

Year 2 Annual Report

Massachusetts Small MS4 General Permit

Reporting Period: July 1, 2019-June 30, 2020

****Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form****

Unless otherwise noted, all fields are required to be filled out. If a field is left blank, it will be assumed the requirement or task has not been completed. Please ONLY report on activities between July 1, 2019 and June 30, 2020 unless otherwise requested.

Part I: Contact Information

Name of Municipality or Organization: Town of Orleans

EPA NPDES Permit Number: MAR041146

Primary MS4 Program Manager Contact Information

Name: Ron Trudeau

Title: Operations Manager, DPW

Street Address Line 1: 40 Giddiah Hill Rd.

Street Address Line 2:

City: Orleans

State: MA

Zip Code: 02653

Email: rtrudeau@town.orleans.ma.us

Phone Number: (508) 240-3790

Stormwater Management Program (SWMP) Information

SWMP Location (web address): <https://www.town.orleans.ma.us/stormwater/pages/stormwater-management-program-documents>

Date SWMP was Last Updated: June 2020

If the SWMP is not available on the web please provide the physical address:

Part II: Self-Assessment

First, in the box below, select the impairment(s) and/or TMDL(s) that are applicable to your MS4. Make sure you are referring to the most recent EPA approved Section 303(d) Impaired Waters List which can be found here: <https://www.epa.gov/tmdl/region-1-impaired-waters-and-303d-lists-state>

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/Pathogens
 ☐ Metals
 ☐ Nitrogen
 ☐ Phosphorus

Clear Impairments and TMDLs

Next, check off all requirements below that have been completed. **By checking each box you are certifying that you have completed that permit requirement fully.** If you have not completed a requirement leave the box unchecked. Additional information will be requested in later sections.

Year 2 Requirements

- ☒ Completed Phase I of system mapping
- ☒ Developed a written catchment investigation procedure and added the procedure to the SWMP
- ☒ Developed written procedures to require the submission of as-built drawings and ensure the long term operation and maintenance of completed construction sites and added these procedures to the SWMP
- ☒ Enclosed or covered storage piles of salt or piles containing salt used for deicing or other purposes
- ☒ Developed written operations and maintenance procedures for parks and open space, buildings and facilities, and vehicles and equipment and added these procedures to the SWMP
- ☒ Developed an inventory of all permittee owned facilities in the categories of parks and open space, buildings and facilities, and vehicles and equipment and added this inventory to the SWMP
- ☒ Completed a written program for MS4 infrastructure maintenance to reduce the discharge of pollutants
 - Developed written SWPPPs, included in the SWMP, for all of the following permittee owned or
 - ☐ operated facilities: maintenance garages, public works yards, transfer stations, and other waste handling facilities where pollutants are exposed to stormwater

Optional: If you would like to describe progress made on any incomplete requirements listed above, provide any additional information, and/or if any of the above year 2 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

The Town reviewed the need to develop and implement SWPPPs at Town owned or operated facilities in accordance with Section 2.3.7.b of the MS4 General Permit. These facilities include the Department of Public Works and Natural Resources Facility and Transfer Station/Landfill sites. The Town determined that SWPPPs

are not needed since these facilities do not discharge to the MS4 or a surface water. The facilities have storm drain infrastructure that discharge to subsurface infiltration systems with no off-site discharges for all applicable storm event design criteria.

Annual Requirements

- ☒ Provided an opportunity for public participation in review and implementation of SWMP and complied with State Public Notice requirements
- ☒ Kept records relating to the permit available for 5 years and made available to the public
- ☐ The SSO inventory has been updated, including the status of mitigation and corrective measures implemented
 - ☒ This is not applicable because we do not have sanitary sewer
 - ☐ This is not applicable because we did not find any new SSOs
 - ☐ The updated SSO inventory is attached to the email submission
 - ☐ The updated SSO inventory can be found at the following website:
- ☒ Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters
- ☐ Provided training to employees involved in IDDE program within the reporting period
- ☒ All curbed roadways were swept at least once within the reporting period
- ☒ Updated outfall and interconnection inventory and priority ranking as needed

Optional: If you would like to describe progress made on any incomplete requirements listed above, provide any additional information, and/or if any of the above annual requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

Annual IDDE training to applicable Town staff members was not conducted this Permit Year due to the COVID-19 pandemic. No staff meetings have been held by the Department of Public Works and Natural Resources since early March 2020.

Bacteria/ Pathogens (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

Annual Requirements

*Public Education and Outreach**

- ☒ Annual message was distributed encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- ☒ Permittee or its agents disseminated educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time
- ☒ Provided information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria

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

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

Nitrogen (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

Annual Requirements

*Public Education and Outreach**

- ☒ Distributed an annual message in the spring (April/May) that encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release fertilizers
- ☒ Distributed an annual message in the summer (June/July) encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- ☒ Distributed an annual message in the fall (August/September/October) encouraging the proper disposal of leaf litter

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

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

- ☒ Increased street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.a.iii.(c) to a minimum of two times per year (spring and fall)

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

Optional: Use the box below to provide any additional information you would like to share as part of your self-assessment:

Part III: Receiving Waters/Impaired Waters/TMDL

Have you made any changes to your lists of receiving waters, outfalls, or impairments since the NOI was submitted?

☐ Yes

☒ No

If yes, describe below, including any relevant impairments or TMDLs:

The Town is in the process of determining ownership of outfalls previously identified to be owned by the Town, but recently identified to potentially be owned by the Massachusetts Department of Transportation (MassDOT). The Town is using their existing stormwater infrastructure mapping data to identify MassDOT-owned outfalls. Although no formal changes have been made to outfall mapping, this effort was initiated during Permit Year 2 and will be resolved during Permit Year 3.

Part IV: Minimum Control Measures

Please fill out all of the metrics below. If applicable, include in the description who completed the task if completed by a third party.

MCM1: Public Education

Number of educational messages completed **during this reporting period:**

*Below, report on the educational messages completed **during this reporting period**. For the measurable goal(s) please describe the method/measures used to assess the overall effectiveness of the educational program.*

BMP:1A - Brochures for Residences and Businesses

Message Description and Distribution Method:

The Town developed flyers and bookmarks with information regarding general stormwater pollution prevention, such as: ways stormwater can be polluted, water impairments within the Town's receiving waters, proper lawn care maintenance tips, car and boat washing tips, household hazardous waste disposal tips, statements to avoid over-salting driveways and parking lots in the winter, not to dump anything into storm drains, water the lawn and not the street, pump septic tanks regularly, pick up after your pet, compost your yard waste, etc. These flyers and bookmarks were left on the counters of the DPW facility for the taking.

The bookmarks were developed by the Town of Orleans Highway Department in conjunction with the Cape Cod Groundwater Guardians.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Prepare and distribute all resident appropriate stormwater management messages annually. The flyers and bookmarks were put out for distribution at the Department of Public Works and Natural Resources office and remained for the taking until March 2020, when Town Offices closed to the public as a result of the COVID-19 pandemic. The Town distributed 28 flyers and 100 bookmarks this Permit Year.

Message Date(s):

Message Completed for: Appendix F Requirements ☐ Appendix H Requirements ☐

Was this message different than what was proposed in your NOI? Yes ☐ No ☒

If yes, describe why the change was made:

BMP:1B - Website Updates for General Public

Message Description and Distribution Method:

The Town's Department of Public Works and Natural Resources created a Stormwater web page accessible from their department page. The Stormwater web page has been updated to include: a description of stormwater and its common pollutants, staff contacts for the stormwater program, a link to the Town's

Drainage and Erosion and Sediment Control Bylaw, a link to public participation activities and educational materials revolving around clean water sponsored by the Cape Cod Groundwater Guardians, a link to educational materials regarding nitrogen pollution in Cape Cod's waters sponsored by Cape Cod Water, a link to the EPA NPDES general website, a link to MassDEP's stormwater website, a link to a video showing how stormwater travels following a storm, and link to the Town's SWMP as well as a contact for the public to issue a comment on the SWMP.

Visit the website at: <https://www.town.orleans.ma.us/stormwater>

Targeted Audience: General Public

Responsible Department/Parties: DPW Operations Manager/ Management Information Services (MIS) Coordinator

Measurable Goal(s):

Promote stormwater awareness by posting updated stormwater activities and articles. Track hits with goal of increasing hits annually.

Message Date(s): July 19, 2019

Message Completed for: Appendix F Requirements ☐ Appendix H Requirements ☐

Was this message different than what was proposed in your NOI? Yes ☐ No ☒

If yes, describe why the change was made:

BMP:1C - Brochures for Developers

Message Description and Distribution Method:

The Town developed flyers to educate developers on stormwater pollution, ways construction sites can contribute to stormwater pollution, and how they can use construction site stormwater controls and best management practices (such as covering dumpsters, picking up trash, protecting storm drain inlets, and cleaning up spills immediately) on a regular basis to help protect the Town's water ways. The flyer also included links to the Town's stormwater web page and two EPA NPDES web pages for additional information. These flyers were emailed to contractors that applied for permits with the Planning Board and were available for the taking at the Planning Department.

Targeted Audience: Developers (construction)

Responsible Department/Parties: DPW Operations Manager/Planning Department

Measurable Goal(s):

Prepare new stormwater control messages targeting local developers and contractors every 2 years and distribute messages annually. Physical copies of flyers were put out for distribution at the Planning Department office and remained for the taking until March 2020, when Town Offices closed to the public as a result of the COVID-19 pandemic. Flyers are still being emailed to contractors applying for building permits. The Town distributed 123 of these flyers to developers this Permit Year.

Message Date(s): July 2019 to June 2020

Message Completed for: Appendix F Requirements ☐ Appendix H Requirements ☐

Was this message different than what was proposed in your NOI? Yes ☐ No ☒

If yes, describe why the change was made:

BMP:1D - Brochures for Industrial Facilities

Message Description and Distribution Method:

The Town developed flyers to educate the owners of industrial facilities on stormwater pollution, ways industrial facilities can contribute to stormwater pollution, and how they can use proper storage and disposal techniques (such as frequently inspecting drums, tanks, and containers for leaks, properly labeling materials stored, and never dumping chemicals, materials, or waste containers into storm drains) and best management practices (such as covering dumpsters, picking up trash, protecting storm drain inlets, sweeping regularly, and cleaning up spills immediately) on a regular basis to help protect the Town's water ways. The flyer also includes links to the Town's stormwater web page and two EPA NPDES web pages for additional information.

Targeted Audience: Industrial Facilities

Responsible Department/Parties: DPW Operations Manager

Measurable Goal(s):

Prepare new stormwater management messages targeting industrial facilities every 2 years and distribute messages annually. The flyers were put out for distribution at the Department of Public Works and Natural Resources office and remained for the taking until March 2020, when Town Offices closed to the public as a result of the COVID-19 pandemic. The Town distributed 23 of these flyers to industrial facilities this Permit Year.

Message Date(s): July 2019 to March 2020

Message Completed for: Appendix F Requirements ☐ Appendix H Requirements ☐

Was this message different than what was proposed in your NOI? Yes ☐ No ☒

If yes, describe why the change was made:

BMP:1E - Brochures for Dog Owners and Residents

Message Description and Distribution Method:

The Town developed flyers to educate dog owners on stormwater pollution, ways pet waste can cause stormwater pollution, and how dog owners can help prevent pollution from entering the Town's water ways. Some of the tips on proper pet waste management included: always pick up after your pet and dispose of waste in the trash, avoid letting your dog poop within 200 feet of the Town's waters, Town restrictions on when dogs are and are not allowed at beaches, why dog waste is hazardous to human and environmental health, and more. The flyer also includes links to the Town's stormwater and beach restriction web pages and an EPA NPDES web page for additional information. These flyers were distributed to residents during the dog licensing process and were also available for the taking at the Town Clerk's office.

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations/ Town Clerk

Measurable Goal(s):

Update annually and distribute with dog license information. The flyers were distributed with every dog license during this Permit Year. In addition, the flyers were put out for distribution at the Town Clerk's office and remained for the taking until March 2020, when Town Offices closed to the public as a result of the COVID-19 pandemic. The Town distributed over 250 of these flyers to residents this Permit Year.

Message Date(s): July 2019 to June 2020

Message Completed for: Appendix F Requirements ☒ Appendix H Requirements ☒

Was this message different than what was proposed in your NOI? Yes ☐ No ☒

If yes, describe why the change was made:

BMP:1F - Brochures for Septic Tank Owners

Message Description and Distribution Method:

The Town developed flyers to educate septic system owners on how septic systems can contribute to stormwater pollution and how owners can operate and maintain their systems to help prevent stormwater pollution. The flyer also includes links to the Town's stormwater web page, the EPA's NPDES web page, and the EPA's septic system web page for additional information.

Targeted Audience: Septic Tank Owners

Responsible Department/Parties: DPW Operations/ Health Agent

Measurable Goal(s):

Update annually and distribute to septic owners. The flyers were put out for distribution at the Health Agent's office and remained for the taking until March 2020, when Town Offices closed to the public as a result of the COVID-19 pandemic. The Town distributed 12 of these flyers to septic tank owners this Permit Year.

Message Date(s): July 2019 to March 2020

Message Completed for: Appendix F Requirements ☒ Appendix H Requirements ☒

Was this message different than what was proposed in your NOI? Yes ☐ No ☒

If yes, describe why the change was made:

BMP:1G - Seasonal Messages

Message Description and Distribution Method:

The Town developed brochures to distribute in the spring, summer, and fall. The spring flyer encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release fertilizers. The

summer flyer encourages proper pet waste management. The fall flyer encourages proper disposal of leaf litter.

Targeted Audience: Residential/ Business/ Commercial/ Institutions

Responsible Department/Parties: DPW Operations Manager

Measurable Goal(s):

Supplement public education efforts with three annual timed messages on proper grass clipping, fertilizer, pet waste, and leaf litter management. The spring, summer, and fall flyers were each put out for distribution at the Department of Public Works and Natural Resources office during their applicable seasons and remained for the taking until March 2020, when Town Offices closed to the public as a result of the COVID-19 pandemic. The Town distributed 2 spring flyers, 100 summer flyers, 100 fall flyers this Permit Year.

Message Date(s): Summer 2019, Fall 2019, Spring 2020

Message Completed for: Appendix F Requirements ☒ Appendix H Requirements ☐

Was this message different than what was proposed in your NOI? Yes ☐ No ☒

If yes, describe why the change was made:

BMP:1H - Stormwater TV Broadcasts for General Public

Message Description and Distribution Method:

The Department of Public Work and Natural Resources Director provided updates to the Board of Selectman on the stormwater permit and on components of projects on August 7, 2019 and November 6, 2019. No other Board of Selectman meetings were held during the Permit Year as a result of the COVID-19 pandemic.

Targeted Audience: General Public

Responsible Department/Parties: DPWNR Director/ Board of Selectman

Measurable Goal(s):

Continue to provide cable coverage of quarterly stormwater updates at Board of Selectman meetings.

Message Date(s): August 7, 2019 and November 6, 2019

Message Completed for: Appendix F Requirements ☐ Appendix H Requirements ☐

Was this message different than what was proposed in your NOI? Yes ☐ No ☒

If yes, describe why the change was made:

Add an Educational Message

MCM2: Public Participation

Describe the opportunity provided for public involvement in the development of the Stormwater Management Program (SWMP) **during this reporting period:**

The original SWMP was posted on July 11, 2019 and to date no comments have been received from the public.

Was this opportunity different than what was proposed in your NOI? Yes ☐ No ☒

Describe any other public involvement or participation opportunities conducted **during this reporting period:**

As part of the Public Involvement and Participation Program the Town has provided a number of opportunities for the public to participate and implement the SWMP.

The Department of Public Works Operations Manager has coordinated with the Highway Department and local civic groups and volunteers to maintain or replace storm drain markers. The DPW Operations Manager will continue to track the number of stenciling events and which drains have been marked or remarked in a database. The catch basin grates state: "Dump No Waste - Drains to Waterways."

The Town has also worked with local civic groups and volunteers to design a new drain manhole cover and catch basin grate to implement at areas in Town that are frequented by the public. The goal of this activity is to increase public involvement in the Town's stormwater program and to raise awareness of the Town's efforts and commitment to protecting waterways. The design of the manhole covers has been completed and includes the Town's logo, the word "drain," and the inscription "No Dumping - Drains to our Waters."

The Orleans Marine and Fresh Water Quality Committee has conducted a number of fresh and marine water quality sampling events:

--Sampling at Lonnie's Pond occurred on July 11, 2019, July 25, 2019, August 8, 2019, September 5, 2019, September 23, 2019, and October 23, 2019.

--Sampling at the 12 Nauset estuary and Cape Cod Bay stations occurred on July 9, 2019, July 23, 2019, August 10, 2019, August 24, 2019, and September 8, 2019, utilizing 17 trained volunteers. A total of 229 water samples were collected along with other observable parameters.

--Sampling at the 14 Little Pleasant Bay stations occurred on July 9, 2019, July 23, 2019, August 10, 2019, August 24, 2019, and September 8, 2019, utilizing 25 trained volunteers. A total of 360 samples were collected along with other observable parameters.

--Fourteen freshwater ponds were sampled in April and again in August. 7 volunteers were involved. Stormwater studies have been conducted in the last few years at five freshwater ponds in the preparation of a management plan for each pond.

The samples and data collected were transferred to UMASS Dartmouth School of Marine Science and Technology (SMASST) as part of the Massachusetts Estuaries Project. The data is now collected into a

searchable database containing twenty years of data. It is usable for Town research and water quality project planning. Data and sample analysis for the 2020 samples will be available in Spring of 2021.

The Town held their annual Celebrate Our Waters Festival on September 22, 2019. The purpose of the festival is to showcase the area's bays, ponds, lakes, marshes, creeks, and beaches and increase general awareness and appreciation of the Town's valuable water resources. The event was originally conceived to offer a few guided walks highlighting Orleans' ponds and saltwater estuaries but it quickly grew into a two day festival including walks, bike rides, talks, tours, kayak trips, cat boat sailing, aquaculture events, a sand sculpture contest and a bonfire on Nauset Beach.

The Town continued to host the joint household hazardous waste collection event with the Town of Eastham. The spring event was hosted by Orleans on September 21, 2019 and the spring event was hosted by Eastham on May 9, 2020.

The annual Nauset Beach clean-up event is typically held every April in the Town of Orleans. This year's event was canceled due to the COVID-19 pandemic.

MCM3: Illicit Discharge Detection and Elimination (IDDE)

Sanitary Sewer Overflows (SSOs)

Check off the box below if the statement is true.

☒ This SSO section is NOT applicable because we DO NOT have sanitary sewer

*Below, report on the number of SSOs identified in the MS4 system and removed **during this reporting period**.*

Number of SSOs identified:

Number of SSOs removed:

MS4 System Mapping

Below, check all that apply.

The following elements of the Phase I map have been completed:

- ☒ Outfalls and receiving waters
- ☒ Open channel conveyances
- ☒ Interconnections
- ☒ Municipally-owned stormwater treatment structures
- ☒ Waterbodies identified by name and indication of all use impairments
- ☒ Initial catchment delineations

Optional: Describe any additional progress you made on your map during this reporting period or provide additional status information regarding your map:

Screening of Outfalls/Interconnections

If conducted, please submit any outfall monitoring results from this reporting period. Outfall monitoring results should include the date, outfall/interconnection identifier, location, weather conditions at time of sampling, precipitation in previous 48 hours, field screening parameter results, and results from all analyses.

- ☒ The outfall screening data is attached to the email submission
☐ The outfall screening data can be found at the following website:

*Below, report on the number of outfalls/interconnections screened **during this reporting period.***

Number of outfalls screened:

Catchment Investigations

If conducted, please submit all data collected during this reporting period as part of the dry and wet weather investigations. Also include the presence or absence of System Vulnerability Factors for each catchment.

- ☐ The catchment investigation data is attached to the email submission
☐ The catchment investigation data can be found at the following website:

*Below, report on the number of catchment investigations completed **during this reporting period.***

Number of catchment investigations completed this reporting period:

*Below, report on the percent of catchments investigated **to date.***

Percent of total catchments investigated:

Optional: Provide any additional information for clarity regarding the catchment investigations below:

Catchment investigations to begin following Permit Year 3 outfall screening and reprioritization activities.

IDDE Progress

If illicit discharges were found, please submit a document describing work conducted over this reporting period, and cumulative to date, including location source; description of the discharge; method of discovery; date of discovery; and date of elimination, mitigation, or enforcement OR planned corrective measures and schedule of removal.

- ☐ The illicit discharge removal report is attached to the email submission
☐ The illicit discharge removal report can be found at the following website:

*Below, report on the number of illicit discharges identified and removed, along with the volume of sewage removed **during this reporting period.***

Number of illicit discharges identified:

Number of illicit discharges removed:

Estimated volume of sewage removed: gallons/day

*Below, report on the total number of illicit discharges identified and removed to date. At a minimum, report on the number of illicit discharges identified and removed **since the effective date of the permit (July 1, 2018).***

Total number of illicit discharges identified:

Total number of illicit discharges removed:

Optional: Provide any additional information for clarity regarding illicit discharges identified, removed, or planned to be removed below:

To be conducted in future permit years upon verification of an illicit discharge.

Employee Training

Describe the frequency and type of employee training conducted **during the reporting period:**

In Fall 2019, the Town of Orleans held a winter road maintenance training for the Department of Public Works staff members that perform plowing and deicing activities for the Town. The training included topics such as: plowing and sanding routes, proper salt and sand application rates based on the intensity of the winter storm event, and way to reduce the use of chloride-containing materials.

Annual IDDE training to applicable Town staff members was not conducted this Permit Year due to the COVID-19 pandemic. No staff meetings have been held by the Department of Public Works and Natural Resources since early March 2020.

The Town of Orleans will be providing IDDE and Pollution Prevention/Good Housekeeping training to their Department of Public Works and Natural Resources staff members in Permit Year 3.

MCM4: Construction Site Stormwater Runoff Control

*Below, report on the construction site plan reviews, inspections, and enforcement actions completed **during this reporting period.***

Number of site plan reviews completed:

Number of inspections completed:

Number of enforcement actions taken:

Optional: Enter any additional information relevant to construction site plan reviews, inspections, and enforcement actions:

MCM5: Post-Construction Stormwater Management in New Development and Redevelopment

Ordinance or Regulatory Mechanism

Below, select the option that describes your ordinance or regulatory mechanism progress.

- ☐ Bylaw, ordinance, or regulations are updated and adopted consistent with permit requirements
- ☐ Bylaw, ordinance, or regulations are updated consistent with permit requirements but are not yet adopted
- ☒ Bylaw, ordinance, or regulations have not been updated or adopted

As-built Drawings

Describe the measures the MS4 has utilized to require the submission of as-built drawings and ensure long term operation and maintenance of completed construction sites:

An amendment to Chapter 88, Drainage & Erosion & Sediment Control, of the Town's bylaw was approved by Town Meeting on May 13, 2019. The amendment requires as-built drawings to be submitted no later than two years after completion and includes requirements for planned long term operation and maintenance practices.

Street Design and Parking Lots Report

Describe the status of the street design and parking lots assessment due in year 4 of the permit term, including any planned or completed changes to local regulations and guidelines:

To be developed in future permit years.

Green Infrastructure Report

Describe the status of the green infrastructure report due in year 4 of the permit term, including the findings and progress towards making the practice allowable:

To be developed in future permit years.

Retrofit Properties Inventory

Describe the status of the inventory, due in year 4 of the permit term, of permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas and report on any properties that have been modified or retrofitted:

The Town of Orleans has identified several locations throughout the Town where infrastructure can be rehabilitated and stormwater BMPs can be installed to improve the quality of stormwater treatment at those

locations. During Permit Year 2, the Town reconstructed the Tonset Road and Barley Neck Road Landings, and installed stormwater BMPs and completed bank stabilization measures to improve the quality of stormwater leaving each site.

Over the next few years, the Town plans to complete similar stormwater quality improvement projects. Two projects have already been designed and permitted, including one on Brewster Cross Road and one on Locust Road, and will be completed as part of the Town's sewer installation project. Four other improvement projects are currently in the design phase; the Town is seeking NRCS Grant funding to construct these projects.

A complete retrofit inventory, priority analysis, and report will be developed in future permit years.

MCM6: Good Housekeeping

Catch Basin Cleaning

*Below, report on the number of catch basins inspected and cleaned, along with the total volume of material removed from the catch basins **during this reporting period**.*

Number of catch basins inspected:

Number of catch basins cleaned:

Total volume or mass of material removed from all catch basins:

Below, report on the total number of catch basins in the MS4 system.

Total number of catch basins:

If applicable:

Report on the actions taken if a catch basin sump is more than 50% full during two consecutive routine inspections/cleaning events:

If necessary, schedule adjustments will be made to prioritize catch basins located at known problem areas (low spots) and near construction activities (roadway construction, residential, commercial, or industrial development). If inspections and maintenance activities indicate excessive sediment and debris loading (i.e. the sump is more than 50% full during two consecutive routine inspections/cleanings), these catch basins will be marked for more frequent cleaning. Where necessary, street sweeping will be utilized to aid in minimizing catch basin sediment loading.

Street Sweeping

*Report on street sweeping completed **during this reporting period** using one of the three metrics below.*

☒ Number of miles cleaned:

☐ Volume of material removed:

☐ Weight of material removed:

O&M Procedures and Inventory of Permittee-Owned Properties

Below, check all that apply.

The following permittee-owned properties have been inventoried:

- ☒ Parks and open spaces
- ☒ Buildings and facilities
- ☒ Vehicles and equipment

The following O&M procedures for permittee-owned properties have been completed:

- ☒ Parks and open spaces
- ☒ Buildings and facilities
- ☒ Vehicles and equipment

Stormwater Pollution Prevention Plan (SWPPP)

*Below, report on the number of site inspections for facilities that require a SWPPP completed **during this reporting period**.*

Number of site inspections completed:

Describe any corrective actions taken at a facility with a SWPPP:

The Town reviewed the need to develop and implement SWPPPs at Town owned or operated facilities in accordance with Section 2.3.7.b of the MS4 General Permit. These facilities include the Department of Public Works and Natural Resources Facility and Transfer Station/Landfill sites. The Town determined that SWPPPs are not needed since these facilities do not discharge to the MS4 or a surface water. The facilities have storm drain infrastructure that discharge to subsurface infiltration systems with no off-site discharges for all applicable storm event design criteria.

Additional Information

Monitoring or Study Results

Results from any other stormwater or receiving water quality monitoring or studies conducted during the reporting period not otherwise mentioned above, where the data is being used to inform permit compliance or permit effectiveness must be attached.

- ☐ Not applicable
- ☐ The results from additional reports or studies are attached to the email submission
- ☒ The results from additional reports or studies can be found at the following website(s):

<https://www.mass.gov/guides/the-massachusetts-estuaries-project-and-reports#-cape-cod-mep-reports->

If such monitoring or studies were conducted on your behalf or if monitoring or studies conducted by other entities were reported to you, a brief description of the type of information gathered or received shall be described below:

The Orleans Marine and Fresh Water Quality Committee has conducted a number of fresh and marine water quality sampling events, as reported under Public Participation above. The data from this sampling is submitted for processing to the UMass Dartmouth School of Marine Science and Technology (SMAST) as part

of the Massachusetts Estuaries Project.

Additional Information

Optional: Enter any additional information relevant to your stormwater management program implementation during the reporting period. Include any BMP modifications made by the MS4 if not already discussed above:

The Town is working with a consultant to review and align their MCM#5 related regulations with Permit requirements. This work will be completed during Permit Year 3.

COVID-19 Impacts

Optional: If any of the above year 2 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

Activities Planned for Next Reporting Period

Please confirm that your SWMP has been, or will be, updated to comply with all applicable permit requirements including but not limited to the year 3 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree ☒

- Inspect all outfalls/ interconnections (excluding Problem and Excluded outfalls) for the presence of dry weather flow
- Complete follow-up ranking as dry weather screening becomes available

Annual Requirements

- Annual report submitted and available to the public
- Annual opportunity for public participation in review and implementation of SWMP
- Keep records relating to the permit available for 5 years and make available to the public
- Properly store and dispose of catch basin cleanings and street sweepings so they do not discharge to receiving waters
- Annual training to employees involved in IDDE program
- Update inventory of all known locations where SSOs have discharged to the MS4
- Continue public education and outreach program
- Update outfall and interconnection inventory and priority ranking and include data collected in connection with the dry weather screening and other relevant inspections conducted
- Implement IDDE program

- Review site plans of construction sites as part of the construction stormwater runoff control program
- Conduct site inspection of construction sites as necessary
- Inspect and maintain stormwater treatment structures
- Log catch basins cleaned or inspected
- Sweep all uncurbed streets at least annually
- Continue investigations of catchments associated with Problem Outfalls
- Review inventory of all permittee owned facilities in the categories of parks and open space, buildings and facilities, and vehicles and equipment; update if necessary

Provide any additional details on activities planned for permit year 3 below:

The Town is undergoing a conversion from septic to sewer, which will reduce pollution generated from aging septic systems. Sewer installation work is scheduled to begin during Permit Year 3.

Part V: Certification of Small MS4 Annual Report 2020

40 CFR 144.32(d) 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:

John F Kelly

Title:

Town Administrator

Signature:

John F Kelly

Date:

9/23/20

[Signatory may be a duly authorized representative]