1002

STORM WATER MANAGEMENT PLAN
2004 ANNUAL REPORT

TOWN OF BELCHERTOWN
Belchertown, Massachusetts

April 2004

Prepared by:

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GENERAL INFORMATION

STORM WATER MANAGEMENT PLAN
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TOWN OF BELCHERTOWN

Municipality/Organization: Town of Belchertown

EPA NPDES Permit Number: MA041002

MADEP Transmittal Number: W 035763

Annual Report Number and Reporting Period: Report #1, May 2003 – May 2004

Contact Person:
Steven J. Williams
Director, Department of Public Works
(413) 323-0415
swilliams@belchertown.org

Self Assessment:

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

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: Gary J. B

Printed Name: GARY L. BROUGHAM

Title: TOWN ADMINISTRATOR

Date: 4/26/04

1.0 INTRODUCTION

The Town of Belchertown developed a Storm Water Management Plan (SWMP) to comply with the *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm water Discharges from Small Municipal Separate Storm Sewer Systems* (MS4) issued jointly by the United States Environmental Protection Agency (USEPA) and the Massachusetts Department of Environmental Protection (MADEP) (effective May 1, 2003). The Town was granted coverage under this permit (MAR041002) on September 12, 2003. The Phase II regulated area in Belchertown consists of an approximately 1.8-square mile area located in the southwest portion of the Town. The General Permit requires the Town to prepare an Annual Report. This document constitutes the Town's Annual Report and summarizes the activities conducted to satisfy the permit requirements, modifications to the plan, and activities scheduled for next year. Appendix A contains a copy of the modified SWMP.

2.0 PUBLIC EDUCATION AND OUTREACH

2.1 School Programs

As described in the SWMP, the Belchertown public school system provides numerous environmental educational programs in its curriculum. These programs will continue to be an integral part of the science curriculum and foster an appreciation for and a sense of responsibility for the environment. The Swift River Elementary School recently received a State Award for a Recycling Program that includes three major components: recycling of food waste, recycling of white paper, and recycling of milk cartons. All schools will continue to participate in recycling programs. Overall, approximately 2,500 students received environmental-related education as a regular part of the school curriculum.

2.2 Educational Materials Distributed

Copies of the SWMP have been distributed to the public schools and the Town library as an educational resource. The SWMP also identified numerous educational resources for students and teachers.

2.3 Citizen Groups

The following local citizen groups and organizations have been identified in the SWMP that provide public education resources on storm water quality issues or could provide a public outreach avenue in developing storm water awareness and developing partnerships with the public:

- Chicopee River Watershed Council
- Connecticut River Watershed Council
- Pioneer Valley Planning Commission
- Tri-Lakes Association
- Belchertown Land Trust

These groups continue to provide and/or have the capacity to provide public education resources on storm water quality issues and continue to exist as support to future storm water education programs in Belchertown.

2.4 Modifications to Plan

No changes to the SWMP are necessary at this time.

2.5 Activities Scheduled for Next Year

Activities planned for Year 2 include:

- Create a storm water link on the Town's web site, including a copy of the SWMP and annual reports
- Prepare and distribute a general storm water overview and summary of the Phase II program as a flyer, local newspaper article, or cable access television announcement.
- Continue existing school educational programs.

3.0 PUBLIC PARTICIPATION

3.1 School Programs

Students in the Belchertown public schools are encouraged to volunteer in environmental activities over the summer vacation, in addition to after-school activities. Some of these ongoing programs include:

- An Arbor Day ceremony, maintenance of a nature trail near the school, and water quality studies of the Jabish Brook.
- An Earth Day celebration where a donated tree is planted and guest speakers talk about the importance of caring for the environment.
- Cleaning of the Chestnut Hill Middle School yard and surrounding areas in the spring.
- An annual science fair open to the public.
- An annual "Enviro-thon" as well as a community project caring for nearby vernal pools.

3.2 Boy and Girl Scouts of America

Boys and girls may be involved in the Scout program from ages 5 to 17. Scouts are involved in various community service programs and are available to assist with implementation of the Town's storm water management program.

3.3 Storm Water Management Committee

In 2003 the Town established a Storm Water Management Committee to develop and implement the SWMP. The Committee consists of the following Town employees and board members:

- Gary Brougham, Town Administrator
- Stephen Williams, DPW Director
- LeeAnn Connoly, Conservation Commission Administrator
- Judy Metcalf, Director of Public Health, Quabbin Health District
- Doug Albertson, Town Planner
- Paul Adzima, Building Inspector
- Ted Bock, Fire Chief

3.4 Public Meetings

The SWMP and Phase II Storm Water program was presented at a Board of Selectmen's meeting on January 29, 2003. Notice of the meeting was published in a local newspaper approximately one week prior to the meeting. The presentation was taped and aired on the local public access television station.

3.5 Modifications to the SWMP

No changes to the SWMP are necessary at this time.

3.6 Activities Planned for Next Year

Activities planned for Year 2 include:

- Expand the Storm Water Committee to include interested citizens or other members of the community to assist in implementation of the SWMP.
- Continue existing school environmental outreach programs.

4.0 ILLICIT DISCHARGE DETECTION/ELIMINATION

4.1 Activities Conducted

A preliminary storm sewer outfall map showing storm water outfalls within the Phase II regulated area has been prepared. The preliminary outfall map was prepared from the Town's Geographic Information System (GIS) data, which includes storm drainage layers, as well as an initial outfall inventory performed by DPW staff during March 2003. Final confirmation of outfall locations and dry weather screening of outfalls for illicit discharges will be performed in Year 2. To date, no illicit connections have been identified.

4.2 Modifications to the SWMP

Due to budgetary constraints in fiscal year 2004, initial dry weather screening of outfalls in the regulated area will be conducted in Year 2.

4.3 Activities Planned for Next Year

Activities planned for Year 2 include:

- Confirm outfall locations and incorporate into the Town's GIS data layer.
- Perform dry weather outfall screening.

5.0 CONSTRUCTION SITE RUNOFF CONTROLS

5.1 Activities Conducted

Approximately 33 applications for new development or redevelopment projects town-wide were reviewed by the Belchertown Planning Board in 2003. A total of 73 projects town-wide were reviewed by the Belchertown Conservation Commission. Several of the larger projects were also reviewed by engineering consultants hired by the Town. The majority of these projects incorporated some form of erosion and sediment controls to satisfy existing local regulatory mechanisms.

To date, construction activities have not been tracked for purposes of the Phase II permit. Tracking procedures will largely be determined by the regulatory mechanism developed to address construction runoff controls.

5.2 Modifications to SWMP

At this time, no changes to the SWMP are necessary.

5.3 Activities Planned for Next Year

Activities planned for Year 2 include:

- Determine geographic applicability (within Phase II regulated area or Town-wide) of the model by-law with public input (Town Meeting, public meeting, etc.).
- Review model bylaw to ensure compliance with existing laws and regulations.

6.0 POST CONSTRUCTION STORM WATER MANAGEMENT

6.1 Activities Conducted

As described in Section 5.1, a number of the new development and redevelopment projects that were constructed in Belchertown during the previous year included post-construction storm water management controls to satisfy the performance standards established in Massachusetts' *Stormwater Policy Handbook.*

Specific information on the number of projects and the types of post-construction storm water management measures was not tracked this year. Activities conducted and their method of tracking will largely be determined by the regulatory mechanisms developed to address post-construction runoff controls.

6.2 Modifications to SWMP

At this time, no changes to the SWMP are necessary.

6.3 Activities Planned Next Year

Activities planned for Year 2 include:

- Determine geographic applicability (within Phase II regulated area or Town-wide) of the model by-law with public input (Town Meeting, public meeting, etc.).
- Review model bylaw to ensure compliance with existing laws and regulations.

7.0 POLLUTION PREVENTION/GOOD HOUSEKEEPING

There are no municipal facilities located within Belchertown's Phase II regulated area. Therefore, the focus of this minimum control measure is on municipal operation and maintenance activities associated with the infrastructure (e.g., roads and storm drainage system) within the regulated area. Activities at other municipally-owned facilities are also addressed in this annual report as they relate to the requirements of this minimum measure.

7.1 Employee Training

Eighteen Public Works staff, representing administrative, cemetery, highway, and water staff, received employee training this year. The training included Chemical Hazard and Emergency Response, Right to Know, and Stage II Vapor Recovery training.

Storm water training for DPW and other Town employees is scheduled for mid- to late-summer 2004. The training will be conducted in conjunction with annual training required by the EPA industrial storm water permit program for the highway garage and wastewater treatment plant.

7.2 Street Sweeping

All of the streets within the regulated area were swept at least once during the previous year. Approximately 80% of the roads in Belchertown were swept by the Town using a Town-owned sweeper (1984 Elgin Pelican). A majority of the roads that were not swept by the Town are privately-owned or State-owned.

7.3 Catch Basin Cleaning

Catch basins are cleaned using a truck-mounted vacuum, typically when calls are received from the public requesting maintenance or when municipal staff observe flooding problems. Approximately 10% of the Town's identified catch basins are cleaned annually. Catch basins in the center of the Town are typically targeted first, followed by areas of heavy sediment accumulation and areas identified during spring inspections. As with sweeping operations, catch basin cleaning occurs during spring clean-up, and DPW maintains a list of problem areas based on past experience. No identified problem areas are located in the regulated area.

The DPW has collected sediment samples from several representative catch basins throughout the Town for the purpose of characterizing the material for disposal or reuse. The DPW has developed a program for managing and disposing of catch basin cleanings and street sweepings consistent with the Massachusetts solid waste regulations and applicable DEP guidance.

7.4 Deicer Material Storage

In December 2003, the Town appropriated $90,000 for the construction of a salt storage building for the DPW. Preliminary plans are currently under review and permitting is anticipated for summer 2004.

Approximately 2,400 tons of salt and 7,600 tons of sand were used in the winter of 2002-2003. Approximately 1,600 tons of salt and 7,000 tons of sand were used in the winter of 2003-2004. An estimated 500 tons of deicer material was used in the Phase II regulated area over both the 02-03 and 03-04 winter seasons. Records will be kept on the quantity of material removed by street sweeping and catch basin cleaning for comparison with the quantity applied to Town roads.

7.5 Preventive Maintenance

DPW staff conducts weekly inspections of the stage II vapor recovery system and waste oil collection area at the highway garage.

7.6 Transfer Station

The Transfer Station and Recycling Center accepts household trash, recyclables, yard waste, waste motor oil, tires, appliances and bulky items such as furniture and mattresses. Over 672 tons of residential waste was collected at the Transfer Station in 2003. Approximately 460 tons of newspaper were collected, 51 tons of white goods and scrap metal, and 28 tons of mercury

containing items, florescent bulbs, and CRTs. Over 130 tons of leaves and brush were composted.

7.7 Modification to the SWMP

Record keeping procedures for street sweeping, catch basin cleaning, deicer application and usage, and stormwater BMP inspections and maintenance within the Phase II regulated area will be developed in Year 2.

7.8 Activities Planned Next Year

Activities planned for Year 2 include:

- Conduct annual storm water pollution prevention training for Town employees at the highway garage and wastewater treatment plant as a requirement of the EPA Storm Water Multi-Sector General Permit. The training will include education on street sweeping, storm water best management practices and drainage system maintenance including catch basin cleaning, winter road and lot maintenance, and solid/hazardous waste management.
- Develop record keeping procedures for street sweeping, catch basin cleaning, deicer application and usage, and storm water BMP inspections and maintenance within the Phase II regulated area.
- Establish inspection and maintenance schedules for storm drainage structures and storm water BMPs within the Phase II regulated area.
- Continue to conduct street sweeping and catch basin cleaning in the Phase II regulated area.

APPENDIX A

Revised Storm Water Management Plan Summary

STORM WATER MANAGEMENT PLAN SUMMARY
TOWN OF BELCHERTOWN

BMP ID	Minimum Control Measure Best Management Practice (BMP) Description	Permit Year	Measurable Goal	Responsible Party
1	**Public Education and Outreach**			
1.1	Continue existing school educational programs.	1-5	The number of students receiving storm water education as a regular part of the school curriculum. The number of programs offered.	Storm Water Committee, School Department
1.2	Provide schools with a copy of the education resources sections of the Plan. Make copies of the storm water management plan available in the Town library.	1	Distributed plan copies to the schools. Distributed plan copies to the Town library.	Storm Water Committee
1.3	Create a storm water link on the Town's website, including an electronic version of the storm water management plan.	2	Created a storm water link on the Town's website.	Storm Water Committee, MIS Department
1.4	Prepare a general storm water overview and summary of the Phase II program for distribution as a flyer, local newspaper article, or cable access television announcement. Add materials to the Town's storm water website.	2	The number of materials created and distributed or the number of storm water-related articles published. Materials added to Town website.	Storm Water Committee, School Department
1.5	Distribute flyers on septic system maintenance, illicit discharges, proper lawn care, yard waste and pet waste disposal, or other issues identified by the Town within the regulated area.	3	The number of materials created and distributed to Town residents.	Storm Water Committee, Board of Health, DPW
1.6	Add a new link to the existing Board of Health website with guidance or recommendations on proper septic system maintenance.	4	Provided septic system maintenance guidance materials on Board of Health website.	Storm Water Committee, Board of Health, MIS Department
1.7	Publicize and hold a hazardous waste collection day.	5	Publicized and held a hazardous waste collection day.	Storm Water Committee, DPW
2	**Public Participation/Involvement**			
2.1	Form a Storm Water Committee to assist in developing the Phase II storm water management plan and to coordinate implementation activities.	1	Formed a storm water committee.	Storm Water Committee
2.2	Make the storm water management plan available for public review and advertise/hold a public meeting.	1	Made plan available for public review and held public meeting in accordance with state public notice requirements.	Storm Water Committee
2.3	Continue existing school environmental outreach programs.	1-5	The number of students involved in environmental outreach programs. The number of programs offered.	Storm Water Committee, School Department
2.4	Expand Storm Water Committee to include interested citizens and other Town board members. The committee could assist the Town with recruiting and directing resources to implement recommended measures.	2	The number of additional storm water committee members recruited.	Storm Water Committee
2.5	Conduct public meeting to present annual storm water management plan report.	4	Held public meeting to present annual report.	Storm Water Committee
2.6	Recruit student volunteers and/or interested citizens to assist in illicit discharge detection and elimination efforts within the Phase II regulated area.	3-5	Recruited volunteers to assist with illicit discharge and detection field effort.	Storm Water Committee, School Department, DPW

STORM WATER MANAGEMENT PLAN SUMMARY
TOWN OF BELCHERTOWN

BMP ID	Minimum Control Measure Best Management Practice (BMP) Description	Permit Year	Measurable Goal	Responsible Party
3	**Illicit Discharge Detection and Elimination**			
3.1	Create a storm sewer outfall map showing storm water outfalls within the Phase II regulated area.	1	Created a storm sewer outfall map.	Storm Water Committee, DPW, MIS Department
3.2	Finalize storm outfall map and conduct dry weather outfall screening within regulated area.	2	Finalized outfall map and conducted dry weather screening of outfalls. Number of outfalls screened.	Storm Water Committee, DPW, Board of Health
3.3	Inspect outfalls with potential illicit discharges (as identified from initial dry weather screening), conduct outfall sampling, and track sources of illicit discharges.	3-5	Conducted source tracking of storm water outfalls. Identified sources of illicit discharges.	Storm Water Committee, DPW, Board of Health
3.4	Eliminate a certain number or percentage of illicit discharges whose sources are identified.	3-5	Eliminated a certain number or percentage of illicit discharges whose sources were identified.	Storm Water Committee, DPW, Board of Health
3.5	Review model illicit discharge by-law to ensure compliance with existing laws and regulations. Draft and adopt an illicit discharge by-law with public input (draft language and legal review, conduct informational meetings as necessary, submit to warrant, schedule for vote at Town Meeting).	3-5	Reviewed, drafted, and adopted illicit discharge by-law.	Storm Water Committee, DPW, Board of Health
3.6	Educational materials developed for minimum control measure 1 (Public Education and Outreach) to address illicit discharge detection and elimination.	3-5	Disseminated educational materials (flyers, newspaper article, etc.) on illicit discharge detection and elimination (see BMP 1.6) to the public.	Storm Water Committee, DPW, Board of Health
4	**Construction Site Runoff Control**			
4.1	Review existing MADEP or other similar model by-law to ensure compliance with existing laws and regulations. Determine geographic applicability (within Phase II regulated area or Town-wide) of the model by-law with public input.	1-2	Reviewed model by-law. Held public meeting.	Storm Water Committee, Building Inspector, Planning Board
4.2	Draft and adopt a by-law with public input (draft language and legal review, conduct informational meetings as necessary, submit to warrant, schedule for vote at Town Meeting).	3-5	Drafted and adopted by-law.	Storm Water Committee, Building Inspector, Planning Board
4.3	Provide training for Town staff responsible for reviewing site plans to determine compliance with the newly adopted by-law.	5	Conducted training for Town staff.	Storm Water Committee, Building Inspector, Planning Board
4.4	Develop methods and materials to provide for public inquiry and comments for construction projects, and procedures to respond to public inquiry. Develop site inspection procedures.	5	Developed procedures for public inquiry and associated response. Developed site inspection procedures.	Storm Water Committee, Building Inspector, Planning Board
5	**Post-Construction Runoff Control**			
5.1	Review existing MADEP or other similar model by-law to ensure compliance with existing laws and regulations. Determine geographic applicability (within Phase II regulated area or Town-wide) of the model by-law with public input.	1-2	Reviewed model by-law. Held public meeting.	Storm Water Committee, Building Inspector, Planning Board, Conservation Commission

STORM WATER MANAGEMENT PLAN SUMMARY
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BMP ID	Minimum Control Measure Best Management Practice (BMP) Description	Permit Year	Measurable Goal	Responsible Party
5.2	Draft and adopt a by-law with public input (draft language and legal review, conduct informational meetings as necessary, submit to warrant, schedule for vote at Town Meeting).	3-5	Drafted and adopted by-law.	Storm Water Committee, Building Inspector, Planning Board, Conservation Commission
5.3	Provide training for Town staff responsible for reviewing site plans to determine compliance with the newly adopted post-construction runoff control by-law.	5	Conducted training for Town staff.	Storm Water Committee, Building Inspector, Planning Board, Conservation Commission
5.4	Develop procedures for public inquiry and comments for post-construction storm water BMPs, and procedures to respond to public inquiries. Develop periodic inspection procedures.	5	Developed procedures for public inquiry and associated response. Developed inspection procedures.	Storm Water Committee, Building Inspector, Planning Board, Conservation Commission
6	**Pollution Prevention/Good Housekeeping**			
6.1	Expand annual storm water training program for appropriate Town employees to include street sweeping, storm water BMP and drainage system maintenance including catch basin cleaning, winter road and lot maintenance, and solid/hazardous waste management.	1	Developed expanded storm water training program.	Storm Water Committee, DPW
6.2	Develop record keeping procedures for street sweeping, catch basin cleaning, deicer application and usage, and storm water BMP inspections and maintenance within the regulated area.	2	Developed record keeping procedures.	Storm Water Committee, DPW
6.3	Conduct training for appropriate Town employees.	1-5	Conducted training. The number of employees trained.	Storm Water Committee, DPW
6.4	Sweep streets within the regulated area, as necessary, on a rotating basis.	1-5	Conducted street sweeping within regulated area. The quantity of debris collected from street sweeping.	DPW
6.5	Establish inspection and maintenance schedules for storm drainage structures and storm water BMPs within the Phase II regulated area.	2	Established inspection and maintenance schedules.	Storm Water Committee, DPW
6.6	Publicize and hold a hazardous waste collection day.	5	Publicized and held a hazardous waste collection day.	Storm Water Committee, DPW