



OFFICE OF COMMUNITY DEVELOPMENT

TOWN OF BELMONT
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BELMONT, MASSACHUSETTS 02478-0900

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October 14, 2005

OCT 16 2005

United States Environmental Protection Agency
Water Technical Unit
P.O. Box 8127
Boston, Massachusetts 02114

RE: NPDES Phase II Small MS4 General Permit (MAR021074)
Annual Report
Belmont, Massachusetts

MAR04 1074

To Whom It May Concern:

In accordance with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), please find enclosed the Annual Report No. 1 for the period of March 2004 through March 2005 summarizing the status of Belmont's Stormwater Management Program. As required by the NPDES General Permit, a copy of this report has also been submitted to the Massachusetts Department of Environmental Protection, the co-permitting authority for the State of Massachusetts.

Please do not hesitate to contact me with any questions or comments regarding this submission.

Sincerely,

Glenn R. Clancy, P.E.
Director of Community Development

GRC/pmd

Enclosures: NPDES PII Small MS4 General Permit
Annual Report

Municipality/Organization: Belmont, MA

EPA NPDES Permit Number: MAR021074

MaDEP Transmittal Number: W- 041153

**Annual Report Number
& Reporting Period:** No. 1: March 04-March 05

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Peter Castanino Title: Director of Public Works

Telephone #: (617) · 993-2680 Email: pcastanino@town.belmont.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: *Thomas G. Younger*

Printed Name: Thomas G. Younger

Title: Town Administrator

Date: 10/12/05

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.

Part III. Summary of Minimum Control Measures

Part IV. Summary of Information Collected and Analyzed

N/A – No sampling or data collection included as part of SWMP.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures	(\$)	

Education, Involvement, and Training

Estimated number of residents 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.)	
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	
▪ community participation	(%)	
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	

Legal/Regulatory

	In Place Prior to Phase II Drafted	Under Review	Adopted
Regulatory Mechanism Status (indicate with "X")			
▪ 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

Outfall mapping complete	(%)	
Estimated or actual number of outfalls	(#)	
System-Wide mapping complete	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	
Outfalls inspected/screened	(# or %)	
Illicit discharges identified	(#)	
Illicit connections removed	(#) (est. gpd)	
% of population on sewer	(%)	
% of population on septic systems	(%)	

Construction

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 completed	(# or %)	
Estimated volume of stormwater recharged	(gpy)	

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)	
Total number of structures cleaned	(#)	
Storm drain cleaned	(LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal	(\$)	

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)	
Cost of sweepings disposal	(\$)	
Vacuum street sweepers purchased/leased	(#)	
Vacuum street sweepers specified in contracts	(y/n)	

Reduction in application on public land of: (“N/A” = never used; “100%” = elimination)
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▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	

Anti-/De-Icing products and ratios	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	
Pre-wetting techniques utilized	(y/n)	
Manual control spreaders used	(y/n)	
Automatic or Zero-velocity spreaders used	(y/n)	
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	
Storage shed(s) in design or under construction	(y/n)	

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
1-1	Develop Stormwater Web Page on Town Web Site	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 Town developed the Stormwater Web Page in Year 1 and as activities related to stormwater occur, information will be added to the web page.	As activities related to stormwater occur, information will be added to the web page.
Revised					
1-2	Post Information on Town Hall Bulletin Boards	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 materials related to stormwater related issues and a throughout the year.
Revised					
1-3	Distribute Educational Flyers with Community Newsletter	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	Due to staffing limitations, no flyers were sent out Year 2.	A flyer will be sent out and posted on the newsletter in 2005.
Revised					

1a. Additions

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
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	<ol style="list-style-type: none"> 1. Obtain public input on draft SWMP 2. Finalize SWMP and make accessible to the public 	No additional activities were planned for Year 2.	No additional activities
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	<ol style="list-style-type: none"> 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 provides reports of meetings and activities to the Town's Board of Selectmen.	A representative from part of the Board and activities.
Revised					
2-3	Sponsor Storm Drain Stenciling Program	Belmont Department of Public Works, Belmont Conservation Commission	<ol style="list-style-type: none"> 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 obtained 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 Town developed a program to stencil catch basins that collect and discharge to Spy Pond. Stenciling activities were done during the Summer and Fall of 2004.	Activities originally planned for Year 3..

Revised					
2-4	Conduct Attitude Surveys	Belmont Office of Community Development	<ol style="list-style-type: none"> 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 during the Summer of 2004.	A survey will be dev the Fall of 2005.
Revised					

2a. Additions

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
3-1	Outfall Location Map	Belmont Department of Public Works Belmont Office of Community Development	<ol style="list-style-type: none"> 1. Develop a schedule for outfall verification and outfall identification activities. 2. Perform and track the outfall verification and outfall identification activities as scheduled. 	Due to staffing limitations field verification was not commenced in Year 2. Schedule was developed to incorporate field location into Stormwater mapping program.	The Town will develop a schedule for identification of outfall location verification during Year 3.
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	<ol style="list-style-type: none"> 1. Draft the Stormwater By-Law. 2. Adopt Stormwater By-Law 3. Post Stormwater By-Law on Town's Stormwater Web Site 	No activities were planned for Year 2.	The Town will draft a stormwater by-law to the Selectmen for review and presentation at Town Meeting.
Revised					
3-3	Implement an Illicit Discharge Detection and Elimination Plan	Belmont Department of Public Works Belmont Office of Community Development	<ol style="list-style-type: none"> 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. 	The Town has almost completed construction on a contract to rehabilitate sewers to address the highest priority areas. Remaining work anticipated to be completed in Fall 2005.	Construction will be completed and the program will commence. Sewer cleaning and TV inspections will be conducted on connections identified through sampling.
Revised					

3-4	Conduct Infiltration/Inflow Removal from Sanitary Sewer System	Belmont Office of Community Development	<ol style="list-style-type: none"> 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. Construction activities continued throughout Year 2 and remaining work will be completed in Fall 2005.	Construction will be complete when construction is complete and verified.
Revised					

3a. Additions

3-5	<i>Development and Modeling of Sanitary and Drainage System GIS Database</i>	Belmont Office of Community Development	<ol style="list-style-type: none"> 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. 	No activities were planned for Year 2.	Mapping and modeling o will be completed in Year
3-6	<i>Evaluation of sanitary and drainage systems in areas proposed under pavement management program</i>	Belmont Office of Community Development	<ol style="list-style-type: none"> 1. Clean and tv inspect approximately 17,000 LF of sanitary and drainage systems within roadways proposed for reconstruction under Town's pavement management program.. 2. Evaluate and identify portions of system that need rehabilitation or replacement. 3. Implement recommendations in conjunction with pavement management program in these areas. 	No activities were planned for Year 2.	Cleaning and tv inspectic 2005. Preliminary Desig Year 3.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
4-1	Construction Site Inspection and Enforcement	Belmont Building Division	<ol style="list-style-type: none"> 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 for Year 2.	No activities are planned
Revised					

4a. Additions

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
5-1	Update Site Plan Review Process	Belmont Board of Selectmen Belmont Planning Board Belmont Office of Community Development	<ol style="list-style-type: none"> 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 for Year 2.	No activities are planned
Revised					

5a. Additions

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
6-1	Training Program for Belmont DPW Staff	Belmont Department of Public Works	<ol style="list-style-type: none"> 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 b
Revised					
6-2	Catch Basin Cleaning Program	Belmont Department of Public Works	<ol style="list-style-type: none"> 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 a
Revised					
6-3	Street Sweeping Program	Belmont Department of Public Works	<ol style="list-style-type: none"> 1. Perform street sweeping of all municipal and private roadways in Town at least 3 times per 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 at least 3 times during Year 2.	Sweeping of all stree Year 3.
Revised					

6-4	Vehicle & Equipment Maintenance and Cleaning Policy	Belmont Department of Public Works	<ol style="list-style-type: none"> 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 implemented inspections and procedures in accordance with the Spill Prevention Control and Countermeasure Plan throughout Year 2.	The Town will continue and procedures in accordance with the Spill Prevention Control and Countermeasure Plan throughout Year 3.
Revised					
6-5	Landscaping and Lawn Care	Belmont Department of Public Works	<ol style="list-style-type: none"> 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 throughout Year 2.	The Town will continue landscaping techniques and lawn care throughout Year 3.
Revised					
6-6	Road Salt Application and Storage	Belmont Department of Public Works	<ol style="list-style-type: none"> 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. 2. Perform routine inspections of silt fencing containment device at snow disposal site. Document inspections and keep records in a central location with the DPW Administration throughout the permit term. 3. Perform clean up of snow disposal site in the spring. Document clean up activities and keep records in a central location with the DPW Administration throughout the permit term. 	Clean up of the snow disposal area was also completed in the spring. The Town conducted the specified routine inspections of the salt storage and salt pile area. Town also performed routine inspections of the silt fencing containing the snow disposal area. Clean up of the snow disposal area was also completed in the spring.	The Town will continue inspections of the snow disposal area and perform clean up of the snow disposal area in the spring.
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 to 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 routine inspections in accordance with the Spill Prevention Control and Countermeasure Plan during Year 3.
Revised					

6a. Additions

6-8	Construct Structural BMP's in area tributary to Spy Pond	Belmont Office of Community Development	1. Construct some deep sump catch basins and baffle tanks near Spy Pond.	The Town, in conjunction with the Town of Arlington, obtained a grant from EPA to fund the proposed construction. Construction was completed in Year 2.	No additional activities
6-9	Workshops on landscaping and non-point source pollution	Belmont Office of Community Development	1. Conduct workshops	The Town, in conjunction with the Town of Arlington, obtained a grant from EPA to fund the proposed workshops. Workshops were conducted in Year 2.	No additional activities

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
Revised					

7a. Additions

7b. WLA Assessment