

Your Meadowlands.

Prosperity and Preservation.



New Jersey Meadowlands Commission

Cover photo courtesy of
Tina Schvejda, Executive Director,
Meadowlands Conservation Trust

You Are Viewing an Archived Report from the New Jersey State Library

Carlstadt East Rutherford Little Ferry Lyndhurst Moonachie North Arlington Ridgely



MESSAGE FROM THE GOVERNOR

For nearly 40 years, the New Jersey Meadowlands Commission has adopted forward-thinking policies focused on the twin goals of encouraging economic growth and protecting the environment. While these goals may not seem compatible, they are actually tightly intertwined and essential for a successful future in New Jersey.

This mission was ahead of its time. As a result, the Commission is now on the cutting edge of New Jersey's push to expand its green-technology sector while curbing the impact of greenhouse gas emissions. These efforts directly support vital policies in my administration, including the Energy Master Plan, the state's Economic Growth Strategy and the Global Warming Response Act.

From creating what could be the largest solar panel array in New Jersey to opening a Business Accelerator that promotes green-collar job growth, the NJMC is leading the charge toward a greener, more prosperous future in the Meadowlands District. The hard work and dedication of the Commission and its staff continue to help make New Jersey a better place for all of us to live, work and play.

A handwritten signature in blue ink, which appears to read "Jon Corzine". The signature is written in a cursive style and is set against a light purple rectangular background.

Jon S. Corzine
Governor, State of New Jersey



T ABLE OF CONTENTS

Board of Commissioners	7
Executive Team	7
Message from the Commissioner	8
Message from the Executive Director	9
Overview	10
Finance and Management	12
Land Use Management	16
Natural Resources and Solid Waste	22
Meadowlands Environmental Research Institute	26
Meadowlands Environment Center	30
Executive	34





JOSEPH V. DORIA, JR.

*Commissioner, New Jersey Department of Community Affairs
Chairman, New Jersey Meadowlands Commission*



JAMES A. ANZEVINO

*Commissioner
Treasurer*



MICHAEL J. GONNELLI

Commissioner



MIA M. MACRI

Commissioner



ELEANORE S. NISSLEY

*Commissioner
Vice Chair*



ARLEEN F. WALTHER

Commissioner

EXECUTIVE TEAM



ROBERT R. CEBERIO

Executive Director

IRFAN BORA

*Director of Finance & Management
Chief Fiscal Officer*

THOMAS MARTURANO

*Director of Solid Waste &
Natural Resources*

CHRISTINE SANZ

*Director of Legal Affairs
and Chief Counsel*

LILO H. STANTON

Director of Communications

SARA J. SUNDELL

Director of Land Use Management

FRANCISCO ARTIGAS

*Director of the Meadowlands
Environmental Research
Institute*



MESSAGE FROM THE CHAIRMAN

The New Jersey Meadowlands Commission has done extraordinary work throughout its history. Formed with a mandate to clean up years of illegal dumping and to promote responsible economic development, the NJMC has overseen a remarkable environmental recovery and helped shape development that has generated more than a billion dollars in tax revenue for Meadowlands District towns.

The NJMC has always operated with one underlying goal: to make life better in the 14 Meadowlands District municipalities. In the past year, this assistance has run the gamut from planting trees to providing scholarships to funding complex, multi-million dollar flood control projects, like the \$4.5 million effort now underway to relieve flooding on Route 17 in Rutherford and East Rutherford.

The Commission also awarded more than a million dollars in municipal aid to District towns during 2008. These funds helped communities buy police cars and fire trucks, and improve roads, sidewalks and much more. NJMC staff also continues to help municipal officials in developing affordable housing plans and solar energy systems. Best of all, when our work is done, there is no bill left for taxpayers.

As a former mayor, I am especially thrilled that the NJMC is able to help municipalities protect residents' safety and improve their quality of life, without burdening their pocketbook. In the coming years, communities can continue to look to the Commission as a friend and ally.

A handwritten signature in brown ink that reads "Joseph V. Doria, Jr." The signature is written in a cursive style and is set against a light purple rectangular background.

Joseph V. Doria, Jr.
Commissioner, New Jersey Department of Community Affairs
Chairman, New Jersey Meadowlands Commission



MESSAGE FROM THE EXECUTIVE DIRECTOR

The New Jersey Meadowlands Commission was created nearly four decades ago to bring economic and environmental prosperity to a region marred by years of neglect. The NJMC's tireless work over the years is evident in the natural beauty of the parks and wetlands that have replaced polluted swamps and illegal dumping grounds, along with the District's vibrant commercial and industrial sectors.

Yet our work is far from done. While the specifics have changed over time, our mandate remains the same. The battle against illegal dumping has waned, but the NJMC's fight against global warming is gaining speed. The Commission helped build the Meadowlands into a powerful economic engine. Now we must maintain and expand upon that growth, moving into new sectors like green technology.

The past year was marked by the adoption of the Commission's Energy Master Plan and the opening of the NJMC's Business Accelerator, focused on green-tech entrepreneurs. The NJMC expanded its incentives to developers who build green and use solar power, further encouraging sustainable development in the District. We also opened an energy-efficient new science center, built to nationally recognized green standards.

As an agency that has collected methane for electric conversion since 1987, we're well equipped for these new challenges. In the year to come our efforts will include projects ranging from a local competition to boost recycling and energy conservation among local businesses, to the installation of a massive solar panel array on a former landfill, expected to be the largest in New Jersey.

The progress we have made is a reflection of the talent, determination and ingenuity of the NJMC staff, the support of our Commissioners and, most important, the agency's dedication to the people of the Meadowlands District. We look forward to more good work—and continuing to make a real difference in people's lives — in 2009 and beyond.

A handwritten signature in red ink that reads "Robert R. Ceberio". The signature is written in a cursive style and is set against a light purple rectangular background.

Robert R. Ceberio
Executive Director, New Jersey Meadowlands Commission

OVERVIEW

For the past 39 years, the New Jersey Meadowlands Commission has worked to grow the regional economy while protecting and restoring the fragile ecosystem of the 30.4-square-mile Meadowlands District.

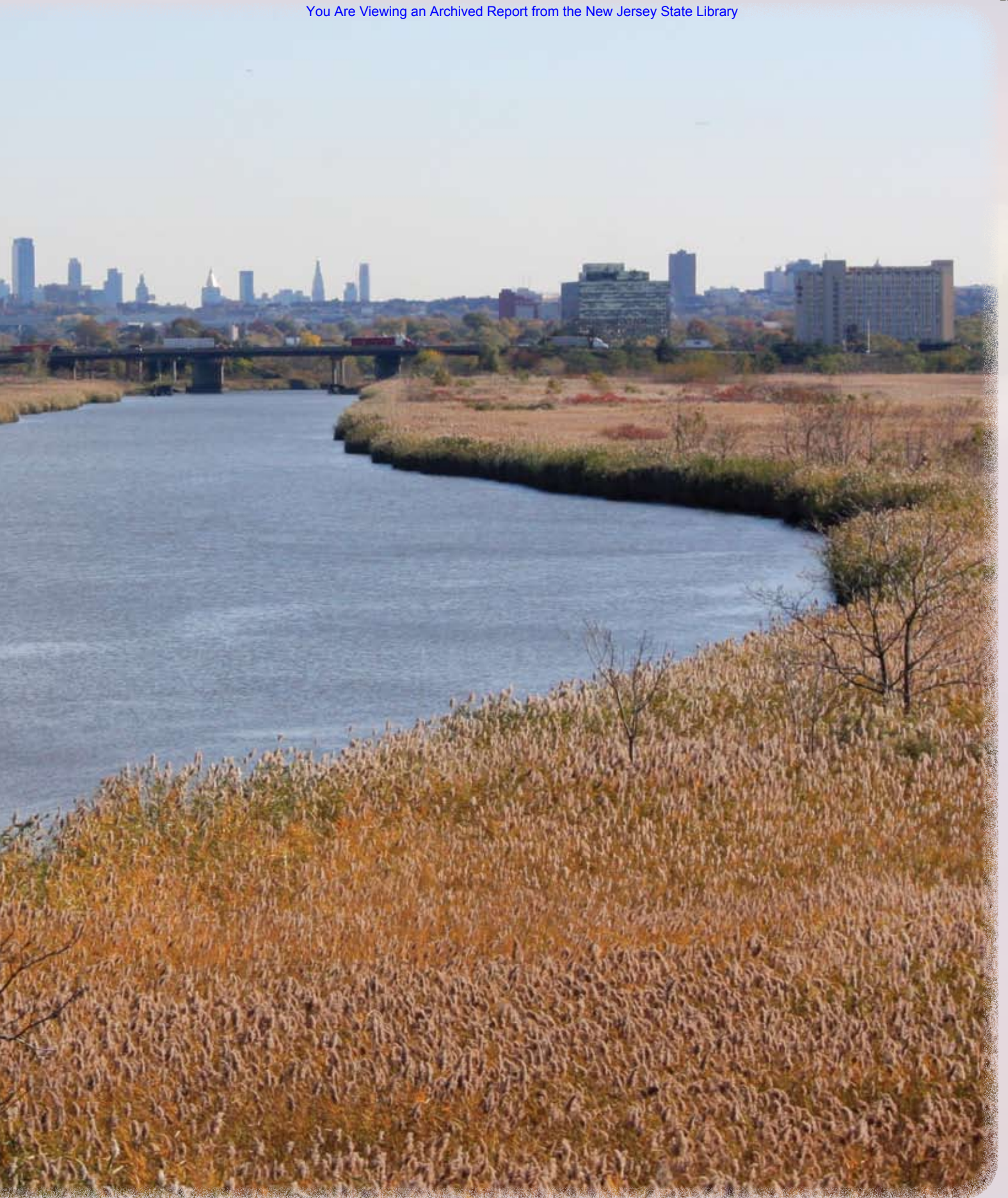
The District's 14 municipalities have benefited from the NJMC's efforts to halt illegal dumping, clean up abandoned landfills, study pollution's impact on the ecosystem, create parks and walking trails, and encourage mass transit and sensible development. Hundreds of thousands of visitors have also enjoyed educational programs that highlight the history, science and natural wonders of the Meadowlands.

The NJMC launched some of its most significant projects in the past year. During the summer, work began on a \$4.5 million flood control project – the largest in the Commission's history – to relieve problems on Route 17 in Rutherford and East Rutherford. In October, the NJMC Business Accelerator opened to promote New Jersey's green-technology sector. And work began on a massive solar project atop a 42-acre landfill that could generate 5 megawatts of power, making it the largest in the state.

Details of these projects and many others are contained in this year's Annual Report.

The report provides an overview of what each department does, includes details on NJMC's revenues and expenditures, and is illustrated by graphs, charts and color photographs.





Old Rutherford South Hackensack Teterboro Jersey City Kearny North Bergen Secaucus

The NJMC's **FINANCE AND MANAGEMENT** Division maintains the Agency's budget, handles accounting and purchasing, and ensures the efficiency of day-to-day operations and security at the NJMC campus. The division administers the Meadowlands District's tax-sharing formula and the Commission's investment and risk-management programs, and it oversees the Meadowlands Area Grants for Natural Economic Transformation (MAGNET) program — a five-year, \$33 million financial plan that funds revitalization programs throughout the District. The division includes the departments of accounting, purchasing, human resources, security, maintenance, information technology, solid-waste administration, general services and fleet maintenance.



SHARED SERVICES

The NJMC expanded its shared equipment pool in 2008 to more effectively assist District towns in emergency situations. The Commission purchased a trailer-mounted light tower and a root cutter in May and two diesel-engine Dri-Prime pumps in the fall. These tools join the NJMC's vacuum and camera truck to help towns address sewer and storm-line problems, flood cleanup and related situations. The equipment pool furthers Governor Corzine's goal of providing shared services to help towns run more efficiently while saving taxpayer dollars. The equipment is available for emergency situations 24 hours a day, seven days a week, reflecting the NJMC's dedication to serving District residents.

MAGNET

The MAGNET program funds projects and programs in the 14 Meadowlands District municipalities, including environmental initiatives, economic development and capital improvements. Through MAGNET and its funding of the Municipal Assistance Program (MAP), the NJMC has provided millions of dollars in grants to District towns, helping to stabilize municipal property taxes by covering the costs of equipment purchases, roadway and sidewalk repairs, ballfield upgrades and flood control initiatives.

Highlights of 2007-08 MAGNET allocations include:

- \$4.5 million for a major flood control project near Route 17.
- \$500,000 for new soccer fields in Losen Slote Creek Park in Little Ferry.
- \$280,000 for District Municipalities to help them purchase hybrid vehicles.
- \$140,000 to help District Municipalities prepare affordable housing plans under state regulations. Overall, MAGNET has provided towns nearly \$1 million to develop, implement and administer affordable housing plans.
- \$80,000 for new equipment in the shared municipal equipment pool.
- \$50,000 toward the construction of an environmentally sensitive shooting range for police departments in several District Municipalities.



MAP

The NJMC appropriates \$1.4 million in grants annually to its 14 member towns through this program.

Purchases supported by the 2007-08 MAP grants include:

- A new police cruiser, security cameras, a hybrid medical transport vehicle and public works equipment in Carlstadt.
- New equipment for the police, fire and public works departments in Little Ferry.
- Four Interceptor police vehicles in Jersey City.
- Four police vehicles in Kearny; three in Lyndhurst.
- A community bus and emergency vehicle in Moonachie.
- Ambulances in North Arlington and North Bergen.
- Two Interceptor police vehicles and various police equipment in Rutherford.
- Three police vehicles and improvements to a fire truck in Secaucus.
- Computer equipment and firefighting apparatus in South Hackensack.
- A street sweeper in Teterboro.



STATEMENT OF REVENUES AND EXPENDITURES GOVERNMENTAL FUNDS

December 31, 2007

Revenues

Solid Waste Overhead Contribution	6,880,204
Amounts Appropriated from Prior Period Revenues	8,922,849
Lease Payments	3,706,783
Interest Income	3,021,983
Dredge Revenues	1,453,564
Fees & Charges	1,174,507
Grants	1,142,850
Revenues from Composting Operations	331,838
Other Income	206,787
Royalties from Sale of Methane Gas	154,656
Total Revenues	26,996,021

Expenditures

Commission Operations	9,969,805
MAGNET	6,650,330
Construction in Progress	5,625,814
Environment Center Operations	2,045,145
Capital Expenditures	683,650
Grant Expenditures	514,819
Contribution to Other Operations	503,998
Other Expenditures	336,087
Total Expenditures	26,329,648

Excess of Revenues over Expenditures 666,373

SOLID WASTE OPERATIONS STATEMENT OF REVENUES AND EXPENSES

December 31, 2007

Revenues

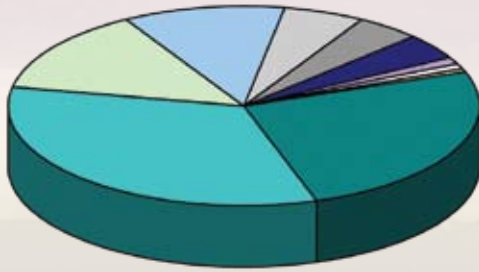
Operating Revenue	27,644,989
Non-Operating Revenue	1,544,917
Total Revenues	29,189,906

Expenses

General Operating Costs	13,713,116
Landfill Operations	4,380,980
Payments to County Utility Authorities	3,289,449
MERI/Laboratory/Parks & Open Space	2,939,615
Other Expenses	254,819
Total Operating Expenses	24,577,979
Net Income*	4,611,927

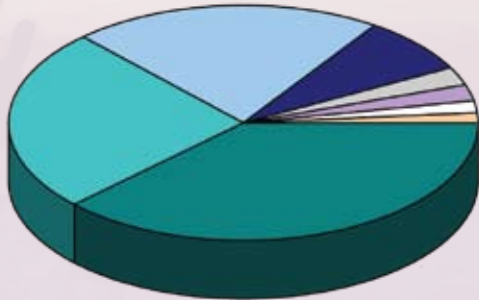
* Net Income reserved for Keegan Landfill Remediation costs incurred in CY2008.

Governmental Funds Revenues



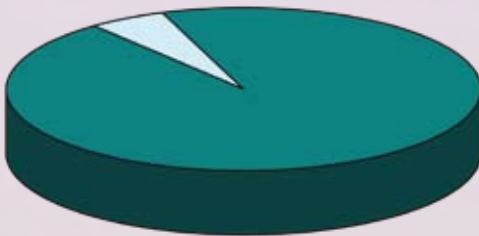
- Solid Waste Overhead Contribution - 25%
- Amounts Appropriated from Prior Period Revenues - 34%
- Lease Payments - 14%
- Interest Income - 11%
- Dredge Revenues - 5%
- Fees & Charges - 4%
- Grants - 4%
- Revenues from Composting Operations - 1%
- Other Income - 1%
- Royalties from Sale of Methane Gas - 1%

Governmental Funds Expenditures



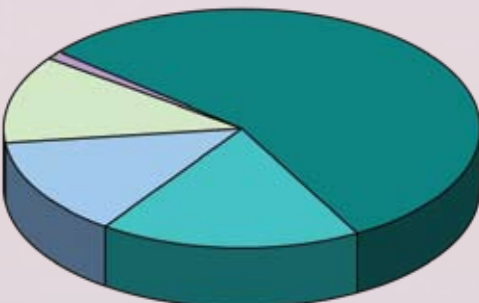
- Commission Operations - 38%
- Environment Center Operations - 8%
- Contribution to Other Operations - 2%
- MAGNET - 25%
- Capital Expenditures - 3%
- Other Expenditures - 1%
- Construction in Progress - 21%
- Grant Expenditures - 2%

Solid Waste Operations Revenues



- Operating Revenue - 95%
- Non-Operating Revenues - 5%

Solid Waste Operations Expenses



- General Operation - 56%
- Payments to County Utility Authorities - 13%
- Other Expenses - 1%
- Landfill Operations - 18%
- MERI/Laboratory/Parks & Open Space - 12%

The **LAND USE MANAGEMENT (LUM)** Division consists of three groups: Site Plan Review, Plan Review and Special Projects. Site Plan Review establishes and enforces the NJMC's zoning and subdivision regulations, performs inspections, and reviews all development applications for compatibility with the 2004 New Jersey Meadowlands Commission Master Plan. Plan Review enforces New Jersey's Uniform Construction Code (UCC). Special Projects carries out initiatives in several areas including flood control, transportation management, redevelopment and affordable housing. Together, LUM Division staff oversees the primary land use regulations that govern the 30.4-square-mile Meadowlands District.



REDEVELOPMENT AREAS

Opportunities for industrial, commercial and residential development continue to abound in the redevelopment areas within the Meadowlands District. While pursuing redevelopment opportunities, the NJMC always strives to balance environmental protection with orderly development in the District. The Commission also continues to study possible brownfield redevelopment opportunities.



Highlights of redevelopment projects for 2007-08 include:

- In August, the NJMC initiated plans to redevelop a 63-acre former industrial site in Teterboro.
- The NJMC approved surface parking as an interim use in the Station Square zone of the Secaucus Transit Village Redevelopment Area. The April decision allows for a commuter parking lot near the Secaucus Junction Rail Station, a move strongly supported by Governor Corzine.
- The first residential building in the Secaucus Transit Village Redevelopment Area, and surrounding roadways, are expected to be completed in 2008. The 304-unit, four-story building is part of Xchange Place, a housing development that may eventually include up to 1,805 residential units along the Hackensack River.
- Site work began for the second building at Xchange Place, a four-story, 178-unit, mixed-use residential and retail building. This complex will include 38 affordable housing units, a parking garage and 27,934 square feet of retail space.
- A second regional distribution facility was completed in the Saw Mill Park industrial complex within the Belleville Turnpike Redevelopment Area in Kearny.

GREEN BUILDING

You Are Viewing an Archived Report from the New Jersey State Library

In the past year, several property owners have taken advantage of NJMC incentives to promote green building in the District. The program rewards builders who incorporate solar power and other aspects of green building into their projects. Builders whose plans meet the guidelines of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system are eligible for incentives, including a partial refund of zoning fees, priority review, and density bonuses for qualifying new construction and additions. In addition, in October 2008 the Commission cut in half the fees for reviewing solar installation plans.



The NJMC received multiple applications in 2008 from property owners wishing to install solar panels on the roofs of their buildings in the Meadowlands District. The Commission also received an application for a LEED-certified addition to a manufacturing facility in Ridgefield.

PLAN REVIEW

UCC Compliance and Mutual Aid

The NJMC is responsible for ensuring that construction within the Meadowlands District conforms to all New Jersey building, life-safety, fire, electrical and plumbing codes and standards. As an active member of the International Code Council, Eastern States Building Officials Federation and Bergen-Passaic Municipal Inspectors Association, the NJMC is at the forefront of efforts to modify, adopt and create new codes.

All NJMC personnel who perform inspections or enter job sites in the District are provided with the appropriate safety training. Additionally, the NJMC maintains a mutual aid "go team," consisting of licensed UCC inspectors and professional engineers who can respond quickly to natural disasters throughout Bergen County and perform initial structural damage assessments. The NJMC also maintains a trained Certified Emergency Response Team that assists Bergen County emergency personnel, as well as a Certified First Responder corps that handles medical emergencies on the NJMC campus.



FLOOD MANAGEMENT

Route 17 Project

The NJMC kicked off the largest flood control project in its history in summer 2008. The \$4.5 million, three-phase project is designed to significantly reduce flooding on Route 17, between Union Avenue in East Rutherford and Highland Cross in Rutherford, and to surrounding businesses. The project is scheduled to be completed in 2009 and should bring long-awaited relief to the thousands of drivers who travel Route 17 daily, as well as area property owners.

- Phase One involved restoring the Rutherford/East Rutherford Drainage Ditch System. Workers removed five damaged tide gates and 10 culverts and installed 10 new, 6-foot diameter culverts, 10 tide gates and two smaller culverts.

- Phase Two consists of clearing a 1.5-mile stretch of clogged ditches that run from Route 17 to Berry's Creek and Berry's Creek Canal. This work should allow stormwater to drain more efficiently from local roadways. The Bergen County Mosquito Commission will provide much of the manpower and equipment for this phase, saving the NJMC about \$1 million.

- Phase Three involves the New Jersey Department of Transportation installing three drainage pipes at the low point of Route 17, just south of Railroad Avenue, and upgrading and expanding the existing stormwater system beneath the roadway.

MOONACHIE CREEK TIDE GATE AND LEVEE REPAIR

In summer 2008 the NJMC oversaw emergency repairs to the Moonachie Creek Tide Gate and Levee System in Carlstadt, helping to settle a dispute between the property owner and nearby businesses. The repair significantly reduced flooding at dozens of businesses in Carlstadt and South Hackensack. An interim fix was completed in September and permanent tide gates are scheduled to be installed in spring 2009.

In addition to catch-basin and storm sewer cleanouts throughout the District, the NJMC's flood control initiatives in 2007-08 included the following:

- Continued coordination with the Hudson County Engineering Department to design and build a large-capacity pump system on Penhorn Creek in Jersey City to increase flood protection in Secaucus and Jersey City.
- Collaboration with the U.S. Army Corps of Engineers to design short- and long-term flood control improvements to

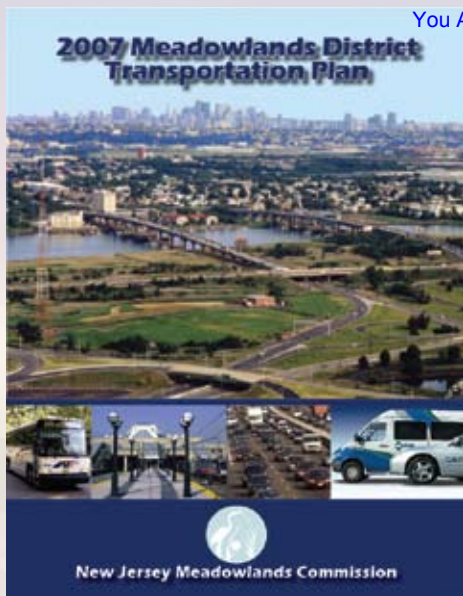
Route 7/Belleville Turnpike in Kearny.

- A reduction in flood insurance premiums for property owners in the District resulting from the NJMC exceeding Federal Emergency Management Agency (FEMA) Community Rating System requirements.
- Use of NJMC vacuum and camera truck equipment by District Municipalities and the Hudson County Department of Parks, Engineering and Planning for immediate flood mitigation.
- Provided technical support to municipal and county engineers and property owners for various drainage improvements.
- Inspection of tide gates throughout the District prior to major storm events.



BERGEN COUNTY NATURAL HAZARD MITIGATION PLAN

The NJMC, in cooperation with the Bergen County Office of Emergency Management, completed the Bergen County Natural Hazard Mitigation Plan. The plan identified natural hazards that could impact each Bergen County municipality, such as flooding and winter storms, and presented mitigation strategies. The plan includes all 70 towns within Bergen County and is required municipalities that apply for FEMA's Hazard Mitigation Grant funding following a natural disaster.



MEADOWLANDS DISTRICT TRANSPORTATION PLAN

The Meadowlands District Transportation Plan, adopted by the NJMC in November 2007, fulfills the requirements of the Hackensack Meadowlands Transportation Planning Act and plays an important role in the NJMC's mission of improving mobility for passengers and freight throughout the District. Several initiatives outlined in the plan are underway, including area shuttle bus routes and the use of new technology to smooth traffic flow.



SHUTTLE BUS ROUTES

The NJMC's transportation plan calls for six shuttle bus routes strategically located throughout the District. The first service, in Lyndhurst, began operating in November with stops that include the Kingsland Train Station, a major bus stop and several sites in the town's Meadowlands office park. When completed, an average of 1,000 to 1,500 riders are expected to use the service daily. For each 1,200 new mass transit riders, two million vehicle miles are eliminated and 100,000 gallons of gas are saved annually.

MEADOWLANDS ADAPTIVE SIGNAL SYSTEM FOR TRAFFIC REDUCTION (MASSTR)

The proposed MASSTR system will reduce congestion by adjusting signal timings based upon traffic flow. The network would allow a central command center to monitor and control traffic signal operations, with preemptions for emergency vehicles and priority for mass transit. Work on the project in 2008 involved researching alternative software and system designs and preparing procurement documents. The system is expected to be implemented in phases, with the first networked signals coming online in 2009.

AFFORDABLE HOUSING

The NJMC acted promptly in 2008 to address changes governing the state's affordable housing responsibilities. The reforms assigned regional entities like the NJMC new authority and reiterated the NJMC's responsibility to plan and zone for affordable housing. The Commission created interim policies to guide affordable housing development in the District until final rules consistent with regulatory and statutory changes are promulgated. The Commission also formed an Affordable Housing Task Force to ensure that stakeholders have a voice in the process.

In addition, the NJMC continues to offer financial and technical assistance to District Municipalities planning for affordable housing. Commission staff can provide clarification to towns regarding New Jersey Council on Affordable Housing (COAH) rules, assess the suitability of sites for affordable housing, and compile data to help determine municipal affordable housing obligations.

The **SOLID WASTE AND NATURAL RESOURCES** Division of the NJMC includes the Parks and Open Space Group, the Wetlands Group and the Solid Waste Group. Employees in these diverse departments oversee the handling of construction debris and other waste in the District. They also preserve and protect the District's natural resources and critical open space and work to create and maintain parks and trails. The Division has played a key role in the renaissance of the Meadowlands through its restoration of once-thriving wetlands that had deteriorated through human abuse and the growth of invasive species.



Highlights of 2007-08

BIRD STUDY SHOWS AVIAN ABUNDANCE

A comprehensive, first-of-its-kind study sponsored by the NJMC and conducted by the New Jersey Audubon Society and NJMC naturalists brought good news about the District's bird population. More than 150,000 birds from more than 260 species were observed in the Meadowlands over the course of the two-year study. The numbers include nearly 2,000 birds belonging to 35 species on New Jersey's threatened or endangered species lists. The findings, released in January 2008, reinforce the fact that the Meadowlands' more than 8,000 acres of wetlands are a critical year-round and seasonal habitat for birds. The results also emphasized the importance of the NJMC's goal to promote suitable land use practices that are compatible with preserving and enhancing wetlands and other valuable natural resources in the District. Also in 2008, the NJMC joined with New York City Audubon and the New Jersey Audubon Society to monitor egrets and herons in the Meadowlands as part of the Harbor Herons Project, which for the first time examined the numbers and habitats of these wading birds.

NESTING BOXES

The NJMC continued its program of providing nesting boxes for Tree Swallows and American Kestrels (small falcons). NJMC naturalists and volunteers, including local scout groups and families, constructed 125 boxes for the Tree Swallows, which have been slowly losing places to nest over the years. To compensate for this loss, staff placed about 300 nest boxes in District wetlands during 2008. And for the first time, this year the NJMC documented the location of the boxes using a GPS system. More than 60 percent of the boxes were occupied, with 610 eggs laid and 485 nestlings fledged by mid-July 2008.



SALTMARSH BULRUSH

In August 2008 the Commission reintroduced saltmarsh bulrush, a valuable wetlands plant, to the Mill Creek Marsh in Secaucus. The planting is part of the NJMC's efforts to foster greater plant diversity in the marshes. Saltmarsh bulrush, once a common plant in the Meadowlands, has been choked out over the past century by the invasive reed phragmites.



MEADOWLANDS FESTIVAL OF BIRDING

The NJMC continued to sponsor the Meadowlands Festival of Birding, a two-day event that takes place each September at various locations in the District. In 2008 the festival attracted more than 200 birders from the tri-state area. The festival features guided walks and boat tours, workshops, bird-banding demonstrations and more.



SECAUCUS HIGH SCHOOL MARSH RESTORATION AND BOARDWALK

In fall 2007 the Wetlands Group completed a restoration project on approximately 31 acres of wetlands between Secaucus High School and Mill Creek Point Park. The work enabled a diverse ecosystem to again thrive in an area dominated by phragmites, an invasive species. The wetlands are now used as a teaching tool by a Secaucus High School environmental science class, assisted by Meadowlands Environment Center educators. NJMC staff helped develop a 1,500-foot boardwalk overlooking the restoration site and had interpretive signs created to provide visitors with detailed information about the plant and animal species found in the marsh.



ARBOR DAY PROGRAM HITS MILESTONE

The Commission made history in April 2008 when it purchased its 1,000th tree as part of its Arbor Day Community Tree Planting Program. Since the program's inception in 2003, the NJMC has spent more than \$100,000 to purchase shade trees for Meadowlands District towns. In 2008 the Commission distributed tulip trees, one of the fastest-growing shade trees. These colorful trees can reach heights of 50 feet within 11 years and are known for being resilient from pests and tree diseases.



ENVIRONMENTAL STUDY GARDEN

Summer 2008 marked the opening of an environmental study garden designed at no charge by the Parks Group for the Washington Elementary School in Rutherford. The garden features an exploration zone where students can learn about native plants, a gathering zone with a stone seatwall, and a testing zone including raised planting beds.



PONTOON BOAT AND CANOE TOURS

A spring and summer tradition in the Meadowlands, the NJMC's popular guided pontoon boat and canoe tours continued last year, offering a unique opportunity to see the natural beauty of the Meadowlands from the river itself. The leisurely and informative two- to three-hour tours along the Hackensack River explore creeks and marshes, providing an up-close view of the ecosystem as egrets and other birds fly overhead. NJMC guides detail the area's history, point out the sights and identify the flora and fauna.



KEEGAN LANDFILL

In January 2008, the NJMC began remediation work on the Keegan Landfill in Kearny. Keegan is the latest in a long line of orphan-or abandoned-landfills that have been closed at Commission expense. Once the \$22 million in remediation work is complete, the site will be permanently added to the District's open space inventory.

The **MEADOWLANDS ENVIRONMENTAL RESEARCH INSTITUTE (MERI)** is the scientific and technological arm of the NJMC. The group's work has helped improve the health, safety and environment of both the Meadowlands ecosystem and area residents. The institute's research and monitoring of air and water quality and plant and animal life provide an understanding of current ecosystem dynamics and help guide decisions on how best to protect the District's environment in the future. MERI is also home to the Geographic Information System (GIS) group, which assembles data for the Commission and District Municipalities to help address planning and environmental issues.





SMALL CREATURES SHOW BIG IMPROVEMENTS

A joint MERI and NJMC Natural Resources Department study found a significant increase over the past two decades in the number and types of tiny creatures that live on the bottom of the Hackensack River — data that further proves the river’s renaissance. The June 2008 findings are important because these benthic organisms provide food for fish and other invertebrates. Benthic organisms, which include worms, snails and clams, also act as nature’s recyclers feeding on the detritus and organic matter on the river bottom and returning nutrients and oxygen to the ecosystem.



PREPARING FOR SEA LEVEL RISE

In August MERI scientists installed five sediment elevation monitoring stations throughout the District to track sea level rise. This is just one example of the NJMC’s proactive efforts to combat global warming, which scientists say leads to sea level rise and other problems. By monitoring its marshes, the NJMC can track how these changes impact the Meadowlands District and plan how best to preserve the marshes that act as barriers against sea level surges. The Commission, one of the few participating agencies in New Jersey, is sharing its findings with the U.S. Geological Survey, which is collecting data in several states along the East Coast.

GIS

In the last year, the institute's GIS group continued to provide Meadowlands District first responders with immediate access to potentially life-saving information through its digital maps program. The maps, prepared and updated frequently by GIS staff, contain vital data that can help emergency personnel plan appropriate, timely responses to disasters. For instance, a firefighter can quickly tell if, and exactly where, hazardous materials are stored in a burning building and find the location of the nearest fire hydrant. The NJMC has provided free laptops loaded



with the mapping software to District Municipalities and the towns can also view their GIS data from their own computers. The maps can also be used for other functions, like the detailed tree inventory created by the Rutherford Shade Tree Commission.

EARLY WARNING FLOOD MAPS

In 2008, the GIS group developed digital maps that can illustrate various flooding scenarios and help county and local responders prepare for emergencies. The system uses real-time flood predictions and detailed maps for all District Municipalities to show what areas and properties will be flooded. The warning system considers the existing condition of a network of tide gates and other flood control systems in the District. Flooded areas are inspected during each event and the model is later recalibrated with the data from the field to improve accuracy.

VIRTUAL TRAIL GUIDES

A series of Web-based, interactive ecotourism maps are being developed by the GIS group to enhance the experience of visitors to the region. The first two maps offer information on the Hackensack River and Mill Creek Marsh Canoe Trail. Users can click on points of interest and learn about the history and natural resources. The Mill Creek map also offers coordinates for each site so that paddlers with GPS systems can confirm their location while on the water.



WETLANDS MONITORING

A joint project launched in 2008 by MERI and Princeton University will monitor newly developed wetlands in the Meadowlands District. Vegetation is planted to create well-functioning wetlands, that can remove problem metals from the sediment so they can't be absorbed by organisms and plants. Princeton University will study if the root system of recently established wetland vegetation can effectively filter these pollutants. The multiyear study will evaluate how seasonality and soil type may impact these functions and how we can establish more sustainable wetland ecosystems.

AERIAL IMAGE SURVEYS

Over the past year MERI scientists have used aerial images from Hyperspectral sensors and LIDAR, an optical remote sensing technology, to monitor wetlands growth. The high-resolution images are taken from an airplane at 6,000 feet and can show changes over time of species distribution. These images can also illustrate changes in water depths, soil salinity and oxygen content. The findings help scientists determine why some areas of wetlands have experienced stunted growth and why some invasive species are so successful in crowding out native vegetation. Aerial monitoring is a more efficient and objective method for tracking wetlands growth than past techniques and can be adopted by other agencies responsible for coastal wetlands integrity and reporting.



AIR POLLUTION STUDY

One of the major sources of air pollution is automobile-related emissions. The federal Environmental Protection Agency has funded a study of how much particulate matter is being emitted locally and what other substances may be associated with exhaust, such as heavy metals and toxic organic compounds. Air samples were collected from Sept. 2007 to Sept. 2008 at various distances from highly trafficked District highways, and the data is being analyzed to account for weather conditions, traffic counts and daily and seasonal changes. Preliminary results show that particulate concentrations are greater during the summer and foggy days, and that they decrease drastically 500 feet away from the highway. These results will be used to assess the impact on air quality by the change from traditional combustion engines to hybrids.



The **MEADOWLANDS ENVIRONMENT CENTER** (MEC) and the NJMC Center for Environmental and Scientific Education and William D. McDowell Observatory are NJMC facilities operated by Ramapo College. They are also among the most visible aspects of the Commission's work. More than 40,000 people take advantage of the MEC's educational and cultural programs each year, including science classes for grades K-12 during the school year, summer camps and other activities that focus on science and the environment. Ramapo College and Bergen Community College offer undergraduate and graduate courses at the MEC. In addition, the MEC provides diverse programs for adults and seniors including lectures, workshops, film screenings and dance nights.



MEC – THE FACILITY

The MEC houses classrooms, the Discovery Station/Interactive Learning Center, a multi-use computer lab, the marsh diorama, a 250-seat auditorium, the Tideland Treasures gift shop and the Flyway Gallery, which offers local and environmental art exhibits. The Marsh Pavilion, used for public events, conferences and workshops, features a striking view of the Hackensack River and Manhattan skyline. The MEC is open to the public from 9 a.m. to 5 p.m. Monday through Friday and 10 a.m. to 3 p.m. Saturday and Sunday.

SCIENCE CENTER

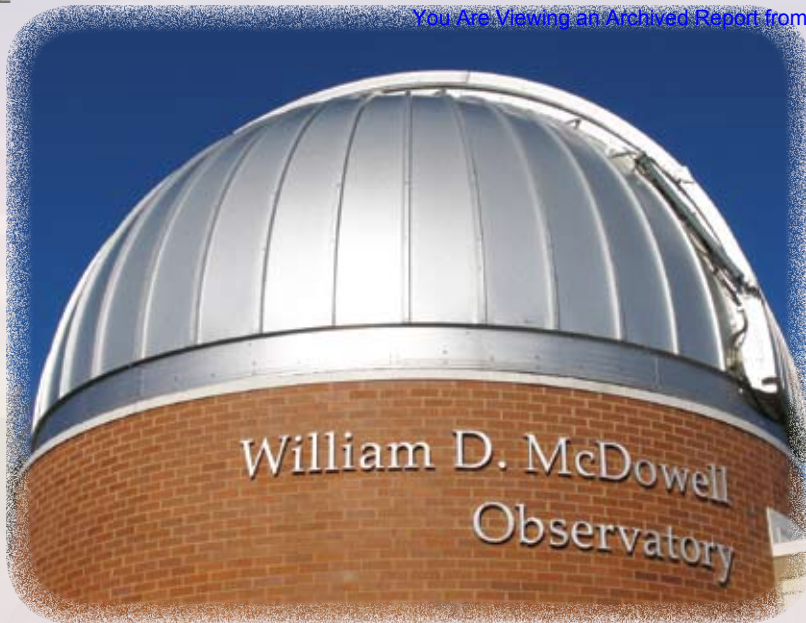
The NJMC Center for Environmental and Scientific Education and the adjacent William D. McDowell Observatory officially opened on March 26, 2008, ushering in a new era of educational programming at the NJMC. The 10,000-square-foot science center houses five classrooms, including a state-of-the-art chemistry lab, to meet the growing demand for the MEC's educational programming. The building is also fully green and built to Leadership in Energy and Environmental Design (LEED) standards and is an example for District



Municipalities and businesses that wish to incorporate green building into their own projects. The science center is also a teaching tool; students here will learn about its green features and the importance of sustainable design and construction.

The facility's environmentally friendly features include:

- Rooftop solar panels
- Ceiling solar tubes
- Recycled building material including glass, tile, steel and wallboard
- Forest Stewardship Council-certified wood
- Energy-efficient heating, lighting and water systems



WILLIAM D. McDOWELL OBSERVATORY

The William D. McDowell Observatory offers North Jersey residents a chance to see the stars up close through the observatory's state-of-the-art reflecting telescope. The observatory features public viewing nights and several educational programs that incorporate use of the telescope, which has a 20-inch mirror and is one of the largest in the area. The research-grade instrument has the capacity to record celestial objects and measure their characteristics, and includes special light-pollution filters.

The observatory's namesake, William D. McDowell, was a North Arlington resident and longtime, dedicated public servant. Mr.

McDowell was the first Executive Director of the NJMC and the first Bergen County Executive. He also served as Bergen County Sheriff, Director of the Bergen County Board of Chosen Freeholders, and a Councilman and Mayor in his hometown. Mr. McDowell died in April 2007 at age 80.

SCHOOL PROGRAMS

More than 10,000 students participated in MEC educational programs for grades K-12 in the 2007-08 school year. There are 25 programs for the 2008-09 school year, 10 of which are new offerings incorporating sustainability and astronomy lessons that tie in with the science center and observatory. The programs, taught by Ramapo College educators, include ecology, chemistry, biology, physics, natural history and geology and are correlated to the New Jersey Core Curriculum Content Standards. Each year more than 600 teachers attend workshops facilitated by the MEC, where they learn to integrate wetlands studies and environmental education into their lesson plans. The MarshAccess program ensures that students with disabilities are fully included in all MEC educational activities.

PARTNERSHIPS

In an effort to continually reach students and teachers, the MEC developed partnerships with Lyndhurst High School and Secaucus High School. The MarshAccess program has partners with the Bergen County Special Services District, the Ridgefield Slocum Skewes Learning Center and the Passaic County Elks Cerebral Palsy Center. In addition, programs have been ongoing for the following school districts: Garfield, Wayne, Paterson, Jersey City, Saddle Brook, Montclair, North Arlington, Kearny, Secaucus, West New York, Harrison, Guttenberg, Union City, Bayonne, Weehawken, East Newark and North Bergen, including members of the Hudson County Gifted and Talented Consortium.



GRANTS

The MEC and Ramapo College received two National Science Foundation (NSF) grants to implement several senior and adult programs and to develop a national model for older adults, accessibility and assistive technologies.

Funding from a \$480,000 NSF grant allowed educators to create environmental programs for older adults in senior centers, assisted living facilities, nursing homes and hospital programs in central and northern New Jersey. Through the \$852,300 NSF grant, educators will adopt science programs for adults with disabilities at the MEC.

SUMMER CAMPS

The MEC's popular summer camp program continued to offer students the opportunity to study the flora and fauna of the unique Meadowlands habitat. In 2008 three programs were offered for the first time. "Lost in Space," an astronomy camp for seventh- and eighth-grade students, included hands-on use of astronomical instruments, a visit to the American Museum of Natural History and a family science night. "Hopping through Habitats" was taught in both English and Spanish language sessions to address the growing diversity of the Meadowlands District and to make the natural beauty of the area accessible to as many children as possible. The RAMS (Ramapo and Meadowlands Survival) Camp introduced students to proper nutrition and healthy lifestyles.



TEACHER EDUCATION PROGRAMS

Each year Ramapo College students gain valuable experience through intern and teacher education programs at the MEC. Students assist MEC educators, prepare presentations and participate in activities. Students in the teacher education program can use their field experience at the MEC as part of their course requirements.



PUBLIC PROGRAMMING

In the past year the MEC presented its most extensive and diverse series of educational and cultural programming to date. Young children learned about the environment through storytelling, crafts and hands-on workshops, many designed for parent-child involvement. Older children were introduced to Web-based mapping, robotics and environmentally friendly shopping, while adults and seniors attended swing and polka dance nights, an Antiques Roadshow event, jazz performances and independent film screenings. By offering a full schedule of public events at little or no charge, the MEC continues to be a valuable venue for the arts and education in the Meadowlands District.

SCHOLARSHIP PROGRAM

To help promote environmental and science education, the MEC offers annual scholarships to graduating high school seniors who live in the Meadowlands District and plan to major in a science or science-related field in college. Eligible students must maintain a B average, participate in community service, and write an essay on the importance of science, technology and education. In 2008 the NJMC allocated \$26,000 in scholarships to 13 students.

The **EXECUTIVE** Division includes the office of the Executive Director, legal and inter-governmental affairs, and the communications department.

The division also takes on special projects that span several NJMC divisions, including plans to create permanent renewable energy sources in the District and the launch of the NJMC's Business Accelerator.



Highlights of 2007-08

DEPARTMENT OF LEGAL AFFAIRS

The legal department won a major victory in October 2008 when New York, Susquehanna & Western Railway agreed in a settlement to abide by state and local health, safety and environmental regulations at its rail-side waste transfer stations in North Bergen. The landmark settlement capped a three-year battle in which the NJMC pressed for local and state oversight of the previously unregulated facilities, where heaps of trash were left unsecured. Although the facilities had become a public health risk and lacked basic safety precautions, the owners claimed they were exempt from local oversight under federal railroad law. The NJMC's fight prompted Sen. Frank Lautenberg to introduce federal legislation that will require waste transfer facilities nationwide to follow local health and safety laws.

OPEN SPACE ACQUISITION

As part of our ongoing efforts to preserve 8,400 acres of open space in the District, the NJMC recently acquired 35 acres of property along the Hackensack River in Secaucus. This parcel, now protected from development by a conservation easement, consists of both wetlands and uplands, including substantial sections of rare high marsh. This vital part of the river's ecology offers a quality habitat for the small animals that are prey for the District's raptors, and the small tidal pools in the marsh are used by fish as protected breeding areas.



OFFICE OF SUSTAINABILITY

The Office of Sustainability was formed in 2008 to lead the NJMC's aggressive efforts to achieve greater energy efficiency in the Meadowlands District and reduce greenhouse gas emissions. The office released the NJMC Energy Master Plan, a document that encompasses the Commission's goals and strategies to achieve its energy objectives, including a plan to bring 20 megawatts of renewable energy to the District by 2020. The NJMC's energy objectives are in accordance with those in the state Energy Master Plan and the Global Warming Response Act approved by Governor Corzine in 2007.

SUSTAINABLE COMMUNITIES PLANNING SERVICE

The Sustainable Communities Planning Service was launched in July 2007 to create a formal structure for NJMC planners to help District towns pursue smart growth and responsible planning, at no charge to taxpayers. Planners can assist towns with downtown revitalization, affordable housing plans and green building practices. Through the service, NJMC planners are helping to make the downtown areas of North Arlington and Kearny more pedestrian-friendly.



SUSTAINABLE COMMUNITIES PLANNING SEMINAR

On Oct. 1, 2008, the NJMC hosted a Sustainable Communities Planning Seminar. Topics included how to measure your carbon footprint, green purchasing and the benefits of regional planning for sustainability. The event drew 150 municipal officials, business owners, environmental advocates, planners, architects and engineers.

36 ALTERNATIVE ENERGY

You Are Viewing an Archived Report from the New Jersey State Library

In 2008 the Commission began work on plans to bring a 5 megawatt solar array to the Erie Landfill in North Arlington. In April 2008 the NJMC created a pilot Solar Municipal Assistance Program to help District Municipalities create their own solar facilities. Through the program, the NJMC makes its professional staff and solar consultant available to the towns free of charge. Kearny, North Arlington, Rutherford, Carlstadt and Secaucus are participating in the program.

The NJMC's Center for Environmental and Scientific Education, which opened in March 2008, is a fully green building constructed to Leadership in Energy and Environmental Design (LEED) standards. The center includes



rooftop solar panels, energy-efficient heating and lighting systems, and recycled building material. To encourage more green building in the Meadowlands, the Commission offers incentives to developers and property owners who build to LEED standards or include solar energy options. Last year, the NJMC also allocated up to \$20,000 to each of the 14 Meadowlands District towns to help them purchase energy-efficient hybrid vehicles. The NJMC has converted one-third of its own vehicle fleet to hybrids.

In the fall of 2008 the NJMC launched the "Meadowlands Challenge," a friendly competition to encourage area businesses, municipalities and NJMC employees to recycle more, learn about energy efficiency and reduce energy consumption.



BUSINESS ACCELERATOR

The NJMC opened a Business Accelerator in October 2008 to promote the Districts green-technology sector. Located in an office building in Lyndhurst, the Accelerator is designed to assist small businesses focused on renewable and alternative energy and green technology. The NJMC has committed \$1.5 million over three years to fund the program, which provides entrepreneurs with affordable rent, one-on-one mentoring, coaching and an array of critical resources and services that may otherwise be unaffordable or inaccessible to young businesses.

AFFORDABLE HOUSING

You Are Viewing an Archived Report from the New Jersey State Library

In 2008 the NJMC enacted policies to ensure that District municipalities meet their obligation under the state constitution to provide affordable housing. In keeping with its desire to work with District Municipalities and other stakeholders, the NJMC formed an Affordable Housing Task Force to help develop its permanent affordable housing policies. The NJMC has provided up to \$45,000 to each of the 14 Meadowlands District municipalities (a total of \$630,000) over the past two years — and nearly \$1 million since 2003 — for the development, implementation and administration of plans to meet the affordable housing obligations set forth by the state Council on Affordable Housing (COAH). The Commission has also made its planning experts available to assist municipalities with their affordable housing plans.

COMMUNICATIONS DEPARTMENT



REDESIGNED WEB SITE

In January the Communications Department rolled out a new and improved Web site, www.njmeadowlands.gov. The user-friendly site contains extensive information on NJMC facilities, programs, studies, and District parks, trails, and boat and canoe tours. Users can also link to the MEC to view the schedule of public programs and register for events online. The site provides a listing of land use applications and violations, and users can download more than a dozen useful forms. The site also provides Commission meeting agendas, minutes, and numerous reports, maps and financial documents.

NATURE BLOG

The Meadowlands blog provides a colorful and informative celebration of nature in the District. The multi-media site, launched in July, is frequently updated with contributions from NJMC staff and the public, including rare bird sightings and images from Meadowlands District parks, wetlands and woods. While its main focus is nature, the blog also provides updates on NJMC events and includes video features of Commission facilities and programs. The blog also serves as a reference point for nature lovers, providing links to various parks and nature centers in the Meadowlands and across North Jersey. Generating more than 12,000 page views in its first three months of operation, the blog has proven to be popular. Check it out yourself at meadowblog.net.



NJMC CALENDAR

The NJMC is publishing a limited-edition 40th anniversary calendar featuring striking nature photography, a timeline of significant Commission events, and highlights from nature's own annual schedule. The calendar covers Dec. 2008 through Dec. 2009.

FLYWAY GALLERY

The NJMC's Flyway Gallery provides a space for artists to display their paintings, drawings, photography and multi-media work. The gallery, located in the Meadowlands Environment Center, was created to foster an artistic sense of place in the Meadowlands region. Highlights of the 2008 exhibit season included stunning Alaskan wildlife photography by North Bergen native Bill Menzel, romantic narratives, still-lives and landscapes by Secaucus' Charlie Churchill, and Kearny resident Tatsiana Harbacheuskaya's fanciful paintings depicting her recollection of childhood fairytales.

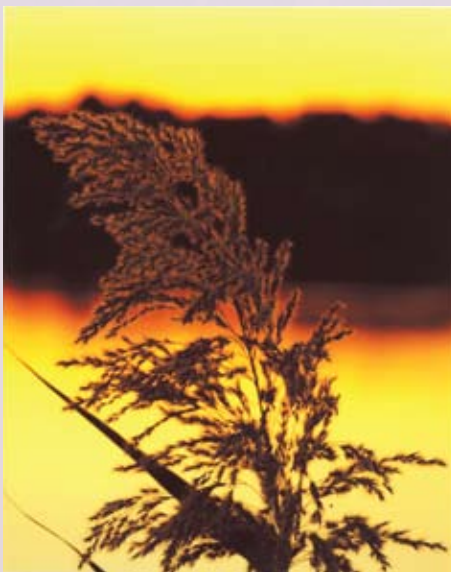


PHOTO CONTEST

October 2008 marked the return of the NJMC's Amateur Photography Contest. The "Show Us Your Meadowlands" theme gave recreational shutterbugs a chance to shine in three categories: Meadowlands environment, Meadowlands community and Meadowlands economy. The winners in each category were awarded cash prizes and the opportunity to display their work in the



FIRST PLACE - ECONOMY



FIRST PLACE - ENVIRONMENT



FIRST PLACE - COMMUNITY

RARE TRICOLORED HERON SPOTTED IN RICHARD W. DEKORTE PARK IN THE SUMMER OF 2008





New Jersey Meadowlands Commission

One DeKorte Park Plaza 🌿 Lyndhurst, NJ 🌿 07071 🌿 201-460-1700 🌿 www.njmeadowlands.gov