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To: NY/NJ HEP Habitat Workgroup  
From: Marc A. Matsil, Chair, HEP Habitat Workgroup  
Date: February 13, 2001  
Subject: Minutes from December 18, 2000 HEP Habitat  
Mitigation Subgroup Conference Call

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*Present at last meeting:*

Andrew MacLachlan (US FWS), Paul Mankiewicz (NYCSWCD), Marc Matsil (NYC Parks), Nancy Niedowski (NYS DOS), Mario Paula (US EPA), Surangi Punyasena (NYC Parks), Tali Vardi (NYC Parks).

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*Minutes:*

❑ **MITIGATION RATIOS: DRAFTING OF A PROTOCOL**

CCMP Objective H-1: Develop a comprehensive regional strategy to protect the Harbor/Bight watershed and to mitigate continuing adverse human-induced impacts.

CCMP Objective H-3: Manage coastal development.

CCMP Objective H-4: Manage shoreline and aquatic habitat modifications.

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

CCMP Action H-4.2: Ensure regulation of proposed actions involving less than one acres of fill in freshwater wetlands.

The mitigation subgroup convened its first meeting via conference call.

Marc Matsil (NYC Parks) began the meeting by introducing the preliminary mitigation ratio white paper drafted by Nancy Niedowski (NYS DOS) and discussed at the October 19, 2000 Habitat Workgroup meeting. He reiterated that the stresses faced by restorations in the urban system – the cumulative impacts that impair urban systems – dramatically reduce recovery rates. Given these low rates of recovery, current compensation, with ratios at 1:1 or 3:1 for destruction or impairment of natural systems is intuitively not enough. NYS DEC's recent investigation of loss of Jamaica Bay wetlands is one example of the effects of channelization, subsidence,

overland sedimentation, pollution, and sea level rise. Wetland edges would be lost to erosion before substantial recovery occurred.

Matsil touched on the issue of acquisition replacement. This would be a dramatic shift in mitigation policy, which has generally been hesitant to approve acquisition in lieu of restoration mitigations. He suggested a 2:1 or 3:1 acquisition mitigation on top of a 3:1 restoration mitigation, as a fairer compensation for lost use and low recovery rates.

Mario Paula (US EPA) suggested that the Army Corps be involved in the discussion. Matsil responded that he had spoken with Col. William Pearce regarding mitigation ratios. Matsil spoke with Jim Haggerty (US ACOE), who was unable to join the conference call, but stressed that the federal standard was “value for value” and determined on a case-by-case basis. The ACOE does not recognize strict mitigation ratios.

Paula agreed that the Corps would find it difficult to support a high restoration ratio. He added that acquisition mitigation ratios were often higher than those proposed.

Matsil responded that he would like to see higher acquisition mitigation ratios (as suggested by Steve Barnes (Baykeeper) at the October 19<sup>th</sup> meeting) but given the cost of land in the New York metropolitan area, higher ratios may be difficult to impose.

Niedowski stressed that the combination of restoration and acquisition actually made the proposed ratios much smaller than the 20:1 ratio that would perhaps be needed to compensate for lost ecological use using restoration alone.

Matsil added that most restorations fail, especially when the functionality of the system is evaluated. He added that the monitoring protocols endorsed by HEP and New York State would be needed to determine whether or not a system was returning.

Paul Mankiewicz (NYCSWCD) stressed the need to include structural and functional issues. He suggested that the function and structure be integrated over the number of years that they take to return, which could possibly range greater than two decades. The science is not perfect, but several key criteria can be measured, including biomass and denitrification rates.

Andrew MacLachlan (US FWS) asked if in an ideal restoration, nitrate levels would return in less than 20 years. If restorations could be improved – decreasing failure rates and recovery times – the proposed ratios could be reduced. Mankiewicz conceded that it would be possible to have a relatively short recovery period for certain restorations – e.g. a salt marsh restoration on a peat and soil substrate – but most restorations are on poor quality soils or on a sandy substrate to promote seedling growth. Because of the lag in biomass increase, peat production, and denitrification capabilities, a high restoration mitigation ratio would still be justified.

MacLachlan suggested that the proposed 20:1 mitigation ratio (for restoration alone) be reduced if a mitigation is performed using improved restoration methods and implements monitoring protocols. The ratio can be reduced if the mitigator takes an initiative to improve the restoration. Mankiewicz agreed that some performance criteria were necessary, but Matsil noted that these monitoring protocols and criteria for restoration success already exist.

Mankiewicz responded that the problem with most monitoring as it is implemented is that it focuses heavily on one criterion, vegetation success. He suggested that the direct biochemistry of the system (e.g. nitrogen and sulfate reduction) be monitored in addition to other monitoring criteria.

Matsil noted that natural habitat in the New York is a diminutive resource which additionally justifies high compensation if damaged or destroyed. He cited the example of Cheesecake and asked what the deterrents for similar violations were. Most regulations are sympathetic to the violator, valuing the violators’ interests over protection of our natural

resources. Mankiewicz agreed that we cannot hold violators responsible for the stresses on an urban system, but current mitigation procedures do not even recognize the impact of these stresses.

MacLachlan asked whether violators should be held to more stringent criteria than applicants and whether there should be a range of ratios that were applied depending on which habitat was affected. Mankiewicz suggested that the ratios include what we know about succession over time.

Niedowski suggested that the combined acquisition and restoration mitigation option be stressed. The combined ratios were less frightening than the proposed 20:1 restoration ratios. Mankiewicz added that combined acquisition restoration would be especially beneficial if the acquisition and restoration sites were adjacent; the potential for recolonization and reestablishment would increase significantly, and would justify reduced ratios.

MacLachlan noted that the more options and more conditions the subgroup provided, the better the sell. Each different option provided would need to be justified scientifically. Mankiewicz agreed that a “best fit” range of ratios could be provided.

Niedowski asked what the justification for a combined acquisition and mitigation ratio would be. It is simple to describe what is wrong with a simple 1:1 ratio, but harder to decide on an alternative. Matsil explained that the combined ratios were devised with consideration of the cost of acquisition in New York City.

Tali Vardi (NYC Parks) provided a brief summary of the literature she had found on the topic of restoration mitigation. Studies suggest the use of a second site as a reference to gauging the success of a restoration.

Paula noted that the National Academy of Sciences had a report on restoration practices due out in April. He was unaware if anyone in the NY/NJ Harbor had been contacted, but there was emphasis placed on urban restorations, with case studies from Chicago and the Northeast.

Matsil suggested that the subgroup list every restoration in the region by type. Mankiewicz suggested that group pursue this issue on two fronts, by compiling arguments against 1:1 and 3:1 ratios and by reviewing the literature to produce spreadsheet models of how restorations may behave to produce a biogeographical and functional framework.

The subgroup agreed to prepare a revised draft for the January 24, 2001 Habitat Workgroup meeting.