition to its facility near Teterboro Airport. The company uses flight simulators and other high-tech equipment to train commercial airline, business and military pilots.

Other expansions in the District include Walmart in Kearny, which increased its space by 30,600 square feet, and a 9,700-square-foot addition to the International Longshoremen's Association world headquarters in North Bergen.

In addition, Wawa opened its first Hudson County convenience store and fueling station in Kearny. Carlstadt welcomed a Quick Chek convenience store and fueling station, and Buffalo Wild Wings and Red Robin restaurants opened in the Harmon Meadow shopping center in Secaucus.

With its prime location just miles from New York City, the District in 2013 continued to be a hub for data centers that house businesses' critical information. The Commission in June approved the construction of a 105,081-square-foot data center in Secaucus, the fifth such facility in the town and ninth overall in the District.



**AMENDMENT TO KOPPERS COKE PENINSULA REDEVELOPMENT PLAN** (Kearny)

In February, the NJMC adopted the Koppers Coke Peninsula Redevelopment Plan, setting a blueprint for the transformation of 74 underutilized and vacant properties spread across a 367-acre brownfield industrial area in Kearny into a thriving home for industry. The area presents a significant opportunity for businesses to capitalize on existing rail and road infrastructure and dock access on the Hackensack River. Properties are located off State Route 78/Belleville Turnpike and are also near the New Jersey Turnpike, Route 280, and U.S. Routes 1&9, providing easy access to nearby Port Newark and New York City. Amtrak's Northeast Corridor and NJ Transit's Morris and Essex lines also pass through the redevelopment area.

The NJMC's action to spearhead redevelopment of Koppers Coke is also expected to help advance the remediation of contaminated sites so that property owners will be able to take advantage of the opportunity to convert these neglected areas to productive uses while bringing rates to Kearny. Several sites within the redevelopment area are currently undergoing environmental remediation, including the 25-acre former Standard Chlorine property owned by the Town of Kearny. The Hudson County Improvement Authority owns a total of 175 acres within the redevelopment area, including the 170-acre Koppers Coke site, which was formerly home to the Koppers Seaboard Coke and By-Products plant.



**RESIDENTIAL DEVELOPMENT**

Work began this past year on a 192-unit development, including 39 moderate- and low-income units, on Chubb Avenue in Lyndhurst. Also in Lyndhurst, the first two buildings and a clubhouse at the Meadow Crossing development received temporary certificates of occupancy. The final two buildings of the 296-unit project are under construction. The development includes 60 units set aside as low- and moderate-income housing.

In East Rutherford, construction commenced on Equinox 360, a 316-unit development located on the Route 3 Service Road. It will include 32 affordable housing units.

**GREEN RESTAURANT INITIATIVE**

Through its Green Restaurant Initiative, the NJMC in 2013 worked to help the region's food and beverage industries realize energy savings and boost profits through a variety of sustainable business practices. The program, funded by a federal grant, is being administered by the NJMC in partnership with the national Green Restaurant Association (GRA). The initiative

includes educating restaurateurs through workshops, training and free environmental audits about the availability of cost-effective strategies to green their businesses. These measures include conserving water, upgrading HVAC systems and switching to energy-efficient cooking, cleaning and holding units. The program runs through Sept. 2014.

**SUSTAINABILITY INCENTIVES**

The NJMC promotes the use of renewable energy and other energy efficiency measures by offering incentives to companies and developers whose projects include aspects of sustainable building practices, such as solar power, recycled materials and energy-efficient heating and lighting systems. Benefits include reduced fees for zoning certificate and plan review applications as well as priority reviews. To date, approved solar installations within the District will generate approximately 32.7 megawatts of renewable energy upon completion of construction.

Above: aerial of view of Koppers Coke Peninsula in Kearny. Right, top to bottom: Avon Landfill in Lyndhurst and former Erie Landfill in Lyndhurst.

**LANDFILL MANAGEMENT**



Today the NJMC operates one landfill in the Meadowlands District – the Keegan Landfill in Kearny. The Keegan Landfill accepts construction and demolition debris and certain non-hazardous industrial waste. Hundreds of public and private entities in Northern New Jersey use the landfill. The Commission continues to collect leachate at Keegan and closed landfills, preventing the release of contaminated water into the district. By cleaning up the Meadowlands District's orphaned landfills and providing facilities for solid waste disposal, the NJMC has provided the foundation for the region's environmental transformation and economic development.

In 2013 alone, the NJMC collected and piped nearly 200 million gallons of leachate to two local sewage treatment plants, preventing this contaminated liquid from seeping into local waterways that eventually flow into the Hackensack and Passaic rivers. The Commission also

leases a composting site for municipal, county and commercial entities to deposit leaves, grass and brush that is composted at a separate location.

The Keegan Landfill took in an estimated 378,415 tons of waste in 2013, compared to 318,505 in 2012, a nearly 20 percent increase. The upswing was partly a result of Superstorm Sandy as well as an agreement to accept Union County's solid waste.

The NJMC's operations of the Keegan Landfill provides low disposal rates that save hundreds of New Jersey municipalities and counties money. The landfill's operation also helps to keep trucks off of New Jersey roadways that would otherwise haul waste to other states.





## MUNICIPAL GIS MAPPING ASSISTANCE

The NJMC provides valuable resources to Meadowlands District municipalities through its digital mapping program. The Commission's high-tech maps help first responders protect communities and assist local governments in operating more efficiently.

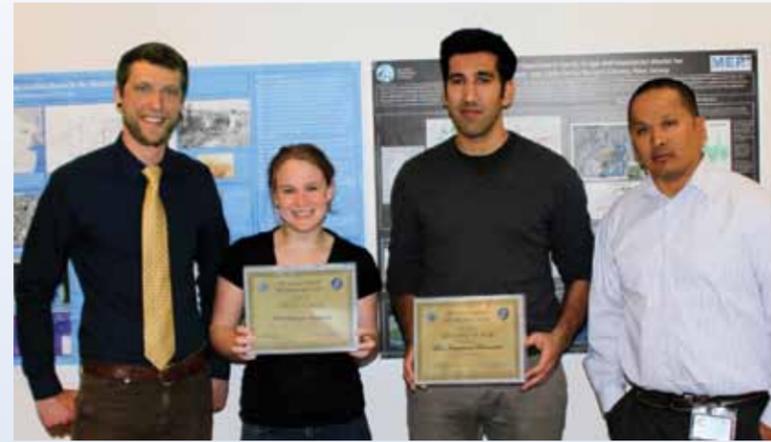
The NJMC's Geographic Information Systems (GIS) group uses state-of-the-art technology to create, maintain and update comprehensive, web-based digital maps and mapping tools for every property in each Meadowlands District municipality.

The maps provide emergency officials within District municipalities instant access to critical information, including data on hazardous materials stored in warehouse facilities, fire hydrant locations, incident reports, floor plans, turn-around space for heavy firefighting equipment, and current and historical aerial imagery. This potentially life-saving information can easily be accessed from field computers, tablets and smart phones.

The maps are also a useful, time-saving tool for municipal officials who use property data to manage municipal assets and plan for infrastructure and other improvements. Data stored on each facility or residential property include owner, block and lot, easements, address, zoning and land use, acreage, and building footprint. Building code and tax officials can produce property boundaries utilizing a buffer tool, which can save time in notifying residents of variance requests or other proposed changes to surrounding properties.

Emergency responders and municipal officials are kept informed of new capabilities and upgrades to the program through continuing comprehensive training sessions, technical support and refresher seminars.

*Left: land-use map of Teterboro. Right top to bottom: GIS team with Digital Mapping Contest Award; Meadowlands District officials in GIS training workshop.*



## NJMC MAPPING TEAM TAKES TOP HONORS IN STATE COMPETITION

In April, GIS staffers took first- and second-place honors at the 26th Annual New Jersey Department of Environmental Protection Digital Mapping Contest. More than 60 participants from state, county and local government agencies and New Jersey public colleges and universities participated in the competition held in Trenton. NJMC staffers won first place in the Best Software Integration category for the map, "Real-time Sensor Based Superstorm Sandy Surge & Inundation Model," and second place in the Best Instructional Presentation group for the map, "Mapping Earthen Berms in the Meadowlands."

## WATER LEVEL ALERT SYSTEM AND FLOOD MAPS

The NJMC provides a water level alert system and flood maps to first responders and the public. The email and text-based alerts for Meadowlands District towns are sent when water levels reach 5.5 feet and continue to be relayed as the levels rise. The interactive, web-based flood prediction maps include the parts of Meadowlands District municipalities that may flood from sea surge levels of 4 to 8 feet. More information on the maps and alerts can be found at <http://meri.njmeadowlands.gov/alerts/water-level/>.





## RENEWABLE ENERGY



Through its renewable energy initiatives, the NJMC has established itself as a regional leader in the promotion of alternative power sources. The Commission encourages Meadowlands District businesses to pursue environmentally friendly and energy saving projects by offering reduced application fees and priority review to developers whose projects include aspects of sustainable building practices, including renewable energy elements such as solar panels.

The NJMC's achievements include a 3 megawatt, groundbreaking, grid-connected solar farm built on the Commission's closed landfill in Kearny. It is the first solar installation on a State-owned landfill. The array consists of 12,506 photovoltaic panels mounted on 13 acres atop the 35-acre landfill. The panels supply power directly to the electric grid.



In addition, the NJMC's 120 megawatt solar carport canopy constructed over part of the Commission's administration building parking lot includes 504 solar panels that provide approximately 20 percent of the electricity needs of the facility. In addition, the NJMC Center for Environmental and Scientific Education includes 165 rooftop solar panels.



The NJMC also facilitated the formation of a solar power purchasing cooperative between the Borough of Little Ferry, the Town of Secaucus and their respective Boards of Education. This initiative resulted in 76.5 kilowatts generated from rooftop solar panels in Little Ferry and 770 kilowatts generated in Secaucus from rooftop and ground-mounted panels.

Left: NJMC 1A Landfill Solar Farm in Kearny. Above, top to bottom: Little Ferry Borough Hall, Little Ferry Senior Center, Secaucus High School/Middle School.



## TRANSPORTATION

The Meadowlands District is home to a vibrant and integral transportation network responsible for moving people and goods throughout one of the East Coast's busiest economic centers, making the smooth flow of traffic and commerce crucial to the success of the District's economy. More than 700,000 private, public and commercial vehicles travel daily through the region's transportation corridors, including the New Jersey Turnpike and Routes 1&9, 3, 17, 46 and 120. In addition, the region is home to regional and international transportation hubs such as Newark Liberty International Airport, Teterboro Airport and the Port Newark/Elizabeth Port Authority Marine Terminal.

### MASSTR

The NJMC's innovative and award-winning Meadowlands Adaptive Signal System for Traffic Reduction project (MASSTR) entails modernizing 128 signalized intersections throughout the Meadowlands District to reduce traffic delays, congestion and airborne emissions. MASSTR is the first adaptive signal system of its kind in New Jersey and the largest system to be implemented at one time in the country.

Using an intricate network of technology, including traffic signal controllers, detection devices, radio transmitters, antennas and a mix of wireless and fiber-optic communication, NJMC transportation engineers program traffic signals to continuously adjust timings based upon the changing flows of traffic in real-time. Staff is also able to make adjustments from the Commission's administration building.

For motorists, MASSTR minimizes waiting in a long line at a red light with few to no vehicles on other approaches. It also reduces stopping at red lights immediately following a green signal at the previous intersection. The system can mean making that job interview or business meeting on time, keeping on schedule with deliveries or reaching shopping destinations faster.

At the request of the New Jersey Department of Transportation, the NJMC in 2013 expanded the scope of the MASSTR project to include 15 additional intersections in Jersey City and Kearny. The extension of the MASSTR project, which will be completed in 2014, is expected to reduce traffic delays on local roads when the reconstruction of the Pulaski Skyway begins.



MASSTR was named the 2013 "Project of the Year" by two professional transportation organizations: the Institute of Transportation Engineers Metropolitan Section of New York and New Jersey and the Intelligent Transportation Society of New Jersey. The Institute of Transportation Engineers is dedicated to making improvements in local infrastructure that better facilitate the movement of goods and travelers. The Intelligent Transportation Society of New Jersey works to accelerate the deployment of intelligent transportation systems and services.

MASSTR covers a number of key intersections in Bergen and Hudson counties, including U.S. Routes 1&9; N.J. Routes 7, 17, 46 and 120; and County Avenue, County Road, Meadowlands Parkway, Newark Turnpike, Paterson Plank Road, Secaucus Road, Schuyler Avenue, Washington Avenue, and Westside Avenue. In 2013, the NJMC completed the first three phases of the five-part program, upgrading 74 intersections. The entire project is expected to be completed in 2014.

The \$12.5 million project is predominantly funded by a highly competitive \$10 million U.S. Department of Transportation TIGER 2 grant awarded to the NJMC in 2010. The Commission is funding the remaining \$2.5 million from its Meadowlands Transportation Planning District (MTPD) Fund. The NJDOT is funding the expansion of the project.

To view an interactive map of all intersections included in MASSTR and its expansion, visit [www.masstr.com](http://www.masstr.com).

### COMMUTER SHUTTLE

The NJMC co-sponsored Lyndhurst Corporate Shuttle transfers commuters, residents and students. It stops at the Kingsland Train Station in Lyndhurst, the Rutherford Train Station, several NJ Transit bus stops in each town, the Lyndhurst Corporate Center, the Lyndhurst campus of Bergen Community College, and the Meadowlands Environment Center and the Avalon Bay residential complex, also in Lyndhurst.

The shuttle provides an important service for Meadowlands residents and workers while helping the environment. By making mass transit more accessible, the shuttle service helps commuters save on fuel costs, expands the job pool for people without other means of transportation and takes cars off the road, reducing greenhouse gas emissions.

Average ridership on the Lyndhurst Corporate Shuttle exceeded 120 passengers daily and 2,600 monthly in 2013, a 10 percent increase in both categories from 2012.



Above: MASSTR Command Center, NJMC Administration Building, Lyndhurst. Below: Lyndhurst Corporate Shuttle.





## PARKS

Since its creation more than 40 years ago, the NJMC has played a significant role in the creation and protection of Meadowlands District parks, natural areas and wetlands. The NJMC since 1969 has preserved more than 3,500 acres of environmentally sensitive wetlands and overseen the construction of or helped to improve more than 10 parks in the District.

In 2013, the Commission made repairs to and reopened all of its parks and natural areas that suffered damage from Superstorm Sandy, though some access restrictions remain. Following is a status update on Commission parks and natural areas affected by Sandy.

- DeKorte Park, Lyndhurst (Home of the NJMC): 3.2 miles of the park's trails are open; less than half a mile remain closed.
- River Barge Park in Carlstadt, Mill Creek Marsh in Secaucus and Harrier Meadow in North Arlington are completely open.
- On Earth Day, Cub Scouts from Carlstadt planted a rain garden and seeded a butterfly meadow at River Barge Park.
- Boy Scouts from North Arlington on Earth Day planted 48 saplings in the Harrier Meadow Natural Area in North Arlington.

In 2013, the Bergen County Audubon Society (BCAS) continued its greatly appreciated support of the NJMC. The BCAS in March donated \$1,500 to the Commission be used toward habitat restoration at the Harrier Meadow Natural Area in North Arlington, including the planting of native shrubs, trees and flowers. Harrier Meadow was heavily damaged during Hurricane Sandy. The BCAS also donated more than \$200 for native plants at DeKorte Park. This follows the Audubon Society's help in 2012 in funding part of a butterfly garden at the AMVETS Carillon. The Carillon is adjacent to the North Arlington Scenic Overlook in DeKorte Park.

*Left: Jill Ann Ziemkiewicz Memorial Butterfly Garden, DeKorte Park, Lyndhurst; Right: Rebuilt World Trade Center Memorial Cove, DeKorte Park, Lyndhurst.*



## WORLD TRADE CENTER MEMORIAL COVE

On Sept. 11, 2013, the NJMC rededicated its World Trade Center Memorial Cove. The site, located in DeKorte Park, provides a clear view of the lower Manhattan skyline, including the new One World Trade Center. Originally dedicated in 2003 to honor the memory of those who died on Sept. 11, 2001, the memorial was reconstructed after sustaining significant damage from Superstorm Sandy.

The Memorial Cove consists of a free-form wooden deck with two projecting piers, suggesting shadows of the fallen towers. The piers are proportioned after the World Trade Center, and each one has 110 boards representing the 110 floors of the towers. The memorial also includes a steel silhouette of the towers and a spot from which visitors can view where the towers once stood against the Manhattan skyline.





## ECOTOURISM

The NJMC has worked hard to raise public awareness of the Meadowlands District's spectacular natural beauty and wildlife and the region's continuing environmental revitalization. The Commission wants everyone in the District and beyond to experience this special urban environmental jewel. Through its efforts, the Commission is helping to establish the region as a prime destination for nature lovers. In 2013, more than 2,000 people participated in the Commission's highly popular guided pontoon boat and canoe tours, year-round guided bird walks, and special events.

### PONTOON BOAT AND CANOE TOURS

More than 1,000 visitors experienced unique, up-close views of the Hackensack River and its marshes on the NJMC's guided pontoon boat cruises and canoe tours. The Commission held 40 tours between June and September 2013. The leisurely, two-to-three-hour excursions are led by experienced NJMC staff who discuss the region's human and environmental history and point out birds and other wildlife along the way.

*Left: NJMC Pontoon Boat Tour of the Hackensack River. Right, top to bottom: American White Pelican, Butterfly Day and Moth Night, both held in DeKorte Park, Lyndhurst.*



## GUIDED BIRD WALKS

The NJMC and the Bergen County Audubon Society (BCAS) offer twice-monthly, free guided bird walks at locations throughout the Meadowlands District, including DeKorte Park, Mill Creek Marsh in Secaucus, Losen Slote Creek Park in Little Ferry and Harrier Meadow in North Arlington, a site that is normally closed to the public. Some 700 people attended the walks in 2013.

In 2013, the wide array of birds seen in the Meadowlands ranged from Bald Eagles and migratory shorebirds in the spring and summer to Rough-legged Hawks and Canvasbacks in the winter. DeKorte Park in Lyndhurst, the home of the NJMC, has been listed by Birder's World magazine, a national publication, as a birding hotspot. When a rare bird sighting is reported on the NJMC's nature blog, meadowblog.net, it's not unusual to see birders from all corners of the tri-state area descend upon the region to get a glimpse of these winged wonders. Rare bird sightings in the past year included a Prothonotary Warbler, Rough-legged Hawks, several Sora and a Wilson's Phalarope.

## BUTTERFLY DAY

Nearly 600 people attended the NJMC's Fourth Annual Butterfly Day at DeKorte Park in July. Visitors old and young alike marveled at the delicate creatures seen at the Jill Ann Ziemkiewicz Memorial Butterfly Garden and along the park's trails. Fourteen butterfly species and two moth species were spotted, including Pipevine Swallowtail and Spicebush Swallowtail, both rare sightings in the region. The Jill Ann Ziemkiewicz Memorial Butterfly Garden honors the memory of a 23-year-old Rutherford resident who was the youngest member of the flight crew on TWA Flight 800, which crashed into the Atlantic Ocean in July 1996.

Also in 2013, DeKorte Park hosted its second annual Moth Night as part of National Moth Week. Several founders of National Moth Week were on hand -- as were more than 70 nature lovers. One of the highlights: an Isabella Tiger Moth (which once was a Woolly Bear Caterpillar).

## NATURE BLOG

The Commission's Nature Blog, meadowblog.net, promotes ecotourism and environmental conservation by providing the public with daily news items about bird sightings, photos of the region's breathtaking fauna and flora, and information regarding NJMC nature events. The blog is interactive, with residents sharing their photos and reporting observations from around the region. Meadowblog has grown substantially since it launched in the summer of 2008 and has become a go-to resource for nature lovers. In December 2013, the blog hit a milestone of 600,000 page views. Overall, it has averaged 10,000 page views per month over the past year.





## MEADOWLANDS RESEARCH

Improvements to the Meadowlands' unique urban ecosystem are supported by the work of the NJMC's Meadowlands Environmental Research Institute (MERI) and Natural Resources Management Department. MERI performs ongoing monitoring and studies of the region's air, soils and water. It also conducts wetlands research that helps the Commission learn new benefits of these environmentally sensitive lands and how they can best be enhanced to further help the environment. The Natural Resources Management Department conducts surveys on area wildlife and wetlands. They also look for ways to enhance and preserve the environment by protecting native plants and other species and finding ways to eliminate or reduce the spread of invasive flora and fauna. The research performed by the NJMC furthers its continuing commitment to exploring ways to improve and protect vital natural resources in the Meadowlands District.

### RESEARCH HIGHLIGHTS

Within a month after Superstorm Sandy destroyed two MERI field monitoring stations, the NJMC and its research partners from Rutgers and Princeton universities received a \$90,000 National Science Foundation grant to replace the equipment. Undamaged monitoring stations captured water levels within the District throughout the storm.

The new stations will allow MERI scientists and their partners to study the storm's effect on methane and carbon emissions in the region's wetlands. Additionally, the monitoring devices will measure the amount of harmful methane and carbon emissions from coastal wetlands that can impact the region's contributions to greenhouse gas emissions. The results will provide a unique baseline to compare the release rates of these greenhouse gases during large storm events and for years to come.

In October, the NJMC received a \$235,000 federal Environmental Protection Agency grant to study environmental obstacles to improving seven wetlands sites in the Meadowlands District. NJMC research staff will analyze the

diversity of plants, including invasive species as indicators of ecological function. They will measure habitat fragmentation, tidal restrictions, proximity to landfills and other factors that could prevent wetlands from functioning effectively.

The research, which will take place in 2014 and 2015, will involve high-tech measurement methods, including remote sensing and sonar. When fully functional, wetlands improve water quality, reduce the impact of flooding by serving as surface water storage basins, and provide shelter and forage for wildlife.

MERI continued an ongoing study that analyzes how much the Meadowlands wetlands are able to capture carbon to prevent this harmful greenhouse gas from entering the atmosphere. Simultaneously researchers are measuring the amount of carbon that the wetlands emit into the air. The project is being funded by a \$300,000 National Science Foundation grant.

Also in 2013, Natural Resources staff began a fishery resource inventory of the Lower Hackensack River. The study will compare the overall amounts and number of species of fish found in the District portion of the river from 2013 to 2015 against inventories taken from 24-month studies in 1987-1988 and 2001-2003. The 2001-2003 study showed a large increase in the abundance of certain species, including white perch, striped bass and bluefish, attesting to the improved water quality of the river.

The Commission's ongoing Diamondback Terrapin population study in 2013 continued to return positive results. Over the past year, 166 terrapins were caught during five trapping events. Of that total, 125 were new captures and 41 were re-captures. The number of new captures is an encouraging sign that points to a large population as a result of a cleaner Hackensack



Left: Aerial view of Meadowlands marshes. Right: Diamond Back Terrapin, carbon dioxide monitoring station.



River. Diamondback Terrapins surveyed during the study are marked and released, unharmed, where they were captured. Since 2009, staff have caught a total of 1,249 terrapins; 1,038 were new captures and 211 were re-captures.

The turtle study, which includes collaboration with scientists and students from The Wetlands Institute in Stone Harbor and Montclair State University, will help the NJMC answer questions about the life history of terrapins in the Meadowlands, including population size, how far the turtles move within a marsh and their growth rate.

Diamondback Terrapins are of particular interest to the NJMC because they are near the top of the food chain in the Meadowlands' brackish marshes, are relatively new to the District – they were first observed in the 1970s – and have experienced a recent population explosion.

The NJMC's bird-banding program provides an important look into the numbers of species of birds that can be found in the Meadowlands, either seasonally or year-round, and how they are making use of habitats growing on or near a former landfill.

Bird banding entails briefly catching birds in delicate netting called mist nets, and then placing them in soft cotton bags and taking them to a makeshift bird-banding station where the birds are weighed, measured and banded with a small aluminum ring that includes a unique serial number for future reference. The bands do not cause discomfort to the birds or affect their ability to fly.

In 2013, the NJMC banded 5,503 birds. More than 26,000 birds have been banded since the program began in 2008. The information helps researchers learn more about how the habitats in the Meadowlands benefit migrating birds.

### ADDITIONAL ONGOING STUDIES BEING CONDUCTED BY NATURAL RESOURCES INCLUDE:

- A study of the benthic macro invertebrate community of the Meadowlands comparing populations from 2013-2014 to 2002 and 1987.
- A survey of plants within the Hackensack Meadowlands District.
- A study of the diversity, abundance and duration of time that migratory birds use Commission landfills and the Harrier Meadow enhancement site as feeding grounds during their stopovers in the Meadowlands. High-tech microphones and recording equipment are used to track the number of birds that fly over the landfills.





## EDUCATION

The Meadowlands Environment Center (MEC) provides highly popular, hands-on physical and natural science programs for Grades K-12 at the Center for Environmental and Scientific Education (Science Center), an NJMC facility run by Ramapo College. The programs provide an opportunity to teach students about the importance of the Meadowlands' wetlands and its unique urban eco-system. The Science Center, which includes state-of-the-art classroom and lab space, was the first public building in New Jersey to be awarded LEED (Leadership in Energy and Environmental Design) Platinum Certification – the highest rating – from the U.S. Green Building Council. The Science Center itself is used as a teaching tool. Educators explain to students how its rooftop solar panels, recycled building materials and other aspects of sustainable building benefit the environment and make for classrooms that are conducive to learning.

### SCHOOL PROGRAMS

Nearly 12,000 students participated in the MEC's environmental science programs during the 2012-2013 school year, with more than 16,000 registered for 2013-2014. While part of the enrollment increase is due to instructional time lost following Superstorm Sandy, the majority of additional students is a result of the MEC's outreach efforts to partner with a greater number of school districts. The nearly 30 programs cover a wide array of scientific disciplines including ecology, chemistry, biology, physics, natural history and astronomy. All programs comply with New Jersey Core Curriculum Content Standards. Educators incorporate DeKorte Park and its marshes into their lesson plans, providing children and teens with an up-close introduction to nature and real-world examples of scientific concepts.

Young children visit the salt marshes in DeKorte Park, interact with live creatures, and learn about animal adaptations in such programs as "Marsh Muckers," "Incredible Insects" and "Nature's Choice." Grade school and middle school students



Left: Student measuring water salinity, DeKorte Park, Lyndhurst; Right, top to bottom: children in education class at the MEC, Lyndhurst; summer camp canoe race in DeKorte Park's Teal Pool; MarshAccess program at NJMC Science Center, Lyndhurst.

dip-net for fish in the marsh, perform water chemistry tests, observe aquatic organisms under the microscope and design model green homes based on eco-engineering principles. Classes include "Astounding Adaptations," "Sustainable Living" and "Peek at the Past: an Archaeological Adventure."

High school students examine how different links in the food chain affect the ecosystem, study the life cycle of stars, analyze renewable energy technologies, and use water sampling techniques and problem-based learning strategies to decide what is responsible for causing a simulated fish kill. They participate in classes that include "Ecology of the Estuary," "Exploring Renewable Energy" and "Humans and Biodiversity."

### SUMMER CAMPS

Children entering Grades K-6 from local recreational programs took part in fun, educational camp experiences in DeKorte Park, exploring the marsh, food chains, animal adaptations, insects and the solar system. In 2013, nearly 2,000 children participated in summer camp activities conducted by Ramapo College educators.

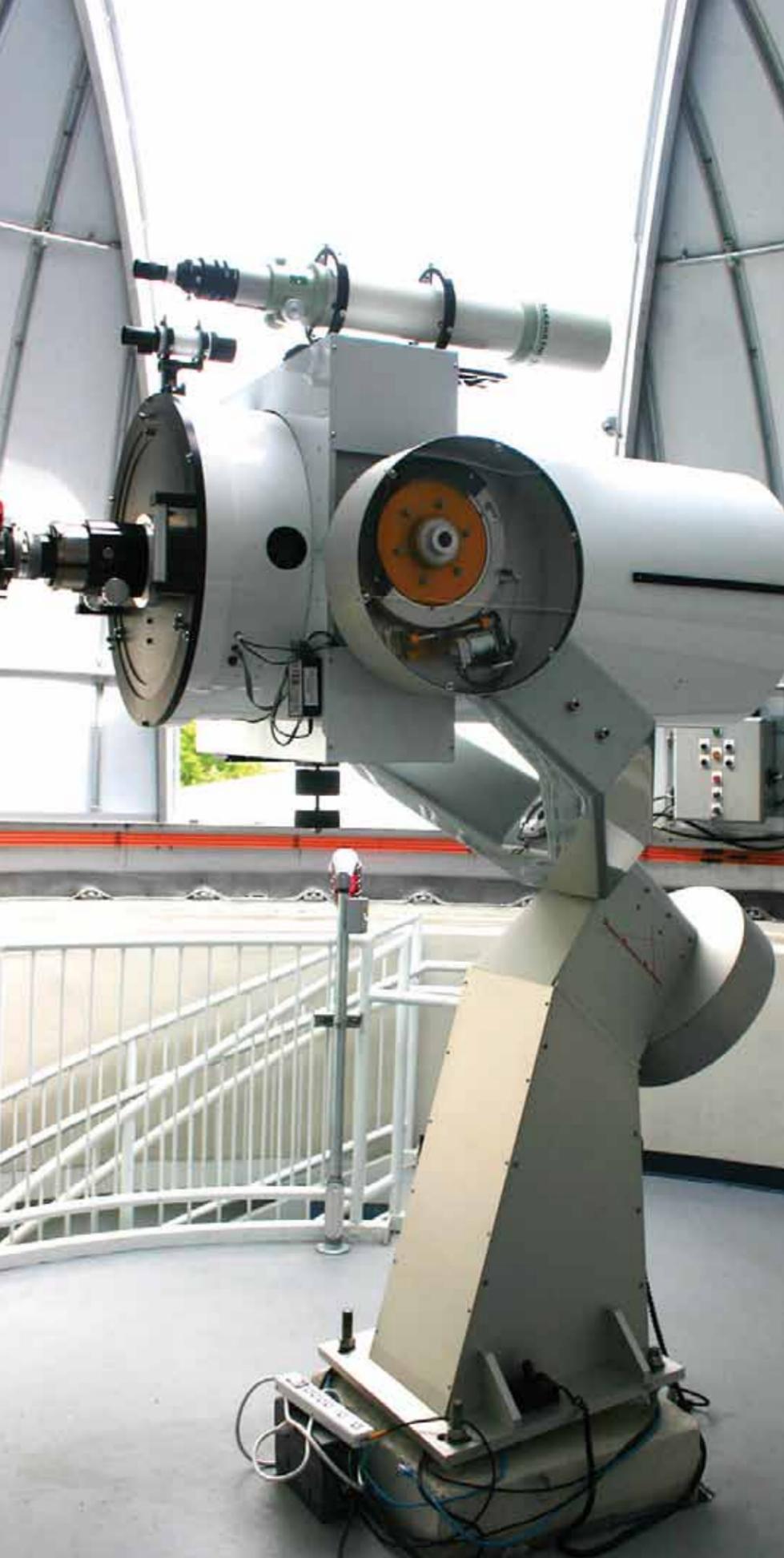
### MARSHACCESS

The MEC MarshAccess program is dedicated to offering an extensive range of environmental education experiences for children and adults with wide-ranging disabilities. The pioneering program, which serves as a nationwide model, provides hands-on and field-based learning for those with developmental, visual, hearing, mobility, learning/cognitive and age-related disabilities. MarshAccess works with several county and municipal organizations, schools, and non-profits to provide these services. Programs are centered upon the Meadowlands' ecosystem. Participants learn about nature by exploring DeKorte Park. A sensory garden includes a variety of native plants chosen for their tactile features. The plants are within reach of visitors with limited mobility. State-of-the-art assistive tactile, visual and audio technologies are provided to fit participants' individual needs.

### TEACHER EDUCATION

In 2013, MEC educators conducted several professional development workshops for teachers of Grades K-12 from throughout New Jersey. They included a Great Explorations in Math and Science workshop, a Math/Science Partnership (MSP) summer institute and a Project Learning Tree environmental education workshop, all of which took place at the MEC. In addition, Environment Center educators led an environmental art program, "The Draw of Nature," at the annual Alliance for NJ Environmental Education Conference in Plainsboro.





## PUBLIC PROGRAMS AND COMMUNITY EDUCATION

The NJMC hosts educational programs and workshops year-round for all ages focused on the Meadowlands' environment, wildlife and history at the Meadowlands Environment Center (MEC). The MEC also houses the Flyway Gallery and the Tideland Treasures Gift Shop. The William D. McDowell Observatory, also located on the NJMC campus, provides free, twice-weekly stargazing all year through a research-grade telescope, plus weekly learning sessions and special events for children.

### MEC PROGRAMS

Nearly 1,300 people attended MEC educational programs in 2013. Programs included numerous animal visits, astronomy and science lectures, and Meadowlands history talks. Highlights included a talk by Little Ferry native Don Smith on growing up in the Meadowlands and trapping muskrats, and a program on North Arlington's old Schuyler Copper Mine, one of the earliest copper mines in New Jersey. The Commission's Summer program, which is geared towards seniors, featured a special pontoon boat trip and a falconry demonstration.

More than 3,000 stargazers viewed planets, constellations and other celestial bodies through the Commission's state-of-the-art telescope at the NJMC William D. McDowell Observatory, which is open to the public on Monday and Wednesday nights year-round, weather permitting and excluding holidays. An astronomy learning series, "Let's Talk Astronomy," is held on Tuesday nights.

The Observatory also hosted several programs for children to foster interest in astronomy at a young age. These included "A Child's Guide to the Universe," which introduced young children to the observatory, and "Do Rocks Really Fall from the Sky?" — a session on comets and asteroids for older children.



## NJMC FLYWAY GALLERY

The Flyway Gallery, located in the MEC, was established in 2002 to spotlight local artists whose diverse work brings new and unique perspectives to the environment in and around the Meadowlands. Exhibits feature everything from nature, wildlife and landscape photography and paintings to multi-media works. Highlights in 2013 included the Art Association of Rutherford's 66th Annual Open Juried Show, "The Inspiration of Daedalus", featuring nature-inspired photographs and oil paintings, and the Wetlands Institute's Junior Duck Stamp Art exhibit, a competition among young artists competing to have their work turned into a postage stamp.

Left: William D. McDowell Observatory telescope, DeKorte Park, Lyndhurst. Top to bottom: award-winning painting "Edge of the Woods" by John Harding from the Art Association of Rutherford's 66th Annual Juried Exhibition; Winning entry from the Junior Duck Competition from the Wetlands Institute; Nicole Zanetakos painting on repurposed wood "The Cage is in Your Mind".



## INTERMUNICIPAL TAX SHARING

This is a report issued pursuant to N.J.S.A. 13:17-60 (b) relative to the operation of the Intermunicipal Tax Sharing program for calendar year 2013. N.J.S.A. 13:17-60 (b) requires that the Commission submit to both the Hackensack Meadowlands Municipal Committee (HMMC)<sup>1</sup> and the Legislature an annual report "relating to the operation of the Intermunicipal Account in the prior year," and shall "recommend, when it deems necessary, such amendments to the Tax Sharing program as it may deem necessary, to carry out the legislative intent" of the Act. N.J.S.A. 13:17-60 (b).

### AN OVERVIEW

The Tax Sharing Program requires towns within the Meadowlands District that have experienced economic growth and development to pay a portion of their taxes into a fund that is distributed to towns that have restraints on development caused by, among other things, environmental issues, including the zoning of properties for open space, landfills or other public uses.

Each year, funds from the contributing municipalities are collected and deposited into the Intermunicipal Account established and administered by the NJMC. The collected funds are then redistributed in their entirety as per the computations of the statutorily created Intermunicipal Tax Sharing formula as a Meadowlands Adjustment Payment. The NJMC does not receive money from the Tax Sharing program and does not receive reimbursement or compensation for its administration of the fund.

### 2013 TAX SHARING INSTALLMENT PAYMENTS

Last year, seven out of the 14 Meadowlands District municipalities paid into the Intermunicipal Tax Sharing account (Carlstadt, Little Ferry, Lyndhurst, Moonachie, North Bergen, Secaucus and South Hackensack) and six received money from the account (East Rutherford, Jersey City, Kearny, North Arlington, Ridgefield and Rutherford). Under the Act, the Borough of Teterboro does not participate in the Tax Sharing program because its municipal equalized valuation per capita exceeds \$1 million (see N.J.S.A. 13:17-67).

Also in 2013, the New Jersey Legislature approved the FY 2014 State Budget, which contained a line item for "Meadowlands Adjustment Aid," in the amount of \$6 million to be credited to the amount payable into the intermunicipal account by each paying municipality.

This credit significantly lowers the amount the paying towns pay while keeping the receiving towns fiscally stable and whole.

### OUTLINED BELOW IS A REPORTING OF THE CERTIFIED MEADOWLANDS ADJUSTMENT PAYMENTS EACH DISTRICT TOWN PAID OR RECEIVED IN THE YEAR 2013.

	Adjustment Payment (as adopted) CY2013	State Aid Total Distribution CY 2013*	Net Adjustment Payment CY2013
Carlstadt	(1,998,664)	\$1,591,800	(\$406,864)
East Rutherford	\$168,156	\$0	\$168,156
Little Ferry	(\$530,164)	\$422,400	(\$107,764)
Lyndhurst	(\$675,894)	\$538,200	(\$137,694)
Moonachie	(\$425,128)	\$338,400	(\$86,728)
North Arlington	\$1,009,037	\$0	\$1,009,037
Ridgefield	\$1,253,202	\$0	\$1,253,202
Rutherford	\$41,373	\$0	\$41,373
South Hackensack	(\$349,239)	\$278,400	(\$70,839)
Teterboro	\$0	\$0	\$0
Jersey City	\$1,182,223	\$0	\$1,182,223
Kearny	\$3,879,713	\$0	\$3,879,713
North Bergen	(\$656,490)	\$522,600	(\$133,890)
Secaucus	(\$2,898,124)	\$2,308,200	(\$589,924)

**Total Receivable (CY2013):** \$7,317,702

**Total Payable (CY2013):** (\$7,317,702)

\* In June 2013, the New Jersey Legislature approved the FY2014 State Budget, which contained a line item for Meadowlands Adjustment Payments Aid" in the amount of \$6 million, to be credited to the amount payable into the intermunicipal account by each paying municipality.

<sup>1</sup>The HMMC, created as part of the Act establishing the NJMC, consists of the mayors or their representatives of the 14 Meadowlands District municipalities. The HMMC is charged with reviewing all proposed codes and standards, master plans or amendments, development and redevelopment, improvement plans or other major decisions of the NJMC. It has the authority to veto proposed zoning or variances.

## FINANCIAL REPORT

### COMBINED STATEMENT OF REVENUES AND EXPENDITURES

#### GOVERNMENTAL FUNDS DECEMBER 31, 2012

##### REVENUES

Solid Waste Overhead Contribution	\$ 3,901,410
Property Sales	4,114,595
Grants	1,848,483
Fees & Charges	791,408
Lease Payments	316,134
Mitigation Trust Reimbursements	132,587
Interest Income	109,993
User Fees - NJMCEC	101,044
Revenues from Composting Operations	100,000
Other Income	51,848
<b>Total Revenues</b>	<b>\$ 11,467,502</b>

##### OPERATING EXPENDITURES

Commission Operations	\$ 8,612,657
Environment Center Operations	2,320,494
Solar Array 1-A	976,540
Business Accelerator	397,270
Capital and Maintenance	87,880
Other Expenditures	628,287
<b>Total Operating Expenditures</b>	<b>\$13,023,128</b>

Excess of Expenditures over Revenues prior to Non-Operating Costs \$ (1,555,626)

##### NON-OPERATING EXPENDITURES

MAGNET Grants	\$ 175,789
Amounts expended against prior year revenue allocations	4,899
<b>Total Non-Operating Expenditures</b>	<b>\$ 180,688</b>

Net Excess of Expenditures over Revenues \$ (1,736,314)

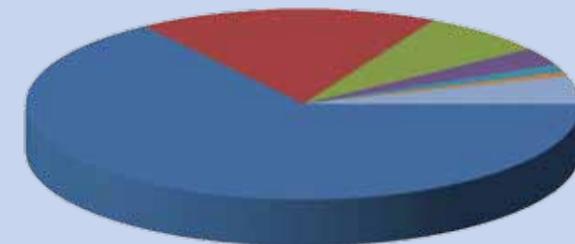
##### GOVERNMENTAL FUNDS: REVENUES

Property Sales - 36%
Solid Waste Overhead Contribution - 34%
Grants - 16%
Fees and Charges - 7%
Lease Payments - 3%
Revenues from Composting Operations - 1%
Other Income - 3%
Interest Income - (1%)
User Fees - NJMCEC - (< 1%)
Miscellaneous - (< 1%)
Mitigation Trust Reimbursements - (< 1%)



##### GOVERNMENTAL FUNDS: EXPENDITURES

Commission Operations - 65%
Environment Center Operations - 18%
Solar Array 1-A - 7%
Business Accelerator - 3%
MAGNET Grants - 1%
Capital and Maintenance - 1%
Other Expenditures - 5%
Amounts expended against prior year revenue allocations - (1%)
Solar Canopy Expense - (<4%)
Miscellaneous - (<1%)



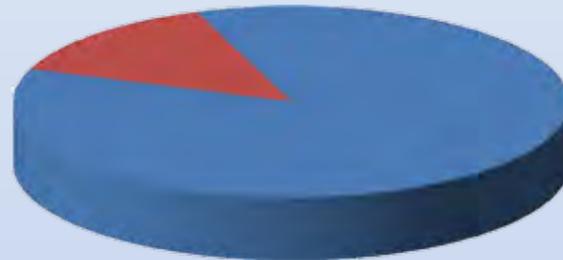
**FINANCIAL REPORT**

**SOLID WASTE OPERATIONS  
STATEMENT OF REVENUES AND EXPENDITURES  
DECEMBER 31, 2012**

<b>REVENUES:</b>	
Operating Revenue	\$ 22,167,636
Non-Operating Revenue	3,578,277
<b>Total Revenues</b>	<b>\$ 25,745,913</b>
<b>EXPENSES</b>	
General Operating Costs	\$ 9,254,552
Landfill Operations	5,293,003
MERI/Laboratory/Parks & Open Space	3,891,686
Payments to County Utility Authority	4,206,025
Closure Expenses	2,157,504
Other Expenses	744,224
<b>Total Operating Expenses</b>	<b>\$ 25,546,994</b>
Net Income	\$ 198,919

**SOLID WASTE OPERATIONS: REVENUES**

- Operating Revenue - 86%
- Non-operating Revenue - 14%



**SOLID WASTE OPERATIONS: EXPENDITURES**

- General Operating Costs - 36%
- Landfill Operations - 21%
- MERI/Laboratory/ Parks & Open Space - 15%
- Payments to County Utility Authorities - 17%
- Closure Expenses - 8%
- Other Expenses - 3%



Top: Killdeer Family (photo courtesy of Ron Shields), Rough-legged Hawk  
 Middle: Polyphemus Moth, American Avocet (photo courtesy of Dennis Cheeseman)  
 Bottom: Prothonotary Warbler, Hackberry Emperor (photo courtesy of Regina Geoghan)  
 For updates on rare bird sightings and other Meadowlands nature news, visit [meadowblog.net](http://meadowblog.net).

Explore the Meadowlands

Secaucus South Hackensack Teterboro Carlstadt East Rutherford Jersey City Kearny Little Ferry Lyndhurst Moonachie North Bergen North Arlington Ridgely Rutherford



**New Jersey Meadowlands Commission**

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