Municipality/Organization: City of Cambridge

EPA NPDES Permit Number: MAR041076

MaDEP Transmittal Number: W-040464

Annual Report Number
& Reporting Period: No. 1: March 03-March 04

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Lisa Peterson	Title: Commissioner, Dept. of Public Works
T. 1. 1	
Telephone #: (617) 349-4802	Email: lisap@ci.cambridge.ma.us

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:			
Printed Name:	Robert W. Healy		
Title: City Man	ager		
Date: April 29,	2004		

Part II. Self-Assessment

The City of Cambridge has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions.

Part III. Summary of Minimum Control Measures (MCM)

MCM #1. Public Education and Outreach

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
1.a	Develop Educational and Outreach Material for Residents and Businesses	Commissioner/DP W	(i)Develop 3 brochures or fact sheets	A brochure on <i>Keeping Cambridge Clean Requires a Team Effort</i> and two public service announcements (PSAs) were released. One PSA was on <i>Help Stop Flooding – Keep Our Catch Basins Clean</i> and the second was on <i>Street Cleaning Starts April 1st</i> . Each of these items discusses the value of keeping trash, debris and pollutants out of catch basins which lead to the Charles River and Alewife Brook. Copies are attached in Appendix 1. In addition information on Rain Barrels and the EPA television special <i>After the Storm</i> was posted on web sites and/or announcements were aired on cable, announced in local newspapers and distributed over e-mail listserves.	Continue the development of relevant materials.
		Commissioner/DP W	(ii) Post information on the web	A Stormwater Management web page has been developed as part of the DPW web site. It can be viewed at http://www.cambridgema.gov/~TheWorks/stormwater/index.html . This site provides links to 5 brochures that provide information on the proper approaches to managing pet waste, vehicle maintenance, residential tree care, litter management and snow and ice management. Additional water quality information and activities are posted through the DPW homepage, Engineering homepage, Sewer homepage and City of Cambridge homepage.	This site will be updated and expanded to include information on watersheds and best management practices
		Commissioner/DP W	(iii) Distribute materials	Although not required in Year 1 the brochure on Keeping Cambridge Clean was mailed to over 600 Cambridge businesses and is available at most public buildings (City Hall, Libraries, DPW, City Hall Annex) with other brochures developed by DPW. The PSAs were broadcast on local cable, posted in local newspapers, posted on the City's web site. Brochures are also distributed at various public meetings and at DPW sponsored events (rain barrel pick ups, clean-up events).	As new materials are developed we will continue to use cable TV, door to door, direct mail and/or other means to distribute materials.
1.b	Develop Outreach Materials/Activities for Children	Commissioner/DP W	(i) Begin school outreach in Cambridgeport	Although not required in Year 1 outreach efforts began with elementary school children at the Morse School in Cambridgeport to inform them and their parents about the important stormwater	Not required in Year 2. Additional

			1		
		Commissioner/DP W	(ii) Begin School Outreach in Alewife	Although not required in Year 1 DPW gave a presentation on water quality issues to the local High School artists/students from Cambridge, Belmont and Arlington who were involved in a creating a mural about Alewife. The City of Cambridge Arts Council granted nearly \$3000 to the Friends of Alewife Reservation for an Alewife Arts Mural Project. The Alewife Mural Project will portray the natural environment and social and historical significance of the area. The mural will be completed and displayed on the MBTA station exterior summer of 2004. Stormwater management activities in Alewife are still in the permitting and planning phases and activities with local school children will be developed as construction activities are underway.	Not required in Year 2. School programs will be developed as construction projects get underway. Construction is hoped to begin in 2005.
1.c	Develop a Stormwater Web Page	Commissioner/DP W	(i) Develop a stormwater web page	A stormwater web page was developed and can be viewed at http://www.cambridgema.gov/~TheWorks/stormwater/index.html	This site will be updated and expanded to include information on watersheds and best management practices
		Commissioner/DP W	(ii) Update stormwater web page	See 1.c. (i) above.	See 1.c. (i) above.
1.d	Create a Catch Basin Curb Marker Program	Commissioner/DP W	(i) Install catch basin curb marker/plaques	DPW installed catch basin curb markers during sidewalk reconstruction projects and our remedial reconstruction projects. A total of 94 have been installed (see Appendix 1).	Continue to install catch basin curb markers during construction projects.
1.e	Reduce Stormwater Pollution from Automobiles	Assistant City Manager for Community Development/CDD	i) Sponsor an event to promote alternative forms of transportation	The Community Development Department sponsored and participated in many activities promoting alternative forms of transportation during the May 2003 Go Green Month events. Activities included alternative forms of transportation information tables at all major squares in Cambridge, giveaways to cyclists and pedestrians, participation in local bike week events.	Alternative forms of transportation will be promoted through activities and events.

MCM #1. Additional Information

- □ Cambridge DPW held several stormwater discussions with college and middle school students over the past year discussing water quality issues and DPW's efforts to address them.
 - MIT symposium for Middle School students February 2003
 - Harvard Graduate School of Design class presentations April 2003 and November 2003.
- □ Cambridge CDD has reviewed or monitored 27 entities under the Parking and Transportation Demand Management (PTDM) Ordinance to reduce motor vehicle trips associated with increased parking.

MCM #2. Public Involvement and Participation

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
2.a	Participate in Public Meetings on Water Quality and Quantity	Commissioner/DPW	(i) Participate in/sponsor a public meeting on water quality/quantity and/or the stormwater management plan	A public meeting was held by DPW regarding the city's draft stormwater management program on June 19, 2003. (See Attachment 2 for more information).	A public meeting will be hosted by DPW regarding the status of the stormwater management program and/or stormwater quality.
		Commissioner/DPW	(ii) Advertise meeting through various sources	The June 19 th meeting was advertised in local papers, on the city's web site and through local list serves.	The meeting will be publicly advertised in local newspapers and through the web site and other means.
2.b	Support Volunteer Efforts	Commissioner/DPW	(i) Provide clean-up assistance for one event annually	The City participated in or supported 3 clean-up events. • April 26, 2003: DPW provided assistance with advertising, materials and trash pick-up for the FAR annual clean-up at Alewife • August 1, 2003: The city coordinated clean-up along the Charles River with the Summerbridge Program and included 25-30 youth volunteers and 7 coordinators. In addition to the clean-up the event was used as education on the benefits of urban stewardship. • September 2003: The City participated in the clean-up of Hell's Half Acre organized by the Charles River Conservancy.	Support/assistance will be provided for one clean-up event.

Commissioner/DPW	(ii) Support educational efforts of local watershed groups as opportunities arise through talks and /or support of grant applications (iii) Seek permission	 The City supported the efforts of the Friends of Alewife Reservation (FAR) and the Mystic River Watershed Association (MyRWA): The DPW spoke to water quality improvement efforts along the Alewife at FAR's annual meeting on March 3, 2004. DPW wrote letters of support for FAR for grant applications to NE Grassroots Environmental Fund and Urban and Community Forestry Planning and Education Grant. DPW wrote letters of support for the Mystic River Watershed Association (MyRWA) grant applications to Coastal Zone Management's NonPoint Source Grant and EPA's Watershed Initiative Grant. DPW has received permission to link to 	DPW will continue to provide support to local watershed associations as opportunities permit. As the stormwater management
Commissioner/DPW	to post links to local watershed groups' web sites	the Charles River Watershed Association and Mystic River Watershed Associations web site.	web page is expanded and updated additional links and resources will be added

2.c	Sponsor Recycling of Hazardous and Solid Waste	Commissioner/DPW	(i) Hold 4 Household Hazardous Waste Collection (HHW) days annually	HHW collection was held on April 12, June 14, September 6 and October 25, 2003.	
Revised		Commissioner/DPW	Hold 3 Household Hazardous Waste Collection days annually	Approximately 10 years ago Cambridge began sponsoring 2 HHW collection days annually and then increased it to 4 annually for the past 7 years. We have found that the September and October dates generated less waste collections than the earlier collections. This in combination with the close proximity of the events and the cost associated with holding each event, DPW decided to combine these events and sponsor 3 events annually.	HHW collection will be held on April 24, June 12 and October 23, 2004.
		Commissioner/DPW	(ii) Accept recycling materials at a drop off center on a regular basis	During 2003 DPW operated a recycling drop-off center at the DPW yard on Tuesdays and Thursdays from 4 – 7:30 p.m. and Saturdays form 9 a.m. – 4 p.m. Materials accepted include: books, clothing, electronic media (CD's, floppy disks, VHS tapes), plastic bags and unmarked stiff plastic containers, Styrofoam, non-alkaline batteries (NiMH, NiCd, Hg, Li Ion, Pb Acid, AgO2), fluorescent bulbs, mercury containing devices (thermometers, thermostats, etc.), and motor oil.	DPW will continue to operate a drop-off center for recycling materials by residents, small businesses and non-profit organizations with 50 employees or less

Commissioner/DPW	(iii) Beginning in yr 2 provide information on illicit discharges and reporting	Not applicable in Year 1.	DPW will provide information on illicit discharges and reporting at Household Hazardous Waste events.
------------------	--	---------------------------	---

MCM #2. Additional Information

□ The DPW sponsored a rain barrel promotions in July 2003. This promotion resulted in the distribution of over 60 rain barrels. DPW brochures on Vehicle maintenance, disposal of pet waste and tree care programs were distributed to everyone picking up their barrels. The program was advertised through the web and local newspapers.

MCM #3. Illicit Discharge Detection and Elimination

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
3.a	Update Stormwater Drainage System, Outfalls and Receiving Waters in GIS	Commissioner/DPW	(i) Map Fresh Pond outfalls	3 outfalls were located by GPS at Fresh Pond.	None required – there are no other outfalls at Fresh Pond.
		Commissioner/DPW	(ii) Migrate existing GIS database to a new format	The City hired a consultant, CDM, to migrate the existing GIS data into the ArcInfo 8.3 geodatabse format. CDM has begun their contract (see Appendix 3).	Work will continue on the migration of data.
		Commissioner/DPW	(iii) Track private structural controls in a database	Private structural controls are tracked in a database.	We will continue to track private structural controls through our site plan review process.
		Commissioner/DPW	(iv) Catalogue record drawings	Cataloguing of record drawings was not necessary. The contract to update the GIS database included scanning record drawings earlier in the process than what was anticipated when this permit was submitted. A catalogue of updated information will be available when the database is operational.	Scanned drawings will be spatially linked to the GIS database. A catalogue of updated information will be available when the database is operational.
		Commissioner/DPW	(v) Train engineering staff on new GIS software	Not applicable Year 1.	Staff will be trained on new ArcInfo database when completed.
		Commissioner/DPW	(vi) Begin updating GIS information with asbuilt/record drawings	Not applicable Year 1.	As-built/record drawing information will be linked to the updated database (see 3a.(ii) and (iv) above.

3.b	Detect and Eliminate Illicit Discharges	Commissioner/DPW Commissioner/DPW	(i) Perform routine water quality sampling (ii) Test one location in each watershed for oil and grease annually	Water quality samples were taken at 13 outfalls on the Charles, 8 outfalls on the Alewife and 1 at Fresh Pond. See Appendix 3 and Part IV of this report. Oil and grease samples were not taken during Year 1. Weather conditions precluded samples from being taken.	Water quality samples will continue in each watershed.
Revised				being taken.	Two locations in the Charles and Alewife watershed will be tested for oil and grease during Year 2 to replace the missed samples in Yr 1.
		Commissioner/DPW	(iii) Perform additional water quality testing and field investigations as necessary	Additional water quality testing was performed to isolate the location of illicit discharges and to confirm their successful removal.	We will perform additional water quality testing and field investigations as necessary.
		Commissioner/DPW	(iv) Identify and remove illicit discharges	Illicit discharges were detected at: 27 Concord Avenue 4 Griswold Street 147 Sherman Street 27 Cameron Avenue 100 Memorial Drive Illicit discharges were removed from 3 of the 5 sites. The illicit connection at 27 Cameron Avenue drains to a combined sewer system and will be removed in conjunction with sewer separation on Cameron Avenue this spring. Elimination of the illicit connection at 147 Sherman St. requires significant structural modifications, design has been completed and work is in a contract for removal this spring. (See Collection System Investigation & Improvements Summary Reports in Appendix 3.)	We will continue to monitor for and remove illicit discharges.

		Commissioner/DPW	(v) Perform water quality sampling at a Fresh Pond outfall annually	A water quality sample was taken at Fresh Pond (see Appendix 3 and Part IV of this report).	A water quality sample will be taken at Fresh Pond
3.c	Conduct Illicit Discharge Education Program	Commissioner/DPW	(i) Advertise illicit discharge hotline number and information on illicit discharges	Although not required in Year 1 a Stormwater Hotline number was posted on the DPW web site. Also refer to MCM #1 and 2 above and #6 below for additional information.	The Stormwater Hotline number for illicit discharges will be advertised in a press release or in a brochure. Also refer to MCM #1 and 2 above and #6 below for additional information.
3.d	Develop Regulations Prohibiting Illegal Dumping of Non- Stormwater into the MS4	Commissioner/DPW	(i) Develop a working draft	Although not required in Year 1 a draft Regulation has been prepared by DPW ahead of the schedule identified in this permit.	Complete (refer to MCMs #3.d (ii) and (iii) below for more information)
		Commissioner/DPW	(ii) Provide opportunity for public and peer review of draft	Not applicable in Year 1.	A consultant will be retained to provide a peer review of the draft Regulations. Public review of a draft will follow after peer review and redrafting has been completed.
		Commissioner/DPW	(iii) Revise draft as necessary	Not applicable in Year 1.	Depending upon peer review schedule redrafting may occur during Year 2.
		Commissioner/DPW	(iv) Present regulations/ordinance to City Council for consideration for adoption	Not applicable in Year 1.	Not applicable in Year 2.

MCM #3. Additional Information

DPW Sewer Division staff attending 4 meeting sponsored by the Cambridge License Commission regarding Mandatory Meeting of All Alcoholic Clubs and VFW's. These meetings were an opportunity to discuss the problems associated with improper handling and illicit disposal of Fats, Oils and Grease (FOG) and its impact on stormwater and sanitary conveyance systems. A copy of the presentation and agenda's are attached in Appendix 3.

MCM #4. Construction Site Stormwater Runoff Control

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
4.a	Develop Program for Construction Site Runoff Control	Commissioner/DP W	(i) Review existing planning and construction procedures	Not applicable in Year 1	Scope of work will be included in a request for proposals.
		Commissioner/DP W	(ii) Clarify needed regulatory mechanism	Not applicable in Year 1	Scope of work will be included in a request for proposals (scheduled for clarification by year 3).
		Commissioner/DP W	(iii) Develop draft regulatory mechanism, procedures and guidelines	Not applicable in Year 1	Scope of work will be included in a request for proposals (scheduled for development in years 3 and 4).
		Commissioner/DP W	(iv) Present draft to the community for review	Not applicable in Year 1	Not applicable in Year 2 (scheduled for year 4)
		Commissioner/DP W	(v) Amend draft as necessary and submit for consideration for adoption	Not applicable in Year 1	Not applicable in Year 2 (scheduled for year 5)
4.b	Educate Contractors and Residents about the Construction Site Runoff Control Program	Commissioner/DP W	(i) Make materials available on erosion and sediment control practices available through city web site and/or other means	Not applicable in Year 1	Not applicable in Year 2 (scheduled for year 3 and 4). However the City will begin to gather information and make information available on its web site.

		(ii) Discuss erosion	The City Engineer discussed erosion	The City Engineer will discuss
	Commissioner/DP	and sediment control	and sediment control practices and	erosion and sediment control
	W	practices and	problems with permitted contractors	practices and problems with
		problems at 3	working in the City at 3 construction	contractors at 3 construction
		construction	coordination meetings on March 17,	coordination meetings.
		coordination meetings	April 7 and April 22 nd . (see Appendix	
		annually	4 for sign-in sheets). In addition	
			erosion and sediment control	
			problems were discussed at the public	
			meetings discussed in MCM #1 and 2	
			above.	

MCM #4. Additional Information

MCM #5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID#	BMP Descriptio n	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
5.a	Revise Sewer Use Regulations and Guidance	Commissioner/DP W	(i) Complete a working draft	A working draft is complete and is included in Appendix 5	Not applicable, working draft is complete. A final draft will be developed during Years 4 and 5 (see below).
		Commissioner/DP W	(ii) Undertake and complete peer review and legal review of draft	Not applicable in Year 1.	Peer and legal review of the draft will be conducted
		Commissioner/DP W	(iii) Develop draft guidelines on BMPs	Not applicable in Year 1.	Not applicable in Year 2 (scheduled for Year 3)
		Commissioner/DP W	(iv) Discuss final draft and guidance with the community	Not applicable in Year 1	Not applicable in Year 2 (scheduled for Year 4)
		Commissioner/DP W	(v) Present final regulation, guidance and monitoring program for consideration and adoption	Not applicable in Year 1	Not applicable in Year 2 (scheduled for Year 5).

5.b	Participate in Watershed and Planning Efforts	Assistant City Manager for Community Development/CDD and Commissioner/ DPW	(i) Complete Phase I of Concord-Alewife study	Phase I was completed during Year 1. Information from this process can be viewed at http://www.cambridgema.gov/~CDD/commplan/zoning/concalew/index.htm http://www.cambridgema.gov/~CDD/commplan/zoning/concalew/index.htm http://www.cambridgema.gov/~CDD/commplan/zoning/concalew/index.htm http://www.cambridgema.gov/~CDD/commplan/zoning/concalew/index.htm http://www.cambridgema.gov/~CDD/commplan/zoning/concalew/index.htm http://www.cambridgema.gov/~CDD/commplan/zoning/concalew/index.htm http://www.cambridgema.gov/~CDD/commplan/zoning/concalew/index.htm http://www.cambridgema.gov/~CDD/commplan/zoning/concalew/index.htm http://www.cambridgema.gov/~CDD/commplan/zoning/concalew/index.htm http://www.cambridgema.gov/~CDD/commplan/zoning/concalew/index.htm http://www.cambridgema.gov/ http://w	Not applicable in Year 2, Phase I completed. See MCM #5.b (ii) below.
		Assistant City Manager for Community Development/CDD and Commissioner/ DPW	(ii) Complete Phase II if authorized	Not applicable in Year 1.	Phase II is projected to be completed during Year 2.
		Assistant City Manager for Community Development/CDD and Commissioner/ DPW	(iii) Forward study recommendations to the City Manager for consideration	Not applicable in Year 1.	It is anticipated that committee recommendations will be forwarded to the City Manager.
		Commissioner/DP W	(iv) Execute the Environmental Joint Powers Agreement (EJPA)	The EJPA was not executed during Year 1. Agreement by all 3 communities has been reached on the format of the EJPA, but the MA Executive Office of Environmental Affairs must approve the draft and hold a public meeting on the document before it is finalized. The 3 communities hope that the EJPA will serve as a useful vehicle when funding becomes necessary to further the goals of the group. A copy of the EJPA submitted to EOEA is attached in Appendix 5.	
revised			Work with EOEA to advance the EJPA to a final document	The draft EJPA will be forwarded to the Secretary of the EOEA for review. Once they have reviewed the proposed language of the agreement to make sure it is legally appropriate and consistent with the goals of the legislation, they will schedule and hold a public hearing somewhere in the watershed.	Forward the draft EJAP to EOEA for review and participate in an EOEA public hearing on the EJPA

Revise d		Commissioner/DP W	(v) ABC Flooding Board to meet 4 times annually	Since the EJPA has not yet been formally adopted the <i>ABC Flooding Board</i> has not been created. The <i>Tri-Community Working Group</i> has continued to meet at least 19 times since January 2003 and has sponsored one larger public forum on flooding. The working group is compiling a summary report of its efforts over the last year with recommendations for future actions. One of the reasons for the adoption of the EJPA is to create a useful vehicle when funding becomes necessary to further the goals of the group. During Year 1 the group was in a discovery and recommendation mode.	The tri- community working group will continue to meet at least 4 times/year and finalize a summary report of their activities and recommendations
5.c	Undertake Tree Protection Activities	Commissioner/DP W	(i) Provide community outreach and education activities on the care, importance and protection of trees and their role in climate protection	The City Arborist conducted 11 in school visits around tree care and the "adopt a tree" program. In addition he participated in 3 events (2 at CRLS) and one at MIT for Science Fair activities that involved the students and parents with info on tree care and question/answer sessions. The City has begun the hearing process on the proposed Tree Protection Ordinance. The Ordinance was transmitted to City Council in May 2002 and referred to Ordinance Committee for a public hearing on May 7, 2003. The zoning elements of the Ordinance were submitted to Council on February 2004 and hearings were held by the Planning Board on March 30, 2003 and by the Ordinance Committee on March 31, 2004. A second Ordinance Committee hearing is scheduled during Year 2 (May, 2004).	DPW will continue outreach efforts on the importance and protection of trees. The Planning Board will provide recommendations on the zoning elements and the Ordinance Committee will consider any action if appropriate on the Zoning recommendations.

5a. Additional Information

The hydraulic modeling effort undertaken in the Concord-Alewife study area will help inform Low Impact Development (LID) concepts and criteria for the Concord-Alewife area, as well as, establish a basis for application of LID standards in other areas

of Cambridge. BMPs for both water quality and quantity will be evaluated together with the areas ability to infiltrate stormwater.

- As a direct result of the cooperation fostered from the efforts of the *Tri-Community Working Group*, the engineering departments of Arlington, Belmont and Cambridge are working more cooperatively on sharing ideas and information. To gain a better understanding of the influence of infiltration of stormwater on the sanitary system in the area, Cambridge installed temporary meters on a sanitary line in both Arlington and Belmont to supplement metering information compiled in the Cambridge system. This information will be analyzed and provided to the *Tri-Community Working Group* if it provides additional insight into additional benefits of infiltration removal.
- □ DPW has monthly meetings with the Committee on Public Planting regarding the benefits of green space and trees.
- □ Cambridge received the "Tree City USA" award in 2003 and also a separate "Growth Award" in recognition of Cambridge's 12 years as a Tree City and the increases in numbers of resources allocated for the planting and care of trees.

MCM #6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
6.a	Educate Municipal Employees about Pollution Prevention	Commissioner/DP W	(i) Provide a general stormwater training session for municipal employees annually	General training on stormwater management was held at DPW on June 12, 2003 for the engineering and sewer divisions and conservation commission director. Engineering, street and sewer division staffs also receive erosion and sediment control training at the contractor meetings discussed in MCM #4.b (ii) above.	A general training on stormwater management will be sponsored by DPW and open to all interested city employees.
		Commissioner/DP W	(ii) Work with managers to identify operations personnel with stormwater responsibilities	Not applicable to Year 1.	Develop list of responsible operations personnel with stormwater experience.
		Commissioner/DP W	(iii) Develop and implement training protocols that are applicable to operations	Not applicable to Year 1.	Develop training protocols that are relevant to the various DPW operations and begin training sessions.
6.b	Maintain Strong Operations & Maintenance Program to Reduce Pollutants from Operations	Commissioner/DP W	(i) review operations and maintenance programs	Review of operations and maintenance procedures was begun in Year 1. A new Snow Operation Manual and brochure was produced (see Appendix 6)	Review of other operational programs will continue in Year 2.
		Commissioner/DP W	(ii) Identify municipal facilities in separated areas and identify structural controls	Although not applicable to Year 1 identification of municipal buildings in separated areas have begun (see Appendix 6).	Complete the identification of facilities in separated areas and identify structural controls at each facility.

Commissioner/DP W	(iii) Document inspections procedures and maintenance schedules in a procedures manual	Not applicable to Year 1.	Not applicable to Year 2.
Commissioner/DP W	(iv) Develop inspections procedures and maintenance schedules for long term structural controls	Not applicable to Year 1.	Not applicable to Year 2.

MCM #6. Additional information

- ☐ In public construction projects DPW has constructed the following stormwater best management practices (BMPs)
 - common manholes separated = 9 (3 Matignon Road, 4 Massachusetts Ave/Columbia, 2 Cambridgeport)
 - number of illicit connections to the storm drain system removed = 3 (27 Concord Avenue, 4 Griswold Street, 100 Memorial Drive)
 - number of new catch basins with deep sumps and hoods installed = 94 [(14) Bellis Circle Project, (29)Remedial and (51) Chapter 90 Contracts]
 - number of catch basins retrofitted with a hood = 9 (Remedial existing and re-built)
 - number of curb markers installed = 76 [(47)Chapter 90 Contracts and (29)Remedial]
 - number of deep sump manholes = 1 (Fresh Pond Golf Course Project May Street)
 - number of flushing vaults constructed = 1 (Bellis Circle Project)
 - number of stormwater storage tanks and pump station installed = 1 (Bellis Circle Project)
 - Floatable control structures = 1 (Bellis Circle Project CAM 401a)
- □ In February of 2003 the City of Cambridge Department of Public Works, along with the City's Water Department, began a pilot

study of "B20" Biodiesel fuel. The study was undertaken to test the effects of biodiesel on existing engines currently using conventional diesel fuel, and to compare both emissions and mileage results pre and post study. The Public Works Department piloted (4) vehicles: both an early and late model 12yd rubbish packer, a 3cubic yard dump truck, and a Backhoe. The Water Department vehicles consisted of a 5 cubic yard dump truck and a backhoe. (See Appendix 6 for summary of the Biodiesel Pilot Study.)

Part IV. Summary of Information Collected and Analyzed

- See Appendix 3 for the results of water quality sampling at Alewife Brook, Charles River and Fresh Pond from January 2003 through March 2004 and their associated summary of results.
 - □ Alewife Brook samples from February 19, 2004, November 24, 2003, August 28, 2003, May 30, 2003 and March 17, 2003.
 - > The Alewife fecal coliform samples are consistently high from the interconnected system from the pipes entering Cambridge from the Town of Belmont. The Cambridge City Engineer and the Town Engineers have met on three occasions to discuss ongoing improvements in Belmont and are committed to continue meeting on a semi-annual basis to share information.
 - □ Charles River samples from February 10, 2004, August 28, 2004 and March 4, 2003
 - □ Fresh Pond samples from October 15, 2003.
- The City is involved in several collection system investigations and improvement projects throughout Cambridge. Appendix 3 contains a summary of activities for the following periods:
 - □ March 2003 September 2003
 - □ September 2003 March 2004