



City of New York Parks & Recreation

The Arsenal
Central Park
New York, New York 10021

Henry J. Stern
Commissioner

Natural Resources Group

Arsenal North
1234 Fifth Avenue
New York, New York 10029

Marc A. Matsil
Chief

(212) 360-1417
raptor@parks.nyc.gov

www.nycparks.org

To: NY/NY HEP Habitat Workgroup
From: Marc A. Matsil, Chair, HEP Habitat Workgroup
Date:
Subject: Minutes from the July 19, 2001 HEP HWG Meeting, NRDC

Next Meeting: Thursday August 23, 2001
10.00 am – 2.00 pm
Hudson River Foundation Conference Room
40 West 20th Street, 9th floor

Present at last meeting: Doug Adamo (USFWS), Carl Alderson (NYC Parks), Melissa Alvarez (NYSDEC), Mariellé Anzelone (NYC Parks), Steve Barnes (Baykeeper, Rahway River Association), Peter Blanchard (TPL), Bernard Blum (FOR), Paul Brunn (NYC Planning), Megan Callus (NJCF), Rebecca Desrosiers (Hart Crowser), David Fanz (NJDEP), Eugenia Flatow (HEP, Coalition for Bight), Margaret Gargiullo (NYC Parks), Leonard Houston (US ACE), Steve Jandoli (NJDEP, Green Acres), Mark Jaworski (US Wetlands), Marjorie Kaplan (NJDEP), Zoe Kelman (NJDEP), Craig Kessler (Ducks Unlimited), Andrew Machlachlan (US FWS), Mark Maglienti (NYSDOT), Lynn Mandarano (UPenn), Paul Mankiewicz (NYCSWD, Gaia Inst.), Marc Matsil (NYC Parks), Reyhan Mehran (NOAA, CPRD), Dan Montella (EPA), Nancy Niedowski (NYS DOS), Joyce Novak (NYC DEP), Robert Nyman (EPA, HEP), Robert Reid (NMFS), Greg Remaud (Baykeeper), Manuel Russ (CAC to NYCDEP), John Sacco (NJDEP), Christina Scully (NYC Parks), Don Smith (HMDC), Michael Stringer (Baykeeper), Carolyn Summers (NRDC), Tali Vardi (NYC Parks)

Items requiring further action:

- EPF and Bond Act Awards Granted for 2001 (Pending the Governor's announcement prior to the meeting (NYS DOS & NYS DEC)**
CCMP Action H-12.5: Identify and facilitate implementation of habitat acquisition and restoration projects.

Minutes:

Various Announcements:

The meeting began with Marc Matsil (NYC Parks) announcing that we are attempting to make the *HEP HWG Status Report 2001* available through the Barnes and Noble extended title warehouse. Profits can then be put aside for further printing/reprinting of HEP publications. The most recent submission was rejected because the report lacks an ISBN, bar code, and a title on the spine. Christina Scully is in the process of following up on other options.

Christina Scully (NYC Parks) is the new HEP HWG Coordinator. She can be contacted at (212) 360-1463.

Steve Jandoli (NJDEP, Green Acres), Megan Callus (NJCF) and Greg Remaud (Baykeeper) will coordinate lot and blocks for NJ sites. Don Smith will retrieve lot and blocks for HMDC.

❑ **Setting Habitat Goals (Marc Matsil, NYC Parks)**

Marc Matsil discussed the importance of setting goals for the HEP, stressing that monies are currently available and will become available in the near future. Money can be used most efficiently once priorities are set. Matsil also suggested that HEP will be more likely to secure monies by preparing grants (ready-to-go) for funding potential. First, habitat goals will be set, as workgroup members nominate and research sites as best as possible. Useful information as outlined in the nomination forms such as block and lot designations need to be addressed. Later, site specific presentations will be made to nominate preferred acquisition and restoration areas.

Matsil then referred to the last page of “HEP 2001: Habitat Goals (DRAFT)” from 2/28/01, which outlines HEP’s goals. The major acquisition goal is to acquire 50% of HEP priority acquisition acreage in each designated watershed within the next four years. This acreage totals more than 3,492 acres. According to Matsil, this goal was still seen as too ambitious by a couple of money lending entities. However, he wishes to increase HEP’s goal acreage. In fact, HEP’s goals are modest in comparison with those of the Chesapeake Bay’s. The Chesapeake’s goals include acquisition of 1,999,099 acres by 2010. Their 4-year acquisition goal is 438,000 acres as opposed to HEP’s 3,492 acres.

A major justification for increasing HEP’s acreage goals, is that many prioritized areas have already been lost, and will continue to be. By increasing goal acreage and site options, HEP can begin to cope with such fast paced destruction. Carolyn Summers (NRDC) supported “upping the ante” and recommends augmenting goals in watersheds where only a handful of acres have been identified, such as Jamaica Bay.

Eugenia Flatow (CAC, NYCSWD) wants another subgroup to look at other aspects beyond natural resources. Various water recreations such as access, fishing, boating, and swimming are always brought to attention at regional meetings. She suggested making those recreational goals parallel to ours when possible.

Matsil asked Bob Nyman (US EPA) about the development of navigable water area goals. Bob Nyman’s workgroup met up trying to think of navigable water area goals that the public will react to. The five divisions were water access, fishing, swimming, navigability, and habitability. Nyman, Matsil, Flatow, and Summers repeatedly suggested addressing goals by combining public issues and environmental priorities thereby nurturing public interest.

Bob Nyman specifically spoke of an effort begun with his policy committee. They are currently in the process of giving a date for a public friendly overall goal in 2009, the 400th anniversary of Henry Hudson sailing the Hudson River. Eugenia Flatow suggested 2, 5, 7, 9-year interim goals as a way to pace progress and keep moving in a positive direction until 2009.

Steve Barnes (Baykeeper) also suggested a means to strengthen HEP’s public image by making HEP accountable for previously set goals. Explanations for why or why not certain goals were attained would be available to the public, resulting in public environmental education.

Eugenia Flatow voiced a commitment to meeting with the Hudson River and Long Island Sound NEP’s so we all conform with goal-making strategies. Matsil suggested that a means of overlapping strategies would be to have overlapping signage, relating watersheds to each other.

Restoration priorities in the “HEP 2001: Habitat Goals (DRAFT)” are to restore 30% of the HEP priority restoration acreage in each designated watershed in the next four years. This translates to 666 acres in 4 years.

❑ **Zostera goal thresholds (Mariellé Anzelone, NYC Parks)**

Mariellé Anzelone (NYC Parks) has been researching limitations to *Zostera* re-establishment in the harbor due to nutrient excesses and turbidity. The HWG, through CCMP actions is investigating nutrient goals that would need to be reduced for *Zostera* establishment

Zostera marina (eel grass) has recently suffered dramatic decline in the Long Island Sound despite having been historically abundant in Raritan Bay and much of the harbor. It is a marine angiosperm that grows in shallow coastal marine waters, which provides critical habitat and a nutritional base for finfish, shellfish, waterfowl and herbivorous mammals.

One major factor contributing to its degradation is cultural eutrophication, an increase in dissolved nitrogen [N]. Beyond *Zostera marina*’s tolerance, cases of high nutrient loading (eutrophication) result in algal blooms, which decreases light penetration into the water column, hindering seagrass production. Eutrophication will also increase the growth of epiphytes attached to eelgrass blades, shading the leaves and hindering productivity.

There are direct negative effects of low levels of chronic, water-column nitrate enrichment. Additions of 3.4 μ M to 7 μ M nitrate can directly promote the decline of eelgrass. Adverse effects of nitrate enrichment were exacerbated under increasing temperature and reduced light from proliferating microalgae, resulting in lowered plant health and a decline in shoot production. As for a tolerance range, adverse effects were noted at greater than 3.5 μ M with high temperatures. In cooler temperatures, experimentally adverse effects were not recorded until 10 μ M nitrate.

Considering that ambient ocean levels of nitrate are less than 2 μ M and that eutrophic estuaries have levels greater than 5 to 10 μ M, *Zostera marina* appears to tolerate up to 10 μ M of N in the Chesapeake Bay. Research here in the LISS has shown it tolerates levels up to 1.8 μ M. Additional studies in the LISS do not mention any direct negative effects of elevated N on eelgrass, but do discuss the indirect effects (turbidity, epiphytes, etc.).

Zostera plays an important role in the aquatic environment by producing oxygen in the water column as part of the photosynthetic process. Hypoxia is the most serious water quality problem affecting the Sound, so this crucial ecological function has been effectively removed with the absence of *Zostera*. In sum, the permissible levels of water-column nitrate that enable long term survival of *Zostera marina* would be expected to change depending on interactions with other variables such as temperature, light attenuation, exposure to nitrate, duration of exposure, age/general condition of the plant and the presence of other plants.

Robert Reid (NMFS) recalled a macroalgae paper out of Massachusetts, whose findings indicate that *Zostera* can only tolerate a thin layer of macroalgae. He suggested this as another possible reason why *Zostera* has been unsuccessful in the LISS.

Andrew MacLachlan (US FWS) pointed out that there has been work on *Zostera marina* in the Long Island Sound funded by US FWS. This work consisted of aerial photography to measure the success of initiated reestablishment. There has also been local interest by a few teachers and their corresponding classes in Narragansett Bay using the frame method to replant *Zostera* beds.

Summers asked if light is a factor affecting the depth of algal blooms. Anzelone said that large algal blooms occur in shallow waters as the water column filters out available light for photosynthesizing organisms.

Summers then asked Andrew MacLachlan if they are currently monitoring existing populations. There is one expected project with an unnamed Rutgers professor. Nancy Niedowski knows of another short-term (1-2 yr) eel grass monitoring project.

❑ Prioritization for Goals

Matsil addressed the group in order to prioritize goals. There will soon be an infusion of money available for projects from NYS, NYC, NJDEP, and PA/NYNJ. As a result, it is important to establish definitive priorities for available money. With regard to land acquisition, *The Wall Street Journal* recently reported that there are no anticipated decreases in Metro Area real estate prices, despite a worsening economy.

Steve Barnes (Baykeeper, Rahway River Association) suggested setting our priorities with regard to already proposed projects and to also research potential projects in their sub-watersheds. Eugenia Flatow pointed out that the time table for flushing out priorities is late September to October. Nancy Niedowski (NYS DOS) spoke of the need for better lot and block documentation. Melissa Alvarez (NYS DEC) suggested that we assign separate groups to each watershed to get data. As far as coming up with lot and block info, Remaud stated that NGO's, Natural Resource Agencies, and HEP should team up to do this, avoiding overlap.

Megan Callus (NJCF) has completed much of the lot and block information for NJ. Flatow stressed the importance of prioritizing by first finding the areas most at risk for development and then trying to get specific information on those sites. Areas without risk of imminent development can be dealt with later. She suggested researching the impacts the sites are enduring. Since the site database is incomplete, HEP must prioritize its high priority areas, ready to go for immediate land purchases. Bob Nyman suggested that HEP prioritize all 66 acquisition and 92 restoration priorities.

Steve Jandoli (NJ DEP, Green Acres) stated that he already has real-estate data on several sites, or can easily get it if they are active Green Acres sites. He suggested that the info is fairly easy to obtain by calling municipal planning boards. It is public information. Summers and Flatow were skeptical and believe that HEP cannot rely on municipal planning boards which are often understaffed, and generally unwilling to provide this information.

Matsil asked that nominations for “top-ten” priority sites be sent to him within the next three weeks, after which NRG will do the literature research to find the deficiencies. Send Christina Scully the e-mail [christina.scully@parks.nyc.gov].

Matsil noted that this is an informational process. The sites have changed, priority sites are fleeting, and the data must be updated. Many sites were put on the map 4 years ago and much has changed since then. HEP’s data base is still in rudimentary form. It is not currently e-mailable, but will be sent out once the hard copies are converted.

Don Smith (HMDC) informed the workgroup that all of the Hackensack Meadowlands lot and block information is documented and available.

Steve Barnes asked why it is HEP HWG’s responsibility to find this information since we are not actually acquiring and implementing restoration projects ourselves. We need to identify local groups who we want to work with and those who want to work with us in order to acquire sites. Matsil countered that we may be the only ones who would do so. We need to get this information to local groups who will advocate for acquisition of these sites. Matsil commended work-group members for their ability to connect with the community.

Jandoli suggested that the Audubon Society and other local and nonprofit agencies have pertinent site information from conducting ongoing projects.

Zoe Kelman (NJ DEP) insisted on the need for public support. Marge Garguillo (NYC Parks) said that there is a network of land trusts and volunteers to pool from. Remaud stated that NJ DEP has abundant lot and block information. He and Megan Callus volunteered to assemble this information.

Paul Mankiewicz (NYCSWD, Gaia Institute) proposed a more comprehensive data system including block and lot, GPS, biodiversity, disease, plant cover, hydrological function, geographical information all put into a form accessible for resource agencies. Such programmatic steps would allow NY and NJ to work together.

MacLachlan suggested going to the original presenters and asking them to follow up on previous research.

Mankiewicz suggested that those with the ability to download aerial photography of their sites, convert them to transparencies so that the entire workgroup can view them. They have 1 acre minimum mapping units for the entire state of NJ. MacLachlan and Callus have the technical capabilities, and volunteered to help with this data collection. Matsil proposed getting an intern to deal with these data sets-perhaps through the HEP program.

Matsil emphasized the importance of community involvement, remarking that many residents of communities nearby HEP sites have no idea about HEP’s goals. Better outreach would generate a wider advocacy to encourage elected officials. The elected officials would then be useful avenues for obtaining funds.

❑ NJ Green Acres Program (Steve Jandoli, NJ DEP)

The Green Acres Program was established in 1961 by NJ DEP. Between 1961 and 1995, there were 9 bonds issued totaling over \$1.4 billion, resulting in 350,000 acres acquired. Future goals of Green Acres are to develop a stable source of funding as bonding is expensive, and to put aside 1 million acres of open space over the next 10 years.

In 1998 a referendum was made to set aside \$98 million dollars of sales tax per year and up to 100 million dollars a year in bond funds giving a total of \$198 million dollars per year over the next 10 years for land preservation, historic preservation, and park and recreational development. Since then, over 200,000 acres of open space and farmland has been preserved.

Green Acres is the land acquisition agent for the NJ DEP, acquiring land which then becomes part of the NJ system of state parks, forests, natural and wildlife management areas. Once an entity acquires land, it is transferred to the Division of Park and Forestry or the Division of Fish and Wildlife’s natural land trust. Green Acres also provides grants to municipalities and counties for open space preservation. Green Acres has \$32.7 million invested in state land acquisition, local government and non-profit organizations. Of that, \$12.5 million is presently dedicated to acquisition of HEP priority sites.

Green Acres Program land owners must apply to the state for permission to use their land in any manner other than recreationally, for open space or for conservation. Any approval of development will be replaced with other property of at least fair market value.

Carl Alderson (NYC Parks) raised the group's attention regarding a bog wetland area in Brick, NJ of which roughly 2 acres were destroyed for a road building project within recent months. This piece of land is a Green Acres site. Jandoli will look into this matter.

Flatow questioned whether there is a formal easement on land acquired by Green Acres. Jandoli responds that it is a contractual agreement in the property title. Flatow then inquired as to how Green Acres dealt with acquiring the banks of a river which fall within different municipalities. Jandoli responded that it would be a state owned acquisition with the same contractual encumbrance as any other local acquisition.

Paul Mankiewicz then recommended that Green Acres consider storm water capture recognizing that their projects can often be unnecessarily hard on the land. Jandoli responded that Green Acres does not involve themselves with the design of large recreational development projects. He once again stressed that any non-park development to Green Acres' lands must undergo application to the state requesting permission.

Callus pointed out that Green Acres' typical grant cap of \$500,000 only provides a small portion of urban cost acquisition. She stated that this is a huge constraint in urban areas and inquired whether or not non-profits make up for what Green Acres cannot contribute. Jandoli responded that this is only the non-profit funding cap. There are in fact, cases where Green Acres has spent more than \$500,000 for one site. Multiple site acquisitions are one way that Green Acres has gotten around the \$500,000 spending cap. Site acquisition at Riveredge gives specific examples of small pieces of urban land that Green Acres has been willing to spend big money on in the past.

Jandoli said that Conaskonk Pt used coastal wetland moneys while Remaud said that other money was set aside for that. Remaud will research this discrepancy and similar county specifics with county heads.

Jandoli explained multiple sites referring to his handout "Green Acres Program Harbor Estuary Funding". Local governments with Green Acres planning incentive funding can use the money to acquire HEP sites. Matsil requested a list of HEP priority sites Green Acres has acquired or is in the pipeline. Remaud reminded Jandoli that Commissioner Shinn has committed \$15 million for HEP acquisition priorities in the next three years.

Barnes pointed out the importance of putting Green Acres and HEP lists in concert with each other with regard to continuity, locations along streams and watersheds North of HEP watersheds. He suggested that Green Acres coordinate with individual counties for open space plans. Remaud requested detailed records of Green Acres allocations remarking that HEP committed funds must go directly to HEP sites.

Flatow wants to look into easements. She asked if the Conservation Foundation could fund local sponsors. Jandoli responded that the Conservation Foundation was awarded \$1.4 million with which they can use for HEP sites. They may or may not use all \$1.4 million for HEP sites. Barnes requested that HEP compare differences between Green Acres' sites and its own. This could help prioritize our lists while finding new sites too. It would be useful to develop a strategy of finding sites continuous with others, raising their priority status. Flatow said that it would also be useful to obtain information whether or not sites are located along streams, so that additional sites can be added up or down stream on a cohesive basis. Steve Jandoli ran through specific Green Acres sites:

- In Arthur Kill- the Clarke Reservoir was purchased for \$1 with the stipulation that the Dam will be repaired
- Al fieri (AK5) land owned by the state has legislation to transfer to the state's natural land trust.
- Edison is looking along parcels of land along river with \$37.8 million for funding land preservation projects.
- Riverdale (with Bergen Swan "piggybacking") is negotiating between 30 acres
- Old Tappan is negotiating between ~100 acres
- Emerson Borough is negotiating between ~20 acres near reservoir.
- The Watershed management process with Union City as lead is underway.

Summers stated that a 9-acre addition from schoolhouse at Cheesequake St. is closing soon. The southern part of that park is a possibility for nomination to the priority list.

In addition to urban acquisition ~10% of Green Acres funds can be spent in urban areas which is defined as population greater than 1000 people per square mile. Matsil suggested that the allocation somehow be adjusted so that there is a positive relationship between the number of people per area and its money allocation.

Acquisition Priority Nomination (Carl Alderson, NYC Parks)

Carl Alderson proposed to add Merrill's Creek and Saw Mill Park Addition to HEP's acquisition priorities list. The location of this proposed addition is at the epicenter of the Harbor area. The proposed expansion consists of two phases; acquisition and addition.

The two proposed sites comprise 163 acres of tidal wetland and upland habitat, are contiguous with each other, and are adjacent to the Saw Mill Park Preserve. GATX Corporation has expressed an interest in selling Merrill's Creek, a 27-acre parcel, located within Block 1835, Lot 1. The Saw Mill Addition would be a 136-acre transfer from the New York City Office of Economic Development, Department of Citywide Administrative Services, and Department of General Service to NYC Parks.

Carl Alderson described the sites' geographical and ecological history illustrating their natural value. They contain critical breeding habitat for several threatened and rare species, including least bittern (G5S3 threatened), northern harrier (G5S3 threatened), and yellow-crowned night heron (G5S2). The upland sandy hummocks of Merrill's Creek have been proposed as reintroduction sites for the NYS endangered (G3QS1) Nantucket juneberry, which is known from only two sites in New York State.

These areas are also valuable for their unique flora. The 27-acre woodland/marsh has no known previous industrial use, and the vegetation communities are in excellent condition. The Big Hummock is a coastal sandy oak barren containing a small forest of Britton oaks, a fertile hybrid of blackjack and scrub oaks. There is also an excellent understory of plants associated with oaks in coastal sandy barrens.

According to Alderson, acquisition and protection of these sites is likely with funding opportunities. GATX is now hearing offers and seems likely/willing to sell. Barnes asked if there is potential for continuing acquisition in that area. Flatow responded that there is sparsely populated private land continuous with the proposed acquisition site.

Merrill's Creek was unanimously approved by the workgroup for High Priority Status. There were no abstentions.

❑ Freshwater Wetlands Mitigation Assessment (Marjorie Kaplan & David Fanz, NJ DEP)

Marjorie Kaplan of NJ DEP's Division of Science, Research, and Technology presented "Developing an Indicator of Wetland Status: Quantity and Quality Project Overview and Summary" accompanied by David Fanz of NJDEP Land Use Regulation. This research resulted from NJDEP's Results-Based Management initiatives: DEP's Strategic Plan and DEP's participation in the National Environmental Performance Partnership System (NEPPS). The scope of DEP's Results-Based Management system covers a wide range of issues including air, freshwater, drinking water, pollution prevention, mercury, compliance, enforcement, and open and effective government. NEPPS is an EPA-State partnership program that ties measures of environmental performance, through the use of environmental indicators, with EPA-delegated program grants to states.

Kaplan said that the NEPPS PPA Land and Natural Resources subgoal areas consists of a hierarchical layout of structural, biotic and land components for measuring the integrity of ecosystems. In accordance with NEPPS, NJDEP's strategic planning goals are to have a net increase in acreage and quality of wetlands by 2005. In doing so, they will explore innovative techniques to increase the creation and enhancement of NJ wetlands. Wetlands are also addressed as critical habitat in the subgoals for biodiversity: maintain an optimum distribution and density of NJ aquatic and terrestrial habitat.

Currently, NJ consists of ~4.9 million acres of land, of which ~19-20% are wetlands ~15% are freshwater wetlands and ~4% are tidal wetlands. According to LULC data, 15,798 acres of wetlands were lost from '86-'95. This translates to 1,755 acres/year or 0.16% of NJ wetlands/year. The primary stressor of wetlands is urbanization. In fact NJ gained 133,792 acres of new urban land during this time period. Annual development rates have been increasing. A preliminary analysis of wetlands reveals that 62% are privately held freshwater, 18% are publicly held freshwater, 10% are publicly held tidal with 10% privately held tidal.

Kaplan's research explores several key questions. The overall question is how many wetlands were created, enhanced, and restored over time, through mitigation? In addition it is important to ask:

- 1) Do these wetlands meet the requirements to be called wetlands? Using NJDEP criteria; are they concurrent with permit plans?
- 2) What is the quality of the acreage?
- 3) Can NJ DEP GIS enable mitigation database to facilitate monitoring sites into the future?

The project's timeline is as follows: 7/99 Peer Review highlights and follow up focusing on qualitative component, 1999-2000 the project was underway, 1/01 peer review meeting with analytical options. Currently, Marjorie and David are in the process of preparing a draft report for mid-august and expect the final report for 10/1/01. The bulk of the research is being conducted by Amy S. Greene Environmental Consultants under contract to DEP.

Study site selections were made under the preferred criteria of the wetlands being freshwater and completely constructed with discernable boundaries. 90 study sites were selected. Of these sites, the average size was 3.49 acres. The average age was 6 years ranging between 0.83 and 12.4 years. On these sites, wetland quality was measured by visual field evaluations. Wetland grading, hydrology, soils, vegetation cover, and vegetative survival were all measured and compared to proposed mitigation plans.

A wetland quality assessment (WQA) measuring the seeming ability of the sites to become functional wetlands in the future was conducted. Field observations of hydrology, soil, vegetation, wildlife suitability, site characteristics and landscape characteristics were made. This data was finally expressed as an index score between 0 and 1.

Mankiewicz asked if it was possible for these sites to become functional wetlands in the future? Matsil clarified that the projects are strictly creation projects, not restoration, and further questions whether or not the sites were ever freshwater wetlands. Kaplan does not know the answer to that question but expressed an interest in exploring ability to ascertain such data.

Mankiewicz asked if they measured if the soils are hydric or becoming hydric? Fanz said that they inspected how wet the soil was, how much organic material was on it, and if that soil was suitable substrate for plant recruitment.

Kaplan described the geographic variability of their sites. Overall, Walkill and Maurice/Salem had the highest indicator scores with the lowest in Rancoas. This data has enabled Kaplan and Fanz to develop hypotheses about site variables and the effects that they have on designing and building wetlands

Discussion ensued about mitigation ration. During discussion, it was explained that the average percentage for the research study sites was 1% of proposed forested wetlands being achieved. The study cites recommendations for regrading, topsoil, monitoring devices, replanting, and maintenance. The possibility of raising mitigation ratios given the low success of wetland creation projects was suggested. The question of instituting long-term monitoring, higher ratios of mitigation, and/or mitigation banking was also raised. Matsil commented that a working draft of the HEP HWG suggests a 3:1 acquisition **and** restoration ratio and 20:1 for restoration mitigation alone based on the assumption that ecosystem functionality takes decades to recover.

Matsil questioned how comprehensive the pre-restoration monitoring has been i.e.) were soils and invertebrates monitored. NJ DEP used the 1989 Federal Manual to determine wetland status which included visual inspection for soil evolution, the evolution of slopes and hydrology. Fauna surveys were not undertaken. Kaplan stated that the intent of the study was to design a rapid assessment tool for comparability across all wetland mitigation sites that could be realistically implemented by program staff into the future. NJ DEP is currently researching to make better holistic assessments to identify critical riparian habitats and develop priority sites for wetland restoration.

Summers asked what the rates of non-compliance in wetland creation are. Fanz replied that they are much less than anyone would think.

Mankiewicz remarked that the wetland value depends on what you are looking at. Wetlands in the NYC watershed area are very valuable because the edge to volume ratio is high, resulting in high hydrologic input. Restored wetlands are often valuable for that reason too. Some well-served and inexpensive issues to address are as follows:

- 1) The relationship between reduced and oxidized environments gives you much more biogeochemical filtration properties than either one of them alone. What they are coupled to, especially the soil horizons enhance the value of total information.
- 2) Wetlands are wetlands because their surface to volume ratio is somehow scaled to influx and throughflux.
- 3) Biomass does the filtration work. Effective filtration probably won't develop for at least 20 years. Until then, the diverse functional capacities of wetlands are not realized.
- 4) The relation of emigration, immigration, and extinction curves to the contiguity and closeness of the wetland to nearby biotically rich habitats enhances total information.

Marjorie Kaplan's e-mail address is mkaplan2@dep.state.nj.us

❑ **Update on New Jersey's HEP Priority Acquisition and Restoration Progress (John Sacco, NJ DEP)**

Since its inception 8 years ago, NJDEP's Office of Natural Resource Restoration has settled 22 oil spill cases and 11 hazardous waste cases for over \$19 million dollars. Of the \$19 million, they have spent about \$15 million on various public resource restoration projects. Sacco's handout outlined these expenditures and sites.

ONRR is presently collaborating with ACE, NOAA, US FWS, Department of the Interior, NYC Parks/NRG, Port Authority of NY/NJ, and HEP HWG. The two most important groups in terms of waterspill restoration, because of their available funds are the Harbor Spill Restoration Committee (composed of NOAA, States of NY and NJ, NYC, and the Department of the Interior) and the Hudson Raritan Estuary Ecosystem Restoration Committee. The municipalities and NGO's that ONRR has worked with are Woodbridge, Hudson and Middlesex Counties, Madison Township, Baykeeper, Riverwatchers, Nature Conservancy, Liberty State Park Conservancy, and NJ Audubon Society.

The restoration dealt with by the ONRR includes lost public use, endangered species, habitat acquisition and wetlands; all of which are affected by oil spills. ONRR compels responsible parties to fund restoration with NJ DEP's oversight.

Sacco referred to his handout to quote various spills, sites, and damages received. He described the BT Nautilus Spill (June 1990) recovery program at Island Beach State Park. This restoration involved both lost public use of a resource, and threats to the Piping plover, an endangered species. In response to the lost public use of a resource claim, an old lifeguarding garage was refurbished with the purpose of educating the public on oil spill effects and the importance of the barrier beach system. For damages suffered by Piping plovers, a restoration plan was implemented.

There are currently 3 wetland restoration projects. Their goals are:

- to restore and reestablish hydrology
- to restore desirable plant cover
- to increase fish and wildlife usage
- mosquito abatement
- to improve educational opportunities

Woodbridge Creek is an example of a wetland restoration site. There, they removed dikes and regraded the interior, letting the tide in. The area is currently dominated by *Phragmites*. Another example is in Medwick Park on the Rahway River. NYC Parks/NRG is doing the design, a precursor to future restoration.

At Lincoln Park, where Sacco is teaming up with the Corps, and the NY/NJ Oil Spill trustees, near the Hackensack and Pulaski Skyway, a characterization program found chemical contaminants from previous landfill use (30-40 acre project). However this problem is manageable. There aren't any source areas as the contaminants are from previous landfill use. The plan is to peel back the fill and put it on top of the higher areas, designating them as landfill while performing restoration on the lower sites.

The Liberty State Park Project, part of the Hudson Raritan Estuary Ecosystem Program involved with the ACE has the potential for 200 acres of restoration with listed options of upland restoration, white cedar restoration, and wetland access enhancement. The site has great potential with views of Ellis Island and the Statue of Liberty.

Summers asked if the new NRD bill would affect NJDEP's work. Sacco expressed confidence in the Superfund's 116 out of the 9000 total sites. There, plans can proceed, but he is not sure what will happen to the others. Flatow suggested finding some way to cover these other sites with the Outreach Program.

❑ **Scoping Discussion for ACE Hudson-Raritan Estuary Feasibility Study (Len Houston, ACE)**

Houston began his talk stating that the Feasibility Study has been approved. At this point, there are 13 priority sites including Liberty State Park, and the Carni Point site in the Hackensack Meadowlands at which restoration plans will begin immediately. Other priority sites are being scoped out and planned for. Priority status is independent of whether or not the ACE will work on them.

Assignment of priority status will be partly accomplished through partnering with the Hudson River Environmental Society at a 9/11 conference called "Who's doing what on the Harbor?" This conference will gather all Hudson River Estuary environmental data collectors to discuss projects and give points of

contacts. The intention of this meeting, which will be followed by other workshops and reviews, is to create a Harbor Restoration needs and opportunities report. The public will then be contacted after this blueprint/baseline is drawn.

Houston stated that ACE is often in agreement with HEP. In fact they based most of the HREPS on HEP's recommendations. They do not want this work to be perceived as an ACE dictated study, but rather that they are working along with other stakeholder groups as represented by HEP for example and asking them what they really want to have prioritized. They want to put this into one report. The Regional Plan Association has been selected to organize the report.

Zoe Kelman (NJ DEP) asked who the Regional Plan Association is and if it isn't redundant since HEP has already done the work. Remaud remarked that ACE's relationship to HEP is not clear and warns that the various groups and their versions of restoration might confuse people. He suggested the need for an organizing body voicing that progress isn't often made because the public is confused as to who the overriding body of these organizations is. Flatow, agreeing with Remaud, stated that the new program would be seen as redundant. HEP has been trying to develop the comprehensive habitat plan for the region, the first agenda of the CCMP. Many people have come to HEP meetings to learn HEP priorities and how the various agencies mesh with each other. Remaud continued that now, another organization, RPA, with regional planning from the transportation point of view background has the potential to make HEP goals less resolved.

Kelman asked why ACE has always moved along a path parallel to HEP. Houston does not see this exercise as moving down a parallel path. He sees it as an organizational process to provide input into the studies. It will be redundant at the beginning and that is why there is a short November time frame.

Kelman questioned how ACE would identify the stakeholders. Houston stated that this would be accomplished through the Regional Planning Association.

In closing, Matsil said that he wanted the HEP HWG to continue to collaborate with other regional efforts. Nearly \$300 million in projects are committed to HEP priority acquisition and restoration programs. Matsil stated that it was this group of dedicated federal, state, municipal, NGO and community organizations that made this plan the blueprint for environmental sustainability in the harbor.

The next meeting was scheduled for Thursday August 23, 2001.