

Municipality/Organization: Belmont, MA

EPA NPDES Permit Number: MAR021074

MassDEP Transmittal Number:

Annual Report Number

& Reporting Period: April 1, 2008 – March 31, 2009

NPDES PII Small MS4 General Permit Annual Report Year 6

Part I. General Information

Contact Person: Peter J. Castanino

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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:

Thomas G. Younger

Printed Name: Thomas G. Younger

Title: Town Administrator

Date: January 20, 2011

Part II. Self-Assessment

The Town of Belmont has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions, except for the development of an Attitude Survey and a Stormwater By-Law. The Town of Belmont is committed to achieving all of the BMP goals set forth herein and will continue efforts to reach full compliance.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Future
1-1	<i>Develop Stormwater Web Page on Town Web Site</i>	Belmont Office of Community Development, Belmont Department of Public Works, Belmont Webmaster	1. Develop a Stormwater Web Page linked to the home page of the Town's web site. Post information on stormwater related issues and programs. 2. Update web page on a regular basis	The Stormwater Web Page was revised adding stormwater-related activities within the Town.	Stormwater-related information will continue to be posted on the website.
Revised					
1-2	<i>Post Information on Town Hall Bulletin Boards</i>	Belmont Office of Community Development, Belmont Department of Public Works, Belmont Webmaster	1. Track the publications & information posted on Bulletin Board's each year 2. Post electronic versions on Belmont Stormwater Web Page	The Town has posted information on the Bulletin Boards relative to the review and approval of the SWMP.	Informational material relative to stormwater related issues and activities will be posted throughout the year.
Revised					
1-3	<i>Distribute Educational Flyers with Community Newsletter</i>	Belmont Office of Community Development, Belmont Department of Public Works, Belmont Webmaster	1. Track the number of flyers distributed each year 2. Post electronic versions of flyers on Belmont Stormwater Web Page	The distribution of flyers was discontinued.	The Town will evaluate the effectiveness of reestablishing this practice.
Revised			The Town has discontinued the community newsletter. Therefore, the educational flyer will be distributed with the municipal light electric bill.		

1a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Future
1-4	<i>Provide Stormwater Information at "Meet Belmont"</i>	Belmont Office of Community Development, Belmont Department of Public Works	1. Provide stormwater information at the annual "Meet Belmont" event for newcomers and current residents.	At the Meet Belmont event, held on August 19, 2008, the DPW and Office of Community Development provided stormwater-related information.	The DPW and Office of Community Development will participate in the "Meet Belmont" event, scheduled for August 2009, and will provide stormwater-related information.
Revised					
1-5	<i>Provide Stormwater Information at Environmental Fair</i>	Belmont Office of Community Development, Belmont Department of Public Works	1. Provide stormwater information to residents at the Environmental Fair.	The Environmental Fair was not held in Year 6, so no activities were planned.	An Environmental Fair is currently not planned for Fall 2009. However, if the Environmental Fair is held, the DPW and Office and Community Development will participate by providing information regarding recycling and stormwater.
Revised					

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Future
2-1	Public Review of Town's Stormwater Management Program	Belmont Board of Selectmen, Belmont Office of Community Development Belmont Department of Public Works, Belmont Webmaster	1. Obtain public input on draft SWMP 2. Finalize SWMP and make the final SWMP accessible to the public on the Town's website.	Completed in Permit Year 1.	No activities are planned.
Revised					
2-2	A-B-C Stormwater Flooding Board to Address Issues in the Little River and Alewife Brook Areas	Belmont Board of Selectmen, Belmont Webmaster	1. Execute the Environmental Joint Powers Agreement 2. A-B-C Stormwater Flooding Board to meet throughout the permit term 3. Information and Status of Board's activities to be reported on Town Web Site	A representative from the Town is part of the Board and provided reports of meetings and activities to the Town's Board of Selectmen. Efforts of the Board focused on developing future studies and obtaining funding to conduct studies.	A representative from the Town will continue to be part of the Board and provide a report of meetings and activities.
Revised					
2-3	Sponsor Storm Drain Stenciling Program	Belmont Department of Public Works, Belmont Conservation Commission	1. Identify areas for storm drain stenciling 2. Track number of storm drains stenciled 3. Track number of volunteers involved in stenciling activity 4. Summarize the condition of the inlets based on information from volunteers 5. Publicize storm drain stenciling event(s) on web site, on Town Hall Bulletin Boards and via a press release to local newspaper	The DPW continued efforts on the annual storm drain-marking program.	Next year the DPW will continue their annual storm drain-marking program. Each year, pre-manufactured markers will be placed adjacent to storm drains in selected areas of town.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Future
2-4	Conduct Attitude Surveys	Belmont Office of Community Development	1. Develop Survey. 2. Send a press release explaining the stormwater awareness survey to the local newspapers. 3. Track the number of completed surveys. 4. Compile surveys in order to gauge any change in attitude/behavior regarding stormwater issues.	Due to staffing limitations the survey was not conducted.	A survey will be developed and conducted.
Revised					

2a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Future
2-5	Conduct Lawn Care/Landscaping Survey in Spy Pond Watershed	Belmont Office of Community Development	1. Develop and distribute survey. 2. Send a press release explaining the lawn care/landscaping survey to local newspapers. 3. Track the number of completed surveys. 4. Compile surveys to develop future educational outreach materials.	Completed in Permit Year 3.	No activities are planned.
Revised					

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Future
3-1	Outfall Location Map	Belmont Department of Public Works Belmont Office of Community Development	1. Develop a schedule for outfall verification and outfall identification activities. 2. Perform and track the outfall verification and outfall identification activities as scheduled.	The Town updated the outfall location map as required.	The Town will update the outfall location map as required.
Revised					
3-2	Develop and Adopt a Stormwater By-Law	Belmont Board of Selectmen Belmont Town Counsel Belmont Department of Public Works Belmont Office of Community Development	1. Draft the Stormwater By-Law. 2. Adopt Stormwater By-Law 3. Post Stormwater By-Law on Town's Stormwater Web Site	Because of staffing limitations, no work was performed on developing the stormwater by-law.	The Town will draft a stormwater by-law in the future.
Revised					
3-3	Implement an Illicit Discharge Detection and Elimination Plan	Belmont Department of Public Works Belmont Office of Community Development	1. Track and prioritize new potential problem areas. 2. Track the number of illicit connections found. 3. Track the number of illicit connections eliminated. 4. Verify the elimination of illicit connections.	Phase II of the Illicit Discharge Detection and Elimination Plan was completed with rehabilitation of sewer and storm drains in 2007. 30,000 LF of sewer and storm drains was lined (includes PMP). Follow-up sampling for Phase II has been conducted in 2008. A report of the follow-up sampling was submitted to DEP in December 2008. Phase III has begun in the Wellington Brook Watershed. See BMP 3-7.	Follow-up sampling will continue in locations where results were inconclusive. A future rehabilitation project will remove additional illicit connections identified.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Future
3-4	Conduct Infiltration/Inflow Removal from Sanitary Sewer System	Belmont Office of Community Development	1. Implement construction contract to remove private inflow. 2. Track results of private inflow removal. 3. Post information on I/I Private Inflow Removal project on Stormwater Web Page and in Town Newsletter.	The Private Inflow Source Removal Contract was completed in Permit Year 4. The Town also completed a flow monitoring program which identified excessive I/I. A Flow Monitoring Report was submitted to DEP in September 2007. Sewer investigations to identify I/I sources were conducted in 2008/2009.	The Sewer System Evaluation Survey (SSES) report will be completed by June 2009. A sewer rehabilitation project to remove I/I will follow.
Revised					

3a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Future
3-5	Development and Modeling of Sanitary and Drainage System GIS Database	Belmont Office of Community Development	1. Locate all sanitary and drainage system structures (including outfalls) using GPS. 2. Incorporate record information into GIS database. 3. Perform modeling of sanitary and drainage systems. 4. Prepare Technical Memorandum prioritizing areas for future study and rehabilitation.	GIS mapping continues to be updated. Modeling of the sanitary sewer system was updated and calibrated based on the 2007 flow monitoring results. The sanitary sewer model was used extensively to design sewer overflow mitigation in the Winn's Brook Area.	The sewer model and GIS database will continue to be calibrated and updated. Design of Winn's Brook project is scheduled for the Fall of 2009.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Future
3-6	<i>Evaluation of sanitary and drainage systems in areas proposed under pavement management program</i>	Belmont Office of Community Development	1. Clean and TV inspect approximately 17,000 LF sanitary and drainage within roadways proposed for reconstruction under Town's pavement management program (PMP). 2. Evaluate and identify portions of system that need rehabilitation or replacement. 3. Implement recommendations in conjunction with pavement management program in these areas.	Sewer and storm drain rehabilitation for the Town's 2006 PMP was completed in 2007 (See BMP 3-3). In 2007-2008 an additional 23,400 LF of sanitary sewer and storm drain was clean and TV inspected. Rehabilitation will be included in the Wellington Brook Watershed contract described in BMP 3-7.	Rehabilitation of sanitary sewers and storm drains under the 2008 PMP is scheduled to begin in October 2009. Rehabilitation of the sanitary sewer and storm drain will continue under future PMPs.
Revised					
3-7	<i>Evaluation of Illicit Sewer Connections to Storm Drains in Wellington Brook Watershed</i>	Belmont Office of Community Development	1. Sample storm drain outfalls in the Wellington Brook watershed. 2. Clean and TV inspect drainage systems in areas where illicit sewer connections are identified. 3. Eliminate the illicit connections. 4. Verify the elimination of illicit connections.	Phase III – Sanitary sewers and storm drains underwent CCTV inspection along with building inspections/dyed-water testing to identify illicit connection. The design of recommended rehabilitation is currently ongoing.	Rehabilitation of sanitary sewers and storm drains in the Wellington Brook Watershed is scheduled to begin in October 2009. Follow-up sampling will be conducted.
Revised					

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Future
4-1	<i>Construction Site Inspection and Enforcement</i>	Belmont Building Division	1. Develop Site Inspection Form consistent with requirements of Stormwater By-Law 2. Perform and track inspections. 3. Track enforcement actions resulting from inspections.	No activities were planned.	No activities are planned for next year. The Site Inspection Form will be developed upon adoption of the stormwater by-law.
Revised					

4a. Additions

No additions to report at this time.

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Future
5-1	<i>Update Site Plan Review Process</i>	Belmont Board of Selectmen Belmont Planning Board Belmont Office of Community Development	1. Review Draft Stormwater By-Law to determine what, if any Site Plan Review procedures should be modified or added. 2. If necessary, adopt revisions to Zoning By-Law. 3. If changes adopted, post Zoning By-Law revisions on Town's Web Site.	No activities were planned.	No activities are planned for next year. The Site Plan Review procedures will be reviewed upon adoption of the stormwater by-law.
Revised					

5a. Additions

No additions to report at this time.

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Future
6-1	Training Program for Belmont DPW Staff	Belmont Department of Public Works	1. Continue to provide annual training sessions of all DPW personnel involved with the site operations to ensure compliance with the SPCC Plan. 2. Train all new DPW employees in accordance with the training program requirements. 3. Track employee participation in training and keep all records in a central location with the DPW Administration throughout the permit term.	Annual training was completed.	Annual training will be provided.
Revised					
6-2	Catch Basin Cleaning Program	Belmont Department of Public Works	1. Clean all catch basins on an annual basis 2. Document annual cleaning activities and keep all records in a central location with the DPW Administration throughout the permit term.	Annual cleaning of all catch basins was completed.	Annual cleaning of all catch basins will occur.
Revised					
6-3	Street Sweeping Program	Belmont Department of Public Works	1. Perform street sweeping of all municipal and private roadways in Town at least 3 times/year. 2. Perform one of the street sweepings in the spring to remove winter debris. 3. Track street sweeping activities and keep records in a central location with the DPW Administration throughout the permit term.	Street sweeping of all streets occurred twice during Year 6. The business district was swept twice weekly from April to November.	Street sweeping of all streets will occur twice next year. The business district will be swept twice weekly from April to November.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Future
6-4	Vehicle & Equipment Maintenance and Cleaning Policy	Belmont Department of Public Works	1. Conduct weekly routine visual inspections and comprehensive written inspections on a quarterly basis. Utilize inspection sheets and document inspections in accordance with the SPCC Plan. 2. Inspection records should be kept in a central location with the DPW Administration throughout the permit term.	The Town continued to implement inspections and procedures in accordance with the Spill Prevention Control and Countermeasure Plan.	The Town will continue to implement inspections and procedures in accordance with the Spill Prevention Control and Countermeasure Plan.
Revised					
6-5	Landscaping and Lawn Care	Belmont Department of Public Works	1. Continue to train DPW employees in "green landscaping" techniques. Document and keep records of employee training in a central location with the DPW Administration throughout the permit term.	The Town continued to train employees in "green landscaping" techniques and implement their existing landscaping and lawn care practices.	The Town will continue to train employees in "green landscaping" techniques and to implement existing landscaping and lawn care practices.
Revised					
6-6	Road Salt Application and Storage	Belmont Department of Public Works	1. Perform routine inspections of salt storage site to determine if salt pile is covered. Document inspections and keep records in a central location with the DPW Administration throughout the permit term.	The Town conducted routine inspections of the salt storage and salt pile area.	The Town will continue to conduct routine inspections of the salt storage and salt pile area.
Revised					
6-7	Hazardous Material Storage	Belmont Department of Public Works	1. Continue to conduct and document routine inspections of the areas containing oil in accordance with the Spill Prevention Control and Countermeasure Plan. Keep records of inspections in a central location with the DPW Administration throughout the permit term.	The Town conducted and documented routine inspections in accordance with the Spill Prevention Control and Countermeasure Plan.	The Town will continue to conduct and document routine inspections in accordance with the Spill Prevention Control and Countermeasure Plan.
Revised					

6a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Future
6-8	<i>Construct Structural BMP's in area tributary to Spy Pond</i>	Belmont Office of Community Development	1. Construct some deep sump catch basins and baffle tanks near Spy Pond.	Completed in Permit Year 2.	No activities are planned.
Revised					
6-9	<i>Workshops on landscaping and non-point source pollution</i>	Belmont Office of Community Development	1. Conduct workshops	Completed in Permit year 2.	No activities are planned.
Revised					

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) << if applicable >> N/A

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) -- Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities -- Future
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

Attached are the results of the Follow-up Dry Weather Stormwater Sampling in Outfalls 1, 2 & 10.

Outfall 1 – Outfall located at the end of Unity Ave and runs along Fairview Ave

Outfall 2 – Outfall located at intersection of Grove St and Huron Ave and runs along Dalton Rd

Outfall 10 – Outfall located at Little Pond and is tributary to Winn's Brook Area

BELMONT, MA
ILLCIT CONNECTION IDENTIFICATION & ELIMINATION PROGRAM
STORM DRAIN MANHOLE SAMPLING - 2008

OUTFALL AREA NO. 1 & 2

Date Sampled	Sample Identification Number	Manhole Location	E. coli per 100 mL	Comments
7/14/2008	OF2F	Outfall Area 2 - Huron Ave/Grove St	>6,000	Fecal Coliform per 100 mL
7/14/2008	OF2E	Outfall Area 2 - Huron Ave/Grove St	2,100	
7/14/2008	OF1F	Outfall Area 1 - Oxford Cir	760	Fecal Coliform per 100 mL
7/14/2008	OF1E	Outfall Area 1 - Oxford Cir	260	
10/21/2008	OF2E2	Outfall Area 2 - Huron Ave/Grove St	11,050	Fecal Coliform per 100 mL
10/21/2008	OF2F2	Outfall Area 2 - Huron Ave/Grove St	7,850	
10/21/2008	17		3,900	
10/21/2008	10		>15,000	
10/21/2008	11		3,900	
10/21/2008	18		5,600	
10/21/2008	19		>15,000	
10/21/2008	OF1E2	Outfall Area 1 - Oxford Cir	5,600	
10/21/2008	OF1F2	Outfall Area 1 - Oxford Cir	5,800	Fecal Coliform per 100 mL
10/21/2008	OF1E2A		5,950	
10/21/2008	OF1E2B		>15,000	
11/3/2008	OF1E3	Outfall Area 1 - Oxford Cir	>30,000	
11/3/2008	OF1E3A		>30,000	
11/3/2008	OF1E3C		14,400	
11/3/2008	OF1E3D		>30,000	
11/3/2008	OF2E3	Outfall Area 2 - Huron Ave/Grove St	>30,000	
11/3/2008	12A		2,900	
11/3/2008	12A1		210	
11/3/2008	4A		530	
11/3/2008	3A		>30,000	
11/3/2008	OF2E3A		>30,000	
11/3/2008	17A		>30,000	
11/3/2008	17A1		2,300	
11/3/2008	10A		>30,000	
11/3/2008	11A		26,600	
11/3/2008	18A		15,100	
11/3/2008	19A		>30,000	
11/3/2008	18A1		2,600	

BELMONT, MA
ILLICIT CONNECTION IDENTIFICATION & ELIMINATION PROGRAM
STORM DRAIN MANHOLE SAMPLING - 2008

OUTFALL AREA NO. 10
WINN'S BROOK TRIBUTARY AREA

Date Sampled	Sample Identification Number	Manhole Location	E. coli per 100 mL	Comments
7/8/2008	OF10F	Outfall Area 10	7,100	Fecal Coliform per 100 mL
7/8/2008	OF10E	Outfall Area 10	2,040	
7/8/2008	1	Intersection of Hoitt Rd and Brighton St (MH-37D036)	2,740	
7/8/2008	2	Intersection of Statler Rd. and Newcastle Rd. (MH-38D006)	2,000	
7/8/2008	3	Intersection of Westland Rd. and Waterhouse Rd.; flow from Westland Rd. (MH-37D055)	2,440	
7/8/2008	4	Intersection of Westland Rd. and Waterhouse Rd.; flow from Waterhouse Rd. (MH-37D055)	830	
7/8/2008	5	Sherman St (MH-37D028)	2,550	
7/8/2008	6	Intersection of Hoitt Rd and Dean St (MH-37D013)	370	
7/8/2008	7	Intersection of Sherman St and Dean St (MH-34D009)	580	
7/8/2008	8	MH-42D019	220	
7/9/2008	OF10E2	Outfall Area 10	1,200	
7/9/2008	9	Cross St between Munroe St and Broad St (MH-42D016)	1,500	
7/9/2008	10	Intersection of Chilton St and Dean St (MH-43D002)	460	
7/9/2008	11	Intersection of Claflin St and Winn St (MH-34D082)	30	6" pipe; possible house drain at 1 gpm
7/9/2008	12	Intersection of Claflin St and Winn St (MH-34D082)	160	15" pipe w/ slight flow
7/9/2008	13	Dead end of Claflin St from Alexander Ave; middle catch basin	2,710	Obtained from middle CB acts as a MH
7/9/2008	14	Clifton St at Fletcher Rd (MH-48D024)	30	
7/9/2008	15	Prospect St at Clifton St (MH-48D011)	20	
7/9/2008	16	Prospect St at Clifton St (MH-48D011)	230	
7/9/2008	17	Belmont Hill School parking lot (MH-54D025)	70	
7/14/2008	OF10E3	Outfall Area 10	750	
7/14/2008	1A	Intersection of Hoitt Rd and Brighton St (MH-37D036)	700	
7/14/2008	1A1	Brighton Rd. at Cross St. (MH-41D046)	610	
7/14/2008	1A2	Albert Ave at Brighton St. (MH-44D047)	100	
7/14/2008	1A3	Albert Ave at Brighton St. (MH-44D047)	90	
7/14/2008	1A4	Albert Ave. (MH-45D009)	100	
7/14/2008	1A5	Albert Ave. (MH-45D009)	80	
7/14/2008	3A	Intersection of Westland Rd. and Waterhouse Rd.; flow from Westland Rd. (MH-37D055)	10	Clear evidence of direct connection; not clear orange suspended solids.
7/14/2008	4A	Intersection of Westland Rd. and Waterhouse Rd.; flow from Waterhouse Rd. (MH-37D055)	No Sample	Trickle flow; unable to get sample.
7/14/2008	4A1	Hoitt Rd. at Waterhouse Rd (MH-37D042)	160	
7/14/2008	4A2	Hoitt Rd. at Waterhouse Rd (MH-37D042)	120	
7/14/2008	6A	Intersection of Hoitt Rd and Dean St (MH-37D013)	50	
7/14/2008	6A1	Dean St. at Hoitt Rd. (MH-37D009)	10	
7/18/2008	OF10E3	Outfall Area 10	970	
7/18/2008	9A	Cross St between Munroe St and Broad St (MH-42D016)	>3,000	
7/18/2008	9A1	Munroe St. at Cross St. (MH-43D014)	>3,000	
7/18/2008	9A2	Munroe St. at Cross St. (MH-43D014)	470	
7/18/2008	9A3	Intersection of Munroe and Claflin (MH-43D020)	>3,000	
7/18/2008	9A4	Pleasant St. at Munroe St. (MH-47D008)	2,280	
7/18/2008	9A5	Middlecott St. at Hurley (MH-44D024)	1,400	
7/18/2008	9A6	Cowdin St. coming from Brighton St. (MH-44D015)	560	
7/18/2008	9A7	Chilton St. close to Brighton St. (MH-44D005)	>3,000	
7/18/2008	10A	Intersection of Chilton St and Dean St (MH-43D002)	610	
7/18/2008	10A1	Claflin St. at Dean - Catch basin-43D001	230	
7/18/2008	10A2	MH-43D022	1,150	
7/18/2008	13A	Dead end of Claflin St from Alexander Ave; middle catch basin	2,850	
7/18/2008	13A1	Claflin St. at Alexander Ave. (MH-34D093)	<10	
7/18/2008	13A2	Claflin St. at Alexander Ave. (MH-34D087)	1,000	
7/18/2008	13A3	Claflin St. from Channing St. (MH-34D091)	70	

BELMONT, MA
ILLCIT CONNECTION IDENTIFICATION & ELIMINATION PROGRAM
STORM DRAIN MANHOLE SAMPLING - 2008

OUTFALL AREA NO. 10
WINN'S BROOK TRIBUTARY AREA

Date Sampled	Sample Identification Number	Manhole Location	E. coli per 100 mL	Comments
11/4/2008	OF10E4	Outfall Area 10	8,600	
11/4/2008	1B		3,800	
11/4/2008	1B1		7,000	
11/4/2008	1B2		<100	
11/4/2008	1B3		<100	
11/4/2008	9B		3,400	
11/4/2008	9B1		1,800	
11/4/2008	9B2		<100	
11/4/2008	9B3		100	
11/4/2008	9B4		100	
11/4/2008	9B8		800	
11/4/2008	9B5		3,200	
11/4/2008	9B6		>30,000	
11/4/2008	9B7		>30,000	
11/4/2008	3B		>30,000	
11/4/2008	4B		>30,000	
11/4/2008	4B1		>30,000	
11/4/2008	4B2		700	
11/4/2008	5B		>30,000	
11/4/2008	7B		2,100	
11/4/2008	10B		300	
11/4/2008	10B2		400	

BELMONT, MASSACHUSETTS FOLLOW-UP DRY WEATHER STORM WATER SAMPLING RESULTS

TABLE 1

MH No.	Location	Sample No.*	E. Coll. Colonies per 100 mL - Date Sampled										
			7/8/08	7/9/08	7/14/08	7/18/08	10/21/08	11/3/08	11/4/08	11/5/08	11/20/08		
OUTFALL 10	Outfall Area 10 - Little Pond	OF10E5/OF10E2/2-OF10E3/OF10E4/OF10E5/OF10E6/OF10E7											
37D036	Intersection of Hoitt Rd and Brighton St	1A1/1B1/1D1/E	2,040	1,200	750	970			8,600	19,500		5,000	
41D046	Brighton Rd. at Cross St	1A1/1B1/1D1/1E1	2,740		700				3,800				
44D047	Albert Ave at Brighton St	1A2/1B2			610				7,000				
44D047	Albert Ave at Brighton St	1A3/1B3			100				<100				
45D009	Albert Ave	1A4			90				<100				
45D009	Albert Ave	1A5			100								
38D006	Intersection of Staller Rd. and Newcastle Rd.	2D2/E			80								
38D002	Elliot Rd at Newcastle Rd	2D1/2E1	2,000										
37D055	Intersection of Westland Rd. and Waterhouse Rd.; flow from Westland Rd.	3A3/3B3/3C/3E	2,440		10				>30,000			>30,000	
37D055	Intersection of Westland Rd. and Waterhouse Rd.	4A4/4B/4C	830		No Sample/ Trickle				>30,000			>30,000	
37D042	Hoitt Rd. at Waterhouse Rd	4A1/4B1/4C1			160				>30,000			6,200	
37D042	Hoitt Rd. at Waterhouse Rd	4A2/4B2/4C2			120				700			<100	
37D028	Sherman St	5/5B/5C	2,550		No Sample				>30,000			>30,000	
37D013	Intersection of Hoitt Rd and Dean St	6/6A	370		50								
37D009	Dean St at Hoitt Rd	6A1			10								
34D009	Intersection of Sherman St and Dean St	7/7B	580						2,100				
42D019	MH-42D019	8	220										
42D016	Cross St between Munroe St and Broad St	9/9A/9B/9C/9D											
43D014	Munroe St. at Cross St.	9A1/9B1/9C1/9D1		1,500		>3,000			3,400			7,200	
43D014	Munroe St. at Cross St.	9A2/9B2/9C2/9D2/9E2				>3,000			1,800			1,000	
43D020	Intersection of Munroe and Claffin	9A3/9B3/9C3/9E3				470			<100			600	
47D008	Pleasant St. at Munroe St.	9A4/9B4				>3,000			100			6,900	
44D042	Frost St	9A8				2,280			100				
44D024	Middlecott St. at Hurley	9A5/9B5/9D5							800				
44D015	Cowdin St. coming from Brighton St.	9A6/9B6/9C6				1,400			3,200				
44D005	Chilton St. close to Brighton St.	9A7/9B7				560			>30,000			2,000	
43D002	Intersection of Chilton St and Dean St	10/10A/10B/10D/10E				>3,000			>30,000				
43D001	Claffin St. at Dean St - Catch Basin	10A1		460		610			300				
43D022	Claffin St MH-43D022	10A2/10B2/10D2/10E2				230							
34D082	Intersection of Claffin St and Winn St	11				1,150			400				
34D082	Intersection of Claffin St and Winn St	12		30									
CB	Dead end of Claffin St from Alexander Ave, middle catch basin	13/13A/13B/13C/13E		160									
34D093	Claffin St. at Alexander Ave	13A1/13B1		2,710		2,850			5,500			3,000	
34D087	Claffin St. at Alexander Ave	13A2/13B2/13C2/13D2/13E2				<10			100				
34D091	Claffin St. from Channing St	13A3/13B3/13C3/13E3				1,000			>30,000			3,000	
48D024	Clifton St at Fletcher Rd	14				70			300			<100	
48D011	Prospect St at Clifton St	15		30									
48D011	Prospect St at Clifton St	16		20									
54D025	Belmont Hill School parking lot	17		230									
				70									

* Sample Numbers are in order of Date Sampled

BELMONT, MASSACHUSETTS FOLLOW-UP DRY WEATHER STORM WATER SAMPLING RESULTS

TABLE 1

MH No.	Location	Sample No.*	E. Coli. Colonies per 100 mL - Date Sampled								
			7/8/08	7/9/08	7/14/08	7/18/08	10/21/08	11/3/08	11/4/08	11/5/08	11/20/08
OUTFALL 1											
01D032	Outfall Area 1 - Oxford Cir	OF1E/OF1E2/OF1E3			260		5,600	>30,000			
10D026	Park Rd at Unity Ave	OF1E2A/OF1E3A					5,950	>30,000			
03D038	Fairview Ave at School St	OF1E3C						14,400			
03D038	Fairview Ave between Stults Rd and Lewis Rd	OF1E3D						>30,000			
03D008	Payson Rd at Fairview Ave	OF1E2B/OF1E5B					>15,000	No Sample/ Trickle			
04D010	Payson Rd at Benton Rd	OF1E4E									
08D026	Townsend Rd at Payson Rd	OF1E5F									
OUTFALL 2											
19D002	Outfall Area 2 - Huron Ave/Grove St	OF2E/OF2E2/OF2E3/OF2E4/OF2E5/OF2E6			2,100		11,050	>30,000		16,900	21,700
19D004	Washington St at School St	17/17A/17C/17D					7,850	>30,000			>30,000
09D108	Jackson Rd at Washington St	17A/17C/17D/17E1						2,300			100
09D108	From Sharpe Rd at Washington St	10/10A					>15,000	>30,000			
09D046	From Washington at Sharpe Rd	11/11A					3,900	26,600			
09D046	Shaw Rd at Dalton Rd	18/18A/18D					5,600	15,100			
09D054	Shaw Rd at Herbert Rd	18A1						2,600			
09D046	Shaw Rd at Dalton Rd	19/19A					>15,000	>30,000			
10D005	Elm St at Foster Rd	12A/12B/12C/12D						2900		<100	200
10D046	Elm St at Dalton Rd	12A1						210			
09D009	Grosvenor Rd at Dalton Rd	3A/3B						>30,000		>30,000	
09D011	Sargent Rd at Grosvenor Rd	3B1/3E1								>30,000	
09D011	Grosvenor Rd at Sargent Rd	3B2								30,000	
09D009	Dalton Rd at Grosvenor Rd	4A/4B/4D/4E						530		3600	
09D086	Bacon Rd at Woods Rd(from Bacon Rd)	4E2									
09D003	Betts Rd at Dalton Rd	5B									
09D003	Betts Rd at Dalton Rd	6B/6D								>30,000	
09D074	Audrey Rd at Betts Rd	6B1/6D1/6E1								>30,000	
09D041	Livemore Rd at Dalton Rd	7B/7D								3,500	
09D029	Shaw Rd at Livemore Rd	7B1/7D17E1								>30,000	
09D042	Livemore Rd at Dalton Rd	8B/8D								10,100	
09D064	Livemore Rd from Easement across from Hartley Rd	8B1								>30,000	
09D009	Dalton Rd at Grosvenor Rd	OF2E3A						>30,000		<100	

* Sample Numbers are in order of Date Sampled

Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2008 through March 31, 2009)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures **	(\$)	
Total program expenditures since beginning of permit coverage	(\$)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	
Shoreline cleaned since beginning of permit coverage	(mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	
▪ community participation **	(# or %)	
▪ material collected **	(tons or gal)	
School curricula implemented	(y/n)	

Legal/Regulatory

Regulatory Mechanism Status (indicate with "X")	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
▪ Illicit Discharge Detection & Elimination					
▪ Erosion & Sediment Control					
▪ Post-Development Stormwater Management					
Accompanying Regulation Status (indicate with "X")					
▪ Illicit Discharge Detection & Elimination					
▪ Erosion & Sediment Control					
▪ Post-Development Stormwater Management					

Mapping and Illicit Discharges

	(Preferred Units)		Response
Outfall mapping complete		(%)	
Estimated or actual number of outfalls		(#)	
System-Wide mapping complete (complete storm sewer infrastructure)		(%)	
Mapping method(s)			
▪ Paper/Mylar		(%)	
▪ CADD		(%)	
▪ GIS		(%)	
Outfalls inspected/screened **		(# or %)	
Outfalls inspected/screened (Since beginning of permit coverage)		(# or %)	
Illicit discharges identified **		(#)	
Illicit discharges identified (Since beginning of permit coverage)		(#)	
Illicit connections removed **		(#); and	
		(est. gpd)	
Illicit connections removed (Since beginning of permit coverage)		(#); and	
		(est. gpd)	
% of population on sewer		(%)	
% of population on septic systems		(%)	

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	
Site inspections completed **	(# or %)	
Tickets/Stop work orders issued **	(# or %)	
Fines collected **	(# and \$)	
Complaints/concerns received from public **	(#)	

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	
Site inspections (for proper BMP installation & operation) completed **	(# or %)	
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	
Low-impact development (LID) practices permitted and encouraged	(y/n)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	
Qty of structures cleaned **	(#)	
Qty. of storm drain cleaned **	(%, LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	

Basin Cleaning Costs			
• Annual budget/expenditure (labor & equipment)**		(\$)	
• Hourly or per basin contract rate **		(\$/hr or \$ per basin)	
• Disposal cost**		(\$)	
Cleaning Equipment			
• Clam shell truck(s) owned/leased		(#)	
• Vacuum truck(s) owned/leased		(#)	
• Vacuum trucks specified in contracts		(y/n)	
• % Structures cleaned with clam shells **		(%)	
• % Structures cleaned with vacor **		(%)	

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	
• Disposal cost**	(\$)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	
• Vacuum street sweepers owned/leased	(#)	
• Vacuum street sweepers specified in contracts	(y/n)	
• % Roads swept with rotary brush sweepers **	%	
• % Roads swept with vacuum sweepers **	%	

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)	
▪ Fertilizers	(lbs. or %)
▪ Herbicides	(lbs. or %)
▪ Pesticides	(lbs. or %)
Integrated Pest Management (IPM) Practices Implemented	(y/n)

(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used **	% NaCl
(also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% CaCl ₂
	% MgCl ₂
	% CMA
	% Kac
	% KCl
	% Sand
Pre-wetting techniques utilized **	(y/n or %)
Manual control spreaders used **	(y/n or %)
Zero-velocity spreaders used **	(y/n or %)
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/lb mi. or %)
Estimated net reduction or increase in typical year sand application rate **	(±lbs/lb mi. or %)
% of salt/chemical pile(s) covered in storage shed(s)	(%)
Storage shed(s) in design or under construction	(y/n or #)
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated		# or y/n	
Installed or planned treatment BMPs for public drinking water supplies and their protection areas		# or y/n	
• Treatment units induce infiltration within 500-feet of a wellhead protection area		# or y/n	