

Issues Summary

The following are existing and new conservation-related issues:

- Climate Change
- Loss of Wetlands
- Contaminated Sites
- Air Quality
- Water Quality
- Conservation and Resiliency

Secaucus, NJ, Secaucus Boardwalk, Meadowlands

Introduction

It is important to maintain an acceptable balance between man-made and natural systems while limiting negative environmental impacts. Despite its highly developed nature, there are still areas in need of care and conservation in Hudson County. The Conservation Element evaluates Hudson County's natural resources including topography, scenic vistas, soils, wetlands, flood plains and rare and endangered species.

The Conservation Element examines conservation goals and objectives, and issues identified in the 2002 Master Plan and the 2008 Re-examination Report to analyze whether those issues have been reduced or increased. The element also establishes a new set of goals and objectives based on ongoing and new conservation issues. This element incorporates recommendations that will support conservation activities throughout the county. Lastly, it complements the *2013 Open Space, Recreation and Historic Preservation Re-examination Report*.

Conservation is the sustainable use and management of natural resources including wildlife, water, air, and earth deposits, both

renewable and non-renewable. Conservation can provide economic and cultural values to Hudson County by increasing neighboring property values with low service costs, creating an amenity value that attracts residents and businesses and can result in physical and mental health benefits. Integrated planning among multiple sectors including conservation, infrastructure and land use will result in better, more strategic conservation plans. The goal of the Conservation Plan is to evaluate Hudson County's natural resources including topography, scenic vistas, soils, wetlands, flood plains and rare and endangered species.





The following goals and objectives were included in the Conservation Element on the 2008 Re-examination Report of the Hudson County Master Plan.

2008 Goals and Objectives

2008 Goals

1. To encourage the clean-up and reuse of contaminated sites.
2. To preserve existing scenic vistas, particularly skyline views of Manhattan.
3. To protect environmentally sensitive areas, such as rare and endangered species habitats, steep slopes, wetlands and surface water quality.
4. To reduce pollution and maintain a healthy environment.
5. To encourage recycling.
6. To reduce water pollution and “green house gas” emissions by automobiles and other mobile sources through promotion of walking, bicycling and mass transit.
7. To reduce stormwater run-off and nonpoint source pollution through elimination of combined sewer overflows and implementation of Best Management Practices.
8. To reduce the “urban heat island” affect through reduction of impervious coverage, utilization of green building technologies and installation of shade trees.
9. To reduce the disturbance of natural lands in floodplains and flood hazard areas.
10. To meet county and municipal standards for parks and open space established in the Statewide Comprehensive Outdoor Recreation Plan.

2008 Objectives

1. Reduce regulatory and financial barriers to clean-up operations.
2. Protect visual resources of the "Palisades" and long- range harbor viewsheds.
3. Provide technical assistance to local environmental communities to protect environmentally sensitive areas.
4. Maintain an up-to-date level of understanding of environmental regulations to assist the development process by coordinating environmental documentation and facilitating an expedited and coordinated environmental review.
5. Encourage energy conservation and reduce air pollution by designating land use patterns that reduce the need for additional automobile trips.
6. Assist New Jersey Meadowlands Commission (NJMC) in providing public access to, and educational programs for, wetlands and other key environmental areas of the Meadowlands.
7. Increase the number of shade trees along County roads.
8. Discourage development or disturbance in floodplains and flood hazard areas due to expected sea level rise.

2002 & 2008 Issues

The following conservation issues were identified by the 2002 Master Plan and 2008 Re-examination Report. Some of the issues identified have been reduced while others have been exacerbated.

Climate Change

The Issue: Hudson County's population density and extensive waterfront makes it especially vulnerable to the effects of climate change. According to the 2008 Re-examination Report, New Jersey's climate is changing, largely due to anthropogenic (man-made) increases in carbon dioxide (CO₂) emissions. These emissions include the combustion of fossil fuels from vehicular traffic and the burning of fossil fuels to heat and power New Jersey's homes and businesses. The release of CO₂ and other green-house gases result in warmer global temperatures which in turn lead to sea level rise (SLR) and an increase in extent and frequency of coastal flooding. Additionally, climate change could increase the size of the flood hazard area. The 2008 Re-examination Report concludes that *"only a holistic approach, whereby sustainable development patterns, circulation investments and economic development policies come together and embrace strong design guidelines can not only improve the environment locally but positively affect global conditions as well."*

What Has Changed: Protecting the county against future storm events is still a major county priority and concern. The County has worked in recent years to incorporate storm recovery and resiliency into its framework with the aim to protect against future storm related events. Post Superstorm Sandy, Hudson County government agencies and municipalities partnered together in a variety of recovery and resiliency projects and worked to improve communication and response to future events. This partnership led to the 2015 Hazard Mitigation Plan, the Community Rating System Assistance Action Plan, the Hudson County Debris Management Plan, and the Engaging and Strengthening Hudson County Planning Initiative with a focus on recovery and resiliency.

Loss of Wetlands

The Issue: Despite being a mostly urbanized county, the conservation of the natural ecosystem is of critical importance to the environment and quality of life. In 1986, Hudson County contained 3,897 acres of wetlands, which covered over 13% of the county's land area according to Land Use Land Cover data. By 2002, that number decreased to 1,540 acres. Wetlands act as a natural buffer against storm events as a natural detention basin for floodwater.. A loss of wetlands would not only destroy potentially distinct plant species and wildlife, but it also exacerbates any stormwater management issues that already exist in the county and increase the county's vulnerability to storm events.

What Has Changed: According to 2012 NJ DEP Land Use Land Cover data, there has been a loss of wetlands with only 1,397 acres of wetlands. There have been a few wetland projects in recent years. Adjacent to Lincoln Park, a formerly illegal landfill was restored into a tidal marsh. Additionally, 30 acres of contaminated soil at Liberty State Park may undergo a wetlands restoration. The State is beginning to recognize the importance of wetlands in Hudson County as well. According to the New Jersey Department of Environmental Protection (NJDEP) New Jersey Wetland Program Plan 2014-2018, NJDEP plans to *"work with NJ Pinelands and Meadowlands Environmental Research Institute (MERI) scientists to coordinate wetland monitoring and assessment efforts"* in an effort to achieve its objective to *"implement a sustainable monitoring program consistent with the wetlands monitoring strategy."*

Air Quality

The Issue: The 2002 Master Plan identified Hudson County as a non-attainment area for the National Ambient Air Quality Standards (NAAQS) for ozone and carbon monoxide, which are attributable to industrial activities and vehicle emissions. Areas within the state are designated attainment or non-attainment status depending on whether they meet these standards for six criteria pollutants. New Jersey and all other states are required to

attain and maintain those standards. While the plan also states that environmental quality in the county had improved, meeting the standards for sulfur dioxide and nitrogen dioxide, it recommends planting more trees to improve air quality and supporting projects that reduce traffic congestion.

What Has Changed: Hudson County is no longer designated as having non-attainment status for Particle Pollution (PM) by the EPA. A nonattainment area is an area considered to have air quality worse than the National Ambient Air Quality Standards as defined in the Clean Air Act Amendments of 1970. In August 2013, previously designated nonattainment areas for PM_{2.5} NAAQS, including Hudson County, were re-designated as attainment. Hudson County's status for Carbon Monoxide has also changed. To be in attainment for Carbon Monoxide (CO) NAAQS, an area must meet the NAAQS for two consecutive years and carry out air quality monitoring during this time. NJ had 11 non-attainment areas that have been since designated to attainment and are currently considered maintenance areas. The Maintenance Plan for Hudson County also includes Essex, Bergen and Union Counties and the municipalities of Clifton, Passaic and Paterson in Passaic County.

Criteria Pollutants	Years of Nonattainment
Particle Pollution (PM)	Pm2.5: 2005 - 2012
Carbon Monoxide (CO)	1991 -2001
Ozone (o ₃)	1992-2016
Sulfur Dioxide (SO ₂)	Never
Nitrogen Dioxide (NO ₂)	Never
Lead (Pb)	Not since 1970s

Source: EPA, NAAQS

In May 2012, the EPA designated the entire state as nonattainment for the .075 ppm (parts per million) 8-hour ozone NAAQS primary standard

(which was lowered in 2008 from the .08 ppm primary standard) and for the .08 ppm 8-hour ozone NAAQS secondary standard (which had been strengthened in 2008). In June 2011, New Jersey recommended that the entire state be designated unclassifiable for the 1-hour sulfur dioxide NAAQS and as of June 2014, there are no monitors measuring sulfur dioxide violations anywhere in New Jersey. See the above summary table for reference.

Water Quality

The Issue: The 2002 plan noted that water quality in the county has been historically poor due to both man-made and natural factors. The Passaic River, Hackensack River, Kill Van Kull and Newark Bay in Hudson County are threatened by non-point and point source pollution. Non-point source pollution is caused by rainfall or snowmelt moving over and through the ground, picking up and carrying away natural and man-made pollutants and depositing them into lakes, rivers, wetlands, coastal water and waterways. This run-off is increased by the amount of impervious coverage in the county. Point source pollution is a single identifiable source such as a factory or sewage treatment plant discharging into waterways. Water quality efforts, however, had improved through upgrades to sewage treatment facilities and conservation efforts that led to increased parkland and open space.

What Has Changed: Water quality continues to be an issue throughout the county. According to the 2015 Preliminary Assessment of the Lower Hackensack River of Bergen and Hudson Counties for the EPA, *"the lower Hackensack River contains contaminated sediments with no identified source and within a variety of sensitive environments."* However, *"environmental record searches for the lower Hackensack River and the Meadowlands returned approximately 653 potential facilities and 268 potential SRP sites that may be sources of contamination to the Hackensack River."*⁵⁸ According to a 2015 report by the Hudson Riverkeeper, some of the most polluted areas of the Hudson River lie between northern New Jersey and New York City where nearly half of the samples taken from this

area failed EPA's safe swimming guidelines.⁵⁹ CSOs also frequently contaminate surface waters with sewage throughout Hudson County. The Hudson Regional Health Commission has been providing environmental control programs including water pollution control since the 1970s. However, the commission has not issued a water monitoring report since the early 2000s.

Contaminated Sites

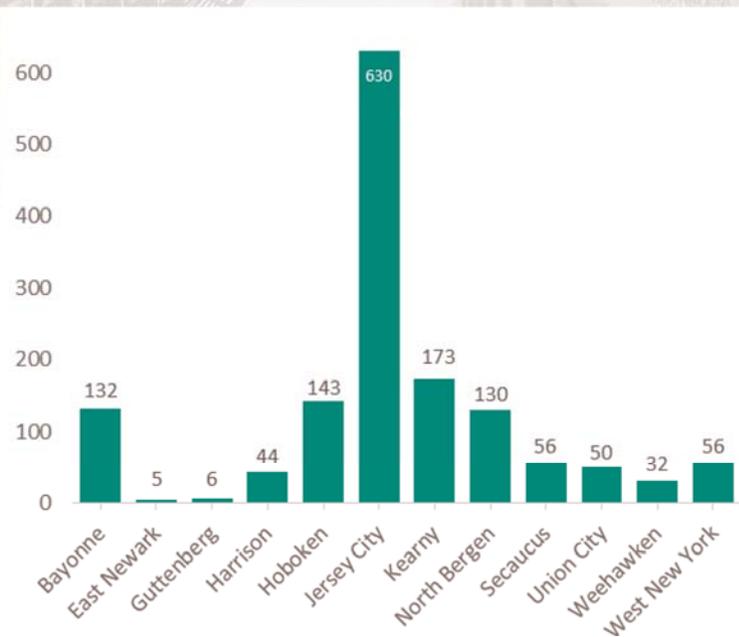
The Issue: Properties with the potential presence of a hazardous substance, pollutant or contaminant are often referred to as "brownfield" sites. In 2002, there were over 545 brownfield sites in Hudson County. Chromate contamination, which was the result of the extraction of chromium ore from industrial processing and use of waste as residential, commercial, and industrial fill, was identified as a particular issue for 142 properties. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressure off greenspaces and working lands. Hudson County has many former industrial yards mainly located near the waterfront of Jersey City, Bayonne, Kearny, and Weehawken with contaminated soil or groundwater which have yet to be cleaned up.

What Has Changed: In 2002, Hudson County had over 545 contaminated properties, or brownfield sites, 142 of which were contaminated with chromate. According to New Jersey's Online Searchable Database for Brownfield properties, Hudson County now has over 1,000 brownfield sites, four of which are Superfund Sites⁶⁰ and according to the NJDEP Site Remediation Program, there are 1,457 active sites with confirmed contamination. According to NJDEP, there are 212 chromium contaminated sites.⁶¹ In recent years, Jersey City has received numerous EPA grants for cleaning up brownfield sites. Between 2009 and 2012, the Jersey City Redevelopment Agency and Jersey City received a combined \$2,000,000 in cleanup grants from the EPA for a total of 9 sites contaminated with hazardous substances or petroleum.⁶² In 2008, the Hudson County Economic Development Corporation published a

Comprehensive Brownfields Redevelopment Plan. The plan identifies brownfields as key opportunities for redevelopment where a cleanup "can restore the community's sense of place, revitalize the neighborhood, and dramatically enhance the quality of life for residents."

The NJDEP Site Remediation Program identified 1,457 active sites with confirmed contamination, represented below by geographic location.

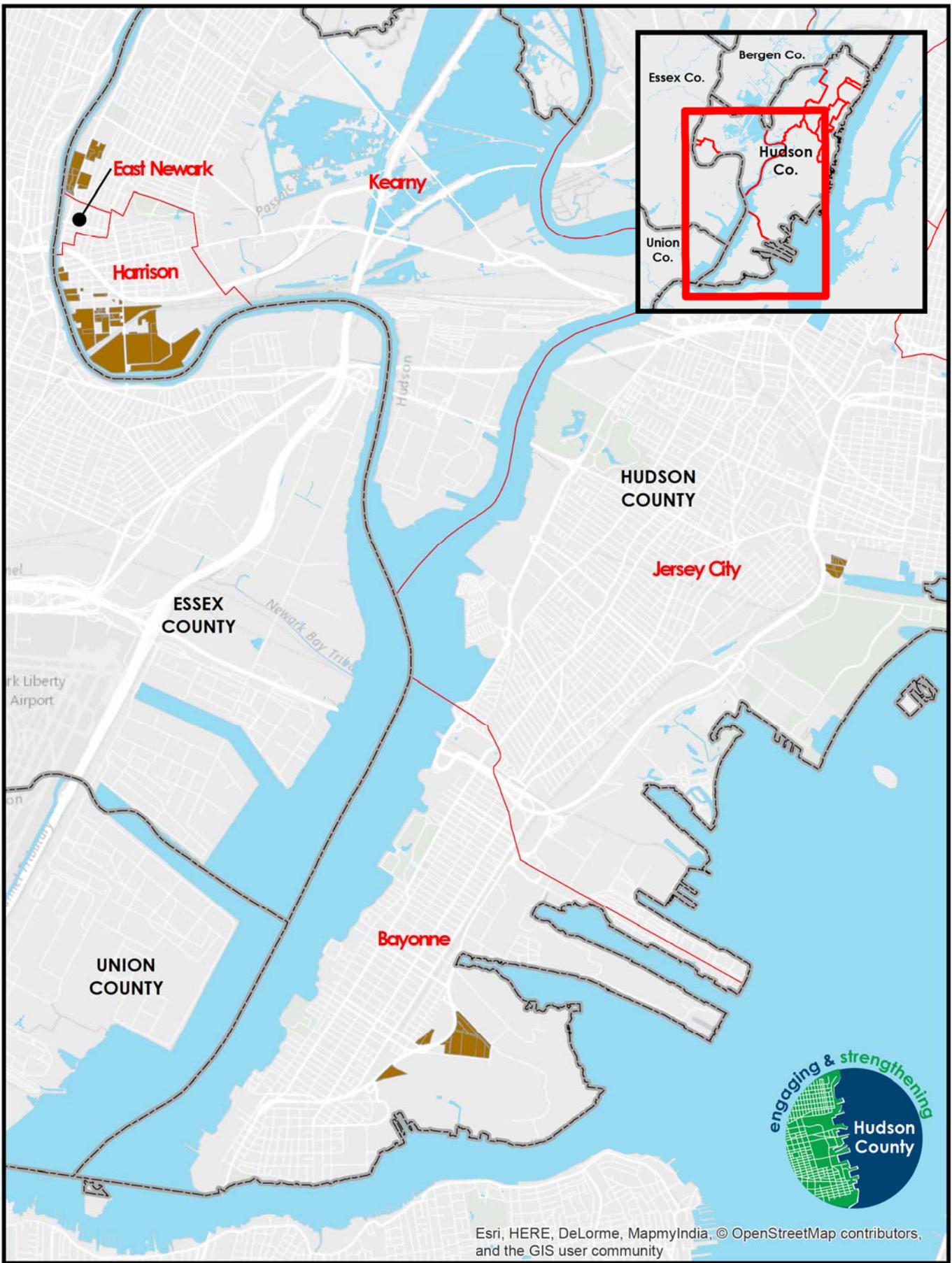
Confirmed Sites with Contamination



Source: NJDEP Site Remediation Program

Other Changes

In February 2015, the Governor signed legislation that dissolved the New Jersey Meadowlands Commission (NJMC), and transferred its powers to the New Jersey Sports and Exposition Authority (NJSEA) to oversee the 30.4-square-mile New Jersey Meadowlands (the "Hackensack Meadowlands"). The Meadowlands Environmental Research Institute (MERI), the scientific "arm" of the NJMC whose priority was environmental restoration, is now under control of Rutgers-Newark's Department of Earth and Environmental Sciences.



Brownfield Redevelopment Areas

 Brownfield Sites (2013)

0 0.5 1 2 Mile



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2002 Action Strategies - Now

Contamination Action Strategy

"Provide incentives for owners to clean-up brownfield sites through various techniques such as financial aid, infrastructure development or landbanking."

While the County does not provide incentives to owners for brownfield remediation activities, there are a number of state and federal resources and incentive programs to facilitate such cleanups.

"Improve access and infrastructure to contaminated development areas in order for them to develop to a reasonable potential."

In Hudson County's 2008 Brownfield Redevelopment Plan, it notes that an upgraded PATH Station in Harrison will improve transportation access in the Waterfront Redevelopment Area. The station is currently undergoing a \$265 million reconstruction project. The plan also outlines Kearny's desire for an NJ TRANSIT station near the Schuyler Avenue Redevelopment area, which would create opportunities for adjacent brownfield sites as viable development locations.

"Assist municipalities and property owners in accessing the Hazardous Discharge Site Remediation Fund (HDSRF) and other State programs that provide funding to prepare preliminary environmental assessments on contaminated sites."

Funds from the Hazardous Discharge Site Remediation Fund (HDSRF) have funded several projects in Hudson County, including Berry Lane Park in Jersey City in 2012 and other industrial sites since 2008.

"Provide technical assistance to municipalities in designating environmental opportunity zones to encourage the clean-up and reuse of contaminated sites pursuant to the Environmental Opportunity Zone Act."

Passed by the State in 1996, the Environmental Opportunity Zone Act allowed municipalities to pass an ordinance designating certain property or portions of property as an Environmental Opportunity Zone (EOZ), which exempts the designated property from posting a Remediation Funding Source (RFS) for the remediation being conducted and provides a tax break. In 2000, pursuant to the Master EOZ Ordinance, Kearny identified two properties within its municipalities as being Environmental Opportunity Zones. No other municipalities within the county have identified EOZs.

"Support efforts to streamline the State regulatory process, particularly regarding contaminated sites so that clean up can occur in the most expeditious and efficient manner."

Effective in 2012, the Site Remediation Reform Act's goal is *"to increase the pace of remediation, thus helping decrease the threat of contamination to public health and safety and of the environment, and to quickly return underutilized properties to productive use."*⁶³



Water Quality Action Strategy

"Support the enforcement of State environmental regulations and monitoring which should reduce pollution from point sources."

The Hudson County Land Development Regulations refer to the Water Quality Standards contained in NJDEP rules and conforms with the Water Quality Planning Act (N.J.S.A. 58:11A-1 et seq.)

"Support the implementation of "best management practices" which should reduce pollution from non-point sources."

Best Management Practices (BMPs) are defined in the Hudson County Land Development Regulations (LDR). BMPs *"are used to control the generation and delivery of pollutants from the built environment to waterways, thereby reducing the amount of pollutants entering surface and ground waters. BMPs can be structural or non-structural."* The purpose of the Stormwater Management Design Standard section within the LDR is to *"encourage the widespread use of stormwater best management practices (BMPs) and green infrastructure as primary techniques for stormwater management"*. The Stormwater Management Standards are to be supplemented by NJDEP's Stormwater Best Management Practices Manual. The LDR also requires that applicants provide at least one green infrastructure BMP method.

"Evaluate the possible use of environmentally safe dredge spoils as fill for economic development projects."

There is no documentation on whether Hudson County has used dredge spoils as fills for economic development projects. Dredging did occur in the Passaic River in 2014. However, there has been considerable debate over the environmental impacts of dredging.

"Support the implementation of the Hackensack Meadowlands Development Commission's 1997 Open Space Plan."

The former Hackensack Meadowlands Development Commission (HMDC), now New Jersey Sports and Exposition Authority, published an Open Space Plan in 1997. The NJMC adopted an updated Master Plan in 2004 that inventories open space and recreational resources and assesses land and water resources for potential recreation and open space facilities in the district.

Air Quality Action Strategy

"Support measures which will reduce traffic congestion at the Hudson River crossings such as completion of the Light Rail Transit system and improved ferry, train and bus service."

The HBLRT has been expanded and the ferry system has grown substantially since 2008. Other congestion reduction projects are being studied, including an extension of the HBLRT into Bergen County and new Trans-Hudson rail tunnels, known as the Gateway Project. An extension of the HBLRT would reduce north-south congestion to the Hudson River bridges and tunnels, while the Gateway Project would construct two new rail tunnels, providing greater passenger rail capacity into Manhattan.

Flooding Action Strategy

"Seek funding from the Army Corps of Engineers for flood control projects that do not compromise other County goals."

Funding received by the County from the U.S. Army Corps of Engineers (USACE) has been almost exclusively for dredging in port facilities. No funds have been released to the County for flood control projects and there are no plans to carry out flood mitigation projects with USACE assistance. However, in June 2015, the USACE released its Climate Change Adaptation Plan update to the 2014 plan. This update will permit the USACE to lead in developing and adopting resiliency concepts.⁶⁴

"Petition the Federal Emergency Management Association (FEMA) to update the flood hazard maps in Hudson County to reflect existing development."

The Federal Emergency Management Agency (FEMA) periodically issues Flood Insurance Rate Maps (FIRM) which define areas at risk during major flood events (the Special Flood Hazard Area). New preliminary maps were released in December 2013 and were revised and reissued in 2015. The Hudson County Division of Planning developed The Hudson County FIRM Viewer⁶⁵, which is an online application to help residents view both the

estimated flood depths during a 100-year flood event and the changes between the 2006 effective FIRM maps and the 2015 preliminary maps.

Scenic Vistas Action Strategy

"Provide financial and technical support for the Hudson River Waterfront Walkway and the Hackensack River Urban Promenade which will provide public access to the County's scenic vistas."

The Guttenberg/North Bergen Waterfront Park on River Road, jointly developed and maintained by both municipalities, was partially funded by the Hudson County Open Space Trust Fund and New Jersey's Green Acres Program. The Hudson County Open Space Trust Fund also assisted in the funding of the Hudson River Waterfront Walkway at the Weehawken Cove. A number of open space projects have also received funding in Bayonne, Jersey City, and Secaucus to support the implementation of the Hackensack River Waterfront Greenway.

"Support measures to protect scenic views, especially from public spaces such as parks and roads."

Scenic coastal open space is protected under CAFRA regulations along the waterfront. In the 2016 LDR update, the definition for Conservation Restriction partially limits anything that may be detrimental to a "scenic or open or wooded condition" and other conservation measures. Additionally, the LDR introduces the Scenic Boulevard, a Street Typology classification for some County roadways. The Scenic Boulevard provides a picturesque and enjoyable ride for drivers and cyclists, it may have some curvilinear alignment, and it has a natural, diverse landscape.



"Provide development guidelines to municipalities for development of a coordinated waterfront walkway system."

Coastal Zone Management Rules regulate the development along the Hudson River waterfront. According to these regulations, *"All waterfront development along the Hudson River shall develop, maintain, and manage a section of the Hudson Waterfront Walkway coincident with the shoreline of the development property."*⁶⁶ Additionally, the County adopted the 2004 Hudson River Waterfront Walkway Implementation Study, which included provisions for walkway design and construction standards. Design considerations for lighting, signage, railings, landscaping, site furniture, paving, and maintenance were included.



2016 Goals and Objectives

The following goals and objectives have been established to improve the state of conservation activities in Hudson County.

Goal 1: To protect and restore environmentally sensitive areas, such as wildlife habitats, steep slopes, wetlands and surface water quality.

- Objective a: Provide technical assistance to local environmental organizations to protect environmentally sensitive areas.
- Objective b: Develop higher Countywide standards for the Palisades that protect steep slopes from inappropriate development.
- Objective c: Acquire areas prone to flood damage, where feasible, and convert to open space/parks.

Goal 2: To reduce the disturbance of natural lands in floodplains and flood hazard areas.

- Objective a: Discourage development or disturbance in floodplains and flood hazard areas as well as encourage compliance with the most stringent available standards in areas of the County that are at risk of experiencing sea level rise.
- Objective b: Assist New Jersey Sports and Exposition Authority (NJSEA) in providing public access to, and educational programs for, wetlands and other key environmental areas of the Meadowlands.

Goal 3: To preserve existing scenic vistas, particularly natural landscapes and skyline views of Manhattan.

Objective a: Protect visual resources of the “Palisades” and long-range harbor viewsheds.

Goal 4: To reduce pollution and maintain a healthy environment.

Objective a: Monitor new and updated state and federal environmental regulations.

Objective b: Ensure NJDEP compliance for the control of air pollution, solid waste, and water pollution standards.

Objective c: Encourage energy conservation and reduce air pollution through land use patterns that reduce the need for additional automobile trips and through the development of energy efficient, LEED-certified buildings.

Objective d: To encourage the clean-up and reuse of contaminated brownfield sites.

Objective e: Reduce regulatory and financial barriers to clean-up operations.

Objective f: Increase the number of shade trees along County roads.

Goal 5: To meet county and municipal standards for parks and open space established in the Statewide Comprehensive Outdoor Recreation Plan.

Objective a: Continue and expand the use of municipal, county and state open space taxes as a means of funding acquisition and stewardship programs.

2016 - New Issues

In addition to the above issues, the following issues have surfaced based on trends and community participation feedback.

Conservation and Resiliency

Protecting the natural ecosystem is critical to resiliency planning. While green infrastructure improves stormwater management, techniques such as bioswales and rain gardens simply mimic what the environment does naturally. These ecosystems help protect the environment, mitigate the impacts of flooding, and support quality of life. Wetlands and riparian buffers should be protected from encroachment by development, especially in the Hackensack Meadowlands. Habitat restoration efforts should take place wherever possible, whether incorporated as part of park design or simply for the preservation of open space.

As a result of Hurricane Sandy, the Rockefeller Foundation held a “Rebuild by Design” competition to promote an innovate design process that builds resiliency and conservation into community visioning and planning for the region’s future. Two of the competition’s ten finalists consisted of areas in Hudson County – *New Meadowlands: Productive City + Regional Park* and *Resist, Delay, Store, Discharge: A Comprehensive Strategy for Hoboken*.

The New Meadowlands, which contains Secaucus, South Kearny, and parts of Jersey City, incorporates an expanded marshland restoration program with an intricate system of berms and marshes to protect against storm surges and rainfall, thereby reducing the impact of sewer overflows in affected communities. The design proposes a more densely developed land use pattern for residential development and the allowances of multi-story warehouses to replace the single-story centers.

Resist, Delay, Store, Discharge proposes a comprehensive strategy of both hard infrastructure and soft landscaping along coastal waters to resist storm surges, infrastructure to delay stormwater runoff into the sewer system, the storage of stormwater within green infrastructure to help

manage the release of stormwater, and water pumps and alternative drainage routes to eventually discharge the stormwater out of the city. This holistic strategy integrates all facets of stormwater management into a unified ecosystem in an urbanized environment. Hoboken recently received additional funding for implementation of this strategy with multiple alternative options, public workshops, and stakeholder meetings.

Hudson County continues to support conservation efforts as part of resiliency planning through the administration of the county’s Open Space, Recreation, and Historic Preservation Trust Fund. It encourages communities to use the fund to acquire open space for conservation and to integrate conservation into its projects, wherever possible.



Environmental Context - 100 Year Floodplain (2013/15)

- Wetlands
- 100 Year Flood (A and V Zones)
- Park
- Steep Slope/Landslide Risk
- County Park
- Elevation



Table 20: Conservation Recommendation Checklist

#	Recommendation	Status
CO-1	Educate and incentivize government organizations and private landowners to implement best stewardship practices and dedicate portions of their property to conservation.	
CO-2	Support implementation of the Port Authority of New York and New Jersey's Clean Air Strategy.	
CO-3	Continue to support the County's goal to plant 10,000 trees over ten years outlined in the Draft Community Forestry Management Plan.	
CO-4	Encourage municipalities to identify properties that are appropriate for designation as Environmental Opportunity Zones and adopt policies that incentivize their cleanup for future development.	
CO-5	Update the priority sites for acquisition through the Hudson County Open Space, Recreation and Historic Preservation Plan.	
CO-6	Utilize the LDR to promote flood mitigation strategies as a way to protect residents from natural and man-made hazards.	
CO-7	Continue to advocate for policies and funding at the state level that assists community efforts in resiliency and recovery from future storm events.	
CO-8	Designate Hudson County scenic byways and pursue funds from the Scenic Byways in NJ Program to protect and enhance scenic views in the county.	
CO-9	Continue to utilize the Hudson County Open Space, Recreation and Historic Preservation Trust Fund and other financial resources to support open space acquisitions.	
CO-10	Encourage communities to apply for EPA grants to clean up existing brownfield sites.	
CO-11	Encourage municipalities to adopt open space resource protection ordinances.	
CO-12	Continue to pursue acquisition of critical open space resource areas.	
CO-13	Discourage development on designated open space throughout the County.	
CO-14	Continue to pursue cooperative resource protection with municipalities, adjacent counties, New Jersey Sports and Exposition Authority (NJSEA), the state, federal agencies, and private nonprofit conservation groups.	
CO-15	Protect the visual resources of the Palisades and long range harbor view sheds.	
CO-16	Encourage reduction in the amount of impervious coverage, nonpoint source pollution, and combined sewer outflows.	
CO-17	Partner with Hudson County Economic Development Corporation to inventory existing brownfield sites and encourage the clean-up and reuse of contaminated sites.	
CO-18	Update the Hudson County Comprehensive Brownfields Redevelopment Plan.	
CO-19	Protect environmentally sensitive areas, such as wildlife habitats, steep slopes, wetlands, and surface water quality.	

#	Recommendation	Status
CO-20	Reduce the “urban heat island” effect through reduction of impervious coverage, utilization of green building technologies and installation of appropriate shade trees.	
CO-21	Encourage the development and certification of LEED certified buildings to help reduce consumption and energy usage.	
CO-22	Discourage development or disturbance in floodplains and flood hazard areas.	
CO-23	Implement the Hudson County Community Forestry Management Plan and update as needed.	
CO-24	Encourage municipalities to develop community forestry programs and plans.	
CO-25	Create a Shade Tree Commission for Hudson County that will coordinate with municipal commissions.	
CO-26	Develop a database to analyze tree data and determine proper maintenance procedures.	
CO-27	Increase the number of trees planted throughout Hudson County.	
CO-28	Engage the community in forestry initiatives by providing training and developing a tree maintenance request process.	
CO-29	Inspect and maintain trees in the right-of-way of County roadways as detailed in the Community Forestry Management Plan.	
CO-30	Educate and promote shade tree selection that best handle Hudson County’s unique ecological conditions and provide adequate shade. Promote education and certification for urban arborists and master gardeners.	
CO-31	Identify vacant parcels in each municipality as possible green spaces and areas for additional tree planting.	
CO-32	Support the protection of the Hackensack Meadowlands as a critical ecological and environmental resource for Hudson County and discourage future development that would negative impact the region.	
CO-33	Continue acquisition and expansion activities using the Hudson County Open Space, Recreation, and Historic Preservation Trust Fund.	
CO-34	Partner with local municipalities, adjacent counties, the New Jersey Sports and Exposition Authority, state agencies, and non-profit conservation groups to leverage available funding for joint acquisition of open space.	
CO-35	Provide technical assistance and support to environmental programs on subjects including biodiversity, habitat creation, and wildlife watching.	
CO-36	Continue to seek opportunities to increase the amount of wetlands in Hudson County through restoration.	
CO-37	Support projects that improve air quality in Hudson County and continue to develop projects that achieve attainment of National Ambient Air Quality Standards.	
CO-38	Educate residents on the prevalence and hazards of chromium contamination in the county.	
CO-39*	HC-6: Continue to coordinate corrective actions to prevent coastal erosion along the Hudson, Passaic, and Hackensack Rivers with NJSEA and other stakeholders.	
Co-40*	HC-7: Continue to investigate slope failure areas which could impact roads below the Palisades and implement slope stabilization projects.	

*Recommendations from the 2015 Hudson County All Hazards Plan