New England Botanical Club – Minutes of the 944th Meeting

8 January 1999 Prepared by Dr. Paul Somers, Recording Secretary

The 717th meeting of the New England Botanical Club, being the 944th since its original organization, met on Friday, January 8, 1999, in the main lecture hall at Harvard University's Biological Laboratories with 25 members and guests present in spite of a snowstorm in progress. President David Conant presented the name of one new member.

Under new business Lisa Standley announced that the University of Maine would be hosting the second North American Forest Ecology Conference on June 22; Leila Schultz noted the March 1 deadline for NEBC graduate student award applications, and Paul Somers stated that the Club had added the newly published *Flora of Naushon* by Hoima Cherau to its library. Lisa Standley then introduced the evening's speaker.

The program titled "Proactive Wetland Restoration in Massachusetts" was presented by Charles Katuska of the Massachusetts state government's Executive Office of Environmental Affairs (EOEA). The objective of his talk was to discuss wetland restoration aspects of the state's Wetlands Restoration and Banking Program (WRBP), which began in March, 1994, as an effort to implement the state's policy of "no net loss of wetlands in the short-term and a net gain in the long-term." Katuska explained that wetlands constitute 12% of the state's land area or about 600,000 acres. Of these acres, about 20% represent salt water wetlands, including 45,000 acres of tidal flats. Massachusetts wetlands were once more abundant. He said about 28% of the state's wetlands at the time of colonization have been lost because of filling, draining, and other human activities.

Chuck started by explaining the program's definition of wetland restoration: "The act, process or result of returning a wetland or a former wetland to a close approximation of its condition prior to the disturbance." Thus, the restoration result would not be necessarily a totally pristine wetland; the area could possess invasive species and still be considered restored. He recognized two types of restoration, the first being "the reestablishment of a wetland or former wetland on what is now a nonwetland site", and the second being "the return of a damaged, degraded or functionally impaired wetland to its pre-disturbance condition." Examples of restoration actions include restoring tidal flow, removing fill or dikes, regrading, planting wetland vegetation, and controlling invasive species. *Phragmites* control, thus far, has been a major activity of the WRBP. They have been working with coastal communities, in particular, where loss of the normal tidal influence has resulted in *Phragmites* overtaking *Spartina* in the tidal marshes, and they are now finalizing a *Phragmites* control strategy paper.

To accomplish their objectives, the two person staff of WRBP works with many other agencies, organizations, and individuals. To help cement such relationships, the state EOEA, along with a number of Federal and State agencies, signed a joint resolution in June, 1994, committing to the restoration of Massachusetts wetlands. Along with the signatories, they have since formed an alliance with nearly 200 other agencies, organizations, and individuals who have agreed to work together toward implementing the Commonwealth's "no net loss" Action Plan.

A premise of the plan is that it is better to treat wetlands as part of a watershed than as isolated landscape features, thus "watershed wetland restoration plans" are being prepared as well with the assistance of members of the above "Partnership." Through WRBP, the Corps of Engineers has developed a site identification, data collection, and site screening analysis at the watershed scale. Using aerial imagery and other data, potential wetland restoration sites are identified and characterized; then the potential restoration projects are analyzed to determine their ability to positively influence wetland functions and the watershed as a whole. This technical analysis is based on simple functional predictors (size, position on the landscape, soil characteristics, hydroperiod, etc.) and assessment of "the watershed's functional deficits" in terms of water quality, flood storage, and fish and wildlife habitat. Individual site characteristics considered in the analysis also include factors such as ownership, cost, and likely difficulty of restoration efforts.

The Neponset River watershed serves as the first test or pilot project for this watershed-based planning approach. In this watershed alone, 159 potential restoration sites were initially identified by the Corps in the preliminary assessment and six general goals for wetland restoration were established, including control of invasive species. Interestingly, when a draft plan for Neponset was reviewed by the citizenry, they identified "stream baseflow and groundwater recharge" as an additional watershed goal, as well as identifying 12 additional potential wetland restoration sites. Plans for six other watersheds (Otter River, Paskamanset River, Upper Ipswich, Shawsheen, Upper Blackstone, and Connecticut River) are in the works as well as salt marsh inventories along the coast.

The intent of the WRBP is to have implementation of restoration projects locally driven. Thus they do a lot to encourage proposals and funding of projects. One way is through the GROWetlands initiative whereby they seek and accept project nominations. The WRBP then helps with technical support, coordination, permitting, funding, and access to its read only database of other wetland restoration projects. Katuska finished with an invitation to NEBC to help, especially with invasive plant projects, and then offered handouts describing WRBP, GROWetlands, and 25 funding sources available for wetland restoration projects in the Commonwealth. Questions and answers, then refreshments followed before everyone departed into the snow.