



**City of New York
Parks & Recreation**

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To: NY/NJ HEP Habitat Workgroup
From: Marc A. Matsil, Chair, HEP Habitat Workgroup
Date: March 9, 2001
Subject: Minutes from the February 28, 2001
HEP Habitat Workgroup Meeting, Hudson River Foundation

Next meeting: Thursday, April 26, 2001
10.00 am – 2.00 pm
Natural Resources Defense Council Conference Room
40 West 20th Street, 12th Floor

Present at last meeting:

Bob Alpern (NYC DEP), Melissa Alvarez (NYS DEC), Emily Ayers (Columbia University), Steve Barnes (Baykeeper), Alice Belling (NYC DEP), Peter Blanchard (TPL), Megan Callus (NJ Conservation), Kevin Clarke (NYC DEP), Charles de Quillfedt (NYS DEC), Dave Fallon (NYS DEC), Steven Fischer (NRCS), Eugenia M. Flatow (CAC, NYCSWCD), Luis Hernandez (NRCS/NYCSWCD), Len Houston (US ACOE), Andrew MacLachlan (US FWS), Mark E. Maglienti (NYS DOT), Paul Mankiewicz (NYCSWCD), Marc Matsil (NYC Parks), Dan Montella (US EPA), Fred Mushacke (NYS DEC), Nancy Niedowski (NYS DOS), Joyce Novak (NYC DEP), Bob Nyman (US EPA), Mario A. Paula (US EPA), Surangi Punyasena (NYC Parks), Lisa Rosman (NOAA), Manuel Russ (CAC/DEP), Don Smith (HMDC), Stephen Zahn (NYS DEC), Christopher Zeppie (PA NY&NJ).

Items requiring further action:

- The Mitigation Subgroup will revise the draft white paper with data from upcoming reports on restoration and mitigation results.
- The Acquisition & Restoration Subgroup will review land use policy and draft recommendations.
- Flatow will draft a proposal for a New York State Green Acres Program.

Minutes:

❑ **FINE-TUNING WORKGROUP PRIORITIES FOR 2001**

The workgroup began February's meeting with a review of the workgroup's priorities for the year.

MITIGATION RATIOS. Marc Matsil (NYC Parks) discussed the conversation that he had had with Joy Zedler, who is chairing the American Academy of Sciences study of mitigations and the restoration failures of returning ecological function. The study does not focus on New York and New Jersey (Boston is the test case for the Northeast). The report will be available in May.

Margerie Kaplan (NJ DEP) is completing a survey of New Jersey freshwater wetland restorations. Jodi MacDonald (US ACOE) will coordinate with NYS DEC to compile similar information for New York City. Matsil suggested that the drafting of the mitigation "white paper" be postponed until these studies are available.

Eugenia Flatow (NYCSWCD) suggested that the workgroup pursue having responsible parties/"mitigators" guarantee all restorations, in the event that the restoration fail as viable habitat.

Len Houston (US ACOE) had several concerns with the language of the white paper, which read as if the workgroup had come to a consensus. Nancy Niedowski (NYS DOS) responded that this was a discussion draft, and that any language that was misleading could be changed. The subgroup, the Habitat Workgroup, and participating agencies have not taken an official opinion on the document.

Matsil added that the document was a starting point for discussion of the efficacy of current mitigation programs and whether there is adequate compensation for lost ecological use due to development on historic wetlands. The end product of this discussion would be recommended mitigation protocols similar to the recommendations made by the workgroup on restoration monitoring.

Houston noted that the document makes broad statements of mitigation failing, but does not address why these failures occur. Restorations can be badly designed, badly sited, or badly executed. Changing mitigation ratios may not be the only solution.

Matsil agreed. He suggested that there is a combination of reasons, from requirements to hire the lowest bid contractor to the untested nature of restoration science to the cumulative impacts of urban stresses. He suggested that the workgroup also investigate how restorations can be more successful.

Dan Montella (US EPA) noted that the Association of State Wetland Managers (<http://aswm.org>) has posted a list of mitigation success studies. A large percentage are not successful and prompt reexamination of federal mitigation policy.

Nancy Niedowski (NYS DOS) reiterated that any comments on the white paper are desired and welcome and should be forwarded to her.

LAND USE LAW. Steve Barnes (Baykeeper) suggested this initiative stressing a reassessment of how open space is used in urban areas. He noted that there is not any information to give to local and regional planning entities detailing the value of open space in urban watersheds, including flood abatement, water quality, etc. There is no sense of how fast open space is being developed.

Flatow added that development regulations should restrict building below sea level. Properties, such as the Rockaways, are planned for development despite constant flooding. The larger cost of

such development needs to be addressed. She reminded the workgroup that natural area designations by NYS DEC, US FWS, Audubon, and NYS DOS did not have regulatory teeth. These designations needed to be respected and enforced .

Barnes suggested reviewing regulations regarding riparian corridors, including the use of buffers and how structures on flood-prone areas can be removed. He cited the example of Edison, New Jersey, where the waterfront may become a paved path. He requested that the workgroup develop information that demonstrates that open space is not wasted space.

Don Smith (HMDC) suggested that HEP push to restrict how Green Acres money may be used. Barnes concurred, noting that there were currently no restrictions on the development of open space for recreation or leasing the property to commercial interests.

Bob Alpern (NYC DEP) noted that the NYCSWCD had several early documents drafting proposals for land use reform. Matsil added that NYC Parks had developed a natural areas program – Forever Wild – that would designate parkland that fit specified criteria, including the presence of rare and endangered species, quality of habitat, size, *etc.*, as protected.

- *Barnes motioned that the Acquisition & Restoration Subgroup review the issue and compile recommendations from researchers and scientists from local universities.*

FUNDING FOR HEP PRIORITY SITES.

Printing of the HEP map. Bob Nyman (US EPA) noted that GPO will print the HEP map at the cost of a dollar per map. He suggested that between 500 and 1000 copies be printed yearly and updated. Flatow suggested that extra copies of the map be available for legislative briefings. Matsil stated that several advocacies, NRDC, CFB, ED, Baykeeper, have been actually lobbying Capitol Hill for federal interest in supporting HEP acquisitions and restorations. The map is an invaluable “marketing” tool.

Creation of a New York State Green Acres Program. Matsil noted that in New York, Clean Water/Clean Air Bond Act funding and some Army Corps projects were making significant headway restoring HEP priority sites. He added, however, that little funding had been set aside to purchase properties. The greatest acquisition successes have been land transfers from City agencies to NYC Parks. Nearly 1500 acres have been transferred in the last six years.

He suggested that the workgroup advocate for a Green Acres Program to purchase open space. Hundreds of acres within HEP sites on private land are being lost, e.g. most of the Paw-Paw Woods have been or are about to be bulldozed and several others are threatened by development.

Flatow noted that there were opportunities for public-private partnerships, useful when funding matches are needed. With the expansion of the port, there are private companies interested in specific sites. She suggested that funding be made available for project planning. Currently, only execution is funded, which leaves smaller community groups at a disadvantage. Small groups could be assisted through a mini-grant program. She suggested easements on farmland along drinking water tributaries and forest sites, which are now sold to developers. New York State needs to set aside money that can be used to match federal grants. The environmental committee of the state legislature was interested in this type of approach.

- *Barnes suggested that Steve Jandoli (NJ DEP) give the workgroup a presentation on NJ Green Acres.*
- *Flatow volunteered to put together a proposal, including protections on how land may be used once acquired.*

Funding New Jersey Restorations. Matsil noted that John Sacco (NJ DEP) had requested that the workgroup advocate for greater funding for New Jersey restoration projects. Barnes added that local organizations needed greater help in developing restoration projects. When large numbers of proposals are submitted, New Jersey has greater leverage in procuring federal Section 319 funding, which finances nonpoint source abatement projects.

Smith added that the Hudson River Chapter of Ducks Unlimited has been very successful raising money for the Hackensack Meadowlands. Flatow responded that most of the money raised in New York City is given to environmental causes outside the city.

NATIONAL/REGIONAL NEP HABITAT CONFERENCE. Matsil introduced this item which had been proposed last year. Barnes suggest that the workgroup contact the coalition of NEP nonprofits – Restore America’s Estuaries. The group may have ideas for speakers and topics, and may be able to assist with funding.

REDEFINING HABITAT REPLACEMENT. This initiative had been proposed by Paul Mankiewicz (NYCSWCD) to address New York State permit regulations that restrict the restoration of sites where wetlands have been lost to erosion and cumulative impacts that involves replacement with clean fill prior to planting. Portions of Jamaica Bay, Raritan Bay, and the Arthur Kill cannot be restored because their restoration is defined as the replacement of aquatic habitat. Edge restorations and beneficial reuse projects are not approved for permits. Matsil suggested that this initiative be addressed in conjunction with the benthic habitat initiative.

Flatow added that regulators need to recognize the long-term effects of restoration and the higher quality habitat that would result. Alpern suggested that this issue be looked at in conjunction with the review of land use law because of the legal issues involved.

BENTHIC HABITAT. Nyman requested that the workgroup increase its focus on potential projects below the water line. Matsil suggested that the workgroup focus on the enhancement of the benthos and fisheries and how “habitat replacement” and beneficial reuse projects may improve aquatic habitat. He nominated Steve Zahn (NYS DEC) to head this initiative. Zahn agreed that there were many open questions that the workgroup could address, but was reluctant to act as lead at this time. He noted that NYS DEC and NOAA/NMFS were conducting an investigation of the marine and freshwater district and that there were possibilities for a bi-state approach.

Smith noted that HMDC will embark on an update of a seven-year old fisheries study this year. He suggested that because the expertise is in place, with the involvement of Rutgers University, that the workgroup expand the focus of the study with their involvement. He suggested that more remote stations be place around the harbor.

➤ *Barnes motioned that the Acquisition & Restoration Subgroup review the issue.*

PUBLIC ACCESS. Originally nominated by Flatow, Matsil suggested that the workgroup renew its focus on public access by highlighting priority sites with access potential on the HEP map. This initiative received strong support from community members at the ongoing HEP open meetings.

Flatow noted that access was a priority in for the habitat section. Access is related to the debate of what we choose to do with our brownfields and how we will expand the port. The most effective

way of building public support for HEP was to provide greater access to the water. Barnes noted that defining these priorities related back to the proposed review of land use law. Flatow added that there was a deeper social justice issue at stake – the least desirable development occurs on the poorest waterfronts.

Matsil agreed, but listed sites that may be inappropriate for public use, including rookeries and some sensitive wetland areas.

BI-STATE WATERSHED MANAGEMENT. Barnes noted that the Elizabeth, Rahway, and Woodbridge Rivers, the Upper Passaic, and the Hackensack are areas where there has not been effective coordination between New York and New Jersey.

Flatow noted that New York City is working towards greater coordination with the USA study, and Nyman added that there is bi-state coordination with the setting of TMDL numbers.

Barnes suggested that NYS DEC, NYC DEP, and NJ DEP present their watershed management plans and plans for coordination to the workgroup.

❑ THE NEW YORK CITY SOIL SURVEY

CCMP Action H-1.2: Foster information transfer and tools to enhance and encourage watershed planning.

CCMP Action H-4.4: Ensure that actions impacting habitat in the Harbor core area, in the aggregate, result in the net increase in the acreage and quality of aquatic habitat, where feasible and appropriate. Emphasize key habitat types such as submerged aquatic vegetation.

CCMP Objective H-10: Complete ongoing research and initiate special studies on habitat issues.

Luis Hernandez (NRCS, NYCSWCD) spoke to the workgroup of the soil survey that has been completed for New York City. The survey is a partnership among NRCS, NYCSWCD, and local scientists. The Order 3 soil survey (medium density, at a scale of 1:6500) is complete for the five boroughs. High intensity mapping (at a scale of 1:400) is planned for specific areas.

The mapping was completed using soil surveys, working with local agencies, sampling where soils were exposed. Ground penetrating radar (GPR) was used to determine the depth of fill debris and the depths to freshwater tables.

Most New York City soils are anthropogenic and the shoreline has been modified extensively by filling. Flatow noted that when the survey began, there were only two classifications for urban soils: disturbed and undisturbed. The survey defined 35 soil types, the most common of which is the big apple series. He noted that the soils of New York City are unusually hot, with deeper soils warmer than surface soils. With limited sources of soil moisture, higher global temperatures will break down hydrological patterns.

The survey looked at mycorrhizae and root formation, and soil-plant associations. Species lists of native plants with high pH tolerances are being developed with the help of Brooklyn Botanical Gardens and NYC Parks botanists. There are multiple uses of a detailed soil map, including predicting contaminated sites, assisting in habitat restoration projects, and monitoring aquifers. Flatow added that the Gateway National Recreation Area will use the high intensity survey to decide what to do with Floyd Bennett Field. On Staten Island, local groups are using the survey in courts to stop development in wetlands.

Hernandez added that there is a soil survey in progress for New Jersey using these protocols.

Steven Fischer (NRCS) added that the NYC survey needed an additional two to four people to work on the survey, to finish the high intensity surveys and to complete publications. Alpern

added that the technical advisory committee to the NYCSWCD soil survey met quarterly. Please contact him to be included on the mailing list for meeting announcements.

❑ THE FEDERAL WETLAND PROGRAM AND PROBLEM HYDRIC SOILS

CCMP Action H-1.2: Foster information transfer and tools to enhance and encourage watershed planning.

CCMP Action H-4.4: Ensure that actions impacting habitat in the Harbor core area, in the aggregate, result in the net increase in the acreage and quality of aquatic habitat, where feasible and appropriate. Emphasize key habitat types such as submerged aquatic vegetation.

CCMP Objective H-10: Complete ongoing research and initiate special studies on habitat issues.

Fischer continued the discussion on New York City soils by focusing on a current issue of contention – the identification of hydric soils. He works with Tyrone Goddard (NRCS), the senior NRCS scientist responsible for New York State.

Fisher began with an explanation of the role of NRCS in wetland regulation. Section 404 of the Clean Water Act gave the right to the Secretary of the Army to issue permits for dredge and fill deposition of navigable water bodies, which included wetlands. The Regulation 4 manual, developed by the ACOE and the EPA, defined wetlands on the basis of hydrology, soil, and vegetation. US FWS and NRCS had their own wetland regulations unrelated to Section 404 and originally did not use the Regulation 4 process.

In 1990, the four principal agencies agreed to use the Regulation 4 manual in making their determination of wetlands. This increased cooperation of agencies – sharing research, training of personnel, and coordination of workload. The designation made by the lead agency would be honored by all.

Coordination of which agency makes the decision is decided on a state-by-state basis. NRCS does not have a strong presence in the NY/NJ Harbor. Because New York City is directly on coastal waters, the Army Corps is the responsible agency of the harbor. However, the description of hydric soils and the Nation Soil Survey Program is part of the NRCS purview.

A hydric soil is traditionally described using long-term data. A national technical committee on hydric soils (including representatives from the Army Corps, US FWS, private consultants, and academics) is responsible for identifying indicators of hydric soils for faster sampling and testing.

There are two situations where these indicators are recognized to be misleading. These exceptions are included in the Regulation 4 manual.

1. When there is human disturbance of the site. If the soil is not natural, two legs of the wetlands determination: soils and plants (which would be non-native or invasive), are dropped. The determination is made using only hydrology
2. In atypical situations, some soils do not fit normal iron-based chemistry. The red soils of Staten Island are a prime example. These soils are not rare – they are found across the country – but there is no quick field method for identification.

Fischer was not completely satisfied with using only hydrology to define wetlands. He suggested that because the disturbed soils are older in New York City, there may be patterns that would serve as indicators in these disturbed soils. He suggested that the sites he had seen in Staten Island were wetlands, because of the organic deposits that suggested that they were under water periodically. He suggested that the hydrology on Staten Island may be very unusual cases of aquifers, similar to prairie potholes. Fischer added that the obligate wetland plants list was created by a committee separate from that that determined indicators for hydric soils.

He was also skeptical of determinations made by a single individual. He stressed that a determination needed a hydrologist, a soil scientist, and a botanist – a specialist for each area of expertise.

❑ WETLANDS LOSS: SCIENCE AND CUMULATIVE IMPACTS FOR RESTORATION AND MONITORING IN JAMAICA BAY

CCMP Action H-1.2: Foster information transfer and tools to enhance and encourage watershed planning.

CCMP Action H-4.4: Ensure that actions impacting habitat in the Harbor core area, in the aggregate, result in the net increase in the acreage and quality of aquatic habitat, where feasible and appropriate. Emphasize key habitat types such as submerged aquatic vegetation.

CCMP Objective H-10: Complete ongoing research and initiate special studies on habitat issues.

Dave Fallon (NYS DEC) and Fred Mushacke (NYS DEC) made a dynamic presentation on the dramatic loss of marsh islands in Jamaica Bay. DEC is in the process of mapping trends in wetland acreage for the entire Hudson River and Estuary.

Mushacke illustrated the loss with specific examples of wetlands loss on several islands: East High Meadow, Elder's Marsh, and Blackwall. DEC completed a historic trends analysis using the first maps created using trigonometric mapping – in 1857 – and aerial photos from 1924. The losses and gains range within 10 acres. These fluctuations may be a result of weather events, where marsh was damaged, and then recovered.

This is a dramatic difference to the patterns of wetlands loss seen after 1924. From infrared photographs from 1974, the damage to shoals and mudflats is evident from dredging, and there is loss of vegetation and land from the marsh islands. He compared infrared photographs from 1974 and 1999 to demonstrate the increased loss of wetland acres and vegetation. Both photos were taken in early autumn at low tide.

From 1924 to 1999, Mushacke estimated that about 1256 acres has been lost in Jamaica Bay. The greatest rate of loss of about 44 acres per year occurred between 1994 and 1999. This loss is almost exclusively due to the “drowning” and/or erosion of the *Spartina alterniflora* marshes.

There are no clear explanations for the rate of loss. Mushacke noted that the dense *Ulva* in the Bay suffocated the growth of the low marsh *Spartina*.

The consequences of this are enormous to the wildlife that reside and migrate through the Bay. Most of the storm water protection for the Gateway Reserve and Broad Channel, and much of the bird habitat, will be lost within 25 years – a conservative estimate, according to Fallon.

Fallon demonstrated the ArcView approach that DEC has taken to mapping the Jamaica Bay wetlands and estimating the wetlands loss. He noted that the increasing fragmentation of the marsh islands was leading to faster erosion of the marsh. The marsh was more susceptible to ice rafting and erosion. He outlined a potential solution – dredge disposal islands – and suggested that pilot studies be begun immediately.

Flatow noted that community members had voiced concern over the loss of the marsh islands over five years ago, and that a long investigation would only delay action until the damage was irreparable.

Fallon invited anyone interested in visiting the DEC office in East Setauket to contact him. He also asked that anyone with historic photographs of Jamaica Bay to contact him at 631-444-0464.