

Year 3 Annual Report
Massachusetts Small MS4 General Permit
Reporting Period: July 1, 2020-June 30, 2021

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, 2020 and June 30, 2021 unless otherwise requested.

Part I: Contact Information

Name of Municipality or Organization:

EPA NPDES Permit Number:

Primary MS4 Program Manager Contact Information

Name: Title:

Street Address Line 1:

Street Address Line 2:

City: State: Zip Code:

Email: Phone Number:

Stormwater Management Program (SWMP) Information

SWMP Location (web address):

Date SWMP was Last Updated:

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 3 Requirements

- Inspected and screened all outfalls/interconnections (excluding Problem and Excluded outfalls)
- Updated outfall/interconnection priority ranking based on the information collected during the dry weather inspections as necessary
- Post-construction bylaw, ordinance, or other regulatory mechanism was updated and adopted consistent with permit requirements

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 3 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:

Progress on requirements, requirements not completed and the reason the requirement could not be completed and actions taken to attempt to complete the requirement is described in each of the applicable sections below.

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 system map due in year 2 as necessary
- 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, 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:

MS4 infrastructure maintenance requirements have been incorporated in to the HAFB Landscape and Ground Maintenance Plan which is implemented in-house by CE operations staff personnel. This plan is updated annually. COVID-19 restrictions in early 2020 delayed some early season maintenance activities.

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:

Hanscom Air Force Base no longer implements a program to provide educational materials relating to pet waste management and existing ordinances due to the fact that on base housing has been privatized and is no longer owned by the USAF. However, as a BMP, Hanscom Air Force Base does provide this information when base housing is leased, at the time of lease signing. This BMP will be revised in permit year 3 to remove this program. Base housing and pets are not included in the MS4. In addition, there are no septic systems on Hanscom Air Force Base.

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)

Potential structural BMPs

- 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.

- The BMP information is attached to the email submission
- The BMP information can be found at the following website:

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:

Public Education and Outreach Messages: Lawn maintenance (grass clipping/leaf material/fertilizer application) within Hanscom Air Force Base is performed by a contractor or in-house personnel. General employees and residents do not perform such duties. Proper disposal of grass and leaf material and proper fertilizer application is required as part of the contract and the in-house operations guidance. No public lawn maintenance is occurring within the Hanscom Air Force Base MS4 boundary; therefore, these portions of the Public Education Program are not applicable.

Good Housekeeping and Pollution Prevention for Permittee Owned Operations: Street Sweeping is performed

of all municipal owned streets and parking lots subject to Permit part 2.3.7.a.iii(c) a minimum of two times per year (spring and fall). Workers also use leaf blowers to clean streets and sidewalks.

Hanscom is currently reviewing as-built information of existing BMPs installed prior to the permit commencement date in order to estimate phosphorus removal. This was not yet completed due to Federal budgeting and funding timelines, but it is anticipated to be completed no later than year 5 of the permit. No new BMPs were installed during the reporting period.

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

Hanscom Air Force Base continues to review, update and implement all BMPs to prevent discharges of pollutants.

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:

Receiving waters and impairments remain unchanged. The outfalls were re-inventoried and ranked in Year 2 of the permit.

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:Recurring Outreach for Various Audiences

Message Description and Distribution Method:

- Attended virtual applicable BMP project kick-off meetings on projects impacting storm water (3).
- In October 2020, completed Industrial Operational Briefings for snow and ice procedures (1).
- A Pet Waste Flier was provided to housing (1)*.
- The Contractors Environmental Guide was updated in April 2021 (1).
- The 66th Civil Engineering Division Facility Manager's Guide was updated 29 July 2020 (1).
- The Storm Water Hot line received no calls during permit year 3 (1).

* In the future, this BMP will be revised due to base housing and pets no longer being a part of the MS4.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

1. Projects impacting storm water such as construction projects are presented at Construction Project Kick-off Meetings where storm water quality issues, permit requirements and inspection reporting are discussed.
2. Each year, at least one Industrial Operational Unit Briefing is hosted for the Industrial facilities (CE Roads and Grounds, CE Operations supervisors, auto Hobby Shop, LRS and Lawn Maintenance. During the briefings, equipment inspections and maintenance, proper storage of materials and management of waste disposal, dumpsters, yard waste and proper storage of salt and de-icing materials are briefed.
3. Every other year, a brochure is provided to all housing area residents regarding handling of pet waste. This information is also handed out to temporary lodging facilities at time of leasing/check-in. Although this was performed during this reporting year, this BMP will be revised due to housing no longer being a part of the MS4, and there are no pets within the MS4.
4. The Contractors Environmental Guide was updated. All contractors receive the guide prior to starting work.
5. The 66th Civil Engineering Division Facility Manager's Guide was updated during this reporting year. This guide is distributed to all facility managers upon appointment and when the guide is updated.
6. The Storm Water Hot line operated during this reporting period to capture any storm Water calls. This Hot line is managed on a 24/7 schedule.

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:

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:**

During the Year 3 Reporting Period (July 1, 2020 - June 30, 2021), public participation involved annual document reviews by the design review team personnel representing each organization. The review for this reporting period was the Storm Water Management Plan (SWMP). The public was notified of the annual review of the SWMP by public notice on the Hanscom Air Force Base public website.

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:**

An annual public hearing was held virtually on 8 Dec 2020 (due to COVID-19) to discuss Hanscom AFB's SWMP, to share the progress made during the previous year, and to solicit public input on Hanscom AFB's SWMP.

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

Optional: Provide additional status information regarding your map:

The system mapping is complete and updated as changes to the system are made.

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

IDDE Dry Weather Outfall screening was performed during this reporting period (July 1, 2020 - June 30, 2021). A total of 33 outfalls and six manholes were screened. The IDDE Report is attached to this submittal.

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

Number of outfalls screened:

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

Percent of outfalls screened:

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

95 percent of all outfalls were screened. Five outfalls along a creek were inaccessible due to overgrowth of vegetation. These outfalls will be evaluated in the late fall to early winter 2021.

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 website:

No catchment investigations were performed during this reporting period. During the IDDE Outfall Screening performed during this reporting period, no evidence of an illicit discharge was found and therefore no problem outfalls were identified.

*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:

Complete investigation of catchments associated with Problem Outfalls (Permit Part 2.3.4.8.a) will be completed within 7 years of the permit or 2025. Investigations of catchments associated with Problem, High- and Low-Priority Outfalls (Permit Part 2.3.4.8.a) will be completed during year 10 of the permit or 2028.

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 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:

IDDE surveys were conducted during this reporting period on August 31 through September 4 2020 and September 14-15, 2020. During the IDDE, no illicit discharges were noted.

Employee Training

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

Training was completed for new employees during this reporting period (July 1, 2020 - June 30, 2021). To comply with this element of the permit, Hanscom Air Force Base implements a newcomers briefing to familiarize and train employees implementing the IDDE program. Training is conducted annually, documented and records are kept by the primary MS4 Program Manager. During the IDDE sampling event the storm water team and the F2F contractor who performed the IDDE were trained ahead of implementation.

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:

A total of 45 construction site plan reviews were conducted including 35, 65, and 100% reviews. Four (4) projects with the potential to affect storm water were completed. No issues were identified.

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

As-built Drawings

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

Number of as-built drawings received:

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

Hanscom Air Force Base maintains a Post Construction Storm water Runoff Control Plan dated May, 2020. This document presents information on the post-construction measures Hanscom Air Force Base will utilize as required by the MS4 permit, including the submittal of as-builts. No redevelopment projects subject to the permit were completed in the reporting period and therefore no applicable as-builts were received during the reporting period. Specific information required for as-builts is included in Appendix H, Page 1 Section 1; Contractor Environmental Guide; Contract Specs Part 2 "General Requirements". Post Construction Storm Water Runoff Control measures are also provided in Section 7.5 of the revised 2020 SWMP.

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:

Hanscom Air Force Base has not yet initiated this evaluation. This will be accomplished in year 4 of the permit term (2022).

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:

Hanscom Air Force Base has not yet initiated this evaluation. This will be accomplished in year 4 of the permit term (2022).

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:

Hanscom Air Force Base has not yet initiated this evaluation. This will be accomplished in year 4 of the permit term (2022).

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:

During this reporting period, no catch basin sumps were observed more than 50% full during two consecutive routine inspections/cleaning events.

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:

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:

During this reporting period (July 1, 2020 - June 30, 2021) 26 site inspections were completed. Nine (9) inspections scheduled for July 2020 were not completed due to COVID-19 lock down/restrictions. One (1) October 2020 inspection was not completed due to closure of the facility (COVID-19).

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:

Hanscom Air Force Base continues to implement the SWMP in compliance with the 2016 MS4 General Permit. Non-structural BMPs are implemented and modified as needed. The SWMP is updated to record any BMP modifications or other changes to the program.

COVID-19 Impacts

Optional: If any of the above year 3 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:

Some Year 3 requirements were not completed due to COVID-19 and are documented in each section above. Requirements that were met prior to COVID-19 are documented in each applicable section above.

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

Yes, I agree

- Develop a report assessing current street design and parking lot guidelines and other local requirements within the municipality that affect the creation of impervious cover
- Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist
- Identify a minimum of 5 permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious areas

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)

Provide any additional details on activities planned for permit year 4 below:


Hanscom Air Force Base will make every effort to address any requirements carried over from year 3 that were delayed due to Federal budgeting process and/or COVID-19.

Part V: Certification of Small MS4 Annual Report 2021

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:	Renata N. Welch, P.E.	Title:	Chief, Environmental Element
-------	-----------------------	--------	------------------------------

Signature:		Date:	09/28/21
------------	---	-------	----------

[Signatory may be a duly authorized representative]

WELCH.RENATA.NA
GRANT.1536276765

Digitally signed by
WELCH.RENATA.NAGRANT.1
536276765
Date: 2021.09.28 11:02:59 -04'00'