IX. Public Access and Recreation

Schoolchildren and chaperones along the Mill Creek Trail.

Against a Manhattan background, schoolchildren make good use of the NJMC's DeKorte Park facilities.

Successful duck hunters returning from the Sawmill Creek WMA.

A blue crab (*Callinectes sapidus*).

Schoolchildren learning about the Meadowlands NJMC's DeKorte Park.

Laurel Hill County Park boat ramp.

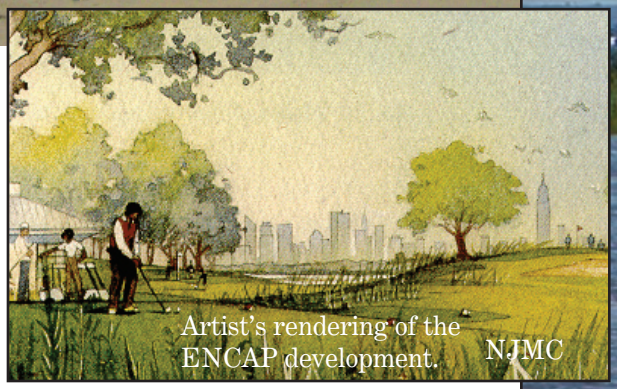
IX. Public Access and Recreation

Located only 7 miles west of Manhattan, the Meadowlands lies within 50 miles of nearly 20 million people. In the Meadowlands, remediation and restoration not only must sustain fish and wildlife resources but also must improve public opportunities for appropriate social and recreational uses. The Service supports public uses such as wildlife observation, photography, fishing, and waterfowl hunting that have minor, if any, adverse impacts on fish and wildlife when properly managed and/or regulated. However, sustaining fish and wildlife resources and improving social and recreational uses, especially in combination, necessitate careful long-term planning.

For example, the State of New Jersey currently prohibits recreational and other harvesting of blue crabs from the Hackensack River due to their bioaccumulation of mercury, PCBs, and dioxins. This prohibition on recreational harvest represents an "impaired use" resulting from the contamination of the Meadowlands ecosystem. Therefore, remediation and restoration must improve the status quo of contamination in the Meadowlands; otherwise, fish and wildlife populations will remain at risk and social and recreational uses of the Meadowlands will remain impaired. Access to, and use of, restoration sites are often critical determinants of the public's evaluation of the success of restoration projects. Thus, restoration that improves social and recreational uses will help strengthen public confidence in, and support for, restoring the Meadowlands.

Laurel Hill County Park.

Photo / Hackensack Riverkeeper



Artist's rendering of the ENCAP development. NJMC

A Hackensack Riverkeeper "eco-tour." Photo / Hackensack Riverkeeper

IX. PUBLIC ACCESS AND RECREATION

Improving appropriate access to, and use of, wetlands and adjoining areas must be an integral feature of restoring the Meadowlands.

Photo / Hackensack Riverkeeper

IX. PUBLIC ACCESS AND RECREATION

A. INTRODUCTION

A major justification for restoring the Meadowlands ecosystem and protecting its fish and wildlife resources is the Meadowlands' proximity to the more than 20 million Americans residing in the suburban/urban area surrounding the NY-NJ Harbor. *The availability of a large natural area to so many people makes the Meadowlands a very special place.* Remediation, restoration, and protection of the Meadowlands will provide to the public numerous educational, social, and recreational opportunities and other benefits associated with open space that are rare in the urban landscape. Such benefits include learning about the natural world, gathering with others in diverse natural settings, and enjoying recreational activities such as wildlife observation, photography, boating, fishing, and hunting. Remediation and restoration of natural areas also improve the value of nearby suburban and urban property (*e.g.*, Streiner and Loomis, 1995; Udziela and Bennett, 1997), and are recognized as an important component of the revitalization of many downtown areas (Bailey *et al.*, 2005). In particular, public open-space projects and other improvements to waterfronts are recognized often as the centerpiece of redeveloping urban centers and as giving these revitalized areas a unique sense of place (*e.g.*, U.S. Conference of Mayors, 2002; Breen and Rigby, 2004). Thus, although waste and landfills characterized land use and influenced public perceptions of the Meadowlands for many decades, remediation and restoration projects in the Meadowlands that support wildlife and encourage a new landscape have the potential to establish a positive image of living in this densely populated urban and suburban area.

Restoration planners must also recognize that access to and use of restoration areas are important determinants in the *public's* evaluation of the success of restoration projects (*e.g.*, Bauer *et al.*, 2004). Securing and maintaining the public's interest in and commitment to the Meadowlands, demonstrated through the actions of elected officials, is critical to the remediation, restoration, and long-term protection of the Meadowlands ecosystem and its living resources. Because of the Meadowlands' urban location, public uses should be given prominent consideration in planning for remediation and restoration. For example, the Service recommends considering potential public uses in selecting contaminant criteria for remediation of sites. It is unlikely that the public will embrace recreation on, and other public uses of, sites that have been cleaned and/or remediated to marginal (*i.e.*, low) standards that essentially continue the *status quo* of contamination in the Meadowlands.

While the public desires and values many uses of wetlands (*e.g.*, fishing, hunting; Woodward and Wui, 2001; Boyer and Polasky, 2004), certain activities and uses of natural areas have potential to adversely affect fish and wildlife resources. Various government agencies and other groups have established use policies to achieve specific objectives on many other urban park and refuge areas; therefore, the Service recommends that stakeholders establish a human use policy for the Meadowlands with the objectives of: (1) protecting fish and wildlife resources, (2) supporting appropriate activities, and (3) providing public access to the river. (Continued support for law enforcement will be necessary to ensure that increased usage of the Meadowlands does not compromise fish and wildlife resources. In 2006, the NJMC agreed to

provide funding for two new conservation officers in the HMD.) Integrating appropriate human use objectives into remediation and restoration of the Meadowlands will not only improve the quality of life for area residents, but will also act as an antidote to the images and legacies of the Meadowlands' neglect, promote public support for remediation and restoration activities, and help establish a new and positive public image of the Meadowlands.

B. HUMAN USE OBJECTIVES

1. Promoted Uses of Aquatic and Terrestrial Areas

Although the Meadowlands is not part of the NWR system, the Service's nationwide policy for NWRs serves as a good model for human use of the Meadowlands. The NWR's "wildlife first" policy places the needs of wildlife foremost in decision-making regarding human uses and activities, yet also identifies wildlife-dependent activities as priority public uses. The NWR's recommended priority public uses of the Meadowlands include waterfowl hunting, fishing, wildlife observation, photography, environmental education, and environmental interpretation. In all cases these and other uses undergo a strict compatibility determination to ensure that wildlife values are not harmed or compromised. Properly regulated, these uses normally have minor, if any, adverse impacts on fish and wildlife resources. In addition, these public-use activities are currently allowed in the Meadowlands and are consistent with State and federal laws (*e.g.*, waterfowl hunting provisions of the MBTA). Overall, the Service promotes human uses of wetlands that are popular and do not adversely impact indigenous fish and wildlife populations.

The Service's above-recommended priority human uses of the Meadowlands are among the most popular and highly valued recreational activities in the United States, including New Jersey (U.S. Fish and Wildlife and U.S. Census Bureau, 2002; 2003a). Wildlife-watching (1.9 million total participants, defined as observing, feeding, or photographing wildlife as the primary activity) is more popular than hunting (135,000 participants) or fishing (806,000 participants) among New Jersey's residents and visitors (U.S. Fish and Wildlife and U.S. Census Bureau, 2003a). Wildlife observation also results in substantial positive economic impacts in New Jersey, which was ranked 6th nationally for economic benefits generated from wildlife watching (U.S. Fish and Wildlife Service and U.S. Census Bureau, 2003b). For New Jersey residents, the average expenditures of bird watchers ($977 per participant) is comparable to expenditures of anglers ($1,115) and hunters ($1,259; U.S. Fish and Wildlife Service and U.S. Census Bureau, 2002). Surveys of residents near urban wetlands being restored in the northeastern U.S. indicate that the opportunities to view wildlife and other passive recreational activities are the most highly valued recreational uses of urban wetlands (*e.g.*, Casagrande, 1997a).

With the development of appropriate facilities and educational outreach, the Meadowlands could also provide social and recreational opportunities to a geographic region and urban populations that have thus far been difficult to engage. Residents of the northeastern United States are less likely than residents in other parts of the country to visit a federal recreation site (*e.g.*, national park or wildlife refuge) or participate in wildlife watching and other outdoor recreation (U.S. Fish and Wildlife Service and U.S. Census Bureau, 2003c; RoperASW, 2004). Most wildlife

observation occurs within a mile of home (U.S. Fish and Wildlife Service and U.S. Census Bureau, 2002). Providing opportunities for wildlife-watching in an urban/suburban area can afford an outstanding, economical outdoor recreational activity for low-income populations who would otherwise lack access to such sites. Outdoor recreation is also generally recognized by the public to improve family happiness, health, unity, and overall quality of life; moreover, participation in outdoor recreation is positively correlated with appreciation of, and respect for, the natural environment (RoperASW, 2004). Thus, providing social and recreational facilities within the Meadowlands is likely to improve public support for its remediation and restoration.

Currently, most though not all recreational uses of the Meadowlands appear to be infrequent and occur irregularly, though few rigorous surveys have been conducted to assess that perception. Water quality impairments (including unpleasant sights and smells), pollution (especially exposed waste and garbage but also unseen pollution causing seafood-consumption advisories), limited access, lack of aesthetics, limited opportunity to view wildlife, abundant mosquito populations, crime, and limited financial resources potentially affect use of urban wetlands (Casagrande, 1997a; 1997b). Thus, increasing appropriate public uses of the Meadowlands can be a complicated challenge; gender, culture, demographic, and other issues also complicate efforts to encourage public use of wetlands (Page, 1997; Bauer *et al.*, 2004). Although pollution is often identified as the greatest concern of urban residents, improving aesthetics and removing physical and social barriers to access may be equally important for increasing public uses of wetlands (*e.g.*, Casagrande, 1997a). While water quality improvements and restoration activities contributing to the recovery of fish and wildlife may increase public uses of the Meadowlands, studies in other urban areas in the northeastern United States (*e.g.*, Boston, New Haven; Casagrande, 1997b; Bauer *et al.*, 2004) suggest that a strong outreach program is necessary to increase public awareness.

The Service recommends conducting surveys of public uses, values, and perceptions of the Meadowlands as a starting point to develop and implement a social and recreation vision that includes appropriate use policies. Surveys should be undertaken during the initial stages of planning to provide the public and local stakeholders a voice in recreational land-use decisions. Moreover, it is especially important to assess certain risks (*e.g.*, consumption of contaminated seafood and wildlife) and address concerns of low-income and minority populations residing in the diverse communities within the HMD (Executive Order 12898 [Federal Actions to Address Environmental Justice in Minority Population and Low Income Populations]; 59 *Federal Register* 7629; February 16, 1994). These surveys should be designed and conducted by social scientists and survey specialists. Survey information should be communicated to the principals' group and other stakeholders to support appropriate public uses of the Meadowlands while avoiding and minimizing adverse impacts to fish and wildlife resources. Because public uses, values, and perceptions are dynamic, the Service recommends that surveys be undertaken periodically to guide long-term use policies and long-range planning to increase socioeconomic benefits.

2. Prohibited, Permitted, and/or Managed Uses (Including Zoning)

To restore the Meadowlands and protect its federal trust resources, the Service is strongly opposed to activities, particularly if non-water-dependent, that would result in an additional loss

or degradation of wetlands. All proposed projects requiring a federal permit pursuant to the Clean Water Act should be in full compliance with the Section 404(b)(1) Guidelines (40 CFR Part 230). Activities in wetlands that would impair ecological functions and adversely impact fish and wildlife resources should be strongly discouraged. The Service recommends that the NJMC: (1) discuss special use exceptions (*e.g.*, marinas) that are proposed as part of the HMD's new zoning regulations with State and federal resource agencies, and (2) reconsider the need for inclusion of the proposed special use exceptions as part of the zoning regulations to prevent compromising restoration of the Meadowlands and the long-term protection of its fish and wildlife resources.

Most current recreational activities and uses of the Meadowlands should be allowed to continue. State and local government agencies should be encouraged to assess: (1) the need for regulations and restrictions to protect sensitive and declining wildlife species during their reproductive season, and (2) potential risks to human health, such as risks from consumption of wildlife. For example, NJDEP monitors beaches and erects barriers to protect nests of certain shorebirds (*e.g.*, piping plover). The Service recommends similar efforts in the Meadowlands to protect nesting colonies and other aggregations of species that are declining. Of concern are activities such as riding all-terrain vehicles or flying model airplanes that may disturb nesting wildlife in certain areas of the HMD (*e.g.*, Empire Tract, Losen Slote); thus, Meadowlands stakeholders should explore alternative sites to provide these recreational needs elsewhere while protecting fish and wildlife species, especially during their breeding seasons. The Service recommends continuing recreational fishing and hunting in the Meadowlands in accordance with federal and State regulations, although assessing contaminant levels, as done with fishes and shellfishes, should be carried out to protect potential consumers from bioaccumulative effects of certain contaminants (*e.g.*, PCBs, mercury). Expansion of recreational uses and activities also will increase the need for law enforcement personnel (*e.g.*, State Conservation Officers) in the Meadowlands.

Finally, the Service recommends increased research on such issues as air quality to assess potential impacts on human health resulting from general activities (*e.g.*, hiking, boating) in the Meadowlands. Such assessments complement risk assessments for fish and wildlife and would strengthen decision-making regarding public uses, especially in certain areas (*e.g.*, Berry's Creek) of the Meadowlands where volatile contaminants (*e.g.*, PCBs, mercury) may be present in high concentrations. Such assessments might result in recommendations or restrictions regarding human activities and uses of the Meadowlands in addition to the current seafood advisories throughout the entire Newark Bay area. Use advisories and restrictions have been established in other urban parks and refuges (*e.g.*, Boston's Emerald Necklace Park System). Advisories and use restrictions can increase public awareness of impairments and promote support for restoration.

C. INFRASTRUCTURE OBJECTIVES (IN SUPPORT OF HUMAN USES)

Access is a critical component by which the public assesses publicly funded restoration projects in the northeastern United States (*e.g.*, Bauer *et al.*, 2004). The New Jersey Open Space and Outdoor Recreation Plan recommends setting aside at least three percent of developable area for municipal open space. Most communities in the Meadowlands have not preserved the

recommended minimum acreage of open space (*e.g.*, Jersey City, Kearny, North Bergen; Heyer, Gruel, and Associates, 2004). Thus, the Service recommends acquisition of uplands to provide locations for the infrastructure needed to improve access and support appropriate public uses of wetlands. Infrastructure should include land-based facilities such as parks and trails and water-dependent facilities such as landings and fishing areas. Land-based and water-dependent facilities should be integrated together where practical (*i.e.*, where such integration would not adversely impact fish and wildlife resources and uses are compatible). Hudson County has identified many types of recreational facilities which are not available locally but could be integrated into future park projects. Examples include swimming pools, archery ranges, skating rinks, and volleyball and shuffleboard courts (Heyer, Gruel, and Associates, 2004).

Infrastructure to support wetland activities should be planned carefully to support passive recreational activities. Recreational facilities should also be designed to minimize impacts to wetlands and wildlife resources from ancillary support structures such as parking lots. Facilities should also be designed to provide universal access, that is, to provide access to people with special needs. Acquisition of uplands adjoining wetlands not only helps meet the region's open space needs but can improve wetland functions and promote public support for restoring and maintaining the region's biodiversity.

The Service also recommends that local stakeholders, particularly municipalities and counties, explore the availability of federal funding, including funds generated by transportation and other projects, in support of recreational infrastructure. For example, the Recreational Trails Program was established by a provision of the Intermodal Surface Transportation Efficiency Act of 1991 (P.L. 102–240; 23 U.S.C. 100 *et seq*.) and reauthorized in 1998 as part of the Transportation Equity Act for the 21st Century (P.L. 105-178). Eligible projects include: maintenance and restoration of existing recreational trails; development and rehabilitation of trailside and trailhead facilities and trail linkages for recreational trails; purchase and lease of recreational trail construction and maintenance equipment; construction of new recreational trails; and acquisition of easements and fee simple title to property for recreational trails or trail corridors.

1. Parks, Trails, River Overlooks, and Wildlife Observation Sites

The Service recommends development of "passive" recreational facilities such as parks, trails, river overlooks, site-specific boardwalks, and wildlife observation sites throughout the Meadowlands. Moreover, the Service recommends integrating open space throughout the Meadowlands using trails and other corridors. Networks of open space are highly valued by the urban residents (*e.g.*, especially homebuyers (Bailey *et al.*, 2005), enhance some ecosystem services performed by wetlands (*e.g.*, flood storage), and provide additional habitat supporting fish and wildlife. Thus, the Service strongly supports the efforts of local governments to acquire additional open space for passive recreational activities, especially where such acquisitions may help protect environmentally sensitive areas (*e.g.*, wetlands along Penhorn Creek; Remaud, 2004; Heyer, Gruel, and Associates, 2004). In particular, the Service recommends that all local governments and other stakeholders maintain, enhance, and increase the extent of vegetated buffers along waterways and around wetlands. Such areas not only increase biodiversity and enhance wetland function but also provide opportunities for passive recreation (*e.g.*, bird watching, photography).

Multi-use walking, running, and biking trails, especially those parallel along a river, are considered one of the most effective means of providing access to rivers in urban areas (Bailey *et al.*, 2005). Trails integrated into other open-space projects and the surrounding urban landscape have been components of the downtown revitalization of major cities, including Denver, Phoenix, San Antonio, and St. Paul. Thus, the Service supports trail projects in the HMD being developed by the NJMC (2004h) and municipal governments; these projects serve to link many parcels of open space throughout the HMD. These trail projects include small-scale upland and wetland restoration components that, if properly designed, provide wildlife habitat and buffer wetlands, which contribute to the improvement of water quality. Consideration should be given to: (1) extending these trail projects to include all significant open-space areas within the HMD; (2) connecting these trail projects to other trails, green corridors, and open-space areas in the HRW and the region; and (3) acquiring, remediating, and restoring degraded upland areas, such as Superfund Sites, abandoned rail lines, and other brownfield sites, along the trails. The three current trail projects in the HMD include the Meadows Path, the Secaucus Greenway, and the Blue Water Trail.

The Meadows Path, a component of the NJMC's 1983 Master Plan, is a 25.5-mile pedestrian trail planned along the western side of the Hackensack River from Losen Slote Creek Park in Little Ferry to West Hudson Park in Kearny. To date, approximately 5 miles of the Meadows Path has been completed. The Service recommends that the NJMC and local groups work with the Service's *Partners for Fish and Wildlife* Program, and enter into a partnership landowner agreement to restore various sites along the Meadows Path. Because this project has many components in different communities within the HMD, the Meadows Path would provide a number of distinct opportunities for the Service, the NJMC, and local stakeholder groups to work collaboratively in a diversity of on-the-ground restoration projects.

The Secaucus Greenway is a 15-mile waterfront greenway planned through Secaucus and Jersey City on the east side of the Hackensack River. Only two short portions along the Mill Creek Marsh and the Laurel Hill County Park (totaling 3 miles) are currently completed. The Service recommends that local governments: (1) acquire upland areas along the waterfront to complete the Greenway; (2) acquire additional upland areas, including existing open space (*e.g.*, Little Snake Hill) and brownfields, to provide wetland buffers and recreational venues along the river; and (3) integrate the Greenway with other open space and neighborhoods. For example, Hudson County has expressed interest in acquiring the PJP Landfill, following its remediation of this Superfund Site, as a component of the Secaucus Greenway. The Service recommends appropriate public uses of this site (*e.g.*, county park integrating natural and recreational areas), subsequent to appropriate remediation and restoration. Approximately 25 percent of Superfund sites nationwide, including other Superfund sites in New Jersey, have been re-used for ecological and recreational purposes (U.S. Environmental Protection Agency, 2004h).

The Blue Water Trail was completed by the NJMC in 2004 as a canoe trail focused around the Mill Creek Marsh and connected to all other parks within the HMD. This trail features several restoration sites and portions of the State's Sawmill Creek Wildlife Management Area, and includes trail markers and interpretive signage at various points. The Service recommends such low-impact boating uses of the HMD; moreover, the Service recommends that the MCT and

other local stakeholders expand this trail along the Hackensack River above the HMD to other open-space areas and historic or cultural landmarks (*e.g.*, Overpeck County Park, Van Buskirk Island).

2. Landings, Docks, Fishing Piers, and Shorelines

Currently, very few boat landings, docks, and fishing piers are present within the HMD along the Hackensack River. Commercial boat landings provide the primary means of public access to the Hackensack River. Only one public boat landing suitable for all types of recreational boats, at the Laurel Hill County Park, is currently available. A second boat landing is present on Mill Creek but is suitable only for canoes and kayaks. Docks are located alongside the public boat ramp at the Laurel Hill County Park; a fishing area is designated at the Mill Creek Landing, and other areas along the shoreline of the river of the Laurel Hill County Park appear suitable for fishing. Public facilities along the Hackensack River within the HMD appear little used and sufficient to meet existing demand. The Service recommends periodically assessing use of these facilities and considering other sites (*e.g.*, Overpeck Creek, Fairleigh Dickinson University) where additional access points to the river might be developed as demand on existing facilities increases.

The Service recommends establishing a long-range plan for adding facilities, such as another boat landing exclusively for kayaks and canoes to emphasize "low-impact" recreational activities as another future use priority. Although the Service generally supports fishing as a recreational activity elsewhere and in the Meadowlands, the Service recommends caution and continued use of warning signs to prevent additional facilities from contributing to any increased consumption of contaminated fish.

3. Parking and Special Needs Access

Parking and special needs access are critical components in planning for public use of open space. Public parking is available currently at most local parks and other facilities; however, the adequacy of parking is a concern at some sites. The Service recommends matching the parking needs to the capacity of parks and other facilities to prevent them from being overused and degraded. Parking facilities should be safe, secure, and well-maintained, and should employ green-design principles (*e.g.*, parking with pervious surfaces); otherwise, the purpose of the facilities will be compromised and may contribute to negative perceptions of the Meadowlands restoration. Many local communities in Bergen and Hudson Counties have increasing percentages of elderly residents and family households headed by women (New Jersey Meadowlands Commission, 2004d); access, including parking, and safety are important issues regarding use of public facilities for those demographic groups. Parking and other public facilities (*e.g.*, trail kiosks) should include provisions for emergency communications (*e.g.*, panic buttons, closed circuit TV) and ready access by law enforcement.

The Meadowlands is located within one of the densest population centers in the United States; therefore, facilities must be designed to provide access to people with special needs. Universal-design features (*e.g.*, "cuts" in curbs for wheelchairs, ramps in place of steps) should be provided to allow all citizens to engage in recreational and educational activities. Accommodating

different difficulty levels in the trail system is also an important part of universal design. Therefore, the Service recommends that all structures (*e.g.*, gating, trail surfacing and grades, restrooms, curbing, drinking fountains, picnic tables, fishing piers, boardwalks, wildlife observation decks, pedestrian bridges, and drainage structures) must be planned and designed for accessibility.

Some local NGOs, such as the Project for Public Spaces (2005), have incorporated universal design considerations into renovations of other nearby parks (*e.g.*, Liberty State Park, Morningside Park). The Service also recommends that stakeholders request technical assistance from the State's Department of Community Affairs. The Department of Community Affairs administers New Jersey's Access Code through the Barrier Free Subcode of the Uniform Construction Code (N.J.A.C. 5:23-7) and the U.S. Access Board (2005), which not only enforces the Americans with Disabilities Act of 1990 (P.L. 101-336) and related laws but has also become one of the leading sources of information on accessible design. The U.S. Access Board (2005) is currently developing regulations regarding outdoor developed areas. Certain federal-state partnerships (*e.g.*, National Center on Accessibility; National Park Service and Indiana University, 2005) may provide further technical assistance regarding the inclusion of people with disabilities in parks, recreation, and tourism in the Meadowlands.

D. REDEVELOPMENT, REMEDIATION, AND RESTORATION OF THE MEADOWLANDS: CREATING A NEW PUBLIC IMAGE

Social and recreational uses of the Meadowlands have the potential to: (1) provide enjoyment to many Americans, (2) increase local property values and local business opportunities, (3) promote better health and quality of life, and (4) increase an awareness and appreciation of fish and wildlife and the environment. Increased uses of the Meadowlands also have considerable potential to adversely impact fish and wildlife populations; the need for additional law enforcement will increase, as has been observed in other urban settings. Thus, social and recreational opportunities must be carefully considered, planned, and monitored in the remediation and restoration of the Meadowlands.

Redevelopment, remediation, and restoration of different wetland and upland sites in the Meadowlands are gradually moving forward. These different activities represent considerable financial and technical undertakings and reflect substantial efforts and commitments of resources by private groups and government agencies; however, each of these activities currently lack a vital ingredient: all stakeholders *working together for the future* to: (1) change the entire area's image, (2) increase public use, and (3) foster greater awareness of, improve, and protect the environment and its resources. The Meadowlands and its adjoining waterways in the Hackensack watershed have always been a public resource, yet projects focused specifically on redevelopment, remediation, and restoration have not fully embraced the region's resources as a public treasure. To reclaim the Meadowlands ecosystem for future generations of Americans, redevelopment, remediation, and restoration projects must include elements to increase public access, integrate human uses of open space while sustaining and safeguarding fish and wildlife, and perpetuate the new public image of the Meadowlands. The integration of these elements will also help define social and recreational objectives for the Hackensack Meadowlands.