

Stormwater Management Program (SWMP)

Supplement to 2003



Town of Southborough

NPDES Permit ID #: MAR041160

Revised June 30, 2019

Contractual Agreement and Implementation Notes

Certification

Authorized Representative (Optional): All reports, including SWPPPs, inspection reports, annual reports, monitoring reports, reports on training and other information required by this permit must be signed by a person described in Appendix B, Subsection 11.A or by a duly authorized representative of that person in accordance with Appendix B, Subsection 11.B. If there is an authorized representative to sign MS4 reports, there must be a signed and dated written authorization.

The authorization letter is:

- ☐ Attached to this document:

Appendix A: Authorization to Discharge

- ☐ Publicly available at the website below:

<https://www.southboroughtown.com/public-works-dpw/pages/storm-water>

“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 gathered and evaluated 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.”

Printed Name: _____

Signature: _____ Date: _____



Background

Stormwater Regulation

The Stormwater Phase II Final Rule was promulgated in 1999 and was the next step after the 1987 Phase I Rule in EPA's effort to preserve, protect, and improve the Nation's water resources from polluted stormwater runoff. The Phase II program expands the Phase I program by requiring additional operators of MS4s in urbanized areas and operators of small construction sites, through the use of NPDES permits, to implement programs and practices to control polluted stormwater runoff. Phase II is intended to further reduce adverse impacts to water quality and aquatic habitat by instituting the use of controls on the unregulated sources of stormwater discharges that have the greatest likelihood of causing continued environmental degradation. Under the Phase II rule all MS4s with stormwater discharges from Census designated Urbanized Area are required to seek NPDES permit coverage for those stormwater discharges.

Permit Program Background

On May 1, 2003, EPA Region 1 issued its Final General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (2003 small MS4 permit) consistent with the Phase II rule. The 2003 small MS4 permit covered "traditional" (i.e., cities and towns) and "non-traditional" (i.e., Federal and state agencies) MS4 Operators located in the states of Massachusetts and New Hampshire. This permit expired on May 1, 2008 but remained in effect until operators were authorized under the 2016 MS4 general permit, which became effective on July 1, 2018.

Stormwater Management Program (SWMP)

The SWMP describes and details the activities and measures that will be implemented to meet the terms and conditions of the permit. The SWMP accurately describes the permittees plans and activities. The document should be updated and/or modified during the permit term as the permittee's activities are modified, changed or updated to meet permit conditions during the permit term. The main elements of the stormwater management program are (1) a public education program in order to affect public behavior causing stormwater pollution, (2) an opportunity for the public to participate and provide comments on the stormwater program (3) a program to effectively find and eliminate illicit discharges within the MS4 (4) a program to effectively control construction site stormwater discharges to the MS4 (5) a program to ensure that stormwater from development projects entering the MS4 is adequately controlled by the construction of stormwater controls, and (6) a good housekeeping program to ensure that stormwater pollution sources on municipal properties and from municipal operations are minimized.

Southborough MS4 Background

This document has been prepared to supplement the 2003 Stormwater Management Plan. The information and Control Measures outlined within this SWMP will supersede the 2003 SWMP and the NOI submitted.



Small MS4 Authorization

The NOI was submitted on: September 28, 2018

The NOI can be found at the following (document name or web address):

<https://www.southboroughtown.com/public-works-dpw/pages/storm-water>

Authorization to Discharge was granted on: April 5, 2019

The Authorization Letter can be found (document name or web address):

<https://www.southboroughtown.com/public-works-dpw/pages/storm-water>



Stormwater Management Program Team

SWMP Team Coordinator

Name: Karen Galligan **Title:** DPW Superintendent

Department: Department of Public Works

Phone Number: 508-485-1210 **Email:** kgalligan@southboroughma.com

Responsibilities: Program Manager

SWMP Team

Name: _____ **Title:** _____

Department: _____

Phone Number: _____ **Email:** _____

Responsibilities: _____

Name: _____ **Title:** _____

Department: _____

Phone Number: _____ **Email:** _____

Responsibilities: _____



Eligibility: Endangered Species and Historic Properties

*Reminder: The proper consultations and updates to the SWMP must be conducted for construction projects related to your permit compliance where Construction General Permit (CGP) coverage, which requires its own endangered species and history preservation determination, is NOT being obtained.

Attachments:

- ☒ The results of Appendix C U.S. Fish and Wildlife Service endangered species screening determination;
- ☐ The results of the Appendix D historic property screening investigations;
- ☐ If applicable, any documents from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), or other Tribal representative to mitigate effects.

These attachments are required within one year of the permit effective date and are:

- ☐ Attached to this document (document names listed below):

- ☐ Publicly available at the website listed below:

Under what criterion did permittee determine eligibility for ESA?

☐ Criterion A ☐ Criterion B ☒ Criterion C

Under what criterion did permittee determine eligibility for Historic Properties?

☒ Criterion A ☐ Criterion B ☐ Criterion C

Below add any additional measures for structural controls that you're required to do through consultation with U.S. Fish and Wildlife Service (if applicable):

Below add any additional measures taken to avoid or minimize adverse impacts on places listed, or eligible for listing, on the NRHP, including any conditions imposed by the SHPO or THPO (if applicable):



MCM #1

Public Education and Outreach

Permit Part 2.3.2

Objective: The permittee shall implement an education program that includes educational goals based on stormwater issues of significance within the MS4 area. The ultimate objective of a public education program is to increase knowledge and change behavior of the public so that the pollutants in stormwater are reduced.



Control Measure # 1:

Public Education and Outreach

BMP # 1

Best Management Practice: Brochures/Pamphlets

Document Name and/or Web Address:

<https://www.southboroughtown.com/public-works-dpw/pages/storm-water>

<https://www.southboroughtown.com/conservation-commission/pages/stormwater-permit-information>

BMP Description: Stormwater flyer related to run-off, and pet waste distributed to residents.

A stormwater flyer will be sent to residents in the community during year 1. The flyer will cover pet waste management. In a user-friendly and appealing manner, the flyer will explain what stormwater is and will frame stormwater concerns from a watershed perspective. The flyer is meant to be both an educational and motivational tool, increasing public awareness of stormwater and empowering citizens regarding their influence on stormwater quality and flow.

A link is provided on the flyer to the Think Blue Massachusetts website, a statewide education campaign to help residents do their part to reduce polluted runoff.

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations

Measurable Goal:

- Flyer distributed to residents once (1) per year within their water bill.

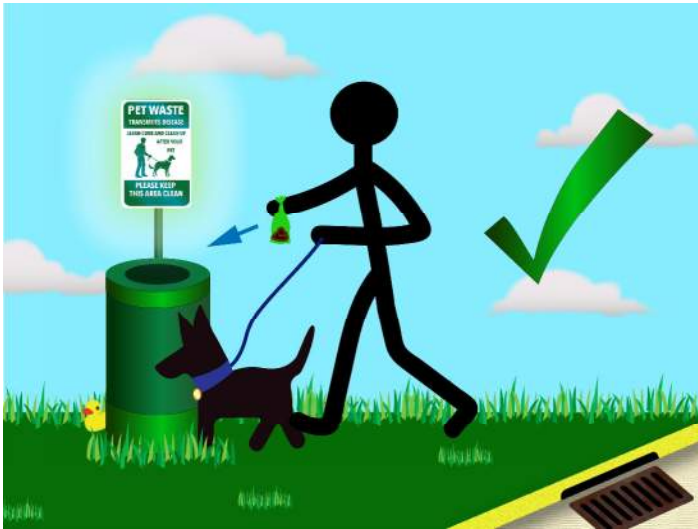
Message Date(s): Once per year



Do Your “Doody” for Clean Water

You hate stepping in it. And fish hate swimming in it, too! Dogs produce a lot of waste which, if not disposed of properly, can end up in our waterways. Do your part to keep our waters and public areas clean and healthy! Bag your pet's waste and throw it in a trashcan..

DO



DON'T



Did you know that the average dog can produce nearly a pound of waste each day?

- Pet waste left on lawns and in public spaces is not only gross. It can be quite harmful too.
- Pet waste contains twice as much bacteria as human waste!
- If left in your yard, pet waste can kill grass and other plants.
- Adults and children who come in contact with it can get sick.
- When pet waste washes into storm drains and waterways, it can make the water unhealthy for people and wildlife.
- Pet waste in waterways can even cause algae to grow, making the water turn an unpleasant green color.

Do your "doody" in both public areas and in your yard.

To learn more, visit the www.ThinkBlueMassachusetts.org



Control Measure # 1:

Public Education and Outreach

BMP # 2

Best Management Practice: School Curricula/Programs

Document Name and/or Web Address: "Dwayne the Storm Drain" _____

<http://www.mwra.state.ma.us/02org/html/dwayne.htm>

BMP Description: The MWRA provides "Dwayne the Storm Drain" coloring and activity books to be distributed by the Town of Southborough at the annual Earth Day Cleanup. Activity books have been distributed at the event annually and discussions about stormwater were initiated between municipal employees and volunteers.

"Dwayne the Storm Drain" introduces readers to storm sewer systems. Lessons include how to identify storm drains, how they work, and how they affect the environment.

Targeted Audience: Institutions and Residents

Responsible Department/Parties: DPW Operations, Conservation Commission

Measurable Goal: Activity books distributed/discussed once per year at the annual Earth Day Cleanup.

Message Date(s): Once per year

DWAYNE

the
storm drain



a drain for
all seasons



Control Measure # 1:

Public Education and Outreach

BMP # 3

Best Management Practice: Brochures/Pamphlets

Document Name and/or Web Address:

<https://www.southboroughtown.com/public-works-dpw/pages/storm-water>

<https://www.southboroughtown.com/conservation-commission/pages/stormwater-permit-information>

BMP Description: A stormwater flyer will be sent to businesses in the community during permit year 3. The flyer will explain what stormwater is and will frame storm water concerns from a watershed perspective. The flyer will discuss potential impacts by businesses on stormwater quality and flow. The flyer is meant to be both an educational and motivational tool, increasing awareness of stormwater in the business community and challenging businesses to take steps towards stormwater quality improvements in their own business practices. The stormwater flyer will include a self-test for businesses to grade their own stormwater “compliance”. Stormwater “participatory measures” may include improved housekeeping in parking areas, litter management in loading docks, employee training and other similar activities.

Targeted Audience: Businesses, institutions and commercial facilities

Responsible Department/Parties: DPW Operations

Measurable Goal: DPW Operations distributed to businesses in at least 1 water bill per year

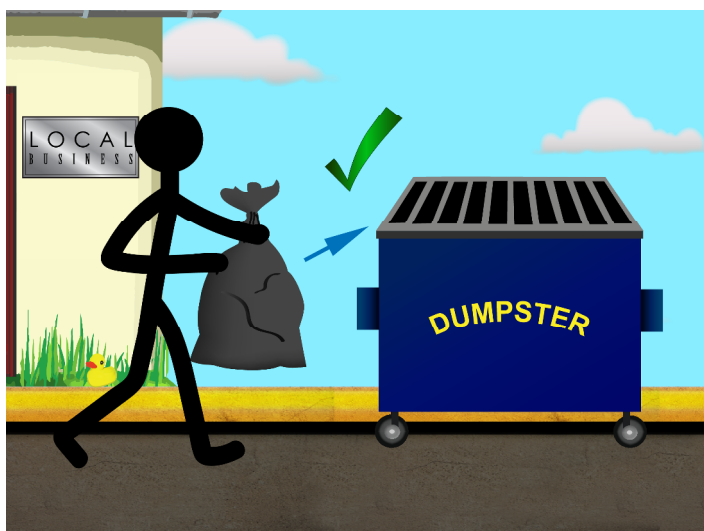
Message Date(s): Once per year



Put Waste in its Place for Clean Water in Southborough

As a business owner, you are responsible for all pollutants that leave your property. You play a big role in keeping our waterways clean and healthy! Do your part by keeping your property clean and properly storing your trash until pick-up.

DO



- Inspect your dumpster daily.
- Make sure the lid is kept closed and locked.
- Check for leaks and replace, if needed.
- Schedule regular trash pick-ups to prevent the dumpster from becoming too full.

DON'T



- Don't place leaking containers in the dumpster when emptying trash.
- Though it's sure to get smelly, never hose down the inside of your dumpster.

Why is this necessary?

Rain that falls into and around your dumpsters can pick up trash and dirt as it drains away. Much of this water, or stormwater, ends up in our lakes, rivers, and streams. It's the fastest growing type of water pollution in Massachusetts. Stormwater pollution is bad business for our state's waterways. It harms fish and wildlife, makes our water unsafe to drink, and can spoil outdoor activities.

Business owners can do their part to keep Massachusetts' waterways clean.

Find more tips like these at www.ThinkBlueMassachusetts.org



Control Measure # 1:
Public Education and Outreach
BMP # 4

Best Management Practice: Videos

Document Name and/or Web Address: “Fowl Water”

<https://www.southboroughtown.com/public-works-dpw/pages/storm-water>
<https://www.thinkbluemassachusetts.org/>

BMP Description: Stormwater video by Think Blue Massachusetts.

On behalf of the members of the Central Massachusetts Regional Stormwater Coalition, Think Blue Massachusetts ran an educational advertising campaign from May 31 to June 25th, 2018. The “Fowl Water” advertisement helps viewers visualize how runoff from motor oil, pet waste, and trash become stormwater pollution.

Targeted Audience: Residents

Responsible Department/Parties: Think Blue Massachusetts, DPW Operations

Measurable Goal:

Video on DPW website and Central Massachusetts Regional Stormwater Coalition Website.

Here are some highlights about how the campaign performed in Central Massachusetts:

Facebook

# of People Reached	Average # of Impressions Per Person	Total # of Impressions	Watched 10+ seconds	Visited www.ThinkBlueMassachusetts.org
80,848	2.2	178,070	5,714	140

Google

# of People Reached	Average # of Impressions Per Person	Total # of Impressions	Watched 10+ seconds	Visited www.ThinkBlueMassachusetts.org
115,483	1.89	226,000	82,509	286

Message Date(s): Available at all times



Central Massachusetts Regional Stormwater Coalition

Educational Advertisement Campaign Report



View the ad at <http://bit.ly/-tbn-fowl-water>

On behalf of the members of the Central Massachusetts Regional Stormwater Coalition, Think Blue Massachusetts ran an educational advertising campaign from May 31 to June 25th, 2018. The “Fowl Water” advertisement helps viewers visualize stormwater pollution from motor oil, pet waste, and trash become stormwater pollution.

We selected Facebook sponsored video and YouTube pre-roll advertisements for two primary reasons:

- These channels offer superior “bang for the buck” to cable and broadcast television
- Facebook and YouTube will accept the file formats that were available to us in 2018

This effort helps coalition members meet their requirements to “document in each annual report the messages for each audience; the method of distribution; the measures/methods used to assess the effectiveness of the messages, and the method/measures used to assess the overall effectiveness of the education program.”

Message Targeting

Think Blue Massachusetts targeted the advertisements to residents of the following municipalities:

- Ashland
- Auburn
- Charlton
- Dudley
- Fitchburg
- Framingham
- Grafton
- Holden
- Hopkinton
- Leicester
- Lunenburg
- Marlborough
- Millbury
- Natick
- Northborough
- Northbridge
- Oxford

- Palmer
- Paxton
- Rutland
- Shrewsbury
- Southborough
- Southbridge
- Spencer
- Sterling
- Sturbridge
- Upton

- Uxbridge
- West Boylston
- Westborough

Google & Facebook estimate they can reach approximately 570,000 people in these areas. Residency is determined using a combination of account registration information and IP addresses.

Campaign Performance

Here are some highlights about how the campaign performed in Central Massachusetts:

Facebook

# of People Reached	Average # of Impressions Per Person	Total # of Impressions	Watched 10+ seconds	Visited www.ThinkBlueMassachusetts.org
80,848	2.2	178,070	5,714	140

Google

# of People Reached	Average # of Impressions Per Person	Total # of Impressions	Watched 10+ seconds	Visited www.ThinkBlueMassachusetts.org
115,483	1.89	226,000	82,509	286



Control Measure # 1:

Public Education and Outreach

BMP # 5

Best Management Practice: Poster

Document Name and/or Web Address:

<https://www.southboroughtown.com/public-works-dpw/pages/storm-water>

<https://www.southboroughtown.com/conservation-commission/pages/stormwater-permit-information>

BMP Description: The Think Blue Poster is an educational figure displayed in municipal buildings; public library, schools, post office, and at community events. The poster has a professional, attractive appearance that is eye-catching and appealing. The poster can be conveniently placed in locations that are visible and are at a central location frequented by the general public. Extra stormwater flyers will be posted with the display.

Similar to the flyers, the poster will explain what stormwater is and will frame stormwater concerns from a watershed perspective. The poster will present practical ideas for how citizens can manage housekeeping practices so as to have a positive impact on stormwater. Such practices may include minimizing pesticide and herbicide use on lawns and gardens, water conservation, pet waste management, trash management, car washing, and proper disposal of household hazardous wastes including motor oil. The display is meant to be both an educational and motivational tool, increasing public awareness of stormwater and empowering citizens regarding their influence on stormwater quality and flow.

Targeted Audience: Residents and Businesses

Responsible Department/Parties: DPW Operations

Measurable Goal: Posters created and posted for at least one month at various public buildings and at Town Meetings.

Message Date(s): Varies



Clean water begins with you. Let's Think Blue.



Polluted runoff threatens the health of Massachusetts water. You can do your part at home, at work and at play to help keep our streams clear of pollution after rain and snow melt.

For more tips and information visit www.thinkbluemassachusetts.org.



Scoop it! Pet waste is gross and can make you sick. Bag and dispose of solid pet waste in trash cans.

Close it! Rain water running off of trash cans sends waste into nearby streams. Close your trash can lids, cover dumpsters, and properly dispose of trash to keep pollution locked away.



Stop it! Stormwater pollution often begins at construction sites, but it doesn't have to. Take steps on your job site to prevent dirt from washing into nearby streams, roads and storm drains.

Catch it! Industries and businesses can keep oil, gas, and grease from washing into streams. Use drip pans to catch fluids. Keep absorbent materials close by to clean up small spills. Fix leaks and clean up spills quickly.



Learn more at www.ThinkBlueMassachusetts.org



**Control Measure # 1:
Public Education and Outreach**

BMP # 6

Best Management Practice: Web Pages

Document Name and/or Web Address:

<https://www.southboroughtown.com/public-works-dpw/pages/storm-water>

<https://www.southboroughtown.com/conservation-commission/pages/stormwater-permit-information>

BMP Description: Stormwater section available on the DPW web page.

Targeted Audience: Businesses, Residents, Institutions, and Commercial Facilities

Responsible Department/Parties: DPW Operations, IT

Measurable Goal: Place all stormwater information and links in this area.

Message Date(s): Available at all times.



Control Measure # 1:
Public Education and Outreach
BMP # 7

Best Management Practice: Brochures/Pamphlets

Document Name and/or Web Address:

<https://www.southboroughtown.com/public-works-dpw/pages/storm-water>

<https://www.southboroughtown.com/conservation-commission/pages/stormwater-permit-information>

BMP Description: Distribute construction stormwater information and LID pamphlets.

Targeted Audience: Commercial Facilities, Residents, Developers, and Institutions

Responsible Department/Parties: Conservation Commission, Planning

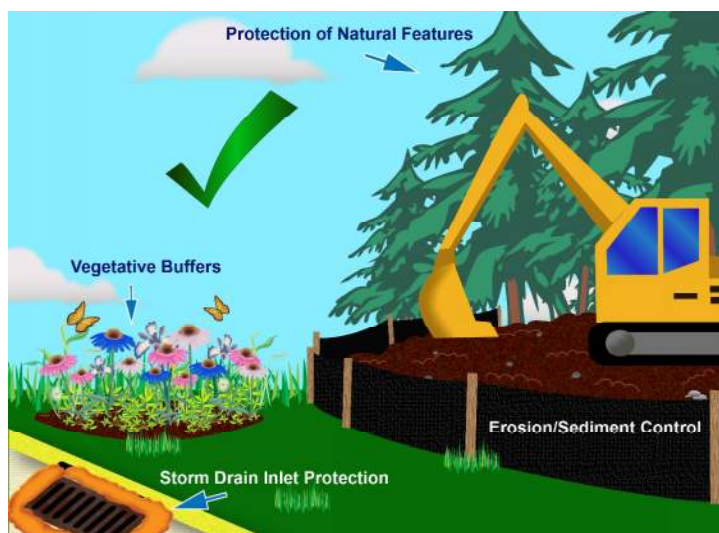
Measurable Goal: Information handed out at the DPW facility and Town Hall with appropriate permits.

Message Date(s): Varies.



Stop Erosion in its Tracks to Keep Our Waters Clean

DO



DON'T



What can you do?

- Find out if you need a Construction General Permit.
- Visit Southborough's conservation commission before you disturb the soil.
- Pick a combination of erosion and sediment controls that work for your site.
- This includes practices that protect natural landscape features, like streams and wetlands, and stabilize soil.
- You will also need to use practices to protect and maintain silt fences, storm drain inlets, and construction entrances.

Why is this necessary?

- Water that falls on your construction site either soaks into the ground or runs off into storm drains.
- Water and pollution that goes into storm drains eventually ends up in lakes, rivers, and streams.
- Once these pollutants reach waterways, they can harm fish and other wildlife. They can even make our water unsafe to drink.
- Most importantly, allowing polluted runoff to leave your site and enter a storm drain or waterway is against the law.

Learn more at: www.ThinkBlueMassachusetts.org



Control Measure # 1:
Public Education and Outreach
BMP # 8

Best Management Practice: Local Public Service Announcements

Document Name and/or Web Address:

2003 SWMP:

https://www.southboroughtown.com/sites/southboroughma/files/uploads/2003_swmp_binder_reduce.pdf

Supplemental 2019 SMWP:

<https://www.southboroughtown.com/public-works-dpw/pages/storm-water>

BMP Description: Make the Stormwater Management Plan available to the general public.

Targeted Audience: General Public

Responsible Department/Parties: DPW Operations

Measurable Goal: Post the plan on the website.

Message Date(s): Available at all times



Control Measure # 1:

Public Education and Outreach

BMP # 10

Best Management Practice: Special Events/Festivals/Fairs

Document Name and/or Web Address:

BMP Description: Support Green Schools and Trottier Middle School's Environmental Fair.

Trottier Middle School will partner with Project Green Schools to host an environmental fair. The fair is free, open to the public, and will have something for everyone with giveaways, environmental vendors and exhibits, face painting, eco crafts, and special presentations throughout the day.

Targeted Audience: Businesses, Institutions, and Commercial Facilities

Responsible Department/Parties: DPW Operations

Measurable Goal: Create greener and healthier learning environments through education and awareness.

Message Date(s): Annually

Green Schools + Trotter Middle School presents an:

Environmental Fair

**May 22nd 10:00-2:00
Trotter Middle School**

49 Parkerville Road, Southborough, MA

**FREE ADMISSION
LOTS OF GIVEAWAYS &**

Green Activities led by T.M.S. students

FUN FOR THE WHOLE FAMILY!

For more information about Green Schools go to: www.projectgreenschools.org

It's time to make **The GREEN DIFFERENCE** in your community!

Environmental Vendors & Exhibitors

Face Painting

Eco Crafts

Special presentations throughout the day

Join: Green Schools, MA Audubon Society,
Appalachian Mountain Club, EMS, DCR,
Cabot Cheese, Cliff Kid, Honest Tea,
Celadon Road, Young Living Essential
Oils, Wild Tree, Pearl's Premium,
Tupperware, Go Green Web Directory
Materials from EPA, MA DEP, and
FREE Gardening Kits from the MWRA!





MCM #2

Public Involvement and Participation

Permit Part 2.3.3

Objective: The permittee shall provide opportunities to engage the public to participate in the review and implementation of the permittee's SWMP.



Control Measure # 2:
Public Involvement and Participation

BMP # 1

Best Management Practice: Public Review

Document Name and/or Web Address:

<https://www.southboroughtown.com/public-works-dpw/pages/storm-water>

BMP Description: SWMP Review

Responsible Department/Parties: Town Administrator, DPW, Conservation Commission, Stormwater Committee

Measurable Goal: Committee established, meetings conducted, plan developed, activities conducted

Message Date(s): Varies



Control Measure # 2:

Public Involvement and Participation

BMP # 2

Best Management Practice: Public Review

Document Name and/or Web Address:

<https://www.southboroughtown.com/public-works-dpw/pages/storm-water>

BMP Description: Public Meeting - Stormwater

Responsible Department/Parties: Stormwater Committee

Measurable Goal: Annual meetings planned, noticed, conducted, minutes prepared. Number of attendees. Comments received, considered (Plan Development, SWMP and Annual Report).

Message Date(s): Varies



Control Measure # 2:

Public Involvement and Participation

BMP # 3

Best Management Practice: Public Participation

Document Name and/or Web Address: _____

BMP Description: Cleanups – Roadside/General

Responsible Department/Parties: DPW Operations

Measurable Goal: Number of bags collected

Message Date(s): Annual



Control Measure # 2:

Public Involvement and Participation

BMP # 4

Best Management Practice: Public Participation

Document Name and/or Web Address: _____

BMP Description: Household hazardous waste/used oil collection.

Responsible Department/Parties: DPW Operations

Measurable Goal: Volume collected

Message Date(s): Varies



Control Measure # 2:

Public Involvement and Participation

BMP # 5

Best Management Practice: Public Participation

Document Name and/or Web Address: _____

BMP Description: Catch Basin Stenciling/Markers

Responsible Department/Parties: Conservation Committee

Measurable Goal: Number of catch basins stenciled

Message Date(s): Varies



Control Measure # 2:

Public Involvement and Participation

BMP # 6

Best Management Practice: Public Participation

Document Name and/or Web Address: _____

BMP Description: Adopt-a-Road Program

Responsible Department/Parties: Economic Development Committee

Measurable Goal: Develop program, number of companies participating

Message Date(s): Varies



MCM #3

Illicit Discharge Detection and Elimination (IDDE) Program

Permit Part 2.3.4

Objective: The permittee shall implement an IDDE program to systematically find and eliminate illicit sources of non-stormwater discharges to its municipal separate storm sewer system and implement procedures to prevent such discharges.



Control Measure # 3:

Illicit Discharge Detection and Elimination (IDDE) Program

BMP # 1

Best Management Practice: IDDE Legal Authority

Document Name and/or Web Address: <https://ecode360.com/9541125>

Department Responsible for Enforcement: Board of Health

Completed (by May 1, 2008): Yes



Control Measure # 3:

Illicit Discharge Detection and Elimination (IDDE) Program

BMP # 2

Best Management Practice: Map of Storm Sewer System

Document Name and/or Web Address: <https://www.southboroughtown.com/public-works-dpw/pages/storm-water>

BMP Description: The Town has contracted Pare Corporation to assist in the development of an MS4 structure map. As of the date of this submission, the map is approximately 80% complete.

Responsible Department/Parties: Engineering

Measurable Goal: Map 100% of outfalls and receiving waters, open channel conveyances, interconnections with other MS4s and other storm sewer systems, municipally-owned stormwater treatment structures, waterbodies identified by name and indication of all use impairments, and initial catchment delineations within 2 years of the permit's effective date. Map 100% of outfall spatial locations, pipes, manholes, catch basins, refined catchment delineations, municipal sanitary sewer system (if available), and municipal combined sewer system (if applicable) within 10 years of the permit's effective date.

Phase I Completed (by year 1): Yes

Phase II Completed (by year 10): TBD



Control Measure # 3:

Illicit Discharge Detection and Elimination (IDDE) Program

BMP # 3

Best Management Practice: IDDE Program

Document Name and/or Web Address:

<https://www.southboroughtown.com/public-works-dpw/pages/storm-water>

BMP Description: Create written IDDE program and implement catchment investigations according to program and permit conditions.

Responsible Department/Parties: Engineering

Measurable Goal: Conduct 100% of outfall screening on High and Low Priority Outfalls within 3 years of the permit's effective date. Complete catchment investigations for 100% of the Problem Outfalls within 7 years of the permit's effective date. Complete 100% of all catchment investigations within 10 years of the permit's effective date.

The outfall/interconnection inventory and initial ranking and the dry weather outfall and interconnection screening and sampling results can be found:

<https://www.southboroughtown.com/public-works-dpw/pages/storm-water>

Written Document Completed (by year 1): Yes



Control Measure # 3:

Illicit Discharge Detection and Elimination (IDDE) Program

BMP # 3

Best Management Practice: Employee Training

BMP Description: Train employees on IDDE implementation

Responsible Department/Parties: DPW Operations

Measurable Goal: Annual training



Control Measure # 3:

Illicit Discharge Detection and Elimination (IDDE) Program

BMP # 4

Best Management Practice: Dry Weather Screening

Document Name and/or Web Address: _____

BMP Description: Conduct in accordance with outfall screening procedure and permit conditions.

Responsible Department/Parties: External Contractor

Measurable Goal: Complete 3 years after effective date of permit

Completed: To be completed

Dry Weather Screening was conducted at priority outfalls in October 2009 and the findings are attached.

**TOWN OF SOUTHBOROUGH
DEPARTMENT OF PUBLIC WORKS**

**Tel: 508-485-1210
Fax: 508-229-4444**

**147 Cordaville Road
Southborough, MA 01772**



DATE: October 2, 2009

MEMORANDUM

TO: File
CC:
FROM: John Woodsmall, Town Engineer
SUBJECT: 2009 Outfall Illicit Discharge Investigations

As a follow-up to the samples that were taken at various stormwater outfalls in September, 2007, on October 2, 2009, I re-visited the 5 outfalls or areas that were recommended for follow-up by Fuss & O'Neil, based upon the test results in 2007.

The 5 outfalls recommended for follow-up were:

1. OF-2B, an outfall for the Constitution Drive area, located on Town owned open space, at the edge of a small pond.
2. OF-14A, a pipe opening into a drainage ditch along Pine Hill Road.
3. OF-33B, an outfall for the Ted Lane area, discharging into a small stream.
4. OF-48B, an outfall for the Cherry Street/Pleasant Street area, discharging to a drainage swale along the edges of the CSX railroad.
5. A puddle along the edge of the road at the intersection of Cherry Street and Pleasant Street, which was receiving sump water discharge from #3 Pleasant Street.

Previous to the re-inspection day, the last measurable rainfall was on September 28, 2009. Therefore, it had not rained in the previous 4 days.

The results of the re-inspections are as follows:

1. OF-2B: Drain was flowing, with approximately 2-inches of depth in the pipe. The flow was very slow, the water was clear, with a slightly rusty color. As dry weather flow was present, water samples were collected and submitted to the laboratory for classification.
2. OF-14A: No flows were present. Vegetation and channel bed were normal in appearance. No odors were detected. No samples were taken.
3. OF-33B: Outfall was flowing, with approximately 2-inches of depth in pipe. The flow was very slow, and the water was clear. A slight odor was detected in the area. As dry weather flow was present, water samples were collected and submitted to the laboratory for classification.
4. OF-48B: Water was present, however, it did not seem to be coming from the pipe. Rather, the drainage swale the pipe outfalls to is full of stagnant water that does not seem to be draining properly. The 4-inch corrugated black pipe that was sampled previously was not located, so the water at the 10-inch PVC pipe that was 1/3 full was sampled and the samples were submitted to the laboratory for further classification.
5. 3 Pleasant Street-The basement drain pump no longer discharges to the surface of Pleasant Street/Cherry Street. No puddles were located in the area. Additionally, since the first round of samples, this property has received a new Title V complaint septic system.

As a result of this additional investigation, the outfall at OF-14A and the area at 3 Pleasant Street have been ruled out as receiving any illicit discharges. For the other outfalls (2B, 33B, and 48B) the results of the water quality sampling will determine if further action is necessary.

Illicit Discharge Detection and Elimination Sampling

10/2/2009

	Outfall #				
	OF-2B	OF-14A	OF-33B	OF-48B	3 Pleasant St.
Date of Inspection	10/2/09	10/2/09	10/2/09	10/2/09	10/2/2009
Time of Sample	13:10	N/A	13:40	14:05	N/A
Outfall Description	24" FERCP	30" RCP	30" RCP	10" PVC	N/A
Flow	Slow Flow, 2" deep	No Flow	Very Slow Flow, 2" deep	Slow flow in Drainage Channel	None
Temperature, °C	12.2	N/A	13.6	16.9	N/A
pH	N/A	N/A	N/A	N/A	N/A
Total Coliform, CFU/100ml	250	N/A	50	600	N/A
MBAS Surfactants, mg/l	<0.05	N/A	<0.05	0.052	N/A
Conductivity, umho/cm	243	N/A	815	825	N/A
Ammonia Nitrogen as N, mg/l	0.27	N/A	<0.1	2.4	N/A



Control Measure # 3:

Illicit Discharge Detection and Elimination (IDDE) Program

BMP # 5

Best Management Practice: Wet Weather Screening

Document Name and/or Web Address: _____

BMP Description: Conduct in accordance with outfall screening procedure.

Responsible Department/Parties: External Contractor

Measurable Goal: Complete 10 years after effective date of permit

Completed: To be completed



Control Measure # 3:

Illicit Discharge Detection and Elimination (IDDE) Program

BMP # 6

Best Management Practice: Ongoing Screening

Document Name and/or Web Address: _____

BMP Description: Conduct dry weather and wet weather screening (as necessary).

Responsible Department/Parties: External Contractor

Measurable Goal: Complete ongoing outfall screening upon completion of IDDE program

Completed: To be completed



MCM #4

Construction Site Stormwater Runoff Control

Permit Part 2.3.5

Objective: The objective of an effective construction stormwater runoff control program is to minimize or eliminate erosion and maintain sediment on site so that it is not transported in stormwater and allowed to discharge to a water of the U.S. through the permittee's MS4.



Control Measure # 4:

Construction Site Stormwater Runoff Control

BMP # 1

Best Management Practice: Sediment and Erosion Control Ordinance

Ordinance Link or Reference:

https://www.southboroughma.com/sites/southboroughma/files/pages/rev_sw_regs_nov_2015.pdf

Chapters of the Municipal Code where soil erosion and sediment control for land disturbing activities is not addressed, but is relevant, include:

- §85 Earth Removal
- §103 Gas Installations
- §152 Streets and Sidewalks
- §174-8.9 Wetland and Floodplain District
- §174-8.10 Critical Resource District

Department Responsible for Enforcement:

Completed (by May 1, 2008): No- January 8, 2015, Rev. November 19, 2015



Control Measure # 4:

Construction Site Stormwater Runoff Control

BMP # 2

Best Management Practice: Site Plan Review Procedures

Document Name and/or Web Address:

<https://www.southboroughtown.com/conservation-commission/pages/stormwater-permit-information>

BMP Description: Written procedures have been established for Stormwater Management Permit Applications and review. Includes:

- Stormwater Management Permit Eligibility Worksheet
- Stormwater Management Permit Application Checklist
- Stormwater Management Permit Application

Responsible Department/Parties: Planning/Zoning Department

Measurable Goal: Conduct site plan review of 100% of projects according to the procedures outlined above.

Written Procedures Completed (by year 1): Yes



Control Measure # 4:

Construction Site Stormwater Runoff Control

BMP # 3

Best Management Practice: Site Inspections and Enforcement of Sediment and Erosion Control Measures Procedures

Document Name and/or Web Address:

https://www.southboroughtown.com/sites/southboroughma/files/pages/rev_sw_regs_nov_2015.pdf

BMP Description: Written procedures of site inspections and enforcement procedures for Sediment and Erosion Control Measures. Bylaw includes:

- Section 10.0 Construction Inspections
- Section 13.0 Enforcement
 - o Notice and Orders,
 - o Penalties and Violations

Responsible Department/Parties: Conservation Commission

Measurable Goal: Inspect 100% of construction sites and take enforcement actions as needed.

Completed (by year 1): Yes



MCM #5

Post Construction Stormwater Management In New Development and Redevelopment

Permit Part 2.3.6

Objective: The objective of an effective post construction stormwater management program is to reduce the discharge of pollutants found in stormwater to the MS4 through the retention or treatment of stormwater after construction on new or redeveloped sites and to ensure proper maintenance of installed stormwater controls.



Control Measure # 5:

Post Construction Stormwater Management In New Development and Redevelopment

BMP # 1

Best Management Practice: As-built plans for on-site stormwater control.

Document Name and/or Web Address:

<https://www.ecode360.com/9541428?highlight=as-built&searchId=26189791832325#9541428>

BMP Description: The procedure to require submission of as-built drawings and ensure long term operation and maintenance is part of the Town Zoning By-Laws.

§244-11 Action on definitive plan.

- (4) Prior to or at the time of the request for the release of performance guaranties, the applicant shall submit to the Board three copies of as-built plans, including profiles and construction details, bearing a certification by a registered land surveyor or registered civil engineer that the location, material, elevation and method of construction or installation of all streets, utilities, stone bounds or other monuments, street signs and any other required improvements conform exactly to the approved definitive plans, as they may have been modified by the Planning Board, and to these rules and regulations or indicating clearly any departures therefrom and the actual as-built locations, materials, grades and other particulars thereof. Work shall not be considered completed and performance guaranties shall not be released until such certified as-built plans have been received and the Board determines that any departures from the approved plans and these rules and regulations are minor and nonsubstantive or necessary and require no alterations.

Responsible Department/Parties: Conservation Committee, Zoning Board, DPW Operations

Measurable Goal: Require submission of as-built plans for completed projects.

Completed: Yes



Control Measure # 5:

Post Construction Stormwater Management In New Development and Redevelopment

BMP # 2

Best Management Practice: Target properties to reduce impervious areas

Document Name and/or Web Address: _____

BMP Description: Identify at least 5 permittee-owned properties that could be modified or retrofitted with BMPs to reduce impervious areas and update annually.

Responsible Department/Parties: Planning/Zoning Department

Measurable Goal: Complete 4 years after effective date of permit and report annually on retrofitted properties.

Completed: 4 years after permit date.



Control Measure # 5:

Post Construction Stormwater Management In New Development and Redevelopment

BMP # 3

Best Management Practice: Allow green infrastructure

Document Name and/or Web Address: _____

BMP Description: Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist.

Responsible Department/Parties: Planning/Zoning Department

Measurable Goal: Complete 4 years after effective date of permit and report annually on retrofitted properties.

Completed: 4 years after permit date.



Control Measure # 5:

Post Construction Stormwater Management In New Development and Redevelopment

BMP # 4

Best Management Practice: Street design and parking lot guidelines

Document Name and/or Web Address: _____

BMP Description: Develop a report assessing requirements that affect the creation of impervious cover. The assessment will help determine if changes to design standards for streets and parking lots can be modified to support low impact design options.

Responsible Department/Parties: Planning/Zoning Department

Measurable Goal: Complete 4 years after effective date of permit and report annually on retrofitted properties.

Completed: 4 years after permit date.



Control Measure # 5:

Post Construction Stormwater Management In New Development and Redevelopment

BMP # 5

Best Management Practice: Massachusetts Stormwater Handbook Compliance

Document Name and/or Web Address: _____

BMP Description: Ensure any stormwater controls or management practices for new development and redevelopment meet the retention or treatment requirements of the permit and all applicable requirements of the Massachusetts Stormwater Handbook. Adoption, amendment, or modification of a regulatory mechanism to meet permit requirements.

Responsible Department/Parties: Planning/Zoning Department

Measurable Goal: Complete 4 years after effective date of permit and report annually on retrofitted properties.

Completed: 4 years after permit date.



MCM #6

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

Permit Part 2.3.7

Objective: The permittee shall implement an operations and maintenance program for permittee-owned operations that has a goal of preventing or reducing pollutant runoff and protecting water quality from all permittee-owned operations.



Control Measure # 6:

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

BMP # 1

Best Management Practice: O&M Procedures

Document Name and/or Web Address: _____

BMP Description: Create written O&M procedures including all requirements contained in 2.3.7.a.ii for parks and open spaces, buildings and facilities, and vehicles and equipment.

Responsible Department/Parties: Engineering

Measurable Goal: Complete and implement 2 years after effective date of permit.

Completed: 2 years after permit date.



Control Measure # 6:

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

BMP # 2

Best Management Practice: Create Inventory

Document Name and/or Web Address: _____

BMP Description: Inventory all permittee-owned parks and open spaces, buildings and facilities, and vehicles and equipment.

Responsible Department/Parties: Engineering

Measurable Goal: Complete 2 years after effective date of permit and implement annually.

Completed: 2 years after permit date.



Control Measure # 6:
Good Housekeeping and Pollution
Prevention for Permittee Owned Operations
BMP # 3

Best Management Practice: Infrastructure O&M

Document Name and/or Web Address: _____

BMP Description: Establish and implement program for repair and rehabilitation of MS4 infrastructure.

Responsible Department/Parties: DPW Operations

Measurable Goal: Complete 2 years after effective date of permit.

Completed: 2 years after permit date.



Control Measure # 6:

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

BMP # 4

Best Management Practice: Stormwater Pollution Prevention Plan (SWPPP)

Document Name and/or Web Address: _____

BMP Description: Create SWPPPs for maintenance garages, transfer stations, and other waste-handling facilities.

Responsible Department/Parties: Engineering

Measurable Goal: Complete and implement 2 years after effective date of permit.

Completed: 2 years after permit date.



Control Measure # 6:

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

BMP # 5

Best Management Practice: Catch basin cleaning

Document Name and/or Web Address: _____

BMP Description: Establish schedule for catch basin cleaning such that each catch basin is no more than 50% full and clean catch basins on that schedule

Responsible Department/Parties: DPW Operations

Measurable Goal: Clean catch basins on established schedule and report number of catch basins cleaned and volume of material moved annually.

Completed: Annually



Control Measure # 6:

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

BMP # 6

Best Management Practice: Street sweeping program

Document Name and/or Web Address: _____

BMP Description: Sweep all streets and permittee-owned parking lots in accordance with permit conditions

Responsible Department/Parties: DPW Operations

Measurable Goal: Sweep all streets and permittee-owned parking lots once per year in the spring.

Completed: Annually



Control Measure # 6:

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

BMP # 7

Best Management Practice: Road salt use optimization program

Document Name and/or Web Address: _____

BMP Description: Establish and implement a program to minimize the use of road salt

Responsible Department/Parties: DPW Operations

Measurable Goal: Implement salt use optimization during deicing season

Completed: Annually



Control Measure # 6:

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

BMP # 8

Best Management Practice: Inspections and maintenance of stormwater treatment structures.

Document Name and/or Web Address: _____

BMP Description: Sweep all streets and permittee-owned parking lots in accordance with permit conditions

Responsible Department/Parties: DPW Operations

Measurable Goal: Sweep all streets and permittee-owned parking lots once per year in the spring.

Completed: Annually