

The image is a full-page background photograph of a large, modern, multi-story building with a white and grey facade, situated on a body of water. The building has several windows and a flat roof. To the right of the main building, there is a smaller structure with a brown roof. The water is calm, and the sky is clear and blue. In the foreground, centered, is the NJSEA logo, which is an oval shape with a blue border. Inside the oval, the words "NEW JERSEY SPORTS &" are at the top, "NJSEA" is in the middle in large white letters with a red outline, and "EXPOSITION AUTHORITY™" is at the bottom. Below the logo, the text "2020 ANNUAL REPORT" is written in large, white, sans-serif capital letters.

2020 ANNUAL REPORT

OVERVIEW

The New Jersey Sports and Exposition Authority (NJSEA) holds the land lease for and provides for the ongoing operation of the internationally renowned MetLife Sports Complex and is the regional planning and zoning authority for the Meadowlands District, which consists of parts of 14 towns in Bergen and Hudson counties.

Over the past five decades hundreds of millions of people from around the world have experienced world-class sporting matches, concerts and other events at the Sports Complex, which includes MetLife Stadium, the Meadowlands Racetrack, the Meadowlands Arena, and the American Dream entertainment and retail complex. The Meadowlands Arena remained a prime spot for television production. In 2020, NBC Universal filmed the television show, “The Equalizer,” at the site.

NJSEA operations at the Sports Complex include engineering, rail station operations and maintenance, and fire and EMS services.

The Authority also owns the Wildwood Convention Center and holds the land lease for the Monmouth Park Racetrack in Oceanport, home of the Haskell Invitational; the Favorites off-track wagering facility in Woodbridge; and the Atlantic Health Jets Training Center in Florham Park.

As a regional planning and zoning agency, the NJSEA promotes economic growth and environmental preservation in the Meadowlands District.

Through appropriate, smart planning, the agency over the past five decades has attracted billions of dollars in economic development to the District, establishing the area as a major economic engine. Today the Meadowlands is a hub for warehouse and distribution centers, data centers and office space due to its proximity to New York City, mass transit, and major roadways, air and seaports.

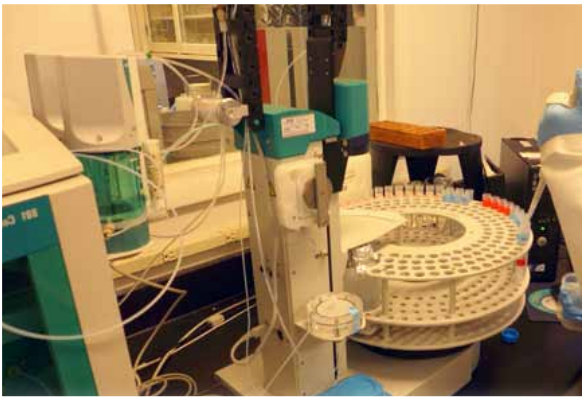
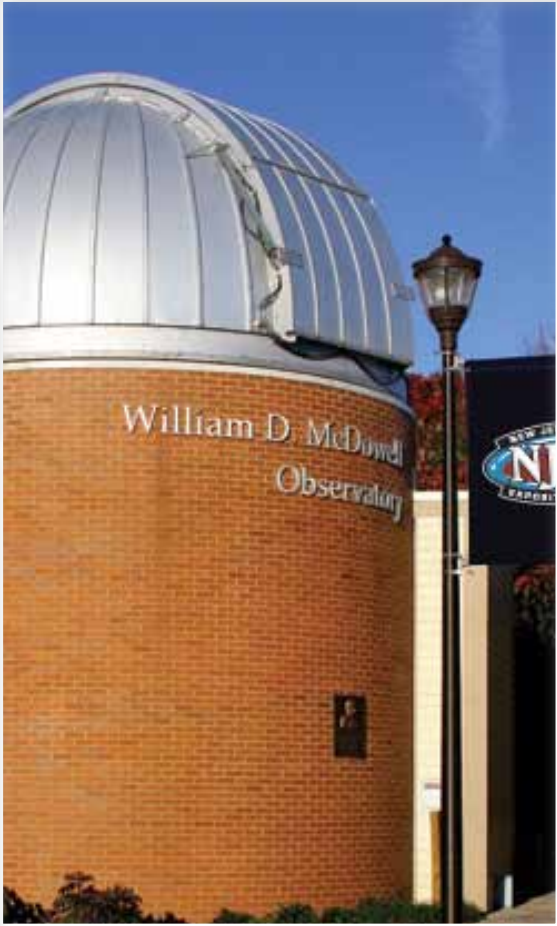
At the same time, the agency has cleaned up and closed more than 50 orphaned landfills, protected more than 3,500 acres of environmentally sensitive wetlands, and contributed to the significant improvement of the Hackensack River and the region’s overall tremendous environmental renaissance. The Meadowlands, once defined by blight and pollution, today is teeming with wildlife and natural beauty and is a nationally recognized birding hotspot.

The NJSEA’s DeKorte Park headquarters in Lyndhurst houses its Land Use Management Department, Solid Waste and Natural Resources Department, Administrative Department and executive offices. It is also home to the NJSEA’s Meadowlands Environmental Research Institute (MERI).

The agency’s Meadowlands Environment Center provides environmental education programming to students in Grades K-12 through an agreement with Ramapo College of New Jersey. The Lyndhurst campus also houses the William D. McDowell Observatory through a collaboration with Bergen Community College.

The Meadowlands District municipalities in Bergen County are Carlstadt, East Rutherford, Little Ferry, Lyndhurst, Moonachie, North Arlington, Ridgefield, Rutherford, South Hackensack and Teterboro. Hudson County municipalities in the District are Jersey City, Kearny, North Bergen and Secaucus. ❖

PHOTO CAPTION: Col. 1—Richard W. DeKorte Park, New Jersey Sports and Exposition Authority Complex, River Barge Park. Col. 2—Meadowlands Environment Center, William D. McDowell Observatory. Col 3—Meadowlands Environmental Research Institute, MetLife Stadium, Center for Environmental and Scientific Education



MESSAGE FROM THE CHAIRMAN



JOHN BALLANTYNE
Chairman

The year 2020 presented challenges like no other time in modern history, shaking the foundations of every aspect of our lives. From our health and well-being to personal and business challenges, COVID-19 left no one untouched.

The New Jersey Sports and Exposition Authority was impacted by the pandemic on a very personal level. I'm saddened to report that the NJSEA lost five members of our staff in 2020 and early 2021 that died after contracting the coronavirus: Dr. Francis Molinari, EMTs David Pinto and John Ferrarella, Solid Waste Enforcement Officer Bernard Lanham, and Security Guard Julian Capron. All were beloved by their families and fellow employees and will be missed tremendously.

As a government entity, the NJSEA exists to serve the public, through good times and bad. The pandemic called for all areas of this agency to come together and find ways to adapt to the new normal. It was imperative that we continued to fulfill our multi-faceted mission as a regional planning agency that fosters appropriate economic growth while protecting the delicate Meadowlands environment as well as operating the Sports Complex.

The NJSEA rose to the challenge. Many staffers worked at home while essential employees headed to the office, conforming to State guidelines on social distancing and PED use at all times. Safety was and remains paramount.

The NJSEA persevered in 2020. Board of Commissioner Meetings and Land Use Public Hearings went virtual, land-use applications were made digitally and Land Use staff were available to answer public questions. The majority of Land Use applications received in 2020 proposed the development of new warehouses and renovations to existing industrial sites as the pandemic fueled the burgeoning e-commerce development business identified in the District's new Master Plan adopted in 2020.

Critical field work performed by the Meadowlands Environmental Research Institute (MERI) and the NJSEA Natural Resources Department continued to take place. Their combined research on the vital wetlands along the Hackensack River has taken on new urgency given the future potential for more frequent and severe storms and flooding in the region brought about by sea level rise.

As always, communication and transparency with the public is crucial to the success of a government agency. The NJSEA website clearly directed the public to critical information. Staff answered emails sent directly and through our public information address, info@njsea.com. I encourage everyone with questions regarding any aspect of NJSEA operations to send us an email.

I'm proud of the efforts that the NJSEA made in 2020 to continue business uninterrupted in the wake of the pandemic and serve the public. The next year will see continued challenges, and I'm confident that we will continue to meet them. ❖

BOARD OF COMMISSIONERS



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MESSAGE FROM THE PRESIDENT AND CEO



VINCENT PRIETO
President & CEO

The enormous turbulence of the past 12 months brought about by the COVID-19 pandemic has affected everyone throughout the State of New Jersey and the entire country to the core of our very being. At the New Jersey Sports and Exposition Authority, we have faced our own immense personal loss and unprecedented professional upheaval.

In 2020, there was to be no business as usual at the NJSEA. We would have to adapt to the “new normal” to foster business continuity at the Authority. Thanks to the tremendous dedication and hard work of staff, whether they be working at home or in the office, and through the vision and guidance of our Board of Commissioners, we have achieved the goal of continuous operations to serve District municipalities, the public and all of our constituents.

It was an especially challenging year for the NJSEA Medical Services Solid Waste and Security departments, which were devastated by the painful loss of their own employees in 2020 and early 2021 yet persevered with their important work.

The Authority continued to serve Meadowlands District municipalities in 2020. Through its Municipal Drone Program, established in 2019, the agency has provided drone flights to towns at no charge, helping to gather valuable data on the condition of drainage ditches and berms that are critical to flood protection, among other areas surveyed, while saving the towns hundreds to thousands of dollars.

Authority stormwater engineers assisted District municipalities and property owners with flood issues, and the NJSEA’s Meadowlands Environmental Research Institute continued to monitor District tide gates and provide early warning flood alerts to town officials.

We were successful in transitioning our important Land Use application process from an in-person procedure to a fully digital model. As a result of the staff’s clear communication with business owners through the NJSEA website, njsea.com, more than 400 applications were submitted to the Land Use Management Department.

The NJSEA also enhanced the public’s quality of life by continuing its public programs during the summer through its partnership with the Bergen County Audubon Society. The NJSEA and BCAS held events including a Birding for Beginners program introducing residents to the joys of this popular pastime in the Meadowlands.

The Meadowlands Environment Center (MEC), a partnership between the NJSEA and Ramapo College, did not let the pandemic halt its renowned high-quality science and environmental education programming as educators conducted virtual lessons to schools throughout the Meadowlands and other parts of the State.

Under the leadership of our Board of Commissioners and through the hard work and professionalism of our staff, the NJSEA stands on solid ground to continue its business continuity over the next 12 months. ❖



Mill Creek Marsh, Seacaucus

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Chief Compliance Officer*
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*Director of Information Technology
& Telecommunications*



Great Egret, photo courtesy of ME Raine

MEDICAL SERVICES

The NJSEA Medical Services Department is responsible for providing medical assistance to employees, visitors and fans at the Meadowlands Sports Complex, which includes MetLife Stadium, the Meadowlands Racetrack, the Meadowlands Arena and the American Dream entertainment and shopping center.

The department includes four NJ State Department of Health licensed ambulances. Under the guidance of the Chief Medical Doctor and Chief Registered Nurse, the staff of physicians, nurses and EMTs perform tasks from treating minor injuries to reviving heart attack victims.

In 2020, during the COVID-19 pandemic, Medical Services played a vital role in providing assistance to District municipalities and beyond. In April, staff helped to coordinate the use of the Sports Complex as a staging area for more than 300 out-of-state EMS crews and ambulances

The NJSEA EMS had a representative in the staging area to assist with the needs of the personnel in the lot. The ambulance crews greatly helped municipalities whose own EMS squads were shorthanded due to calls relating to the pandemic. Out-of-state workers answered emergency calls in local towns and provided COVID-19 transport services, easing the stress on municipal responders.

Medical Services also provided telemedicine services and helped arrange outside COVID-19 testing for Authority staff as well as employees of MetLife Stadium, the New Meadowlands Racetrack and American Dream.

METLIFE SPORTS COMPLEX OPERATIONS



They are instrumental in reviewing all employee illness and directing them for follow-up and/or quarantine to assure staff is fit for duty and to reduce the potential spread of the virus in the workplace. The Department also has been performing contact tracing of employees who test positive for COVID-19 and those traveling back to New Jersey from other states. The EMS Staff work with stakeholders to provide education to the employee base regarding COVID-19 and how to act in the workplace to prevent contracting the virus and spreading it.

The department provides training in CPR and the use of the automated external defibrillator (AED) to all security and management staff at the Meadowlands Racetrack and MetLife Stadium.

The NJSEA's team works with the State Department of Health Office of Emergency Services and the Bergen County EMS Coordinator to ensure the resources needed in the event of a mass casualty incident on the property during event hours is adequate. They train with the New Jersey State Police annually on Active Shooter Response and Rapid Response to any mass casualty on the property. ❖





FIRE DEPARTMENT

The NJSEA Fire Department is on duty 24 hours per day, 7 days a week.

The Department responds to all emergency calls for incidents at the Sports Complex, including but not limited to MetLife Stadium, the Meadowlands Arena, the old and new Meadowlands Racetracks, and the American Dream entertainment and shopping center.

In addition, the Department protects the Giants Quest Diagnostic Training Facility, two helipads, numerous maintenance buildings, and all parking lots and parking decks. Their response area also covers all roadways within the complex as well as parts of the New Jersey Turnpike, Route 3 Service Road and any roadway that impacts the Complex.

The Fire Department includes 1 ladder company, 2 engine companies, a squad company and 2 tactical vehicles. The tactical units are used for fire emergencies in locations on the Complex that are otherwise deemed impossible to access with full size apparatus. The squad apparatus is fully loaded with specialized rescue equipment employed to manage incidents involving motor vehicle accidents, vehicle entrapments and hazardous materials.

Emergencies that the Department responds to include structure fires, car fires, dumpster fires, brush fires, and carbon monoxide and water flow alarms. They also handle any type of specialized rescue such as motor vehicle accidents, high angle, confined space

rescue, elevator entrapments and any emergency involving escalators. On a regular basis, the Department handles matters involving natural gas, electric and water emergencies, as well as fuel and hazardous materials spills. The Fire Department is called on to assist other agencies to serve as a backup during medical emergencies.

The Department is part of the South Bergen County Mutual Aid Agreement. This agreement, between all the surrounding municipalities in the county, states that during any major incident in any of the participating towns, that any of the included agencies can and will be called on to send aid. This mutual aid is usually in the form of apparatus and manpower to help bring a major incident under control. ❖

ENGINEERING

The Engineering Department oversees the NJSEA operations at the Sports Complex and handles all facilities and site engineering as well as maintenance. It is responsible for regulatory compliance and environmental obligations and issues at the Complex. The Department also oversees the Storm Water Pump Station and Lagoon System. This critical facility handles the millions of gallons of storm water for the site by storing and transporting the water into nearby Berry's Creek.

SITE OPERATIONS

This Department is responsible for operating the Sports Complex as required under the various lease agreements between the NJSEA and Complex tenants. Site Operations staff performs snow removal and landscaping in addition to routine maintenance and cleaning.

The Department works on the NJSEA portion of the property as well as loading road salt for the entire site. A team of operating engineers maintains the NJSEA and Meadowlands Racetrack vehicle fleets and heavy equipment.

NJSEA electricians are responsible for covering the Complex's 26Kv service and distribution to all site facilities. Electricians also handle all MetLife Stadium events and are utilized by Meadowlands Racing & Entertainment, the New York Giants Quest Diagnostics Training Center, and American Dream on an as needed basis. NJSEA laborers maintain all agency grounds, including the New Jersey Transit Rail Station, and work all events.

RAIL STATION OPERATIONS AND MAINTENANCE

Under the NJSEA's agreement with New Jersey Transit, the Authority maintains the Meadowlands Rail Station and platform at the Sports Complex and provides power to the station and the rail line. ❖

Photo array of the Sports Complex



IN MEMORIAM

A tribute to the memory of those at the NJSEA that passed after contracting COVID-19.



Dr. Francis Molinari

Dr. Francis Molinari died in April at the age of 70. Known as Dr. Frank, he worked for the NJSEA Medical Department for more than 35 years. Frank loved being a physician and coming to the aid of people during concerts and horse racing events. His colleagues at the NJSEA adored and respected him, recalling the skill and grace with which he performed his job and how they often came to him for advice. Dr. Molinari is sorely missed. ❖



David Pinto

David Pinto, age 70, died in May. An NJSEA EMT since March 1994, David was remembered as a beautiful man known for his kind and generous heart who lived to help others and make their days a little brighter. He gave 100% to every call and was loved by his colleagues and the employees he took care of every day. David's life was dedicated to serving others. He was also a volunteer with the Wallington Emergency Squad and an Ex-Chief of that Department. David's memory will live on in all of the many lives he touched. ❖



John Ferrarella

John Ferrarella, who worked as an EMT at the NJSEA for 15 years, passed in April at age 70. John is remembered by his colleagues at the Authority as a big man with a bigger heart, beloved by all who knew and worked with him. As a retired Captain in the Paterson Fire Department and a Marine veteran, John was known as Cappy and unmistakable for his handlebar mustache. A dedicated public servant, he was an EMT coordinator at Passaic County Community College and an instructor at the Bergen County Law & Public Safety Institute. Our beloved Cappy will never be forgotten. ❖



Bernard Lanham

Bernard Lanham, age 64, died Jan. 28, 2021. Bernard was a Solid Waste Enforcement Officer at the NJSEA for 16 years. Bernard was a father and grandfather and his family meant the world to him, especially his granddaughter. Bernard was a great worker and dear friend and colleague who always had a big smile and kind word for all he encountered on the job. Bernard enjoyed fishing and taking road trips, and rooting on his beloved Dallas Cowboys. He will be sorely missed by both his family and his colleagues, who remembered him as a fun loving person whose memory will always be cherished. As one co-worker stated, "He was just one of those people that made everyone happier whenever he was around." ❖



Julian Capron

Julian Capron worked for the NJSEA for 10 years as a full time employee in the Authority's East Rutherford Security Department. He passed away in April at age 45. The Bergen County resident was born in the Jamaican West Indies and came to the US as a young child. His family and coworkers described Julian as a selfless, kind and giving man who always put others' needs above his own. He will be greatly missed by his family and many friends. ❖

LAND USE MANAGEMENT



DeKorte Park looking toward New York City

DEVELOPMENT APPLICATION REVIEW

For development application review, the Land Use Management (LUM) Division is organized into two groups. The Site Plan Review Group is responsible for establishing and enforcing the zoning and subdivision regulations of the District. The Plan Review Group is responsible for reviewing all proposed development in accordance with New Jersey's Uniform Construction Code. All development plans and property improvements, including redevelopment projects, are reviewed to ensure orderly development in accordance with NJSEA regulations, which effectuate the Hackensack Meadowlands District Master Plan.

In 2020, the NJSEA switched to an all-digital application review process that successfully promoted business continuity during the COVID-19 pandemic. The Division also held virtual public hearings for applications involving variances, special exception, and certain subdivision requests due to the declared Public Health Emergency.

Despite the pandemic, the year was especially busy, with LUM receiving 402 applications, evidence of the District's continuing robust economic growth and development. The majority of these applications proposed the development of new warehouses and renovations to existing industrial properties in the District, as the pandemic catalyzed the burgeoning e-commerce development trend identified in the District's new Master Plan. ❖



MASTER PLAN 2020

In February, the NJSEA adopted the Hackensack Meadowlands District Master Plan Update 2020 (2020 Master Plan Update). This vital document sets the vision and decision-making pathway for the District's future economic prosperity and environmental sustainability by proposing new policy objectives and recommendations for further growth and preservation.

The 2020 Master Plan Update marks the 50th anniversary of the first District Master Plan adopted in 1970, and demonstrates how far the agency has progressed from its infancy as the then-Hackensack Meadowlands Development Commission to today's NJSEA. The 2020 Master Plan Update, the first update since the 2004 NJMC Master Plan, exemplifies the NJSEA's commitment to sound regional planning that over the past five decades has transformed the District into an economic engine and environmental jewel, strategically located within the NY-NJ metropolitan region. The principal goals of the 2020 Master Plan Update include:

- Safeguarding and restoring the District's natural and historic resources;
- Promoting a suitable array of land uses that promotes the public health, safety, and general welfare while supporting the Meadowlands economy;
- Accommodating regional housing needs in suitable locations;
- Promoting an effective regional transportation network; and
- Increasing resiliency and promoting the use of sustainable energy in the District.



Digital Map of Meadowlands District

The 2020 Master Plan Update includes sections on land use, market trends, redevelopment, housing, circulation, environment, wetlands, parks, wildlife and more. Main environmental objectives of the plan include the preservation and protection of existing natural areas, habitats, and other open spaces in the District, which dovetail with the District's economic development goals to ensure that economic development objectives are implemented in sync with the Meadowlands environment.

Toward that end, the 2020 Master Plan Update includes a new section, “Sustainable Meadowlands: A Guide to Resiliency,” which seeks to protect the environment and safeguard economic investment in the District. The importance of resiliency and adaptation, particularly in the low-lying Meadowlands, is crucial given the challenges of sea level rise brought about by climate change that threatens both the natural and built environment of the District.

The 2020 Master Plan Update outlines the NJSEA's ongoing resiliency

and stewardship efforts that have helped to mitigate the risk from weather-related events, including enforcement of regulations, floodplain management initiatives, water level monitoring, wetlands preservation, and sustainable initiatives.

The Master Plan Update 2020 also offers potential strategies to address sea level rise that may be appropriate for future implementation. These include, among others, overlay zones to reflect Special Flood Hazard Area (SFHA) properties; increased setbacks or buffers to enhance protection of vulnerable properties; and restrictions on rebuilding after flood events. The Authority has long been proactive at adapting to changing circumstances and will continue to do so.

The 2020 Master Plan Update recognizes the importance of close collaboration with District stakeholders, including constituent municipalities, other government agencies, environmental organizations and the development community to achieve realization of the established vision. ❖

TRANSPORTATION PLANNING

The Hackensack Meadowlands Transportation Planning District Acts of 2005 and 2015 (TPD Act) established a Transportation Planning District within the Meadowlands District and required the creation of a comprehensive District-wide Transportation Plan that designates transportation projects and associated funding needed to sustain future economic growth. Additionally, the TPD Act empowers the NJSEA to assess fees on future District development based upon a technical analysis of its projected impact upon the transportation system.

The fees are placed into a dedicated fund and are to be utilized for transportation infrastructure initiatives related to growth in the region. The initial Meadowlands District Transportation Plan, which projected development to year 2030, was adopted in 2007. In 2020, the NJSEA procured the services of AECOM to prepare an update to the District Transportation Plan, looking to year 2045. Work is progressing on the plan update, which will involve reconvening the Meadowlands Transportation Planning Board and include meetings with various stakeholders. ❖



Intersection of Route 7 and Schuyler Avenue, Kearny

MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION (MASSTR)

The NJSEA's award-winning MASSTR project is an excellent example of a District-wide transportation initiative leveraged with matching funds from the Transportation Planning District Fund, through a TIGER II grant from the US DOT. The \$12.5 million MASSTR project upgraded 124 signalized intersections throughout the region through an intricate network of technology to continuously adjust traffic signal timings based upon the changing flows of traffic in real-time.

The NJSEA operates MASSTR, which uses traffic signal controllers, detection devices, radio transmitters, antennas, and a mix of wireless and fiber-optic communication to ensure that traffic continues to flow smoothly. By changing traffic signal operations from fixed timings to a real-time system, MASSTR has brought tremendous improvement to the quality of life of those who traverse roadways throughout the Meadowlands region. It 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.

The expansion of the MASSTR project continued in 2020. A new adaptive signal was installed in Secaucus at the intersection of Paul Amico Way and Castle Road, and a new traffic pattern was constructed at the redesigned intersection of Paul Amico Way and Seaview Drive. Work is currently in progress on the integration of four new additional signalized intersections located in Carlstadt and North Bergen. ❖



SOLID WASTE AND NATURAL RESOURCES



Drone photo taken from above 1A Landfill in Kearny looking toward Saw

The Solid Waste Department oversees the operation and maintenance of the agency’s closed landfills. The past year marked the first time in 50 years that there were no operating landfills in the District. The Department is also responsible for floodplain maintenance and flood control projects. The Natural Resources Management group supports improvements to the Meadowlands’ unique urban ecosystem through its wetlands enhancement work, and surveys and studies on area wildlife and marshes.

SOLID WASTE

The Authority in 2020 continued to work on the capping of the closed Keegan Landfill in Kearny and managed the closed and capped NJSEA landfills: the 1E Landfill in Kearny and North Arlington; the 1A Landfill in Kearny; and the Erie Landfill in Lyndhurst.

As part of its work in maintaining the former landfills, the agency collects and treats more than 500,000 gallons of leachate daily. Leachate is the liquid created by rainfall mixing with decomposing garbage in landfills. The Authority pumps the leachate to a regional sewage facility, where it is treated. The NJSEA has intergovernmental

agreements with State agencies and counties for waste disposal and leachate treatment. In the past, leachate flowed freely into the Hackensack River and contributed to environmental degradation until the agency began remediating the landfills. ❖

SOLID WASTE TRANSFER STATION

The agency leases a trash transfer facility in North Arlington to a private operator. The transfer station is commonly known as The Baler and is used to move municipal solid wastes out of-state. Solid waste is dumped at the transfer station, loaded into rail containers and then placed on a train for disposal out of state. Due to the COVID-19 pandemic, the Baler has been inactive since April 2020.

In addition, the NJSEA leases a vegetative waste transfer facility at its closed 1E Landfill. County, municipal and commercial entities use the site. They deposit leaves, grass and brush that are transferred to and composted at a separate location. This transfer site provides a local destination so that this material can be processed into mulch and soil, keeping it out of landfills. ❖



Drone photo taken above Kingsland Landfill looking toward NJSEA Lyndhurst Campus.

FLOODPLAIN MANAGEMENT

In 2005, the former New Jersey Meadowlands Commission prepared the Hackensack Meadowlands Floodplain Management Plan. This plan, which is currently being updated for 2021, established a baseline that remains relevant today by assessing and identifying flood hazards in the Meadowlands District. This foundation evolved into multi-step, coordinated initiatives that have been undertaken by the agency since 2005 to address flooding in the District.

All development applications submitted to the NJSEA are reviewed for conformance with the Authority’s District Floodplain Management regulations. This approach has been effective, as evidenced by the low number of repetitive losses due to flooding in the District. Prior to 2012, there were fewer than 10 repetitive loss properties. After Superstorm Sandy in October 2012, the number of repetitive loss properties increased; however, no buildings constructed since the agency’s participation in FEMA’s Community Rating System (CRS) in 1992 were flooded by the storm.

As part of its goal to mitigate instances of flooding in the District, the NJSEA actively collects, logs, and assesses flooding complaints on individual properties and inspects properties for flood impacts following severe storms. In addition, Authority engineers are available to meet with property owners for on-site inspections and to discuss site-specific stormwater drainage options. ❖

FLOOD INSURANCE DISCOUNTS



Authority’s participation enables property owners, businesses and tenants located in Special Flood Hazard Areas within the Meadowlands District to be eligible for 15 percent discounts on National Flood Insurance Program policies issued through FEMA. The discounts are applicable when property owners purchase or renew their policies.

The NJSEA must undertake certain activities that reach certain benchmarks in order to meet or exceed the point

system established as part of the CRS. The Authority has been recognized by FEMA for its actions in areas including flood data maintenance, open space preservation, stormwater management standards and drainage system maintenance. As part of the CRS program, NJSEA regulations require flood proof development through the elevation of new construction and substantial improvements above the Base Flood Elevation established by FEMA Flood Insurance Rate Maps.

As part of its participation in the CRS, the NJSEA conducts annual inspections of stormwater infrastructure in the District and regularly evaluates the functionality of all tide gates and pump stations. The NJSEA also coordinates with municipalities and counties for removal of stream debris and tide gate repairs, helping to mitigate the damaging effects of storms. ❖



NATURAL RESOURCES MANAGEMENT



Osprey Nest Platform

The Natural Resources Management Department recognizes that the environmental aspects of the Hackensack Meadowlands are a unique urban system and a vital asset for the State of New Jersey. To this end, the Department is focused on protecting, conserving, managing and restoring the Meadowlands’ natural resources for current and future generations by using innovative approaches and solutions based in science, collaboration, and respect for all the communities and interests involved.

RECENT EFFORTS UNDERTAKEN BY DEPARTMENT STAFF INCLUDE THE FOLLOWING:

- To continue to build on its efforts to assist in the recovery of Osprey populations in the Meadowlands, staff in 2020 worked with several partners to build 5 nesting platforms in various locations in the District. Staff continues to monitor each platform to observe how Osprey are using the sites, and looking for additional sites to build more platforms in 2021
- The Department has been working with the Meadowlands Environmental Research Institute (MERI) and others to assess habitat communities on NJSEA-owned properties using drone technology and field visits to detail site structural diversity, vegetation strata, trophic levels, spatial mosaic, landscape connectivity, and site stressors. Drone flights have been conducted for all sites that Natural Resources staff regularly monitor, and GIS maps based on these flights have been developed. Staff is detailing the different habitats and then field checking the maps with on-site observations. The goal of these efforts is to develop management and restoration recommendations, and document changes that occur over time based on annual drone flights.



Photo courtesy of ME Raine

- Natural Resources staff continues to use the Meadowlands District 2019 – 2023 Wetland Program Plan (WPP), which was approved by the US Environmental Protection Agency in 2019, as a framework for monitoring and assessment work. The ultimate goal is to obtain research grant funding from the USEPA to conduct more research that would enable the NJSEA to develop and undertake habitat restoration plans for suitable Authority-owned sites.
- Staff surveys avian fauna by monitoring bird populations, determining abundance and distribution, and assessing how habitats are being utilized on NJSEA properties. The information collected is used to inform policy and land management decisions.
- The Department in 2020 continued to document the growing population of Diamondback Terrapins in the Meadowlands, assessing population size and distribution, documenting water quality, and attempting to obtain better information about potential nesting areas. Data collected is shared with the NJ Division of Fish and Wildlife, the Conserve Wildlife Foundation and others with a goal of developing a Regional Conservation Strategy.

- Staff is assessing Meadowlands shoreline typology and conditions and developing a GIS database of this information with assistance from MERI. Building on this data, a summary report is being developed that documents potential future challenges and stressors for each shoreline type, such as sea level rise, and potential restoration opportunities and strategies.
- Natural Resources staff continues to assist local researchers with their studies of the Meadowlands ecology and environment. These studies continue to be conducted despite the pandemic, following guidelines to keep socially distant while in the field. NJSEA is working with NJDEP Division of Fish & Wildlife to band ducks at the Erie Landfill, and with Kean University to band birds in Harrier Meadow.
- Despite the pandemic, Natural Resources staff continued to attend regularly scheduled meetings in 2020 virtually. This included meetings with the following groups and associations:
 - NJ Tidal Wetland Monitoring Network
 - NJ Coastal Resilience Collaboration – State Stakeholder Meetings and Ecological Restoration and Science Workgroup
 - Harbor Estuary Program Restoration Working Group
 - Mid-Atlantic Coastal Wetland Assessment Program
 - NJ Corporate Wetlands Restoration Partnership
 - Meadowlands Interagency Mitigation Advisory Committee (MIMAC) and Joint Interagency Review Team
 - Jersey Water Works
 - Rebuild-by-Design – Meadowlands Executive Committee ❖



PARKS



DeKorte Park, Lyndhurst



Marsh Discovery Trail, DeKorte Park, Lyndhurst



River Barge Park, Carlstadt

As the premier park system in southern Bergen County, the Meadowlands District features 21 parks and natural areas and eight miles of walking trails. The agency over the decades has designed and created or contributed to the formation of the vast majority of these important green spaces.

DeKorte Park in Lyndhurst, the home of the NJSEA’s administrative offices, is named after the late State Assemblyman Richard W. DeKorte, who was instrumental in the formation of the former Hackensack Meadowlands Development Commission, later renamed the New Jersey Meadowlands Commission, which merged with the NJSEA in 2015.

In 2020, DeKorte Park was a haven for birders, families and individuals looking to get out of the house and into nature during the pandemic. Dozens to hundreds of people flocked to the park on any given day to explore its one-square-mile of scenic wetlands, nature trails, gardens and water views framed by the New York City skyline.

The park has been recognized as a birding hotspot in Birder’s World magazine, a national publication. More than 285 species of birds have been observed in the Meadowlands region, and many migratory songbirds, raptors, shorebirds, and waterfowl can be seen at DeKorte, both overhead and in the park’s tidal impoundments. The NJSEA in 2020 continued to expand its native habitat restoration and added pockets of native gardens throughout the park while removing harmful, invasive species.

The NJSEA’s River Barge Park in Carlstadt, also a Meadowlands favorite, is a vital recreational resource. The 5.5-acre park provides the only boating access to the Hackensack River in the region from its western banks. The Marina includes a boat ramp, docks, paddling and rowing launch points, 17 public boat slips, a scenic promenade with picnic tables, and an education pavilion. Additional parks in the Meadowlands District include Mill Creek Point Park and Mill Creek Marsh, both located in Secaucus, and Losen Slote Creek Park in Little Ferry. ❖

SHARED SERVICES



Drone launch



NJSEA Jet-vac truck

The NJSEA provides and maintains equipment to assist District municipalities in a number of areas at no cost.

MUNICIPAL DRONE PROGRAM

Through the agency’s Municipal Drone Program, Meadowlands Environmental Research Institute (MERI) staff deploy state-of-the-art drones to collect data on otherwise inaccessible areas of wetlands, ditches and berms to identify debris, blockages, and erosion so that officials can best plan to maintain and improve their properties

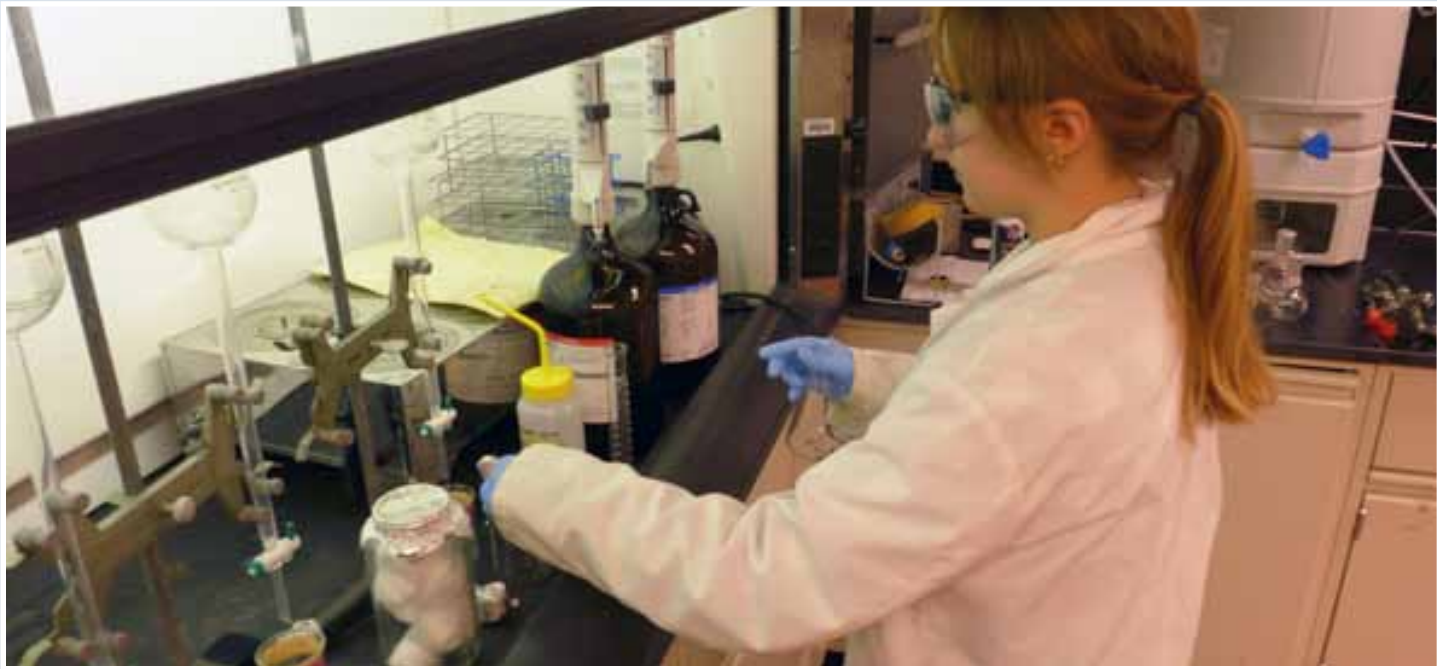
To date, under the NJSEA Municipal Drone Program, MERI has conducted flights in North Arlington, Rutherford, Secaucus and Little Ferry. These missions included gathering data on drainage ditches in Secaucus and the Losen Slote Ditch in Little Ferry. Videos and photos will help Secaucus to clear and maintain storm water ditches; assist Rutherford in logistics and security planning for events; and aid Little Ferry in assisting engineers in stormwater management and flood prevention

MUNICIPAL EQUIPMENT POOL

The NJSEA also offers equipment to help address flooding and sewer-line issues. These include a jet-vac truck, root cutter, two portable automatic self-priming pump systems and a trailer-mounted light tower. The equipment is staffed by NJSEA employees and available to towns free of charge. ❖



MEADOWLANDS ENVIRONMENTAL RESEARCH INSTITUTE (MERI)



Extracting pollutants from sediment in the MERI Laboratory

The Meadowlands Environmental Research Institute (MERI) has played an integral role through its scientific studies and monitoring in contributing to the remarkable comeback of the Meadowlands' unique urban eco-system. MERI's work has been especially important to the rebounding health of the Hackensack River and its environmentally sensitive wetlands. The Institute has conducted numerous studies that have helped to improve and directly contributed to the recovery of the River and its marshes.

The Institute generates the critical knowledge and predictive understanding necessary to sustain and conserve the Hackensack Meadowlands Estuary, which is crucial given the region's sensitive eco-system, and future challenges such as addressing sea level rise, and potentially more frequent and severe flood and storm events. MERI staff continually monitors and studies the region's water, air and soil quality in real time through a network of monitoring stations placed throughout the Hackensack River and Meadowlands wetlands.

In addition to its research projects and monitoring, MERI provides critical services to constituents, District municipalities and the NJSEA through ongoing activities and programs that include a state-of-the-art drone program; real-time flood alert systems; and production of digital maps through the Institute's Remote Sensing and Geographic Information Systems group.

GEOGRAPHIC INFORMATION SYSTEMS GROUP (GIS)

The Institute provides unique resources to Meadowlands District first responders and municipal officials through its Geographic Information Systems (GIS) digital mapping program. The GIS team uses the latest technology to create, maintain and update web-based digital maps and mapping tools for every property in each Meadowlands District municipality.

These digital maps provide emergency officials immediate access to critical information when every second counts, including continuously updated data on hazardous materials stored in warehouse facilities, fire hydrant locations, incident reports, floor plans, turn-around space for fire trucks, and current and historical aerial imagery. This potentially life-saving



MERI Drone Launch

information, once available only as paper maps, can now be quickly and easily accessed from field computers, tablets and smartphones.

The online maps also provide land use information such as owner, block and lot, easements, zoning and land use, acreage, and building footprint. Building code and tax officials use this data to more efficiently produce property variance notifications to residents impacted by proposed or other possible changes to surrounding properties.

MERI provides a water level alert system and flood prediction maps to first responders and the public, which is especially critical as the Meadowlands is a low-lying area. The email and text-based alerts for District towns are sent when water levels reach 5.5 feet above sea level and continue to be relayed as the levels rise. The interactive, web-based flood prediction maps include the parts of District municipalities that may flood from sea surge levels of 4 to 8 feet. The maps and alerts can be found on the MERI website, meri.njmeadowlands.gov.

DRONE PROGRAM

MERI uses drone technology to collect precise data on the conditions of critical Meadowlands District wetlands and flood protection structures. The drone flights allow staff to analyze otherwise inaccessible areas of wetlands, ditches and berms to identify debris and blockages and to collect samples for mosquito control.

Data collected gives the NJSEA and District towns information to maintain and improve their properties and structures most effectively. MERI also deploys drones after hazardous events, such as brush fires, to capture the extent of damage and identify existing hazards that can impact the site.

Gathering high-tech information on the structural integrity of man-made and natural berms and the ability of wetlands to absorb storm water is especially important given the Meadowlands' vulnerability to flooding from rain events, storm surges and, at times, regular high tides. Drone



flights enable the NJSEA as well as emergency responders and municipal officials to best strategize resiliency efforts, including for future challenges brought about by sea level rise.

The Institute’s drone program is highly respected. MERI has made drone presentations to the State Department of Homeland Security and Preparedness, the State Police, the State Forest Fire Service, and the State Department of Transportation.

MERI has a Certificate of Authorization from the FAA granting its licensed pilots permission to fly drones under the jurisdiction of the Teterboro Airport Traffic Control Tower. Drone pilots must receive permission from the FAA through Teterboro Airport to conduct any flights at least one day before each scheduled mission.

FLOOD DATA COLLECTION – BUSINESS ASSISTANCE

The Institute collects information that can help mitigate flooding at Meadowlands District businesses. MERI conducts time-lapse photography, real-time water elevation data collection, and drone flights over flooded areas such as parking lots and loading docks. Data is used to formulate an understanding of how and why a property floods, why there may be a delay after a flood event for water levels to recede, and how to address the issues.



Installation of Tidegate Sensors, Frank's Creek Tidegates, Kearny

TIDEGATE MONITORING

MERI has installed real time monitoring instruments on 12 key tidegates throughout the Meadowlands District. Water levels are reported via satellite phone to a central command post at MERI’s headquarters at DeKorte Park in Lyndhurst. Staff continuously monitors tide gate functionality and promptly coordinates repairs when necessary.

CURRENT RESEARCH PROJECTS

CO2 Sink Strength of a Restored Marsh

This project measures and compares the amount of carbon dioxide, a harmful greenhouse gas, trapped by Meadowlands marshes to the amount of the gas that emanates from the wetlands. Research will allow MERI to measure the ability of these ecosystems to sequester carbon dioxide from the atmosphere and reduce the overall carbon footprint in the District.

Long term Monitoring of Marsh Elevation

Marshes along the northern and southern parts of New Jersey have experienced significant reduction due to rising tides and sea levels. In 2008, Surface Elevation Tables (SETs) and field markers were employed at eight locations in the lower Hackensack River to monitor long term changes in marsh elevation. Ongoing monitoring of these five stations is critical to assess how marsh conditions in the District will be affected by sea level rise over time.

Harmful Algal Bloom (HAB) Control in Lakes Using Air Micro-nano Bubbles from a Specialized Floating Platform

Harmful Algal Blooms (HABs) have become an issue in New Jersey. This project uses a mobile floating platform to mechanically remove HABs by air flotation using air micro-nano bubble generators. This algae removal experimental technology will rapidly clarify HAB-affected water bodies. This research is being conducted under collaboration with the New Jersey Institute of Technology (NJIT).

Shallow Ground Water Level Monitoring

This research project establishes four shallow groundwater monitoring wells at contaminated sites in the Meadowlands. The study explores the relationship between water table levels, weather events, and trace metal movement and redistribution.

Water Quality Monitoring

The Meadowlands Environmental Research Institute has monitored the quality of water within the Meadowlands District since 1993.

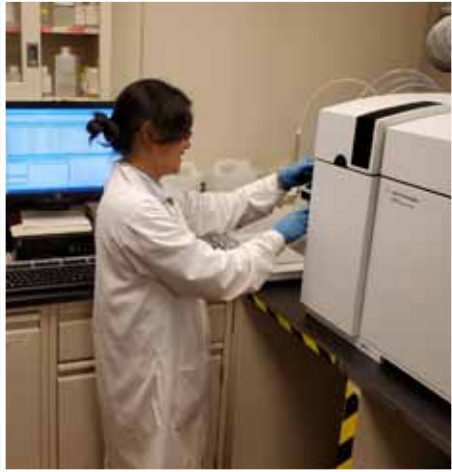


Taking Sediment Elevation Table measurements along the Hackensack River

The monitoring project was established to provide a general assessment of overall water quality in the Meadowlands estuary due to the legacy of contamination from landfills located within the District. The monitoring efforts also identify any large-scale, long-term trends in water quality, and detect any acute water quality problems.

Air Quality Monitoring

The Federal Environmental Protection Agency has established six hazardous air pollutants (ozone, nitrogen oxide, carbon monoxide, sulfur dioxide, lead and particulate matter) that pose significant impact on human health. The State of New Jersey and the federal government have set concentration standards for these principal pollutants to protect public health and prevent environmental damage.



Measuring metal concentrations from water samples taken from the lower Hackensack

To ensure that the Meadowlands District attains these standards, MERI monitors pollutants to determine the impact of major pollution sources, and to measure daily and seasonal levels. Samples are collected 24/7.

MERI LABORATORY

MERI’s state-of-the-art, NJDEP-certified environmental and analytical laboratory houses 22 precision instruments used for chemical analysis, and determining inorganic and organic pollutants in soil, water, air, and animal tissues. The state-of-the-art laboratory is equipped with an Inductively Coupled Plasma Mass Spectrometry (ICP-MS), Total Mercury Analyzer, Greenhouse Gas Analyzer, Gas Chromatography with Electron Capture Detector and Flame Ionization Detector (GC-ECD/FID), and Ion Chromatography instruments.

Through grants, the MERI laboratory is actively involved in training high school and college students in the environmental sciences. ❖



MEADOWLANDS ENVIRONMENT CENTER SCHOOL AND FAMILY PROGRAMS



MEC Mobile Food Lab

The Meadowlands Environment Center offers school programs to grades K-12 covering a wide array of scientific disciplines including ecology, chemistry, biology, physics, natural history, astronomy, and healthy eating and nutrition. Classes are taught by Ramapo College educators through a partnership with the NJSEA.

Environment Center educators adapted to the unique educational challenges in 2020 brought about by the COVID-19 pandemic through virtual lessons conveyed to classrooms in local school districts, and socially distanced family activities at DeKorte Park.

STEM EDUCATION IN THE MIST OF COVID-19

In light of the pandemic, educators have and continue to develop innovative virtual programs for the 2020-2021 school year. Their videos recorded at the NJSEA Science Center and in DeKorte Park focus on topic such as “Introduction to Habitats,” “Water Quality,” “Food Chains”, “Plant and Animal Adaptations,” and “Earth’s Place in the Universe.” These programs take students on virtual tours of the Meadowlands’ salt marshes, show water quality tests that can measure the health of an aquatic habitat,

and explore how animals and plants survive in different environments.

The fall also saw the MEC offer Learning Pods: two-hour, educator-led outdoor activities at DeKorte Park for small, pre-organized groups of children and parents. Similarly, in the summer the MEC hosted outdoor activities for families including scavenger hunts, birding and exploring the marshes. All programs adhered to social distancing guidelines.

Recognizing the importance of establishing healthy eating habits at a young age, MEC educators developed cooking videos and recipes that have been distributed to local partner school districts.

To address concerns regarding communal eating and families’ financial difficulties during the pandemic, pre-packaged food and supplies for each recipe were distributed to individual students from the MEC Mobile Food Lab so that they could cook with their family in the safety of their homes. The Mobile Food Lab was provided to the MEC through a grant from the REED Foundation for Autism. ❖

PUBLIC PROGRAMS – NJSEA/BCAS PARTNERSHIP



Butterfly Program, Summer 2020

Through its partnership with the Bergen County Audubon Society (BCAS), the NJSEA presented socially distanced programs in 2020 on birds and butterflies, and worked with the Audubon Society to hold twice-monthly nature walks in Meadowlands parks and natural areas. The BCAS runs the programs and walks with assistance from NJSEA staff. The Authority also promotes the events through its social media channels and outreach to newspapers and environmental newsletters. The Authority also promotes the events through its social media channels and through outreach to environmental groups.

In July, the BCAS and NJSEA held a Butterfly Talks and Walks program in DeKorte Park in Lyndhurst, home of the NJSEA. BCAS experts gave talks on creating butterfly habitats at home and, with NJSEA staff, led walks through the park to spot the winged marvels. The two organizations hosted a Birding for Beginners program in September at the park. Those interested in starting their birding adventures were treated to talks that covered the nature of birding, how to ID birds, birding optics and field guides followed by a nature walk.

The BCAS and NJSEA held socially distanced nature walks at Meadowlands parks and natural areas during the summer and fall. The twice-monthly walks explored several sites including DeKorte Park, the gem of the Meadowlands park system; Mill Creek Marsh in Secaucus, a birding hotspot; and Losen Slote Creek Park in Little Ferry, one of the last remaining lowland forests in the Meadowlands. ❖



Bird Walk at DeKorte Park, Summer 2020



FINANCIAL REPORT

STATEMENT OF REVENUES, EXPENSES & CHANGES IN NET POSITION
GOVERNMENTAL OPERATIONS

December 31, 2019

OPERATING REVENUES

Fees & Charges	\$ 1,094,000
Lease Payments	883,000
Revenues from Composting Operation	193,000
Other	670,000
Total Revenues	\$ 2,840,000

OPERATING EXPENDITURES

Governmental Operations	\$ 12,220,000
Environmental Center Operations	800,000
Solar Array 1-A	20,000
Other Expenditures	529,000
Total Operating Expenditures	\$13,569,000
Excess of Revenues over Expenditures prior to Non-Operating Costs	(\$10,729,000)

NON-OPERATING EXPENSES

Proceeds from sale of Kingsland	\$ 12,192,000
MAGNET Grants	(\$ 15,000)
Total Non-Operating Expenses	\$ 12,177,000
Net Excess of Revenue over Expenses	\$ 1,448,000

STATEMENT OF REVENUES, EXPENSES & CHANGES IN NET POSITION
BUSINESS-TYPE OPERATIONS

December 31, 2019

OPERATING REVENUES

Sports Complex Revenues	\$ 16,298,000
Solid Waste Revenues	12,984,000
Convention Center	2,749,000
Other	8,916,000
Total Revenues	\$ 40,947,000

OPERATING EXPENSES

Sports Complex	\$ 11,237,000)
Solid Waste	12,236,000
Convention Center	6,947,000
Depreciation & Amortization	8,687,000
Payment In Lieu Of Taxes (PILOT)	12,688,000
Total Operating Expenditures	\$ 51,795,000
Operating Loss	(\$ 10,848,000)

NON-OPERATING INCOME/(EXPENSE)

Other Income	\$ 15,000,000
Proceeds from sale of Kingsland	6,200,000
Tourism Tax Revenue	4,780,000
Interest Income/(Expense)	450,000
Total Non-Operating Expenditures	\$ 26,430,000
Change in Net Position	\$15,582,000

WILDLIFE SEEN IN THE MEADOWLANDS

Birds seen throughout the year included the majestic Bald Eagle, Ospreys and Egrets – the latter the unofficial bird of the Meadowlands. The highlight of 2020 was a rare siting of a Wood Sandpiper in DeKorte Park in September, possibly the first such appearance of the bird in New Jersey and one of only a handful of sightings along the East Coast.



Bald Eagle, photo courtesy of Double D Photography, D. M. DeSantis



Wood Sandpiper at DeKorte Park, Lyndhurst



Red Fox, photo courtesy of Stephen Michaels



Great Blue Heron, photo courtesy of M. E. Raine



Osprey with fish, photo courtesy of M. E. Raine



Diamondback Terrapin





NEW JERSEY SPORTS AND EXPOSITION AUTHORITY

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