

Year 6 Annual Report
Massachusetts Small MS4 General Permit
New Permittees
Reporting Period: July 1, 2023-June 30, 2024

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 publicly accessible

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, 2023 and June 30, 2024 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.

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 6 Requirements

Developed a report assessing current street design and parking lot guidelines and other local
 requirements within the municipality that affect the creation of impervious cover, made it available as part of the SWMP, and:

- No updates were recommended
- Updates were recommended. The anticipated date or date of completion for updates is/was:

Not applicable. See Optional box below for more details.

Developed a report assessing local regulations to determine the feasibility of making green
 infrastructure practices allowable when appropriate site conditions exist, made it available as part of the SWMP, and:

- No updates were recommended
- Updates were recommended. The anticipated date or date of completion for updates is/was:

Not applicable. See Optional box below for more details.

Identified a minimum of 5 permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious cover

- South Parking Garage BMP
- South Road BMP near Medical Building
- S road Detention Basin Retrofit
- Rip Rap Swale Retrofit
- Sand Filter under Volleyball Court
- Daycare/ Cell Phone Lot BMP
- Pine Tree Lot BMP
- Community Garden Cisterns

Rooftop Impervious Cover Disconnection (ICD)
 North Rd x N Lake Ave BMP
 Wildflower Garden and Swale along N Lake Ave

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 MS4s do not need to meet the requirements of part 2.3.6.c. However, the Umass Chan Low Impact Development (LID) fact sheet does include information on green infrastructure and parking lot design in its explanation of what LID is, why it matters, and how it is implemented around campus.

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 the outfall and interconnection inventory and priority ranking as necessary
 - The priority ranking of outfalls/interconnections is attached to the email submission
 - The priority ranking of outfalls/interconnections can be found at the following website:
 See Table 5-1 of the IDDE Plan (appendix to the SWMP) found at the following link:
<https://www.umassmed.edu/sustainability/stormwater-management/>
- Updated system map due in year 5 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
- Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities
- Enclosed all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt
- 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:

UMass Chan does not own any facilities that require a SWPPP.

Road salt storage piles at UMass Chan are enclosed by three walls and a roof. UMass Chan is evaluating our salt usage during winter road maintenance this upcoming winter.

UMass Chan inspected all stormwater treatment structures that could be physically inspected (i.e., there were 2 underground proprietary structures that could not be accessed due to construction but we are planning to inspect them this year).

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:

Public outreach messages related specifically to pet waste are not applicable to UMass Chan Medical school. UMass Chan Medical School does not have the authority to issue dog licenses, and the school has a policy (#02.01.16) prohibiting dogs on the premises.

As a non-traditional MS4, UMass Chan Medical School's target audiences differ slightly from those targeted by traditional (municipal) MS4s. UMass Chan Medical School's public education and outreach messages focus on stormwater pollutants that are most likely to be generated on campus properties (e.g., trash, sediment, fertilizer, leaf litter, and grass clippings). See BMPs 1-2 through 1-6 below which describe UMass Chan's public outreach and education messages.

Lake and Pond Phosphorus TMDL

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 rate from LPCP Area (lbs/year) [A]:	89.1
Total phosphorus reduction from all nonstructural controls this	2.1

reporting period (**lbs/year**) [B]:

Total phosphorus reduction from all structural controls installed this reporting period and all previous years (**lbs/year**) [C]: 7.5

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]: 79.5

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

Implemented all nonstructural control measures **during this reporting period** and documented the measures and their phosphorus reduction. The nonstructural control measure information:

is attached to the email submission

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. The structural control measure information:

is not applicable; no structural control measures were implemented

is attached to the email submission

can be found at the following publicly available website:

The LPCP: *(select one of the following options. If you submitted your LPCP last year and have an updated website, please include the website below)*

was submitted in the Year 5 Annual Report

is attached to the email submission

can be found at the following publicly available website:

UMass Chan Medical School is a new permittee, and therefore the complete written Lake Phosphorus Control Plan (LPCP) will be submitted this permit year (by June 2025).

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:

See attached for a memorandum summarizing the initial components of the UMass Chan Phosphorus Control Plan.

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? 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>

- Yes
- No

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

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**: 4

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:1-2 Web Page

Message Description and Distribution Method:

Maintained stormwater management page located on Growing Green website. The web page includes stormwater pollution prevention tips, links to ThinkBlue Massachusetts videos and educational materials and information about UMass Chan Medical School's stormwater management program.

<https://www.umassd.edu/growinggreen/stormwater-management/>

Targeted Audience: Visitors, students, staff

Responsible Department/Parties: Environmental Health & Safety Office, Sustainability

Measurable Goal(s):

The Stormwater webpage was viewed 227 times and visited 194 times between July 1, 2023 and June 30, 2024. A page view is a count of how many times a page has been viewed on a website or the chosen group within the chosen period of time. All page views are counted no matter how many times a user has visited the website in the chosen period of time. A visit is defined as a series of page requests from the same uniquely identified visitor with a time of no more than 30 minutes between each page request.

Message Date(s): June 2024

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:

NA

BMP:1-3 Growing Green Newsletter

Message Description and Distribution Method:

The May 2024 Growing Green Newsletter contained an image of a raindrop with the caption "It's been a wet spring!" and a link to the Stormwater webpage following the caption "see how we handle all that stormwater on campus."

Targeted Audience: Students, staff, visitors

Responsible Department/Parties: Environmental Health & Safety Office, Sustainability

Measurable Goal(s):

The May Growing Green newsletter was sent to 14,349 email addresses, and the stormwater link was clicked on by 33 unique users.

Message Date(s): May 27, 2024

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:

NA

BMP:1-4 Stormwater Fact Sheet

Message Description and Distribution Method:

Distributed stormwater management "only rain down the drain" fact sheet with QR code to SWMP and stormwater webpage.

Targeted Audience: Students, staff

Responsible Department/Parties: Environmental Health & Safety Office

Measurable Goal(s):

80 "Only rain down the drain" fact sheets distributed at the wellness fair.

Message Date(s): June 2024

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:

NA

BMP:1-5 Contractor Education

Message Description and Distribution Method:

Provided a pamphlet to contractors with each new purchase order to educate them on UMass Chan Medical School's procedures and best practices, including stormwater management.

Targeted Audience: Contractors

Responsible Department/Parties: Facilities Engineering, Facilities Maintenance, Environmental Health & Safet

Measurable Goal(s):

No projects over one acre occurred this past permit year that required the sharing of the pamphlet. The pamphlet for contractors will be reviewed this upcoming year and appropriate dissemination process will be evaluated for improvement.

Message Date(s): June 2024

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:

NA

BMP:1-6 Facility Staff Education

Message Description and Distribution Method:

Provided a training to facility staff on UMass Chan Medical School's stormwater program, specific to good housekeeping and illicit discharges. The training included information on landscaping practices to reduce phosphorus loading, proper materials management, vehicle maintenance, catch basin cleaning, street sweeping, construction requirements for stormwater, and more.

Targeted Audience: Facility staff

Responsible Department/Parties: Facilities Engineering, Facilities Maintenance, Environmental Health & Safet

Measurable Goal(s):

Number of facility staff that completed the O&M and IDDE training module during this reporting period was 55.

Message Date(s): June 2024

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:

NA

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:**

UMass Chan Medical School posted its SWMP online on the Growing Green Stormwater Management webpage to allow for ongoing public review of the SWMP:

<https://www.umassmed.edu/sustainability/stormwater-management/>

The webpage provides an email address (stormwater@umassmed.edu) for the public to submit comments or request more information. No comments were received during this reporting period.

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: 0

Number of SSOs removed: 0

*Below, report on the total number of SSOs identified in the MS4 system and removed to date. At a minimum, report SSOs identified **since the effective date of the permit (July 1, 2018).***

Total number of SSOs identified: 0

Total number of SSOs removed: 0

MS4 System Mapping

Percent of Phase II map complete: 75

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

UMass Chan Medical School's MS4 System Mapping continues to be revised as new construction takes place and as new information becomes available during field investigations and inspections.

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:

There is a bug in this PDF. The first row "No outfalls were inspected" should be the only row checked but it automatically also checks the second row.

*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: 100

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

UMass Chan has no stormwater outfalls but seven outgoing interconnections, all of which connect into City of Worcester infrastructure. All seven interconnections (100%) were screened for dry weather flow during the last reporting period.

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:

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

Number of catchment investigations completed this reporting period: 0

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

Percent of total catchments investigated: 0

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

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: 0

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:

Employee Training

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

Completed during employee annual training with BMP 1-6. 55 facility staff completed the IDDE training module during this reporting period.

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: 0

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:

UMass Chan Medical School requires contractors to perform site inspections in accordance with EPA's Construction General Permit requirements. UMass Chan Medical School requires contractors to adhere to local, state, and federal requirements related to management of construction site stormwater runoff and erosion and sedimentation controls.

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

Ordinance or Regulatory Mechanism

Date ordinance was completed:

May 2021

Website of ordinance or regulatory mechanism:

<https://www.umassmed.edu/sustainability/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 a non-traditional MS4, UMass Chan Medical School has developed a post-construction stormwater management guidance document for contractors in lieu of an ordinance or regulatory mechanism. The guidance document includes the requirement to submit as-built drawings to UMass Chan Medical School. No as-built plans were received during this reporting period.

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: 161

Number of catch basins cleaned: 24

Total volume or weight of material removed from all catch basins: 10 tons

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

Total number of catch basins: 173

If applicable:

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

UMass Chan Medical School uses a GIS-based Catch Basin Inspection Tracking Dashboard to organize its catch basin inspection data. If a catch basin sump is more than 50% full during two consecutive routine inspections, the catch basin is added to a priority list to be inspected on an annual basis. UMass Chan Medical School inspected all accessible catch basins in Permit Year 6 as part of a 3-year routine inspection cycle. There were 24 catch basins that were more than 50% full and were cleaned.

Street Sweeping

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

- Number of miles cleaned: 10
- Volume of material removed: 400 cubic feet
- 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: 0

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

Not applicable. UMass Chan Medical School does not own any facilities that require a SWPPP.

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:

Not applicable.

Additional Information

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.

Not applicable

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 7 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
- Continue public education and outreach program
- Update inventory of all known locations where SSOs have discharged to the MS4
- Sweep all curbed roadways at least once within the reporting period
- Annual training to employees involved in IDDE program
- Clean catch basins in accordance with catch basin cleaning procedures to ensure that no catch basin is greater than 50% full
- Review site plans of construction sites as part of the construction stormwater runoff control program
- Conduct site inspections of construction sites as necessary
- Inspect and maintain stormwater treatment structures
- Log catch basins cleaned or inspected
- Sweep all curbed streets at least annually

- Implement 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
- Enclose all road salt storage piles or facilities and implement 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

Provide any additional details on activities planned for permit year 7 below:

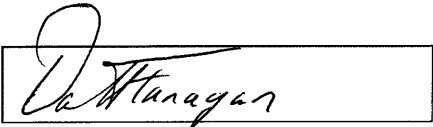
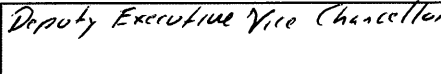
UMass Chan Medical School will continue to advance the Phosphorous Control Plan, which is due in Permit Year 7 (June 2025).


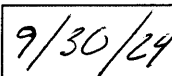
UMass Chan Medical School will review and update the O&M guide and confirm that all relevant departments are implementing best practice procedures.

Part VI: Certification of Small MS4 Annual Report 2024

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:  Title: 

Signature:  Date: 

[Signatory may be a duly authorized representative]