



Ted Lento
Regulatory Office
New England District
US Army Corps of Engineers
696 Virginia Road
Concord MA 01742-2751

May 19th, 2003

Dear Mr. Lento:

Friends of the Blue Hills takes this opportunity to respond to the the Public Notice dated April 17, 2003 regarding the MWRA's request for a Section 404 permit for work in and around the Blue Hills Reservoir in Quincy, Massachusetts.

Since 1976 Friends of the Blue Hills (FBH) has worked to protect and preserve the quality of life, sense of place, natural beauty, and ecological value that is contained within the century-old Blue Hills Reservation.

Our comments refer to the project as described in the Individual Permit Application submitted to ACOE on March 21, 2003.

FBH previously submitted public comment letters on this project to the MEPA office in April 2000, March 2001, and December 2001, and to the MA Dept. of Environmental Protection on April 11, 2003.

FBH asks that ACOE withhold a permit for the proposed work until the MWRA proposes an alternative site involving lesser impacts to protected wetlands and waterways, or until the MWRA proposes compensatory mitigation commensurate with unavoidable wetlands impacts of the proposed work.

THE SITE

The site is an approximately 16-acre open water reservoir constructed on the south side of Chickatawbut Road in the Blue Hills Reservation in the 1950's. The reservoir went off-line in 1981 and has not been used since.

Prior to construction of the reservoir, the site was a high-elevation wooded wetland known as Twinbrook Swamp. With the surrounding wooded upland, it was acquired with public money in the 1890's and incorporated in the Blue Hills Reservation.

PROPOSED WORK

The applicant proposes to drain the reservoir and and construct two circular concrete storage tanks approximately 40 feet high and 240 feet in diameter in its eastern end. The tanks will be connected to an existing 48-inch pipe running northeasterly through the reservation to Willard St. in Quincy. The tanks will then be buried and grassed and the western half of the reservoir will be regraded and allowed to refill.

IMPACTS

The work will result in permanent loss of 8-9 acres of open water, along with approximately 3500 feet of vegetated bank and an undetermined amount of bordering vegetated wetland at the reservoir's southwest and southeast corners, as detailed in FBH's 4/11/03 letter to DEP.

MITIGATION SEQUENCING

Several other sites with much lesser wetland impacts were evaluated in the applicant's alternatives analysis. All were rejected for engineering considerations. But figures for wetland mitigation costs are notably absent from construction estimates included in the alternatives report (Appendix C), demonstrating that the applicant did not consider that mitigation costs represented a significant variable, despite the great range in wetlands impacts among the alternatives.

The applicant's failure to budget real costs associated with wetland losses and mitigation prevented the analysis from displaying a true picture of the alternatives. Omission of these costs obscured the large differences in wetlands impacts represented among the alternatives, and permitted the applicant to assume that mitigation costs would not substantially affect construction costs. This unwarranted assumption skewed the analysis from the outset, and led directly to selection of an alternative involving maximum wetland impacts. How could the applicant be expected to avoid impacts to wetlands and waterways if the analysis had already demonstrated that such impacts would have no effect on project costs?

Please note that alternative P2, which would have sited the tanks in a peripheral and much less sensitive portion of the reservation, was rejected because it would have required construction of a pump station. The applicant found such construction impracticable, even though it is practiced routinely in areas throughout the US that do not have sufficient elevational gradients to permit gravity storage.

FUNCTIONS AND VALUES ASSESSMENT

Once the applicant had settled on the alternative involving maximum wetlands impacts, it became important to reduce mitigation costs to a minimum, since they had already been zero-budgeted in the alternatives analysis. This reduction could be accomplished either by overlooking impacted resources--as in the original ENF, which failed to list Land Under Water as one of the resources proposed to be lost—or by acknowledging the extent of the resources, but arguing that they have little or no value.

The second approach is pursued in Appendix D of the Individual Permit Application, entitled “Functions and Values Assessment.” Here the applicant follows the protocol described in the ACOE’s 1995 *Highway Methodology Workbook* Supplement, which identifies eight wetlands functions and five wetlands values, and describes a process for determining their individual significance at a site. Findings are recorded on a “Wetland Function/Value Evaluation Form,” wherein each of the thirteen functions and values are declared either present or absent.

Here are some facts relative to the reservoir’s ability to contribute to the five listed values:

Recreation

- on many summer evenings and weekends, drivers on Chickatawbut Road can see fishermen standing on the reservoir’s banks. The fishermen have worn footpaths to their favorite spots.
- at least four species of game fish inhabit the reservoir: yellow perch (abundant), crappie (uncommon), bluegill (common), and largemouth bass (uncommon)—p. 11, 1/31/01 Single EIR.
- the reservoir is public parkland adjacent to a public road in a public reservation and has not been used for water supply purposes for over twenty years.
- the reservoir site was acquired with public money exclusively for recreational purposes and was used for such purposes for fifty years before the reservoir was built.

Educational/Scientific

- the reservoir is the largest body of clean open water remaining in Quincy, and is the premiere local example of a high-quality, unpolluted aquatic environment. It is easily accessible from Chickatawbut Road. Its watershed is entirely forested parkland.
- there are many opportunities in Quincy to observe damaged wetlands. There are few opportunities to learn about clean water.

Uniqueness/Heritage

- the reservoir is “one of the clearest water bodies sampled in MA,” with an average Secchi disk depth of 8.4 meters, .5 meters greater than Concord’s Walden Pond (p. 4.5, April, 2001 CDM 2000 *Water Quality Data Report* included in 5/2/02 Notice of Intent)
- in contrast with virtually every other large water body in the Boston area, “little or no road runoff...is entering the reservoir” (p. 4.13, April, 2001 CDM *Report*)
- the reservoir is at the center of the Blue Hills Reservation, which is the largest component of the oldest regional park system in the US.
- the MA House of Representatives recently adopted an amendment proposing to add the entire metropolitan park system to the National Register of Historic Places.
- the Reservation is the largest natural area within 35 miles of Boston

Visual Quality/Aesthetics

- the metropolitan park system’s original 1894 landscape plan recommended creation of several extensive forested parks on high ground at the city’s rim for the preservation of natural scenery.
- the Blue Hills were selected for the largest of these parks
- Chickatawbut Road was laid out before 1900 as a carriage path to exploit the visual drama of the park’s upper elevations.
- eastbound drivers on an 1100-ft stretch of Chickatawbut Road enjoy a view reaching a quarter-mile southeast across the reservoir to the Broken Hills, an abrupt wooded ridgeline protected since 1896.
- this view is the broadest and longest unobstructed water view from any road in the 7000-acre Reservation.
- the reservoir is plainly visible from Nahanton Hill, Fox Hill, Wompatuck Hill, and from several locations along the Skyline Path, the park’s primary hiking trail.

Endangered Species Habitat

- the Blue Hills Reservation supports the largest concentration of state-listed rare species anywhere in the metropolitan park system
- the reservoir is entirely surrounded by upland rare species habitat for two state-endangered viperids.
- one of these species, *Agkistrodon contortrix*, is known to forage in wetland types present at the reservoir.
- the applicant acknowledges that 1.4 acres of closed-canopy oak woodland, which is primary foraging habitat for both species, will be cleared and filled for the project.
- the populations concerned are, respectively, the northernmost and easternmost in North America.

The applicant’s remarkable claim (p. 2, Function/Value Evaluation Form) that resources at the site offer negligible support for any of the five values named above perhaps needs no further discussion.

But even when the presence of a particular function or value is admitted, the application takes pains to emphasize that it is poorly supported. In regard to Fish Habitat, although two of the four game fish species recorded at the reservoir are described as common or abundant, the

application argues that existing macrophyte cover, primarily the macroalga *Chara* or muskgrass, is of low habitat value:

Muskgrass, although it can form dense mats, generally does not provide adequate cover for fish and amphibians seeking protection from predators (p. 20).

Compare this statement with the following characterizations of the same species, compiled via an internet search:

Provides fish habitat and aquatic wildlife food and cover.

—American Fisheries Society

The gray-green stems provide habitat in ponds and lakes

—Texas Aquatic Plant Management Society

Fish also seek cover in beds of muskgrass and bushy pondweed.

—Minnesota DNR, Bass Lake Assessment

Muskgrass...is included among the Bay grasses because of its importance as a food source for waterfowl.

—USFWS, Chesapeake Bay Office

It is not impossible that this divergence of opinion is related to the applicant's interest in downgrading resources that the project will eliminate.

PROPOSED MITIGATION

Materials included in the Individual Permit Application are surprisingly imprecise concerning proposed compensatory mitigation for the major and permanent impacts to protected wetlands that the Blue Hills Covered Storage project will involve. For instance, the Mitigation Checklist in Appendix E is unsigned, undated, and illegible. Portions that are legible refer to plans that do not exist. Similarly, the table in Appendix E entitled "Summary of Proposed Wetland Mitigation" is difficult to evaluate, since it refers to sites and impact areas not labeled on any plan, and numbered according to a system used nowhere else in the document.

Nonetheless, Section 4.3 at p. 13, "Direct Impact Mitigation," provides a narrative description of an overall mitigation scheme. FBH treated this topic fully in our April 11, 2003 letter to DEP regarding the applicant's Variance Request. On p. 4 of this letter we stated that **"even if all the contemplated actions produce the desired results, the outcome will be a 97-100% net loss of wetlands in the Blue Hills Reservation."**

This is the kernel of our concern with the applicant's mitigation proposal. ACOE's *Regulatory Guidance Letter 2-02* dated 12/24/02 cites a long-standing national policy of "no overall net loss" of wetlands. The Covered Storage Project will produce a net loss of over eight acres of wetlands in the Blue Hills Reservation. The new wetlands that the applicant proposes to create will be sited almost exclusively in existing wetlands, and hence will add little or nothing to the total.

The applicant apparently considers that enhancement via regrading and planting proposed for the remnant of the reservoir that will be allowed to refill is more than sufficient compensation for the balance of the resources that will be lost. FBH does not believe that this argument is consistent with a “no overall net loss” approach to Aquatic Resource Impacts under Section 404 of the Clean Water Act. In general, any project that permanently removes over 50% of aquatic resources from a site will have difficulty producing a net increase in functions and values. In this instance the applicant’s peremptory initial decision to rule out off-site mitigation severely and unnecessarily limited available options.

FBH MITIGATION PROPOSAL

FBH is willing to consider any proposal by the applicant that will bring the Covered Storage Project into compliance with no-net-loss standards. But characteristics of the site and the surrounding watershed, much of which is either urbanized or protected MDC parkland, make additional wetland creation problematic. Hence we have put forward a mitigation proposal emphasizing preservation rather than creation, and tailored to local circumstances.

Our proposal, first outlined in our April, 2000 MEPA comment letter, retains the enhancement work proposed for the reservoir footprint, but adds to it a preservation component involving a 30-acre undeveloped City of Quincy parcel shown in the attached aerials. This parcel, which begins about 1200 feet east and downslope of the project site, was once part of the Reservation, but was conveyed to Quincy in 1962 for cemetery purposes. It contains approximately 4 acres of wetlands in a matrix of ledgy oak/pine woods, and recent attempts to develop it for gravesites have failed because they required an unpermissible “take” of state-listed rare species habitat—the same species present in uplands surrounding the reservoir.

Nonetheless, we expect that attempts to develop the area will continue (a wooded wetland at its northeast corner was illegally bulldozed in early 1997), and hence its permanent protection as mitigation for the Covered Storage project would provide a substantial benefit to the Blue Hills Reservation and its wetland resources, particularly in the immediate reservoir area.

Because Quincy will lose any development potential that the parcel represents if it is conveyed to the Reservation as mitigation for the Covered Storage Project, we also recommend that, in return, the applicant convey to Quincy a 2.85 acre MWRA-owned parcel known as 5-49 Cleverly Court. This parcel, which is likely to be rezoned as open space this year, is currently zoned Business B and carries an assessed value of \$425,600. The parcel is a flat, formerly-paved area in densely-settled Quincy Point, and could provide much-needed playgrounds or ballfields for area residents.

We have outlined this proposal to the City of Quincy and the Mayor’s Office has expressed a willingness to discuss it further with all parties.

By adding 4 acres of wetlands and 26 acres of associated upland woods/rare species habitat to the Reservation, the FBH proposal produces a 3:1 mitigation ratio for resources that will be lost at the reservoir, versus the diminutive 1:64 ratio proposed by the applicant. This approach is substantially more practicable than attempting to create eight acres of clean open water, bank, and vegetated wetland in existing uplands anywhere near the project site (the most direct “no-net-loss” solution). And the cost to the applicant is minor, since release of the parcel at Cleverly Court involves no out-of-pocket expense.

The ACOE’s 12/02 *Regulatory Guidance Letter* specifically authorizes preservation of wetlands in compensatory mitigation plans (p. 4). Furthermore, the ACOE’s 1/15/02 “Notice” regarding nationwide permits in Vol. 67, No. 10 of *Federal Register* states on p. 2067 (italics added):

The Corps is increasingly taking a holistic watershed approach to mitigation of impacts in our Regulatory Program... Preservation is often a very important component of a watershed approach... The view that preservation is not appropriate because the areas are not “new” is shortsighted and had proven to be mistaken because of the significant impacts to wetlands that are not protected through preservation, *particularly when when preservation includes adjacent uplands and open waters as a preserved matrix of environmental assets that work together to produce high value habitat.*

The intermixed uplands and wetlands on the 30-acre Quincy parcel do indeed work together. For instance, the 2.2 acre shrub swamp marked “1” on the accompanying aerial is a breeding site for wood frogs (*Rana sylvatica*) and common toads (*Bufo americanus*), and the Reservation wetland outside the parcel north of wetland “5” is a breeding site for wood frogs and gray tree frogs (*Hyla versicolor*). Preservation of the entire undeveloped Quincy parcel will increase the value of existing wetland habitat for these species because it will help ensure a sufficiency of essential but unprotected non-breeding or upland habitat.

In sum, we hope that the ACOE’s New England District will recognize that the applicant has not yet adequately complied with the avoidance/minimization/mitigation sequence mandated by Section 404, and that opportunities exist to achieve such compliance.

Very truly yours

Thomas Palmer
FBH Board of Directors

cc:

Ruth Ladd, ACOE
Ed Reiner, EPA
Lisa Rhodes, DEP

Rachel Freed, DEP/NERO
Thomas Largey, Quincy Mayor’s Office
Ken Deshais, Rizzo Associates

April, 2001 orthophotos



Cemetery Wetlands
(adapted from MassGIS 5K wetlands and streams datalayers)



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|-----------------|-----------|-----------------|--|
| 1. Shrub Swamp | 2.2 acres | 4. Wooded Swamp | .4 acres |
| 2. Wooded Swamp | .4 acres | 5. Wooded Swamp | .3 acres (clearcut and grubbed spring '97) |
| 3. Wooded Swamp | .6 acres | 6. Stream | 1000 linear feet |