Year 5 Annual Report
Massachusetts Small MS4 General Permit
Reporting Period: July 1, 2022-June 30, 2023

Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form. Also ensure any websites included on this form are to publicly accessible sites

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, 2022 and June 30, 2023 unless otherwise requested.

Part I: Contact Information

Name of Municipality or Organization: *Bridgewater State University*

EPA NPDES Permit Number: *MAR042027*

Primary MS4 Program Manager Contact Information

Name: *Karen Jason* Title: *Vice President of Operations*

Street Address Line 1: *Division of Operations*

Street Address Line 2: *Boyden Hall, 131 Summer Street, Room 216*

City: *Bridgewater* State: *MA* Zip Code: *02325*

Email: *kjason@bridgew.edu* Phone Number: *(508) 531-2750*

Stormwater Management Program (SWMP) Information

SWMP Location (publicly available web address): *https://www.bridgew.edu/office/stormwater-management*

Date SWMP was Last Updated: *2022-06-30*

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

Office of Environmental Health and Safety (Operations Center), 200 Great Hill Drive, Room 221

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:

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.*

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 publicly available website:
- ☑ Updated system map due in year 2 as necessary
- ☑ Provided training to employees involved in IDDE program within the reporting period
- ☑ Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters
- ☑ All curbed roadways were swept at least once within the reporting period
- ☑ Enclosed all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt
- ☑ Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities
- ☑ Updated inventory of all permittee owned facilities as necessary

- ☑ O&M programs for all permittee owned facilities have been completed and updated as necessary
- ☑ Implemented all maintenance procedures for permittee owned facilities in accordance with O&M programs
- ☑ Implemented program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- ☑ Inspected all permittee owned treatment structures (excluding catch basins)

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 is a non-traditional MS4; per Section 5.1.3. of the Permit non-traditional MS4s do not need to meet the requirements of part 2.3.6.c., which includes the assessment of local regulations. BSU is subject to the design standards of the Town of Bridgewater for site and stormwater design and continues to coordinate with local officials on MS4 related matters.
BSU reviewed the Draft 2022 303(d) List. When the 2022 303(d) List is finalized, BSU will move forward with the associated requirements if impairments have changed for the receiving water bodies.
All permittee owned stormwater treatment structures were inspected in year 5 including wet basins, infiltration basins, rain gardens, constructed wetlands, and swales. Immediate repairs were made for structures as noted within. Additional corrective actions needed will be prioritized in Year 6.

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
    - ☑ This is not applicable because there are no septic systems present

** 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:

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

The following type(s) of salt were applied **during this reporting period (year 5)**:

- ☐ Sodium chloride
- ☐ Calcium chloride
- ☐ Potassium chloride
- ☐ Magnesium chloride
- ☐ Brine solution

Total amount of salt applied **during this reporting period (year 5) including units**: *0*

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)

Structural BMPs

- ☑ Completed the evaluation of all permittee owned properties identified as presenting retrofit opportunities or areas for structural BMP installation under permit part 2.3.6.d or identified in the Nitrogen Source Identification Report, including: *(select the items of the evaluation that have been completed below)*
  - ☑ Next planned infrastructure, resurfacing, or redevelopment activity planned for the property (if applicable) OR planned retrofit date
  - ☑ Estimated cost of redevelopment or retrofit BMPs
  - ☑ Engineering and regulatory feasibility of redevelopment or retrofit BMPs
- ☑ Completed a listing of planned structural BMPs and a plan and schedule for implementation
  - ◉ The BMP list and implementation schedule is attached to the email submission
  - ○ The BMP list and implementation schedule can be found at the following publicly available website:

☐ Any structural BMPs listed in Attachment 3 to Appendix F 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 3 to Appendix F. 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.

- ◉ No BMPs were installed
- ○ The above referenced BMP information is attached to the email submission
- ○ The above referenced BMP information can be found at the following publicly available website:

Total estimated nitrogen removed in lbs/year from the installed BMPs: 0

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:

Phosphorus (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) encouraging the proper use and disposal of grass clippings and encouraging the proper use of slow-release and phosphorus-free 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)

Structural BMPs

- ☐ Completed the evaluation of all permittee owned properties identified as presenting retrofit opportunities or areas for structural BMP installation under permit part 2.3.6.d or identified in the Phosphorus Source Identification Report, including: *(select the items of the evaluation that have been completed below)*
  - ☐ Next planned infrastructure, resurfacing, or redevelopment activity planned for the property (if applicable) OR planned retrofit date
  - ☐ Estimated cost of redevelopment or retrofit BMPs
  - ☐ Engineering and regulatory feasibility of redevelopment or retrofit BMPs

☐ Completed a listing of planned structural BMPs and a plan and schedule for implementation

- ○ The BMP list and implementation schedule is attached to the email submission
- ○ The BMP list and implementation schedule can be found at the following publicly available website:

☐ Any structural BMPs already existing or installed in the regulated area by the permittee or its agents was tracked and the phosphorus removal by the BMP was estimated consistent with Attachment 3 to Appendix F. The BMP type, total area treated by the BMP, the design storage volume of the BMP, and the estimated phosphorus removed in mass per year by the BMP were documented.

- ◉ No BMPs were installed
- ○ The above referenced BMP information is attached to the email submission
- ○ The above referenced BMP information can be found at the following publicly available website:

Total estimated phosphorus removed in **lbs/year** from the installed BMPs: 0

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 Phosphorus impairment for the Taunton River will be reflected in the year 6 MS4 permit documentation including the Nitrogen source tracking report and the BSU stormwater policy. The retrofit opportunities developed for the Nitrogen source tracking report are also suitable for enhanced phosphorus removal.

Solids, Oil and Grease (Hydrocarbons), or Metals

Annual Requirements

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

☐ Increased street sweeping frequency of all municipal owned streets and parking lots to a schedule that targets areas with potential for high pollutant loads

- ○ The street sweeping schedule is attached to the email submission
- ○ The street sweeping schedule can be found at the following publicly available website:

☐ Prioritized inspection and maintenance for catch basins to ensure that no sump shall be more than 50 percent full; Cleaned catch basins more frequently if inspection and maintenance activities indicated excessive sediment or debris loadings

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:

Charles River Watershed Phosphorus TMDL

☐ Completed the written Phase 1 Phosphorus Control Plan (PCP), including: *(select the items in the Phase 1 PCP that have been completed)*

- ☐ Planned nonstructural controls
- ☐ Planned structural controls
- ☐ O&M program for structural controls
- ☐ Implementation schedule
- ☐ Cost of implementation

The Phase 1 PCP: (*select one of the following options)*

- ○ is attached to the email submission
- ○ can be found at the following publicly available website:

Below, calculate your current phosphorus export rate by first filling out the individual phosphorus loading components (labeled [A], [B], [C], and [D]) and then computing your current phosphorus export rate using the equation provided.

Baseline phosphorus export reduction required from PCP Area, as identified in Appendix F **(lbs/year) [A]**: *0*

☐ Documented the nonstructural control measures implemented during **this reporting period** and their phosphorus reduction

total phosphorus reduction from all nonstructural controls this reporting period **(lbs/year) [B]**: *0*

- ○ No nonstructural control measures were implemented
- ○ The above referenced nonstructural control measures information is attached to the email submission
- ○ The above referenced nonstructural control measures information can be found at the following publicly available website:

☐ Documented the structural control measures implemented during **this reporting period and all previous years**, including location, phosphorus reduction in mass/year, and date of last completed maintenance and inspection for each control

total phosphorus reduction from all structural controls installed this reporting period and all previous years **(lbs/year) [C]**: *0*

- ○ No structural control measures were implemented
- ○ The structural control measures information is attached to the email submission
- ○ The structural control measures information can be found at the following publicly available website:

Phosphorus load increase due to development incurred since 2005 in **lbs/year [D]**: *0*

Current phosphorus export rate from the PCP Area in **lbs/year [=A-(B+C)+D** from above**]**: *0*

☐ I certify under penalty of law that all source control and treatment Best Management Practices being claimed for phosphorus reduction credit have been inspected, maintained and repaired in accordance with manufacturer or design specification. I certify that, to the best of my knowledge, all Best Management Practices being claimed for a phosphorus reduction credit are performing as originally designed.

☐ All municipally owned and maintained turf grass areas are being managed in accordance with Massachusetts Regulation 331 CMR 31 pertaining to proper use of fertilizers on turf grasses

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:

***NON-TRADITIONAL AND TRANSPORTATION MS4s ONLY**- municipalities please skip this section:*

Describe the planned phosphorus reduction activities on site and coordination progress with the applicable municipality:

Lake and Pond Phosphorus TMDL

☐ Completed the written Lake Phosphorus Control Plan (LPCP), including: *(select the items in the LPCP that have been completed)*

- ☐ Planned nonstructural controls
- ☐ Planned structural controls
- ☐ O&M program for structural controls
- ☐ Implementation schedule
- ☐ Cost of implementation

The LPCP: (*select one of the following options)*

- ○ is attached to the email submission
- ○ can be found at the following publicly available website:

Below, calculate your current phosphorus export rate by first filling out the individual phosphorus loading components (labeled [A], [B], [C], and [D]) and then computing your current phosphorus export rate using the equation provided.

Baseline phosphorus export reduction required from LPCP Area **(lbs/year) [A]**: *0*

☐ Documented the nonstructural control measures implemented during **this reporting period** and their phosphorus reduction

total phosphorus reduction from all nonstructural controls this reporting period **(lbs/year) [B]**: *0*

- ○ No nonstructural control measures were implemented
- ○ The nonstructural control measures information is attached to the email submission
- ○ The nonstructural control measures information can be found at the following publicly available website:

☐ Documented the structural control measures implemented during **this reporting period and all previous years**, including location, phosphorus reduction in weight/year, and date of last completed maintenance and inspection for each control

total phosphorus reduction from all structural controls installed this reporting period and all previous years **(lbs/year) [C]**: *0*

- ○ No structural control measures were implemented
- ○ The structural control measures information is attached to the email submission
- ○ The structural control measures information can be found at the following publicly available website:

Phosphorus load increase due to development incurred since baseline loading was calculated in **lbs/year [D]**: *0*

Current phosphorus export rate from the LPCP Area in **lbs/year [=A-(B+C)+D** from above**]**: *0*

☐ I certify under penalty of law that all source control and treatment Best Management Practices being claimed for phosphorus reduction credit have been inspected, maintained and repaired in accordance with manufacturer or design specification. I certify that, to the best of my knowledge, all Best Management Practices being claimed for a phosphorus reduction credit are performing as originally designed.

☐ All municipally owned and maintained turf grass areas are being managed in accordance with Massachusetts Regulation 331 CMR 31.00 pertaining to proper use of fertilizers on turf grasses

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:

Under the 2018/2020 and 2022 303(d) list, Town River (MA62-13) impairments include Non-native Aquatic Plants, Benthic Macroinvertebrates, and Enterococcus and have been elevated to a category 5.
The list also indicates Taunton River (MA62-02) Phosphorus and Nitrogen are elevated to a category 5 and Phosphorus has been added to the pre-existing Enterococcus and Fecal Coliform.
Impairments to Mount Hope Bay and South Brook remain unchanged. BSU will track the 303(d) list updates and make adjustments to MS4 permit documents as needed to reflect the Final 2022 303(d) list.

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**: 3

*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:*Workshop*

Message Description and Distribution Method:

Workshop targeting stormwater issues and the Stormwater Management Program presented on campus.

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): *April 11, 2023*

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.

BMP:*Webpage*

Message Description and Distribution Method:

Educational information on stormwater issues and management provided on dedicated stormwater webpage on BSU's website. Note: All web content needs to be universally accessible prior to posting. Website will be continually updated with additional content as it becomes finalized.

Targeted Audience: *Faculty, staff, students, and visitors*

Responsible Department/Parties: *EH&S - Patricia Delaney*

Measurable Goal(s):

A webpage visits tracker will be used to assess the overall effectiveness of the educational program.

Message Date(s): *Webpage launched in June 2019 and updated throughout each reporting period*

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 stormwater management, nitrogen, and pathogen-related maintenance practices for stormwater management sent in BSU's Community Announcements to all faculty and staff.

Targeted Audience: *Faculty, Staff, and Students*

Responsible Department/Parties: *EH&S - Patricia Delaney*

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): *6/28/2023 & 6/30/2023*

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. This year, about 1320 students attended.

Targeted Audience: *Visitors*

Responsible Department/Parties: *Watershed Access Lab Faculty*

Measurable Goal(s):

The Watershed Access Lab had 55 visits from middle school/highschool students with a typical class size of 24.

Message Date(s): *July 2022 - June 2023*

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:

This public education outreach opportunity was shared during a Stormwater Committee meeting.

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
CHEM 290 - 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): *BIOL117 offered in Fall 2022 and Spring 2023, GEOG130 offered Summer 2022, Fall 2022, Spring 2023, and Summer 2023, SUST101 offered Fall 2022 and Spring 2023, and CHEM290 offered Spring2023*

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**:

BSU held a public presentation on April 11, 2023. The presentation was held in person on campus and also hosted virtually via zoom. The presentation educated the public on stormwater runoff and how it effects local and regional waterbodies, the purpose of the MS4 permit, and the steps BSU has taken to achieve the permit goals. In addition, the presentation focused on ways the community can get involved through efforts such as earth day cleanup and managing pet waste. There were 12 attendees.

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**:

BSU operations staff spent time stenciling the catch basins with their names for easy identification in the field during inspections and cleaning.

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: *0*

Number of SSOs removed: *0*

MS4 System Mapping

Optional: Provide additional status information regarding your map:

BSU's Stormwater Map is continually updated based on field observations and system changes (either maintenance or new construction). Some subcatchments were reconfigured in Year 5 based on new data and record plans.

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. Please also include the updated inventory and ranking of outfalls/interconnections based on monitoring results.

◉ No outfalls were inspected

○ The above referenced outfall screening data is attached to the email submission

○ The above referenced outfall screening data can be found at the following publicly available website:

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

Number of outfalls screened: *0*

*Below, report on the percent of outfalls/interconnections screened **to date**.*

Percent of outfalls screened: *0*

Optional: Provide additional information regarding your outfall/interconnection screening:

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.

- ○ No catchment investigations were conducted
- ◉ The catchment investigation data is attached to the email submission
- ○ The catchment investigation data can be found at the following publicly available website:

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

Number of catchment investigations completed this reporting period: *43*

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

Percent of total catchments investigated: *43*

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

The SVF were refined based on record info and field observations. Six catchments were determined to require wet weather screening.Wet weather screening is anticipated to occur in Year 6.

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.

- ◉ No illicit discharges were found
- ○ The illicit discharge removal report is attached to the email submission
- ○ The illicit discharge removal report can be found at the following publicly available 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: *0*

Estimated volume of sewage removed: *0* 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: *0*

Total number of illicit discharges removed: *0*

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

BSU evaluated sewer and drain interconnections as part of the design for a sewer repair project internal to Tillinghast. Construction is slated to start fall 2023.

Employee Training

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

An employee training seminar was provided in person through a presentation on April 11, 2023. The entire operations and maintenance crew were in attendance for the seminar, as well as BSU Stormwater Committee members. There were 9 operations and maintenance staff in attendance.

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: *3*

Number of inspections completed: *0*

Number of enforcement actions taken: *0*

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

The projects included:
Downspout disconnections at Maxwell Library and redirection to stone infiltration trench retrofit.
A concrete pad at University Park for an event space.
Hale St Parking Lot redesign and resurfacing.

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

Ordinance or Regulatory Mechanism

Date update was completed (due in year 3): *June 2021 (Revised)*

Website of ordinance or regulatory mechanism: *https://www.bridgew.edu/office/stormwater-management*

As-built Drawings

Below, report on the number of as-built drawings received ***during this reporting period****.*

Number of as-built drawings received: *0*

Optional: Enter any additional information relevant to the submission of as-built drawings:

As-built drawings are required to be submitted at the conclusion of construction projects per the 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. There were no construction projects completed in Year 5; therefore, no as-built drawings were submitted.

Street Design and Parking Lots Report

Below, describe any changes made or planned to be made to local regulations and guidelines based on the report completed in Year 4:

BSU is a non-traditional MS4; per Section 5.1.3. of the Permit non-traditional MS4s do not need to meet the requirements of part 2.3.6., which includes the assessment of local regulations. BSU is subject to the design standards of the Town of Bridgewater for site and stormwater design and continues to coordinate with local officials on MS4 related matters. BSU's Stormwater Policy includes erosion control, low impact development techniques, and stormwater design criteria for campus projects including campus roadways and parking lots.

Green Infrastructure Report

Below, describe progress towards making green infrastructure practices allowable based on the report completed in Year 4:

BSU is a non-traditional MS4; per Section 5.1.3. of the Permit non-traditional MS4s do not need to meet the requirements of part 2.3.6., which includes the assessment of local regulations. BSU is subject to the design standards of the Town of Bridgewater for site and stormwater design and continues to coordinate with local officials on MS4 related matters.
BSU's Stormwater Policy encourages Green Infrastructure and low impact development techniques.

Retrofit Properties Inventory

Below, list remaining permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas (must maintain a minimum of 5 sites in inventory until less than 5 sites remain):

Spring Street parking lot is located off Plymouth Street in the northwest corner of campus and is used for BSU's commuter students. There is currently a wet basin on the northern border of the Spring Street parking lot. To capture and remove more nitrogen from BSU's MS4 system, the wet basin could be converted into a gravel wetland.

Harrington Hall and Woodward Hall are located on the southwest corner of BSU's campus. These buildings border an expansive parking lot for the students, faculty, and staff. The parking lot is also bordered by a wetland at its southwest corner. Bioretention basins are being considered to integrate into the new parking lot layout as islands, slowing down both traffic and stormwater runoff.

Another gravel wetland is being considered on the current Burrill Office Complex site located central to campus off Burrill Ave. The building is slated to be demolished and the offices relocated to another building. Because the site is in a low-lying flat area surrounded by wetlands with poorly draining soils, a gravel wetland is being considered to allow for the natural wetlands to encroach and renew some ecological and hydrologic value in the site.

The Burnell Hall parking lot is located in the northern portion of campus off Hooper Street. This site was chosen for a BMP retrofit opportunity because it has an above average nitrogen loading rate due to its above average imperviousness. In this case, BSU is considering a bioretention basin acting as a landscape island in the center of the parking lot.

Two additional bioretention basins are being considered at Burnell Hall in the parking lot to the north of the building in a separate drainage area. The subsurface soils and groundwater depth are favorable conditions for an effective bioretention basin. These bioretention basins would treat approximately 0.5 acres of impervious area.

Below, list all properties that have been modified or retrofitted with BMPs to mitigate impervious area that were inventoried as part of 2.3.6.d of the permit. Non-MS4 owned properties that have been modified or retrofitted with BMPs to mitigate impervious area may also be listed, but must be indicated as non-MS4.

The Maxwell Library downspouts were redirected to a stormwater retrofit (crushed stone infiltration strip).

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: *188*

Number of catch basins cleaned: *7*

Total volume or mass of material removed from all catch basins: *8* *cubic yards*

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

Total number of catch basins: *188*

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 a catch basin sump was more than 50% full during two consecutive routine inspections, this information was shared with BSU to clean the catch basin and monitor the area to determine the cause of sediment accumulation.

Additional Note - The total number of Catch Basins between year 4 and year 5 differs. One reason for this is that several catch basins were not captured in Year 4, they were added and included in the Year 5 inspections. Catch basins not inspected either could not be located and were removed from the total number of catch basins. The maintenance reporting maps were updated accordingly and will be further updated in Year 6.

Street Sweeping

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

- (●) Number of miles cleaned: *14*
- ( ) Volume of material removed: *[Select Units]*
- ( ) Weight of material removed: *[Select Units]*

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: *2*

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

No corrective actions were necessary.

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 publicly available 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. If any of the above year 5 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:

Catch basin frame and grates in the Shea-Durgan Lot, Operations Lot, on Hooper St, Tinsley Dr, and in the West Lot near the guard shack were repaired and reconstructed on December 6, 2022.
The bioretention basin inlets and riprap sumps in the West Lot were dug out, cleaned and added new rip-rap in the late spring of 2023.
BSU annually reseeds and stabilizes bare patches along walkways to minimize erosion and prevent sediment discharge to the stormwater system.

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 6 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree☑

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 curbed streets at least annually
- Continue investigations of catchments associated with Problem Outfalls
- Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities
- 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
- Review O&M programs for all permittee owned facilities; update if necessary
- Implement all maintenance procedures for permittee owned facilities in accordance with O&M programs
- Implement program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- Enclose all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt
- Review as-built drawings for new and redevelopment to ensure compliance with post construction bylaws, regulations, or regulatory mechanism consistent with permit requirements
- Inspect all permittee owned treatment structures (excluding catch basins)
- Identify additional permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious areas so that the permittee maintains a minimum of 5 sites in their inventory, until such a time when the permittee has less than 5 sites remaining

Provide any additional details on activities planned for permit year 6 below:

Part V: Certification of Small MS4 Annual Report 2023

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: KAREN W. JASON Title: VICE PRESIDENT OPERATIONS

Signature:  Date: 9/25/2023

[Signatory may be a duly authorized representative]