

**Year 2 Annual Report**  
**Massachusetts Small MS4 General Permit**  
**Reporting Period: July 1, 2019-June 30, 2020**

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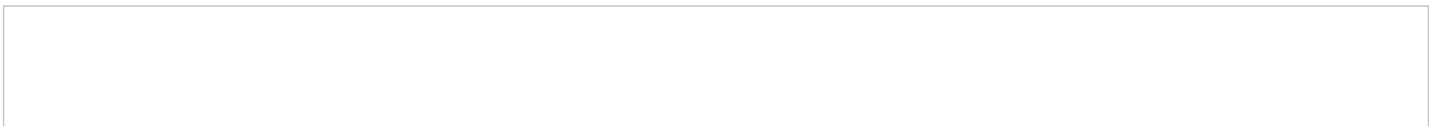
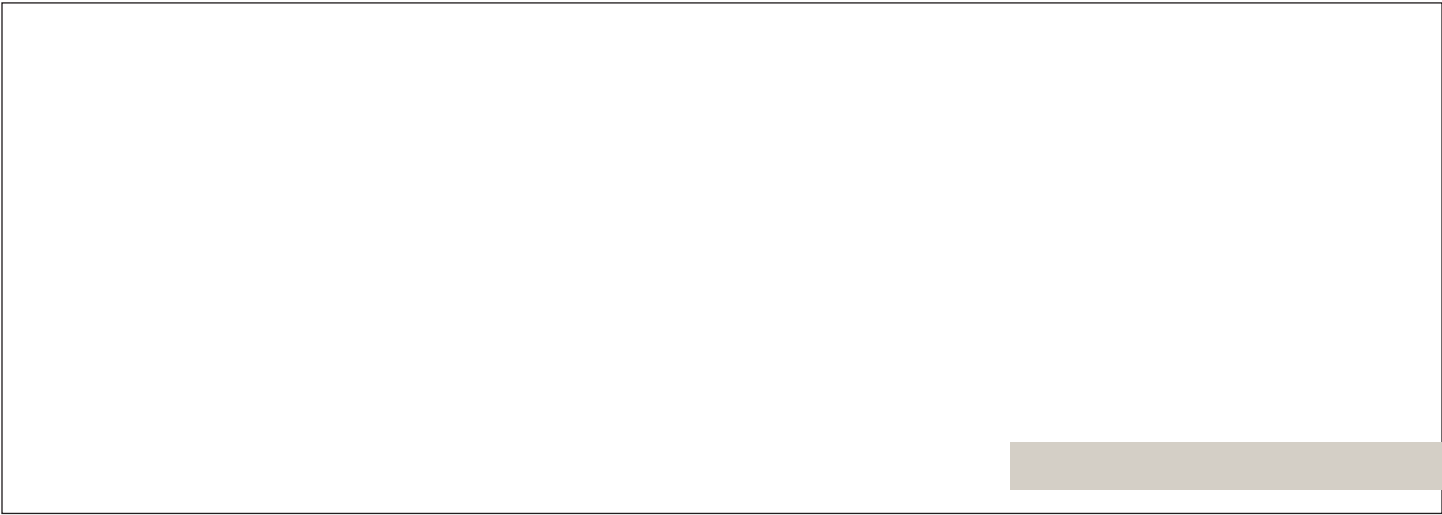
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Annual Requirements

- 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

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*\* 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:*

BSU has a formalized Pet Policy and requires all new pet owners on campus to sign the Pet Policy. This past fall, BSU installed 5 pet waste management stations at walking trails on campus with educational messaging displayed on signage at the stations.

There are no septic systems on campus. The entire campus is on the Town of Bridgewater sewer system.

## **Chloride**

### Annual Requirements

#### *Public Education and Outreach*

Included an annual message in November/ December to private road salt applicators and commercial

- industrial site owners on the proper storage and application rates of winter deicing material, along with the steps that can be taken to minimize salt use and protect local waterbodies

*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:*

The Chloride requirements are not applicable for BSU.

## **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)

#### *Potential structural BMPs*

Any structural BMPs listed in Table 3 of Attachment 1 to Appendix H already existing or installed in the regulated area by the permittee or its agents was tracked and the nitrogen removal by the BMP was

- estimated consistent with Attachment 1 to Appendix H. The BMP type, total area treated by the BMP, the design storage volume of the BMP and the estimated nitrogen removed in mass per year by the BMP were documented.











## 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:Electronic Brochures/Handouts**

Message Description and Distribution Method:

Email and pamphlets with educational material on pathogen-related maintenance practices for stormwater management sent in BSU's Community Announcements to all faculty and staff.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Inspection of campus grounds during routine maintenance by Facilities Management staff will be used to assess the overall effectiveness of the educational program.

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:Electronic Brochures/Handouts**

Message Description and Distribution Method:

Email and pamphlets with educational material on nitrogen-related maintenance practices for stormwater management sent in BSU's Community Announcements to all Facilities Maintenance Grounds staff

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Targeted inspections by Facilities Management senior personnel will be used to assess the overall effectiveness of the educational program.

Message Date(s): May 14, 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:

BSU was notified by EPA via email on 03/13/19 that the Taunton River Watershed discharges to waterbodies tributary to water(s) impaired due to nitrogen (Mount Hope Bay) and therefore must adhere to the requirements in Appendix H Part I.

### **BMP:School Curricula/Programs**

Message Description and Distribution Method:

School curricula/programs including stormwater management/issues as a topic offered in various semesters:

SUST101 - Sustainability (water management)

BIOL117 - Environmental Biology

GEOG130 - Environmental Geography

GEOL194 - Environmental Geology

CHEM486 - Advanced Environmental Chemistry Lab

CHEM489 - Advanced Environmental Chemistry

Targeted Audience: Students

Responsible Department/Parties: Faculty

Measurable Goal(s):

The frequency and registration of classes will be used to assess the overall effectiveness of the educational program.

Message Date(s): SUST101, BIOL117, GEOG130, and GEOG194 offered in Fall 2019 and Spring 2020.  
CHEM486 and CHEM489 offered in 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:Public Outreach Class**

Message Description and Distribution Method:

The Watershed Access Lab offers a class module called "Does This Parking Lot Look Green to You?" Educators can bring their middle school or high school students to learn about hydrology, stormwater runoff, and the use of low impact design for improving water quality. Several hundred students attend each year mostly from southeastern Massachusetts.



Targeted Audience: Faculty, staff, students, and visitors

Responsible Department/Parties: EH&S - Patricia Delaney

Measurable Goal(s):

The number of attendees will be used to assess the overall effectiveness of the educational program.

Message Date(s): 04/29/20

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:

The workshop was incorporated with the Public Outreach and Participation Meeting to provide background information about why managing stormwater is important prior to reviewing elements of the SWMP and opening the meeting to questions and comments. This format was determined to be more efficient and effective to provide a more comprehensive experience for attendees going forward.

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:**

BSU Public Outreach and Participation Meeting was held virtually on 04/29/20. At the meeting, the BSU community was provided information and updates on the SWMP, on how to get involved, and to report stormwater-related problems or concerns to EH&S. Meeting attendees were encouraged to ask questions verbally or using the chat feature.

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:**

### 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:

Made progress on mapping stormwater structures (manholes and catch basins) and piping throughout campus in an effort to refine the outfall and interconnection locations for dry weather screening and sampling

#### **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.*

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- 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:

Significant progress was made during this reporting period to refine BSU's system mapping and outfall/interconnection locations for dry weather screening and sampling. BSU spent considerable effort to isolate its stormwater inputs to receiving waters and neighboring MS4s (including the Town of Bridgewater and MBTA) by carefully examining its system mapping and ultimately increasing the number of outfalls and interconnections in its inventory. By doing so, BSU was able to exclude some outfalls from dry weather screening and may find that the refinements will assist its catchment investigation efforts going forward.

### **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:*

from the laboratory were not provided in time to update the priority ranking. The priority ranking will be updated in Year 3. The outfall/interconnections where the sampling results indicated the flow to be considered highly likely to contain illicit discharges will be prioritized for investigation.

### **Employee Training**

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

Training was provided to Facilities Management staff (Management team, Grounds, Power Plant, Trades) on 3/10/20 providing information on the MS4 Program, BSU's IDDE Program and Good Housekeeping measures. Facilities Management staff are also trained annually on chemical hygiene and proper spill clean-up. Licensed applicators on BSU staff are trained annually on pesticide and fertilizer management.

### **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:

The Owner's Project Manager (OPM) for the Division of Capital Asset Management and Maintenance (DCAMM) is on-site daily for the electrical upgrades project on campus that is being performed by DCAMM and their subs. DCAMM's OPM is involved in the oversight of the construction process and day-to-day compliance of this linear infrastructure upgrade project. BSU has a Project Manager on-site daily for the Bear Paw/Field House project and is involved in the daily oversight and compliance of construction-related stormwater management.

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

#### **Ordinance or Regulatory Mechanism**

**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:

As-built drawings are required to be submitted at the conclusion of construction projects per the draft Post-Construction Stormwater Management in New Development and Redevelopment policy. Facilities Management will be responsible for the long-term O&M of stormwater BMPs at completed construction sites and will be added to the inventory of stormwater treatment structures for annual maintenance.

**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:

BSU will assess potential changes to street and parking lot design guidelines in years 3 and/or 4.

**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:

As a non-traditional MS4, BSU is not required to meet the requirements of part 2.3.6.c.

**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:

BSU will evaluate campus properties that can be modified or retrofitted with BMPs to mitigate impervious areas in years 3 and/or 4.

**MCM6: Goosmvious  
areas in years 3 and/or 4.**

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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:

**Street Sweeping**

*Report on street sweeping completed*

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## **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):

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:

### **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:

Used motor oil from BSU fleet vehicles is sent off-site for recycling.  
 Recyclable materials are managed through the campus Recycling Program.  
 BSU installed 5 pet waste management stations at walking trails on campus in fall 2019. The stations include display signage related to pathogen messaging.  
 The target audience for the annual educational message in the spring on nitrogen-related maintenance practices for stormwater management was modified to the Facilities Maintenance Grounds staff, which handles all landscape maintenance on campus.  
 The 192 SWPPP inspections includes monthly underground storage tank inspections at two locations (the Operations Center and the Power Plant) and monthly inspections of diesel emergency generators at 14 locations throughout campus.

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BSU was unable to confirm that all curbed roadways on campus were swept according to the Town of Bridgewater's typical annual roadway maintenance program.

Annual Earth Day clean-up involving administrators, faculty, staff, students, and campus fraternities was canceled due to campus closure as a result of COVID-19.

### **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:

Facilities Management will complete the naming convention of system structures including catch basins, manholes, and treatment structures on campus to track inspections and maintenance going forward.

BSU was unable to schedule a meeting with the Town of Bridgewater in year 2 to coordinate efforts around street sweeping, winter road maintenance, catchment investigations, SSO reporting, training and other points of coordination. BSU will attempt to meet with the Town in 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

*[Signature must be a duly authorized representative]*