



CITY OF CAMBRIDGE
CAMBRIDGE, MASSACHUSETTS 02139

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EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

November 7, 1994

To the Honorable, the City Council:

In response to Awaiting Report # 24 regarding a status report on the Lexington Conservation Commission hearing on the Massachusetts Highway Department's proposed expansion of Route 2A, please find a report from Chip Norton, Cambridge Watershed Manager.

Very truly yours,

Robert W. Healy
City Manager

Attachments



Cambridge Water Department

250 Fresh Pond Parkway, Cambridge, MA 02138 617-349-4770

MEMORANDUM

DATE: November 1, 1994

TO: Lisa Peterson, City Managers's Office

FROM: ^{cm} Chip Norton, Water Department

RE: Up-date on Marrett Road Improvement Project - Lexington

CC: Mike Nicoloro
Liz Epstein
Alex Strysky

Enclosed is the letter describing the Cambridge Water Department's (CWD) concerns with the above referenced project. In September the Lexington Conservation Commission issued a Negative Order of Conditions, denying a wetlands permit for this project.

The proponent of this project, the Massachusetts Highway Department (MHD) appealed this decision to the Department of Environmental Protection (DEP) which accepted the appeal. An informal discussion was held at the site on October 18 (notice included). Both Alex Strysky and myself attended this meeting.

DEP is currently developing a Superseding Order of Conditions for this project which could take at least (3) months. The CWD will continue to be an active participant in this process to ensure that all reasonable efforts are made to protect water quality. I will keep you informed of the progress of this project.





CITY OF CAMBRIDGE

MASSACHUSETTS

WATER DEPARTMENT
250 FRESH POND PARKWAY
CAMBRIDGE, MASS. 02138

617-349-4770

July 29, 1994

Ms. Joyce Miller, Chair
Lexington Conservation Commission
1625 Massachusetts Avenue
Lexington, MA 02138

RE: Revised Notice of Intent
Marrett Road (Route 2A)
DEP File No. 201-326

Dear Ms. Miller and the Conservation Commission Members:

The City of Cambridge has reviewed the above referenced Revised Notice of Intent (RNOI) and appreciates this opportunity to offer its comments and express its concerns about this project. In recent years, Cambridge has increased its efforts to ensure the quality of its water supply through a comprehensive watershed protection approach. This approach has been successful due in large part to the assistance and cooperation of the cities and towns within the Hobbs Brook and Stony Brook watersheds.

The proposed project exemplifies the need to carefully weigh what appears to be competing interests against each other. The proposed Marrett Road project has significant impacts to wetlands designated as Outstanding Resource Waters (ORW) because of their connection to the Cambridge reservoirs. However, there appears to be a legitimate need to improve the safety of this section of roadway, especially in light of the testimony presented to the Lexington Conservation Commission (LCC) by Lexington's police and fire chiefs. While wetlands and water supply protection are best served by avoiding impacts, the strong public safety component of this project makes it appropriate to seek ways to improve public safety while mitigating to the largest extent possible the real and potential impacts of this project to the wetlands.

Impacts

As described in the Revised Notice of Intent (RNOI), this project will cause substantial impacts to wetlands, including: permanent alteration of approximately 9,000 sq. ft. of Bordering Vegetated Wetlands (BVW), 16 linear feet of Bank, and 24 sq. ft. of Land Under Waterway, and additional temporary impacts to approximately 2,000 sq. ft. of BVW. These wetland features provide important pollution attenuation functions that protect the abutting Hobbs Brook water supply. This filling, which exceeds normally allowable impact thresholds, may be permitted at the discretion of the permitting authority under the "limited project" provision of the Wetlands Regulations (310 CMR 10.53) and the "no-fill" exemption of the 410 Water Quality Certification Interim Guidance Policy. Additionally, the project will result in an increase of over 76,000 sq. ft. of impervious surface, resulting in increased runoff under proposed conditions.

Proposed Mitigation

The project proponent, Massachusetts Highway Department (MHD), has reduced wetlands and potential water quality impacts of previous proposals by incorporating suggestions made during the MEPA comment period. The use of a retaining wall along the southern edge of Marrett Road rather than the sloped bank of earlier proposals reduces the amount of permanent wetlands filling by 2,990 sq. ft. and temporary wetlands impacts by 1200 sq. ft. Other smaller-scale changes, such as the modification of the Forbes Road/MHD Maintenance Drive intersection and the elimination of the Marrett Road eastbound curb lane, have reduced the amount of impervious surface area.

The RNOI proposes to replicate 10,900 sq. ft. of wetlands in an area north of Marrett Road (Area 1), and an additional 11,300 sq. ft. at a site near the MHD maintenance facility (Area 2). A retention basin adjacent to Area 1 has also been proposed. This basin has been designed to retain stormwater resulting from a one inch storm from 20% of the road surface in the project area. The RNOI has also addressed the temporary wetlands impacts to wetlands south of Marrett Road, and presented a plan to restore this area. MHD has proposed a two-year wetlands monitoring program for both the replicated and restored wetlands.

The proposed roadway design also includes a new drainage system which routes stormwater through catch basins equipped with oil and grease traps and sediment sumps. There is currently no such drainage system with stormwater runoff entering the adjacent wetlands directly through surface flow. This proposed system should greatly improve stormwater quality entering the wetlands.

Concerns with Proposed Mitigation

While the RNOI proposes to replicate lost wetlands at a 2.8:1 ratio, most of this will occur in Area 2 which is a considerable distance from the project site. This is due the constraints around Area 1, the location that would better replicate lost wetlands functions. Furthermore, the duration of the proposed monitoring program for all restored and replicated wetlands is only two years, which is likely to be the amount of time necessary for the replicated wetlands to become established. Discontinuing the monitoring program at that point in time may be premature, since it may not be possible to accurately detect whether the wetlands are functioning as desired, or whether additional maintenance is needed. Deterioration of these wetlands after the end of such a short monitoring period, with no commitment by MHD to ensure the long-term health of the replicated wetlands, would constitute an unacceptable loss of Outstanding Resource Waters.

The retention basin is designed to hold 12 inches of water (a one inch storm), before discharging into Area 1. While retention basins can be effective in attenuating pollutants and settling sediments, the proposed retention basin will receive drainage from only 20% of the project area, and will only be effective during relatively small storms.

The drainage system, with its sumps and separators, could remove pollutants from runoff entering the drainage system. Should these structures fail due to lack of maintenance, the water quality benefits will be reduced. The potential benefits of this system should be maximized to the fullest extent possible through careful design and maintenance.

CWD Recommendations for the Order of Conditions

As discussed above, the RNOI presents a revised proposal that poses fewer impacts than earlier proposals, including the alternative presented in the FEIR, for which a MEPA certificate was issued in 1993. However, impacts to Outstanding Resource Waters remain severe, and Cambridge believes that the implementation of measures outlined below are absolutely necessary to ensure the protection of the water supply.

The Cambridge Reservoir Watershed Protection Plan prepared by MAPC in 1989, included suggested standards for projects occurring in the watershed. Cambridge has used these standards in a general way to analyze impacts of a proposed project and to recommend mitigation measures as appropriate to a given situation. The RNOI included a section which reviewed the consistency of the Marrett Road project with these guidelines. While in some respects the project appears to be consistent with the guidelines, Cambridge offers the following suggestions for further protecting the Hobbs Brook water supply.

A. Wetlands and Water Quality Monitoring

The project proponent should provide the LCC, for its review and approval, a detailed schedule and procedure for the wetlands replication and restoration and future monitoring plan. The restoration and replication should commence as soon as possible.

The RNOI offers only a two year monitoring program for the restored and replicated wetlands. As noted above, it is essential that these wetlands be successfully established and maintained as fully functional BVW that perform the same functions as the wetlands lost due to this project. For this reason, Cambridge recommends that MHD assume responsibility for these areas to an extent beyond that which is proposed in the RNOI. This commitment could include extending the duration of the monitoring/maintenance period, or the posting of a bond (or some other form of financial commitment) so that the responsible agency, if it is other than MHD, is provided with the resources necessary to ensure the long-term viability of wetlands in this area.

The wetlands monitoring program outlined in the RNOI should be revised to include two additional important components. First, the wetlands south of Marrett Road, which are not directly impacted by this project should also be included in the monitoring program. These wetlands could be adversely affected by the proposed project should the replicated wetlands either fail outright, or function differently than the existing wetlands. Secondly, water quality monitoring should be a part of the wetlands monitoring program. Water quality is an important indicator of how effectively wetlands are functioning, and is the ultimate concern of Cambridge with respect to this project. The stormwater quality monitoring program outlined in appendix H of the Cambridge Reservoir Watershed Protection Plan should be included in the overall wetlands monitoring program.

B. Stormwater management

The proposed stormwater management system is an improvement over existing conditions in so far as it provides some degree of treatment for runoff where none now exists. This system may also afford better protection from any potential small hazardous spill in the vicinity of these roadways. However, the long-term effectiveness of the stormwater system depends on its continued maintenance. Cambridge offers these suggestions in regard to the stormwater management system:

1. The RNOI has proposed sumps 2-3 feet deep in the catch basins. Increasing the depths of these sumps to 4 ft. where the ground water elevation allows would provide additional benefits by increasing the sediment holding capacity.

2. A detailed maintenance plan, including a schedule of work, procedures, and a map of the system showing the parts of the system subject to maintenance, should be presented to the LCC for its review and approval prior to commencement of the project.

3. A water quality monitoring program, such as the one detailed in Appendix H of the Cambridge Reservoir Watershed Protection Plan, should be required as part of the wetlands monitoring program.

4. The LCC should receive a yearly maintenance report verifying that the work was done which includes a status report on the integrity and effectiveness of the system. The report should be signed and stamped by a registered Professional Engineer. The results of the water quality monitoring program should also be submitted to the LCC at this time. Cambridge requests that MHD provide copies of these reports to the CWD.

5. The maintenance plan, and the responsibility for repairing the stormwater system if necessary, should be part of a binding commitment between the LCC and MHD.

C. Best Management Practices During Construction

This project also poses serious potential impacts during the construction period, particularly sedimentation and erosion. These threats can be minimized through the strict adherence to appropriate Best Management Practices as discussed in the RNOI. MHD should provide an on-site qualified professional engineer with similar project experience who will oversee, monitor, and document in writing and photographs, compliance with BMP's and other Special Conditions LCC may impose on this project during construction.

D. Emergency Spill Response

Hazardous material spills pose a severe yet unpredictable threat throughout the Cambridge Watershed. The proposed stormwater system will add a degree of protection to the water supply from a small hazardous materials spill compared to existing conditions, since the catch basins and retention basin can be expected to intercept and retain small volume spills, affording better remediation opportunities. MHD should have an Emergency Spill Response Plan in place prior to the commencement of construction which specifically recognizes the important role of the Lexington Fire Department in the initial response to a spill. This plan should be consistent with the emergency response program being developed over the past two years by CWD, in cooperation with the Lexington Fire Department and the Cambridge Watershed Advisory Committee. CWD believes that this plan, which will include training, equipment, standard operating procedures, and maps, will be of critical importance in protecting the watershed from hazardous materials spills.

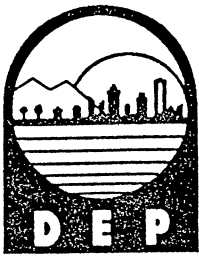
The City of Cambridge gratefully acknowledges the Conservation Commission's thorough and careful review of projects potentially impacting the City's water supply, and appreciates this opportunity to comment. Please feel free to call me if you have any questions, or if I may be of assistance.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Chip Norton".

Chip Norton
Watershed Manager

cc: Richard Rossi, Cambridge Deputy City Manager
Michael Nicoloro, Cambridge Water Department
Elizabeth Epstein, Cambridge Environmental Program
Alex Strysky, Cambridge Conservation Commission
Cambridge Watershed Advisory Committee
James Sprague, Department of Environmental Protection
Kevin Walsh, Massachusetts Highway Department



Commonwealth of Massachusetts
Executive Office of Environmental Affairs

**Department of
Environmental Protection**
Metro Boston/Northeast Regional Office

William F. Weld
Governor

Trudy S. Coxe
Secretary, EOE

Thomas B. Powers
Acting Commissioner

October 5, 1994

Ms. Lisa Rhodes
Mass. Highway Department
Ten Park Plaza
Boston, MA 02116-3973

RE: WETLANDS/LEXINGTON
DEP FILE #201-326
Acceptance of Appeal
& Notice of Site Visit

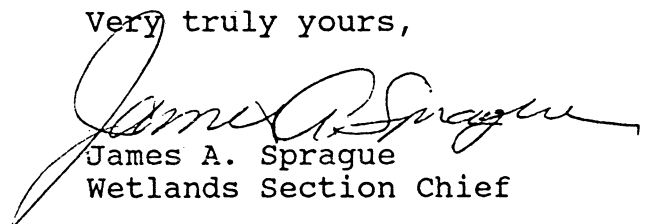
Dear Ms. Rhodes:

The Department of Environmental Protection is in receipt of your appeal September 14, 1994 regarding the above-referenced wetlands project, and has accepted your appeal. This Department, under the provisions of General Laws, Chapter 131, Section 40, has scheduled a field investigation with you and all concerned parties to determine if the area is significant to the interests of the Act and to informally discuss the relevant issues with parties to the appeal. **Rachel Freed from the Wetlands Division will be onsite on Tuesday, October 18, 1994 at 10:30 a.m.**

No activity may commence on any portion of the project subject to the jurisdiction of Chapter 131, Section 40 until the Department issues a Superseding Order of Conditions and all appeal periods have elapsed.

Should you or any party have any questions relative to this case, please contact Rachel Freed at 617-932-7783.

Very truly yours,


James A. Sprague
Wetlands Section Chief

cc: Lexington Conservation Commission, 1625 Massachusetts Ave.,
Lexington 02173
National Park Service
Paul Stoller, 29 Patterson Road, Lexington
City of Cambridge Water Department, 250 Fresh Pond Parkway,
Cambridge 02138

Consent Agenda #10

S-492

Response to an Awaiting Report Item
No. Twenty-four, regarding a status
report on the Lexington Conservation
Commission hearing on the Massachusetts
Highway Department's proposed expansion
of Route 2A.

11/14/94 Report accepted
and placed on file
Referred to the
Environment Committee

11/22/94 Copy sent to
Environment Committee
(di)

In City Council,

November 7, 1994

Charter Right
exercised by
Councillor Gorney