

Notice of Intent (NOI) for coverage under Small MS4 General Permit

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Part I: General Conditions

General Information

Name of Municipality or Organization: Topsfield

State: MA

EPA NPDES Permit Number (if applicable): MAR041000

Primary MS4 Program Manager Contact Information

Name: David Bond

Title: Highway Superintendent/Stormwater Coordinator

Street Address Line 1: DPW Facility

Street Address Line 2: 279 Boston Street

City: Topsfield

State: MA

Zip Code: 01983

Email: dbond@topsfield-ma.gov

Phone Number: (978) 887-1542

Fax Number:

Other Information

Stormwater Management Program (SWMP) Location
(web address or physical location, if already completed):

Topsfield Town Hall

Eligibility Determination

Endangered Species Act (ESA) Determination Complete? Yes

Eligibility Criteria
(check all that apply): ☐ A ☐ B ☒ C

National Historic Preservation Act (NHPA) Determination Complete? Yes

Eligibility Criteria
(check all that apply): ☒ A ☐ B ☐ C

☒ Check the box if your municipality or organization was covered under the 2003 MS4 General Permit

MS4 Infrastructure (if covered under the 2003 permit)

Estimated Percent of Outfall Map Complete?
(Part II, III, IV or V, Subpart B.3.(a.) of 2003 permit)

70%

If 100% of 2003 requirements not met, enter an
estimated date of completion (MM/DD/YY):

11/30/18

Web address where MS4 map is published:

*If outfall map is unavailable on the internet an electronic
or paper copy of the outfall map must be included with
NOI submission (see section V for submission options)*

<https://www.topsfield-ma.gov/documents/bylaws/general/documents/MS4map2018.pdf>

Regulatory Authorities (if covered under the 2003 permit)

Illicit Discharge Detection and Elimination (IDDE) Authority Adopted?
(Part II, III, IV or V, Subpart B.3.(b.) of 2003 permit)

Yes

Effective Date or Estimated
Date of Adoption (MM/DD/YY):

05/04/10

Construction/Erosion and Sediment Control (ESC) Authority Adopted?
(Part II, III, IV or V, Subpart B.4.(a.) of 2003 permit)

Yes

Effective Date or Estimated
Date of Adoption (MM/DD/YY):

05/03/05

Post- Construction Stormwater Management Adopted?
(Part II, III, IV or V, Subpart B.5.(a.) of 2003 permit)

Yes

Effective Date or Estimated
Date of Adoption (MM/DD/YY):

05/05/15

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Part II: Summary of Receiving Waters

Please list the waterbody segments to which your MS4 discharges. For each waterbody segment, please report the number of outfalls discharging into it and, if applicable, any impairments.

Massachusetts list of impaired waters: [Massachusetts 2014 List of Impaired Waters](http://www.mass.gov/eea/docs/dep/water/resources/07v5/14list2.pdf)- <http://www.mass.gov/eea/docs/dep/water/resources/07v5/14list2.pdf>

Check off relevant pollutants for discharges to impaired waterbodies (see above 303(d) lists) without an approved TMDL in accordance with part 2.2.2.a of the permit. List any other pollutants in the last column, if applicable.

| 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 |
|---|---|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|---------------------------|-------------------------------------|--------------------------|--|
| MA92-06 | | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Low flow, Hg in Fish |
| MA92-15 | | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Low flow, Fish Bioassessment |
| MA92-17 | | <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"/> | Fish passage barrier |
| MA9205 | | <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"/> | Hg in Fish |
| MA92-16 Category 3 | | <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"/> | |
| MA92-14 Category 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"/> | |
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Part III: Stormwater Management Program Summary

Identify the Best Management Practices (BMPs) that will be employed to address each of the six Minimum Control Measures (MCMs). For municipalities/organizations whose MS4 discharges into a receiving water with an approved Total Maximum Daily Load (TMDL) and an applicable waste load allocation (WLA), identify any additional BMPs employed to specifically support the achievement of the WLA in the TMDL section at the end of part III.

For each MCM, list each existing or proposed BMP by category and provide a brief description, responsible parties/departments, measurable goals, and the year the BMP will be employed (public education and outreach BMPs also requires a target audience). **Use the drop-down menus in each table or enter your own text to override the drop down menu.**

MCM 1: Public Education and Outreach

| BMP Media/Category (enter your own text to override the drop down menu) | BMP Description | Targeted Audience | Responsible Department/Parties (enter your own text to override the drop down menu) | Measurable Goal | Beginning Year of BMP Implementation |
|---|------------------------|--|---|------------------------|---|
| Brochures/Pamphlets | Greenscapes | Residents | DPW Operations | fund Greenscapes | 2013 |
| Brochures/Pamphlets | Greenscapes | Businesses, Institutions and Commercial Facilities | DPW Operations | fund Greenscapes | 2013 |
| Brochures/Pamphlets | Greenscapes | Developers (construction) | Building Permitting and Enforcement | fund Greenscapes | 2013 |
| Brochures/Pamphlets | Greenscapes | Industrial Facilities | DPW Operations | fund Greenscapes | 2013 |
| Newspaper Articles/Press Releases | Greenscapes | Residents | Planning/zoning Department | fund Greenscapes | 2013 |
| Newspaper Articles/Press Releases | Greenscapes | Businesses, Institutions and Commercial Facilities | Planning/zoning Department | fund Greenscapes | 2013 |
| Newspaper Articles/Press Releases | Greenscapes | Developers (construction) | Planning/zoning Department | fund Greenscapes | 2013 |
| Newspaper Articles/Press Releases | Greenscapes | Industrial Facilities | Planning/zoning Department | fund Greenscapes | 2013 |
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Part III: Stormwater Management Program Summary (continued)

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Part III: Stormwater Management Program Summary (continued)

MCM 3: Illicit Discharge Detection and Elimination (IDDE)

| BMP Categorization (enter your own text to override the drop down menu) | BMP Description | Responsible Department/Parties (enter your own text to override the drop down menu) | Measurable Goal (all text can be overwritten) | Beginning Year of BMP Implementation |
|---|--|---|--|---|
| | | | | |
| Storm sewer system map | Finish map and update during IDDE program completion | Mapping Committee | Update map within 2 years of effective date of permit and complete full system map 10 years after effective date of permit | 2018 |
| Written IDDE program | Create written IDDE program | DPW Operations | Complete within 1.5 years of the effective date of permit and update as required | 2019 |
| Implement IDDE program | Began many years ago. DPW standard operating procedures | DPW Operations | Complete 10 years after effective date of permit | 2018 |
| Employee training | Train employees on IDDE implementation. Establish instructional website. | Town Administrator/Selectmen's Office | Train annually | 2018 |
| Conduct dry weather screening | Appendix H3 | Stormwater Coordinator/DPW | Complete 3 years after effective date of permit | 2018 |
| Conduct wet weather screening | Appendix H3 | Stormwater Coordinator/DPW | Complete 10 years after effective date of permit | 2018 |
| Ongoing screening | Conduct dry weather and wet weather screening (as necessary) | Stormwater Coordinator/DPW | Complete ongoing outfall screening upon completion of IDDE program | 2021 |
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Part III: Stormwater Management Program Summary (continued)

MCM 4: Construction Site Stormwater Runoff Control

| BMP Categorization (enter your own text to override the drop down menu or entered text) | BMP Description | Responsible Department/Parties (enter your own text to override the drop down menu) | Measurable Goal (all text can be overwritten) | Beginning Year of BMP Implementation |
|---|---|---|---|---|
| Site inspection and enforcement of Erosion and Sediment Control (ESC) measures | Complete written procedures of site inspections and enforcement procedures | Building Permitting and Enforcement | Complete within 1 year of the effective date of permit | 2018 |
| Site plan review | Complete written procedures of site plan review and begin implementation | Planning/Zoning Department | Complete within 1 year of the effective date of permit | 2020 |
| Erosion and Sediment Control | Adoption of requirements for construction operators to implement a sediment and erosion control program | Planning Board | Complete within 1 year of the effective date of permit | 2018 |
| Waste Control | Adoption of requirements to control wastes, including but not limited to, discarded building materials, concrete truck wash out, chemicals, litter, and sanitary wastes | Building Permitting and Enforcement | Complete within 1 year of the effective date of permit | 2018 |
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Part III: Stormwater Management Program Summary (continued)

MCM 5: Post-Construction Stormwater Management in New Development and Redevelopment

| BMP Categorization (enter your own text to override the drop down menu or entered text) | BMP Description | Responsible Department/Parties (enter your own text to override the drop down menu) | Measurable Goal (all text can be overwritten) | Beginning Year of BMP Implementation |
|---|--|---|---|---|
| As-built plans for on-site stormwater control | The procedures to require submission of as-built drawings and ensure long term operation and maintenance will be a part of the SWMP | Planning/Zoning Department | Require submission of as-built plans for completed projects | 2018 |
| Target properties to reduce impervious areas | Identify permittee-owned properties that could be modified or retrofitted with BMPs to reduce impervious areas and update annually | DPW Operations | Complete 4 years after effective date of permit and report annually on retrofitted properties | 2018 |
| Allow green infrastructure | Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist | Planning/Zoning Department and Conservation Commission | Complete 4 years after effective date of permit and implement recommendations of report | 2020 |
| Street design and parking lot guidelines | Develop a report assessing requirements that affect the creation of impervious cover. The assessment will help determine if changes to design standards for streets and parking lots can be modified to support low impact design options. | Planning/Zoning Department | Complete 4 years after effective date of permit and implement recommendations of report | 2020 |

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Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

MCM 6: Municipal Good Housekeeping and Pollution Prevention

| BMP Categorization (enter your own text to override the drop down menu or entered text) | BMP Description | Responsible Department/Parties (enter your own text to override the drop down menu) | Measurable Goal (all text can be overwritten) | Beginning Year of BMP Implementation |
|---|---|---|--|---|
| O&M procedures | Create written O&M procedures including all requirements contained in 2.3.7.a.ii for parks and open spaces, buildings and facilities, and vehicles and equipment | Highway Dept, Parks and Cemetery Dept, Police Dept, Fire Dept, etc | Complete and implement 2 years after effective date of permit | |
| Inventory all permittee-owned parks and open spaces, buildings and facilities, and vehicles and equipment | Create inventory | Mapping Committee and Individual Departments with vehicles | Complete 2 years after effective date of permit and implement annually | |
| Infrastructure O&M | Establish and implement program for repair and rehabilitation of MS4 infrastructure | Storm-water Coordinator | Complete 2 years after effective date of permit | |
| Stormwater Pollution Prevention Plan (SWPPP) | Create SWPPPs for maintenance garages, transfer stations, and other waste-handling facilities | DPW Operations | Complete and implement 3 years after effective date of permit | 2021 |
| Catch basin cleaning | A catch basin cleaning schedule has been implemented and is adhered to. This activity has been conducted and tailored so that every catchbasin is never more than 50% full. | DPW Operations | Clean catch basins on established schedule and log number of catch basins cleaned. | 2019 |
| Street sweeping program | Sweep all streets and permittee-owned parking lots in accordance with permit conditions | DPW Operations | Sweep all streets and permittee-owned parking lots once per year in the spring | 2018 |
| Road salt use optimization program | Establish and implement a program to minimize the use of road salt | DPW Operations | Implement salt use optimization during deicing season | 2020 |

[illegible]

Part III: Stormwater Management Program Summary (continued)

Use the drop-down menus to select the applicable TMDL, action description to meet the TMDL requirements, and the responsible department/parties. If no options are applicable, or more than one, **enter your own text to override drop-down menus.**

[illegible]

Part III: Stormwater Management Program Summary (continued)

Use the drop-down menus to select the pollutant causing the water quality limitation and enter the waterbody ID(s) experiencing excursions above water quality standards for that pollutant. Choose the action description from the dropdown menu and indicate the responsible party. If no options are applicable, or more than one, **enter your own text to override drop-down menus.**

[illegible]

Part IV: Notes and additional information

Use the space below to indicate the part(s) of 2.2.1 and 2.2.2 that you have identified as not applicable to your MS4 because you do not discharge to the impaired water body or a tributary to an impaired water body due to nitrogen or phosphorus. Provide all supporting documentation below or attach additional documents if necessary. Also, provide any additional information about your MS4 program below.

An independent study of the main stem of the Ipswich River was conducted from 2010 to 2012 within the reaches of Wenham Swamp (Route 97 to Asbury Street.) Findings in dissolved oxygen, temperature and fish abundance showed a distinct collapse of dissolved oxygen from Pine Island downstream Asbury Street. The results were consistent in 3 years of testing in August during low flow conditions. The study demonstrated that localized depletions of oxygen in the Ipswich River are attributed to recharge zones influenced by land wetlands such as Wenham Swamp. The low dissolved oxygen currently and historically recorded in the Ipswich River during periods of low flow can be attributed the influence of naturally occurring swamps with high biological oxygen demand and less likely to water withdrawals or nutrient loading. For these reasons, we request an exemption from the requirements to test for nutrients within the main stem of the Ipswich River as it flows through Topsfield. Methods of this study and its results can be acquired from Jim MacDougall, Topsfield.

Part V: Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that 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.

Name:

David M. Bond

Title:

Highway Supt./Stormwater Coordinator

Signature:

David Bond

Digitally signed by David Bond
DN: cn=David Bond, o=Town of Topsfield, ou=Highway
Department, email=dbond@topsfield-ma.gov, c=US
Date: 2018.08.21 09:13:22 -04'00'

Date:

08/21/18

[To be signed according to Appendix B, Subparagraph B.11, Standard Conditions]

Note: When prompted during signing, save the document under a new file name

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

MCM 6: Municipal Good Housekeeping and Pollution Prevention

| BMP Categorization (enter your own text to override the drop down menu or entered text) | BMP Description | Responsible Department/Parties (enter your own text to override the drop down menu) | Measurable Goal (all text can be overwritten) | Beginning Year of BMP Implementation |
|---|---|---|--|---|
| O&M procedures | Create written O&M procedures including all requirements contained in 2.3.7.a.ii for parks and open spaces, buildings and facilities, and vehicles and equipment | Highway Dept, Parks and Cemetery Dept, Police Dept, Fire Dept, etc | Complete and implement 2 years after effective date of permit | 2021 |
| Inventory all permittee-owned parks and open spaces, buildings and facilities, and vehicles and equipment | Create inventory | Mapping Committee and Individual Departments with vehicles | Complete 2 years after effective date of permit and implement annually | 2021 |
| Infrastructure O&M | Establish and implement program for repair and rehabilitation of MS4 infrastructure | Storm-water Coordinator | Complete 2 years after effective date of permit | 2021 |
| Stormwater Pollution Prevention Plan (SWPPP) | Create SWPPPs for maintenance garages, transfer stations, and other waste-handling facilities | DPW Operations | Complete and implement 3 years after effective date of permit | 2021 |
| Catch basin cleaning | A catch basin cleaning schedule has been implemented and is adhered to. This activity has been conducted and tailored so that every catchbasin is never more than 50% full. | DPW Operations | Clean catch basins on established schedule and log number of catch basins cleaned. | 2019 |
| Street sweeping program | Sweep all streets and permittee-owned parking lots in accordance with permit conditions | DPW Operations | Sweep all streets and permittee-owned parking lots once per year in the spring | 2018 |
| Road salt use optimization program | Establish and implement a program to minimize the use of road salt | DPW Operations | Implement salt use optimization during deicing season | 2020 |

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Part V: Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that 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.

Name:

Kellie A. Hebert

Title:

Town Administrator

Signature:

Kellie A. Hebert
[To be signed according to Appendix B, Subparagraph B.11, Standard Conditions]

Date:

9/27/18

Note: When prompted during signing, save the document under a new file name

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 Town of Topsfield | - 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 Town of Topsfield | - Number of views/ likes/ comments - Resident testimonials before and after posting | 2018 |
| School Curriculae/ Programs | Proctor School 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 Town of Topsfield | - 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 Town of Topsfield | - Number of views/ likes/ comments - Resident testimonials before and after posting | FY2020 |
| School Curriculae/ Programs | Proctor School 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 |

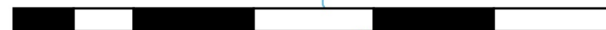
| | | | | | |
|---|--|---|---|---|---------------|
| Workshop | Workshop and literature will go into greater detail, following the workshop regarding low impact development held in year one. City ordinances and associated incentives will be outlined. | Developers (Construction) | Greenscapes North Shore Coalition and Town of Topsfield | - 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 Town of Topsfield | - Number of views/ likes/ comments - Resident testimonials before and after posting | FY2021 |
| School Curriculae/ Programs | Proctor School 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 Town of Topsfield | - 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 Town of Topsfield | - 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 Town of Topsfield | - Number of views/ likes/ comments - Resident testimonials before and after posting | FY2022 |
| School Curriculae/ Programs | Proctor School 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 site of community's choosing . 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 Town of Topsfield | - Number of views/ likes/ comments - Resident testimonials before and after posting | FY2023 |
| School Curriculae/ Programs | Proctor School 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 |

Topsfield Stormwater System Map Status August 2018

Legend

- Tops_Outlets
- StreamCL_jsm
 - FISH BROOK
 - HOWLETT BROOK
 - IPSWICH RIVER
 - MILE BROOK
- Topsfield_Outline
- catchbasins
- Drain Pipe
- Parcels
 - Farm
 - Stable
 -
 - EPA-UA

2500 0 2500 5000 7500 10000 ft



Town of Topsfield MS4 ESA review requirements

IPaC Trust Resources Report

Generated June 16, 2016 11:57 AM MDT, IPaC v3.0.7

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



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U.S. Fish & Wildlife Service

IPaC Trust Resources Report



NAME

Town of Topsfield MS4 ESA review requirements

LOCATION

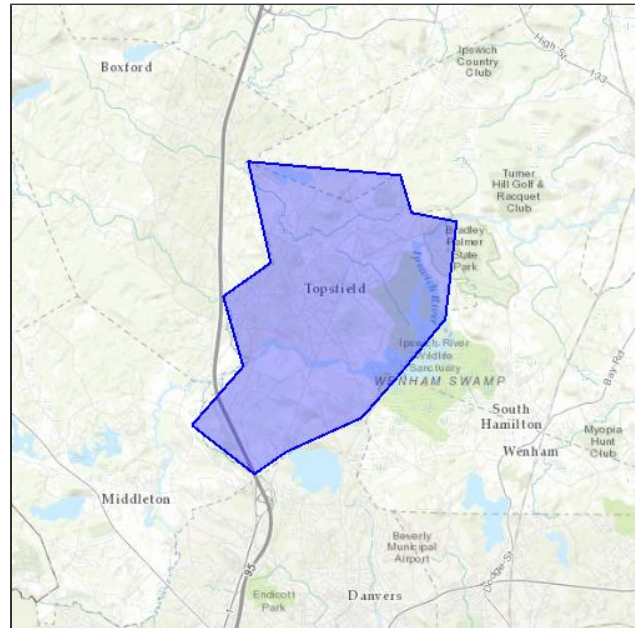
Essex County, Massachusetts

DESCRIPTION

This form is to demonstrate that the Town of Topsfield has used the appropriate tools for assessing impact of stormwater management on those Federally endangered species listed in the EPA MS4 permit.

IPAC LINK

<https://ecos.fws.gov/ipac/project/PBNG3-EEP7J-GVHN5-AIGBY-G63D5M>



U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

New England Ecological Services Field Office

70 Commercial Street, Suite 300

Concord, NH 03301-5094

(603) 223-2541

Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the [Endangered Species Program](#) of the U.S. Fish & Wildlife Service.

This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

[Section 7](#) of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Documents section in IPaC or from the local field office directly.

The list of species below are those that may occur or could potentially be affected by activities in this location:

Mammals

Northern Long-eared Bat *Myotis septentrionalis*

Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?scode=A0JE

Critical Habitats

There are no critical habitats in this location

Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the [Bald and Golden Eagle Protection Act](#).

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.^[1] There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern
<http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data
<http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

The following species of migratory birds could potentially be affected by activities in this location:

American Oystercatcher *Haematopus palliatus*

Bird of conservation concern

Season: Breeding

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0G8

American Bittern *Botaurus lentiginosus*

Bird of conservation concern

Season: Breeding

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0F3

Bald Eagle *Haliaeetus leucocephalus*

Bird of conservation concern

Year-round

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B008

Black-billed Cuckoo *Coccyzus erythrophthalmus*

Bird of conservation concern

Season: Breeding

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0H1

| | |
|--|------------------------------|
| Blue-winged Warbler <i>Vermivora pinus</i> Season: Breeding | Bird of conservation concern |
| Canada Warbler <i>Wilsonia canadensis</i> Season: Breeding | Bird of conservation concern |
| Hudsonian Godwit <i>Limosa haemastica</i> Season: Migrating | Bird of conservation concern |
| Least Bittern <i>Ixobrychus exilis</i> Season: Breeding http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B092 | |
| Least Tern <i>Sterna antillarum</i> Season: Breeding | Bird of conservation concern |
| Olive-sided Flycatcher <i>Contopus cooperi</i> Season: Breeding http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0AN | Bird of conservation concern |
| Peregrine Falcon <i>Falco peregrinus</i> Season: Breeding http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0FU | Bird of conservation concern |
| Pied-billed Grebe <i>Podilymbus podiceps</i> Season: Breeding | Bird of conservation concern |
| Prairie Warbler <i>Dendroica discolor</i> Season: Breeding | Bird of conservation concern |
| Purple Sandpiper <i>Calidris maritima</i> Season: Wintering | Bird of conservation concern |
| Saltmarsh Sparrow <i>Ammodramus caudacutus</i> Season: Breeding | Bird of conservation concern |
| Seaside Sparrow <i>Ammodramus maritimus</i> Season: Breeding | Bird of conservation concern |
| Short-eared Owl <i>Asio flammeus</i> Season: Wintering http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0HD | Bird of conservation concern |
| Snowy Egret <i>Egretta thula</i> Season: Breeding | Bird of conservation concern |
| Willow Flycatcher <i>Empidonax traillii</i> Season: Breeding http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0F6 | Bird of conservation concern |
| Wood Thrush <i>Hylocichla mustelina</i> Season: Breeding | Bird of conservation concern |
| Worm Eating Warbler <i>Helmitheros vermivorum</i> Season: Breeding | Bird of conservation concern |

Wildlife refuges and fish hatcheries

There are no refuges or fish hatcheries in this location

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

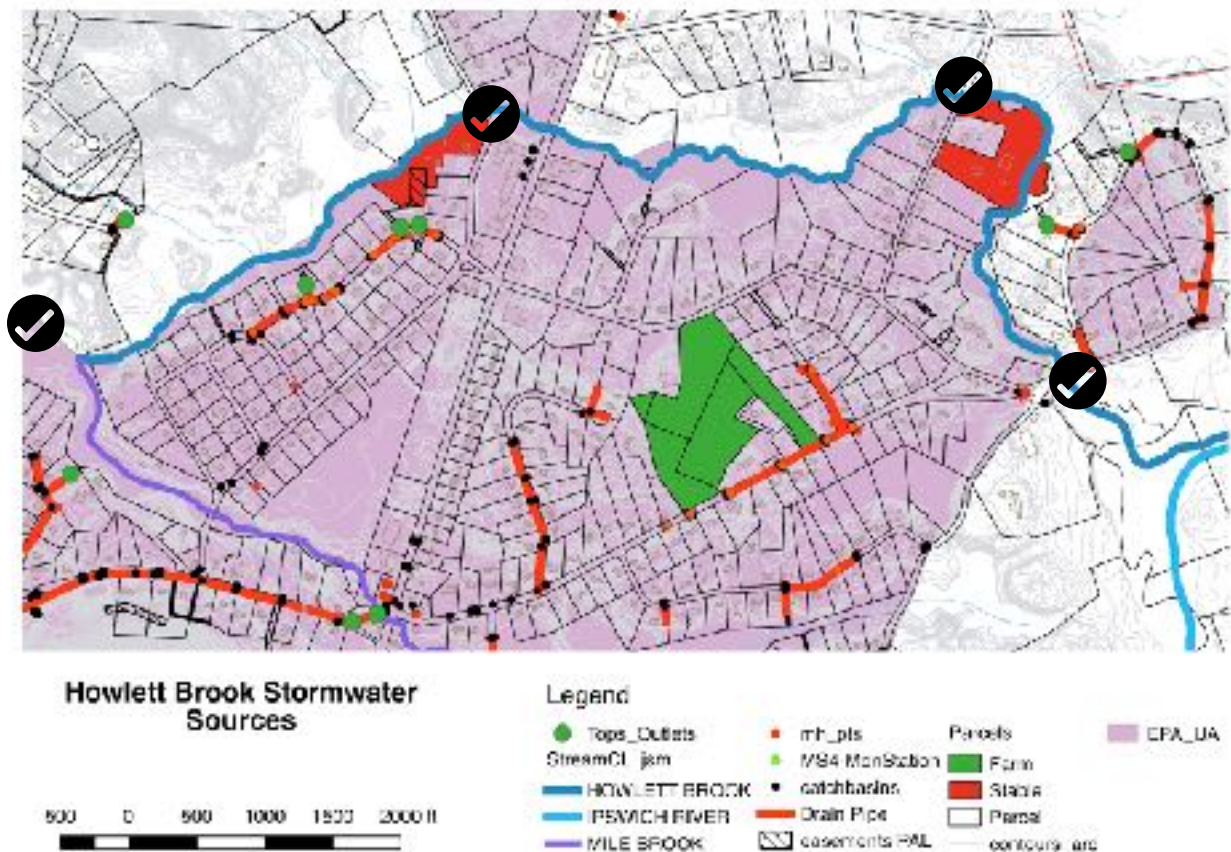
Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Wetland data is unavailable at this time.

Howlett Brook Stormwater Monitoring



The Massachusetts Department of Environmental Protection has determined that Howlett Brook in Topsfield is contaminated with fecal bacteria. Hence, it is important for Topsfield to develop a monitoring plan for this watershed to isolate the source or sources of this pollution to meet the goals of the MS4 plan and more importantly improve water quality in Topsfield.

The first phase to develop a monitoring program is to map the contributions of stormwater to the Brook. This has been started and 90% of the point sources from road drains have been located and mapped. The remainder of point sources for Route One and Honor Place need to be investigated and

Details of horse stables

2014



documented. Also mapped are horse stables and farms that may be contributing bacteria from overland and groundwater flows.

On the map above, there are 4 monitoring sites marked such:



Topsfield will conduct low flow sampling for Ecoli bacteria using the EPA approved method with m-ColiBlue24 medium. A link to this method can be found at:

<https://www.hach.com/asset-get.download.jsa?id=53201915602>

Simultaneous Detection and Enumeration of Total Coliforms and Escherichia coli using m-ColiBlue24 Membrane Filtration Medium

Summary of Method

A 100 mL water sample of surface water is filtered through a 47-mm, 0.45-µm pore size cellulose ester filter that retains the bacteria present in the sample. The filter is then transferred to a 50-mm Petri plate containing an absorbent pad saturated with m-ColiBlue24 broth or m-ColiBlue24 agar plate and incubated at 35 C for up to 24 hours. Both red and blue colonies may appear; the blue colonies are specific to the presence of *E. coli* while the red colonies are specific to non-*E. coli* coliforms. If the colonies are too numerous to count, a second test may be necessary with appropriate dilution with distilled water to make the number of colonies individually distinct for counting.

Results will be analyzed to isolate pollution contributions to the stream.

Tedder, Newton

From: David Bond <dbond@topsfield-ma.gov>
Sent: Thursday, September 27, 2018 8:37 AM
To: Tedder, Newton
Subject: RE: Small MS4 NOI submission - additional or corrected information required
Attachments: Topsfield Greenscapes NOI Form.pdf

Categories: EZ Record - Shared, Record Saved - Shared

Good Morning Newton,

I think I'm getting close to getting everything you need.

First, it was an error to include MA92-05 as an impaired water in Topsfield. It is Lubbers Brook in Wilmington and should be removed from our NOI. Can you do that?

MA92-06 is the section of Ipswich River to the Salem Beverly Canal. 6 outlets

MA92-15, Ipswich River, Canal to Ipswich line, 2 outlets

MA92-17, Howlett Brook, 8 outlets

MA92-14, Fish Brook, 3 outlets

MA92-16, Mile Brook, 9 outlets

MA92-25, Hood's Pond, no outlets

Also I am including a spreadsheet that shows our partnership with Greenscapes and IRWA that gives specifics about our Public Education and outreach program.

I will try to get you the remaining information by tomorrow. Is that OK?

Dave Bond

-----Original Message-----

From: Tedder, Newton [mailto:Tedder.Newton@epa.gov]
Sent: Wednesday, September 26, 2018 10:15 AM
To: David Bond
Subject: RE: Small MS4 NOI submission - additional or corrected information required

Thanks David. Ill look for contact from Jim

Newton Tedder
617- 918-1038

-----Original Message-----

From: David Bond [mailto:dbond@topsfield-ma.gov]
Sent: Wednesday, September 26, 2018 9:31 AM
To: Tedder, Newton <Tedder.Newton@epa.gov>
Subject: RE: Small MS4 NOI submission - additional or corrected information required

Newton,

My consultant Jim MacDougall, Biodiversity Consulting will be reaching out to you directly with a couple of questions. Also, our IPac report and Howlett Brook monitoring plan are attached.

Dave

-----Original Message-----

From: Tedder, Newton [mailto:Tedder.Newton@epa.gov]
Sent: Tuesday, September 25, 2018 4:58 PM
To: David Bond
Subject: RE: Small MS4 NOI submission - additional or corrected information required

Thanks David! Let me know if you have any questions

Newton Tedder
617- 918-1038

-----Original Message-----

From: David Bond [mailto:dbond@topsfield-ma.gov]
Sent: Tuesday, September 25, 2018 4:57 PM
To: Tedder, Newton <Tedder.Newton@epa.gov>
Subject: Re: Small MS4 NOI submission - additional or corrected information required

Newton

We will get this information to you as soon as possible.

Dave Bond

> On Sep 25, 2018, at 16:45, Tedder, Newton <Tedder.Newton@epa.gov> wrote:

>

> EPA requires additional or corrected information to receive a complete NOI submission for your MS4 and continue the review process. Please respond to this email with the requested details in the attached report. You do not need to resubmit the NOI form.

>

>

>

> Newton W. Tedder

> U.S. Environmental Protection Agency, Region 1

> 5 Post Office Square, Suite 100

> Mail Code OEP06-4

> Boston, MA 02109-3912

> Phone: (617) 918-1038

>

> All drains lead to the ocean

> <NOI_information_requested.pdf>

> <MA_Topsfield_NOI_8_21.pdf>