

Stormwater Management Program (SWMP)

TOWN OF BOXFORD

7A Spofford Road MA 01921

EPA NPDES Permit Number MAR041184

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 (document name listed below)

Publicly available at the website below

“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 _____

[Click Here for Revisions](#)

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.

Town Specific MS4 Background (optional)

Boxford complied with the requirements of the 2003 MS4 General Permit meeting all of the measurable goals established by the permit including:

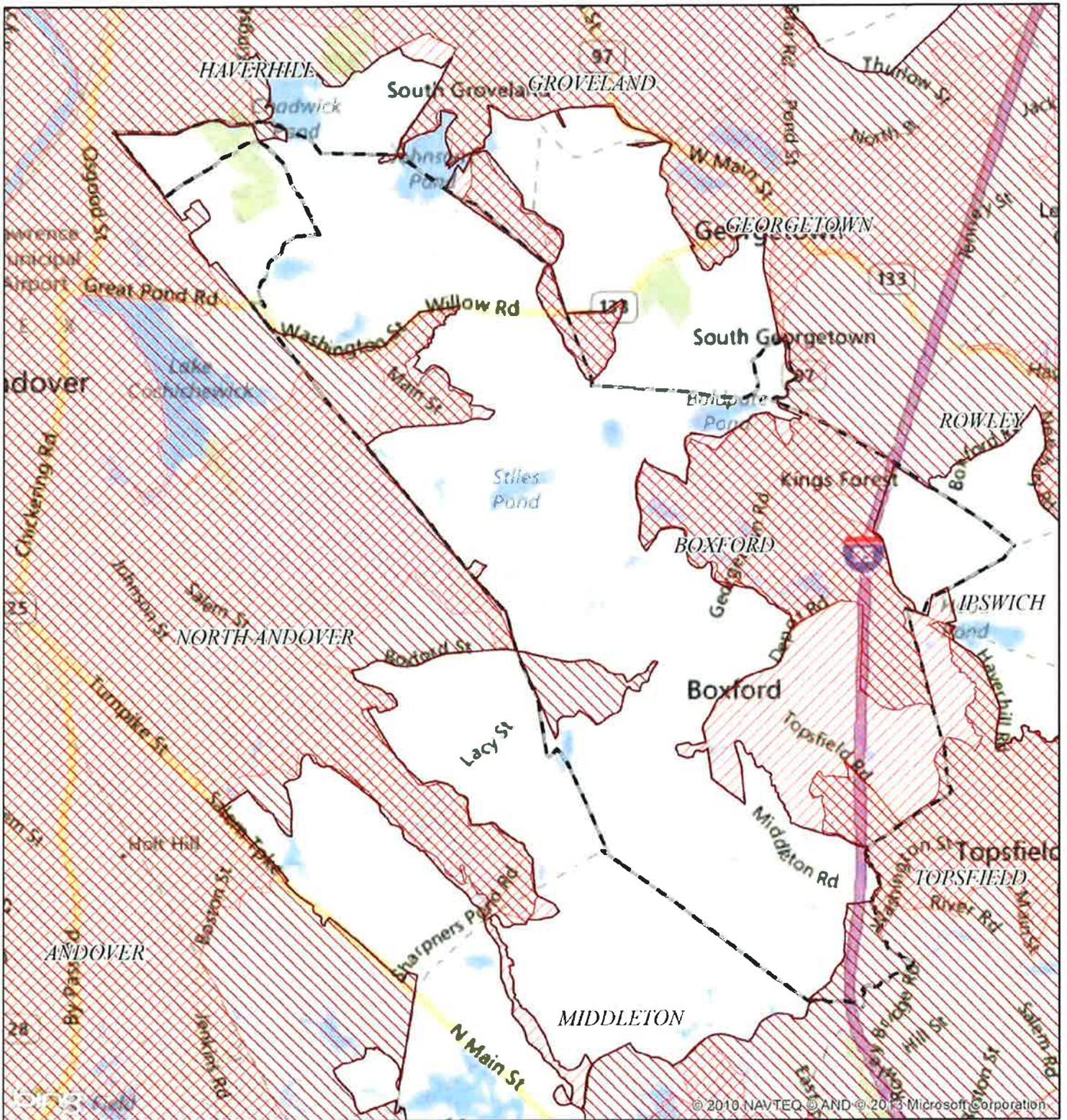
MCM 1 - Public Education and Outreach - Participates in Greenscapes Program

MCM 2 - Public Involvement and Participation - formation of Stormwater Advisory Committee (meets minimum twice annually)

MCM 3 - Illicit Discharge and Detection Elimination - IDDE authority adopted 05/09/06

MCM 4 - Construction Site Runoff Control & MCM 5 Post-Construction Stormwater Management - Construction/Erosion and Sediment Control Authority Adopted 05/09/06 and Regulations 2007

MCM 6 - Pollution Prevention and Good Housekeeping - Street sweeping and catch basin maintenance program, DPW training

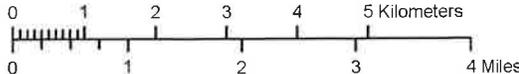


**NPDES Phase II Stormwater Program
Automatically Designated MS4 Areas**

Boxford MA

Regulated Area:

UA Based on 2000 Census	UA Based on 2010 Census
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Town Population: **7867**
 Regulated Population: **4424**
 (Populations estimated from 2010 Census)



Urbanized Areas, Town Boundaries
 US Census (2000, 2010)
 Base map © 2013 Microsoft Corporation
 and its data suppliers

Small MS4 Authorization

The NOI was submitted on Aug 30, 2018

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

<https://www3.epa.gov/region1/npdes/stormwater/ma/tms4noi/boxford.pdf>

Authorization to Discharge was granted on December 14, 2018

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

<https://www3.epa.gov/region1/npdes/stormwater/ma/tms4noi/boxford-auth.pdf>



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

VIA EMAIL

December 14, 2018

Alan Benson
Town Administrator

And;

John Dold
DPW Superintendent/ Town Engineer
7B Spofford Street
Boxford, MA. 01921
jdold@town.boxford.ma.us

Re: National Pollutant Discharge Elimination System Permit ID #: MAR041184, Town of
Boxford

Dear John Dold:

The 2016 NPDES General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems in Massachusetts (MS4 General Permit) is a jointly issued EPA-MassDEP permit. Your Notice of Intent (NOI) for coverage under this MS4 General Permit has been reviewed by EPA and appears to be complete. You are hereby granted authorization by EPA and MassDEP to discharge stormwater from your MS4 in accordance with the applicable terms and conditions of the MS4 General Permit, including all relevant and applicable Appendices. This authorization to discharge expires at midnight on **June 30, 2022**.

For those permittees that certified Endangered Species Act eligibility under Criterion C in their NOI, this authorization letter also serves as EPA's concurrence with your determination that your discharges will have no effect on the listed species present in your action area, based on the information provided in your NOI.

As a reminder, your first annual report is due by **September 30, 2019** for the reporting period from May 1, 2018 through June 30, 2019.

Information about the permit and available resources can be found on our website:
<https://www.epa.gov/npdes-permits/massachusetts-small-ms4-general-permit>. Should you have

any questions regarding this permit please contact Newton Tedder at tedder.newton@epa.gov or (617) 918-1038.

Sincerely,



Thelma Murphy, Chief
Stormwater and Construction Permits Section
Office of Ecosystem Protection
United States Environmental Protection Agency, Region 1

and;



Lealdon Langley, Director
Wetlands and Wastewater Program
Bureau of Water Resources
Massachusetts Department of Environmental Protection

Stormwater Management Program Team

SWMP Team Coordinator

Name	Chris Olbrot	Title	DPW Superintendent/Town Engineer
Department	Public Works		
Phone Number	(978) 352-6555	Email	colbrot@town.boxford.ma.us
Responsibilities			

SWMP Team

Name	Ross Povenmire	Title	Conservation Director/Planning Agent
Department	Conservation, Planning & Community Preservation		
Phone Number	(978) 887-6000 x181	Email	dircons@town.boxford.ma.us
Responsibilities			

Name	Kendell Longo	Title	Health Director
Department	Health		
Phone Number	(978) 887-6000 x507	Email	klongo@town.boxford.ma.us
Responsibilities			

Name	Robert Aldenberg	Title	Inspector of Buildings
Department	Building		
Phone Number	(978) 887-6401	Email	raldenberg@town.boxford.ma.us
Responsibilities			

Add SWMP Member

Receiving Waters

The following table lists all receiving waters, impairments and number of outfalls discharging to each waterbody segment.

OR

The information can be found in the following document or at the following web address:

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Waterbody segment that receives flow from the MS4	Number of outfalls into receiving water segment	Chloride	Chlorophyll-a	Dissolved Oxygen/DO Saturation	Nitrogen	Oil & Grease/PAH	Phosphorus	Solids/ TSS/ Turbidity	E. coli	Enterococcus	Other pollutant(s) causing impairments
Ipswich River	4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mercury in fish tissue				
Mill River	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Excess Algal Growth/ Non-native Aquatic plants, Benthic Macroinvertebrates
Parker river	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Low Flow Alterations
Chadwicks Pond		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mercury Fish Tissue
Fish Brook	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No Impairment in 2014; Ecoli in 2016 303d listing
Penn Brook		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None
Baldpate Pond	5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mercury in Fish Tissue; Non-Native Aquatic Plants, Dissolved Oxygen				
Lower Four Mile Pond	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Non-Native Aquatic Plants
Lowes Pond	4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mercury in Fish Tissue; Non-Native Aquatic Plants
Stevens Pond	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Non-Native Aquatic Plants

		<input type="checkbox"/>									
Sperrys Pond	1	<input type="checkbox"/>	none								
Howes Pond	2	<input type="checkbox"/>	none								
Towne Pond	2	<input type="checkbox"/>	none								
Four Mile Pond	3	<input type="checkbox"/>	none								
Pye Brook	2	<input type="checkbox"/>	none								

[Click here to lengthen table](#)

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)
 - U.S. Fish and Wildlife Service Screening Determination Letter & Historic Properties Effect Determination
- Publicly available at the website listed below

Under what criterion did permittee determine eligibility for ESA?

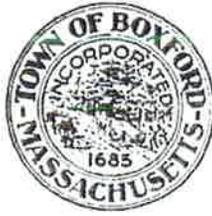
- Criterion A Criterion B Criterion C

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):



TOWN OF BOXFORD

Office of the Board of Selectmen
7A Spofford Road
Boxford, MA 01921

www.town.boxford.ma.us

August 28, 2018

Tel: (978) 887-6000 Ext. 502

Fax: (978) 887-5361

To: File

From: Alan Benson

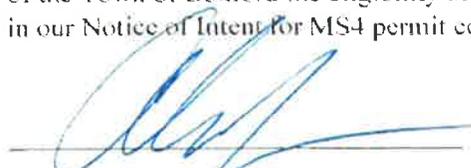
Re: Documentation of Town of Boxford's Determination of "No Affect" on Endangered Species or Critical Habitat of Boxford's MS4 Stormwater Management Program

The Town of Boxford is planning an updated Stormwater Management program for compliance with the Municipal Separate Storm Sewer System (MS4) Permit issued by EPA and MassDEP effective July 2018 for urbanized communities in the Commonwealth.

As part of the planning review of five-year activities, the Town of Boxford through its Stormwater Committee has reviewed resource lists provided by the U.S. Fish and Wildlife Service and has determined that the Town's Stormwater program meets Criteria C for coverage by the MS4 Permit.

- 1) The Town's MS4 area contains the Northern Long-Eared Bat, one of the USFWS listed species;
- 2) The Town's Stormwater Committee in its program assessment has determined the stormwater facilities managed under the permit are existing facilities authorized by the previous permit and that activities proposed under the Town's MS4 management & maintenance program are not anticipated to impact endangered species or critical habitat. EPA has documented consultation on the Massachusetts MS4 Program by letter from the USFWS New England Field Office dated January 8, 2018; and
- 3) The Town agrees that during the MS4 permit term, if the Town plans to install a structural BMP not identified in the Program Notice of Intent, the Town will conduct an endangered species screening for the proposed site and contact the USFWS if a proposed new activity "may affect" or is "not likely to adversely affect listed species or critical habitat under the jurisdiction of the USFWS.

Based on the Stormwater Committee's review as documented in the NOI preparation, I certify on behalf of the Town of Boxford the eligibility of the Town's MS4 Program Permit to use Eligibility Criterion C in our Notice of Intent for MS4 permit coverage for Endangered Species Act Determination.


Alan J. Benson
Town Administrator/CPO



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
<http://www.fws.gov/newengland>



January 8, 2018

To Whom It May Concern:

This project was reviewed for the presence of federally listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm> (accessed January 2018)

Based on information currently available to us, no federally listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under section 7 of the Endangered Species Act is not required. No further Endangered Species Act coordination is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact David Simmons of this office at 603-227-6425 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office



TOWN OF BOXFORD

Office of the Board of Selectmen
7A Spofford Road
Boxford, MA 01921

www.town.boxford.ma.us

Tel: (978) 887-6000 Ext. 502
Fax: (978) 887-5361

August 28, 2018

To: File
From: Alan Benson
Re: Historic Properties Effect Determination of Boxford's MS4 Stormwater Management Program

The Town of Boxford is planning an updated Stormwater Management program for compliance with the Municipal Separate Storm Sewer System (MS4) Permit issued by EPA and MassDEP effective July 2018 for urbanized communities in the Commonwealth.

As part of the planning review of five-year activities, the Town of Boxford through its Stormwater Committee has determined that stormwater facilities managed under the permit are existing facilities authorized by the previous permit and that activities proposed under the Town's MS4 management & maintenance program are not anticipated to involve subsurface land disturbance.

Based on the Committee's review, I certify on behalf of the Town of Boxford the eligibility of the Town's MS4 Program Permit to use Criterion A in our Notice of Intent for MS4 permit coverage, whereby municipal stormwater discharges do not have the potential to cause effects on historic properties.

Alan J. Benson
Town Administrator/CPO

Massachusetts Cultural Resource Information System



MACRIS Search Results

Search Criteria: Town(s): Boxford;

Inv. No.	Property Name	Street	Town	Year
BOX.A	West Boxford Village		Boxford	
BOX.B	Boxford Village Historic District		Boxford	
BOX.C	Howe Village Historic District		Boxford	
BOX.D	First Period Buildings of Eastern Massachusetts		Boxford	
BOX.E	Rowley Village Forge Site		Boxford	
BOX.F	Towne Farm		Boxford	
BOX.65	Smith, John - Janes, Henry House	Bare Hill Rd	Boxford	1790
BOX.20	Stiles, Timothy House	Brookview Rd	Boxford	1702
BOX.45	Kimball, Jefferson House	Elm St	Boxford	1840
BOX.48	Hale, Dr. William - Alcott, Rev. William P. House	Elm St	Boxford	1770
BOX.49	Howe, Edward - Howe, William Appleton House	Elm St	Boxford	1841
BOX.50	Coggin, Rev. William S. House	Elm St	Boxford	1842
BOX.51	Holyoke - French House	Elm St	Boxford	1760
BOX.70	Boxford Town Hall	Elm St	Boxford	1890
BOX.64	Sawyer House	21 Endicott Rd	Boxford	r 1715
BOX.5	Chadwick, Thomas - Andrew, Gov. Jonathan House	Essex St	Boxford	1788
BOX.37		Georgetown Rd	Boxford	1957
BOX.38	Gould, Daniel House	Georgetown Rd	Boxford	1842
BOX.43	Wood, Thomas House	Georgetown Rd	Boxford	c 1700
BOX.44	Boxford Third Meeting House	Georgetown Rd	Boxford	1838
BOX.900	I-95 Bridge over Ipswich River	I-95	Boxford	1950
BOX.901	I-95 Bridge over River Road	I-95	Boxford	1950
BOX.902	I-95 Bridge over Fish Brook	I-95	Boxford	1950
BOX.903	I-95 Bridge over Pye Brook	I-95	Boxford	1950
BOX.9	Kimball, Moses House	Ipswich Rd	Boxford	1780
BOX.15	Foster, Jonathan House	Ipswich Rd	Boxford	1812

Inv. No.	Property Name	Street	Town	Year
BOX.58	Watson, William - Hale, Joseph House	Ipswich Rd	Boxford	1687
BOX.66	Perley, Aaron House - Cleaveland Farm	35 Ipswich Rd	Boxford	1818
BOX.14	Tyler, Moses House	474 Ipswich Rd	Boxford	r 1720
BOX.57	Perley, Amos House	Kelsey Rd	Boxford	1773
BOX.59	Spofford - Barnes House	20 Kelsey Rd	Boxford	1749
BOX.63	Killam, Chester House	Killam Hill Rd	Boxford	1810
BOX.22		Lawrence Rd	Boxford	1730
BOX.26	Bentley, John Match Factory Worker Housing	Lawrence Rd	Boxford	1790
BOX.23	Boardman, John House	6 Lawrence Rd	Boxford	r 1745
BOX.56	Andrews, Daniel House	Lockwood Ln	Boxford	1842
BOX.3	Austin, G. B. House	Main St	Boxford	1745
BOX.4	Tyler, Bradstreet House	Main St	Boxford	1763
BOX.10	Bradstreet - Pearl, Peter House	Main St	Boxford	1810
BOX.18	Foster, Dea. Timothy - Berry, Amos House	Main St	Boxford	1780
BOX.24	Bremner, D. House	Main St	Boxford	c 1831
BOX.25	Peabody, S. P. House	Main St	Boxford	1800
BOX.27	Perley, George House	Main St	Boxford	1830
BOX.28	Peabody, Maj. Jacob House	Main St	Boxford	1826
BOX.29	Willet, John - Palmer, Alice Freeman House	Main St	Boxford	1774
BOX.33	Redington, Abraham House	Main St	Boxford	1683
BOX.46	Redington, Thomas House	Main St	Boxford	c 1750
BOX.47	Peabody, James M. - Averill, John House	Main St	Boxford	1844
BOX.71	Palmer School	33 Main St	Boxford	1845
BOX.31	Perley, Maj. Samuel House	71 Main St	Boxford	1840
BOX.34	Cole, Dea. John K. House	Middleton Rd	Boxford	1856
BOX.35	Foster, Richard K. House	Middleton Rd	Boxford	1841
BOX.39	Gould, John House	Middleton Rd	Boxford	1783
BOX.42	Woodbury, Josiah House	Middleton Rd	Boxford	1817
BOX.60	Gould, Jacob House	Middleton Rd	Boxford	1721
BOX.62	Gould, Zaccheus House	Middleton Rd	Boxford	1835
BOX.41	Bixby, Dea. Samuel House	101 Middleton Rd	Boxford	1828
BOX.36	Gould, Stephen - Sawyer, John House	154 Middleton Rd	Boxford	c 1750
BOX.61	Foster, Phineas House	15 Old Topsfield Rd	Boxford	c 1725
BOX.67	Hale, Joseph House	Salem Rd	Boxford	1749
BOX.68	Perley, Asa House	Salem Rd	Boxford	1760
BOX.19	Adams, Capt. Isaac House	161 Spofford Rd	Boxford	1702
BOX.52	Andrews, Dean House	Topsfield Rd	Boxford	1843
BOX.53	Dorman, Ancill House	Topsfield Rd	Boxford	1835

Inv. No.	Property Name	Street	Town	Year
BOX.54	Dorman, John - Dorman, Moses House	Topsfield Rd	Boxford	1688
BOX.55	Dorman, Nathaniel House	Topsfield Rd	Boxford	c 1757
BOX.72	Towne Farm	55 Towne Rd	Boxford	1790
BOX.73	Towne Farm Carriage House	55 Towne Rd	Boxford	1858
BOX.74	Towne Farm Barn	55 Towne Rd	Boxford	c 1790
BOX.75	Towne Farm Garage	55 Towne Rd	Boxford	c 1912
BOX.76	Towne Farm Pumpphouse - Windmill	55 Towne Rd	Boxford	1902
BOX.907	Towne Farm Water Tower	55 Towne Rd	Boxford	1907
BOX.908	Towne Farm Well Enclosure	55 Towne Rd	Boxford	r 1980
BOX.909	Towne Farm Stone Walls	55 Towne Rd	Boxford	
BOX.16	Kimball, John House	Valley Rd	Boxford	c 1712
BOX.1	Robinson, Maj. John House	Washington St	Boxford	1790
BOX.2	Robinson, Joseph House	Washington St	Boxford	1845
BOX.6	Chadwick, John - Nason, John Horace House	Washington St	Boxford	1775
BOX.7	Boxford Second Congregational Church	Washington St	Boxford	1843
BOX.8	Foster, Ephraim House	Washington St	Boxford	1830
BOX.12	Cole, Samuel - Doherty House	Washington St	Boxford	c 1793
BOX.13	Knowlton, Col. Thomas House	Washington St	Boxford	c 1735
BOX.69	Hale, Benjamin P. House	Washington St	Boxford	1890
BOX.904	West Boxford Spanish American War Memorial	Washington St	Boxford	1904
BOX.905	West Boxford Civil War Memorial	Washington St	Boxford	1870
BOX.906	West Boxford World War I Monument	Washington St	Boxford	1934

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.

Examples and Templates:

[EPA's Stormwater Education Toolbox](#)

[MassDEP's Stormwater Outreach Materials](#)

Other templates relevant to MCM 1 can be found here: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england#peo>

BMP: Education and Outreach to Residents

BMP Number (Optional) MCM1-1

Document Name and/or Web Address: Greenscapes North Shore Coalition MCM1: Public Education and Outreach - NOI Form (attached)

Description:

Using print materials (brochures, pamphlets, info sheets) provide education and outreach on stormwater management topics important to Boxford including pet waste management, proper lawn maintenance, septic system maintenance and information about illicit discharges and dumping. Materials may be included with tax/utility bills, distributed with dog licenses or septic system permits. Extra materials will be made available at town hall offices.

Targeted Audience: Residents

Responsible Department/Parties: DPW, Conservation, Greenscapes Program

Measurable Goal(s):

Number of print materials distributed

Message Date(s): Two distributions spaced at least one year apart over 5 year period

BMP: Education and Outreach to Businesses/Institutions and Commercial Facilities

BMP Number (Optional) MCM1-2

Document Name and/or Web Address: Greenscapes North Shore Coalition MCM1: Public Education and Outreach - NOI Form (attached)

Description:

Using print materials (brochures, pamphlets, info sheets) provide education and outreach on stormwater management topics important to Boxford including best practices for parking lot maintenance, landscape maintenance, waste management and deicing/snow management. Materials may be included with tax/utility bills.

Targeted Audience: Businesses/Institutions and Commercial Facilities

Responsible Department/Parties: DPW, Conservation, Greenscapes Program

Measurable Goal(s):

Number of print materials distributed

Message Date(s): Two distributions spaced at least one year apart over a five year period

BMP: Education and Outreach to Developers

BMP Number (Optional) MCM1-3

Document Name and/or Web Address: Greenscapes North Shore Coalition MCM1: Public Education and Outreach - NOI Form (attached), EPA Website

Description:

Using print materials (brochures, pamphlets, info sheets) provide education and outreach on stormwater management topics important to Boxford including proper erosion and sedimentation control, construction site management, permit requirements and use of Low Impact Development techniques. Materials can be distributed at pre-construction site visits and with building permits. Workshops may also be held to present this material.

Targeted Audience: Developer

Responsible Department/Parties: Permitting Departments, DPW, Greenscapes

Measurable Goal(s):

Number of materials distributed, number of workshop participants

Message Date(s): Two distributions spaced at least one year apart over a five year period

BMP: Online Materials

BMP Number (Optional) MCM1-4

Document Name and/or Web Address: www.merrimackvalleystormwater.org, Boxford Stormwater Page

Description:

Community can access stormwater resource information on town, Greenscapes and MVPC website

Targeted Audience: Residents, Businesses, Developers (construction)

Responsible Department/Parties: Conservation, DPW, Greenscapes, MVPC

Measurable Goal(s):

Number of views measured as unique page visits

Message Date(s): Ongoing

BMP: Public Service Announcements

BMP Number (Optional) MCM1-5

Document Name and/or Web Address: Public Service Announcements

Description:

PSAs on educational topics to include those listed in 2.3.2.d i and ii of the permit

Targeted Audience: Residents and Businesses, institutions and commercial facilities

Responsible Department/Parties: DPW, Conservation, Access TV

Measurable Goal(s):

PSAs are ongoing, messages are regularly changes and a sum of the number of plays is recorded monthly

Message Date(s): Ongoing

BMP:[BMP name here]

BMP Number (Optional) MCM1-6

Document Name and/or Web Address: School Program

Description:

Incorporate stormwater pollution prevention education into school curricula. Greenscapes to conduct one day workshop annually to elementary school pupil audience @ Spofford Pond School

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes, Schools

Measurable Goal(s):

Number of students, teachers and volunteers involved

Message Date(s): Annual

BMP:[BMP name here]

BMP Number (Optional) _____

Document Name and/or Web Address: _____

Description:

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Message Date(s):

BMP:

BMP Number (Optional) _____

Document Name and/or Web Address:

Description:

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Message Date(s):

BMP:

BMP Number (Optional) _____

Document Name and/or Web Address:

Description:

Targeted Audience:

Responsible Department/Parties:

GREENSCAPES NORTH SHORE COALITION

MCM 1: Public Education and Outreach - NOI FORM

* All literature and media will be available online at www.greenscapes.org and can be shared with member communities at any time.

** Community can decide how to address Greenscapes' involvement. They may choose to list GS as an external contractor, or can list whomever in their town GS communicated with for each BMP, respectively.

BMP Media/Category	BMP Description*	Targeted Audience	Responsible Parties/ Depts.**	Measurable Goal	Implementation Year
Brochure/ Pamphlets	Brochure will consist of a 'how-to-guide' for residents on how rain gardens work and how to install them at their home.	Residents	Greenscapes North Shore Coalition	- Number distributed - Resident testimonials	2018 (Fall)
Brochure/ Pamphlets	An updated version of comprehensive literature, discussing the importance of "greenscaping", small-scale stormwater management practices, sewer/septic system maintenance and other ways to avoid illicit discharge.	Residents	Greenscapes North Shore Coalition	- Number distributed - Resident testimonials	2019 (Spring)
Workshop/ Info Sheet	Workshop and associated literature will cover LID options for reducing runoff and promoting on-site infiltration. Pricing, maintenance and ordinances will also be discussed.	Developers (Construction)	Greenscapes North Shore Coalition and <i>municipal entity</i>	- Number of attendees - Increase in LID use	2019 (Winter)
Displays/ Posters/ Kiosks	Informational poster will be placed in area with heavy dog/walker traffic. Poster will describe proper pet waste management and disposal.	Residents	Greenscapes North Shore Coalition	- Pilot surveys may be conducted before and after message posting	2019 (Spring)
Brochure/ Pamphlets	Pet Waste literature is available in two forms (one page info sheet or rack card) and can be redistributed as necessary.	Residents	Greenscapes North Shore Coalition	- Number distributed - Resident testimonials	2018
Social Media Post	Greenscapes will provide content for a social media "blast" on town Facebooks etc. Ex. Autumnal facebook post describing proper disposal of leaf collection, and springtime post about proper lawn/fertilizer maintenance.	Residents	Greenscapes North Shore Coalition and <i>municipal entity</i>	- Number of views/ likes/ comments - Resident testimonials before and after posting	2018
School Curriculae/ Programs	<i>Elementary School Name</i> will host Greenscapes "Keeping Water Clean" Program.	Residents	Greenscapes North Shore Coalition	- Number of students/ teachers/ volunteers in attendance - Subset of students evaluated before and after program	2018
Brochure/ Pamphlets	Brochure will include general info on LIDs that can assist in stormwater management and pollution prevention. Content will be targeted to "environmental contacts" at industrial facilities, or property managers where applicable.	Industrial Facilities	Greenscapes North Shore Coalition	- Number distributed - Phone call followup	FY2020
Workshop	Stormwater presentation will discuss specific BMPs for parking lots; how to reduce impervious surfaces, and maintain the space more sustainably.	Businesses/ Institutions and Commercial Facilities	Greenscapes North Shore Coalition and <i>municipal entity</i>	- Number of attendees - Number of presentations re-distributed to commercial representatives.	FY2020
Displays/ Posters/ Kiosks	An updated version of informational display, discussing the importance of "greenscaping", small-scale stormwater management practices, sewer/septic system maintenance and other ways to avoid illicit discharge.	Residents	Greenscapes North Shore Coalition	- Number distributed - Resident testimonials	FY2020
Brochure/ Pamphlets	Pet Waste literature is available in two forms (one page info sheet or rack card) and can be redistributed as necessary.	Residents	Greenscapes North Shore Coalition	- Number distributed - Resident testimonials	FY2020
Social Media Post	Greenscapes will provide content for a social media "blast" on town Facebooks etc. Ex. Autumnal facebook post describing proper disposal of leaf collection, and springtime post about proper lawn/fertilizer maintenance.	Residents	Greenscapes North Shore Coalition and <i>municipal entity</i>	- Number of views/ likes/ comments - Resident testimonials before and after posting	FY2020
School Curriculae/ Programs	<i>Elementary School Name</i> will host Greenscapes "Keeping Water Clean" Presentation.	Residents	Greenscapes North Shore Coalition	- Number of students/ teachers/ volunteers in attendance - Subset of students evaluated before and after program	FY2020

Workshop	Workshop and literature will go into greater detail, following the workshop regarding low impact development held in year one. City ordinances and associated incentives will be outlined.	Developers (Construction)	Greenscapes North Shore Coalition and <i>municipal entity</i>	- Number of attendees	FY2021
Web Page	Story Map will outline and describe different examples of existing low-impact-developments in the North Shore Community.	Residents	Greenscapes North Shore Coalition	- Number of map views - Resident testimonials on LID awareness	FY2021
Brochure/ Pamphlets	Pet Waste literature is available in two forms (one page info sheet or rack card) and can be redistributed as necessary.	Residents	Greenscapes North Shore Coalition	- Number distributed - Resident testimonials	FY2021
Social Media Post	Greenscapes will provide content for a social media "blast" on town Facebooks etc. Ex. Autumnal facebook post describing proper disposal of leaf collection, and springtime post about proper lawn/fertilizer maintenance.	Residents	Greenscapes North Shore Coalition and <i>municipal entity</i>	- Number of views/ likes/ comments - Resident testimonials before and after posting	FY2021
School Curriculae/ Programs	<i>Elementary School Name</i> will host Greenscapes "Keeping Water Clean" Program.	Residents	Greenscapes North Shore Coalition	- Number of students/ teachers/ volunteers in attendance - Subset of students evaluated before and after program	FY2021
Meeting/ Presentation	Presentation will discuss proper "greenscaping" practices on a business/commercial level. Content will be targeted to property managers and will include sand/salt storage and landscape management.	Businesses/ Institutions and Commercial Facilities	Greenscapes North Shore Coalition and <i>municipal entity</i>	- Number of attendees	FY2022
Meeting/ Presentation	Presentation will discuss proper "greenscaping" practices on an industrial level. Content will be targeted to property managers and will include sand/salt storage and landscape management.	Industrial Facilities	Greenscapes North Shore Coalition and <i>municipal entity</i>	- Number of attendees	FY2022
Brochure/ Pamphlets	"What not to Flush" rack card will raise resident awareness of the damages of flushing things like wipes and grease in their toilets/sinks.	Residents	Greenscapes North Shore Coalition	- Number distributed - Resident testimonials	FY2022
Brochure/ Pamphlets	Pet Waste literature is available in two forms (one page info sheet or rack card) and can be redistributed as necessary.	Residents	Greenscapes North Shore Coalition	- Number distributed - Resident testimonials	FY2022
Social Media Post	Greenscapes will provide content for a social media "blast" on town Facebooks etc. Ex. Autumnal facebook post describing proper disposal of leaf collection, and springtime post about proper lawn/fertilizer maintenance.	Residents	Greenscapes North Shore Coalition and <i>municipal entity</i>	- Number of views/ likes/ comments - Resident testimonials before and after posting	FY2022
School Curriculae/ Programs	<i>Elementary School Name</i> will host Greenscapes "Keeping Water Clean" Program.	Residents	Greenscapes North Shore Coalition	- Number of students/ teachers/ volunteers in attendance - Subset of students evaluated before and after program	FY2022
Meeting/ Presentation	Greenscapes NS will conduct a "Greenscapes 101" presentation for residents at <i>site of community's choosing</i> . Presentation will discuss the importance of clean and plentiful water.	Residents	Greenscapes North Shore Coalition	- Number of attendees - Resident testimonials	FY2023
Special Events/ Festivals/ Fairs	Greenscapes representatives will attend a trade show expo, with the intent of sharing "Greenscaping" practices and the importance of LIDs with Landscapers and Developers.	Developers (Construction)	Greenscapes North Shore Coalition	- Number of materials distributed - Number of contacts made - Developer testimonials	FY2023
Brochure/ Pamphlets	Pet Waste literature is available in two forms (one page info sheet or rack card) and can be redistributed as necessary.	Residents	Greenscapes North Shore Coalition	- Number distributed - Resident testimonials	FY2023
Social Media Post	Greenscapes will provide content for a social media "blast" on town Facebooks etc. Ex. Autumnal facebook post describing proper disposal of leaf collection, and springtime post about proper lawn/fertilizer maintenance.	Residents	Greenscapes North Shore Coalition and <i>municipal entity</i>	- Number of views/ likes/ comments - Resident testimonials before and after posting	FY2023
School Curriculae/ Programs	<i>Elementary School Name</i> will host Greenscapes "Keeping Water Clean" Program.	Residents	Greenscapes North Shore Coalition	- Number of students/ teachers/ volunteers in attendance - Subset of students evaluated before and after program	FY2023

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.

BMP: Public Review of Stormwater Management Program

BMP Number (Optional) MCM2-1

Location of Plan and/or Web Address: Boxford Stormwater Website

Responsible Department/Parties: Conservation, DPW

Measurable Goal(s):

Stormwater Management Plan is publicly available.

BMP: Public Participation in Stormwater Management Program Development

BMP Number (Optional) MCM2-2

Description:

Public meeting noticed to allow for community comment on SWMP. Boards and committees also invited to participate.

Responsible Department/Parties: Stormwater Committee, DPW, MVPC

Measurable Goal(s):

Annual public input provided. Initial Review June 20, 2019

BMP: Household haz. waste/used oil collection

BMP Number (Optional) MCM2-3

Document Name and/or Web Address: Town Calendar at <https://www.town.boxford.ma.us>

Description:

One collection event held each year

Responsible Department/Parties: Board of Health, Recycling Committee

Measurable Goal(s):

Number of people attending

Amount of material collected

BMP: Stream Clean-up Day/Earth Day

BMP Number (Optional) MCM2-4

Document Name and/or Web Address: Town Calendar at <https://www.town.boxford.ma.us>

Description:

Annual event with outreach opportunity to citizen volunteers in community day clean-up

Responsible Department/Parties: DPW/Lakes Ponds & Streams Committee/Conservation Commission

Measurable Goal(s):

Number of people attending, amount of debris (# of trash bags) collected

BMP: Other Public Participation Opportunities

BMP Number (Optional) MCM2-5

Document Name and/or Web Address:

Description:

Annual re-stenciling operation

Responsible Department/Parties: DPW

Measurable Goal(s):

Number of Catch basins stenciled

BMP: Bylaw Review and Update

BMP Number (Optional) MCM2-6

Document Name and/or Web Address:

Description:

Allow public and departments opportunity to provide feedback on effectiveness of existing bylaw and potential update for compliance with new MS4 permit

Responsible Department/Parties: tormwater Committee, Conservation Commission, Planning Board DPW,

Measurable Goal(s):

Number of participants/comments received

Add BMP

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.

Examples and Templates:

[IDDE Program Template and SOPs](#)

Other templates relevant to IDDE can be found here: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england#idde>

BMP: IDDE Legal Authority

BMP Number (Optional) _____

Completed (by May 1, 2008)

Ordinances Link or Reference: Stormwater Management Bylaw Town of Boxford
<https://www.ecode360.com/10133701>

Department Responsible for Enforcement: Conservation

BMP: Sanitary Sewer Overflow (SSO) Inventory

BMP Number (Optional) _____

Completed (by year 1)

Document Name and/or Web Address:

Description:

Responsible Department/Parties:

Measurable Goal(s):

Annually track and report the following SSO information: the location; a clear statement of whether the discharge entered a surface water directly or entered the MS4; date(s) and time(s) of each known SSO occurrence; estimated volume(s) of the occurrence; description of the occurrence indicating known or suspected cause(s); mitigation and corrective measures completed with dates implemented; and mitigation and corrective measures planned with implementation schedules. Update inventory as needed.

SSO Reporting:

In the event of an overflow or bypass, a notification must be reported within 24 hours by phone to MassDEP, EPA, and other relevant parties. Follow up the verbal notification with a written report following MassDEP's Sanitary Sewer Overflow (SSO)/Bypass notification form within 5 calendar days of the time you become aware of the overflow, bypass, or backup.

The MassDEP contacts are:
Northeast Region (978) 694-3215
205B Lowell Street
Wilmington, MA 01887
Central Region (508) 792-7650
8 New Bond Street
Worcester, MA 01606
Southeast Region (508) 946-2750
20 Riverside Drive
Lakeville, MA 02347
Western Region (413) 784-1100
436 Dwight Street
Springfield, MA 01103
24-hour Emergency Line 1-888-304-1133

The EPA contacts are:
EPA New England (617) 918-1510
5 Post Office Square
Boston, MA 02109

BMP: Map of Storm Sewer System

BMP Number (Optional) _____

Phase I Completed
(by year 2)

Phase II Completed
(by year 10)

Document Location and/or Web Address:

Description:

Responsible Department/Parties:

Measurable Goal(s):

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.

BMP: IDDE Program

BMP Number (Optional) _____

Written Document Completed (by year 1)

Document Name and/or Web Address:

Description:

Responsible Department/Parties:

Measurable Goal(s):

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:

BMP: Employee Training

BMP Number (Optional) _____

Description:

Responsible Department/Parties:

Measurable Goal(s):

Training occurs on (DATE(S)) annually.

BMP: [BMP name here]

BMP Number (Optional) _____

Completed

Document Name and/or Web Address:

Description:

Responsible Department/Parties:

Measurable Goal(s):

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.

Examples and Templates:

Examples and templates relevant to MCM 4, including model ordinances and site inspection templates, can be found here: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england#csrc>

BMP: Sediment and Erosion Control Ordinance

BMP Number (Optional) MCM4-1

Completed (by May 1, 2008)

Ordinances Link or Reference: Stormwater Management Bylaw Town of Boxford
<https://www.ecode360.com/10133701>

Department Responsible for Enforcement: Conservation

BMP: Site Plan Review Procedures

BMP Number (Optional) MCM4-2

Written procedures completed (by year 1)

Document Name and/or Web Address: Construction Site Stormwater Runoff Control Program Procedures

Description:

Conduct Site Plan review of 100% of projects disturbing 1 acre or more according to the procedures outlined in the Rowley Stormwater Bylaw and associated Regulations.

Responsible Department/Parties: Conservation

Measurable Goal(s):

Conduct site plan review of 100% of projects according to the procedures outlined above. Track projects reviewed annually.

BMP: Site Inspections and Enforcement of Sediment and Erosion Control Measures Procedures

BMP Number (Optional) MCM4-3

Completed (by year 1)

Document Name and/or Web Address: Construction Site Stormwater Runoff Control Program Procedures

Description:

Written procedures for site inspection (including inspection form) and enforcement in accordance with Section 2.3.5 of the Permit and as detailed in the Stormwater Bylaw and associated Regulations

Responsible Department/Parties: Conservation

Measurable Goal(s):

Inspect 100% of construction sites as outlined in the above document and take enforcement actions as needed. Document number of sites inspected annually.

BMP: Erosion and Sedimentation Control References

BMP Number (Optional) MCM4-4

Completed

Document Name and/or Web Address: SOP 6: Erosion and Sedimentation Control & Inspection Report

Description:

Boxford will provide developers performing land disturbance activities within the MS4 jurisdiction with information on BMPs appropriate for the conditions at the construction site.

Responsible Department/Parties: Conservation

Measurable Goal(s):

Track materials distributed

Add BMP

Construction Site Stormwater Runoff Control Program Procedures

Town of Boxford

June 2019



Merrimack Valley
Planning Commission

Table of Contents

Construction Site Stormwater Runoff Control Program Procedures

Town of Boxford

- 1 Introduction 3**
- 2 Site Inspection and Enforcement of Sediment and Erosion
Control Measures..... 3**
- 3 Site Plan Review, Inspection and Enforcement 4**

1 Introduction

These procedures have been prepared by the Town of Boxford to address Construction Site Stormwater Runoff Control Program requirements¹ of the United States Environmental Protection Agency's (USEPA's) 2016 National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) in Massachusetts, hereafter referred to as the "2016 Massachusetts MS4 Permit" or "MS4 Permit."

These procedures address Minimum Control Measure 4, Construction Site Stormwater Runoff Control, by documenting the processes that the Town of Boxford will use for inspection and enforcement of sediment and erosion control measures and review, inspection and enforcement of site plans. These procedures are part of Town of Boxford's Construction Site Stormwater Runoff Control Program. Together with the other components of Minimum Control Measure 4, these procedures will help to reduce the discharge of pollutants from the MS4 by minimizing or eliminating erosion and sediment transport from construction sites.

In addition to the inspection and enforcement procedures detailed in this program it is important to note that construction site operators within the MS4 jurisdiction are required to control construction wastes, including but not limited to, discarded building materials, concrete truck wash out, chemicals, litter, and sanitary wastes. These wastes may not be discharged to the MS4.

2 Site Inspection and Enforcement of Sediment and Erosion Control Measures

The Conservation Department performs routine inspections of sediment and erosion control measures for construction activities that result in a land disturbance of greater than or equal to one acre within the regulated area and construction activities that disturb less than one acre when that disturbance is part of a larger common plan of development or sale that would disturb one or more acres. Under the Town of Boxford's Stormwater Management Bylaw, the Conservation Commission has the authority to enforce sediment and erosion control procedures and/or impose sanctions to ensure compliance when necessary. The Town of Boxford will implement the following site inspection and enforcement procedures for sediment and erosion control measures.

Inspection Procedures

Construction sites will be inspected to ensure that sediment and erosion control measures are in place consistent with approved site plans. Inspections will be conducted by Conservation Department or a qualified member of the site crew. Inspections will be conducted in accordance with the Massachusetts Stormwater Handbook. Inspections may include, but are not limited to:

- Inspection during or immediately following initial installation of sediment controls.
- Inspection following severe rainstorms to check for damage to controls.

¹ See Parts 2.3.5.c.ii and 2.3.5.c.v. of the 2016 MS4 Permit for Construction Site Stormwater Runoff Control Written Procedure requirements.

- Inspection prior to seeding deadlines, particularly in fall.
- Final inspection of projects nearing completion to ensure that temporary controls have been removed, stabilization is complete, drainage ways are in proper condition, and the final contours agree with the proposed contours on the approved plan.

All inspections will be completed using the Sediment and Erosion Control Inspection form, included in **Appendix A**. All completed inspection forms will be maintained on file by Town of Boxford in the Conservation Department office. During inspection, the inspector will verify that sediment and erosion control measures are functioning as intended and are being maintained properly. Specific sediment and erosion control measures that will be assessed during inspection are detailed on the Inspection Form.

Enforcement Procedures

In the event that a non-compliance issue is discovered during pre-construction or routine inspection, the Conservation Commission or its authorized agent will document the occurrence and inform the site operator of the violation and the required corrective action. The Conservation Commission/authorized agent will provide the site operator with a copy of the inspection form, noting the non-compliance and the required corrective action. The site operator will have 2 days from the receipt of notice to perform the corrective action. The Conservation Commission/authorized agent will revisit the site for inspection after 2 days to verify that the corrective action was performed and that the site has achieved compliance.

Instructions: Refer to the CMRSWC Standard Operating Procedure "Erosion and Sedimentation Control" for detailed procedures.

https://www.centralmastormwater.org/sites/centralmastormwater/files/uploads/erosion_and_sedimentation_control_sop_final.pdf

The following information will be included in each annual report:

- Number of site inspections conducted
- Number of violations issued
- Record of enforcement actions

3 Site Plan Review, Inspection and Enforcement

Under the authority of the Town of Boxford Stormwater Management Bylaw, the Conservation Commission/authorized agent have the authority to perform construction site plan review, inspection and enforcement. Town of Boxford will implement the following construction site plan review, inspection and enforcement procedures:

Site Plan Review Procedure

- The applicant will submit site plans to the Conservation Department for pre-construction review. Review will be conducted by Health Department, Planning Department, and Public

Works. The Conservation Department, with input from the other departments, will make the final decision to approve, reject, or request modifications to the site plan.

- Site plan review will be completed within 2 days, taking into consideration the following standards with regard to water quality protection and stormwater management:
 - General site design will include appropriate stormwater drainage system details and calculations.
 - Planned construction operations will include adequate Best Management Practices (BMPs) and Sediment and Erosion Control Measures to reduce water quality impacts.
 - Planned BMPs must be designed to the standards found in the Massachusetts Stormwater Handbook. When possible BMPs should promote on-site infiltration of stormwater runoff from impervious surfaces.
 - For sites located in areas subject to Total Maximum Daily Load (TMDL) requirements, BMPs will be selected and prioritized to address the pollutant identified as the cause of the impairment.
 - When possible, low impact designs (LID) and/or Green Infrastructure (GI) should be included in site design. If LID/GI are not included in the site plan, the ##AGENCY OR DEPARTMENT will require that the applicant review opportunities for the use of LID/GI.
- The Conservation Department will make all site plans available for public review and comment and will consider all public comments prior to issuing or denying a permit.
- The Conservation Department may require the applicant to revise the site plan as necessary before issuing or denying a permit.

Site Inspection Procedures

Inspections will be conducted, at a minimum, during BMP construction as well as after construction of BMPs to ensure they are working as described in the approved plans. Inspection will be completed by a Professional Engineer or other qualified person with sufficient training, experience, and/or education to be able to adequately read site plans and assess the installation, operation and maintenance of BMPs in accordance with approved plans. An inspection form will be filled out for each site inspection and stored in the Conservation Department office. A copy of the Inspection Form is available in **Appendix B**.

Instructions: The Inspection Process steps detailed below are meant to be a baseline for inspections. Refer to the CMRSWC Standard Operating Procedure "Construction Site Inspection" for detailed procedures.

https://www.centralmastormwater.org/sites/centralmastormwater/files/uploads/construction_inspection_sop_final.pdf

The procedures may be updated as needed in accordance with the Stormwater and/or Erosion Control bylaws.

Inspection Process:

1. Pre-inspection Review
2. Meet with Site Contractor
3. Inspect Perimeter Controls
4. Inspect slopes and temporary stockpiles
5. Compare BMPs in the site plan with the construction site conditions
 - Inspect BMPs during their construction
 - Inspect BMPs after construction
6. Inspect site entrances/exits
7. Inspect sediment basins
8. Inspect pollution prevention and good housekeeping practices
9. Inspect discharge points and downstream, off-site areas
10. Meet with the contractor again prior to leaving
11. Provide a written copy of the inspection report to the contractor.
12. Follow up, as determined, and provide copies of subsequent inspections to the contractor.
13. Use Stop Work orders, as needed, until compliance can be achieved.

Enforcement Procedure

In the event that a non-compliance issue is discovered during inspections, the Conservation Commission/authorized agent will document the occurrence and inform the site operator of the violation and the required corrective action. The Conservation Commission/authorized agent will provide the site operator with a copy of the inspection form, noting the non-compliance and the required corrective action. The site operator will have 2 days from the receipt of notice to perform the corrective action. The Conservation Department will revisit the site for inspection to verify that the corrective action was performed and that the site has achieved compliance.

Instructions: Refer to the CMRSWC Standard Operating Procedure "Construction Site Inspection" for detailed procedures. The procedures may be updated in accordance with Stormwater and/or Erosion Control bylaws.

https://www.centralmastormwater.org/sites/centralmastormwater/files/uploads/construction_inspection_sop_final.pdf

The number of site reviews, inspections and enforcement actions will be tracked electronically or on paper. Records will be maintained and included in the annual report.

The following information will be included in each annual report:

- Number of site reviews conducted
- Number of site inspections conducted
- Number of violations issued
- Record of enforcement actions

Appendix A

Sediment and Erosion Control Inspection Form

"SOP 6: Erosion and Sedimentation Control Inspection Form."

SOP 6: EROSION AND SEDIMENTATION CONTROL

Erosion and sedimentation from land-disturbing human activities can be a significant source of stormwater pollution. This Standard Operating Procedure describes methods for reducing or eliminating pollutant loading from such activities.

Controlling Erosion and Sediment through Design and Planning

Prevention of erosion and sedimentation is preferable to installing treatment devices. Consistent application and implementation of the following guidelines during the design and review phases can prevent erosion and sedimentation:

1. Avoid sensitive areas, steep slopes, and highly erodible soils to the maximum extent possible when developing site plans.
2. Identify potential problem areas before the site plan is finalized and approved.
3. Plan to use sediment barriers along contour lines, with a focus on areas where short-circuiting (i.e., flow around the barrier) may occur.
4. Use berms at the top of a steep slopes to divert runoff away from the slope's edge.
5. Design trapezoidal or parabolic vegetated drainage channels, not triangular.
6. Use vegetated channels with rip rap check dams, instead of impervious pavement or concrete, to reduce the water velocity of the conveyance system.
7. Design a check dam or sediment forebay with level spreader at the exit of outfalls to reduce water velocity of the discharge and collect sediment.
8. Use turf reinforcement matting to stabilize vegetated channels, encourage vegetation establishment, and withstand flow velocities without scouring the base of the channel.
9. Plan open channels to follow land contours so natural drainage is not disrupted.
10. Use organic matting for temporary slope stabilization and synthetic matting for permanent stabilization.
11. Provide a stable channel, flume, or slope drain where it is necessary to carry water down slopes.

Controlling Erosion and Sediment on Construction Sites

During the construction phase, it is important to inspect active sites regularly to ensure that practices are consistent with approved site plans and the site's Stormwater Pollution Prevention Plan (SWPPP) or other document, as required by the municipality's legal authority. The following guidelines apply:

1. Erosion and sediment control features should be constructed before initiating activities that remove vegetated cover or otherwise disturb the site. These shall be installed consistent with the approved site plans and with manufacturer's instructions.
2. Erosion and sediment control devices shall be inspected by the contractor regularly, and maintained as needed to ensure function.



3. In the SWPPP or other document, the contractor shall clearly identify the party responsible for maintaining erosion and sediment control devices.
4. An inspection should be completed of active construction sites every month, at a minimum, to check the status of erosion and sedimentation controls. Refer to SOP 5, "Construction Site Inspection", for construction site stormwater inspection procedures.
5. Existing vegetation should be maintained on site as long as possible.
6. Construction should proceed progressively on the site in order to minimize exposed soil, and disturbed areas should be restored as soon as possible after work has been completed.
7. Stockpiles shall be stabilized by seeding or mulching if they are to remain for more than two weeks.
8. Disturbed areas shall be protected from stormwater runoff by using protective Best Management Practices (BMPs).
9. Clean water shall be diverted away from disturbed areas on construction sites to prevent erosion and sedimentation.
10. Sediment traps and sediment barriers should be cleaned out regularly to reduce clogging and maintain design function.
11. Vegetated and wooded buffers shall be protected.
12. Soils shall be stabilized by mulching and/or seeding when they would be exposed for more than one week during the dry season, or more than two days during the rainy season.
13. Vegetation shall be allowed to establish before introducing flows to channels.
14. Regular light watering shall be used for dust control, as this is more effective than infrequent heavy watering.
15. Excessive soil compaction with heavy machinery shall be avoided, to the extent possible.
16. Construction activities during months with higher runoff rates shall be limited, to the extent possible.

Controlling Erosion and Sediment by Proper Maintenance of Permanent BMPs

Many construction phase BMPs can be integrated into the final site design, but ongoing inspection and maintenance are required to ensure long-term function of any permanent BMP. Refer to SOP 9, "Inspection of Constructed Best Management Practices", for more information. The following guidelines summarize the requirements for long-term maintenance of permanent BMPs.

1. Responsibility for maintaining erosion and sediment control devices shall be clearly identified.
2. Erosion and sediment control devices shall be inspected following heavy rainfall events to ensure they are working properly.
3. Erosion control blankets shall be utilized when seeding slopes.
4. Vegetated and wooded buffers shall be protected, and left undisturbed to the extent possible.
5. Runoff shall not be diverted into a sensitive area unless this has been specifically approved.
6. Sedimentation basins shall be cleaned out once sediment reaches 50% of the basin's design capacity.
7. Snow shall not be plowed into, or stored within, retention basins, rain gardens, or other BMPs.



8. Easements and service routes shall be maintained, to enable maintenance equipment to access BMPs for regular cleaning.

Related Standard Operating Procedures

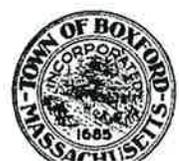
1. SOP 5, Construction Site Inspection
2. SOP 9, Inspection of Constructed Best Management Practices



EROSION AND SEDIMENTATION CONTROL INSPECTION REPORT

General Information

Project Name			
Project Location			
Inspector's Name			
Site Operator			
Date of Inspection		Date of Last Inspection	
Start Time		End Time	
Subject to USEPA Construction General Permit? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, has NOI been approved? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, attach approved NOI to this report. <p style="text-align: center;">If no, contact contractor immediately to determine status of NOI.</p>			
Type of Inspection: Regular <input type="checkbox"/> Pre-Storm Event <input type="checkbox"/> During Storm Event <input type="checkbox"/> Post-Storm Event <input type="checkbox"/>			
Describe the weather conditions at time of inspection			
Describe the current phase of construction			



Erosion and Sediment Control (ESC) on Construction Sites

Document any of the following issues found on the construction site, and the corrective action(s) required for each.

Issue	Status	Corrective Action Needed
Have all ESC features been constructed before initiating other construction activities?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is the contractor inspecting and maintaining ESC devices regularly?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is existing vegetation maintained on the site as long as possible?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is construction staged so as to minimize exposed soil and disturbed areas?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are disturbed areas restored as soon as possible after work is completed?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is clean water being diverted away from the construction site?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are sediment traps and sediment barriers cleaned regularly?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are vegetated and wooded buffers protected and left undisturbed?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are soils stabilized by mulching and/or seeding when they are exposed for a long time?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Has vegetation been allowed to establish itself before flows are introduced to channels?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is regular, light watering used for dust control?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is excessive soil compaction with heavy machinery avoided, to the extent possible?	Yes <input type="checkbox"/> No <input type="checkbox"/>	



(continued)

Issue	Status	Corrective Action Needed
Are erosion control blankets used when seeding slopes?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are trees and vegetation that are to be retained during construction adequately protected?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are areas designated as off-limits to construction equipment flagged or easily distinguishable?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
If excavated topsoil has been salvaged and stockpiled for later use on the project, are stockpiles adequately protected?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are temporary slope drains or chutes used to transport water down steep slopes?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Do all entrances to the storm sewer system have adequate protection?	Yes <input type="checkbox"/> No <input type="checkbox"/>	

Non-Compliance Actions

The municipality shall provide the site operator with a copy of this report, and notice of the corrective action(s) to be taken. The site operator shall have two days from the receipt of the notice to commence curative action of the violation.



Appendix B

Construction Site Inspection Form

"SOP 5: Construction Site Inspection Form"

SOP 5: CONSTRUCTION SITE INSPECTION

Construction sites that lack adequate stormwater controls can contribute a significant amount of sediment to nearby bodies of water. This Standard Operating Procedure describes the major components of a municipal Stormwater Construction Inspection Plan, as well as procedures for evaluating compliance of stormwater controls at construction sites.

Stormwater Construction Inspection Plan

A stormwater Construction Site Inspection program is a program developed by municipalities to track, inspect, and enforce local stormwater requirements at construction sites.

This SOP assumes that the municipality has legal authority (i.e., a bylaw or ordinance) in place, per the requirements of the 2003 Massachusetts MS4 Permit, to require sediment and erosion control at construction sites. This legal authority must require construction site operators “to implement a sediment and erosion control program which includes [Best Management Practices] that are appropriate for the conditions at the construction site, including efforts to minimize the area of the land disturbance.” The legal authority must also give inspectors the authority to enter the site.

A municipal stormwater Construction Site Inspection program should include or address the following:

1. Construction Site Inventory
 - A tracking system to inventory projects and identify sites for inspection.
 - Track the results of inspection and prioritize sites based on factors such as proximity to waterways, size, slope, and history of past violations.
2. Construction Requirements and BMPs
 - Municipalities provide contractors with guidance on the appropriate selection and design of stormwater BMPs.
3. Plan Review Procedures
 - Submitted plans must be reviewed to ensure they address local requirements and protect water quality.
4. Public Input
 - Per the 2003 Massachusetts MS4 Permit, a program must allow the public to provide comment on inspection procedures, and must consider information provided by the public.
5. Construction Site Inspections
 - Identify an inspection frequency for each site.
 - See more detailed information below.
6. Enforcement Procedures
 - A written progressive enforcement policy for the inspection program.
 - Sanctions, both monetary and non-monetary, shall be utilized to ensure compliance with the program



7. Training and Education

- Municipal staff conducting inspections should receive training on regulatory requirements, BMPs, inspections, and enforcement.

Conducting Stormwater Inspections at Construction Sites

The role of the construction inspector is to ensure that site operations match the approved site plans and the Stormwater Pollution Prevention Plan (SWPPP) for the project, and that all precautions are taken to prevent pollutants and sediment from the construction site from impacting local waterways. The inspector is also expected to determine the adequacy of construction site stormwater quality control measures.

The attached Construction Site Stormwater Inspection Report shall be used by the inspector during site visits. Construction site inspectors should abide by the following guidelines:

1. Inspections to monitor stormwater compliance should be performed at least once per month at each active construction site, with priority placed on sites that require coverage under the USEPA 2012 Construction General Permit (i.e., that disturb one or more acres), and sites that are located in the watershed of any 303(d) water bodies.
2. The inspection shall begin at a low point and work uphill, observing all discharge points and any off-site support activities.
3. Written and photographic records shall be maintained for each site visit.
4. During the inspection, the inspector should ask questions of the contractor. Understanding the selection, implementation, and maintenance of BMPs is an important goal of the inspection process, and requires site-specific input.
5. The inspector should not recommend or endorse solutions or products. The inspector may offer appropriate advice, but all decisions must be made by the contractor.
6. The inspector shall always wear personal protective equipment appropriate for the site.
7. The inspector shall abide by the contractor's site-specific safety requirements.
8. The inspector has legal authority to enter the site. However, if denied permission to enter the site, the inspector should never force entry.

Prior to planning a site visit, the inspector shall determine if the project is subject to USEPA's 2012 Construction General Permit, which is true if the the project disturbs one or more acres, total. The 2012 Construction General Permit replaces the 2008 Construction General Permit , which expired on February 15, 2012. Operators of sites that required coverage under the USEPA's 2008 Construction General Permit but continue to be active should have submitted a new Notice of Intent (NOI) under the 2012 Permit.

If the site requires this coverage, the inspector shall visit the USEPA Region 1 eNOI website (<http://cfpub.epa.gov/npdes/stormwater/cgpenoi.cfm>) or <http://cfpub.epa.gov/npdes/stormwater/>



[noi/noisearch.cfm](#)) to determine if the contractor filed for coverage under the 2012 and/or 2008 Construction General Permits, respectively. Print a copy of the project's NOI.

If the project disturbs one or more acres and is under construction, but does not show up in either database, the project is in violation of the Construction General Permit. Call the contractor to determine if the NOI process has been started. If not, notify the contractor verbally of this requirement and the violation. Work cannot proceed on the site until a Notice of Intent (NOI) for coverage under the 2012 Construction General Permit has been approved by USEPA. The inspector may choose to print instructions on how to file an NOI and meet with the contractor to review these. Issue a written Stop Work Order until the NOI has been approved by USEPA.

Once it has been determined that the site is in compliance with the 2012 Construction General Permit, the site inspection process can continue. The Construction Site Inspection process shall include the following:

1. Plan the inspection before visiting the construction site
 - a. Obtain and review permits, site plans, previous inspection reports, and any other applicable information.
 - b. Print the approved NOI from the USEPA 2012 Construction General Permit NOI website, listed previously.
 - c. Inform the contractor of the planned site visit.
2. Meet with the contractor
 - a. Review the Construction SWPPP (if the site includes over one acre of disturbance) or other document, as required by the municipality's legal authority. Compare BMPs in the approved site plans with those shown in the SWPPP.
 - b. Review the project's approved NOI and confirm that information shown continues to be accurate.
 - c. Get a general overview of the project from the contractor.
 - d. Review inspections done by the contractor.
 - e. Review the status of any issues or corrective actions noted in previous inspection reports.
 - f. Discuss any complaints or incidents since the last meeting.
3. Inspect perimeter controls
 - a. Examine perimeter controls to determine if they are adequate, properly installed, and properly maintained.
 - b. For each structural BMP, check structural integrity to determine if any portion of the BMP needs to be replaced or requires maintenance.
4. Inspect slopes and temporary stockpiles
 - a. Determine if sediment and erosion controls are effective.
 - b. Look for slumps, rills, and tracking of stockpiled materials around the site.
5. Compare BMPs in the site plan with the construction site conditions
 - a. Determine whether BMPs are in place as specified in the site plan, and if the BMPs have been adequately installed and maintained.



- b. Note any areas where additional BMPs may be needed which are not specified in the site plans.
6. Inspect site entrances/exits
 - a. Determine if there has been excessive tracking of sediment from the site.
 - b. Look for evidence of additional entrances/exits which are not on the site plan and are not properly stabilized.
7. Inspect sediment basins
 - a. Look for signs that sediment has accumulated beyond 50% of the original capacity of the basin.
8. Inspect pollution prevention and good housekeeping practices
 - a. Inspect trash areas and material storage/staging areas to ensure that materials are properly maintained and that pollutant sources are not exposed to rainfall or runoff.
 - b. Inspect vehicle/equipment fueling and maintenance areas for the presence of spill control measures and for evidence of leaks or spills.
9. Inspect discharge points and downstream, off-site areas
 - a. Walk down the street and/or in other directions off-site to determine if erosion and sedimentation control measures are effective in preventing off-site impacts.
 - b. Inspect down-slope catch basins to determine if they are protected, and identify whether sediment buildup has occurred.
10. Meet with the contractor again prior to leaving
 - a. Discuss the effectiveness of current controls and whether modifications are needed.
 - b. Discuss possible violations or concerns noted during the site inspection, including discrepancies between approved site plans, the SWPPP, and/or the implementation of stormwater controls.
 - c. Agree on a schedule for addressing all discrepancies, and schedule a follow-up inspection.
11. Provide a written copy of the inspection report to the contractor.
12. Follow up, as determined, and provide copy of subsequent inspection to the contractor.
13. Use Stop Work orders, as needed, until compliance with the 2012 Construction General Permit and/or other document, as required by the municipality's legal authority, can be achieved.

Attachments

1. Construction Site Stormwater Inspection Report

Related Standard Operating Procedures

1. SOP 9, Inspecting Constructed Best Management Practices



CONSTRUCTION SITE STORMWATER INSPECTION REPORT

General Information

Project Name			
Project Location			
Site Operator			
Inspector's Name			
Date of Inspection		Date of Last Inspection	
Start Time		End Time	
Subject to USEPA Construction General Permit? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, has NOI been approved? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, attach approved NOI to this report. <p style="text-align: center;">If no, contact site operator immediately to determine status of NOI.</p>			
Type of Inspection: Regular <input type="checkbox"/> Pre-Storm Event <input type="checkbox"/> During Storm Event <input type="checkbox"/> Post-Storm Event <input type="checkbox"/>			
Describe the weather conditions at time of inspection			
Describe the current phase of construction			

Site-Specific BMPs

Customize the following BMPs to be consistent with the SWPPP for the site being inspected.

	BMP Description	Installed and Operating Properly?	Corrective Action Needed
1		Yes <input type="checkbox"/> No <input type="checkbox"/>	



2		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
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(continued)

	BMP Description	Installed and Operating Properly?		Corrective Action Needed
3		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
4		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
5		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
6		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
7		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
8		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
9		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
10		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
11		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
12		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
13		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
14		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
15		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
16		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
17		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
18		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
19		Yes <input type="checkbox"/>	No <input type="checkbox"/>	
20		Yes <input type="checkbox"/>	No <input type="checkbox"/>	



Erosion and Sedimentation Control

Document any of the following issues found on the construction site, and the corrective action(s) required for each.

Issue	Status	Corrective Action Needed
Have all ESC features been constructed before initiating other construction activities?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is the contractor inspecting and maintaining ESC devices regularly?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is existing vegetation maintained on the site as long as possible?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is construction staged so as to minimize exposed soil and disturbed areas?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are disturbed areas restored as soon as possible after work is completed?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is clean water being diverted away from the construction site?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are sediment traps and sediment barriers cleaned regularly?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are vegetated and wooded buffers protected and left undisturbed?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are soils stabilized by mulching and/or seeding when they are exposed for a long time?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Has vegetation been allowed to establish itself before flows are introduced to channels?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is regular, light watering used for dust control?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is excessive soil compaction with heavy machinery avoided, to the extent possible?	Yes <input type="checkbox"/> No <input type="checkbox"/>	



(continued)

Issue	Status	Corrective Action Needed
Are erosion control blankets used when seeding slopes?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are trees and vegetation that are to be retained during construction adequately protected?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are areas designated as off-limits to construction equipment flagged or easily distinguishable?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
If excavated topsoil has been salvaged and stockpiled for later use on the project, are stockpiles adequately protected?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are temporary slope drains or chutes used to transport water down steep slopes?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Do all entrances to the storm sewer system have adequate protection?	Yes <input type="checkbox"/> No <input type="checkbox"/>	

Overall Site Conditions

Document any of the following issues found on the construction site, and the corrective action(s) required for each.

Issue	Status	Corrective Action Needed
Are slopes and disturbed areas not being actively worked properly stabilized?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are material stockpiles covered or protected when not in use?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are natural resource areas protected with sediment barriers or other BMPs?	Yes <input type="checkbox"/> No <input type="checkbox"/>	



Are perimeter controls and sediment barriers installed and maintained?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
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(continued)

Issue	Status	Corrective Action Needed
Are discharge points and receiving waters free of sediment deposits and turbidity?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are storm drain inlets properly protected?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is there evidence of sediment being tracked into streets?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is trash/litter from the construction site collected and placed in dumpsters?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are vehicle/equipment fueling and maintenance areas free of spills and leaks?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are potential stormwater contaminants protected inside or under cover?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is dewatering from site properly controlled?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are portable restroom facilities properly sited and maintained?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are all hazardous materials and wastes stored in accordance with local regulations?	Yes <input type="checkbox"/> No <input type="checkbox"/>	

Non-Compliance Actions

The municipality shall provide the site operator with a copy of this report, and notice of the corrective action(s) to be taken. The site operator shall have two days from the receipt of the notice to commence curative action of the violation.



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.

Examples and Templates:

Examples and templates relevant to MCM 5, including model ordinances and bylaw review templates and guidance can be found here: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england#pcsm>

BMP: Post-Construction Ordinance

BMP Number (Optional) MCM5-1

Completed (by year 2)

Town Ordinances Link or Reference: Modify local regulations to address 2.3.6.a of the permit

Department Responsible for Enforcement: Planning, Conservation

BMP: Street Design and Parking Lot Guidelines Report

BMP Number (Optional) MCM5-2

Completed (by year 4)

Document Name and/or Web Address:

Description:

Develop a report assessing current street design and parking lot guidelines and other local guidelines that affect the creation of impervious cover to address section 2.3.6.b of the permit

Responsible Department/Parties: Planning

Measurable Goal(s):

Recommendations are implemented by June 30, 2022 with progress reported annually.

BMP: Green Infrastructure Report

BMP Number (Optional) MCM5-3

Completed (by year 4)

Document Name and/or Web Address:

Description:

Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices (green roofs, infiltration practices, water harvesting) allowable when appropriate site conditions exist

Responsible Department/Parties: Conservation, Planning, DPW

Measurable Goal(s):

Recommendations are implemented by June 30, 2022 with progress reported annually.

BMP: List of Municipal Retrofit Opportunities

BMP Number (Optional) MCM5-4

Completed (by year 4)

Document Name and/or Web Address: _____

Description:

Identify a minimum of 5 town-owned properties that could be modified or retrofitted with BMPs designed to reduce the frequency, volume and pollutant loads of stormwater discharges to and from its MS4 through a reduction in impervious cover.

Responsible Department/Parties: Conservation, Planning, DPW

Measurable Goal(s):

The list is completed by June 30, 2020 and updated as needed (keep running list of at least 5 retrofit sites).

BMP:[BMP name here]

BMP Number (Optional) _____

Completed

Document Name and/or Web Address: _____

Description:

Responsible Department/Parties: _____

Measurable Goal(s):

Add BMP

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.

Examples and Templates:

Examples and templates relevant to MCM 6, including SOP templates for catch basin cleaning, street sweeping, vehicle maintenance, parks and open space management, winter deicing, and Stormwater Pollution Prevention Plans can be found here: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england#gh>

PERMITTEE OWNED FACILITIES

BMP: Parks and Open Spaces Operations and Maintenance Procedures

BMP Number (Optional) MCM6-1

Written Document Completed (by year 2)

Document Name and/or Web Address: <https://www.town.boxford.ma.us/stormwater-advisory-committee/pages/standard-operating-procedures>

Description:

Includes an Inventory of all municipal parks and open space and establish O&M procedures to address material storage, landscaping activities to protect water quality, pet waste handling, waterfowl management, trash management, and erosion/vegetative cover (esp. within 50 feet of surface water)

Responsible Department/Parties: DPW, Parks

Measurable Goal(s):

A public hearing on Parks and Open Space Operations and Maintenance Procedures was held on July 2, 2020. Materials were available online before June 30, 2020. Procedures were shared with DPW staff.

Properties List (Optional):

An inventory of Parks and Open Space Properties within the MS4 can be found at the link above.

BMP: Buildings and Facilities Operations and Maintenance Procedures

BMP Number (Optional) MCM6-2

Written Document Completed (by year 2)

Document Name and/or Web Address: <https://www.town.boxford.ma.us/stormwater-advisory-committee/pages/standard-operating-procedures>

Description:

For all municipal owned buildings and facilities where pollutants are exposed to stormwater runoff, evaluated use, storage and disposal of petroleum products and other potential pollutants. Provided employee training for proper use and disposal. Ensure that Spill Prevention Plans are in place. Develop management procedures for dumpsters and waste management equipment. Establish O&M procedures for parking lots. Procedures were shared with DPW Staff.

Responsible Department/Parties: DPW

Measurable Goal(s):

A public meeting on the Building and Facilities Operations and Maintenance Procedures was held on July 2, 2020. Documents were available online before June 30, 2020.

Properties List (Optional):

An inventory of all municipally owned or operated facilities within the MS4 can be found at the link above.

BMP: Vehicles and Equipment Operations and Maintenance Procedures

BMP Number (Optional) MCM6-3

Written Document Completed (by year 2)

Document Name and/or Web Address:

<https://www.town.boxford.ma.us/stormwater-advisory-committee/pages/standard-operating-procedures>

Description:

Created list of procedures for the storage of municipal vehicles and equipment. Vehicles with leaks shall be stored indoors or containment shall be provided until repair. Evaluate fueling areas (place under cover if possible). Established procedures to ensure no stormwater or surface water discharge of wash waters. Procedures were shared with DPW Staff.

Responsible Department/Parties: DPW

Measurable Goal(s):

A public meeting on the Vehicles and Equipment Operation and Maintenance Procedures was held on July 2, 2020. Documents were available online before June 30, 2020.

Properties List (Optional):

An inventory of Vehicles can be found at the link above.

INFRASTRUCTURE

BMP: Infrastructure Operations and Maintenance Procedures

BMP Number (Optional) MCM6-4

Written Procedure Completed (by year 2)

Document Name and/or Web Address:

Municipal Stormwater Infrastructure Operation and Maintenance Plan

Description:

Establish written program detailing the activities the town will implement for repair and maintenance of MS4 infrastructure.

Responsible Department/Parties: DPW

Measurable Goal(s):

100% of infrastructure is maintained to ensure proper function in accordance with the procedures above.

BMP: Catch Basin Cleaning Program

BMP Number (Optional) MCM6-5

Written Procedure Completed (by year 1)

Document Name and/or Web Address:

Municipal Stormwater Infrastructure Operation and Maintenance Plan

Description:

Develop and implement procedures to optimize routine inspections, cleaning and maintenance of catch basins in accordance with the conditions is section 2.3.7.a.iii.2 of the 2016 Permit

Responsible Department/Parties: DPW

Measurable Goal(s):

All catch basins are cleaned in accordance to the document above such that no catch basin is more than 50% full at any given time.

BMP: Street Sweeping Program

BMP Number (Optional) MCM6-6

Written Procedure Completed (by year 1)

Document Name and/or Web Address:

Municipal Stormwater Infrastructure Operation and Maintenance Plan

Description:

Develop and implement procedures for sweeping and/or cleaning streets, and town-owned parking lots in accordance with the requirements of section 2.3.7.a.iii.3 (separate requirements for rural uncurbed roads with no catch basins and high speed limited access highways)

Responsible Department/Parties: DPW

Measurable Goal(s):

Annually sweep 100% of all streets and 50% of all municipal parking lots in accordance with the schedule listed above.

BMP: Winter Road Maintenance Program

BMP Number (Optional) MCM6-7

Written Procedure Completed (by year 1)

Document Name and/or Web Address:

Municipal Stormwater Infrastructure Operation and Maintenance Plan

Description:

Develop and implement procedures for winter road maintenance including use and storage of salt and sand. In addition, minimize the use of sodium chloride and other salts and evaluate opportunities for alternative materials.

Responsible Department/Parties: DPW

Measurable Goal(s):

Evaluate at least one salt/chloride alternative for use in the municipality.

BMP: Stormwater Treatment Structures Inspection and Maintenance Procedures

BMP Number (Optional) MCM6-8

Completed (by year 1)

Document Name and/or Web Address:

Municipal Stormwater Infrastructure Operation and Maintenance
PLan

Description:

Develop and implement inspection and maintenance frequencies and procedures for all town-owned stormwater treatment structures (swales, basins, proprietary devices, etc.). All structures to be inspected annually.

Responsible Department/Parties: DPW

Measurable Goal(s):

Inspect and maintain 100% of treatment structures to ensure proper function.

BMP: SWPPP

BMP Number (Optional) MCM6-9

Completed (by year 2)

Document Name and/or Web Address:

Description:

Develop and fully implement a SWPPP for all town-owned and operated facilities (garages, public works yards, transfer stations). SWPP to contain all elements found in section 2.3.7.b.ii

Responsible Department/Parties: DPW

Measurable Goal(s):

No town-owned and operated facilities requiring a SWPPP are within the MS4 regulated area.

BMP:

BMP Number (Optional) _____

Completed

Document Name and/or Web Address:

Description:

Add BMP

Municipal Stormwater Infrastructure Operation and Maintenance Plan

Town of Boxford

August 2019

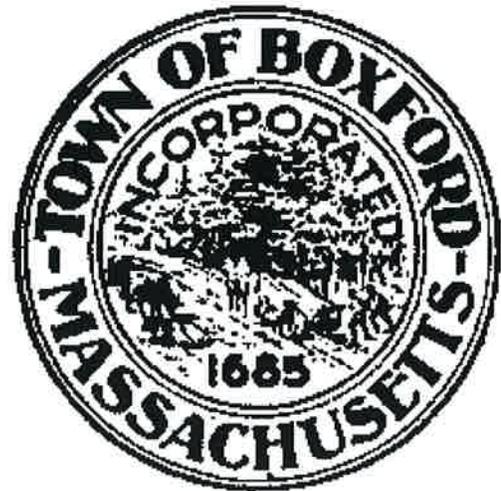


Table of Contents

Municipal Stormwater Infrastructure Operation and Maintenance Plan

Town of Boxford

1	Introduction	1
2	Catch Basins.....	1
3	Streets and Parking Lots.....	2
4	Catch Basin Cleanings and Street Sweepings	3
5	Winter Road Maintenance	3
6	Structural Stormwater BMPs.....	4

Appendices

- Appendix A – Stormwater Infrastructure Map
- Appendix B – Catch Basin Inspection/Cleaning Procedure, Inspection Form, and Log
- Appendix C – Street and Parking Lot Sweeping Log
- Appendix D – Inventory of Structural Stormwater Best Management Practices
- Appendix E – Structural Stormwater BMP Inspection Procedures and Checklists

1 Introduction

This Operation and Maintenance (O&M) Plan has been prepared by the Town of Boxford to address stormwater infrastructure O&M requirements¹ of the United States Environmental Protection Agency's (USEPA's) 2016 National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) in Massachusetts, hereafter referred to as the "2016 Massachusetts MS4 Permit" or "MS4 Permit."

This O&M Plan addresses Minimum Control Measure 6, Good Housekeeping and Pollution Prevention for Permittee Owned Operations, by describing the activities and procedures the Town of Boxford will implement so that the MS4 infrastructure is maintained in a timely manner to reduce the discharge of pollutants from the MS4. The O&M Plan outlines inspection and maintenance procedures for catch basins, municipally-owned streets and parking lots, and structural stormwater Best Management Practices (BMPs).

The Department of Public Works (DPW) is responsible for inspection and maintenance of the stormwater infrastructure in Boxford. A map of the existing stormwater infrastructure in Boxford is provided in **Appendix A**.

2 Catch Basins

The DPW performs routine inspections, cleaning, and maintenance of the approximately 850 catch basins town-wide. The Town of Boxford will implement the following catch basin inspection and cleaning procedures to reduce the discharge of pollutants from the MS4

- Routine inspection and cleaning of catch basins. Catch basins should be cleaned such that they are no more than 50 percent full² at any time. The Town of Boxford will initially inspect all catch basins within the regulated area within two (2) years of the effective date of the permit to evaluate sediment or debris accumulation and establish optimal inspection and maintenance frequencies to meet the "50 percent" goal. A catch basin inspection/cleaning procedure, inspection form, and log of catch basins cleaned or inspected are included in **Appendix B**.

See Standard Operating Procedure "Catch Basin Inspection and Cleaning" for detailed procedures: https://www.centralmastormwater.org/sites/centralmastormwater/files/uploads/catch_basin_inspection_sop_final.pdf

- If a catch basin sump is more than 50 percent full during two consecutive routine inspections or cleaning events, the finding will be documented, the contributing drainage area will be investigated for sources of excessive sediment loading, and to the extent practicable,

¹ See Part 2.3.7.a.iii of the 2016 MS4 Permit for Infrastructure Operation and Maintenance program requirements.

² A catch basin sump is more than 50 percent full if the contents within the sump exceed one half the distance between the bottom interior of the catch basin to the invert of the deepest outlet of the catch basin

contributing sources will be addressed. If no contributing sources are found, the inspection and cleaning frequency will be increased.

- Catch basins located near construction activities (roadway construction, residential, commercial, or industrial development or redevelopment) will be inspected and cleaned more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings (i.e., catch basins more than 50 percent full). Priority will also be given to catch basins that discharge to impaired waters.
- The following information will be included in each annual report:
 - Any action taken in response to excessive sediment or debris loadings
 - Total number of catch basins
 - Number of catch basins inspected
 - Number of catch basins cleaned
 - Total volume or mass of material removed from catch basins.

3 Streets and Parking Lots

Streets and municipally-owned parking lots are swept annually by a contractor.

The Town of Boxford will implement the following street and parking lot sweeping procedures to reduce the discharge of pollutants from the MS4:

- All streets with the exception of rural uncurbed roads with no catch basins or high-speed limited access highways will be swept and/or cleaned a minimum of once per year in the spring (following winter activities such as sanding).
- More frequent sweeping will be considered for targeted areas based on pollutant load reduction potential, inspections, pollutant loads, catch basin cleaning or inspection results, land use, impaired waters, or other factors.
- More frequent sweeping is required for municipally-owned streets and parking lots in areas that discharge to certain nutrient-impaired waters. Sweeping must be performed in these areas a minimum of two times per year, once in the spring (following winter activities such as sanding) and at least once in the fall (Sept 1 – Dec 1; following leaf fall).
- For rural uncurbed roadways with no catch basins and limited access highways, the Town of Boxford will either meet the minimum frequencies above, or develop and implement an inspection, documentation, and targeted sweeping plan outlining reduced frequencies within two (2) year of the effective date of the permit, and submit such plan with its year one annual report.
- The following information will be included in each annual report:
 - Number of miles cleaned or the volume or mass of material removed (see sweeping log in **Appendix C**).

4 Catch Basin Cleanings and Street Sweepings

Catch basin cleanings (i.e., solid materials such as leaves, sand and twigs removed from stormwater collection systems during cleaning operations) and street sweepings will be managed in compliance with current Massachusetts Department of Environmental Protection policies:

- Catch Basin Cleanings
<http://www.mass.gov/eca/agencies/massdep/recycle/regulations/management-of-catch-basin-cleanings.html>
- Street Sweepings
<http://www.mass.gov/eca/docs/dep/recycle/laws/stsweep.pdf>

Prior to disposal or reuse, catch basin cleanings and street sweepings will be stored indoors or using proper controls such that they do not discharge to receiving waters.

5 Winter Road Maintenance

The Town of Boxford performs a variety of maintenance activities to ensure safe winter driving conditions on its roads and parking lots.

The Town of Boxford uses a variety of different methods to maintain the roads and parking lots of the Town. Boxford's potable water supply is derived from wells. Because of this, the use of salt is greatly monitored.

Currently, the town uses a 75/25 (sand/sodium chloride) mixture for the roads and parking lots. These are stored in a "salt shed" at the DPW yard. The salt shed is a covered structure that prevents migration of materials or contaminated runoff from going down stream. The town utilizes magnesium-chloride brine solution that is evenly distributed over the sand/salt mixture for added de-icing. The town uses magnesium-chloride for sidewalks surrounding town owned buildings.

The fleet consists of 2 wing plows on 6-wheelers with unibody sanders, 2-1-Ton sanders with plows, and 4 other 6-wheelers with sanders and plows, 2 pick-up trucks with plows, and snow blower attachment for the tractor, a 930M Loader, and a John Deere Backhoe 310 SLHL, and a CAT 259 Skid Steer.

The Town of Boxford will implement the following winter maintenance procedures to reduce the discharge of pollutants from the MS4:

- Minimize the use and optimize the application of sodium chloride and other salt³ (while maintaining public safety) and consider opportunities for use of alternative materials.

³ For purposes of the MS4 Permit, salt means any chloride-containing material used to treat paved surfaces for deicing, including sodium chloride, calcium chloride, magnesium chloride, and brine solutions.

- Optimize sand and/or chemical application rates through the use, where practicable, of automated application equipment (e.g., zero velocity spreaders), anti-icing and pre-wetting techniques, implementation of pavement management systems, and alternate chemicals. Maintain records of the application of sand, anti-icing and/or de-icing chemicals to document the reduction of chemicals to meet established goals.
- Prevent exposure of deicing product (salt, sand, or alternative products) storage piles to precipitation by enclosing or covering the storage piles. Implement good housekeeping, diversions, containment or other measures to minimize exposure resulting from adding to or removing materials from the pile. Store piles in such a manner as not to impact surface water resources, groundwater resources, recharge areas, and wells.
- The MS4 Permit prohibits snow disposal into waters of the United States. Snow disposal activities, including selection of appropriate snow disposal sites, will adhere to the Massachusetts Department of Environmental Protection Snow Disposal Guidance, Guideline No. BWR G2015-01 (Effective Date: December 21, 2015), located at: <http://www.mass.gov/cea/agencies/massdep/water/regulations/snow-disposal-guidance.html>
- Provide training for municipal employees on winter roadway maintenance procedures.

6 Structural Stormwater BMPs

An inventory of structural stormwater Best Management Practices (BMPs) owned and/or maintained by Town of Boxford is provided in **Appendix D**. The stormwater infrastructure map in **Appendix A** shows the locations of the structural BMPs.

Instructions: List all structural stormwater Best Management practices (BMPs) that the municipality owns or maintains. Also include a map showing the locations of the following types of BMPs and associated maintenance access areas:

- *Retention/Detention Basins*
The Town maintains (8) Detention Basins on several Town owned ways that are in the regulated area: (2) on Winding Oaks Lane, (2) on Hickory Ln., (2) on Ashland Rd., (1) on Laurel Hollow Rd., and (1) on Bare Hill Rd.
- *Dry Wells (map of drainage system)*

Structural stormwater BMPs will be inspected annually at a minimum. Recommended inspection procedures and checklists are provided in **Appendix E**.

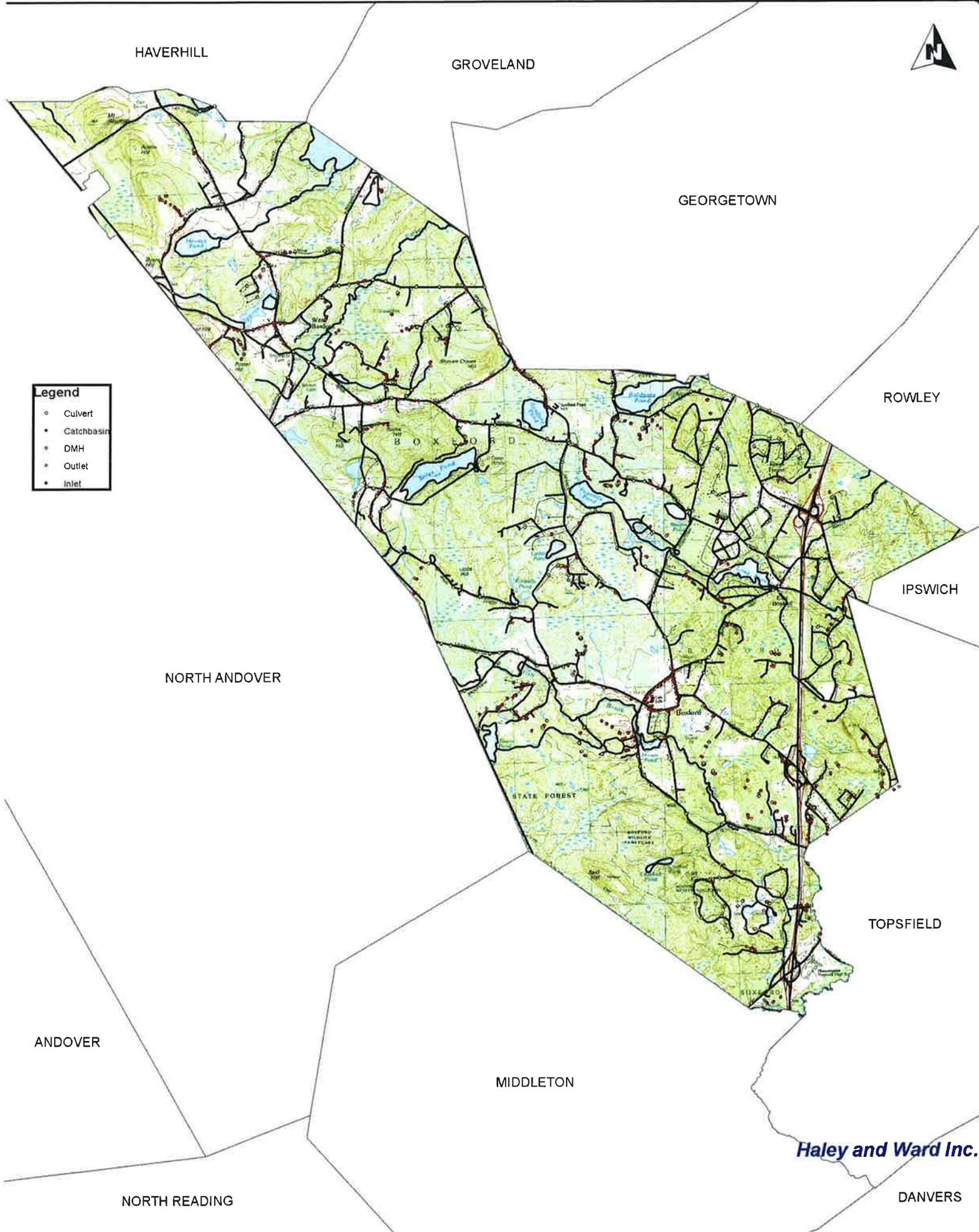
Instructions: The CMRSWC “SOP 9: Inspecting Constructed Best Management Practices” provides recommended inspection procedures and checklists for common types of structural BMPs: https://www.centralmastormwater.org/sites/centralmastormwater/files/uploads/constructed_bmp_inspection_sop_final.pdf

The applicable procedures and checklists are in Appendix D of this O&M Plan.

Appendix A

Stormwater Infrastructure Map for Boxford

TOWN OF BOXFORD, MA
2011 Catch Basin, Outfall and Culvert Mapping and Inspection Program



Haley and Ward Inc.

Appendix B

Catch Basin Inspection and Cleaning Procedure Catch Basin Inspection Form Catch Basin Cleaning Log

Maintain a log of catch basins inspected and cleaned, including the following information:

- Date*
- Inspector*
- Weather conditions*
- Number of catch basins inspected and cleaned*
- Amount of material removed*
- Catch basins observed to be more than 50% full*
- Corrective action taken or recommended*

SOP 3: CATCH BASIN INSPECTION AND CLEANING

Introduction

Catch basins help minimize flooding and protect water quality by removing trash, sediment, decaying debris, and other solids from stormwater runoff. These materials are retained in a sump below the invert of the outlet pipe. Catch basin cleaning reduces foul odors, prevents clogs in the storm drain system, and reduces the loading of suspended solids, nutrients, and bacteria to receiving waters.

During regular cleaning and inspection procedures, data can be gathered related to the condition of the physical basin structure and its frame and grate and the quality of stormwater conveyed by the structure. Observations such as the following can indicate sources of pollution within the storm drain system:

- Oil sheen
- Discoloration
- Trash and debris

Both bacteria and petroleum can create a sheen on the water surface. The source of the sheen can be differentiated by disturbing it, such as with a pole. A sheen caused by a oil will remain intact and move in a swirl pattern; a sheen caused by bacteria will separate and appear “blocky”. Bacterial sheen is not a pollutant but should be noted.

Observations such as the following can indicate a potential connection of a sanitary sewer to the storm drain system, which is an illicit discharge.

- Indications of sanitary sewage, including fecal matter or sewage odors
- Foaming, such as from detergent
- Optical enhancers, fluorescent dye added to laundry detergent

Each catch basin should be cleaned and inspected at least annually. Catch basins in high-use areas may require more frequent cleaning. Performing street sweeping on an appropriate schedule will reduce the amount of sediment, debris, and organic matter entering the catch basins, which will in turn reduce the frequency with which structures need to be cleaned.

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin’s sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

Catch basin inspection and cleaning procedures include the following:

1. Work upstream to downstream.
2. Clean sediment and trash off grate.
3. Visually inspect the outside of the grate.



4. Visually inspect the inside of the catch basin to determine cleaning needs.
5. Inspect catch basin for structural integrity.
6. Determine the most appropriate equipment and method for cleaning each catch basin.
 - a. Manually use a shovel to remove accumulated sediments, or
 - b. Use a bucket loader to remove accumulated sediments, or
 - c. Use a high pressure washer to clean any remaining material out of catch basin while capturing the slurry with a vacuum.
 - d. If necessary, after the catch basin is clean, use the rodder of the vacuum truck to clean downstream pipe and pull back sediment that might have entered downstream pipe.
7. If contamination is suspected, chemical analysis will be required to determine if the materials comply with the Massachusetts DEP Hazardous Waste Regulations, 310 CMR 30.000 (<http://www.mass.gov/dep/service/regulations/310cmr30.pdf>). Chemical analysis required will depend on suspected contaminants. Note the identification number of the catch basin on the sample label, and note sample collection on the Catch Basin Inspection Form.
8. Properly dispose of collected sediments. See following section for guidance.
9. If fluids collected during catch basin cleaning are not being handled and disposed of by a third party, dispose of these fluids to a sanitary sewer system, with permission of the system operator.
10. If illicit discharges are observed or suspected, notify the appropriate Department (see “SOP 10: Addressing Illicit Discharges”).
11. At the end of each day, document location and number of catch basins cleaned, amount of waste collected, and disposal method for all screenings.
12. Report additional maintenance or repair needs to the appropriate Department.

Disposal of Screenings

Catch basin cleanings from storm water-only drainage systems may be disposed at any landfill that is permitted by MassDEP to accept solid waste. MassDEP does not routinely require stormwater-only catch basin cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means.

Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Attachments

1. Catch Basin Inspection Form

Related Standard Operating Procedures

1. SOP 10, Addressing Illicit Discharges
2. SOP 13, Water Quality Screening in the Field





Job No.: _____ Town: _____
 Inspector: _____ Date: _____

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		Final Discharge from Structure? Yes <input type="checkbox"/> No <input type="checkbox"/> If Yes, Discharge to Outfall No: _____
Catch Basin Label:	Stencil <input type="checkbox"/> Ground Inset <input type="checkbox"/> Sign <input type="checkbox"/> None <input type="checkbox"/> Other _____	
Basin Material:	Concrete <input type="checkbox"/> Corrugated metal <input type="checkbox"/> Stone <input type="checkbox"/> Brick <input type="checkbox"/> Other: _____ <input type="checkbox"/>	Catch Basin Condition: Good <input type="checkbox"/> Poor <input type="checkbox"/> Fair <input type="checkbox"/> Crumbling <input type="checkbox"/>
Pipe Material:	Concrete <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Clay Tile <input type="checkbox"/> Other: _____ <input type="checkbox"/>	Pipe Measurements: Inlet Dia. (in): d= _____ Outlet Dia. (in): D= _____

Required Maintenance/ Problems (check all that apply):	
<input type="checkbox"/> Tree Work Required <input type="checkbox"/> New Grate is Required <input type="checkbox"/> Pipe is Blocked <input type="checkbox"/> Frame Maintenance is Required <input type="checkbox"/> Remove Accumulated Sediment <input type="checkbox"/> Pipe Maintenance is Required <input type="checkbox"/> Basin Undermined or Bypassed	<input type="checkbox"/> Cannot Remove Cover <input type="checkbox"/> Ditch Work <input type="checkbox"/> Corrosion at Structure <input type="checkbox"/> Erosion Around Structure <input type="checkbox"/> Remove Trash & Debris <input type="checkbox"/> Need Cement Around Grate Other: _____

Catch Basin Grate Type :	Sediment Buildup Depth :	Description of Flow:	Street Name/ Structure Location:
Bar: <input type="checkbox"/> Cascade: <input type="checkbox"/> Other: _____ Properly Aligned: Yes <input type="checkbox"/> No <input type="checkbox"/>	0-6 (in): _____ 6-12(in): _____ 12-18 (in): _____ 18-24 (in): _____ 24 + (in): _____	Heavy <input type="checkbox"/> Moderate <input type="checkbox"/> Slight <input type="checkbox"/> Trickling <input type="checkbox"/>	

*If the outlet is submerged check yes and indicate approximate height of water above the outlet invert. h above invert (in): _____		Yes <input type="checkbox"/>	No <input type="checkbox"/>
<input type="checkbox"/> Flow <input type="checkbox"/> Standing Water (check one or both)	Observations:	Circle those present:	
	Color: _____	Foam	Oil Sheen
	Odor: _____	Sanitary Waste	Bacterial Sheen
Weather Conditions :	Dry > 24 hours <input type="checkbox"/> Wet <input type="checkbox"/>	Orange Staining	Floatables
Sample of Screenings Collected for Analysis? Yes <input type="checkbox"/> No <input type="checkbox"/>		Excessive sediment	Pet Waste
Comments:		Other: _____	Optical Enhancers

Appendix C

Street and Parking Lot Sweeping Log

Instructions: Maintain a street and parking lot sweeping log, including the following information:

- *Date*
- *Operator*
- *Weather conditions*
- *Streets/parking lots swept*
- *Number of miles swept*
- *Volume or mass of material removed*
- *Corrective action taken or recommended*

Appendix D

Inventory of Structural Stormwater Best Management Practices

Inventory of structural stormwater BMPs owned or maintained by the Town of Boxford.

Appendix E

Structural Stormwater BMP Inspection Procedures and Checklists

The applicable Constructed Best Management Practices procedures and checklists are attached in Appendix E of this O&M Plan.

SOP 9: INSPECTING CONSTRUCTED BEST MANAGEMENT PRACTICES

Best Management Practices (BMPs) are policies, procedures and structures designed to reduce stormwater pollution, prevent contaminant discharges to natural water bodies, and reduce stormwater facility maintenance costs. Constructed BMPs are permanent site features designed to treat stormwater before infiltrating it to the subsurface or discharging it to a surface water body.

This Standard Operating Procedure provides a general summary of inspection procedures for eight common constructed BMPs, including:

1. Bioretention Areas and Rain Gardens
2. Constructed Stormwater Wetlands
3. Extended Dry Detention Basins
4. Proprietary Media Filters
5. Sand and Organic Filters
6. Wet Basins
7. Dry Wells
8. Infiltration Basins

This SOP is based on the Massachusetts Stormwater Handbook and is not intended to replace that document. This SOP is also not intended to replace the Stormwater BMP Operation and Maintenance (O&M) Plan required by the Massachusetts Wetlands Protection Act, Order of Conditions.

Bioretention Areas and Rain Gardens

Bioretention areas and rain gardens are shallow depressions filled with sandy soil, topped with a thick layer of mulch and planted with dense native vegetation. There are two types of bioretention cells:

1. Filtering bioretention area: Areas that are designed solely as an organic filter; and
2. Exfiltration bioretention area: Areas that are configured to recharge groundwater in addition to acting as a filter.

Inspection & Maintenance

Regular inspection and maintenance are important to prevent against premature failure of bioretention areas or rain gardens. Regular inspection and maintenance of pretreatment devices and bioretention cells for sediment buildup, structural damage and standing water can extend the life of the soil media.



Maintenance Schedule: Bioretention Areas and Rain Gardens

Activity	Time of Year	Frequency
Inspect for soil erosion and repair	Year round	Monthly
Inspect for invasive species and remove if present	Year round	Monthly
Remove trash	Year round	Monthly
Mulch Void Areas	Spring	Annually
Remove dead vegetation	Fall and Spring	Bi-Annually
Replace dead vegetation	Spring	Annually
Prune	Spring or Fall	Annually
Replace all media and vegetation	Late Spring/Early Summer	As Needed

When failure is discovered, excavate the bioretention area, scarify the bottom and sides, replace the filter fabric and soil, replant vegetation and mulch the surface.

Never store snow within a bioretention area or rain garden. This would prevent required water quality treatment and the recharge of groundwater.

Constructed Stormwater Wetlands

Constructed stormwater wetlands maximize the pollutant removal from stormwater through the use of wetland vegetation uptake, retention and settling. Constructed storm water wetlands must be used in conjunction with other BMPs, such as sediment forebays.

Inspection & Maintenance

Regular inspection and maintenance are important to prevent against premature failure of bioretention areas or rain gardens. Regular inspection and maintenance of pretreatment devices and bioretention cells for sediment buildup, structural damage and standing water can extend the life of the soil media.



Maintenance Schedule, Constructed Stormwater Wetlands: Years 0-3

Activity	Time of Year	Frequency
Inspect for invasive species and remove if present	Year round	Monthly
Record and Map:	Year round	Annually
Types and distribution of dominant wetland plants	Year round	Bi-Annually
Presence and distribution of planted wetland species	Spring	Annually
Presence and distribution of invasive species	Fall and Spring	Bi-Annually
Indications other species are replacing planted wetland species	Spring	Annually
Percent of standing water that is not vegetated	Spring or Fall	Annually
Replace all media and vegetation	Late Spring/Early Summer	As Needed
Stability of original depth zones and micro-topographic features		
Accumulation of sediment in the forebay and micropool and survival rate of plants		

Maintenance Schedule, Constructed Stormwater Wetlands: Years 4-Lifetime

Activity	Time of Year	Frequency
Inspect for invasive species and remove if present	Year round	Monthly
Clean forebays	Year round	Annually
Clean sediment in basin/wetland system	Year round	Once every 10 years
Mulch Void Areas	Spring	Annually
Remove dead vegetation	Fall and Spring	Bi-Annually
Replace dead vegetation	Spring	Annually
Prune	Spring or Fall	Annually
Replace all media and vegetation	Late Spring/Early Summer	As Needed

When failure is discovered, excavate the bioretention area, scarify the bottom and sides, replace the filter fabric and soil, replant vegetation and mulch the surface.

Never store snow within a constructed stormwater wetland. This would prevent required water quality treatment and the recharge of groundwater.

Extended Dry Detention Basins

Extended dry detention basins are designed to control both stormwater quantity and quality. These BMPs are designed to hold stormwater for at least 24 hours, allowing solids to settle and to reduce local and downstream flooding. Pretreatment is required to reduce the potential for overflow clogging. The outflow



may be designed as either fixed or adjustable. Additional nutrient removal may be achieved by a micropool or shallow marsh.

Inspection & Maintenance

Annual inspection of extended dry detention basins is required to ensure that the basins are operating properly. Potential problems include: erosion within the basin and banks, tree growth on the embankment, damage to the emergency spillway and sediment accumulation around the outlet. Should any of these problems be encountered, necessary repairs should be made immediately.

Maintenance Schedule: Extended Dry Detention Basins

Activity	Time of Year	Frequency
Inspect basins	Spring and Fall	Bi-Annually, and during and after major storms
Examine outlet structure for clogging or high outflow release velocities	Spring and Fall	Bi-Annually
Mow upper stage, side slopes, embankment and emergency spillway	Spring through Fall	Bi-Annually
Remove trash and debris	Spring	Bi-Annually
Remove sediment from basin	Year round	At least once every 5 years

Proprietary Media Filters

Media Filters are designed to reduce total suspended solids and other target pollutants, such as organics, heavy metals or nutrients, which are sorbed onto the filter media, which is contained in a concrete structure. The substrate used as filter media depends on the target pollutants, and may consist of leaf compost, pleated fabric, activated charcoal, perlite, amended sand in combination with perlite, and zeolite. Two types of Media Filters are manufactured: Dry Media Filters, which are designed to dewater within 72 hours; and Wet Media Filters, which maintain a permanent pool of water as part of the treatment system.

Inspection & Maintenance

Maintenance in accordance with the manufacturer’s requirements is necessary to ensure stormwater treatment. Inspection or maintenance of the concrete structure may require OSHA confined space training. Dry Media Filters are required to dewater in 72 hours, thus preventing mosquito and other insect breeding. Proper maintenance is essential to prevent clogging. Wet Media Filters require tight fitting seals to keep mosquitoes and other insects from entering and breeding in the permanent pools. Required maintenance includes routine inspection and treatment.

Maintenance Schedule: Proprietary Media Filters



Activity	Time of Year	Frequency
Inspect for standing water, trash, sediment and clogging	Per manufacturer's schedule	Bi-Annually (minimum)
Remove trash and debris	N/A	Each Inspection
Examine to determine if system drains in 72 hours	Spring, after large storm	Annually
Inspect filtering media for clogging	Per manufacturer's schedule	Per manufacturer's schedule

Sand and Organic Filters

Sand and organic filters, also known as filtration basins, are intended for quality control rather than quantity control. These filters improve water quality by removing pollutants through a filtering media and settling pollutants on top of the sand bed and/or in a pretreatment basin. Pretreatment is required to prevent filter media from clogging. Runoff from the filters is typically discharged to another BMP for additional treatment.

Inspection & Maintenance

If properly maintained, sand and organic filters have a long design life. Maintenance requirements include raking the sand and removing sediment, trash and debris from the surface of the BMP. Over time, fine sediments will penetrate deep into the sand requiring replacement of several inches or the entire sand layer. Discolored sand is an indicator of the presence of fine sediments, suggesting that replacement of the sand should be completed.

Maintenance Schedule: Proprietary Media Filters

Activity	Frequency
Inspect filters and remove debris	After every major storm for the first 3 months after construction completion. Every 6 months thereafter.

Wet Basins

Wet basins are intended to treat stormwater quality through the removal of sediments and soluble pollutants. A permanent pool of water allows sediments to settle and removes the soluble pollutants, including some metals and nutrients. Additional dry storage is required to control peak discharges during large storm events, and if properly designed and maintained wet basins can add fire protection, wildlife habitat and aesthetic values to a property.



Inspection & Maintenance

To ensure proper operation, wet basin outfalls should be inspected for evidence of clogging or excessive outfall releases. Potential problems to investigate include erosion within the basin and banks, damage to the emergency spillway, tree growth on the embankment, sediment accumulation around the outlet and the emergence of invasive species. Should any of these problems be encountered, perform repairs immediately. An on-site sediment disposal area will reduce sediment removal costs.

Maintenance Schedule: Wet Basins

Activity	Time of Year	Frequency
Inspect wet basins	Spring and/or Fall	Annually (Minimum)
Mow upper stage, side slopes, embankment and emergency spillway	Spring through Fall	Bi-Annually (Minimum)
Remove sediment, trash and debris	Spring through Fall	Bi-Annually (Minimum)
Remove sediment from basin	Year round	As required, but at least once every 10 years

Dry Wells

Dry wells are used to infiltrate uncontaminated runoff. These BMPs should never be used to infiltrate stormwater or runoff that has the potential to be contaminated with sediment and other pollutants. Dry wells provide groundwater recharge and can reduce the size and cost required of downstream BMPs or storm drains. However, they are only applicable in drainage areas of less than one acre and may experience high failure rates due to clogging.

Inspection & Maintenance

Proper dry well function depends on regular inspection. Clogging has the potential to cause high failure rates. The water depth in the observation well should be measured at 24 and 48 hour intervals after a storm and the clearance rate calculated. The clearance rate is calculated by dividing the drop in water level (inches) by the time elapsed (hours).

Maintenance Schedule: Dry Wells

Activity	Frequency
Inspect dry wells	After every major storm for the first 3 months after construction completion. Annually thereafter.



Infiltration Basins

Infiltration basins are designed to contain stormwater quantity and provide groundwater recharge. Pollution prevention and pretreatment are required to ensure that contaminated stormwater is not infiltrated. Infiltration basins reduce local flooding and preserve the natural water balance of the site, however high failure rates often occur due to improper siting, inadequate pretreatment, poor design and lack of maintenance.

Inspection & Maintenance

Regular maintenance is required to prevent clogging, which results in infiltration basin failure. Clogging may be due to upland sediment erosion, excessive soil compaction or low spots. Inspections should include signs of differential settlement, cracking, erosion, leakage in the embankments, tree growth on the embankments, riprap condition, sediment accumulation and turf health.

Maintenance Schedule: Infiltration Basins

Activity	Time of Year	Frequency
Preventative maintenance	Spring and Fall	Bi-Annually
Inspection	Spring and Fall	After every major storm for the first 3 months after construction completion. Bi-annually thereafter and discharges through the high outlet orifice.
Mow/rake buffer area, side slopes and basin bottom	Spring and Fall	Bi-Annually
Remove trash, debris and organic matter	Spring and Fall	Bi-Annually



Annual Evaluation

Year 1 Annual Report

Document Name and/or Web Address:

<https://www.town.boxford.ma.us/sites/g/files/vyhlf321/f/uploads/ma-annual-report-yr1-boxford-signed.pdf>

Year 2 Annual Report

Document Name and/or Web Address:

Year 3 Annual Report

Document Name and/or Web Address:

Year 4 Annual Report

Document Name and/or Web Address:

Year 5 Annual Report

Document Name and/or Web Address:

Year X Annual Report

Document Name and/or Web Address:

Add a Year

TMDLs and Water Quality Limited Waters

Select the applicable Impairment(s) and/or TMDL(s).

Impairment(s)

- Bacteria/Pathogens Chloride Nitrogen Phosphorus
 Solids/oil/grease (hydrocarbons)/metals

TMDL(s)

In State:

- Assabet River Phosphorus Bacteria and Pathogen Cape Cod Nitrogen
 Charles River Watershed Phosphorus Lake and Pond Phosphorus

Out of State:

- Bacteria and Pathogen Metals Nitrogen Phosphorus

Bacteria/Pathogens

Combination of Impaired Waters Requirements and TMDL Requirements as Applicable

Applicable Receiving Waterbody(ies)	TMDL Name (if applicable)	Add/Delete Row
Fish Brook		<input type="button" value="+"/> <input type="button" value="-"/>

Annual Requirements Beginning Year 1

Rank outfalls to these receiving waters as high priority for IDDE implementation in the initial outfall ranking

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

See IDDE Plan for priority outfall ranking

Public Education and Outreach

(Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information))

Annual message encouraging the proper management of pet waste, including noting any existing ordinances where appropriate

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

MCM1-1: Available materials include Greenscapes Pet Waste Info Sheet and Rack Card

Permittee or its agents disseminate educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

MCM1-1: Available Materials include Greenscapes Pet Waste Info Sheet and Rack Card

Provide information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

MCMI-1: Available Materials include Greenscapes What not to Flush rack card and EPA Septic Homeowners Brochure
Post EPA SepticSmart Posters in Health Department

STORMWATER MANAGEMENT BYLAW
TOWN OF BOXFORD

IT IS HEREBY DETERMINED THAT:

Construction Site stormwater runoff and post-construction stormwater discharges may permanently alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes, which in turn may increase flooding, stream channel erosion, non-point source pollution, and sediment transport and deposition, and decrease groundwater recharge;

Construction Site stormwater runoff and post-construction stormwater discharges, **as well as illicit discharges**, can adversely affect public safety, public and private property, surface water, groundwater resources, drinking water supplies, recreation, aquatic habitats, fish and other aquatic life, property values and other uses of land and water;

It is in the public interest to regulate Construction Site stormwater runoff and post-construction stormwater discharges in order to minimize the impacts identified above.

PURPOSES

- A) The purpose of this Bylaw is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of Construction Site stormwater runoff and post-construction stormwater discharges, **as well as illicit discharges**. This Bylaw seeks to meet these purposes through the following objectives:
1. Establish decision-making processes surrounding Construction Site activities that protect the integrity of the watershed and preserve the health of water resources;
 2. Require that Construction Site activities maintain the post-construction runoff characteristics as equal to or less than the pre-construction runoff characteristics;
 3. Establish minimum Construction Site and post-construction stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality;
 4. Encourage the use of nonstructural stormwater management practices or “low-impact development practices”.
 5. Establish provisions for the long-term responsibility for and maintenance of structural stormwater control facilities and nonstructural stormwater management practices to ensure that they continue to function as designed, are maintained, and pose no threat to public safety;

6. Establish provisions to ensure there is an adequate funding mechanism, including surety, for the proper review, inspection and long-term maintenance of stormwater facilities implemented as part of this Bylaw; and,
7. Establish administrative procedures and fees for the submission, review, approval or disapproval of stormwater management plans, and for the inspection of approved active projects, and long-term follow up.
8. **Establish a prohibition on illicit discharges and a mechanism and authority to remove any illicit discharges that may be discovered.**

B) Nothing in this Bylaw is intended to replace the requirements of the Town of Boxford Wetlands Protection Bylaw or any other Bylaw that may be adopted by the Town of Boxford, or any State or Federal requirement, law, regulation, or policy. Any activity subject to the provisions of this Bylaw must comply with any other applicable Town, State or Federal requirement.

DEFINITIONS

The following definitions shall apply in the interpretation and implementation of this Bylaw. Additional definitions may be adopted by separate regulation:

ABUTTER -- Means the owner of any property any portion of which lies within 500 feet radially from any lot line of the subject property including owners of land directly opposite on any public or private street or way including any in another municipality or across a body of water. In the case of property that has frontage on a pond, abutters shall include all those properties with frontage on the pond or pond association if in existence.

ALTERATION: Any activity, which will measurably change the ability of a ground surface area to absorb water or will change existing surface drainage patterns. Examples include but are not limited to earthmoving, paving, and modification of existing vegetation.

CONSTRUCTION SITE: Any site where activity is proposed or occurs that involves the alteration of an area of one acre (43,560 square feet) or more during or post-construction, or that will alter less than once acre of land but is part of a larger, common plan of development or sale that will ultimately disturb one acre or more of land. A project with a "limit of disturbance" shown on a plan encompassing an acre or more is a Construction Site.

HOTSPOT: Land uses or activities, without regard to square footage, that have the potential for high stormwater runoff pollutant loadings, including but not limited to auto fueling facilities, fleet storage yards, municipal and commercial parking lots, road salt storage areas and designated snow disposal areas, long-term staging areas

for construction or landscaping operations, and commercial outdoor maintenance, storage or loading areas.

ILLCIT DISCHARGE – Means any discharge to a MS4 that is not composed entirely of storm water, except discharges pursuant to an NPDES permit, discharges resulting from fire-fighting activities, and discharges allowed pursuant to section 1.4 of the Massachusetts MS4 General Permit effective July 1, 2018.

MAJORITY VOTE -- Means a vote by a majority of the Commission for all actions taken under section 160-5 of the Stormwater Management Bylaw (permit-related actions) and issuance of enforcement orders, and a vote by a majority of a quorum of the Commission for all other matters under the Bylaw or under these Regulations.

MASSACHUSETTS STORMWATER MANAGEMENT POLICY: The Policy issued by the Department of Environmental Protection, and as amended, that coordinates the requirements prescribed by state regulations promulgated under the authority of the Massachusetts Wetlands Protection Act G.L. c. 131 § 40 and Massachusetts Clean Waters Act G.L. c. 21, §. 23-56.

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) -- Municipal separate storm sewer system means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that are: (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Federal Clean Water Act that discharges to waters of the United States; (ii) Designed or used for collecting or conveying storm water; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

NPDES PHASE II REGULATED AREA: The area within Boxford identified by the U.S. Environmental Protection Agency as “Designated MS4 Area” under the National Pollutant Discharge Elimination System (NPDES) Phase II Stormwater Program.

PERSON: An individual , partnership, association, firm, company, trust, corporation, agency, authority, department or political subdivision of the Commonwealth or the federal government, to the extent permitted by law, and any officer, employee, or agent of such person.

AUTHORITY

This Bylaw is adopted under authority granted by the Home Rule Amendment of the Massachusetts Constitution, the Home Rule statutes, and pursuant to the regulations of the federal Clean Water Act found at 40 CFR 122.34, and as authorized by the residents of the Town of Boxford at Town Meeting, dated May 9, 2006.

ADMINISTRATION

- A) The Conservation Commission, shall administer, implement and enforce this Bylaw. Any powers granted to or duties imposed upon the Conservation Commission may be delegated in writing by the Conservation Commission to its employees or agents.
- B) The Conservation Commission may adopt, and periodically amend, rules and regulations relating to the terms, conditions, definitions, enforcement, fees (including application, inspection, and/or consultant fees), application requirements, permit amendment requirements, procedures and administration of this Stormwater Management Bylaw by majority vote of the Conservation Commission, after conducting a public hearing to receive comments on any proposed rules and regulations, or revisions thereto. Such hearing dates shall be advertised in a newspaper of general local circulation, at least fourteen (14) days prior to the hearing date. Failure by the Conservation Commission to promulgate such rules and regulations or a legal declaration of their invalidity by a court shall not act to suspend or invalidate the effect of this Bylaw.
- C) No work proposed in any Stormwater Management Permit shall be undertaken until the permit issued by the Commission with respect to such work has been recorded in the Registry of Deeds or, if the land affected is registered land, in the registry section of the Land Court for the district wherein the land lies and until the holder of the permit certifies in writing to the Commission that the permit has been recorded.
- D) The Conservation Commission may take any of the following actions as a result of an application for a Stormwater Management Permit: Approval, Approval with Conditions, Disapproval, or Disapproval without Prejudice.
- E) A permit shall expire three years from the date of issuance. At the Commission's discretion, any permit may be renewed twice for an additional one-year period, provided that a request for a renewal is received in writing by the Commission at least 30 days prior to expiration. Notwithstanding the above, a permit may contain requirements which shall be enforceable for a stated number of years, indefinitely or until permanent protection is in place, and shall apply to all owners of the land.

STATEMENT OF JURISDICTION

- A) No person shall perform any activity that alters a Construction Site or Hotspot, **or results in an illicit discharge**, except as authorized by the Conservation Commission in a Stormwater Management Permit or as otherwise provided in this Bylaw.

B) The following exemptions apply to the alteration of a Construction Site or Hotspot:

1. Alteration, regardless of square footage, all of which is located outside of the NPDES Phase II Regulated Area and which does not drain to the Boxford municipal separate storm sewer system within the NPDES Phase II Regulated Area;
2. Normal maintenance and improvement of land in agricultural use as defined by the Wetlands Protection Act regulation 310 CMR 10.04;
3. Stormwater discharges that are authorized under an Order of Conditions issued by the Boxford Conservation Commission pursuant to the Wetlands Protection Act, M.G.L. Ch. 131, s. 40, and where the Order includes findings by the Commission that the discharge complies with the Massachusetts Stormwater Management Policy.
4. Emergency activities necessary to protect public health or safety, so long as all necessary emergency permits or emergency certifications have been or will be obtained; and,
5. Any work or projects for which all necessary approvals and permits have been issued before the effective date of this Bylaw.

ENFORCEMENT

- A) Any person who violates any provision of this Bylaw, Regulation, Order or Permit issued there under, shall be punished by a fine or not more than \$300. Each day or part thereof that such violation occurs or continues shall constitute a separate violation.
- B) As an alternative to criminal prosecution or civil action, the Conservation Commission or its Agent may issue citations under the non-criminal disposition procedures set forth in M.G.L. c. 40, s. 21D, as set forth in Chapter 1 of the General Bylaws of the Town of Boxford. The penalty for the first violation shall be \$100, the penalty for the second violation shall be \$200, and the penalty for the third and subsequent violations shall be \$300. Each day or part thereof that such violation occurs or continues shall constitute a separate violation.

SEVERABILITY

The invalidity of any section, provision, paragraph, sentence, or clause of this Bylaw shall not invalidate any section, provision, paragraph, sentence, or clause thereof, nor shall it invalidate any permit or determination that previously has been issued.