BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In the Matter of:	)	
City of Cambridge, DPW	)	NPDES Permit Appeal Case No. _____
NPDES Permit No. MA0101974	)	

PETITION FOR REVIEW

The Town of Arlington, with offices at 730 Massachusetts Avenue, Arlington, MA 02476 (hereafter "Petitioner" or the "Town") seeks review of the Final National Pollutant Discharge Elimination System ("NPDES") permit ("Final Permit") issued to the City of Cambridge Department of Public Works ("Cambridge") by Region I of the U.S. Environmental Protection Agency ("EPA"). A copy of the Final Permit is attached hereto as Exhibit A. The facts and grounds for the review, the relief sought, and additional information required by applicable statutes and regulations are provided in the supporting brief set forth below. This *Petition for Review* has been timely filed in accordance with the requirements of 40 CFR 124.19(a), as it is being delivered to the Environmental Appeals Board ("EAB") within thirty (30) days of the Town's receipt of the Final Permit.[1]

[1] The Final Permit is dated September 23, 2005. The Town did not receive a copy of the Final Permit until it received a letter from Roger Janson, EPA Region I Manager of Municipal Permits Branch, dated December 5, 2005, that extended the time period during which Cambridge's Final Permit may be appealed. A copy of the letter is attached hereto as Exhibit B. According to the letter, some individuals who should have received a copy of the Final Permit either did not receive a copy or received a copy beyond the 30-day period after the permit issuance and any recipient of the letter has the opportunity to appeal the Final Permit within 30 days of receipt of the letter. The Town received a copy of the December 5, 2005 letter and the Final Permit on December 6, 2005.

I. Parties

1. The Petitioner, Town of Arlington, is a municipal corporation duly organized under the laws of the Commonwealth of Massachusetts with its principal offices at 730 Massachusetts Avenue, Arlington, Massachusetts 02476.

2. The Respondent, EPA Region I, is an agency of the United States with the responsibility to implement, *inter alia*, the requirements of the NPDES permitting program under the Federal Clean Water Act, 33 U.S.C.A. § 1342.

II. Statement of Facts

1. The City of Cambridge discharges sewage into Alewife Brook during wet weather conditions from six combined sewer overflow ("CSO") locations under NPDES permit MA0101974, which was issued on March 26, 1993. The Final Permit is a renewal of this existing permit.

2. Alewife Brook flows through the Town, and public ways in Arlington and the homes of thousands of Arlington residents are located within its floodplain. Several times a year, during wet weather conditions, Alewife Brook overtops its banks, flooding residential properties and public streets.

3. The homes, properties and public ways located in the floodplain of Alewife Brook experience significant flooding during the rainstorms that cause the CSOs to activate, exposing these properties and their inhabitants to odorous waters contaminated with high levels of fecal coliform bacteria and containing floatable solids.

4. The EPA and the Massachusetts Department of Environmental Protection (the "DEP") administer the NPDES program under Federal and State law, respectively. On or about May 8, 2003, EPA and DEP issued Joint Public Notice of: (a) the Draft NPDES

Permit renewal, and (b) EPA's request for State Water Quality Certification ("WQC") under Section 401 of the Clean Water Act. On June 12, 2003, the agencies conducted a joint public hearing on the Draft Permit and the Request for WQC.

5. In accordance with Section 401(a) of the Federal Clean Water Act and 40 CFR 124.53, the Department was required to review the Draft Permit and determine whether the conditions in the Draft Permit would ensure compliance with the Federal Clean Water Act and Massachusetts Surface Water Quality Standards at 314 CMR 4.05.

6. For the purposes of the Town's appeal, the Final Permit was issued jointly by EPA and the Department on December 5, 2005.

7. The Final Permit approves a variance extension that was issued by the Department on September 1, 2004, for CSO discharges to the Alewife Brook/Upper Mystic River by the Massachusetts Water Resource Authority ("MWRA") and the Cities of Somerville and Cambridge (the "Variance"). Under the Variance and subject to several conditions, CSO discharges from Cambridge's outfalls on the Alewife Brook are exempted from meeting the Massachusetts Class B criteria (including standards for fecal coliform bacteria, floatable solids and odor) during events when flow in the collection system exceeds the collection system conveyance capacity as a result of precipitation or snow melt. The presence of high fecal bacteria counts, floatable solids and odor in the waters of Alewife Brook present significant public health risks to the Town and its residents.

8. The Town, through its Board of Selectmen and Conservation Commission, submitted written comments during the public comment period on the Draft Permit ("Written Comments"). A copy of the Arlington Board of Selectmen's written comments is attached hereto as Exhibit C. A copy of the Arlington Conservation Commission's

written comments is attached hereto as Exhibit D. In addition, two members of the Arlington Board of Selectmen, Ms. Diane Mahon and Ms. Kathleen Kiely Dias, participated in the joint public hearing on June 11, 2003 on behalf of the Town ("Oral Comments"). A copy of the hearing transcript is attached hereto as Exhibit E.

9. The Town hereby requests review and modification of several conditions and requirements contained in the Final Permit ("Contested Conditions"). In each instance, the Petitioner alleges that the Contested Conditions are based upon errors of fact or conclusions of law by EPA, and/or constitute an exercise of discretion by EPA that warrants EAB review and/or present issues of important policy consideration that warrant EAB review.

10. In accordance with 40 CFR § 124.19(a), the Town has standing to seek review of each of the Contested Conditions as the Town participated in the public hearing, and Arlington's Oral Comments and Written Comments presented specific concerns for each of the Contested Conditions that was included in the Draft Permit. Moreover, as discussed in more detail below, each Contested Condition (or issue relating to a Contested Condition) was raised with the requisite specificity and clarity during the public comment period, or was not "reasonably ascertainable" at that time.

11. The Town also has standing to seek review of each of the Contested Conditions because, as set forth below, this *Petition for Review* addresses with specificity, and provides rebuttal to, each of the responses that EPA made to some of the Town's Oral Comments and Written Comments. See EPA's *Response to Public Comments* included in Exhibit A.

12. Contemporaneously with the filing of this *Petition for Review*, the Petitioner has filed a *Notice of Claim for Adjudicatory Hearing* in accordance with 310 CMR 1.00 and 314 CMR 2.08, to challenge the conditions contained in the portion of the Final Permit issued by DEP.[2]

III. Statement of Final Permit Conditions for Which Review is Sought

The Petitioner is seeking review of the following conditions contained in the Final Permit. The following discussion sets forth the detailed basis why the EAB should grant the Petitioner's request for review for each of these items.

1. Effluent Limitations on Fecal Coliform Bacteria

The Final Permit approves the Variance that was issued by the Department and authorizes discharges from Cambridge's CSO outfalls on the Alewife Brook that are exempted from meeting the Massachusetts Class B criteria, including standards for fecal coliform bacteria, floatable solids and odor. The Final Permit does not place any effluent limitation on the fecal coliform bacteria concentrations. The Class B_{CSO} standard authorized by the Final Permit allows discharge of water contaminated with unrestricted levels of fecal bacteria in Alewife Brook that, during wet weather events, will flood roadways and properties of inhabitants of the area. As a result, the public and the residents whose houses are located in the floodplain of Alewife Brook cannot avoid contact with these contaminated waters. In some instances, the contaminated waters seep into basements and the first floor apartments of the buildings located in the floodplain. See Exhibit E, Hearing Transcript, pages 22-23.

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[2] On December 27, 2005, the Town also filed a *Notice of Claim for Adjudicatory Hearing* under 310 CMR 1.00 and 314 CMR 9.10, seeking review of the Department's state Water Quality Certification that was issued with the Final Permit.

The Arlington Board of Selectmen specifically commented on this problem during the public comment period:

> The Town believes that the NPDES permit must specify an effluent limitation that assures Arlington neighborhoods are not placed at risk from sewage born pathogens. The April 2001 MWRA Notice of Project Change (NPC) documented instances where CSO effluent reaches residential properties in Arlington. It is an unreasonable expectation that under such circumstances no secondary contact with the waters of Alewife Brook will occur. Therefore, the Town's position is that the NPDES permit must support documented secondary contact uses of Alewife Brook. Such uses include incidental contact at residential properties located in the flood plain.

See Exhibit C, Arlington Board of Selectmen Comment Letter, Comment I.(1). In its *Response to Public Comments*, EPA did not address this specific comment. On the same issue, the Arlington Conservation Commission commented that:

> All CSOs should be phased out as fast as the pipe separation work can be done. The goal must be the Class B water standard . . . Class B_{CSO} is unacceptable as it allows peak pollution rats at the times when peak flows occur.

See Exhibit D, Arlington Conservation Commission Comment Letter.

In response, EPA ignored the point raised by these comments, namely, that because the Class B_{CSO} standard was authorized by the Final Permit, residents of Arlington will continue to be exposed to the dangerous and contaminated waters of Alewife Brook during wet weather events that activate the CSO discharges. EPA completely sidestepped the issue, merely responding that "[t]he decision regarding the water quality standards will be made during the variance extension period." See Exhibit A, Final Permit, *Response to*

Comments, Page 5.[3]

The fact remains that, during and after CSO discharge activation, the waters of Alewife Brook continue to be contaminated with high fecal coliform bacteria, solids and floatable materials and the area is affected by odor, and the Final Permit does not go far enough in requiring Cambridge to minimize fecal coliform bacteria counts and control odor and solid and floatable matierals in the CSOs. The Final Pemit should require controls over these highly dangerous and nuisance conditions more stringent than those provided in the Nine Minimum Controls of the Final Permit.

Relief Sought: The failure to include an effluent limitation n the Final Permit for fecal bacteria concentrations during wet weather events is based upon an error of fact and/or law. and/or constitutes an exercise of agency discretion that warrants EAB review. The exclusion in the Final Permit of requirements beyond the Nine Minimum Controls for fecal coliform bacterial, odor and solids and floatables is based upon an error of act and/or law and/or constitutes an exercise of agency discretion that warrants EAB review. The Petitioner requests that the Final Permit be modified to add an effluent limitation for fecal

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[3] The Final Permit allow unrestricted levels of fecal coliform bacteria counts in the CSO discharges. and authorizes discharge frequencies and volumes that were determined by Cambridge or the MWRA solely by the use of modeling. See Exhibit A, Final Permit, Attachment C. The modeled discharge frequencies and volumes are based on "typical year" characteristics rather than actual data obtained from the meters located at the Cambridge CSO outfalls. See Cambridge DPW Website at www.cambridgema.gov/TheWorks//departments/ swrMnt/cso.html. The actual data, in many instances, show activation frequencies and discharge volumes at lower values than the modeled values adopted in the Final Permit. For example, for CAM401B the Final Permit authorizes an annual activation frequency of 25 and an annual volume of 10.7 million gallons, which represent modeled numbers prepared by MWRA/Cambridge and reported in the *Notice of Project Change for the Long Term CSO Control Plan for Alewife Brook("NPC")* prepared by the MWRA in 2001. As noted in the NPC, the outfall at CAM401B was not known when the original MEPA review was conducted. And yet, in the NPC there was minimal, if any. real evaluation of the potential for elimination of this CSO outfall. See NPC, page 3-11 and 3-12. Instead, without any meaningful valuation and alternatives analysis for mitigation at this outfall, the Final Permit merely adopts the modeled values presented in the NPC as the Final Permit restrictions.

coliform bacteria during CSO discharges that takes into account the public's exposure to contaminated waters and is more protective of public health, and to provide more rigorous requirements for the control of odor and solids and floatable materials than provided by the Nine Minimum Controls.

2. Ultimate Water Quality Designation for Alewife Brook

The Final Permit approves a third extension to the Variance that was originally issued in 1999 and authorizes CSO discharges during wet weather events in accordance with the Variance. Variances are intended to be "time-limited" changes in the water quality standards. See EPA Guidance, *Coordinating CSO Long-Long Term Planning with Water Quality Standard Reviews* (July 21, 2001), page 34. Moreover, when adopting a variance, DEP must demonstrate that the designated use is not an existing use. DEP failed to make this demonstration. Alewife Brook is designated as a Class B waterbody, with primary and secondary contact recreation listed as designated uses. In issuing and approving a third extension to the Variance, DEP and EPA apparently ignored the fact that secondary contact is an existing use of the Alewife, as residents whose properties are located in the floodplain are exposed directly to flood waters.

The Variance extension is "intended to provide time for DEP to obtain the necessary information necessary to determine the appropriate water quality standard and level of CSO control for the receiving waters." See Final Permit, Attachment F, Determination to Extension to Variance for CSO Discharges Alwife Brook/Upper Mystic River Basin. However, DEP appears predisposed to a Class B_{CSO} designation: "The Department notes that a feasible means to eliminate CSO in the Alewife Brook/Upper Mystic watershed has not been identified and, therefore a B(CSO) designation for the

impacted segment may be warranted; the information gathered during the course of the CSO Variance will be used to determine the highest feasible level of CSO control." Id.

As noted in the Arlington Conservation Commission Comment Letter:

> [t]he NPDES permit allows the permittees to hide behind the water quality of [non-CSO] stormwater discharges to state that any further reduction in sewage removals is useless or at least not cost effective. It is not useless as Phase II NPDES requirements for all communities will eventually phase out these sources of direct discharges as well.

See Exhibit D, Arlington Conservation Commission Comment Letter. In response, EPA stated that, with regard to the ultimate water quality standard designation for Alewife Brook, "[e]ven if CSOs were entirely eliminated, water quality data shows that there would be continuing violations of water quality criteria during wet weather due to storm water discharges." See Exhibit A, Final Permit, Response to Comments, Page 5. No weight was given to the fact that non-CSO discharges eventually will be reduced or eliminated. It is not valid to ignore the likely future improvements to the water quality in Alewife Brook as a result of the implementation of other federal and state programs, and simply to use the current existence of non-CSO surface water discharges as an excuse for not maximizing CSO elimination to achieve the Class B water quality standards.

Relief Sought: The Final Permit does not explicitly require Cambridge to eliminate CSO discharges to Alewife Brook or achieve Class B standards. This deficiency in the Final Permit is based upon an error of fact and/or law, and/or constitutes an exercise of agency discretion that warrants EAB review. The Petitioner requests that the Final Permit be modified to require that Cambridge eliminate its CSO discharges or achieve the Class B water quality standards for its discharges.

3. The Final Permit does not account for potential additional loads

The Final Permit does not address the issue of the potential for additional loads to the CSO system. The Arlington Board of Selectmen commented that the Final Permit "must protect wet weather water quality by accounting for additional loads to the combined sewer system for future growth." Additionally, the Board noted:

> In our comments on the [MEPA Notice of Project Change] the Town asked whether there would be any gain or loss to the capacity of MWRA's interceptor system due to the project. (See June 4, 2001 comments letter, Engineering calculations and flows, comment 5.) In response (See May 2003 RTC, 4-35) the MWRA indicated that the recommended plan would take advantage of the reduction in the hydraulic grade line of the interceptor and increase the dry weather flow connections for CAM 002, 401B and SOM 001A. Even with the reductions of CSO discharges at the outfalls the recommended plan predicted 5-7 overflows a year. "This condition suggests that in wet weather additional flows, such as from new development, would likely cause an increase in CSO, unless those new flows were offset by an equal or greater reduction in tributary flow." This suggests that the effluent limitation will be eroded unless the permit contains a mechanism to verify that local and state sewer system connection programs and storm water management regulations are sufficient to protect wet weather water quality gains. We ask that the final permit contain such a mechanism.

See Exhibit C, Arlington Board of Selectmen Comment Letter, Comment III.(1). EPA did not respond at all to this comment and no condition of the Final Permit addresses this concern. See Exhibit A, Final Permit, Response to Comments.

Relief Sought: The Final Permit does not require Cambridge to restrict additional loads to the CSO system. This deficiency in the Final Permit is based upon an error of fact and/or law, and/or constitutes an exercise of agency discretion that warrants EAB review. The Petitioner requests that the Final Permit be modified to specifically require Cambridge to reduce infiltration/inflow on those portions of its wastewater transport system that are connected to the discharge outfalls on Alewife Brook. In addition, the Final Permit should

restrict any additional hookups to such sections of Cambridge's wastewater transport system until Cambridge can either cease all CSO discharges to Alewife Brook or demonstrate that the CSO discharges meet the Class B water quality standards.

4. Notification Requirements

(a) The Town requested in its Written Comments that warning signage at all outfalls contain telephone contact numbers. See Exhibit C, Arlington Board of Selectmen Comment Letter, Comment I.(3). The Final Permit does not require contact telephone numbers. EPA did not respond at all to this comment and no condition of the Final Permit addresses this concern. See Exhibit A, Final Permit, Response to Comments. A telephone number would direct all citizen inquiries to the appropriate Cambridge contact. This would benefit Cambridge by providing an additional source of information about the condition of outfall structures and discharges.

Relief Sought: This deficiency in the Final Permit is based upon an error of fact and/or law, and/or constitutes an exercise of agency discretion that warrants EAB review. The Petitioner requests that the Final Permit be modified to require that Cambridge post contact telephone numbers on all of its warning signs along Alewife Brook.

(b) The Town requested in its Written Comments that all residents in the flood plain of Alewife Brook must receive written notification of the location of CSO outfalls and the conditions in which they discharge. See Exhibit C, Arlington Board of Selectmen Comment Letter, Comment I.(3). The Final Permit, by incorporation of the Variance, requires only that a joint press release be issued to "property owners subject to flooding in the Alewife watershed." See Exhibit A, Final Permit (emphasis added). The Town believes that the high proportion of rental property in the Alewife area, combined with the

low visibility of current notification efforts, is ample justification for direct mailing to affected residents. EPA did not respond at all to this comment and no condition of the Final Permit addresses this concern. See Exhibit A, Final Permit, Response to Comments.

Relief Sought: This deficiency in the Final Permit is based upon an error of fact and/or law, and/or constitutes an exercise of agency discretion that warrants EAB review. The Petitioner requests that the Final Permit be modified to require that Cambridge mail quarterly notices to all affected residents in the floodplain of Alewife Brook.

(c) While the Variance requires Cambridge "in collaboration with MWRA and Somerville" to provide electronic mail notice to "local health agents," among others, of CSO discharge events in the Alewife Brook watershed within 24 hours of the discharge, the Final Permit only requires Cambridge to provide detailed information to DEP about the discharges (i.e., discharge volume, precipitation data for each day of discharge, etc.) on an annual basis. The Town suggested in its Written Comments that Cambridge should be required to provide detailed information regarding each discharge more frequently, and directly to the local health agents, who have the primary responsibility under G.L. c. 111 to insure that health risks to the community are eliminated or controlled. See Exhibit C, Arlington Board of Selectmen Comment Letter, Comment I.(2). EPA did not respond at all to this comment and no condition of the Final Permit addresses this concern. See Exhibit A, Final Permit, Response to Comments.

Relief Sought: This deficiency in the Final Permit is based upon an error of fact and/or law, and/or constitutes an exercise of agency discretion that warrants EAB review. The Petitioner requests that the Final Permit be modified to require that Cambridge mail

provide detailed information regarding each CSO discharge directly to the Town's health agent within 24 hours of the discharge.

5. Surface Flooding Studies within the Alewife Brook Floodplain

The Town commented that, thus far, review of surface flooding in the Alewife Brook floodplain appears to have been limited to the area between Perch Pond and Massachusetts Avenue. See Exhibit C, Arlington Board of Selectmen Comment Letter, Comment II.(1). As a result, review of surface flooding has not included the Town's residential neighborhoods that lie to the north of Massachusetts Avenue (specifically, the Sunnyside and Henderson Street neighborhoods), even though two of Cambridge's CSO outfalls (and one MWRA CSO outfall) are located north of Massachusetts Avenue and directly affect these Arlington neighborhoods. EPA did not respond at all to this comment and no condition of the Final Permit addresses this concern. See Exhibit A, Final Permit, Response to Comments. The Town of Arlington believes that it is important that the operators of the CSO outfalls evaluate the full extent to which all residential areas are placed at risk by CSO discharges under existing and future conditions.

Relief Sought: This deficiency in the Final Permit of a requirement that Cambridge provide a survey plan with flood elevations for all areas in the Alewife Brook floodplain and evaluate the risk of CSO discharges to all properties located with the floodplain of Alewife Brook is based upon an error of fact and/or law, and/or constitutes an exercise of agency discretion that warrants EAB review. The Petitioner requests that the Final Permit be modified to require that Cambridge provide such a plan and evaluation.

7. Process for Determining Whether Additional CSO Controls Are Necessary During the Term of the NPDES Permit.

The Town commented that the Variance includes a:

> mechanism, the so-called 'trigger points,' for determining when additional CSO controls will be appropriate for the Alewife Brook. The Town believes that it is appropriate for both the permittees and MA/DEP to provide greater detail about the "trigger points" process, including implementation and public participation plans, if the water quality variance is to be incorporated into the NPDES permit.

See Exhibit C, Arlington Board of Selectmen Comment Letter, Comment IV.(1). EPA did not respond at all to this comment and no condition of the Final Permit addresses this concern, but the Variance was incorporated into the Final Permit. See Exhibit A, Final Permit, Response to Comments.

Relief Sought: This exclusion in the Final Permit of greater detail about the trigger points process is based upon an error of fact and/or law, and/or constitutes an exercise of agency discretion that warrants EAB review. The Petitioner requests that the Final Permit be modified to provide specific information about the process, including implementation and public participation plans.

IV. Prayer for Relief

The Petitioner requests the following relief:

(1) That the EAB grant the Town's requests and that the Final Permit be remanded for modification of the Contested Conditions contained in the Final Permit as listed and described above;

(2) That, pursuant to 40 CFR 124.16(a), the effect of each Contested Condition be stayed during the pendency of this appeal and until the Final Permit is modified;

(3) That the EAB grant such other relief to Petitioner as it shall deem appropriate.

Respectfully submitted,

TOWN OF ARLINGTON

By its attorneys,

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Dated: January 3, 2006

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 27, 2005

Lisa Peterson, Commissioner
The City of Cambridge
Department of Public Works
147 Hampshire Street
Cambridge, MA 02150

Re: NPDES # MA0101974

Dear Ms. Peterson:

Enclosed is your final National Pollutant Discharge Elimination System (NPDES) permit issued pursuant to the Clean Water Act (the "Federal Act"), as amended, and the Massachusetts Clean Waters Act (the "State Act"), 21 M.G.L. §§43-45, as amended. The Environmental Permit Regulations, at 40 C.F.R. §124.15, 48 Fed. Reg. 14271 (April 1, 1983), require this permit to become effective on the date specified in the permit.

Also enclosed is a copy of the Massachusetts State Water Quality Certification for your final permit, the Agency's response to the comments received on the draft permit, if any, and information relative to appeals and stays of NPDES permits. Should you desire to contest any provision of the permit, your petition should be submitted to the Environmental Appeals Board as outlined in the enclosure and a similar request should also be filed with the Director of the Office of Watershed Management in accordance with the provisions of the Massachusetts Administrative Procedures Act, the Division's Rules for the Conduct of Adjudicatory Proceedings and the Timely Action Schedule and Fee Provisions (see enclosure).

We appreciate your cooperation throughout the development of this permit. Should you have any questions concerning the permit, feel free to contact George Papadopoulos at 617/918-1579.

Sincerely,

David M. Webster

David Webster, Manager
Industrial Permits Branch

Enclosures

cc: MADEP, Division of Watershed Management
All Interested Parties

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act, as amended, 33 U.S.C. §§1251 et seq., and the Massachusetts Clean Waters Act, as amended, Massachusetts General Laws Chapter 21, §§26-53, the

City of Cambridge
Department of Public Works
147 Hampshire Street
Cambridge, MA 02139

is authorized to discharge from:

11 Combined Sewer Overflows (CSOs) listed in Attachment A

to receiving waters named: **Alewife Brook, Charles River**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective **sixty (60) days after the date of signature.**

This permit and the authorization to discharge expire at midnight, five years from the effective date.

This permit supercedes the permit issued on March 26, 1993.

This permit consists of **8** pages and **Attachments A through G** in Part I and 35 pages in Part II including General Conditions and Definitions.

Signed this 27 day of September, 2005

Director
Office of Ecosystem Protection
Environmental Protection Agency
Region I
Boston, MA

Director
Division of Watershed Management
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

Part I.

COMBINED SEWER OVERFLOWS

A. Effluent Limitations

1. During wet weather, the permittee is authorized to discharge combined storm water and wastewater from combined sewer outfalls listed in **Attachment A**, subject to the following effluent limitations.

   a. The discharges shall receive treatment at a level providing Best Practicable Control Technology Currently Available (BPT), Best Conventional Pollutant Control Technology (BCT) to control and abate conventional pollutants and Best Available Technology Economically Achievable (BAT) to control and abate non-conventional and toxic pollutants. The EPA has made a Best Professional Judgement (BPJ) determination that BPT, BCT, and BAT for combined sewer overflow (CSO) control include the implementation of Nine Minimum Controls (NMC) specified below and detailed further in Part I.B. NMCs and Part I.C. Minimum Implementation Levels, of this permit. Implementation of these controls is required by the effective date of the permit.

      i. Proper operation and regular maintenance programs for the sewer system and the combined sewer overflows.

      ii. Maximum use of the collection system for storage.

      iii. Review and modification of the pretreatment program to assure CSO impacts are minimized.

      iv. Maximization of flow to the POTW for treatment.

      v. Prohibition of dry weather overflows from CSOs.

      vi. Control of solid and floatable materials in CSO.

      vii. Pollution prevention programs that focus on contaminant reduction activities.

      viii. Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts.

      ix. Monitoring to effectively characterize CSO and the efficacy of CSO controls.

   b. The discharges shall not cause violations of Federal or State Water Quality Standards.

c. Discharge frequencies and volumes for the Charles River CSO discharges are limited in accordance with the Revised Recommended Plan for the Charles River in MWRA's "Final Environmental Impact Report"(FEIR) and CSO Facilities Plan", July 1997, MA DEP's Administrative Determination and Use Attainability Analysis, December 31, 1997 and Federal court order (U.S. v. M.D.C., et al., No. 85-0489 (D. Mass)) as may be amended. These frequencies and volumes are shown in **Attachment B.**

d. Discharge frequencies and volumes for Alewife Brook CSO discharges are limited in accordance with the Revised Recommended Plan for the Alewife Brook/Upper Mystic River watershed in MWRA's "Final Environmental Impact Report" (FEIR) and CSO Facilities Plan", July 1997, MA DEP's Administrative Determination and Use Attainability Analysis, December 31, 1997 and Federal court order (US v. MDC., et al., No. 85-0489 (D. Mass)) as may be amended. The "Notice of Project Change" document that was submitted by the City of Cambridge and the MWRA on April 30, 2001 and the document "Final Variance Report for Alewife Brook and the Upper Mystic River", July, 2003 revised these frequencies and volumes, which are shown in **Attachment C.**

B. Nine Minimum Controls, Minimum Implementation Levels

The permittee must implement the nine minimum controls in accordance with the documentation submitted December 31, 1996 with a response to EPA comments dated May 1, 1997. The permittee must evaluate, in its annual report (see Part I.D. below) any modifications to the approved program which enhance its effectiveness and can be reasonably implemented during the upcoming year. The proposed level of control must always meet or exceed the Minimum Implementation Levels described in Part I.C.

C. Minimum Implementation Levels

1. Each CSO structure/regulator, pumping station and/or tidegate shall be routinely inspected, at a minimum of once per month, to insure that it is in good working condition and adjusted to minimize combined sewer discharges and tidal surcharging. (NMC # 1, 2 and 4). The following inspection results shall be recorded: the date and time of the inspection, the general condition of the facility, and whether the facility is operating satisfactorily. If maintenance is necessary, the permittee shall record: the description of the necessary maintenance, the date the necessary maintenance was performed, and whether the observed problem was corrected. The permittee shall maintain all records of inspections for at least three years.

   Annually, no later than February 1st, the permittee shall submit a certification to the State and EPA which states that the previous calendar year's monthly inspections were conducted, results recorded, and records maintained.

2. Discharges to the combined system of septage, holding tank wastes or other material which may cause a visible oil sheen or containing floatable materials are prohibited during wet weather when CSO discharges may be active. (NMC# 3,6, and 7).

3. Dry weather overflows (DWOs) are prohibited (NMC# 5). All dry weather sanitary and/or industrial discharges from CSOs must be reported to EPA and the State within 24 hours in accordance with the reporting requirements for plant bypass (See Part 1.F. Unauthorized Discharges and Part II.D.1.e. of this permit).

4. The permittee shall quantify and record all discharges from combined sewer outfalls (NMC# 9). Quantification may be through direct measurement or estimation. When estimating, the permittee shall make reasonable efforts, i.e. gaging, measurements, to verify the validity of the estimation technique. The following information must be recorded for each combined sewer outfall for each discharge event:

    - Estimated duration (hours) of discharge;
    - Estimated volume (gallons) of discharge; and
    - National Weather Service precipitation data from the nearest gage where precipitation is available at daily (24-hour) intervals and the nearest gage where precipitation data at minimum of one-hour intervals is available to the permittee. Cumulative precipitation per discharge event shall be provided;
    - A description of whether the discharge activation and volume are in accordance with the MWRA Final CSO Facilities Plan or the "Notice of Project Change "document, or updates to these documents.

    The permittee shall maintain all records of discharges for at least eight (8) years after the expiration date of this permit.

    Within 3 months of the effective date of this permit, the permittee will submit a CSO monitoring plan to EPA and MADEP for approval, which describes the methods it will use to quantify CSO activations and volumes. The CSO monitoring plan will be implemented upon EPA and MADEP approval. Activation frequencies and discharge volumes required to be submitted in the annual report (see Section I.D.1) shall thereafter be reported in accordance with methods identified in the monitoring plan.

5. The permittee shall maintain identification signs for all combined sewer outfall structures (NMC# 8). The signs must be located at or near the combined sewer outfall structures and easily readable by the public from the land and water. These signs shall be a minimum of 12 x 18 inches in size, with white lettering against a green background, and shall contain the following information:

WARNING:*
CITY OF CAMBRIDGE
DEPARTMENT OF PUBLIC WORKS
WET WEATHER
SEWAGE DISCHARGE
OUTFALL (discharge serial number)

* For existing signs which otherwise meet the requirements of this section, the word "Warning" need not be added.

Where easements over property not owned by the permittee must be obtained to meet this requirement, the permittee will use its best efforts to identify the appropriate landowners and to obtain the necessary easements.

The permittee, to the extent feasible, will add a universal symbol to their warning signs reflecting a CSO discharge, or will place additional signs in languages other than English based on notification from the EPA and the State or on the permittee's own good faith determinations that the primary language of a substantial percentage of the residents in the vicinity of a given outfall structure is not English.

D. Annual Report

By April 30th of each year the permittee shall submit a report which includes the following information;

1. Activation frequency and discharge volume for each CSO during the previous calendar year. The report shall include this information for each of the authorized CSO discharges listed on **Attachment A.**

2. Precipitation during the previous year for each day, including total rainfall, peak intensity, and average intensity.

3. Status of the implementation of CSO abatement work for which the permittee is directly responsible in accordance with the MWRA Final CSO Facilities Plan and the Federal court order (as may be amended).

4. For outfalls listed in Attachment A provide the following information in the Annual Report for years 3 and 5 using the updated MWRA model (or equivalent) for comparison:

   a. A comparison between the precipitation for the previous year and the precipitation in the typical year under future planned conditions used in the MWRA Final CSO Facilities Plan or "Notice of Project Change" document, whichever is appropriate. The comparison shall include the number of events and size of events (including recurrence interval).

   b. A comparison, for each CSO, between the activation volume and frequency for the previous year and the volume and frequency expected during a typical year under future planned conditions.

   c. An evaluation of whether the CSO activation volume and frequency for the previous year is in accordance with the estimates in the MWRA Final CSO Facilities Plan or the "Notice of Project Change" document, given the precipitation which occurred during

the year, and the CSO abatement activities which have been implemented. Where CSO discharges are determined to be greater than the activation frequency or volume in either document above, the permittee shall include a discussion of remaining CSO abatement activities and an assessment of the impact of those projects on attaining the level of CSO control identified in the relevant document, or any amendments thereto.

5. A summary of modifications to the approved NMC program which have been evaluated and a description of those which will be implemented during the upcoming year. In the first annual report submitted in accordance with this permit, the permittee shall submit a public notification plan to describe the measures actively being taken to meet NMC #9, and an evaluation of further measures to enhance the public notification program, including use of web postings with CSO information. (see NMC #9 in Part I A.1.a.viii)

E. CSOs Subject To Water Quality Variances/Reopener

1. CSOs discharging to the Lower Charles River were previously granted a 24 month variance under the Massachusetts Water Quality Standards. The variance conditions for the Charles River were issued on September 2, 1998 and became effective October 1, 1998. This variance has been extended on three different occasions, most recently through October 1, 2007, by MADEP's letter of October 1, 2004. A copy of this determination letter for the variance extension is included as **Attachment D** and the fact sheet accompanying this variance extension is included as **Attachment E**.

2. CSOs discharging to the Upper Mystic River/Alewife Brook were originally granted a 36 month variance under the Massachusetts Water Quality Standards. The Variance became effective on March 5, 1999. This variance has been extended on three different occasions, most recently through September 1, 2007, by MADEP's letter of September 1, 2004. A copy of this determination letter for this variance extension is included as **Attachment F** and the fact sheet accompanying this variance extension is included as **Attachment G**.

3. The permit's discharges must meet Federal and State water quality standards and be consistent with any water quality standards variances or variance extensions approved by the EPA. The variances for the Charles River and for the Upper Mystic River/Alewife Brook noted above were approved by EPA on September 15, 2005. Following the expiration of these EPA-approved variances, EPA may re-open the permit and establish, through a permit modification, limitations and conditions consistent with the water quality standards established by MADEP and approved by EPA.

F. Unauthorized Discharges

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit from those outfalls listed in **Attachment A** of this permit. Discharges of wastewater from any other point sources are not authorized under this permit. The permittee must provide twenty four hour reporting of unauthorized discharges (see section D.1.e. of Part II of the permit) for all dry weather overflows from the combined system.

G. Notice of Elimination

The permittee shall give notice of elimination or change in status of any outfall listed in **Attachment A** as soon as possible in writing to the Director of the Office of Ecosystem Protection at EPA and to the Director of the Division of Watershed Management at the MA DEP.

H. Reporting Requirements

All of the required reports and notifications outlined in this part should be submitted to the addresses in Part J (below) of this permit.

I. Certification and Signature of Reports

All reports required by the permit and other information requested by the Director shall be signed and certified in accordance with section D.2. of Part II of this permit.

J. Report Submission

1. Signed and dated originals of all notifications and reports required herein, shall be submitted to the Director at the following address:

U.S. Environmental Protection Agency
Water Technical Unit (SEW)
P.O. Box 8127
Boston, MA 02114

2. Signed copies of all notifications and reports shall be submitted to the State at:

Massachusetts Department of Environmental Protection
1 Winter Street
Boston, MA 02108
Attn: Mr. Kevin Brander

and

Massachusetts Department of Environmental Protection
Division of Watershed Management
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608

K. Retention of Records

The permittee shall retain all records of all monitoring information, copies of all reports required by this permit and records of all other data required by or used to demonstrate compliance with this permit, for at least eight years. This period may be modified by alternative provisions of this permit or extended by request of the Director at any time.

L. State Permit Conditions

1. This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection under Federal and State law, respectively. As such, all the terms and conditions of this Permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the Massachusetts DEP pursuant to M.G.L. Chap. 21, §43.

2. Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared, invalid, illegal or otherwise issued in violation of State law such Permit shall remain in full force and effect under Federal law as an NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit shall remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.

ATTACHMENT A

CITY OF CAMBRIDGE - CSO SUMMARY

Receiving Water	Discharge Serial No.	Discharge Location
Alewife Brook	CAM-001	Foch Street at Alewife Brook Parkway
	CAM-002	Alewife Brook Parkway at Massachusetts Avenue
	CAM-004	Concord Avenue Rotary
	CAM-400	Alewife Brook at Harrison Avenue Extension
	CAM-401A	Sherman Street and Alewife Brook at B&M Railroad
	CAM-401B	Alewife Brook Parkway at Massachusetts Avenue
Charles River Basin	CAM-005	Lowell Street at Mount Auburn
	CAM-007	Memorial Drive at Hawthorne Street
	CAM-009	Memorial Drive at Old Murray Road
	CAM-011	Plympton Street
	CAM-017	Binney Street at Edwin Land Boulevard

CSO outfalls MWR003 and SOM001A, both located in Cambridge, are maintained by the MWRA and the City of Somerville respectively and are authorized by NPDES permits MA0103284 and MA0101982. Two CSO treatment facilities, at Cottage Farm and Prison Point, also located in Cambridge, are operated by the MWRA and authorized by permit #MA0103284.

Attachment B

Existing and Planned Cambridge CSO typical year discharge characteristics

Discharges to Charles River : Class B - Variance

Outfall	Existing Conditions[1]		Planned Conditions[2]	
	Annual Activation Frequency	Annual Volume (MG)[3]	Annual Activation Frequency	Annual Volume (MG)[3]
CAM005	8	2.51	2	0.78
CAM007	2	0.72	1	0.03
CAM009	6	0.21	1	0.08
CAM011	2	0.07	0	0
CAM017	2	1.07	2	1.23

1. The existing (modeled) CSO discharge volumes and activation frequencies reflect those in Revised Recommended Plan for the Charles River in MWRA's "Final Environmental Impact Report"(FEIR) and CSO Facilities Plan", July 1997.

2. The planned CSO discharge volumes and activation frequencies reflect the completion of the FEIR Implementation Plan as also described in the "Cottage Farm CSO Facility Assessment Report", January, 2004.

3. MG = million gallons

Attachment C

Existing and Planned Cambridge CSO typical year discharge characteristics

Discharges to Alewife Brook ; Class B - Variance

Outfall	Existing Conditions[1]		Planned Conditions through end of variance[2]		Planned Conditions beyond variance[3]	
	Annual Activation Frequency	Annual Volume (MG)[4]	Annual Activation Frequency	Annual Volume (MG)	Annual Activation Frequency	Annual Volume (MG)
CAM001	0	0	5	0.02	5	0.20
CAM002	7	1.52	5	0.95	4	0.72
CAM004	14	7.69	13	12.67	0	0
CAM400	10	0.78	0	0	0	0
CAM401A	7	2.77	5	1.77	5	1.65
CAM401B	25	10.7	8	2.98	7	2.24

1. The current (modeled) CSO discharge volumes and planned CSO discharge volumes and activation frequencies reflect the "Notice of Project Change for the Long Term CSO Control Plan for Alewife Brook", April 30, 2001. The current conditions reflect construction completed under Contract 2A/2B.

2. The planned condition through the end of the variance, or September 1, 2007, represents "Sewer Separation Alternative A" as detailed in "Notice of Project Change" document and does not include the completion of Contracts 8 and 9 as discussed in the "Final Variance Report for Alewife Brook and the Upper Mystic River, July, 2003, MWRA.

3. The planned condition beyond the variance, running through the completion of Contracts 8 and 9 as described in the Final Variance Report.

4. MG = million gallons

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

MITT ROMNEY
Governor

KERRY HEALEY
Lieutenant Governor

ELLEN ROY HERZFELDER
Secretary

ROBERT W. GOLLEDGE, Jr.
Commissioner

Attachment D

DETERMINATION TO EXTEND VARIANCE FOR COMBINED SEWER OVERFLOW DISCHARGES TO LOWER CHARLES RIVER BASIN

October 1, 2004

The Department of Environmental Protection (DEP) hereby extends the Variance for CSO Discharges to the Lower Charles River Basin from October 1, 2004 for a period not to exceed three years (October 1, 2007). This action, which authorizes limited CSO discharges, is taken in connection with NPDES permit nos. MA0103284, MA0101982, and MA 0101192 issued to the Massachusetts Water Resources Authority (MWRA), the City of Cambridge, and the Boston Water & Sewer Commission, respectively. The Variance extension is issued pursuant to the Massachusetts Surface Water Quality Standards at 314 CMR 4.00, and subject to the specific conditions which follow. The Variance Extension is intended to provide time for DEP to obtain the information necessary to determine the appropriate water quality standard and level of CSO control for the receiving waters.

The Department grants this Variance extension based on its findings, as supported by the technical and cost information in the 1997 MWRA CSO Facilities Plan, the subsequent January 2004 Cottage Farm CSO Facility Assessment Report, and other technical reports compiled during the Variance period (notably by the U.S. Geological Survey), demonstrating that implementation of more stringent CSO controls at this time would result in substantial and widespread social and economic impact as specified in 314 CMR 4.03(4). Issuance of the CSO Variance Extension in the Charles River watershed is consistent with EPA Guidance: *Coordinating CSO Long-Term Planning with Water Quality Standard Reviews (July 31, 2001)*, which asserts that longer term variances and renewal of variances are warranted given the extended duration necessary for implementation of Long Term CSO Control Plans (LTCPs). The Department notes that a feasible means to eliminate CSO in the Charles River watershed has not been identified, and therefore a B(CSO) designation for the impacted segment may be warranted; the information gathered during the course of the CSO Variance will be used to determine the highest feasible level of CSO control.

MWRA, the City of Cambridge, and the Boston Water & Sewer Commission shall implement the 1997 Recommended Plan, as modified by the recommendations included in the Cottage Farm CSO Facility Assessment Report ("Revised Recommended Plan"), and shall

specifically the sewer separation work in Cambridge and Brookline, are not presently in the Federal Court Order, yet are critical to achieving a high level of CSO control in the Charles watershed, and at the same time addressing public health risks associated with sewer backups and flooding

The Variance Extension becomes effective upon issuance and will be incorporated into the NPDES/MA permits for the MWRA, the City of Cambridge, and the Boston Water & Sewer Commission. Failure by the MWRA, the City of Cambridge, or the Boston Water & Sewer Commission to comply with the conditions of the Variance prior to permit modification or reissuance will constitute a violation of the existing permit, as well as the Massachusetts Surface Water Quality Standards and Permit Regulations.

VARIANCE CONDITIONS

The CSO Variance Extension is conditional upon MWRA, the City of Cambridge, and the Boston Water & Sewer Commission meeting the following requirements:

A. Implementation of the Revised Recommended Plan

i. MWRA, the City of Cambridge, and the Boston Water & Sewer Commission must implement the Revised Recommended Plan for the Charles River, defined in the 1997 MWRA Final Environmental Impact Report and CSO Facilities Plan and modified by the recommendations for additional work included in the January 2004 Cottage Farm CSO Facility Assessment Report. The implementation schedule shall conform to the requirements of the Federal Court Order, as modified. CSO discharges shall be limited in accordance with the performance of the Revised Recommended Plan, as described in the Cottage Farm CSO Facility Assessment Report.

ii. MWRA, on or before January 1, 2005, shall provide detailed responses to comments submitted on the Cottage Farm CSO Facility Assessment Report.

B. Other Actions to Minimize CSO/Sanitary Discharges

i. MWRA, the City of Cambridge, and the Boston Water & Sewer Commission shall continue to implement the Nine Minimum Controls (NMC), and monitor CSO activations and volumes. The City of Cambridge and the Boston Water & Sewer Commission shall report on an annual basis, beginning on April 30, 2005, CSO activations and volumes in the Charles River Watershed for the previous year . On or before April 30 of each year, MWRA shall provide a Report estimating CSO activations and volumes for all CSO outfalls for the previous year in the Charles River watershed, using the sewer system model.

ii. MWRA shall work with member communities in the Charles River Watershed whose sewer system flows affect CSO discharges to the Charles River, to minimize the impacts of I/I flows, and identify opportunities for I/I removal in the upstream separate sewer systems which may further mitigate CSO discharges. MWRA shall provide technical assistance to communities in developing sewer system models to predict the hydraulic impact and CSO benefits of future flow reductions to be achieved by I/I projects and other sewer system work.

C. Notification to the Public of CSO Discharges and Impacts:

i. MWRA, the City of Cambridge, and the Boston Water & Sewer Commission shall maintain outfall signs which are visible both from the shore and from instream locations for their permitted CSO discharges. Pursuant to the NPDES permit, the following language, at a minimum, shall be included:

WARNING:
WET WEATHER
SEWAGE DISCHARGE
OUTFALL (discharge serial number)

ii. MWRA, the City of Cambridge, and the Boston Water & Sewer Commission shall collaborate to provide informational notices to boathouses and the Community Sailing program to advise the public of CSO discharges and potential public health impacts and to provide contact information and website links. The text of the notice shall be subject to DEP prior approval.

iii. Between March 1 and December 1 of each year, the MWRA shall provide email notice to EPA, DEP, local heath agents, and the Charles River Watershed Association of CSO discharge events at Cottage Farm within 24 hours of the discharge.

iv. MWRA, the City of Cambridge, and the Boston Water & Sewer Commission shall update and maintain their respective websites to include general information regarding CSOs, including potential public health impacts, locations of CSO discharges in the Charles River watershed, and tables listing CSO activations and volumes pursuant to the reporting requirements included in Section B(i).

D. Receiving Water Monitoring

The MWRA shall continue to perform water quality monitoring in the Charles River Basin to assess the impacts of CSO discharges.

MWRA shall submit a Report on the past year's sampling program and a proposal for receiving water sampling for the current year. The Report shall include, at a minimum:

i. A summary of the receiving water sampling data collected over the past calendar year, including sampling locations and parameters.

ii. An interpretive discussion of the results, and a correlation of the data with rainfall/precipitation records and with estimates of active CSO discharges. A discussion of pollutant loads and concentrations from CSO and stormwater sources should also be included in the Report.

iii. A proposed plan for current year sampling activities intended to measure the effect of CSO discharges in the Charles River Basin. The proposed plan shall build upon existing data in the Basin and shall include information on sampling locations and sampling parameters.

B. Infrastructure Planning and Reporting Requirements

The MWRA, City of Cambridge, and Boston Water & Sewer Commission shall submit the following technical reports during the Variance Extension:

i. Cambridge:
On or before March 1 of each year for the term of the CSO Variance, the City of Cambridge shall submit a Progress Report on wet weather pollution abatement measures in the Charles River watershed. The Progress Report shall include:

1. A summary of the implementation status of sewer system, combined sewer system, and stormdrain system improvements in the in the areas tributary to Charles River and to CSO outfalls CAM 005, CAM 007, CAM 009, CAM 011, and CAM 017. The information shall also include the findings from any more detailed and updated planning studies in these areas, or any changed system conditions, which could impact the level of CSO control.
2. A description of the status of the work in the Charles River watershed to eliminate combined manholes.
3. A summary of work done to identify and eliminate illegal wastewater connections to the stormdrain system, including the results from sampling programs to confirm that such connections have been eliminated.
4. A summary of the City's infiltration/inflow removal program in the Charles River watershed, including the measures being taken to

prevent stormwater flows from surcharging the sewer system and contributing to CSO discharges or sewer system backups. This should include measures in place to mitigate or offset the impacts of new wastewater connections to the sewer system.

5. An assessment of the potential for stormwater recharge in the areas tributary to the CSO outfalls, which may provide additional stormwater management and CSO abatement benefits.

ii. Boston Water & Sewer Commission:

On or before April 30 of each year for the term of the CSO Variance, the Boston Water & Sewer Commission shall submit a Progress Report on wet weather pollution abatement measures in the Charles River watershed. The Progress Report shall include:

1. A summary of the implementation status of sewer system, combined sewer system, and stormdrain system improvements in the in the areas tributary to Stony Brook and the Charles River and to CSO outfalls BOS 046 and BOS 049. The information shall also include the findings from any more detailed and updated planning studies in these areas, or any changed system conditions, which could impact the level of CSO control.
2. A summary of work done to identify and eliminate illegal wastewater connections to the stormdrain system in the Charles watershed, including the results from sampling programs to confirm that such connections have been eliminated.
3. A summary of the City's infiltration/inflow removal program in the Charles River watershed, including the measures being taken to prevent stormwater flows from surcharging the sewer system and contributing to CSO discharges or sewer system backups. This should include measures in place to mitigate or offset the impacts of new wastewater connections to the sewer system.
4. An assessment of the potential for stormwater recharge in the areas tributary to the CSO outfalls, which may provide additional stormwater management and CSO abatement benefits.

iii. MWRA:

On or before September 1 of each year, MWRA shall submit a Regional Infiltration/Inflow and CSO Report, which shall include documentation of sewer system and CSO flows, and assessment of MWRA and community I/I control programs. These Reports shall include:

1. A summary of the implementation status of the Revised Recommended Plan in the Charles River Watershed, including

confirm that the hydrologic profile remains typical of average annual rainfall conditions in the watershed.

2. A summary of MWRA operations procedures to minimize CSO discharges in the Charles River watershed and optimize use of the existing conveyance and treatment systems, including operation of the Ward Street Headworks, Prison Point CSO Treatment Facility, and the Cottage Farm CSO Treatment Facility, and any relevant measures put in place through the MWRA's Wastewater Hydraulic Optimization Project to minimize CSO discharges in the Charles River watershed.
3. A summary of MWRA's I/I Control Program and a discussion and review of the I/I Control Programs of MWRA member communities which directly affect the interceptor system and CSO discharges in the Charles Basin, including, but not limited to programs being implemented in Boston, Cambridge, Waltham, Somerville, Brookline, Newton, and Watertown. This analysis shall include modeling of the sewer system with existing and planned I/I projects and the estimated costs of these projects, to determine the CSO and SSO abatement benefits which may be achieved by implementation of these projects by the communities.
4. An assessment, including estimated costs, of the potential for community stormwater recharge to relieve the combined sewer system and minimize CSO discharges from the Cottage Farm CSO Treatment Facility.

Subject to the conditions included in this Variance Extension, MWRA, the City of Cambridge, and the Boston Water & Sewer Commission shall be authorized to have CSO discharges during wet weather events to the Charles River, limited to the performance level of the 1997 FEIR as modified by the January 2004 Cottage Farm CSO Facility Assessment Report.

10/1/04
Date

Cynthia Ules
for Glenn S. Haas
Director
Division of Watershed Management

Attachment E

EXTENSION TO VARIANCE FOR COMBINED SEWER OVERFLOW DISCHARGES CHARLES RIVER BASIN FACT SHEET

This document is intended to provide a summary of CSO abatement activities in the Charles River Basin, and to provide a frame of reference and justification for DEP's decision to extend the CSO Variance for a period not to exceed three years.

I. Present Status of CSO Abatement Work

The MWRA produced its Final CSO Facilities Plan/Environmental Impact Report (FEIR) in July 1997. The FEIR was the result of many years of CSO planning and underwent extensive public, regulatory, and MEPA review as part of the process. Early in the planning process, MWRA characterized the baseline conditions throughout the planning area, including the Charles River Basin, through an extensive metering and modeling program. The FEIR evaluated the costs and benefits of a range of CSO alternatives in the Charles River Basin to address these discharges. The 1997 FEIR recommended plan includes the following elements:

- A $45 million sewer separation program in the Stony Brook subwatershed, which will be completed in September 2006.
- A $4.5 million upgrade to the existing Cottage Farm CSO Treatment facility, which was completed in 2002.
- A $1 million project to improve hydraulic capacity in the Cambridge/MWRA system, which was completed in 1999.
- Regionwide floatables controls, which will be fully implemented by December 2006.

MWRA, BWSC, and Cambridge have made significant investments since the 1980's to improve their wastewater systems and lower CSO discharges to the Charles River, most notably the MWRA improvements that have greatly increased conveyance and pumping capacity to the Deer Island Treatment Plant. Together, these improvements have reduced average annual CSO discharges to the Charles River by 90% from the level in 1988, and seven outfalls have been eliminated. Completion of the projects in the FEIR recommended plan, together with the sewer system improvements underway by BWSC, Cambridge, and Brookline, will further reduce CSO discharges during a typical year to 26.2 million gallons (MG), of which 23.9 MG will receive treatment at the upgraded MWRA Cottage Farm CSO Treatment Facility prior to discharge. The resulting CSO abatement is summarized in the following table:

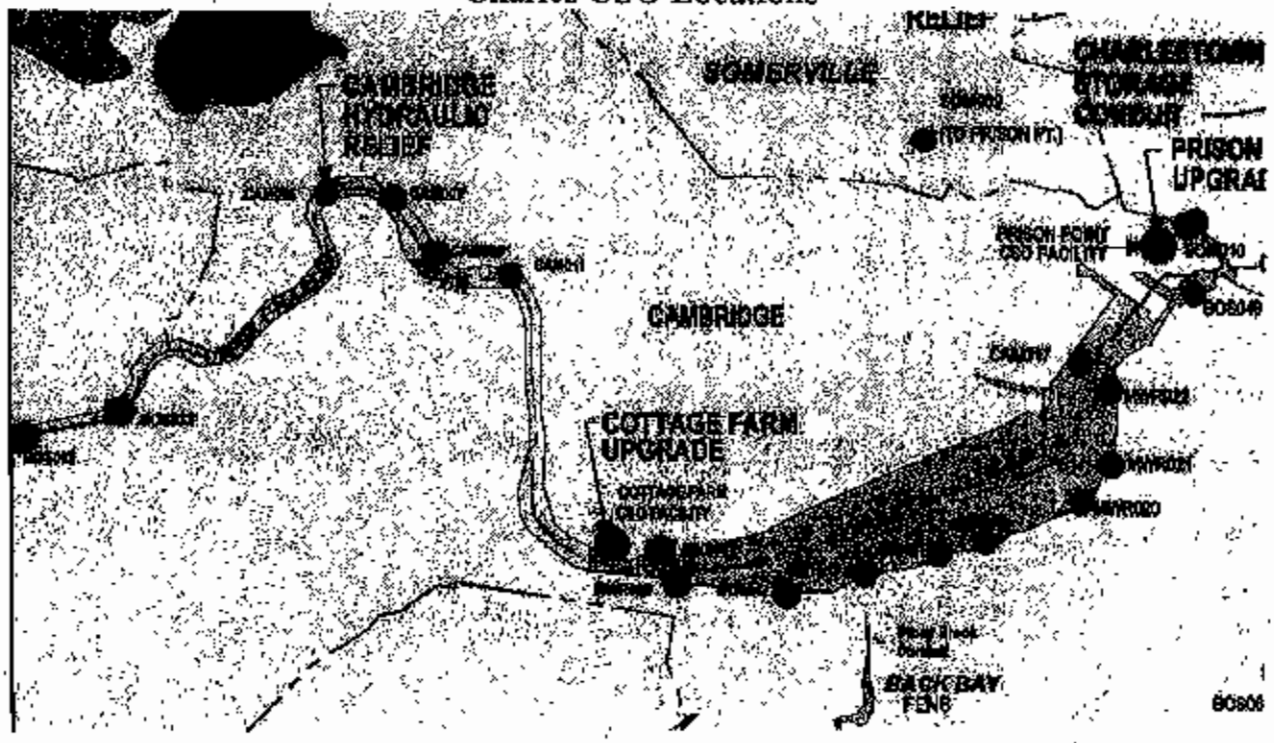
Annual CSO Discharge Frequency and Volume to the Charles River
(for typical year rainfall)

Outfall	Baseline Conditions (1988)		1997 Conditions Prior to FEIR Implementation		FEIR Implementation Plan	
	activations	volume (MG)	activations	volume (MG)	activations	volume (MG)
BOS 032	4	3.17	4	0.05	N/A	eliminated
BOS 033	7	0.26	0	0	N/A	eliminated
CAM 005	6	9.17	8	2.51	2	0.78
CAM 007	1	0.61	2	0.72	1	0.03
CAM 009	19	0.19	6	0.21	1	0.08
CAM 011	1	0.07	2	0.07	0	0
BOS 028	4	0.02	0	0	N/A	eliminated
BOS 042	0	0	0	0	N/A	eliminated
BOS 049	1	0.01	0	0	0	0
CAM 017	6	4.72	2	1.07	2	1.23
MWR 010	16	0.08	7	0.08	0	0
MWR 018	2	3.18	2	2.25	0	0
MWR 019	2	1.32	2	1	0	0
MWR 020	2	0.64	1	0.22	0	0
MWR 021	2	0.5	1	0.09	N/A	eliminated
MWR 022	2	0.43	1	0.05	N/A	eliminated
MWR 201* (treated)	18+	1,547	19	110	6	23.9
MWR 023	39	115	22	44	2	0.13
SOM 010	18	3.38	0	0	N/A	eliminated
Total		1,690 MG		162 MG		26.2 MG

* MWR 201 is the discharge from the Cottage Farm CSO Treatement Facility, which provides detention, screening and disinfection of CSO flows

** Includes system optimization measures recommended by MWRA after 1997 as well as sewer separation and I/I removal projects underway by Brookline and Cambridge.

Charles CSO Locations



DEP and EPA reviewed the information in the FEIR and concurred that the recommended plan in the Charles Basin should move forward without delay. However, DEP and EPA at that time deferred a final determination on the water quality standard and associated level of CSO control in the Charles Basin until additional information on CSO and non-CSO pollutant loads is developed. Accordingly, DEP, with the support of EPA, issued an October 1, 1998 Variance for CSO discharges to the Charles River. The Variance, which was extended to October 1, 2004, requires MWRA to implement the 1997 Recommended Plan and to provide further technical analysis of the costs and benefits of additional CSO controls in the Charles Basin.

II. Variance Data

The CSO Variance required MWRA to carry out additional CSO system and water quality analyses and to contribute funds toward a large-scale stormwater study in the Lower Charles River Basin. These efforts were intended to provide a more complete understanding of the pollutant loads from both stormwater and CSO discharges, so that a more informed review of the costs and cost-effectiveness of CSO abatement strategies could be done.

Stormwater

The pollutant loads attributed to stormwater in the 1997 CSO Plan were based on limited sampling data, much of which was gathered outside of the Charles River Basin. A major focus

and DEP, undertook an extensive and detailed stormwater study in the Charles Basin, from the Watertown Dam to the Science Park Dam at the mouth of the river. The study evolved to have three major deliverables, all of which have been completed and submitted as technical reports:

- Simulation of Runoff in the Charles Basin
- Streamflow, Water Quality, and Contaminant Loads in the Charles Basin
- Potential Effects of Structural Controls and Street Sweeping on Stormwater Loads in the Charles Basin

USGS defined stormwater loads by extensive metering and sampling of the four largest tributaries to the Lower Charles Basin: Stony Brook, Muddy River, Laundry Brook, and Fanueil Brook. In addition, flows and pollutant loads were quantified at the Watertown Dam, which reflect contributions from upper and middle reaches of the watershed, and at three subdrainage areas in the basin, with defined land uses. The potential pollutant reductions from stormwater Best Management Practices (BMP) and street sweeping was evaluated through researching available studies and literature, and utilizing watershed information to assess the scope, siting, and feasibility of a structural BMP program in the watershed (although the costs of implementing this BMP program were not estimated).

The major conclusions of the USGS work are

- Stormwater quality in the Lower Charles River Basin is generally similar to or slightly better than that reported in other urban areas of the country.
- Event-Mean Concentrations of fecal coliform in stormwater and tributary streams ranged from 2,000 to 70,000 colonies/100ml.
- The length of the dry period antecedent to a rainfall event is a critical factor in affecting stormwater quality. The longer the antecedent dry period, the larger the stormwater pollutant load.
- The largest single source of fecal coliform to the Lower Charles Basin is Stony Brook, where fecal coliform loads are very large during storm events (and presently include CSO discharges). The ongoing sewer separation and illicit connection removal programs are expected to significantly reduce this loading.
- Full implementation of structural BMPs and street sweeping in the watershed would result in an estimated 14% reduction in the fecal coliform load from stormwater.

It is also important to note that, due to the commitment of substantial resources by EPA, DEP, Charles River Watershed Association (CRWA), and the communities in the Lower Charles Basin, there has been substantial progress in eliminating illegal wastewater connections to storm drains and developing "state of the art" stormwater management plans. There has been a resulting significant and measurable improvement in water quality in the River over the past five years, with the River meeting the swimming standard for indicator bacteria approximately 69% of the time compared with only 19% back in 1995. While water quality during dry weather conditions is generally good (meets swimming standard 80% of time), water quality continues to

be impaired during wet weather conditions. Additional resource commitments toward stormwater management and illegal connection removal will continue to be a key element of work needed for further improvements to water quality in the Charles River watershed.

Cottage Farm CSO Facility Assessment Report

A critical condition of the Charles CSO Variance was the submittal of the Cottage Farm CSO Reassessment Report. This Report was submitted in January 2004 and underwent a lengthy public review and comment period, extending to May 2004. The Report evaluated higher levels of control in the form of additional CSO storage at the Cottage Farm facility to reduce activations and volumes at this location, which is the largest and most frequent CSO discharge to the Charles River, but which is treated prior to discharge. The Report also included an updated characterization of the interceptor and collector sewer system which affects combined sewer overflows at Cottage Farm, and identified specific system optimization measures to further minimize CSO volumes. CSO alternatives were assessed using MWRA's sewer system and receiving water models. This work included both assessment of design storm events and a "typical" rainfall year to estimate the flows and water quality impacts from the three major pollutant sources: CSOs, stormwater, and upstream sources. [From the 1994 Final CSO Conceptual Plan, the estimated costs to completely separate combined sewers in the Charles watershed and eliminate CSOs is $572 million.]

Based on the technical analysis, MWRA has recommended approximately $300,000 in system optimization measures, which will further reduce CSO discharges at Cottage Farm. These measures include construction of an interconnection between the North Charles Relief Sewer and the South Charles Relief Sewer, optimizing dewatering operations at the Cottage Farm Facility, and raising weirs at the two weir chambers to Cottage Farm by 0.5 feet. These actions, together with the 1997 recommended CSO facilities, will reduce treated CSOs from Cottage Farm to an annual average of six discharge events, totaling 24 MG.

It is very important to note that the Revised Recommended Plan also relies on sewer separation projects in Cambridge and Brookline, and that these projects are vital to achieving the predicted CSO abatement. Overflow volumes at Cottage Farm are very sensitive to sewer separation in the CAM 011 and Cambridgeport areas in particular, and the modeling of the Recommended Plan included this work in the projected CSO volume reductions. DEP notes that this sewer separation work is presently scheduled over a lengthy implementation period at considerable cost, which will impact the timing of achieving the projected benefits in the Charles River basin. Any delays in implementation of these projects will clearly defer the full benefits of the MWRA's CSO control plan in the Charles watershed, and parties to the Federal Court Order may consider taking actions to ensure that these projects move forward without undue delays. These sewer separation projects are not presently included in the Federal Court Order.

III. DEP Determinations and Next Steps

DEP noted in its comments on the Cottage Farm Report that construction of CSO storage facilities at Cottage Farm was not a cost-effective measure for CSO control, and that MWRA

efforts in managing broader wet weather impacts. This approach will be important to optimizing use of the Cottage Farm CSO Treatment Facility and improving water quality in the lower Charles River Basin."

DEP has concluded, consistent with many of the public comments received on the Report, that there remains excessive infiltration and inflow in community sewer systems and significant pollution from illegal discharges to the stormdrains in the Charles River watershed. Further water quality improvements in the Charles River watershed will rely largely on endeavors to address these sources as they not only contribute to reduction in the activations and volumes of CSO discharges, but address broader wet weather issues affecting the Charles River and its tributaries.

DEP also acknowledges the importance of proper operation, maintenance, and rehabilitation of both MWRA and community sewer systems to assure optimized conditions for conveying wastewater flows through the system for treatment and discharge at Deer Island. Sewer system repairs and cleaning have resulted in improved conveyance capacities in a number of locations and have also contributed to mitigating CSO discharges by addressing localized system flow constraints.

The volume of the additional CSO storage tank at Cottage Farm associated with a one-year design storm and necessary to eliminate discharges at Cottage during a typical year was evaluated in the Report to be 9.3 million gallons. The cost and environmental impact of a storage tank of this volume at the Cottage Farm location are considerable, and DEP does not presently support construction of the storage tank. Alternatively, DEP favors an approach to identify and remove inflow and infiltration from the sewer system to further minimize CSO discharges at Cottage Farm, while at the same time addressing aging and defective infrastructure in MWRA and community systems. Opportunities for infiltrating stormwater and recharging groundwater may also provide relief of the system and should be explored. Such a strategy may achieve enhanced CSO abatement benefits, and have the added benefits of reducing the risk of SSO events and sewer system backups. The work necessary to accomplish these flow reductions will primarily be related to sewer separation work and I/I work on the separate sewer system.

Sewer Separation Work

MWRA evaluated additional sewer separation work in the Town of Brookline and determined that there would be little CSO benefit to pursuing these projects. Pursuant to DEP comments on the Cottage Farm Report, MWRA should provide the costs of the remaining sewer separation work and the amount of inflow which will be permanently removed by these projects. This information will allow DEP and EPA to more fully assess the potential benefit of this work and determine if these projects are cost-effective CSO abatement measures.

As noted earlier, the MWRA plan relies on extensive sewer separation in the City of Cambridge and Town of Brookline to achieve the projected CSO abatement benefits. MWRA needs to collaborate with the Cities of Cambridge and Brookline and provide a definitive cost

and schedule for this work.

Infiltration and Inflow Removal

Inflow and infiltration in community systems will also be critical to reducing stormwater flow into the sewer system and further mitigating MWRA combined sewer overflows as well as community system sanitary sewer overflows. While the communities must commit resources to address sources of excessive I/I and causes of SSO events, MWRA must work with the communities to evaluate the overall benefits of such programs on the activations and frequency of CSO discharges.

Infiltration of Stormwater Flows

As the focus of the additional work is to identify and implement measures to reduce the volume of stormwater in the combined sewer system, and thereby diminish CSO discharges at Cottage Farm, strategies for eliminating stormwater from the system by infiltration and recharging groundwater should be explored by the CSO communities.

IV. CSO Variance Extension

In the Cottage Farm Report, MWRA requests that DEP extend the CSO Variance in the Charles River Basin:

"……given the extent of ongoing and planned work to reduce CSO discharges to the Charles River and efforts by others to continue to reduce non-CSO sources of pollution, as well as further consideration by the regulatory agencies of possible "triggers" for defining conditions that may warrant higher levels of CSO control in the future, MWRA recommends that DEP defer its final determination of the water quality standard for the Charles River. Rather, an extension of the variance period would allow additional time for the ongoing work to be completed and the impacts measured, while other opportunities for further incremental improvement are explored."

DEP has reviewed:

1. The technical and financial information included in the MWRA's Cottage Farm CSO Facility Assessment Report, and public comments received on this document;

2. The USGS technical Reports on stormwater flows and pollutant loads in the Lower Charles River Basin;

3. Recent infrastructure studies and Infiltration/Inflow Reports for communities in the

4. The MWRA's enhanced financial capability analysis, which considers the costs of shelter in the Boston Metropolitan area.

These technical studies and Reports indicate that higher levels of CSO control appear feasible through a combination of regional actions, yet more information on the benefits of existing CSO projects and potential for further reductions through control of infiltration/inflow will be critical to determine the highest feasible level of CSO control in the Charles River watershed.

Substantial and Widespread Social and Economic Impact

The Department has emphasized cost-effectiveness for CSO long-term control plans, to ensure that resources for pollution abatement actually provide improvements in water quality. The principles of cost-effectiveness and water quality benefits have been a major factor used by MWRA in the development of its present $700 million CSO Abatement Plan. MWRA will spend more than $400 million on CSO projects over the next eight years. MWRA sewer rates are among the highest in the nation, and are projected to increase at an average annual rate of 6.4% over the next eight years. Implementation of the Revised Recommended Plan will reduce the untreated CSO discharges to the Charles River to two or fewer per year on average, and will reduce the number of treated CSOs discharged at Cottage Farm to six activations per year. In accordance with DEP CSO Guidance, cost-effectiveness, protection of sensitive uses, and the financial capability of CSO permittees are all important factors in making determinations on the appropriate level of CSO control. The Variance is designed provide additional information which allows for a more detailed analysis of these factors to support a final CSO determination.

MWRA submitted data related to the Department's finding of "substantial and widespread economic and social impact," the basis for its issuance of a Variance in 1997 See 314 CMR 4.03(4)(f). The Department has reviewed a report by Robert N. Stavins, Assessment of the Economic Impact of Additional Combined Sewer Overflow Controls on Households and Communities in the Massachusetts Water Resources Service Area, dated March 17, 2004. The Department also reviewed the Affordability Analysis Worksheets included in Appendix H of the Cottage Farm Report dated January 2004, which are based on EPA's Interim Economic Guidance for Water Quality Standards.

Although EPA is responsible for approving state water quality standards, the state reviews the circumstances in each case to determine whether there are substantial and widespread economic and social impacts. Neither DEP nor EPA mandates use of the methodology in EPA's Interim Economic Guidance for Water Quality Standards, and the Department encourages CSO dischargers to submit information most relevant to their circumstances. Generally, the Department considers the costs of water service and stormwater programs as potentially affecting the economic analysis. Although amenable to calculation, the various financial projections are only as accurate as the underlying assumptions.

MWRA's submittals show an inconclusive result on the matrix included in the EPA

Guidance, and the additional report demonstrates the effects of high housing costs on median household income and the ability to fund additional CSO controls. The Department believes that median household income (MHI), the most influential factor in the EPA Guidance, is one indicator of capacity to afford pollution control costs. The Department has concluded, however, that adjusting the median household income to reflect the region's cost of living is warranted to provide a more meaningful measure of affordability.

While some cities may enjoy increased affordability when incomes are adjusted for cost of living, the high cost of living in the Boston area consumes a relatively high percentage of income. For example, in the Boston MSA, the median household income in 2001 was $52,792. When cost of living is taken into account, the adjusted median household income is $38,961, a reduction of approximately 26% (ACCRA, Metropolitan Area Planning Council; compare to Atlanta with a comparable MHI of $51,948 and an Adjusted MHI of $53,171). Using the EPA methodology with this adjustment; the results more accurately support a continued finding by the Department that a variance is warranted on the basis of substantial and widespread economic and social impact. The demonstration for a variance is less rigorous than for a final water quality classification determination. Notwithstanding this finding, the Department will evaluate the information required by the variance to determine whether there are additional cost-effective CSO controls.

Determination to Extend Variance

Based on these important considerations, DEP has determined that proceeding at this time with controls beyond those presently included in the Revised Recommended Plan in the Cottage Farm CSO Facility Assessment Report would result in substantial and widespread social and economic impact as specified in 314 CMR 4.03(4), and that an extension to the CSO Variance is appropriate at this time. Issuing of the CSO Variance Extension in the Charles watershed is consistent with EPA Guidance: *Coordinating CSO Long-Term Planning with Water Quality Standard Reviews (July 31, 2001)*, which asserts that longer term variances and renewal of variances are warranted given the extended duration necessary for implementation of LTCPs. A determination on the highest feasible level of CSO control and associated water quality standard will therefore be deferred until sufficient technical information can be developed during the course of the CSO Variance extension.

Future Actions

(1) The Variance for CSO discharges to the Lower Charles River Basin will be extended by a period not to exceed 3 years (October 1, 2007).

(2) MWRA, the City of Cambridge, and the Boston Water & Sewer Commission shall implement all elements of the Recommended Plan included in the 1997 Final CSO Facilities Plan/Environmental Impact Report and the further controls included in the Cottage Farm CSO Facility Assessment Report. The required schedule for these actions will be subject to negotiation by parties to the federal court order.

provide public notice of CSO discharges.

(4) MWRA shall continue to implement and report on their Receiving Water Monitoring Program in the Lower Charles River watershed.

(5) DEP will work with EPA, MWRA and its member communities to implement the recommendations of the MWRA Regional Infiltration/Inflow Task Force and MWRA's I/I Reduction Plan to minimize the impacts of I/I flows, and, where possible, identify opportunities for I/I removal programs which may further mitigate CSO discharges.

(6) At the end of the Variance extension, DEP will hold a Public Hearing once the Department issues a Tentative Decision on the Water Quality Determination for the Lower Charles River Basin. This will allow another opportunity for all interested parties to provide input to EPA and DEP on the Proposed Level of CSO Control for the Basin.

COMMONWEALTH OF MASSACHUSETTS
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Attachment F

DETERMINATION TO EXTENSION TO VARIANCE FOR CSO DISCHARGES TO ALEWIFE BROOK/UPPER MYSTIC RIVER BASIN

The Department of Environmental Protection (DEP) hereby extends the Variance for CSO Discharges to the Alewife Brook/Upper Mystic River Basin from September 1, 2004 for a period not to exceed three years (September 1, 2007). This action, which authorizes limited CSO discharges, is taken in connection with NPDES permit nos. MA0103284, MA0101974, and MA0101982, issued to the Massachusetts Water Resources Authority (MWRA), the City of Somerville, and the City of Cambridge, respectively. The Variance extension is issued pursuant to the Massachusetts Surface Water Quality Standards at 314 CMR 4.00, and subject to the specific conditions which follow. The Variance Extension is intended to provide time for DEP to obtain the information necessary to determine the appropriate water quality standard and level of CSO control for the receiving waters.

The Department grants this Variance extension based on its findings, as supported by the technical and cost information in the 1997 MWRA CSO Facilities Plan, the subsequent July 1, 2003 MWRA Final Variance Report, and affordability analyses demonstrating that implementation of more stringent CSO controls at this time would result in substantial and widespread social and economic impact as specified in 314 CMR 4.03(4). Issuance of the CSO Variance Extension in the Alewife watershed is consistent with EPA Guidance: *Coordinating CSO Long-Term Planning with Water Quality Standard Reviews (July 31, 2001)*, which asserts that longer term variances and renewal of variances are warranted given the extended duration necessary for implementation of LTCPs. The Department notes that a feasible means to eliminate CSO in the Alewife Brook/Upper Mystic watershed has not been identified, and therefore a B(CSO) designation for the impacted segment may be warranted; the information gathered during the course of the CSO Variance will be used to determine the highest feasible level of CSO control.

MWRA and the Cities of Cambridge and Somerville shall implement the revised recommended plan included in the July 1, 2003 Final Variance Report in place of the CSO abatement plan for the Alewife Brook/Upper Mystic Basin included in the approved 1997 MWRA CSO Facilities Plan. The implementation schedule will be as set forth in modifications to the Federal Court Order.

the MWRA and/or the Cities of Cambridge or Somerville to comply with the conditions of the Variance prior to permit modification or reissuance will constitute a violation of the existing permit, as well as the Massachusetts Surface Water Quality Standards and Permit Regulations.

VARIANCE CONDITIONS

The CSO Variance Extension is conditional upon MWRA and the Cities of Cambridge and Somerville meeting the following requirements:

A. Implementation of the Revised Recommended Plan

MWRA and the Cities of Cambridge and Somerville shall implement the $74 million Revised Recommended Plan in the Alewife Brook/Upper Mystic River watershed to abate CSO discharges. The implementation schedule shall conform to the requirements of the federal court order, as modified. CSO discharges shall be limited in accordance with the performance of the Revised Recommended Plan, as characterized in the July 1, 2003 Final Variance Report.

B. Other Actions to Minimize CSO/Sanitary Disharges

i. MWRA and the Cities of Cambridge and Somerville shall continue to implement the Nine Minimum Controls (NMC), and monitor CSO activations and volumes. Cambridge and Somerville shall report on a quarterly basis, beginning on January 1, 2005, CSO estimates of activations and volumes in the Alewife Brook/Upper Mystic watershed. On or before April 1 of each year, MWRA shall provide a report estimating the CSO activations and volumes for all CSO outfalls for the previous year in the Alewife Brook/Upper Mystic River watershed, using the sewer system model.

ii. MWRA shall continue to work with EPA, DEP and its member communities in implementing the recommendations of the MWRA Regional Infiltration/Inflow Task Force to minimize the impacts of I/I flows, and, where possible, identify opportunities for I/I removal in the upstream separate sewer systems which may further mitigate CSO discharges.

C. Notification to the Public of CSO Discharges and Impacts:

i. MWRA and the cities of Cambridge and Somerville shall maintain outfall signs which are visible both from the shore and from instream locations for their permitted CSO discharges. Pursuant to the NPDES permit, the following language, at a minimum, shall be included:

WARNING:
WET WEATHER
SEWAGE DISCHARGE
OUTFALL (discharge serial number)

ii. MWRA and the Cities of Cambridge and Somerville shall maintain informational signs at John Wald Park and other public access locations identified by DEP to advise the public of CSO discharges and potential public health impacts and to provide contact information and website links. The text of the notice shall be subject to DEP prior approval.

iii. MWRA and the Cities of Cambridge and Somerville shall issue a joint press release by April 15 each year to watershed advocacy groups, local health agents, property owners subject to flooding in the Alewife watershed (as defined by DEP in consultation with FEMA and DEM), and newspapers of local circulation in the Alewife Brook/Upper Mystic River watershed, which shall include general information on CSOs, their locations in the Alewife Brook/Upper Mystic River watershed, and potential health risks posed by exposure to CSO events.

iv. The City of Cambridge, in collaboration with MWRA and Somerville, shall provide email notice to EPA, DEP, local health agents, and the Mystic River Watershed Association of CSO discharge events in the Alewife Brook watershed within 24 hours of the discharge.

v. MWRA and Cities of Cambridge and Somerville shall update and maintain their respective websites to include general information regarding CSOs, potential health impacts, locations of CSO discharges, web links to CSO communities and watershed advocacy groups, and information from the most recent information on CSO activations and volumes in the Alewife Brook/Upper Mystic River watershed.

D. Receiving Water Monitoring

The MWRA shall continue to perform water quality monitoring in the Alewife/Upper Mystic Basin to assess the impacts of CSO discharges.

Each year, on or before April 30 for the duration of this Variance, MWRA shall submit to DEP and EPA a Report on the past year's sampling program and a proposal for receiving water sampling for the current year. The Report shall include, at a minimum:

i. A summary of the receiving water sampling data collected over the past calendar year, including sampling locations and parameters.

ii. An interpretive discussion of the results, and a correlation of the data with rainfall/precipitation records and with estimates of active CSO discharges.

iii. A proposed plan for current year sampling activities intended to measure the effect of CSO discharges in the Alewife/Upper Mystic Basin. The proposed plan shall build upon existing data in the Basin and shall include information on sampling locations and sampling parameters.

B. Infrastructure Planning Requirements

The Cities of Cambridge and Somerville, along with MWRA shall cooperatively work on studies and investigations of their sewer systems, combined sewer systems, and stormdrain systems as appropriate to characterize their systems and identify alternative facilities to address public health risks associated with CSOs and sewer backups. These efforts shall also consider related and contributing factors such as infiltration/inflow control. Each permittee shall produce a Report, as follows:

i. Cambridge:
On or before June 1, 2006, the City of Cambridge shall submit a System Assessment Report which shall include:

1. A description of the sewer system, combined sewer system, and stormdrain system in the areas tributary to Alewife Brook and to CSO outfalls CAM 001, CAM 002, and CAM 401A/401B. Mapping shall be included to show the location and size of pipes and direction of flows, and the connections to the MWRA interceptor system.
2. A description of the status of the work in the Alewife watershed to eliminate combined manholes.
3. Based on system characterization and system metering/modeling, an assessment of system flows and conditions, identifying areas where capacity constraints cause sewer surcharging or backups, and noting system controls used to minimize CSO discharges.
4. A summary of any infiltration/inflow studies on the separate sewer system in the Alewife watershed, including any recommendations from studies and implementation measures being taken to address I/I sources.
5. An analysis which presents information on the costs and technical constraints of additional CSO control through hydraulic relief, sewer separation, or other collection system controls.
6. A recommended plan to address any areas determined to have excessive infiltration/inflow, or areas subject to sewer backups.

Cambridge shall submit a scope of work to DEP and EPA for approval for this effort on or before January 3, 2005.

ii. Somerville:

On or before September 1, 2005, Somerville shall submit a Tannery Brook Drain Report which shall include:

1. A description of the sewer and drain system in the Tannery Brook sub-basin, including mapping to show the location and size of pipes and direction of flows, and connections to the MWRA interceptor system.
2. Based on system characterization and system metering/modeling, an assessment of system flows and conditions, identifying areas where capacity constraints cause sewer system and drain system surcharging or backups.
3. A summary of infiltration/inflow studies on the separate sewer system in the Tannery Brook sub-basin, including any recommendations from studies and implementation measures being taken to address I/I sources.
4. An analysis of the feasibility, costs, and technical constraints of additional sewer and drain infrastructure needed to eliminate CSO discharges at SOM 001A through hydraulic relief, sewer separation, or other collection system controls.
5. A recommended plan to address any areas determined to have excessive infiltration/inflow, or areas subject to sewer backups.

On or before June 1, 2006, Somerville shall submit a System Assessment Report, which builds on the Tannery Brook Drain Report and the 1974 Wastewater Facilities Plan which shall include:

1. A description of the sewer system, combined sewer system, and stormdrain system throughout the city, identifying areas tributary to Alewife Brook, Mystic River, and to CSO outfalls SOM 001A and SOM 007A. Mapping shall be included to show the location and size of pipes and direction of flows, and connections to the MWRA interceptor system.
2. Based on system characterization and system metering/modeling, an assessment of system flows and conditions, identifying areas where capacity constraints cause sewer surcharging or backups, and noting system controls used to minimize CSO discharges.
3. A summary of infiltration/inflow studies on the separate sewer system, including any recommendations from studies and implementation measures being taken to address I/I sources.
4. An analysis which presents information on the costs and technical constraints of additional CSO control through hydraulic relief, sewer separation, or other collection system controls in areas of the City where combined sewer systems exist.
5. A recommended plan to address any areas determined to have excessive infiltration/inflow, or areas subject to sewer backups.

Somerville shall submit a scope of work to DEP and EPA for approval for this effort on or before January 3, 2005.

iii. MWRA:
On or before January 1, 2007, MWRA shall submit a CSO Abatement Status Report and Plan. This Report shall include, at a minimum:

1. A summary of the implementation status of the $74 million Revised Recommended Plan, including information on past and present CSO activations and volumes in the Alewife/Mystic watershed, and the schedule for the remainder of the work.
2. A summary of MWRA operations procedures to minimize CSO discharges in the Alewife/ Mystic watershed, including operation of the Alewife Brook Pump Station and CSO facilities at MWR 003, and any relevant measures put in place through the MWRA's Wastewater Hydraulic Optimization Project.
3. A discussion and review of the system characterizations done by Cambridge and Somerville for their sewer and combined sewer systems, and, as necessary, updating of the CSO system model to accurately represent system conditions.
4. A review of the alternatives analysis presented in the Cambridge and Somerville System Assessment Reports, and based on this review, identification of feasible, cost-effective CSO control measures that benefit water quality in the Alewife/Upper Mystic watershed, and which optimize the CSO controls provided by the facilities included in the recommended plan in the July 1, 2003 Final Variance Report.

MWRA shall submit a scope of work to DEP and EPA for approval for this effort on or before September 1, 2006.

Subject to the conditions included in this Variance Extension, MWRA, and the Cities of Cambridge and Somerville shall be authorized to have CSO discharges during wet weather events to the Alewife Brook and Mystic River, limited to the performance level of the Revised Recommended Plan as established in the July 2003 Final Variance Report.

9/1/04
Date

Glenn S. Haas
Director
Division of Watershed Management

9/1/2004

EXTENSION TO VARIANCE FOR THE MWRA CSO CONTROL PLAN ALEWIFE BROOK/UPPER MYSTIC RIVER BASIN FACT SHEET

This document is intended to provide a summary of the activities that have taken place since DEP's issuance of the CSO Variance for the Alewife Brook/Upper Mystic River Basin, and to provide a frame of reference for DEP's decision to extend the Variance for a period not to exceed three years.

Background Discussion

A 3-year Variance for CSO discharges to the Alewife Brook/Upper Mystic River Basin was issued by DEP on March 5, 1999. The Variance is a short-term modification of the Water Quality Standards allowing limited CSO discharges from the outfalls along the Alewife Brook/Upper Mystic River permitted to the Massachusetts Water Resource Authority (MWRA) and the Cities of Cambridge and Somerville, subject to specific conditions. The CSO Variance was issued to allow time for DEP to obtain the information necessary to determine the appropriate water quality standard and level of CSO control for the Basin. The Variance requires the implementation of the cost-effective CSO control actions included in the MWRA Final CSO Facilities Plan/ Environmental Impact Report and other actions necessary to properly assess pollutant loads in the Basin and minimize the impact of CSO discharges.

The March 5, 1999 Alewife Brook/Upper Mystic River Basin Variance included the following specific conditions of the MWRA and the Cities of Cambridge and Somerville:

- Implement the $12.1 million CSO control program in the 1997 FFP/EIR in the Alewife Brook/Upper Mystic River Basin (these controls were determined to be cost-effective).
- Monitor and estimate CSO activations and volumes.
- Prepare and submit a Report on the CSO abatement benefit of infiltration and inflow (I/I) reduction programs.
- Implement and report on water quality sampling programs in the Alewife Brook/Upper River Mystic Basin, including in-stream and stormwater sampling.
- By January 1, 2002, submit a report summarizing information gathered during the Variance process and reassessing the costs and benefits of additional CSO controls in the Alewife Brook/Upper Mystic River Basin, up to and including elimination of CSOs.

The January 1, 2002 Reassessment Report was intended to provide the basis for a final determination on the level of CSO controls to be required.

- Nine Minimum Controls: MWRA, Somerville and Cambridge to continue with implementation of the Nine Minimum Control programs, in accordance with approved plans filed with DEP and EPA. [Based on extensive public comments, DEP required MWRA and Cambridge to significantly expand the Public Notification element of the Nine Minimum Controls].

- Metering/Flow Estimation of CSOs: MWRA, Somerville and Cambridge to estimate the volumes and durations of CSO discharges through the use of meters and the MWRA sewer system model.

- On July 1, 1999, MWRA submitted a report titled *Re-evaluation of Additional I/I Controls and Update of 1994 Master Plan for Infiltration/Inflow Strategies*. In that report MWRA concluded that "Any degree of I/I control implemented will still not have a measurable impact on CSOs." DEP has not concurred with this finding and instead continues to work with EPA, MWRA, the MWRA member communities, and other stakeholders to identify strategies and opportunities to address I/I, which may further mitigate CSO discharges.

- MWRA provided to communities in the Alewife Brook/Upper Mystic River Basin: the MWRA Best Management Practices (BMP) plan; GIS sewer system mapping; and, where requested, technical assistance on illegal connection removal programs.

Actions to Further Assess CSO/Stormwater Pollutant Loads

- The Variance required MWRA, Somerville and Cambridge to perform sampling of stormwater and boundary loads to the Basin in order to validate the assumptions and findings of the Final CSO Facility Plan. The goals of this activity were to quantify wet and dry weather pollutant loads, enhance the existing receiving water model, and to provide information to support an analysis of the benefits of further CSO and stormwater controls.

- MWRA, Cambridge and Somerville were required to sample multiple locations in the Basin. This sampling data was compiled to establish baseline conditions and to monitor water quality improvements from the many initiatives underway in the Basin.

First
Variance Extension

On December 14, 2001, MWRA submitted a request to DEP to extend the Alewife Brook/Upper Mystic River Basin Variance for 18 months to September 5, 2003 and defer the requirement for the CSO Reassessment Report until July 1, 2003. After review of public comments on the MWRA request, DEP agreed that a 18-month

extension was reasonable and necessary to allow sufficient time to complete the data collection and technical reports required under the Variance and on May 5, 2002, extended the Variance by 18-months to September 5, 2003.

Support for First Variance Extension

In the course of implementing the 1997 CSO control program, the City of Cambridge and MWRA determined during the design phase that the extent of the combined sewer system in Cambridge far exceeded that documented in the 1997 FEIR. An unknown CSO outfall was also discovered. The MWRA subsequently determined that the CSO activations and volumes in this basin greatly exceeded that estimated in the 1997 FEIR, and that the 1997 recommended plan no longer represented a cost-effective approach to mitigate CSO discharges.

To address this new information, MWRA and Cambridge completed a re-evaluation of the original CSO control plan for Alewife Brook, and on April 30, 2001, filed a Notice of Project Change with MEPA. While the level of CSO control for the revised plan is comparable to the original 1997 plan and remains essentially one of targeted sewer separation, certain elements of the original plan, including areas slated for separation, have been substantially modified, resulting in a change in expected impacts and mitigation measures. The estimate of annual CSO volume and activation frequency increased significantly and the projected costs of the project increased nearly six-fold, from $12 million to approximately $74 million. Notably, sewer separation associated with the CAM004 outfall will require construction of a new stormwater outfall to convey flows to a new wetland detention basin proposed within the MDC Alewife Reservation. This component was not in the original recommended plan and introduces an additional element to the scope of work that is substantially different from the typical pipe installation work in streets associated with the sewer separation activities.

The NPC indicated the following benefits associated with the revised project:

- ✓ 84 percent reduction in annual CSO volume discharged in a typical year;
- ✓ improved stormwater quality resulting in a reduction in stormwater pollutant loads despite increased quantity of flows;
- ✓ increased level of flood protection for Cambridge residential neighborhoods in the CAM004 tributary area; and
- ✓ creation of additional wetlands and enhancement of walking trails in the Alewife Reservation.

In its September 15, 2001 Certification on the NPC, MEPA required that MWRA and Cambridge prepare and file with MEPA a comprehensive Response to Comments (RTC). On May 30, 2003 MWRA/Cambridge filed the RTC. The CSO Control Plan now includes a larger stormwater detention basin in the Alewife Reservation (including on-site wetland replication and Compensatory Flood Storage) that has additional benefits related to Habitat, Public Access, Recreation, and Public Education. The work in the Alewife Reservation has been coordinated with staff from the MA Department of Conservation and Recreation (DCR), formerly the MDC. The reassessment of predicted peak separate stormwater flows from the separation project indicates that there will be a "slight decrease to the flows to Alewife Brook after project implementation." DEP concurred with the $74 million CSO abatement plan as a suitable substitute for the original $12 million plan, given the changed conditions. However, DEP reserved judgment on the final level of CSO control and water quality standard until sufficient information was compiled during the course of the CSO Variance.

Final Variance CSO Reassessment Report

On July 1, 2003, in accordance with Section C. (1) of Alewife/Upper Mystic CSO Variance, MWRA submitted to DEP and EPA the Final Variance Report for the Alewife Brook and Upper Mystic River. Notice of availability of the Final Variance Report was also sent to all parties who have provided comments during the CSO planning process (in this watershed). DEP requested that MWRA also submit an announcement of availability to the MEPA Office. This was published in the July 8th Environmental Monitor.

This report was intended to provide the detailed technical and financial information to support the Final CSO abatement plan in the Alewife/Upper Mystic watershed. In the Final Variance Report, MWRA did not propose any CSO abatement facilities beyond those included in their $74 million plan. Based on the technical and financial analysis included in the Final Variance Report, MWRA contended that the criteria needed to support a B/CSO classification was met, and the Authority requested that DEP take such administrative action.

Second Variance Extension

During public review of the Final Variance Report, several advocacy groups and other stakeholders requested that DEP allow additional time for review and comment on this critical document. This was most clearly and emphatically stated at the DEP Alewife CSO/Water Quality Forum held in September of 2003, where elected officials from Arlington and others implored DEP to extend the comment period. It also became apparent that there would be insufficient time to provide for this extended public review, to resolve outstanding technical issues relating to public and agency review, and to make administrative water quality standard determinations in this watershed, all within the time frame required under the first Variance extension. Due to these factors, and with

widespread public support, DEP again formally extended the CSO Variance (on October 1, 2003) to September 1, 2004. EPA issued written comments indicating that they were not in opposition to the Variance extension.

The Second Variance extension maintained most all of the conditions included in the previous CSO Variance, and MWRA, Cambridge, and Somerville remained responsible for implementing the Nine Minimum Controls, monitoring CSO discharges, implementing the cost-effective CSO measures included in the recommended plan from the NPC, and implementing a receiving water monitoring program (which MWRA has had in effect for over ten years).

Current Status

Since the Final Variance Report was issued, a number of significant events have occurred and issues have arisen:

- DEP received numerous comment letters from citizens, advocacy groups, and other stakeholders, most of which argued strongly for higher levels of CSO control, up to and including elimination.
- A large group of stakeholders petitioned the DEP, urging DEP to issue an additional Variance extension in the Alewife/Mystic River watershed.
- DEP met with EPA, MWRA, Cambridge, and Somerville on a number of occasions to discuss the status of ongoing infrastructure studies in targeted areas of these communities. Communities presented new information at these meetings and raised new concerns.
- MWRA presented additional information on their financial capability analysis, incorporating into the analysis the costs of housing in the Boston metropolitan area.

The information received by DEP at community meetings and during the public comment period indicates that there are additional opportunities for infrastructure improvements which could have significant CSO abatement benefits. Information to support these improvements continues to be developed by Cambridge and Somerville, working cooperatively with MWRA. The relevant studies take into consideration not only CSO abatement potential, but also measures to address public health risks associated with sewer backups and street flooding. Regional and cooperative efforts will be critical in collectively addressing these public health risks. Updated information on each community follows.

Cambridge:

The City of Cambridge is nearing completion of an infrastructure assessment in East Cambridge and the CAM 017 drainage area. As part of the work, their consultant has developed a detailed Hydroworks model of the sewer system, inclusive of conditions

drainage facilities on the site of the Boston Engine Terminal (BET) operated by MBTA are inadequate to handle drainage flows to the site, and are in turn, affecting the sewer and drainage systems in both Cambridge and Somerville, and flows to the MWRA's interceptor sewers. Work done by Cambridge's consultant has indicated that construction of adequate drainage facilities on the BET property, combined with infrastructure work in Cambridge and Somerville, could mitigate conditions contributing to both CSO discharges and system backups.

The City of Cambridge is also exploring measures that are needed to potentially eliminate CSO discharges at outfalls CAM 001 and CAM 002. This investigation will focus on a more detailed characterization of the CSO systems in these areas, and a closer scrutiny of CSO system flows.

Somerville:

Somerville is nearing completion of their Tannery Brook Drain Study (CSO SOM001A), which focuses on the last of the City's permitted CSOs to Alewife Brook. Following work by the MWRA to develop its CSO plan, staff from the Somerville Engineering Department indicated that it might be possible to find and eliminate drain/sewer connections in this tributary area so that all sources of wastewater could be eliminated from the outfall, rendering it only a stormwater outfall and no longer a CSO outfall. The City's consultant has indicated that an additional phase of planning work involving system inspections and metering will be necessary to confirm that elimination of this CSO outfall is possible. This work will also be important in responding to the Notice of Noncompliance DEP issued to the City, which requires the City to identify and remove illegal wastewater connections to their stormdrain system.

Separately, staff from the City also acknowledged that construction of adequate drainage facilities on the BET site could also create opportunities for additional sewer separation work in East Somerville, which could improve the City's infrastructure and further mitigate CSO discharges and reduce risks of sewer backup in areas of the City. Lastly, much of the flow in the north and east areas of Somerville tributary to the MWRA's Somerville Marginal CSO Treatment Facility is separate stormwater flow, and it is possible that additional sewer separation work may be feasible in these areas also. Facilities planning efforts are needed in each of these areas to better characterize the system and identify opportunities for improvements.

MWRA:

MWRA has participated in a number of meetings with the communities to review the work being done to characterize the sewer system and to coordinate with community efforts. Operational management of MWRA facilities will continue to remain a key element of CSO abatement efforts in the Alewife/Mystic watershed. In addition, under a stipulation entered into the Boston Harbor Case, MWRA is also responsible for

developing and implementing the overall CSO control plan to address CSO discharges in the system as a whole, inclusive of the CSO outfalls permitted to their member communities. The stipulation envisions that MWRA commits resources toward the CSO planning, design, and construction work crucial to this task.

Proposed Variance Extension

DEP has reviewed:

1. The technical and financial information included in the MWRA's Final Variance Report for Alewife Brook and the Upper Mystic River, the recommended $74 million CSO abatement plan, and public comments received on this document;
2. The information compiled from recent and ongoing sewer and drain infrastructure studies in Cambridge and Somerville;
3. The status and importance of the drainage work for the Boston Engine Terminal facility; and
4. The MWRA's enhanced financial capability analysis, which considers the costs of shelter in the Boston Metropolitan area.

The technical studies and Reports associated with these projects indicate that higher levels of CSO control appear feasible through a combination of regional actions, yet more information and engineering work will be critical to clearly define these projects.

Substantial and Widespread Social and Economic Impact

The Department has emphasized cost-effectiveness for CSO long-term control plans, to ensure that resources for pollution abatement actually provide improvements in water quality. The principles of cost-effectiveness and water quality benefits have been a major factor used by MWRA in the development of its present $700 million CSO Abatement Plan. MWRA will spend more than $400 million on CSO projects over the next eight years. MWRA sewer rates are among the highest in the nation, and are projected to increase at an average annual rate of 6.4% over the next eight years. Implementation of the Plan will result in compliance with water quality standards more than 95% of the time. For the Alewife, the budget has increased from $12.1 million in 1994 to $76.4 million in FY05, resulting in meeting Class B 98.5% of the time. In accordance with DEP CSO Guidance, cost-effectiveness, protection of sensitive uses, and the financial capability of CSO permittees are all important factors in making determinations on the appropriate level of CSO control. The Variance is designed provide additional information which allows for a more detailed analysis of these factors to support a final CSO determination.

MWRA submitted data related to the Department's finding of "substantial and widespread economic and social impact," the basis for its issuance of a Variance in 1997 See 314 CMR 4.03(4)(f). The Department has reviewed a report by Robert N. Stavins,

dated March 17, 2004. The Department also reviewed the Affordability Analysis Worksheets included in Appendix H of the Cottage Farm Report dated January 2004, which are based on EPA's Interim Economic Guidance for Water Quality Standards.

Although EPA is responsible for approving state water quality standards, the state reviews the circumstances in each case to determine whether there are substantial and widespread economic and social impacts. Neither DEP nor EPA mandates use of the methodology in EPA's Interim Economic Guidance for Water Quality Standards, and the Department encourages CSO dischargers to submit information most relevant to their circumstances. Generally, the Department considers the costs of water service and stormwater programs as potentially affecting the economic analysis. Although amenable to calculation, the various financial projections are only as accurate as the underlying assumptions.

MWRA's submittals show an inconclusive result on the matrix included in the EPA Guidance, and the additional report demonstrates the effects of high housing costs on median household income and the ability to fund additional CSO controls. The Department believes that median household income (MHI), the most influential factor in the EPA Guidance, is one indicator of capacity to afford pollution control costs. The Department has concluded, however, that adjusting the median household income to reflect the region's cost of living is warranted to provide a more meaningful measure of affordability.

While some cities may enjoy increased affordability when incomes are adjusted for cost of living, the high cost of living in the Boston area consumes a relatively high percentage of income. For example, in the Boston MSA, the median household income in 2001 was $52,792. When cost of living is taken into account, the adjusted median household income is $38,961, a reduction of approximately 26% (ACCRA, Metropolitan Area Planning Council; compare to Atlanta with a comparable MHI of $51,948 and an Adjusted MHI of $53,171). Using the EPA methodology with this adjustment, the results more accurately support a continued finding by the Department that a variance is warranted on the basis of substantial and widespread economic and social impact. The demonstration for a variance is less rigorous than for a final water quality classification determination. Notwithstanding this finding, the Department will evaluate the information required by the variance to determine whether there are additional cost-effective CSO controls.

Determination to Extend Variance

Based on these important considerations, DEP has determined that proceeding at this time with controls beyond those presently included in the Recommended Plan in the Alewife Final Variance Report would result in substantial and widespread social and economic impact as specified in 314 CMR 4.03(4), and that an extension to the CSO Variance is appropriate at this time. Issuing of the CSO Variance Extension in the

Alewife watershed is consistent with EPA Guidance: *Coordinating CSO Long-Term Planning with Water Quality Standard Reviews (July 31, 2001)*, which asserts that longer term variances and renewal of variances are warranted given the extended duration necessary for implementation of LTCPs. A determination on the highest feasible level of CSO control and associated water quality standard will therefore be deferred until sufficient technical information can be developed during the course of the CSO Variance extension.

Proposed Next Steps

(1) The Variance for CSO discharges to the Alewife Brook/Upper Mystic River Basin will be extended by a period not to exceed 3 years (September 1, 2007).

(2) MWRA and the Cities of Cambridge and Somerville shall implement all elements of the $74 million recommended plan included in the Final Variance Report. The required schedule for these actions will be subject to negotiation by parties to the federal court order.

(3) MWRA and the Cities of Cambridge and Somerville shall continue to implement the expanded Nine Minimum Controls, monitor CSO activations and volumes.

(4) MWRA shall continue to implement and report on their Receiving Water Monitoring Program in the Alewife/Upper Mystic watershed.

(5) DEP will work with EPA, MWRA and its member communities to implement the recommendations of the MWRA Regional Infiltration/Inflow Task Force and MWRA's I/I Reduction Plan to minimize the impacts of I/I flows, and, where possible, identify opportunities for I/I removal programs which may further mitigate CSO discharges.

(6) DEP will require MWRA and the Cities of Cambridge and Somerville to undertake and collaborate on infrastructure studies which target further opportunities for CSO abatement, and consider related system issues, including backups and flooding.

(7) At the end of the Variance extension, DEP will hold a Public Hearing once the Department issues a Tentative Decision on the Water Quality Determination for the entire Alewife Brook/Upper Mystic River Basin. This will allow another opportunity for all interested parties to provide input to EPA and DEP on the Proposed Level of CSO Control for the Basin.

Response to Public Comments

From May 8, 2003 to June 11, 2003, the United States Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) solicited Public Comments on draft NPDES permits, MA0101974 and MA0101982, developed pursuant to applications from the Cities of Cambridge, Massachusetts and Somerville, Massachusetts, respectively, for the reissuance of permits to discharge from combined sewer overflows (CSO) to the Alewife Brook, the Charles River and the Upper Mystic River. A public hearing was held on June 11, 2003 in Cambridge and all comments made and received at the hearing were entered into the permit record. At the conclusion of this public hearing, EPA and MADEP extended the public comment period through July 2, 2003.

After a review of the comments received, the EPA has made a final decision to issue these permits authorizing these discharges. The following response to comments describes the changes that have been made to these permits from the drafts and the reasons for these changes and briefly describes and responds to the comments on the draft permits during the public comment period. Copies of the final permits may be obtained by writing or calling EPA's Office of Ecosystem Protection, Municipal Permits Branch (CMP), 1 Congress Street, Suite 1100, Boston, MA 02114-2023; Telephone: (617) 918-1579.

Update: Extension of variances for CSO discharges

CSOs discharging to the Lower Charles River were previously granted a variance under the Massachusetts Water Quality Standards which expired October 1, 2004. This variance has been extended through October 1, 2007, by MADEP's letter of October 1, 2004. A copy of this determination letter for the variance extension is included as **Attachment D** of the final Cambridge CSO permit and a fact sheet accompanying this variance extension is included as **Attachment E** of the final Cambridge CSO permit.

CSOs discharging to the Upper Mystic River/Alewife Brook were previously granted a variance under the Massachusetts Water Quality Standards which expired on September 1, 2004. This variance has been extended through September 1, 2007, by MADEP's letter of September 1, 2004. A copy of this determination letter for this variance extension is included as **Attachment F** of the final Cambridge CSO permit and a fact sheet accompanying this variance extension is included as **Attachment G** of the final Cambridge CSO permit. In the Somerville CSO permit, the Upper Mystic River/Alewife Brook determination and fact sheet are designated as **Attachments B** and **C**.

EPA approved both of these variances on September 15, 2005 by letter, which is shown in Attachment 1 of this response.

Changes to the final permit from the draft permit:

Both of these final permits have been changed from their drafts to reflect the variance extensions for the Lower Charles River and Alewife Brook/Upper Mystic River. EPA approved both of these variances on September 15, 2005. These permitted discharges must meet Federal and State water quality standards and be consistent with any water quality standards variances or variance extensions approved by the EPA. These changes are discussed on Page 6 of both final permits. In addition, some of the CSO activation frequency and discharge volume figures have been revised as shown in **Attachments B** and **C** for the Cambridge permit and **Attachment A** for the Somerville permit. These changes reflect revised figures from the documents entitled, "Final Variance Report for Alewife Brook and the Upper Mystic River," July, 2003 and "Cottage Farm CSO Facility Assessment Report," January 2004.

These changes have been determined not to be significant, therefore, EPA has decided that these changes do not warrant an additional public noticing of these draft permits.

Comments #1, #2 and #3 are composites of comments submitted by various parties:

Comment #1: I live in the flood plain in the City of Arlington. I was never informed of the serious health risks associated with CSO discharges. The sewage can carry pathogens which can cause disease, such as hepatitis and gastrointestinal disorders. Neither the cities of Cambridge and Somerville nor the MWRA has been able to provide basic information about CSO discharges. Residents living in the flood plain in Arlington should be mailed annual notices that sewage is discharged with flood waters as well as with CSO activation frequency and volume amounts. They should also be provided with information on proper cleaning techniques regarding flood waters containing CSOs. All CSO discharges to Alewife Brook should be eliminated.

Response: EPA and DEP understand that areas along the Alewife Brook flood occasionally and that these waters may contain CSO discharges. CSO discharges contain pathogenic organisms, and so pose human health issues if contacted. Neither EPA or MADEP have regulatory authority to require flood control projects, and cannot impose conditions in NPDES permit to control flooding. The MWRA is required, pursuant to the State's Wetlands Protection Act (M.G.L. c.140, s.40) to ensure that the recommended plan does not exacerbate the existing flooding. The MWRA along with the cities of Cambridge and Somerville are moving forward with $74 million in CSO abatement projects which will mitigate CSO discharges and their impacts. At the close of the CSO Variance, which has recently been extended to September 1, 2007, based on MWRA's Final CSO Reassessment Report, DEP and EPA will render a determination on the feasibility of eliminating CSO discharges in this watershed, after opportunity for public and agency review of this document.

EPA and DEP are required to establish permit conditions which will ensure that the discharge of pollutants from the discharges do not cause exceedances of water quality standards. In accordance with those requirements, EPA and DEP have established the permit limits for CSOs to the Alewife Brook and other water bodies in accordance with water quality standards. The current standards for the Alewife Brook have been included in the water quality variance. The ultimate water quality standard for CSOs will be determined during the current variance extension, and incorporated into Massachusetts Water Quality Standards through a public participation process. The requirements of the final standard will then be incorporated into the permit.

Care should be taken under any conditions where exposure to floodwaters or sewer backups is possible. DEP has recently collaborated with the MA Department of Public Health (DPH) and the MA Department of Conservation and Recreation (DCR) to develop a guidance document for cleaning up after flooding and sewer backup incidents. This guidance has been disseminated to community officials in the Alewife watershed and to the Mystic River Watershed Association among others. In addition to the CSO mitigation efforts that are ongoing, there are also local efforts to address flooding in all affected communities and we would encourage participation by these residents in these efforts.

MWRA and its member communities (MCs) Cambridge and Somerville have provided ongoing public notification as part of their nine minimum control (NMC) programs. These efforts have included CSO outfall signage, submittal of discharge monitoring reports, publishing and including water quality information on their websites and annual reports from sampling programs, and publishing a CSO newsletter during the CSO planning process. In addition, as a requirement of the CSO Variance, MWRA and its MCs submitted workplans associated with the water quality variances to address among other things, public notification regarding CSO discharges. These workplans were reviewed by the agencies and approved by the DEP with its letter of April 2, 2003, subject to amendments and provisions within that letter. Among the conditions of the latest variance extension is that MWRA and the cities of Cambridge and Somerville are to issue a joint press release by April 15 each year to watershed advocacy groups, local health agents, individual homeowners within the FEMA A-numbered Zones, and newspapers of local circulation in the Alewife Brook/Upper Mystic River watershed, which shall include general information on CSOs, their locations in the Alewife Brook/Upper Mystic River watershed, and potential health risks posed by exposure to CSO events. This variance condition, as well as the other variance conditions, are enforceable elements of the NPDES permit.

CSO elimination and attainment of the Class B standard remain the goal for Alewife Brook. As noted, $74 million in CSO abatement work is proceeding. CSO elimination and full attainment of the Class B standard is required unless MWRA can document that one of the criteria in DEP's surface water quality standards at 314 CMR 4.03(4) has been met, which is necessary to support any change to the standard. This process of the standards review, and any proposed standards modification includes provisions for public input, and any interested parties are encouraged to participate in this process.

Comment #2: The draft permit proposes to permanently shift a public health risk onto our community solely for the financial benefit of the CSO permit holders.

Response: A series of CSO Variances were established, in part, because of high costs of CSO abatement over the entire MWRA service area, and the impacts of that cost on MWRA rate payers. The MWRA Board has decided to apportion CSO abatement costs across the entire service area, so CSO abatement costs are borne by all MWRA communities.

As discussed in the previous response, MADEP must make a final determination on the water quality standards for the Alewife Brook, and these standards must be approved by EPA. Both financial impacts and public health impacts are factors which must be considered in CSO planning. Elimination of CSO discharges is required where it is affordable and technically feasible

These permits authorizing CSO discharges to Alewife Brook were previously issued in 1992 for Somerville and 1993 for Cambridge. Although they have expired, they are still in force until the new permits become effective. Since the issuance of these permits, the MWRA and its member communities have made ongoing progress in eliminating some outfalls and reducing the flows through others, while better understanding their sewer systems. Both communities have also implemented the nine minimum controls in 1997 and compliance with these is assessed on an annual basis.

Comment #3: More CSO signage is needed on both sides of Alewife Brook that is clearly visible and that contains a biohazard symbol. There are recreational uses of Alewife Brook that have brought people into close contact with that water; whether it be children who are playing in it, people who boat on it and people who fish it. I would ask that you provide the strictest, most comprehensive notification methodologies that you can think of regarding this issue on the Alewife. Signage should include phone numbers. This would benefit the permittee by providing an additional source of information about the condition of outfall structures and discharges.

Response: As noted in the response to comment #1, Somerville and Cambridge are required to improved upon and increase the CSO signage along Alewife Brook. This would include extensive language regarding "put-in" areas and other recreational access points to Alewife Brook.

A condition of the variance extension is that MWRA and its MCs must maintain informational signs at John Wald Park and other public access locations identified by the DEP to advise the public of CSO discharges and potential public health impacts and to provide contact information and website links. This condition is an enforceable requirement of this permit.

Submitted by the Town of Arlington's Conservation Commission:

Comment #4: There should be no relaxation of state water quality standards related to the discharge of these CSOs. Class B_{CSO} is unacceptable as it allows peak pollution rates at times when peak flows occur. Floatable controls should be installed everywhere along the Alewife Brook, at a minimum. Uniform and enhanced level of infiltration/inflow control is warranted in CSO areas where discharges will remain after the long term control plan (LTCP) is in place.

Response: The decision regarding the water quality standards will be made during the variance extension period. The situation in Alewife Brook regarding CSOs is especially difficult since the technology available to achieve total CSO elimination is expensive and will result in increased discharges of storm water to the brook during wet weather, which would worsen flooding conditions, unless significant storm water detention basins are constructed.

Even if CSOs were entirely eliminated, water quality data shows that there would be continuing violations of water quality criteria during wet weather due to storm water discharges. All of the communities discharging to the Alewife are required to obtain EPA storm water permits and develop storm water management plans which have specific programs to address pathogen discharges under the Phase II storm water permit for municipal separate storm sewer systems (MS4s). However, it remains to be seen whether management activities will be sufficient to achieve bacterial standards in storm water. Programs to detect and eliminate illicit connections to the sewer system are essential components of these storm water management programs. Floatables control has been included in the CSO abatement plan for any outfalls which will not be eliminated by sewer separation projects.

Submitted by David Stoff:

Comment #5: It is an unreasonable presumption on the part of MADEP/EPA that a UAA which removes primary contact recreation will also suspend the criteria protecting secondary uses. That case can only be made through a separate demonstration that the designated use to be removed is not an existing use of the water.

Response: Adopting a B_{cso} standard for the Alewife Brook would not remove secondary uses, nor would it remove primary contact uses when CSOs were not discharging. A B_{cso} classification would only allow CSO discharges (and the accompanying exceedances of Class B water quality criteria for fecal coliform) during a small number of rain storms. During these storms, the fecal coliform bacterial criteria in the Class B standard (primary contact) would not be achieved, nor would water quality standards for Class C (secondary contact) likely be achieved. The fact that secondary contact criteria would not be met during a CSO event does not preclude establishing a B_{cso} classification (providing the classification is supported by a UAA) since secondary contact during CSO events is not an existing use and the B_{cso} classification does not require attainment of bacterial criteria during CSO events.

Comment #6: The Notice of Project Change (NPC) refers to the difficulty in implementing full sewer separation. It would seem the preferred control technology has difficulty meeting the CSO Policy requirements for the cost-effective expansion were a higher level of control required. This suggests that another technology (disinfection) may be required in the future. If this is the case, why not begin conceptual planning now?

Response: Complete sewer separation is difficult for two reasons. The first is that removal of all single pipe (combined) sewer systems is expensive, particularly in densely populated areas and areas where the storm drain, rather than the sanitary sewer, must be replaced to alleviate local flooding conditions. Replacement of storm drains tends to be much more expensive given the significantly larger pipes need to transport storm water discharges. The second is that even when all areas are served by two pipe (separate) systems, there may be a significant amount of extraneous wet weather flow remaining in the sewer system because of plumbing within homes. This extraneous flow, from sources such as roof drains, basement sump pumps, and leaking service connections may surcharge the sewer system and cause overflows during extreme wet wether events. Where sewer separation is infeasible due to financial or technical factors, MWRA and its MCs must identify the highest level of CSO control and CSO storage and treatment alternatives must be considered in this evaluation.

Since there are limitations on the capacity of CSO storage and treatment alternatives, these technologies can only mitigate and not eliminate CSO discharges. Sewer separation is the only technology which effectively eliminates CSO discharges, and where elimination is the goal, the feasibility of sewer separation for all CSO outfalls must be considered. Where this is infeasible due to financial or technical factors, MWRA and the MCs must identify the highest level of CSO control and CSO storage and treatment alternatives must be considered in this evaluation.

For CSO discharges which activate very rarely, disinfection has not typically been required given the difficulty of maintaining these facilities so they will operate satisfactorily during the rare instances they are needed, and their unreliability in achieving adequate disinfection without causing chlorine toxicity in the receiving water.

Comment #7: There is no explanation of how CSO discharges remaining after implementation of the long term control plan (LTCP) relate to 303 (d)(1)(A) and 303 (d)(1)(C) TMDL requirements.

Part (4)(b)(ii) of the CSO control Policy requires a TMDL, including wasteload allocation for point sources and a load allocation for non-point sources be used to apportion pollutant loads where LTCP allowed discharges to continue, because attainment of water quality standards and designated uses was precluded by pollution sources.

Response: The Clean Water Act requires that States complete total maximum daily loads (TMDLs) for streams not achieving water quality standards after implementation of technology-based controls. The Alewife Brook has been identified by the state as a receiving water which is not achieving water quality criteria for pathogens, and is among approximately 1500 segments in Massachusetts for which TMDLs must be produced. While no TMDL is currently being conducted for Alewife Brook, such an analysis is not necessary to determine the appropriate control for CSOs since the state has determined that CSOs must either be eliminated or reduced to the extent feasible, as defined by the use attainability analysis (UAA) regulations at 40 CFR Section 131.10(g). A TMDL could not require CSO abatement facilities which are not feasible.

The water quality information developed for the CSO planning effort, and the continuing sampling programs by the MWRA and the Mystic River Watershed Association will be helpful in identifying and confirming pollutant sources and pollutant loads in the watershed, and will be important in developing a TMDL. A TMDL analysis would be useful for other sources discharging to Alewife Brook, especially if storm water BMPs required by the communities' storm water NPDES permits are not effective in reducing pathogens from these sources. Clearly, control of both CSO and non-CSO sources will be critical to achieving improved water quality in the Alewife watershed.

Comment #8: The fact sheet notes that 40 CFR 124.74 lists appeal procedures. It appears that this section was previously removed from the regulations.

Response: This is correct. The current appeal procedures are enclosed with the final permit.

Submitted by Roger Frymire:

Comment #9: Modeled versus metered flows from Cambridge CSOs vary significantly. The MWRA and member communities should work together to verify metering and modeling data to account for these differences. CSO limits should be based on metered data coupled with existing plans to reduce CSO activations and volumes. There was also an objection to the use of a "typical year" relative to CSO planning in setting permit limits. On average, CSOs will spew 150 to 200% of volumes from a "typical" year. Permit limits based just on this "typical" year are very misleading to the public. Why not base the permit limits on the five year permit time frame or use 10 years as closer to the actual time before the next permit is expected?

Response: The permit specifies that a combination of measurements and estimation may be employed when quantifying CSO discharges. The final permit requires the member communities to develop a monitoring plan describing the methods they will use to quantify activation frequency and volume. EPA and MADEP are available to provide assistance in this matter. The City should also discuss this matter with MWRA and can also refer to EPA CSO guidance documents, including *Guidance For Monitoring And Modeling*. EPA's CSO guidance manuals may be found at http://cfpub.epa.gov/npdes/cso/guidedocs.cfm.

The resources necessary to develop and implement a CSO monitoring plan are reflected in MWRA's recent NPDES permit modification. This modification requires that MWRA provide an annual estimate of CSO discharges for member community CSOs to each member community by March 31st of each year. Somerville and Cambridge may develop their own method of quantification, or may report MWRA's estimates subject to some independent verification.

The typical year discharge characteristics are the expected discharge activation frequencies and volumes during a typical year after full implementation of the MWRA CSO Facilities Plan. Some of these frequencies and volumes have been revised as explained on Page 10 of this response. Any differences between the typical year characteristics and the actual discharges are to be reported and evaluated in years 3 and 5 of the permit (see Part I.D.4). If, during typical year conditions, the actual discharges are greater than typical year characteristics, this will be considered new information which may lead to modification of the MWRA CSO Facilities Plan, water quality standards and/or NPDES permit conditions.

Comment #10: For a stretch of about a mile between Pleasant Street and Endicott Street in Cambridge all intervening storm water outfalls were found to be totally plugged and not functioning. Approximately one square mile of Cambridgeport which is supposed to have separate sewers is currently functioning combined by numerous common manholes throughout this neighborhood.

Historically, as railroad operators have filled in mudflats and eventually most of the Millers River, B&M Railroad (now Guilford) signed agreements to provide drainage originally carried by this river. Failure to maintain this drainage adds two square miles of storm water which totally overloads sewer service in East Somerville. Backups resulting from the excess extend nearly to Central Square in Cambridge and extend the entire length of Somerville actually causing an inter-basin transfer to the Mystic River watershed which leads the SOM001A Tannery Brook CSO to activate. This permit should require a halt to all development by Guilford in Cambridge and Somerville until such time as the drainage agreements are adhered to.

Response: The City of Cambridge is currently reconstructing a significant portion of the sewer and drainage infrastructure between the outfalls at Pleasant Street and Endicott Street in the Cambridgeport area. Three projects with a total value in excess of $14 million are presently in construction or about to go to construction in this area. Two projects address the removal of 45 common manholes and also include the construction of significant structural BMPs to ensure adequate maintenance of the systems. The third project concentrates on the reconstruction of three (3) new outfalls in the area. Furthermore, the City is presently designing two more outfalls in this area to more effectively deal with stormwater, to further address common manhole removal, and to construct additional stormwater BMPs. Finally, the City has recently completed the construction of a new drainage system along Massachusetts Avenue at a cost in excess of $10 million and has removed 27 common manholes in the adjacent neighborhood at a cost of approximately $2 million. Collectively, these projects will result in reduced CSO discharges at

Cottage Farm and will significantly improve stormwater quality generated from the Cambridge neighborhoods south of Massachusetts Avenue and west of Western Avenue.

In the CAM017 area the City of Cambridge has prepared a facilities plan for its drainage and sewer system infrastructure. The goals of the facilities plan include: the improvement of water quality to the receiving water, the improvement of sanitary and storm water service levels, and the incorporation of structural BMPs that allow the systems to be more easily maintained. In developing this plan, the City is working closely with teams from both the MWRA and the City of Somerville, and with private property owners involved in large redevelopment projects in this area. The CAM017 project area impacts and is impacted by the Somerville and MWRA systems, as well as the MWRA Prison Point CSO facility and its operations.

Comment #11: These permits should contain a mechanism to verify that local and state sewer system connection programs and storm water management regulations are sufficient to protect wet weather water quality gains. It seems reasonable to seek the maximum removal of storm water from the sewer system and employ any BMP that will improve storm water quality. EPA mentioned that perhaps these permits would include a mechanism that would control dry weather loads that occur through new development in the combined sewer area. A uniform and enhanced level of infiltration/inflow (I/I) removal is warranted in CSO areas where discharges will remain after the LTCP is in place.

Response: Consistent with EPA's storm water Phase II permitting requirements, both communities have submitted Notices of Intent (NOIs) for permit coverage. These permits include detailed storm water management plans (SWMP) which are being reviewed by EPA and the DEP. One element of these SMWPs is required to address runoff associated with construction site activities. Although these permits will address the separate sewer systems of these communities only, measures that communities take to limit storm water flows and pollutants associated with them should also consider any effect this could have on the activation frequency or volume of CSO discharges.

The permit issued to the MWRA for its Deer Island treatment plant (MA0103284) has I/I requirements which also apply to its member communities. The MWRA permit directs the MWRA and its member communities to cooperate and remove excessive I/I from the sewer system. The City of Cambridge observes a policy regarding new development that requires developers to attenuate their discharge quantity to the two year storm event and to store or infiltrate a sufficiency of flow to insure that the peak discharge entering the City's system (leaving their system) for the twenty five year storm event is less than or equal to the two year storm event. Furthermore the City requires that in CSO sensitive areas that development offset any new sewage generated with at least three times the removal of existing inflow into the drainage system during the three month storm event. The city maintains the discretion to require more significant or alternative mitigation if such is deemed necessary in certain instances.

Information on existing storm water and CSO pollutant loads being gathered will help all interested parties to understand the relative impacts of these discharges and the corresponding benefits of CSO and storm water pollution abatement efforts. These collective strategies will also serve to reduce system surcharging which contributes to CSO discharges and therefore should have overall benefits to the CSO abatement program. The sewer separation work included in the MWRA CSO abatement plan in Cambridge will also serve to remove a significant volume of public (storm water) inflow into the sewer system as well.

Submitted by Nancy Hammett of the Mystic River Watershed Association:

Comment #12: We believe the applicant cannot meet minimum technology based permit requirements without improved characterization of the system. Compliance with Nine Minimum Controls (NMCs) #2 and #4 cannot be assessed because modeling does not accurately reflect movement of sewage and storm water through the collection system. Discrepancies between modeling and metered data suggest that compliance with NMC # 1 , 3 and 5 may also be inadequate. Level of public notification (NMC #8) is inadequate. We request that Cambridge and Somerville be required to demonstrate compliance with the NMCs by providing regular reports on the characterization of sewer discharges to Alewife Brook, to support proper maintenance of the system, and to determine where the system is discharging during dry weather and investigation of problems that may be resulting in excessive storm water entering the system, or restrictions on the flow to the POTW for treatment.

Response: Under these permits, the Cities of Cambridge and Somerville are required to submit annual reports documenting efforts to comply with the Nine Minimum Controls, assessing their compliance with the NMCs and documenting efforts to enhance their effectiveness through necessary modifications.

Regarding characterization of the movement of sewage and storm water through the collection system, we expect ongoing coordination between the MWRA and its MCs. We expect improved assessment of drainage systems due to further study, illicit connection investigations and enhanced permit reporting requirements. Outfall signage will be improved as explained in response to Comment #1.

Comment #13: We are concerned about reissuing these permits before a decision is made on the current variance this fall. If issued prior to variance expiration, these permits should contain reopener clauses. The trigger points discussed in the variance need to be better defined.

Response: The variances for the Alewife/Mystic and lower Charles basins have both been extended, as noted earlier. The Upper Mystic/Alewife variance was extended to September 1, 2007, and the Lower Charles variance was extended to October 1, 2007. These permits contain reopener clauses which would result in permit modifications as necessary to reflect post-variance conditions.

September 16, 2005

Information for Filing an Adjudicatory Hearing Request with the Commonwealth of Massachusetts Department of Environmental Protection

Within thirty days of the receipt of this letter the adjudicatory hearing request should be sent to:

Docket Clerk
Office of Administrative Appeals
Department of Environmental Protection
One Winter Street, Third Floor
Boston, MA 02108

In addition, a valid check payable to the Commonwealth of Massachusetts in the amount of $100 must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

The hearing request to the Commonwealth will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver.

The filing fee is not required if the appellant is a city, town (or municipal agency), county, district of the Commonwealth of Massachusetts, or a municipal housing authority. The Department may waive the adjudicatory hearing filing fee for a permittee who shows that paying the fee will create an undue financial hardship. A permittee seeking a waiver must file, along with the hearing request, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Attachment 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
ONE CONGRESS STREET SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

September 15, 2005

Robert W. Golledge Jr., Commissioner
Department of Environmental Protection
One Winter Street, 2nd Floor
Boston, MA 02108

Re: Approval of Charles River and Alewife Brook/Mystic River Variances

Dear Mr. Golledge:

This is in response to the Massachusetts Department of Environmental Protection's (DEP) August 22, 2005 submittal of water quality standards (WQS) variances for the Environmental Protection Agency's (EPA) review and approval. The WQS variances are for combined sewer overflow (CSO) discharges by the Massachusetts Water Resource Authority (MWRA) and the Cities of Somerville and Cambridge to Alewife Brook/Upper Mystic River Basin, and for CSO discharges by the MWRA and the Boston Water and Sewer Commission to the Lower Charles River Basin. The variances were issued on September 1, 2004 and October 1, 2004, for the Alewife Brook/Mystic River and the Lower Charles River Basin, respectively, for terms not to exceed three years, and were certified on August 11, 2005 by DEP's Acting General Counsel as having been duly adopted pursuant to state law.

In accordance with the variances, combined sewer overflow discharges from permitted outfalls are exempted from meeting the Massachusetts Class B bacteria criteria during events when flow in the collection system exceeds the collection system conveyance capacity as a result of precipitation or snow melt. The variances are conditioned upon continued implementation of CSO long term control measures consistent with the 1997 Final CSO Facilities Plan, as amended for the Alewife Brook/Mystic River and the Lower Charles River Basin, and do not in any way delay the pace of implementation that would occur without the variances. Rather, the projects that are to be implemented during the term of these variances will improve water quality in the Alewife Brook/Mystic River and the Lower Charles River Basin.

The MWRA has completed numerous analyses since the late 1980s evaluating alternatives for eliminating combined overflows from the collection system tributary to the Deer Island Treatment Plant. Among these are the 1997 Combined Sewer Overflow Facilities Plan and Environmental Impact Report, the 2001 Notice of Project Change for the Long term Control Plan for Alewife Brook, and the 2004 Cottage Farm CSO Facility Assessment Report. Based on the analyses completed by the MWRA, DEP has found that proceeding at this time with controls

necessary for full attainment of Class B water quality standards would result in substantial and widespread economic and social impact. EPA agrees that it is not feasible to fully attain Class B water quality standards for primary contact recreation within the three year term of the variances.

I hereby approve the variances pursuant to Section 303(c)(2) of the Clean Water Act and 40 C.F.R. Part 131 as being consistent with the requirements of Section 303 of the Act.

We look forward to continued cooperation with MA DEP in exercising our shared responsibility of implementing the water quality standards requirements under the CWA. If you have any questions about this approval, please contact Bill Beckwith (617-918-1544) or Michael Wagner (617-918-1735).

Sincerely,

Linda M. Murphy

Linda M. Murphy, Director
Office of Ecosystem Protection

cc: Glenn Haas, MA DEP
Kevin Brander, MA DEP
Marcia Sherman, MA DEP
Vernon Lang, USFWS
Mary Colligan, NOAAF
Peter Colosi, NOAAF
Gregory Stapleton, EPA SSB

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

December 5, 2005

Dear Sir/Madam:

Re: Extension of time period during which City of Cambridge Combined Sewer Overflow (CSO) final National Pollutant Discharge Elimination System (NPDES) permit may be appealed

The final NPDES permit for the City of Cambridge CSO, permit No. MA0101974, was signed and dated September 27, 2005. It has come to our attention that some individuals who should have received a copy of this final permit either did not receive a copy or received a copy beyond the thirty (30) day period after the permit issuance. As such, some of these individuals were not given the opportunity to appeal this permit. Final permits may be appealed within thirty (30) days of their receipt and only by those individuals or entities that provided comment on the draft permit during the official public comment period.

The draft Cambridge CSO permit was public noticed during the period of May 8, 2003 until June 11, 2003. On June 11, 2003, a public hearing was held in Cambridge during which oral and written comments were received. Upon the adjournment of this public hearing, the public comment period was extended by another 21 days, through July 2, 2003.

Therefore, if you receive this letter and you provided comments during the public comment period, you have the opportunity to appeal this final permit with thirty (30) days of your receipt of this letter. If you have any questions regarding this matter, or if you need a copy of the final permit package, please contact George Papadopoulos of my staff at (617) 918-1579.

Sincerely,

Roger Janson, Manager
Municipal Permits Branch

Enclosure

OFFICE OF THE BOARD OF SELECTMEN

730 MASSACHUSETTS AVENUE
TELEPHONE
781-316-3020
781-316-3029 FAX

TOWN OF ARLINGTON
MASSACHUSETTS 02476-4908

June 11, 2003

Mr. George Papadopoulos
Massachusetts Office of Ecosystem Protection (CPE)
1 Congress Street - Suite 1100
Boston, MA 02114-2023

RE: NPDES Permits #0101974, 0101982

Dear Mr. Papadopoulos:

The Town of Arlington submits the following comments on the draft NPDES permits. There are four general areas the town has identified as areas of concern.

I.
The NPDES permit effluent limitations must not place the health of Arlington's neighborhoods at risk.

(1) The Town believes that the NPDES permit must specify an effluent limitation that assures Arlington neighborhoods are not placed at risk from sewage born pathogens. The April 2001 MWRA Notice of Project Change (NPC) documented instances where CSO effluent reaches residential properties in Arlington. It is an unreasonable expectation that under such circumstances to secondary contact with the waters of Alewife Brook will occur. Therefore, the Town's position is that the NPDES permit must support documented secondary contact uses of Alewife Brook. Such uses include incidental contact at residential properties located in the flood plain.

We have included specific materials supporting comment (I) in appendix

(2) The permit must allow verification by local public health officials and others. Local public health officials have a responsibility to insure that health risks to the community are eliminated or controlled. (See ALM GL ch. 111, § 122) The draft permits reporting section envisions permit compliance in terms of either annual or biennial compliance (See Section I.D.1) How can local

officials verify the permittee's compliance, within a relevant timeframe, if an accident or error allows discharges in excess of the permit limits to occur under the current reporting scheme?

(3) Arlington believes that the public health notification plan (See May 8, 2002 MA/DEP variance extension) is an important first step. The plan provides information to recreational users of Alewife Brook that is necessary for informed choices about wet weather use. However the Town continues to believe that residents in the flood plain must receive written notification of the location of CSO outfalls, the conditions in which they discharge, and cleanup procedures, as we explained in our January 2, 2002 letter to EPA. The high proportion of rental property in the Alewife area combined with the low visibility of current notification efforts is ample justification for the minimal cost of a direct mailing to affected residents.

Additionally, our understanding was that all outfalls warning signage would contain telephone contact numbers. (See June 28, 2002 MWRA-MA/ DEP Public Notification workplan) The example included in the draft permit does not contain a telephone contact number. A telephone number would direct inquiries to the appropriate authority. This would benefit the permittee by providing an additional source of information about the condition of outfall structures and discharges. The Town of Arlington believes that all outfall-warning signs must contain a telephone contact number.

II.
The assessment of the public health risk posed by surface flooding was inadequate.

(1) The NPC limited its review of surface flooding to the area between Perch Pond and Massachusetts Avenue. Impacts to Arlington's Sunnyside and Henderson Street neighborhoods were not considered in the NCP or the May 2003 Response to Comments. The Town of Arlington believes that it is important that the long-term control plan must evaluate the full extent to which all residential areas are placed at risk by CSO discharges under existing and future conditions.

We have attached documentation from the Sunnyside Neighborhood Association in Appendix 2

III.
The permit must protect wet weather water quality by accounting for additional loads to the combined sewer system from future growth.

(1) In our comments on the NPC the Town asked whether there would be any gain or loss to the capacity of MWRA's interceptor system due to the project. (See June 4, 2001 comment letter, Engineering calculations and flows, comment 5.) In response (See May 2003 RTC, 4-35) the MWRA indicated that the recommended plan would take advantage of the reduction in the hydraulic grade line of the interceptor and increase the dry weather flow connections for CAM 002, 401B and SOM 001A. Even with the reductions of CSO discharges at these outfalls the recommended plan predicted 5-7 overflows a year. "This condition suggests that in wet weather additional flows, such as from new development, would likely cause an increase in CSO, unless those new flows were offset by an equal or greater reduction in tributary flow." This suggests that the effluent limitation will be eroded unless the permit contains a mechanism to verify that local and state sewer system connection programs and storm water management regulations are

sufficient to protect wet weather water quality gains. We ask that the final permit contain such a mechanism.

IV.
Long-term water quality improvement.

(1) Arlington supports any measure, even an incremental one that improves the water quality of Alewife Brook. However our support of the MWRA CSO control project must not be read as an indication that Arlington approves of perpetual discharges of untreated sewage into Alewife Brook. As we have previously indicated both the Arlington Board of Selectmen and the Arlington Board of Health have concluded that CSO discharges to Alewife Brook must be eliminated.

The existing state water quality variance includes a mechanism, the so-called "trigger points," for determining when additional CSO controls will be appropriate for the Alewife Brook. The Town believes that it is appropriate for both the permittees and MA/DEP to provide greater detail about the "trigger points" process, including implementation and public participation plans, if the water quality variance is to be incorporated into the NPDES permit.

Very truly yours,
BOARD OF SELECTMEN

Kevin F. Greeley
Kevin F. Greeley, Chair

Diane M. Mahon
Diane M. Mahon, Vice Chair

Charles Lyons
Charles Lyons

Kathleen Kiely Dias
Kathleen Kiely Dias

John W. Hurd
John W. Hurd

:jd

TOWN OF ARLINGTON

MASSACHUSETTS

CONSERVATION COMMISSION

June 10, 2003

Linda Murphy, Director
Massachusetts Office of Ecosystem Protection
U.S. EPA – New England Region
1 Congress St., Suite 1100
Boston, MA 02114-2023

RE: NPDES Permit No.: **MA0101974**

Dear Ms. Murphy,

The Arlington Conservation Commission is appreciative that plans are being made to reduce the CSO outflows into Alewife Brook. We believe, however, that the goal should be the complete elimination of all raw sewage flows into this stream. Such storm overflows impair water quality and harms fish and wildlife and their habitat. As the Commission is charged with the stewardship of Arlington's natural resources and administrating the Arlington Bylaw for Wetlands Protection and the state Wetlands Protection Act, we find it unacceptable to have any amount of sewage put into the Alewife Brook. There should be no relaxation of water quality standards that will allow these combined sewage overflow events to continue, even if they become less frequent.

Also, such events likely pose public health threats to the Arlington residents who live alongside Alewife Brook. These residents are exposed – often in their homes – to flood waters containing sewage during major storm events.

The issue of sewage and pollution in the Alewife Brook is hardly new. Local historic records[1] cite an 1879 Arlington Town Meeting vote "relative to the increasing pollution of Alewife Brook by the city of Cambridge." Town Meeting was "Voted – That the selectmen be and hereby are authorized and requested to take immediate and active measures to prevent the further pollution of Alewife Brook by the sewage of the city of Cambridge; and said Board are authorized to employ counsel and to unite with the town of Medford in any legitimate course looking to the abolition of this threatening nuisance and the preservation of the public health."

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1 *Town of Arlington, Past and Present, a narrative of larger events and important changes in the village precinct and town from 1637 to 1907*, Charles S. Parker, Arlington, C.S. Parker & Son, Publishers, 1907, p. 150.

Arlington Town Meeting took a second action in 1880, by appointing a committee, of Messrs. William G. Peck, Richard L. Hodgdon, and Henry L. Lawrence, to secure legislation to protect the public health by stopping the emptying of sewage into Alewife Brook and Mystic River.2

Unfortunately, the proposed NPDES permit for the Cambridge CSO project will not eliminate such historical and current pollution concerns. This pollution is a potential risk to the following wildlife species:

Fish

Alewife Brook historically was a tidal waterway and ran almost solid with spawning herring. Even though the population is much less than in the past, some of these fish still make their way up to Little Pond in Belmont. The Great Swamp that surrounded this waterway ran from Fresh Pond to Spy Pond and must have functioned as a significant spawning ground.

Fish found in the Mystic drainage, of which the Alewife Brook is a part, include: American Eel, Blueback Herring, Alewife, *Goldfish, *Common Carp, Golden Shiner, Bridle Shiner, White Sucker (seen at end of Mill Brook, Arlington, 2001), Brown Bullhead, Redfin Pickerel, Chain Pickerel, Tiger Muskellunge, Rainbow Smelt, Brook Trout, Atlantic Tomcod, Banded killifish, Mummichog, Atlantic Silverspine, Fourspine Stickleback, Threespine Stickleback, Ninespine Stickleback, White Perch, Banded Sunfish, Pumpkinseed, *Bluegill, *Largemouth bass, *Black Crappie, Swamp Darter, Yellow Perch (* = introduced, breeding, according to *Inland Fishes of Massachusetts*, Hartel, Halliwell and Launer, 2002).

Life cycles of many fish are sensitive to pollutant loads. Spawning typically occurs during the spring flood season. CSO discharges or activations would have a major and potentially fatal effect upon the tender egg masses and hatching fry.

Birds and Mammals

Birds found at the Alewife Brook Reservation in 2002 include: cormorant, heron, swan, geese, mallard, teal, shoveler, wood duck, black duck, merganser, hawk, merlin, kestrel, sandpiper, woodcock, gull, rock dove, nighthawk, chimney swift, mourning dove, kingfisher, flicker, woodpecker, kingbird, phoebe, flycatcher, swallow, blue jay, crow, chickadee, tufted titmouse, nuthatch, brown creeper, wren, mockingbird, catbird, robin, thrush, kinglet, cedar waxwing, starling, vireos, warblers, parula, waterthrush, yellowthroat, redstart, sparrows, blackbird, oriole, grackle, cowbird, cardinal, indigo bunting, house finch, redpoll, goldfinch, junco, pheasant, killdeer.

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2 Id.

Mammals found in 2002 include: woodchuck, muskrat, mink, beaver, weasel, squirrel, chipmunk, mouse, vole, shrew, rabbit, coyote, fox, skunk, raccoon and deer.

Plants

Only one endangered species, Englemann's Sedge, is potentially found at the Alewife Brook Reservation, according to information from the Massachusetts Natural Heritage and Endangered Species Program.

Master Plan

A major improvement to this waterway is envisioned by the Metropolitan District Commission (MDC)'s Alewife Brook Reservation Master Plan (Master Plan). One of the Master Plan's major goals is to restore degraded aquatic and terrestrial habitat. An efficient and effective form of water pollution control is to restore wetlands near or bordering; Alewife Brook; such wetlands act as natural filters and flood storage areas. There are several proposed within the borders of the Alewife Reservation but more are needed.

Cambridge's proposed detention pond will be a great step forward to provide some of this filtration, but more are needed. It might be prudent and cost effective to purchase additional adjacent land to construct new wetlands and flood storage areas.

Another goal of the Master Plan is increased public access to Alewife Brook. The Master Plan includes public access points to the waterway for canoe launches and wildlife viewing. If the public is going to have access to Alewife Brook for recreation, the water should be clean enough at all times for this use.

Water Quality Standard

All CSOs should be phased out as fast as the pipe separation work can be done. The goal must be the Class B water standard. The TMDL approach should be utilized to totally phase out the CSO pollutant source and to restore the waterway so as to support fishing and swimming. The Class B_{CSO} standard would not so provide. Therefore, Class B_{CSO} is unacceptable as it allows peak pollution rates at the times when peak flows occur. It is critical to reevaluate the construction of satellite treatment facilities and stormwater detention facilities in additional areas.

The NPDES permit allows the permittees to hide behind the water quality of stormwater discharges to state that any further reduction in sewage removals is useless or at least not cost effective. Its not useless as Phase II NPDES requirements for all communities will eventually phase out these sources of direct discharges as well.

Living with CSO activations

Until full removal of CSO activations can be achieved, the following actions should be done at a minimum:

-**Signs** should be the full responsibility of the permittee: the use of the universal biohazard symbol also should be used with the word WARNING. The signs should be readable from both sides of the waterway at all access points to the waterway, not just at the outfalls.

-Residents of the Alewife Brook floodplain, who receive the discharges in their yards, should be **mailed annual notices** that sewage is discharged to flood waters. Residents also should be informed of the activation frequency and monitoring results. In addition, residents should be sent information on flood damage reduction techniques and what they can do after a flood event, such as information on disinfection. These actions should also be the responsibility of the permittee.

-**Controls** - Floatable and solids control, at a minimum, should be installed everywhere immediately.

Local and State Wetlands Permits

As stated above, the Commission administers the Arlington Wetlands Protection Bylaw and the state Wetlands Protection Act. Both laws prohibit altering any wetland, floodplain, river, or river bank without a permit from the Commission. Even if this project does not currently anticipate constructing any structures or berms in Arlington, the change of flow into Alewife Brook will likely constitute an alteration and thus require a permission from the Commission. While the permittee was kind enough to meet with the Commission several years ago, the project has changed since then, and we invite the permittee to meet with the Commission again to discuss permitting prior to finalization of project plans.

We hope these comments are constructive and do not seek any delay in work to remove pollutant sources from the Alewife Brook.

Please direct any questions to Cori Beckwith, Conservation Administrator, or me, at 781-316-3012, or cbeckwith@town.arlington.ma.us.

Thank you for your consideration.

Respectfully,

Corinna Barkett

for Nathaniel Stevens
Chair

Cc/ckb

cc: Board of Selectmen, Arlington
Town Manager, Arlington
Department of Public Works, Arlington
Department of Public Works, Cambridge
Kevin Brander, Massachusetts Department of Environmental Protection, Northeast Region, 205A Lowell Street, Wilmington, MA 01887

UNITED STATES OF AMERICA

ENVIRONMENTAL PROTECTION AGENCY

BOSTON REGION

In the Matter of:

PUBLIC HEARING:

RE: ISSUANCE OF THE NPDES PERMIT
FOR THE CITY OF CAMBRIDGE AND THE CITY OF SOMERVILLE

The Baldwin School
Sacramento Street
Cambridge, Massachusetts

Wednesday
June 11, 2003

The above entitled matter came on for hearing, pursuant to Notice at 7:10 p.m.

BEFORE:

ROGER JANSON, Associate Director, Water Programs
PAUL HOGAN, Program Supervisor,
Watershed Planning Program
Department of Environmental Protection
Division of Watershed Management
627 Main Street, 2nd Floor
Worcester, MA 01608
(508) 767-2796

I N D E X

PROCEEDINGS

(7:10 p.m.)

MR. JANSON: Good evening, ladies and gentlemen. Tonight's hearing concerning the issuance of the National Pollutant Discharge Elimination System Permit, or NPDES program, as many of you know, for the City of Cambridge and the City of Somerville, shall come to order. My name is Roger Janson, and it's J-a-n-s-o-n, for those that would like to know, with the New England Region of the Environmental Protection Agency. Co-chairing this hearing with me this evening is Paul Hogan, to my right, with the Massachusetts Department of Environmental Protection. This hearing is being conducted jointly by EPA and the Mass. DEP under federal and state law. Following the hearing, a decision by the agencies will be reached concerning the issuance of the permits in question here.

I will briefly describe several permit procedures and explain how the hearing will be conducted.

EPA has the authority under Section 402 of the Clean Water Act to issue permits to regulate wastewater discharges from point sources into waters of the United States. Until the Mass. DEP applies for, and received authorization to operate the program in Mass., EPA and DEP will jointly issue permits pursuant to Section 402 of the Clean Water Act and to Chapter 21, Section 43, of the

Massachusetts General Laws, as outlined in a memorandum of agreement entered into by both agencies on March 18th, 1973. Slightly more than 30 years ago.

Under Section 401 of the Act, EPA may not issue a permit unless the state certifies that the permit effluent limitations are stringent enough to assure that the discharge will not violate state water quality standards.

Public notices for the draft permit and for this hearing were published in The Boston Globe on May 8th, 2003.

Copies of the notices will be introduced into the record as Exhibit A. A copy of the draft permit, and the fact sheet explaining the draft permit, and again I say permit, I mean permits, because there are two of them, will be entered into the record as Exhibit B. Copies of these documents are available here in this auditorium and Olga Vigora from our office, who is staffing the desk has copies out front for anybody who needs them.

Oral statements will be heard, but for accuracy of the record, all important testimony should be submitted in writing. Oral statements should also summarize extensive written material to allow time for all interested parties to be heard.

This public hearing is being recorded. The recording will be part of the official administrative record. Any person would like to listen to the tape may

make arrangements to do so with EPA. This hearing is governed by the permit regulations promulgated by EPA under the Clean Water Act and codified at 40 C.F.R. Part 124.12. Its purpose is to inform the public at large of the draft discharge permit and to allow interested persons opportunity to comment. Both oral and written comments received tonight, as well as those written comments submitted during the public comment period will be fully considered by EPA and DEP in deciding: Whether the permit should be issued or denied, or what modifications, if any, to the draft permits are appropriate.

Under EPA regulations, this is an informational, non-adversarial hearing without cross-examination. Mr. Hogan and I will confine our questions to points of clarification for the record. All questions by the public or others are for the sole purpose of clarification of tonight's proceedings. Once a final permit decision has been made, notice of that decision will be given to all persons who have filled out an attendance card indicating their address, and also the persons who have provided written comment.

Attendance cards are available at the back of the room, and if anybody hasn't filled one out, whether or not you wish to speak, please do so before you leave tonight; and, particularly, if you'd like to get a copy of the permit

and the summary of the hearing here tonight.

All of the comments received and the supporting material will be made a part of the record and are open to public inspection during normal business hours at our office in Boston.

The public comment period normally, and as the advertisement said, closes on midnight of the day of the hearing, unless extended by the Hearing Officer prior to the closing of this meeting tonight. Any interested person must raise all reasonably identifiable issues and submit all reasonably available arguments and supporting material to EPA and the DEP at that time.

I will address the issue of extending this at the close, just prior to close of the hearing tonight. We do have one request already to extend it, and it's fairly routine for us to extend the comment period.

At the time that a final permit decision is issued, EPA will issue a response to comments, which will specify what provisions, if any, of the draft permit have been changed in the final permit and the reasons for the changes. The response will also briefly describe and address all significant comments raised during the public comment period and in this hearing. The response will be made available to the public and all interested persons. EPA expects to issue a final decision as expeditiously as

practical and will notify the applicants and each person who has submitted written comments or requested notice of the final decision.

Within thirty days of service of notice of the final decision, any interested person who wishes to contest the terms of this permit may petition the Environmental Appeals Board, which I will refer to as the EAB, to review any condition of the decision. Petitions must be filed in accordance with 40 C.F.R. Section 124.19 and 124.21, as amended on June 14th of 2000.

Any party which failed to file comments or failed to participate in the public hearing on the draft permit may request review by the EAB only to the extent of the changes from the draft to the final decision.

Petitions to the EAB should be directed to the Environmental Appeals Board, Mail Code MC1103B, U.S. Environmental Protection Agency, Ariel, A-r-i-e-l, Rios, R-i-o-s, Building, 1200 Pennsylvania Avenue Northwest, Washington, D.C. 20460.

Within a reasonable time following the filing of the petition for review, the EAB will issue an order granting or denying the petition for review. In the event the petition is denied, the conditions of the final permit decision become final agency action. Public notice of any grant of review by the EAB will be given in accordance with

40 C.F.R. Section 124.10. Public notice will set forth a briefing schedule for the appeal. Notice of denial will be sent only to the person or persons requesting review.

If a petition to the EAB is filed, the regional administrator is required, within a reasonable time of being notified by the EAB of the filing of the petition, to notify the EAB, the applicant, and all interested parties of the uncontested and severable conditions of the final permit. The uncontested and severable conditions will become fully effective obligation of the permit 30 days after the date by which the regional administrator submits the required notice to EAB. A similar request much be filed with the Massachusetts DEP within 21 days of receipt in accordance with the Massachusetts Administrative Procedures Act, which is Chapter 30A, and the standard Adjudicatory Rules of Practice and Procedure, which is 801 Code of Massachusetts Regulations 100.

I will allow the permit applicant to make a short, concise presentation and then request comments from federal, state and local officials, and members of the public audience. I will use the attendance cards to call on people who wish to comment. These cards will also be used to notify persons of our subsequent final decision. Speakers should come to the podium, to my left, to speak. I would ask that when you speak, you identify yourself and your

affiliation for the official record.

I will now ask Mr. Hogan, who represents the Mass. DEP, if he has any additional remarks.

MR. HOGAN: Good evening. My name is Paul Hogan, Chief of the Massachusetts NPDES Permit Unit, and I represent the Massachusetts Department of Environmental Protection.

This is a joint hearing being held under the provisions of state, as well as federal laws and regulations. The Massachusetts Clean Water Act, General Laws, Chapter 21, Sections 26 to 43, in Code of Massachusetts Regulations 314 C.M.R. 3.00, prohibit the discharge of pollutants to waters of the Commonwealth, unless authorized by permit issued by the Massachusetts Department of Environmental Protection.

The Department and the United States Protection Agency, New England, Region I, have entered into an agreement to cooperatively process applications and jointly issue surface water discharge permits. The permits issued under this program are developed to conform to both state and federal water pollution control laws and regulations. Each agency has the independent right to enforce the terms and conditions of the permits. Thus, the Department will also fully consider all written and oral comments received at this hearing, in addition to written comments already

received by the agencies.

EPA, Region I, has requested that the Department certify the draft NPDES permits for the City of Cambridge, Combined Sewer Overflow Permit No. MA0101974, and the City of Somerville Combined Sewer Overflow Permit MA0101982. In accordance with the provisions of Section 401(a)(1) of the Federal Clean Water Act, and pursuant to 40 C.F.R. Section 124.54. No final decision concerning certification will be made until all comments received during the public comment period have been reviewed. The permits can be certified in their current form or with specified state certification requirements.

The Massachusetts Department of Environmental Protection welcomes the opportunity for this hearing to gather any additional information that will assist the Department in making decisions concerning the final permit for the City of Cambridge Combined Sewer Overflows and the City of Somerville Combined Sewer Overflows.

Thank you.

MR. JANSON: Thank you for bearing with us as we go though all of that. It used to be twice as long and every time I'd go to read this, I'd try to cut a couple of sentences out, to keep making it shorter and shorter.

U/I FEMALE FROM THE FLOOR: (Unintelligible.)

MR. JANSON: It will be in the official record.

There are copies submitted to the record. So, yes, it is available. All I have is a working copy here tonight, but if you identify yourself, we can see that you get a copy of this or we'll have the whole record available, whichever you'd prefer.

Normally, we do start with representatives of the permittee, in this case the City of Cambridge, I believe it's the DPW, and the City of Somerville, if there is any representative who would like to speak on behalf of one or both.

We also ask, then, any federal officials, if there are any federal official, elected representatives or their staff, any state representatives or their staff. None so far have signed in. And if they'd, also, like to speak.

Now, having gone that far, there are approximately six people who have asked, could they speak, because of the conflict with the Arlington Town Meeting this evening, and I'm going to use the license granted to me to allow them to speak. I would ask you, though, it's almost 7:30, in recognition of the person who wants to go the town meeting behind you, if you could keep your remarks concise and to five minutes, and submit any salient points in writing, that would certainly assist.

First, I'll ask Kathleen Dias.

Yes, if you'd step up to the podium. We've done

this some times with people talking to us, not realizing that the rest of the audience some times misses what they say.

MS. DIAS: Thank you. Oophs, and a rolling podium.

(Laughter.)

MS. DIAS: I'm Kathleen Kiely Dias. I'm a member of the Arlington Board of Selectmen, and also a member of the Alewife Advisory Committee to the Arlington Board of Selectmen. I live at 26 Addison Street in Arlington.

The Arlington Board of Selectmen has sent a letter to Mr. Papadopoulos with our comments in it and with some supporting documents. Our main concerns are that we thing, as a whole, CSOs are arcane and we feel that while Cambridge is doing a good job to reduce 84 percent of the CSO discharges, we feel 100 percent should be eliminated.

I know there is some financial consideration in this, but in no way has anyone indicated a time line for when all these CSO discharges will be eliminated.

It doesn't seem that in any of these plans there's a reasonable way of monitoring the amount of discharge, and a reasonable way that Cambridge could notify the members -- the citizens in Arlington when these discharges take place.

We're also concerned that some of the areas in Arlington were not surveyed, most especially the Sunnyside

area, regarding CS -- flooding and CSO discharges.

I'm not going to take up any more of your time because clearly we have written most of this, but we just want to make sure that we're on record; that we think all the CSO discharges need to be eliminated. We think there needs to be a time line here for that elimination, and we think that because of public health issues, that there needs to be a more reasonable way of notifying the people in East Arlington of the discharges.

And since Cambridge is, in fact, discharging with one CSO from Somerville, they need to let the citizens in East Arlington know when there is a CSO discharge. And there needs to be some way of monitoring this, so that there are some reasonable limits.

What are the limits on CSO discharges? How high can they go? This type of thing.

So I want to thank you for this opportunity to speak.

MR. JANSON: Thank you very much.

I might point out that sitting out in the audience is George Papadopoulos. He's the permit writer and many of you have seen his name. He's the gentleman to whom comments should be submitted, up to and by the end of the close of the comment period.

And sitting over here is one of our gentlemen from

our Assistance & Compliance Office, Eric Hall, who I think many of you probably know or are familiar with.

Having said that, Diane Mahon? Mahon or Mahon.

MS. MAHON: Either one.

MR. JANSON: Either one.

MS. MAHON: You called me second, so I can't complain, but I'm going to stay to the end.

My name is Diane Mahon. I want to thank Mr. Janson and Mr. Hogan. I'm going to say the other gentleman's name wrong, Mr. Papa ---

MR. JANSON: Papadopoulos.

MS. MAHON: Papadopoulos. I apologize.

I'm not going to repeat what my colleague on the Board of Selectmen said. I'm a member of the Arlington Board of Selectmen, the Vice-Chairman. I'm also a town meeting member; and more importantly, a member of the East Arlington Good Neighbor Committee, and the Coalition for Alewife.

Trying not to repeat what my colleague, Mrs. Dias, said. I will say that not only the Board of Selectmen, but the Arlington Town Meeting has taken a very strong and important stance on this area of the Alewife, as have state agencies.

Approximately two, two and a half years ago, the Town of Arlington, through its town meeting, voted to

maintain at least the Arlington portion of the Alewife Brook as a Class B waterway. Now, that's sort of an oxymoron to say maintain, because if I understand correctly, I believe in 1999 the applicant was granted a Class B CSO variance, which ran out in 2003, but I think was extended to September -- I mean 2002, was extended to September 2003.

So, first off, what I would like to say, it's the feeling and the vote of Arlington Town Meeting that at least the Arlington portion of the Alewife area return, as has been stated before, many times we've heard the Clean Water Act, a Class B variance is afforded to it by the Federal Clean Water Act.

Having said that, I'm going to speak to where we are right now and hope this somehow plays into. I know there's nothing we can do. There's a Class B CSO, at least until September 2003, but I, myself, individually, would like to say that after September 2003, from there forward, that the Alewife Brook be maintained under federal law a Class B waterway.

As we know, Class B is fishable/swimable, but nobody in Arlington is beating the drums down so they can go swim in the brook, although I think you will see later, there are children in East Arlington who do swim in the brook. They swim in the brook when it's at its regular water level and they swim in the brook when many, many times

overflows. I should say kick around in the water. And a lot of that is because of a lack of information.

So at the very least, I would ask that the applicants, through Mass. DEP, through the NPDES permit, do the very minimal, the very least that is afforded by law, which is, as Mrs. Dias spoke about, notification regarding the residents.

At least in Arlington, and I'd like to advocate for Somerville and Cambridge, but I wasn't elected to their City Council, so I'm not leaving them out, I'm just going to speak to Arlington. There are many residents in Arlington, first of all, as Mrs. Dias pointed out, the Sunnyside Avenue of the Alewife Brook is not included in any study whatsoever.

The Cambridge CSO project originally, which I think was about a 10- or 15-million dollar project, has gone up to 74- or 75-million dollars from the project that they submitted in 1999. However, in doing that, they also indicated through their plans that originally the discharges were -- I'm going to try to find a piece of paper, so I'm going to jump on to another point, so I want to make sure I say it clearly.

But on behalf of the Town of Arlington, things that aren't happening that should happen is that there is not proper signs. Along the CSO discharge outfalls, there's

a teeny little sign that if you get about five feet before it, says: Cambridge Water Sewage Discharge. And a lot of people do not understand what that means.

I would like to have anybody who is standing along the brook and/or near even swimming or getting into the brook be notified that this is where sewage and I think we all know what sewage is.

We had one of our residents, Mr. Stock, come before the Board of Selectmen after the storm in 2000 or 2001, and he gave us little baggies -- I didn't see it picked up, what I'm going to call secondary contact.

After the brook, Alewife Brook, in East Arlington had flooded, a street or two over from where they closed off Route 16 going into Cambridge, and in that bag, besides being leaves and whatever, there was toilet paper, there were feminine hygiene materials, as well as something -- I mean, a child might think it's an elastic band and it's not. And that is on the streets of Arlington. That is going into the backyards and the cellars of residents of Arlington. And it's also going into homes that, through the Cambridge CSO plan, and because of the granting of the Class B CSO, into homes that aren't even included and haven't even been studied.

Originally, when the MWRA, and I don't mean to say the City of Cambridge, it's the MWRA, I understand, that's

under the federal court order, and the City of Cambridge is sort of a subset of that, initially the outfalls along Alewife Brook was going to be 18-million gallons. They've now changed that to 50-million gallons annually. Originally, the estimation of the overflow activation frequencies from the outfalls was 16. It's now been raised to 63 times per year. And that's with a very limited study.

I can't emphasize enough, as Mrs. Dias did, at least half of the area in Arlington hasn't even been looked at. So what I would ask, at least through the NPDES permit, at least up until 2003, because that's what is in effect, that what is afforded under the law actually begin to happen. And fortunately or unfortunately the City of Cambridge and Somerville will have to bear the cost of that.

I would like all the neighbors who abut the Alewife Brook, and again I'm going to speak to Arlington, that they be notified. A lot of people move in. They don't believe, when I told them, that there's sewage in your backyard. There are sewage discharges. They don't believe it. They believe they live in Massachusetts in the year 2003, that doesn't happen.

I would like every person in the floodplain, which would be also on the Cambridge side, to be notified of that. The Board of Health, to be some sort of working relationship with the different Boards of Health in all of the towns, but

especially -- cities, the Town of Arlington, to develop a program.

In Arlington, we have the Boy Scouts, the Girl Scouts, I just started notifying them a year ago, they go down there and clean up the brook. They go in the brook. They don't realize -- that's one of their community project. They don't realize that there's sewage, you know, floating in that, and neither do their scout leaders.

So at the very least, notification. And like I said, there are residents who have been there 10, 20 years, there are residents who just moved in a year or two ago, they don't know about it or they don't believe it. So at least if they could be notified?

Besides that, once we go from September 2003, I personally would strongly advocate for that the Class B CSO variance permit no longer be issued; That it be a Class B variance, because the representatives from Somerville and from Cambridge and the MWRA have spent so many hours, have gone to so many meetings, I haven't gone to them all, they have. They've put a lot of time and effort into it, But I am going to say personally, I do not feel that Arlington's wish, that this -- all of the CSOs be eliminated. I'm not saying within a year or two, but in the very near future is not happening. I do not see any movement on that.

There's an awful lot of -- everybody agrees with

that, and they've very sincere in that agreement. But I think if the -- after 2003, this waterway was maintained, as it should be, a Class B, that would force the MWRA, through its agents, meaning the City of Cambridge and City of Somerville, to actually sit down and say: This is how we're going to eliminate those CSOs.

And the Town of Arlington is not -- we're very cognizant of costs and current fiscal crises. We're going through a water project ourselves. We're also working with the state. We've identified storm water hookups that shouldn't be there or should be addressed, and we're investing the money in that. So we think the converse should be also on the other side.

And I don't mean to -- this may come off negative, but I see Mr. O'Reardon here and Mr. Pazzano, who have worked for the City of Cambridge and for the MWRA, and Stephanie Moyer, they have been very helpful and they've been very sincere, but they -- they hear the message, but we need the help of the DEP and the EPA to join with us, to motivate them, to talk about eliminating, through the Federal Clean Water Act, through the MWRA, eliminating these sewage outfalls.

Because, again, I'm not talking about a place that people walk down to and they want to put a canoe into, which the MDC has plans to do that, and put a bike path. I'm

talking about people who live there.

So I thank you for letting me say these remarks and I look forward to meetings in the future.

MR. JANSON: Thank you.

Ann Norton.

MS. NORTON: I'm going to ask that Kristin Anderson and I come up together.

MR. JANSON: Okay.

MS. NORTON: Because it's a joint presentation.

MS. ANDERSON: Ann has photos that she wants to show you all that we've collected from neighbors the last three ---

MR. JANSON: Before, I just ask that, A, you identify yourselves; but, B, if you're showing materials, you are intended to submit these for the record?

MS. ANDERSON: Absolutely.

MR. JANSON: Okay.

MS. ANDERSON: My name is Kristin Anderson and I am here tonight representing the Sunnyside Association and, also, the East Arlington Good Neighbor Committee.

Ann's going to talk about -- Ann Norton, my neighbor, is going to talk about the photos that we've brought along after I speak.

I'm basically here tonight to put my neighborhood on the MWRA CSO plan map and to demand that Cambridge,

Somerville and the MWRA stop dumping sewage in the Alewife Brook immediately.

I went to the -- I think this came from the MWRA web site and I'm assuming that most of you guys know enough about the CSO plan to have looked at this and downloaded it. And the first thing that I noticed when I saw it was that my neighborhood was not on this map. So I drew it in for you here.

This is Broadway, and this is Sunnyside Avenue here. Not only are we not on this map plan, but my understanding is that we're also not in the MWRA notice of project change.

Hundreds of Arlington and Cambridge residents are impacted by open sewers in the Alewife Brook. These neighborhoods along the brook, from Perch Pond all the way to the Mystic River. This is sewage that comes into our basements through the backdoor and into our yards and cars.

According to the MWRA, my neighborhood is not here. It is as though we do not exist. How can the MWRA not know that we are here? We get sewage floods and we have received FEMA funding after these floods. Some of the Sunnyside houses are required to carry flood insurance within the 100-year floodplain.

I wonder, if we're not on the MWRA's CSO map and in their plan, because they don't care about us, or because

they don't want to spend the money addressing their own sewage problems in our neighborhood.

Three times in the last seven years my neighborhood was knèe deep in Alewife Brook sewage water for days at a time, and this is surface water flooding that comes right in through the backdoors of our homes.

I was here in the 2001 flood and had no idea that there was sewage in my basement and yard. And why? Because nobody ever told us that there was sewage in the brook. No one warned us of the health impacts. No one explained how to clean it up safely. We waded in that water. We rescued and ate cans of food that were submersed in that water. Our children played in that water and some of us got sick afterwards with violent diarrhea.

There are 50 families living on my street who are affected by flooding. Not everyone on Sunnyside gets it in their basements, but we all get it in our yards. There are another 200 plus people next door at the Arizona Terrace Apartment Complex who need to be interviewed about the impacts of flooding. Arizona Terrace Garden Apartments receive overland sewage flooding in their bedrooms and kitchens.

When I talk about Sunnyside, I'm talking about our basements. Now it come up into our houses because we go down into our basements and track it back upstairs, because

we have no idea that it's there. But over at Arizona Terrace, they don't know it's there, either; and it's in their bedrooms and in their kitchens and in their bathrooms. One thing I've been wondering about is whether or not their in-ground swimming pools receives this sewage water, also. And while I'm on the topic of recreation, I think it's really important to point out, you know, the Alewife Brook is beautiful, the Alewife Reservation is beautiful and there are many environmentalists here in this room who will tell you about all of the wildlife there. And I think that when we're here talking about the human impacts of sewage, we're also concerned about the wildlife.

Our Arlington Police Officer Hogan has been seen on at least half a dozen occasions in the last year behind our homes, fishing in the Alewife Brook. Kids come down to watch the swans and the turtles. And Ellen Mass, who is here from the Friends of the Alewife Reservation, will tell you that she hosts regular canoe trips down the Alewife Brook.

So we demand that all open sewers in Alewife Brook be closed immediately. We want notification immediately before, after and during each flood event that sewage is being discharged into our homes and yards, and we want compensation for hospitals and doctors and prescription

costs associated with the health effects of sewage flood contact. We want compensation for professional cleaning to have our houses and yards safely cleaned after each flood event.

The Sunnyside neighborhood is the lowest income neighborhood in Arlington. We didn't ask for the sewage and we can't afford the effects of it. It doesn't belong to us, it belongs to the MWRA and they need to start taking some responsibility for it in our neighborhood immediately. It's absolutely unconscionable and outrageous that this has been going on without any notification to us. It's absolutely unbelievable.

Cambridge, Somerville, the MWRA, the DEP and the EPA should be embarrassed to allow this to happen.

And I'm sorry to get so worked up about it. I hope I didn't speak too quickly for you.

We did collect over 70 photographs from floods of the last three years, and they're 11 by 17. I hope that you can all see them, because I think they're pretty startling

MS. NORTON: I believe that they're also going to be submitted in digital form with the Arlington comments.

U/I MALE FROM THE FLOOR: They're imposed on-line professionally.

MS. NORTON: Okay. Imposed with David Stoff's.

But Kristin and I did want to just sort of give

people an idea of what is going on. I mean, I don't know how well people can see this, but this is a group of neighborhood children walking through the floodwaters.

There's a little -- this is in October of '96, and the floodwaters have receded quite a bit at this point, and there's a little boy standing here, eating an apple as he is playing in the yard.

U/I MALE FROM THE FLOOR: Can you pass those around?

MS. NORTON: Sure.

MR. JANSON: Could I ask that, A, you show just a representative number of those ---

MS. NORTON: Yes. Yes.

MR. JANSON: --- because I have several people who want to leave ---

MS. NORTON: Okay. I'm sorry.

MR. JANSON: --- almost immediately.

MS. NORTON: Okay.

MR. JANSON: And if you would pass them around, the audience is small enough, I think they ---

MS. NORTON: Okay.

MR. JANSON: --- will get around. And then we'll, of course, accept them with the comments.

MS. NORTON: Okay.

And this is just a representative picture of what

is in somebody's basement. These people actually had a finished room in their basement, and a lot of the people on Sunnyside Ave. have finished rooms in their basements, which get flooded.

And, you know, our cars are submerged in the water. I brought that car seat into my kitchen and propped it up against the heating vent to dry it out after the last flood. I had no idea what I was bringing into my kitchen.

And that's just a couple representative samples, just to let people know it's serious.

Thank you.

And we also wanted to thank Diane Mahon and Kathleen Dias and the elected officials of Arlington for ---

MS. ANDERSON: As well as David Stoff and the East Arlington Good Neighbor Committee, and George Laite and all the Sunnyside people who are here tonight.

MS. NORTON: Thank you.

MR. JANSON: Thank you very much.

(Applause.)

MR. JANSON: Next, Carolyn Mieth or Meith.

U/I FEMALE FROM THE FLOOR: She's at another meeting. (Unintelligible.)

MR. JANSON: Okay. The only other person who mentioned the meeting is Aram Hollman.

MR. HOLLMAN: Thank you, sir.

My name is Aram Hollman of Arlington, Massachusetts. I'm a member of the Coalition for Alewife and an Arlington Town Meeting member, and I'm here to ask you tonight to not accept these two permits as is, but to add additional, much more stringent modifications to them. They are unacceptable as is.

I will not address the public health issues involved because other people have done so and will do so much more capably. I'll address some specific issues and some larger issues. They are more institutional. They are more political.

I will ask the EPA to give their consideration -- I understand both EPA and Mass. DEP are considering this. I will ask the EPA, Region I, to give this unusual, extra scrutiny. More so than they normally do with such permits, because of the large personnel losses recently suffered by Mass. DEP. I think it was another 62 people laid off last week.

Prior to this, there were continuing concerns in this area and others about DEP's ability to assess permits or to respond to other environmental issues. That most recent layoff just makes it worse, and we have every reason to believe that that situation will not get better any time soon. So I will ask EPA to exercise unusually high scrutiny.

A specific concern with the proposed permit and the BCSO standard, after severe rainfalls that will involve CSO outflows, there is no limit whatsoever, Level B or Level C, to the coliform count that will be allowed in the brook. It is an unlimited spike. I think everybody in that area finds that unacceptable.

BCSO is, in essence, a temporary removal of any permit and any restrictions on pollution whatsoever, albeit for limited periods of time. That is unacceptable. That should not be permitted.

More generally, Alewife has been treated almost as an open sewer since it was first constructed in 1984 (sic). That was at the beginning of the 20th Century. This is now the beginning of the 21st Century, and at this time it's appropriate for Alewife Brook to be a brook and not a sewer. Alewife Sewer must end.

As a procedural issue, there has been extraordinary confusion among everybody concerned regarding processes that seem to be on parallel, some times simultaneous, some times separate tracks. I cannot fully and clearly articulate it myself. One is regarding these permits, the NPDES permits. The other is regarding the Massachusetts Water Resources Authority's proposal to use a nearby floodplain as a storm water detention basin.

I believe that there has been a systematic attempt

to confuse this in such a way so that we cannot follow it. That is antithetical to the whole idea of citizen participation.

There are, also, ongoing multiple efforts at addressing the multiple problems in this area, and the NPDES, while you are reviewing it in isolation, I would ask you to review it in the larger context of the multiple problems and the multiple efforts by multiple parties to resolve them.

The Federal Emergency Management Administration is concerned with the rising level of flooding and is doing a FEMA remap of the area. That has concerns for homeowners on the edge of the floodplain. That has concerns regarding public health. There are multiple concerns. There is a tri-town working group involving Arlington, Belmont and Cambridge which has been formed to deal with this.

But Massachusetts' Metropolitan District Commission, MDC, is also formulating a master plan for the area for which said storm water retention basin is proposed.

The larger social issue involved is that there's a great deal of interest in real estate development in the area and the ability of this retention basin and the NPDES permits and the desire to develop real estate are all intertwined. This is not strictly a NPDES permit issues.

So I urge you to consider this permitting in the

larger context of all these issues.

And thank you for your consideration.

MR. JANSON: Thank you, sir.

MR. HOLLMAN: Oh, sir, just one example.

This here is the notice for Project Change for said storm water proposal. Rather hefty. Many citizens collectively submitted comments. We also hired professional expertise to comment on it.

Just this week we received an equally thick or possibly thicker volume, response to comments on that.

You have concerned citizens. They have waded through stuff like this, and this is a lot to wade through. And I would urge you to do whatever possible to continue their involvement.

It's our country, it's our water, you're doing this on our behalf.

Thank you.

(Applause.)

MR. JANSON: I can assure you that members of our collective staffs have also received those documents and we equally, too, wade through those documents many times over with the many CSO communities throughout New England.

Having said that, George Laite, who is from Senator Havern's office, had asked if he could speak on behalf of the Senator.

MR. LAITE: Thank you.

MR. JANSON: Please, sir.

MR. LAITE: My name is George Laite, District Director to State Senator Bob Havern, who represents Arlington. I'm also a town meeting member and, forgive me, because I'm on my way to town meeting in Arlington, as well. I'm also a member of the East Arlington Good Neighbor Committee. I'm a citizen activist, which preceded my involvement in any of these other venues.

But I'll be brief. A lot of what I would say has been said already. I want to say, ditto. In effect, everything that's been said by Mrs. Dias, Mrs. Mahon from the Town of Arlington, and the citizens that have spoken so eloquently here this evening.

The Senator certainly supports the town's position that Alewife Brook must be maintained a Class B waterway. And I also want to note, though, that we certainly appreciate the great work done by the City of Cambridge, its fine engineer and consultants, and MWRA and Somerville officials, to have made the achievements you have made so far, the steps you have taken to solve what is truly a very difficult task, particular given the fiscal crisis we're in today. We do want to thank you for that and commend you for what you have done. You have done an excellent job in moving in that direction.

However, I think we would like see all the CSOs closed on the brook in order to maintain that Class B standard, and to ensure that raw sewage no longer flows into the homes of neighbors who are out constituents.

I would like to note that for the record, looking over some of the history of Alewife, I think it was 1878 when the Town of Arlington in our town meeting authorized a suit by the town against the City of Cambridge, prohibiting the release of noxious and other foul materials into Alewife Brook. Here we are today, over a hundred years later, still dealing with the same problem.

Truly, it is a difficult and almost intractable issue for us to deal with, if we've waited this long to come to this point. But at least there is success that has been achieved so far. It seems to us, at least, beginning to move in the right direction. If only we will go the next step and complete the cleanup of Alewife Brook.

As a citizen, I want to note that on many an occasion, and I can corroborate what you've heard here tonight and what you will continue to hear, I live on Lafayette Street in Arlington, bordering Alewife Brook. On many, many occasion I've been at the end of Lafayette Street, working with neighbors, trying to protect property there against flooding.

I've been on Sunnyside when it has occurred there,

as well. I've seen the water coming into people's homes. I've seen it go into their basements, into their kitchens, if they're on the first floor. I've seen it befoul their clothing, their goods. It's a real thing. Make no mistake. When raw sewage enters into people's homes, it's not a pleasant occurrence.

And for some reason, I think a lot of officials perhaps were not aware of the degree to which this has occurred, but I really want to tell you tonight, in my capacity as a Senator's District Director, that in fact it is true. And it is extremely serious to us. It creates a potential health problem that we are very concerned about. There are a number of families affected by this. And that's when the flooding occurs.

As other have said tonight, there are other recreational uses of the Alewife Brook that have brought people into close contact with that water; whether it be children who are playing in it, which happens quite a lot, kids cannot be stopped from doing this sort of thing; whether it be people who boat on it, which happens quite a bit, when they use canoes, for the most part, on Alewife Brook; people who fish in it, of which there are quite a few.

And I think, at least to underline what Diane said earlier regarding public notification, I would ask that you

provide the strictest, most comprehensive notification methodologies that you can think of regarding this issue on Alewife.

And, again, this is not said in a punitive way or a negative way, but for public health, for the good of the people living there, under this permit. We know this permit concerns the conditions of the permit. We're asking you to, please, enhance what you have done.

The existing signs, as Ms. Mahon pointed out, quite honestly, are small, few in number, nobody knows what they mean, and it would be nice if they were written in English, and perhaps made a little bit larger.

And what I would also suggest, too, for the kids that are in that water, and I really mean this, for the children, extend those signs the length of the brook, so that people will see it, so they cannot avoid it, so that at least during wet weather people stay away from that water.

I know that the MWRA, to its great credit, on its web site, and I pulled up today, have noted that people should stay away from the brook for 48 hours after an outfall, and during wet weather. That's great. But let's get that information out on the streets where people live and where people play and where kids get out there and get in that water, and potentially become contaminated.

We need a lot of signs on the brook. We need them

in English. We need them in larger sizes, if at all possible.

I would also suggest that what we do for the Charles, we should do for Alewife. Perhaps the Charles is a bigger river, without a doubt. It's a beautiful river. But Alewife has also the potential to become a beautiful river. Smaller perhaps, but it's our river, it's our neighborhood.

The signs as they are on the Charles, I would hope, could be visible from the shore as well as the water, since those who are on boats perhaps don't read the signs that come up be seen from the shore.

And I would that you do there what you did with the Charles in terms of asking them to post this material and inform people through their recreational facilities, through the marinas, the boat houses and so on.

We don't have, quite honestly, university boat houses on Alewife. It would be nice if we did. Maybe we'll work towards that. But right now, we don't. But still the fact remains, there are other venues in the Town of Arlington and Somerville that we could use, and in Cambridge, to alert people to the dangers that may exist, to notify them at least to the possibility, and inform them of what is really happening.

So I'd ask you to consider all that, please. It's a serious issue. We're very concerned about this.

And, again, we thank you for all of your great help and your attention to this issue, and if we all work together, this matter will be solved and will no longer go back to the way it has been for over a hundred year.

Thanks very much for your time.

(Applause.)

MR. JANSON: Before I move on to the gentleman who I know is probably the first one in the door here, Carolyn, if you want ---

U/I FEMALE FROM THE FLOOR: There's another town meeting member from Arlington here, Elsie Fiore.

MR. JANSON: Okay. I don't happen to have your card here -- I have it right here, although it doesn't say town meeting member on it. You didn't put that in.

I'm going to ask for a time out, okay, because there are other people that did come in here and they've been here before 7 and waited to speak. I will take one more person that needs to leave, town meeting member.

U/I FEMALE FROM THE FLOOR: Well, I will tell you that there are more town meeting members here than just me.

MR. JANSON: Okay.

U/I FEMALE FROM THE FLOOR: However, I gave warning on Monday night at town meeting that I will be here, so ---

MR. JANSON: If you do want to leave for ---

U/I FEMALE FROM THE FLOOR: --- I don't need to leave right now ---

MR. JANSON: --- please come ---

U/I FEMALE FROM THE FLOOR: --- but I don't know whether we have the Administration of Conservation Committee here ---

MR. JANSON: Well, we have a lot of people here.

U/I FEMALE FROM THE FLOOR: Well, okay. I can wait if anybody else has to go.

MR. JANSON: I'm trying to accommodate, if you need to go to town meeting.

(Several people talking at same time.)

MR. JANSON: Coming from a town that does run by town meeting, I know you probably have time on your hands to get there ---

(Laughter.)

MR. JANSON: --- and still hear the full debate.

Mrs. Elsie Fiore.

MRS. FIORE: Just so you'll know, sir, I share the honors with a gentleman in Arlington of being -- we have the two longest sitting town meeting members. I've been a town meeting member since 1962. We meet every Monday and Wednesday, some times we've met up to 23 nights, and I'm proud to say that in all that time, I've missed six meetings, and I think this is the sixth one.

MR. JANSON: Well, I will, not for the record, but I'll let you know that I served one session as a pull-in off-the-street, to fill an empty seat town meeting member, and I found it to be absolutely one of the most frustrating forms of government I've ever ---

(Laughter.)

MRS. FIORE: Well, I consider it to be the greatest form of democracy going.

MR. JANSON: Having said that, let's get back to the two permits here.

MRS. FIORE: Okay. I'm not going to speak long, but I think there's something that perhaps may be missed or people may be puzzled about.

You may wonder why there's so many people here from Arlington, when Somerville and Cambridge are the two that are asking for these variances.

Well, the fact is that Alewife Brook is on the Arlington side of the parkway, so the combined sewer overflows that are coming into the brook are actually crossing under the parkway. So all of the flooding -- I won't say all of the flooding, because, of course, Dilboy Field can be flooded, and the floodwater does go to the other side into Cambridge, where you're going toward W. R. Grace. But I would want you to make note of it, that there's a great deal of flooding.

I do not happen to live in the neighborhood, but I'm long-time supporter of protections for wetlands and floodplains, and I've worked with most of the people in the projects along there. And one of the things that I did raise when they were building a hotel was the fact that there is a combined sewer overflow at Mass. Avenue, and the parkway that's right behind the hotel, that is one of those is going to be remained open, and when you sit there at the light, you cannot help but smell the odor of sewage as you sit there. And I mentioned that and asked the developer at the time if he wouldn't be concerned that he might lose some customers for that reason.

But the odor of the sewage issue go along the brook, especially when the water is high, is very distinct and certainly not pleasant.

I support all these other people that have spoken. I have, myself, been in cleanups though the years. Never gave a thought to the fact that we were wading in this type of environment, and so I just wish to support all the other people, and for the very reasons they are doing it, and urge you to tell them to close them all.

Thank you very much.

MR. JANSON: Thank you.

Next is Roger Frymire, I think was here first.

MR. FRYMIRE: My name is Roger Frymire, a

Cambridge resident.

First of all, I'd like to request an extension to the public comment period for three reasons. I've been hearing things at this public hearing tonight I would like to add to my own comments.

Second, the response to comments for the notice of project change for a larger sewer separation plan in Cambridge on the Alewife Brook was only officially released in The Environmental Monitor notice today, and it's even thicker than the original notice of project change, and it's going to take a little while to absorbed and regurgitate.

My third reason is that the DEP offices from Wilmington are in the process still of moving to Downtown Boston, and I've been unable to access the files for these permits with the administrative record, which I could use to firm up my comments some more.

I would hope that the comment period would be extended at least two weeks. A week isn't quite enough. I might manage with ten days, I'd much prefer two weeks.

I'll try to keep my comments short, but my first one is a quick two-pages, which I've already submitted to Mr. Papadopoulos, which I'd like to read into the record, also.

The City of Cambridge has been metering all of its city CSO outfalls for several years. They're to be

commended for this extended metering and, also, for the significant process in understanding the system and implementing standard operating procedure and best management practices, which have noticeably reduced both the number of activations and the volumes coming from their CSOs in both Alewife and the Charles River.

Upon comparing this metering data with the MWRA's collection system model run for the year 2001, I became aware of large disagreements between the model's estimates at CSO flows and the metered data, because the draft permit has activation and volume numbers based on that model. I believe the permit should be amended, using the metered data, which they have submitted to both DEP and EPA.

I have calculated a set of current activation numbers and volumes based on that metered data, which I hope you will consider. Not having access or ability to run a model, I did not attempt any modifications to the numbers for future plan conditions, but I hope in every case they will be at least as stringent as those I calculated from the current meter data.

Cambridge metering has been conducted since at least 1988. Continual engineering improvements and best management practices implementation in Cambridge shows a rough but steady decline in the volumes of CSO and the number of activations. They continue through the latest

data I have from the 1st quarter of 2003. Also, the size of the storm required to cause any CSO to activate has slowly continued to rise.

On March the 29th and 30th of 2003, a 2.27-inch storm resulted in none of Cambridge's CSOs on Alewife or the Charles River activated. That's great. I don't want to hold Cambridge to that high a standard for the immediate future because the rate of rainfall is often more a factor in actual CSO activations than the total amount of rain. However, I do want to capture a significant portion of that improvement in the numbers I'm recommending for this permit.

I'll skip the methods I used to come up with this. Suffice to say that I was very generous in taking the metered data and coming up with a number of activations and a volume for each CSO, which I'm recommending.

And as a result, the largest number of activations at a CSO in the permit currently is listed at 25. The largest I can support with large margins of error from the data is only 10. And the volumes, which I also estimated on the high side for my proposed permit numbers, came in at a full 30 percent below what is written into the draft permit. I cannot see using the model, when we have excellent metered data, which shows better conditions right now.

Also, I would like to request that the permit include a requirement for this type of metering over the

life of the permit, so that the next permit can also be firmly based in reality.

In looking at the metered data versus the model data, you have three options. The model may be right, but I've been out on the river in a kayak and driving from outfall to outfall in a car looking quite large rainstorms, and I never found CSO activating. So I tend to believe the smaller number of activations, which would leave me to believe the smaller amount of CSO, also.

Then, again, as I believe, the meters may be right, ominously, think of this: What if both of them are right? If the meters are right, but the MWRA's mass balance model, they know from the rainfall how much is coming into their system, they know at the bottom end of the pump stations how much is going out, and they're generating the CSO numbers basically from the difference.

From the metering data, we know it's not coming out of the known CSOs. So where is all that additional sewage getting to Alewife Brook? Is it CSOs? Is it backing up in sewer lines and going through common manholes and coming out of storm drains? Is it leaking directly out of the old brick MWRA mains that run immediately adjacent to Alewife Brook?

There are more than twice as many connections along Alewife Brook to the MWRA main as the MWRA runs meters

on. They estimate a lot of the smaller connections. I'm afraid that they need to be required to do metering, at least for short periods of a few storms, at each of the connections that exist to make sure, if nothing else, that they're not running backwards into the neighborhoods and into the storm drains during storms.

My next comment refers strictly to the Charles River. My neighborhood of Cambridge, Cambridge Port, approximately a square mile has been found to have no effective storm water outfalls to the Charles River. This is supposedly a separated section of Cambridge, and because the storm water outfalls were all silted in and clogged, this storm water has been backing up till it finds common manholes flowing into the sewers, and occasionally backing up the sewers, so that it flows to other common manholes into adjacent storm drainages, and reaching -- sewage has been reaching the river through several storm drains in Cambridge, which are not official CSOs.

The City of Cambridge has a six-year plan, I believe, to rebuilt all of those storm water outfalls and close all the common manholes in Cambridge Port, so that this will not happen any more.

I believe once that has happened, Cambridge CSOs Nos. 5, 7, 9 and 11, may no longer need to be open at all, and at the very least, the number of activations at the

Cottage Farm sewage treatment plant should go down dramatically with the loss of a square mile's additional storm water in every rainstorm.

Lastly, speaking of square miles, there are at least two square miles of Somerville at the east end of Somerville, far away from Alewife Brook, nearer to the Charles, where the railroad yards are and have been for about a square mile, and another square mile of Somerville, stretching up towards Inman Square, which historically drain to the Miller's River and then to the Charles.

The railroads filled in the Miller's River and the mud flats around it, and as part if their state permits, were required to maintain drainage for that portion of Somerville to the Charles River. They've abdicated some of that drain line to the MBTA, and at the moment three very large drain lines to the end of the Miller's River, where Somerville CSO 010 used to flow, are totally clogged ---

MR. JANSON: Time out there. The Chair has clobbered the mike here.

(Pause.)

MR. JANSON: You're back on line again.

MR. FRYMIRE: Because we have two square miles of drainage there that should, by agreement with the B&M Railroad, which is now Gilford Industries, should be reaching the Charles River.

Somerville CSO 010 was closed several years ago, but not because they separated the 010 drainage, the City of Somerville bulked off that CSO because they investigated during a storm and found that it was flowing backwards. Storm water from the railroad yards was flowing into the MWRA and Somerville sewer lines and causing greater CSO overflows and street flooding of sewage in a large portion of Somerville.

As a result of the huge amount of storm water in that area, which cannot be coped with by the Delory (phonetic) pump station, Somerville CSO 009 actually backs up all the way, the length of Somerville to the watershed line to the Mystic River/Alewife Brook watershed, and is contributory to the Tannery Brook Somerville CSO 001A in this permit.

I would like something to be done about getting these drain lines reopened and relieving some of the extreme drainage needs for East and, in fact, all of Somerville.

Thank you.

MR. JANSON: Thank you.

(Applause.)

MR. JANSON: Mr. Frymire, if I may ask, you referenced in your opening comment about potentially extending the comment period, and you referenced the notification of the MWRA project changes in The

Environmental Monitor, which I believe was yesterday's Monitor, the 10th. Do you know how long the comment period in The Monitor is open for? Is it three weeks? Is it 21 days?

MR. FRYMIRE: I think it's 30 days.

U/I MALE FROM THE FLOOR: 30 days.

MR. FRYMIRE: I believe it's 30 days.

MR. JANSON: Thank you.

David Stoff.

MR. STOFF: I'll open with a small procedural question. I just want to leave these for the record and exactly would I do that?

MR. JANSON: Right here.

MR. STOFF: Okay. What you have is my comments, and I'll take these up with me.

MR. JANSON: Okay. Mr. Stoff has submitted his comments, and for the record, I believe that is now Exhibit D.

MR. STOFF: Okay. I'm a lucky man.

Exhibit E, I guess, will be this letter.

I'm David Stoff. I live at 88 Fairmont Street in Arlington, Massachusetts.

I could wear a lot of hats to this particular hearing, but I'm going to wear this hat of citizen, because citizen participation is very important to me, and I have to

say that it's like music to hear all of you speak. I'm so happy that this permit hearing is actually occurring. It's been a long time in coming and I am really glad to see so many people here. It's a heartwarming experience.

Exhibit E would be Dr. Martha McCarty's letter, which I have to read this, because it tickled my fancy.

P. S. Sorry, this so late. We have family illness to deal with.

The date of this is February 9th, 2000. That's how long...

I have three major comments to make. I've submitted substantial written comments and I'm not going to try and read them to you or try and remember them and trip over by tongue. I'd just like to leave you with some thoughts.

If I could sum up what I see as the problem in this permit, it's a simple problem.

Clean Water Act requires state water quality standards to meet public health considerations, and the water quality standard in this permit does not.

I think you've heard ample testimony from Kristin and from others that the problem of sewage being transported by overland flooding in the Alewife Brook is a real problem, and I think a thorough investigation of that problem needs to occur before there is any consideration of setting a

long-term water quality standard for the Alewife Brook that will allow these discharges to occur.

The level of public notice has been addressed by almost every speaker, so you don't need to hear it from me. I think everyone realizes that some kind of enhanced notice needs to occur. I would question that all of this notice should be in signage.

In reviewing the record for this permit, I chanced across the public work plan documents, and I can read, and I still have trouble determining what the exact implementation level should be as of this date.

If I were to take Steven Lipman's letter, which I have introduced in my comments, as the current state of the public notification efforts on the Alewife, the signage should be in and we all should have received letters.

I didn't get a letter and I haven't seen any new signs, so I just have to say that I don't believe it's been implemented.

I think it's appropriate that the public notification measures be implemented directly in the NPDES permit. I think that this would clarify the public notice situation for all parties. And rather than having an extensive coordination effort between MWRA, Cambridge and Somerville, that we just have the NPDES permit as a reference for the level of appropriate public notification.

I fully expect that that will be implemented in this final permit.

I've spent a lot of pages writing about long-term water quality issues on the Alewife Brook, and, boy, you really don't want to hear that.

But, suffice it to say, the solitary mechanism for implementing additional CSO controls in the Alewife Brook, according to the permit, are the trigger points which Mass. DEP wrote into the original variance. And as far as I've ever been able to determine, that is the only reference to the trigger points policy that exists.

If that is incorporated into the permit and if that is to be the mechanism for further long-term water quality gains or closing CSOs, I would expect this permit to include a thorough discussion of that, so that we would understand what that implementation means, and that we would have that within this permit or at least in the context of the water quality standard determination process.

There's a lot of things I didn't get to write because I felt the actual period we had to work was very short. And one of them that I'd like to try and address is something that was raised, an issue that was raised in and Arlington meeting which was held during the water quality variance extension project.

A representative of EPA, and I want to say it was

Brian Pipp, but don't hold me to it, because my memory is slipping with old age, mentioned that perhaps these permits would include a mechanism that would control dry weather loads that occur through new development in the combined sewer area.

I looked through the permit, I didn't see it. I would like to see some discussion of that, because I think it's a real issue that overdevelopment in the Alewife must be addressed.

I note that The Boston Globe today carried another statement from the Romney administration touting smart growth, and I would like to state for the record that I believe that if that is a state policy, that the notion that a combined sewer area with wet weather discharges should be a priority for development because of its proximity to transportation and other amenities. It seems to fly in the face of logic. I have to see that some discussion, at least in -- either from DEP or within the permit fact sheet occur about the direction of controls.

Again, having written it down, I'm so glad, because I don't have to stumble over it, which is good.

The other thing I would like to address is the CSO policies requirement of the development of a total maximum daily load for demonstration approach CSO control plans.

It is in the CSO policy. I have written this

comment, again. It's great to look at the things you've read, because I think I've written this in every permit, comment, draft Somerville permit that was withdrawn from EPA. The NCP. The variance extension.

I finally received an answer to this sort of a problem from the ROTC, which I was able to read, which according to the MWRA, this is an issue for triennial state water quality review.

Well, Massachusetts hasn't had a triennial state water quality review in six years. So I would expect that a -- I wanted to say a statutory requirement, really, as the TMDL requirement is now drawn into Clean Water Act through 402.(q)(1), through the Wet Weather Water Quality Act of 2000, should be addressed in the NPDES permit.

I fully expect that this permit will address that comment, because if we have to look to any mechanism for long-term water quality gains in the Alewife, I would prefer the TMDL mechanism, because it allows public participation, as written in the variance, the trigger points mechanism which only includes DEP and MWRA. I think the public has a lot to say. I look around this room and I know that the public has added a lot to this process, and I would fully expect that when we discuss the long-term water quality of a water body like Alewife Brook, that the public would be fully involved.

Hey, I'm done.

(Applause.)

MR. JANSON: We're actually getting closer to the end. We have two yeses and three maybes, which could be five yeses, but that's fine, too.

Next is Ellen Mass from the Friends of the Alewife Reservation.

MS. MASS: --- plan to speak tonight, but I will say a few words, not as eloquently as some of our other speakers. I'm going to try to just give a little bit a perspective by a group that is out there quite a bit. The group has had about 50 cleanups and we've done many, many, many tours, I would say close to the number of cleanups. We're constantly there, so we're very familiar with the look of the place. And maybe one of the reasons we do so many cleanups is because we're trying to clean up the place. We're trying to compensate for the water situation, the waterways.

And I think I agree with everybody here, we really, really want to clean up the water as best as we possibly can, to the max, 200 or 300 percent. But I also want to just, again, let our EPA friends know that the place that we're talking about is surrounded by three municipalities.

We have an upstream community of Belmont, we have

Cambridge and then the Alewife Brook that Roger just alluded to that had two times as many connections that are metered in. That community is Arlington. And so when we get up here, we're talking about areas and we're all focusing on a permit that is related to Cambridge, but in fact some of this permitting and obligation and responsibility is somewhat spread out. And I think everybody recognizes that and it doesn't take -- it's a common sense kind of issue.

But I guess as we're out there, one of the things that has inspired and given us great hope is the fact that there are improvements that are moving forward. I guess we're here tonight to talk about the improvements are not quite enough, but as we come up with some flooding amelioration plans that have been presented. So fully, over 15 meetings last year, one of which was presided over by the EPA, regarding the detention issues and the CSO storm water, and then also the other improvement people have all come to is where was the master plan? The MDC master plan that has many, many improvements for the area.

So we're really talking about improvements as well as making them maximally effective for everybody. And I really feel bad for the Sunnyside Ave. folks, because they're kind of stuck in between the communities, and they have been overlooked. And I would hope that we could really think of an inclusive way of including some of these

communities that are not particularly targeted to a particular municipality, and bring those in, as well.

I also want to commend the EPA for their requiring compliance. I think you sent letters to seven communities. And I remember calling Owen O'Reardon and saying, are you guys going to comply? Here's the deadline, it's coming up next month. And lo and behold, that letter got in their plan for cleaning up their illicit connections came in, and in fact much of their compliance, as far as I understand, from what I've read, has been accomplished. And this is really, really quite remarkable, because I'm not sure that the other communities, they're speaking tonight, have complied.

Have they complied? And they have been sent in.

Well, it's good to hear that. Because much of -- you know, Cambridge is the recipient, the container basin for the entire for the City of Belmont. And so much, much, much of our illicit in our waters come up from our upstream community. As well as in Arlington, we have enormous number of connections that come in that are not accounted for. So we're really talking about a kind of a regional issue.

And I want to dilute the issue, because I think my fellow speakers have really, really spoken to some technical matters that I can't speak to, but I think tonight really is the time to keep it in perspective. I really wasn't going

to speak until -- and I thought that this could be helpful, again, to look at the broader picture.

We're, I think, the most committed to the natural resource issues, and that we've been out there four years, and we've made a real, real big mark on protecting natural resources. In other words, we have a very strong and proven track record of stewarding many, many, many groups around the state, around the Boston area that have come out, and we've stood up for the protection of natural resources, and we want to move ahead. We don't want to stop improvements. At the same time, we want all the municipalities to be responsible, and hopefully the EPA will help us do that.

My son, I feel he's in the audience watching, because he works in D.C. for a federal environmental agency, as well, and I'm glad to be here just to be part of this evening.

Thank you.

MR. JANSON: Thank you. And Paul and I accept your compliments.

(Applause.)

MR. JANSON: It's rare that we get too many compliments at these meetings to accept. We usually get bricks, but we thank you very much, and thank you for taking the time.

Now, Carolyn. And is it Mieth or Mieth?

MS. MIETH: Thank you.

MR. JANSON: Thank you very much.

MS. MIETH: My name is Carolyn Mieth. I'm a facilitator for the Coalition for Alewife, and we've been working on Alewife issues since I moved to North Cambridge in 1979.

Initially, I did not know about the sewage in the brook, so that when my dog went swimming, I thought it was the chemicals I needed to wash him for and not sewage. I was appalled to learn that this relatively small brook, running through people's backyards, carried sewage. And what's more, that it overflowed, often several times a year, into people's backyards and basements, and that they lost their washers and dryers and boiler.

One Sunnyside resident lost two of each of those through the recent '96, '98 and '01 floods. And that another friend said that she had to wash her basement with a solution of Chlorox at least twice before it was considered safe.

I cannot speak to a lot of the technical aspects. I try to follow them. But to me, as a resident of this area and listening to what the sewage overflow means to their daily lives, I find it unconscionable.

We can send men and women to the moon, but we can't clean up a little brook in our backyards. And I don't

care if it costs more money than you folks want to spend. I say spend the money and get it cleaned up now.

George Laite has told us how long it's been going on. It's time to clean up the brook. Close all the outfalls. Issue as many bonds or whatever you need to do to do it.

And when I hear $90 billion spent to rehab Iraq after we just through bombing it, and think what $90 billion could do for housing homeless children, educational needs and our environmental needs, which always seem to come at the end of the line, I really want you to keep this or make this a Class B, fishable and swimable brook.

Thank you very much.

(Applause.)

MR. JANSON: Nancy Hammett from the Mystic ---

MS. HAMMETT: Yeah, I'm a yes, now.

MR. JANSON: Okay. I probably would have made you a yes, anyway.

MS. HAMMETT: I'm Nancy Hammett. I'm the Executive Director of the Mystic River Watershed Association, which includes Alewife Brook in the watershed. It's a tributary of the Mystic River.

I guess I endorse a lot of what's been said, here, so I'll just focus on a few things. We'll be submitting written comments.

First, we would like to endorse Roger's request for an extension. I think the information that's been provided here is very useful. We, too, are going to want to going through the response to comments and, therefore, would appreciate two-week extension, at least.

And that's partly because I think there's a sort of disturbing, a very fragmentary quality to the way that the sort of decisions are being made about water quality in the brook. I think David Stoff referred to this, and I'd like to echo that.

It's not clear to me why these permits should be issued now, when the decision about the water quality classification for the brook is due so soon with the expiration of the variance. And the issues are so closely linked that I'm very concerned that the issuance of permits at this point -- I certainly hope it would not sort of reduce willingness to consider, you know, classifying the brook as a Class B waterway because so much has been in place that -- put in place in the form of permits that then have to be reopened.

So I'm fully assuming that these permits will have to be reopened when that variance decision is made, and would actually prefer that the variance decision be made -- the water quality classification decision be made first. What is the goal we're trying to meet, and then what kinds

of permits do we have to have to meet them?

The second thing I think I'd say is, in making decisions about the permitting levels, it's really critical that the levels not allow any backsliding from what's currently achieved and, in fact, be pressing forward.

And I think the information that Roger Frymire has presented about evidence that the current activation levels and numbers of activation and flow are much less than is predicted by the model, should be taken very seriously, and should be incorporated in the permit levels.

And, also, both in terms of the permits and in terms of the longer term decision about the water quality classification for the brook, I think it's extremely important that a serious study be done of what can be achieved by storm water controls.

Again, Roger Frymire has suggested several areas that he's aware of where, what sounds like relatively straightforward improvements in drainage, clogged drains or that sort of thing, could make a major difference in what's required for the CSO activation.

So, obviously, if there are any CSO activations, any CSO discharges left, which I hope will not be the case, but if there are, there's a very, very high standard to show that they're absolutely necessary; and, therefore, as we make these decisions, considering what the towns, if they

haven't done yet, should be doing, and will have to do under the Phase II storm water programs, and these other sort of maintenance issues, really should be looked at very carefully and taken into account before we end up the conclusion that it's necessary to dump sewage into Alewife Brook.

And I guess the final thing I'd say is, the whole regulatory structure is based on uses of the river. We have swimable, we have fishable, we have boatable, and obviously that doesn't constitute all of the uses. I think a lot of the testimony we heard tonight really goes to the fact that there's an exposure route that we don't actually treat as a use, but is extremely important and should be considered. There really should be a class that allows for flooding exposure. And I don't really expect it will change the classification system, but we really -- you know, if you really have an unavoidable use, and I would argue that flooding exposure is an -- I mean, we're working to get the flooding levels down, but that's an unavoidable use.

So although I really encourage all the notification, I see that as a temporary measure. Ultimately, we should be getting to the point where the use -- the water quality is such that there's no health impact for being exposed during a flood.

And I guess that's it. Thank you.

MR. JANSON: Thank you.

(Applause.)

MR. JANSON: Christine Scypinski, is it? Scypinski?

MS. SCYPINSKI: Scypinski.

I'm a resident at 115 Sunnyside Ave., and I think I'm probably the newest resident to Sunnyside Ave. And Kristin contacted me because she was so concerned about this issue of sewage and flooding.

Now when I bought my house a month ago, I knew that the area flooded, and I had no problem with flooding. I knew I was buying into a property that was in a flood zone, but it was what I could afford, and it was where I wanted to live. So I knew I would have to take that risk of having my basement flooded. Although I also thought it was being caused because of obstructions upstream that were being cleared up, that the flooding was going to subside, that it happened very occasionally.

Once I moved in, I found out that not only did it flood, but that raw sewage has flooded into people's basements. I have a finished basement and I bought the house with a finished basement, thinking that I could use that space as part of my livable space. Now I don't dare use that space, because I have no way of preventing sewage and everything that comes with it into my house.

I have a dog who has been in out of the water numerous times. I had no clue that there was sewage in the water until Kristen told me. There was no kind of notification, and I'm appalled.

I lived in a third-world country for five years, in Uganda, East Africa, and I'm appalled that Boston, Massachusetts, and Arlington, of all places, has conditions that are worse than the areas I lived in in the middle of very, very undeveloped countries. Those people had higher standards of health than we have here.

So we are in the 21st Century. It's ridiculous that we have to worry about things like this coming into our houses. Flooding is a different issue altogether, and I think this needs to be separated from flooding, because this is a severe health violation, that should not be allowed to exist.

And that's all I have to say. Thank you.

MR. JANSON: Thank you.

(Applause.)

MR. JANSON: Stuart Cleinman.

U/I FEMALE FROM THE FLOOR: He just left.

MR. JANSON: He left. Okay. He was a possible.

Before I move to close the hearing and I can send my friend, Mr. Hogan, on his way somewhere out west of the -- not quite the Connecticut River, but certainly out

Western Mass., is there anybody who has anything additional they'd like to say? Hopefully short and to the point.

Yes, ma'am, please step forward and identify yourself.

MS. CONNOLLY: Tiny a little bit late.

MR. JANSON: That's quite all right. We're still open for business.

MS. CONNOLLY: Right. Thank you.

Christine Connolly, Director of Public Health for the Town of Arlington. I did submit comments and hope that you have received them before today.

I'd just like to briefly state that, obviously, the board of health is very -- you know, pushing this very fast forward. We're very interested in having these CSOs closed. Any sewage in the water, obviously, is a public health issue. The sewage can carry passages which can cause diseases, such as hepatitis or even gastrointestinal disorders, and that's something that the board of health very carefully watches any time somebody is diagnosed with hepatitis or any of those other diseases. They're reported to us and, you know, we have to follow up with them. And we want to make sure that this isn't continuous.

So thank you.

MR. JANSON: Thank you.

Yes, ma'am.

MS. MIETH: I don't want to speak again. I want to speak to the issue of extension of the time for comments, and I would like add my name, Carolyn Mieth to that, to Roger Frymire, and whoever else said that should be extended, I certainly do.

Just briefly, the last thing is people getting ---

MR. JANSON: Just identify yourself, so we know.

MS. MAHON: Oh, Diane Mahon, on behalf of the Town of Arlington, the one point I forgot, and I thing Roger Frymire is -- I also add to the extension, and quite a few people in Arlington had said, because of the conflict and also because parking problems, if there is an extension and the meeting could be held possibly in our city, that would be...

MR. JANSON: Yes, ma'am.

MRS. FIORE: Elsie Fiore from Arlington, from Arlington.

And I just wanted to thank all the people from Arlington who came all the way down here because it's kind of like out of the way. Not that Arlington is out of the way from Cambridge and Somerville, we don't -- most of the people involved in this particular situation don't live way down here, as you know.

So I appreciate the meeting and the way that it was conducted and everything, but I think I counted at least

two meeting members, they might not have a quorum out there.

I want to thank you.

MR. JANSON: Well, thank you.

Not unlike the local communities in Massachusetts that's in the state and federal government, also has a limited budget to work with on many occasions, and we from time to time have to go forum shopping to find a place where we can hold a hearing, when we're combining two permits into one.

And I would also add that several of you have commented on some of the MWRA issues relating to their outfall or outfalls into the Alewife and the Mystic River, as well. It becomes logistically an issue of where we're going to hold a hearing. And the good folks in this school were generous enough to allow us to come into their school and use it. And my thought about the parking issue, but I see we did get a representative number of people, and I feel those that would comment on the permit, anyway, and have commented today, certainly were here, and either supplemented their record or brought new points forward.

Having said that, I'm going to move to close this hearing this evening, and first and foremost, thank all of you for coming.

I know I'm -- Paul is asking me about the comment period, and that's the last thing I will do, and I would

just, again, urge everybody to, if they haven't done so already, to make sure that your comments are submitted to us in writing, just to assure accuracy of the record, because at some point we will need to respond to comments and follow a path of either issuing the permit with comment, with response to comments, making changes in the permit, and depending on the substantive nature of those changes, we would either republish notice or issue the permit with those changes, or last but not least, based on our review, we could potentially enter into a major rewrite of a permit.

So it's highly important that the record is as accurate as possible.

Having said that and in view of the various requests, I've heard 7 days, 10 days, 21 days, I think Mr. Frymire said three weeks would be very good. I've heard two weeks. So I will extend the comment period for a time of three weeks or 21 days, ending at midnight, three weeks from today.

So I don't happen to have a calendar in front of me. That would be the -- what is that, the 2nd of July. July 2nd at midnight.

U/I FEMALE FROM THE FLOOR: What day is it on?

MR. JANSON: It's a Wednesday.

So I would urge that you all -- if you have, again, comments. You've heard things tonight, you want to

add additional comments for the record, please do so, and they should be postmarked by midnight on July 2nd.

U/I FEMALE FROM THE FLOOR: They go to the EPA office in Boston?

MR. JANSON: They go, as per the permit, as it instructs. They should be addressed George Papadopoulos, the permit writer. And it should be right in the permit itself, and it has the address where to address those.

As well, duplicates should be sent to the Mass. DEP office. The address is also listed in the permit, and to the attention of Paul Hogan.

Before I actually gavel this close, Mr. Hogan has a comment.

MR. HOGAN: I just want to remind the attendees that the referenced update of the state water quality standards, which is behind schedule, hopefully, will occur in 2003. It is a public process. We have submitted a draft update of the standards to EPA, and it is now under review and discussion, and I urge that the public, please, participate when the public comment period comes up. We are hopeful that it will be sometime in the year 2003.

Same with the ending of the classification of the current CSO variance classification. When that ends, a decision will need to be made, again, public decision.

And, please, my last plea is, submit comments.

This is obviously a very important permit for each of these two communities and the adjoining community, so that's my plea.

Thank you.

MR. JANSON: Thank you, Paul.

Again, our thanks to you for taking the time this evening to come out, and I now the close this hearing.

Thank you.

(Whereupon, the hearing was closed at 8:50 p.m.)

CERTIFICATE OF REPORTER AND TRANSCRIBER

This is to certify that the attached proceedings in the Matter of:

RE: DRAFT FOR THE NPDES PERMIT

NORTH ATLANTIC ENERGY SERVICE CORPORATION'S

SEABROOK STATION

Place: Seabrook, New Hampshire

Date: January 8, 2002

were held as herein appears, and that this is the true, accurate and complete transcript prepared from the notes and/or recordings taken of the above entitled proceeding.

Marilyn D. Franklin Reporter	June 11, 2003 Date
Norton Beecroft Transcriber	June 23, 2003 Date