

MS4 General Permit
University of Connecticut [2018] Annual Report
New MS4 Permittee
Permit Number GSM 201703408
[January 1, 2019 – December 31, 2019]

This report documents the University of Connecticut’s (UConn) efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2019 to December 31, 2019.

Part I: Summary of Minimum Control Measure Activities

1. Public Education and Outreach (Section 6 (a)(1) / page 19)

1.1 BMP Summary

| BMP | Status | Activities in current reporting period | Measurable goal | Department / Person Responsible | Due | Date completed or projected completion date | Additional details |
|--|---------------|--|---|---|-------------|---|--------------------|
| 1-1 Implement public education and outreach | On – going | UConn OEP website now includes a stormwater page with references such as EPA and DEEP educational information. UConn also provided a Stormwater MS4 introduction training for UConn staff. | Educate staff and personnel on common stormwater topics | Environmental Health and Safety (EHS) Enviro-team | Jul 1, 2019 | July 2019 | |
| 1-2 Address education/ outreach for pollutants of concern* | Same as above | | | | | | |
| | | | | | | | |

1.2 Describe any Public Education and Outreach activities planned for the next year, if applicable.

UConn will continue to keep the stormwater website updated with relevant information and provide annual stormwater training to staff/personnel.

1.3 Details of activities implemented to educate the community on stormwater

| Program Element/Activity | Audience (and number of people reached) | Topic(s) covered | Pollutant of Concern addressed (if applicable) | Responsible dept. or partner org. |
|----------------------------------|--|---|--|-----------------------------------|
| Stormwater Introduction Training | Staff/Faculty from the following departments: Facilities and Building Services, Marine Science Department, and Dining Services | General stormwater general permit information | | EHS |
| | | | | |

2. Public Involvement/Participation (Section 6(a)(2) / page 21)

2.1 BMP Summary

| BMP | Status | Activities in current reporting period | Measurable goal | Department / Person Responsible | Due | Date completed or projected completion date | Additional details |
|---|----------|--|--------------------------------------|---------------------------------|--------------|---|--------------------|
| 2-1 Comply with public notice requirements for the Stormwater Management Plan | Complete | | Posted to the EHS stormwater website | EHS | Apr 3, 2017 | April 2017 | |
| 2-2 Comply with public notice requirements for Annual Reports | Complete | | Posted to the EHS stormwater website | EHS | Feb 15, 2019 | February 2019 | |
| | | | | | | | |

2.2 Describe any Public Involvement/Participation activities planned for the next year, if applicable.

2.3 Public Involvement/Participation reporting metrics

| Metrics | Implemented | Date | Posted |
|--|-------------|-------------------|--|
| Availability of the Stormwater Management Plan announced to public | Yes | April 3, 2017 | Office of Environmental Policy, 31 Ledoyt Road, Storrs, CT 06269 / https://envpolicy.uconn.edu/stormwater-compliance/ |
| Availability of Annual Report announced to public | Yes | February 15, 2019 | Office of Environmental Policy, 31 Ledoyt Road, Storrs, CT 06269 / https://envpolicy.uconn.edu/stormwater-compliance/ |

3. Illicit Discharge Detection and Elimination (Section 6(a)(3) and Appendix B / page 22)

3.1 BMP Summary

| BMP | Status | Activities in current reporting period | Measurable goal | Department / Person Responsible | Due | Date completed or projected completion date | Additional details |
|--|-----------|---|-------------------------------|---------------------------------|-------------|---|--------------------|
| 3-1 Develop written IDDE program | Completed | UConn EHS-Enviro staff have developed a written IDDE program. | Written IDDE plan | OEP/NEMO/CLEAR | Jul 1, 2019 | January 2020 | |
| 3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas | Complete | Develop a list and map of stormwater outfalls for priority areas on campus. | Develop a list and map | OEP/NEMO/CLEAR | Jul 1, 2020 | February 2020 | |
| 3-3 Implement citizen reporting program | Complete | Contact information for citizen reporting can be found on the OEP stormwater website. | ENH-Enviro Stormwater website | OEP/NEMO/CLEAR | Jul 1, 2017 | July 2017 | |

| | | | | | | | |
|--|-------------|--|---------------------|-----------------------|---------------|-----------|--|
| 3-4 Establish legal authority to prohibit illicit discharges | N/A | N/A | N/A | N/A | Jul 1, 2019 | N/A | |
| 3-5 Develop record keeping system for IDDE tracking | Complete | IDDE tracking will be recorded as the program develops in a spreadsheet or form | Spreadsheet or form | EHS-Enviro/NEMO/CLEAR | Jul 1, 2017 | July 2017 | |
| 3-6 Address IDDE in areas with pollutants of concern | Not Started | UConn will need to develop a written IDDE program which will address any areas with pollutants of concern using the CT IDDE program template. IDDE tracking will be recorded in a spreadsheet or form. | Written IDDE plan | EHS-Enviro/NEMO/CLEAR | Not specified | | |

3.2 Describe any IDDE activities planned for the next year, if applicable.

UConn will continue to develop the list of maps for MS4 stormwater outfalls and potentially will start to develop a written IDDE program and plan using the CT IDDE template.

3.3 List of citizen reports of suspected illicit discharges received during this reporting period.

| Date of Report | Location / suspected source | Response taken |
|-----------------|-----------------------------|----------------|
| Not applicable. | | |
| | | |

3.4 Provide a record of illicit discharges occurring during the reporting period and SSOs occurring July 2012 through end of reporting period using the following table.

| Location (Lat long/ street crossing /address and receiving water) | Date and duration of occurrence | Discharge to MS4 or surface water | Estimated volume discharged | Known or suspected cause / Responsible party | Corrective measures planned and completed (include dates) | Sampling data (if applicable) |
|--|---------------------------------|-----------------------------------|-----------------------------|--|---|-------------------------------|
| Not applicable. | | | | | | |
| | | | | | | |

3.5 Briefly describe the method used to track illicit discharge reports, responses to those reports, and who was responsible for tracking this information.

Any IDDE reports and responses to those reports will be tracked by EHS and/or NEMO/CLEAR. Contact information for reporting illicit discharges can be found on the OEP stormwater website.

3.6 Provide a summary of actions taken to address septic failures using the table below.

| Location and nature of structure with failing septic systems | Actions taken to respond to and address the failures | Impacted waterbody or watershed, if known |
|--|--|---|
| Not applicable. | | |
| | | |
| | | |

3.7 IDDE reporting metrics

| Metrics | |
|---------|--|
| | |

| | |
|--|---------|
| Estimated or actual number of MS4 outfalls | 5 |
| Estimated or actual number of interconnections | # |
| Outfall mapping complete | 100 % |
| Interconnection mapping complete | 100 (%) |
| System-wide mapping complete (detailed MS4 infrastructure) | 100 (%) |
| Outfall assessment and priority ranking | 100 (%) |
| Dry weather screening of all High and Low priority outfalls complete | # |
| Catchment investigations complete | # |
| Estimated percentage of MS4 catchment area investigated | 100% |

3.8 Briefly describe the IDDE training for employees involved in carrying out IDDE tasks including what type of training is provided and how often is it given (minimum once per year).

EHS-Enviro with assistance from NEMO/CLEAR will be responsible for IDDE tasks. Any relevant information regarding IDDE will be provided during annual stormwater training to additional UConn staff/personnel.

4. Construction Site Runoff Control (Section 6(a)(4) / page 25)

4.1 BMP Summary

| BMP | Status | Activities in current reporting period | Measurable goal | Department / Person Responsible | Due | Date completed or projected completion date | Additional details |
|--|----------|---|-----------------------------------|---|-------------|---|--------------------|
| 4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit | Complete | Included in the University Contractor EHS Manual, University Division One Contract and University Design Standard document. | Included in University documents. | University Planning, Design & Construction (UPDC)/ Environmental Health & Safety (EHS)/ OEP | Jul 1, 2020 | February 2017; September 2016 | |
| 4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval | Complete | Included in the University Contractor EHS Manual, University Division One Contract and University Design Standard document. | Included in University documents. | University Planning, Design & Construction (UPDC)/ Environmental Health & Safety (EHS) | Jul 1, 2017 | February 2017; September 2016 | |
| 4-3 Review site plans for stormwater quality concerns | Complete | Included in the University Contractor EHS Manual, University Division One Contract and University Design Standard document. | Included in University documents. | University Planning, Design & Construction (UPDC)/ Environmental Health & Safety (EHS) | Jul 1, 2017 | February 2017; September 2016 | |
| 4-4 Conduct site inspections | Complete | Included in the University Contractor EHS Manual, University Division One Contract and University Design Standard document. | Included in University documents. | UConn personnel and/or designee | Jul 1, 2017 | February 2017; September 2016 | |
| 4-5 Implement procedure to allow public comment on site development | Complete | OEP stormwater website page with contact information for the public to comment on site development. | Website | OEP | Jul 1, 2017 | July 2017 | |
| 4-6 Implement procedure to notify developers about DEEP construction stormwater permit | Complete | Included in the University Contractor EHS Manual, University Division One Contract and University Design Standard document. | Included in University documents. | University Planning, Design & Construction (UPDC)/ Environmental Health & Safety (EHS) | Jul 1, 2017 | February 2017; September 2016 | |

4.2 Describe any Construction Site Runoff Control activities planned for the next year, if applicable.

UConn will continue to implement procedures noted above related to the construction site run off.

5. Post-construction Stormwater Management (Section 6(a)(5) / page 27)

5.1 BMP Summary

| BMP | Status | Activities in current reporting period | Measurable goal | Department / Person Responsible | Due | Date completed or projected completion date | Additional details |
|--|-------------|--|-----------------------------------|----------------------------------|-------------|---|--------------------|
| 5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning | Complete | Included in the University LEED Gold Policy, TMDL and the DEEP/UConn MOU | Included in University documents. | OEP/UPDC/FOBS/NEMO/CLEAR | Jul 1, 2022 | June 2016; December 2014 | |
| 5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects | Complete | Included in the University LEED Gold Policy, TMDL and the DEEP/UConn MOU | Included in University documents. | EHS- Enviro/UPDC/FOBS/NEMO/CLEAR | Jul 1, 2022 | June 2016; December 2014 | |
| 5-3 Identify retention and detention ponds in priority areas | Complete | | | | Jul 1, 2020 | February 2020 | |
| 5-4 Implement long-term maintenance plan for stormwater basins and treatment structures | Not started | | | | Jul 1, 2020 | Anticipate completing by the deadline of July 2020. | |
| 5-5 DCIA mapping | In progress | | | | Jul 1, 2020 | Anticipate completing by the deadline of July 2020. | |

| | | | | | | | |
|--|--|--|--|--|---------------|--|--|
| 5-6 Address post-construction issues in areas with pollutants of concern | | | | | Not specified | | |
|--|--|--|--|--|---------------|--|--|

5.2 Describe any Post-Construction Stormwater Management activities planned for the next year, if applicable.

UConn will continue the DCIA mapping with assistance from NEMO/CLEAR.

5.3 Post-Construction Stormwater Management reporting metrics

| Metrics | |
|---|----------------------------------|
| Baseline (2012) Directly Connected Impervious Area (DCIA) | acres |
| DCIA disconnected (redevelopment plus retrofits) | acres this year / acres total |
| Retrofits completed | #0 |
| DCIA disconnected | % this year / % total since 2012 |
| Estimated cost of retrofits | \$ |
| Detention or retention ponds identified | None |

5.4 Briefly describe the method to be used to determine baseline DCIA.

6. Pollution Prevention/Good Housekeeping (Section 6(a)(6) / page 31)

6.1 BMP Summary

| BMP | Status | Activities in current reporting period | Measurable goal | Department / Person Responsible | Due | Date completed or projected completion date | Additional details |
|-----|--------|--|-----------------|---------------------------------|-----|---|--------------------|
|-----|--------|--|-----------------|---------------------------------|-----|---|--------------------|

| | | | | | | | |
|---|-------------|--|------------------|--------------------------|---------------|---|---|
| 6-1 Develop/implement formal employee training program | In progress | Initial general awareness stormwater training conducted this year. | Initial training | EHS-Environ, FOBS | Jul 1, 2019 | July 2019 | Continue to develop the training program. |
| 6-2 Implement MS4 property and operations maintenance | In progress | | | EHS/FOBS/NEMO/CLEAR | Jul 1, 2018 | Anticipate completing by July 2020. | |
| 6-3 Implement coordination with interconnected MS4s | Complete | | Not applicable | EHS | Not specified | July 2017 | |
| 6-4 Develop/implement program to control other sources of pollutants to the MS4 | Not Started | | | EHS/FOBS/NEMO/CLEAR | Not specified | | |
| 6-5 Evaluate additional measures for discharges to impaired waters* | Not Started | | | EHS/FOBS/NEMO/CLEAR | Not specified | | |
| 6-6 Track projects that disconnect DCIA | Complete | NEMO/CLEAR has tracked projects that disconnect DCIA | Spreadsheet | NEMO/CLEAR | Jul 1, 2017 | July 2017 | |
| 6-7 Implement infrastructure repair/rehab program | Not Started | | | EHS/FOBS/UPDC/NEMO/CLEAR | Jul 1, 2021 | Anticipate completing by the deadline of July 2021. | |
| 6-8 Develop/implement plan to identify/prioritize retrofit projects | Not Started | | | EHS/FOBS/NEMO/CLEAR | Jul 1, 2020 | Anticipate completing by the deadline of July 2020. | |

| | | | | | | | |
|--|-------------|--|-------------|---------------------|-------------|---|--|
| 6-9 Implement retrofit projects to disconnect 2% of DCIA | In progress | NEMO/CLEAR will assist with tracking projects that disconnect DCIA | Spreadsheet | NEMO/CLEAR | Jul 1, 2022 | Anticipate completing by the deadline of July 2022. | |
| 6-10 Develop/implement street sweeping program | Complete | UConn has a contractor sweep the campus, as needed. | Contract | EHS/FOBS/NEMO/CLEAR | Jul 1, 2018 | July 2018. | |
| 6-11 Develop/implement catch basin cleaning program | Complete | UConn has a contractor clean out every catch basin on campus annually. | Contract | EHS/FOBS/NEMO/CLEAR | Jul 1, 2020 | July 2018 | |
| 6-12 Develop/implement snow management practices | Complete | UConn has a contractor for snow management practices | Contract | EHS/FOBS/NEMO/CLEAR | Jul 1, 2018 | July 2018 | |

6.2 Describe any Pollution Prevention/Good Housekeeping activities planned for the next year, if applicable.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

| Metrics | |
|--|--------------|
| Employee training provided for key staff | None |
| Street sweeping | |
| Curb miles swept | Appx 6 miles |

| | |
|---|--|
| Volume (or mass) of material collected | unknown lbs or tons |
| Catch basin cleaning | |
| Total catch basins in priority areas | 65 |
| Total catch basins in MS4 | 65 |
| Catch basins inspected | 0 |
| Catch basins cleaned | 0 (100% were inspected and none needed to be cleaned) |
| Volume (or mass) of material removed from all catch basins | |
| Volume removed from catch basins to impaired waters (if known) | 0 |
| Snow management | |
| Type(s) of deicing material used | Calcium chloride/lignin (organic tree extract) |
| Total amount of each deicing material applied | Appx 26 tons |
| Type(s) of deicing equipment used | Snow plows |
| Lane-miles treated | Entire campus include parking lots, sidewalks and streets. |
| Snow disposal location | None |
| Staff training provided on application methods & equipment | Not applicable. |
| Municipal turf management program actions (for permittee properties in basins with N/P impairments) | |
| Reduction in application of fertilizers (since start of permit) | lbs or % |
| Reduction in turf area (since start of permit) | acres |
| Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems) | |
| Cost of mitigation actions/retrofits | \$ |

6.4 Catch basin cleaning program

Briefly describe the method used to optimize your catch basin inspection and cleaning schedule. [\[Complete this section for the 2017 Annual Report only\]](#)

The UConn Avery Point campus has a contractor that cleans out all catch basins on campus as needed, typically conducted annually.

6.5 Retrofit program

Briefly describe the Retrofit Program identification and prioritization process, the projects selected for implementation, the rationale for the selection of those projects and the total DCIA to be disconnected upon completion of each project. [Provide information if available in 2017 report. Section to be completed for the 2019 Annual Report.]

As development or redevelopment occurs on campus, opportunities to disconnect impervious areas and install green stormwater practices will be explored. When funding allows, we will actively seek out areas to retrofit with green stormwater practices.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection in future years. [Provide information if available in 2017 report. Section to be completed for the 2019 Annual Report.]

We will continue to explore retrofit opportunities through the remainder of this permit term.

Describe plans for continuing the Retrofit program beyond this permit term with the goal to disconnect 1% DCIA annually over the next 5 years. [Provide information if available in 2017 report. Section to be completed for the 2019 Annual Report.]

Not available.

Part II: Impaired waters investigation and monitoring [This section required beginning with 2019 Annual Report]

1. Impaired waters investigation and monitoring program

1.1 Indicate which stormwater pollutant(s) of concern occur(s) in your municipality or institution. This data is available on the MS4 map viewer: <http://s.uconn.edu/ctms4map>.

Nitrogen/ Phosphorus Bacteria Mercury Other Pollutant of Concern

1.2 Describe program status

| |
|---|
| Discuss 1) the status of monitoring work completed, 2) a summary of the results and any notable findings, and 3) any changes to the Stormwater Management Plan based on monitoring results. |
| |

2. Screening data for outfalls to impaired waterbodies (Section 6(i)(1) / page 41)

2.1 Screening data collected under 2017 permit

Complete the table below for any outfalls screened during the reporting period. Each Annual Report will add on to the previous year’s screening data showing a cumulative list of outfall screening data.

| Outfall ID | Sample date | Parameter (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern) | Results | Name of Laboratory (if used) | Follow-up required? |
|------------|-------------|---|---------|------------------------------|---------------------|
| | | | | | |
| | | | | | |

3. Follow-up investigations (Section 6(i)(1)(D) / page 43)

Provide the following information for outfalls exceeding the pollutant threshold.

| Outfall | Status of drainage area investigation | Control measure implementation to address impairment |
|---------|---------------------------------------|--|
| | | |
| | | |

4. Prioritized outfall monitoring (Section 6(i)(1)(D) / page 43)

Once outfall screening has been completed for at least 50% of outfalls to impaired waters, identify 6 of the highest contributors of any pollutants of concern. Begin monitoring these outfalls on an annual basis by July 1, 2021.

| Outfall | Sample Date | Parameter(s) | Results | Name of Laboratory (if used) |
|---------|-------------|--------------|---------|------------------------------|
| | | | | |
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| | | | | |

Part III: Additional IDDE Program Data [This section required beginning with 2019 Annual Report]

1. Assessment and Priority Ranking of Catchments data (Appendix B (A)(7)(c) / page 5)

Provide a list of all catchments with ranking results (DEEP basins may be used instead of manual catchment delineations).

| 1. Catchment ID (DEEP Basin ID) | 2. Category | 3. Rank |
|---------------------------------|-------------|---------|
| | | |
| | | |

2. Outfall and Interconnection Screening and Sampling data (Appendix B (A)(7)(d) / page 7)

2.1 Dry weather screening and sampling data from outfalls and interconnections

Provide sample data for outfalls where flow is observed. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies.

| Outfall / Interconnection ID | Screening / sample date | Ammonia | Chlorine | Conductivity | Salinity | E. coli or enterococcus | Surfactants | Water Temp | Pollutant of concern | If required, follow-up actions taken |
|------------------------------|-------------------------|---------|----------|--------------|----------|-------------------------|-------------|------------|----------------------|--------------------------------------|
| | | | | | | | | | | |
| | | | | | | | | | | |

2.2 Wet weather sample and inspection data

Provide sample data for outfalls and key junction manholes of any catchment area with at least one System Vulnerability Factor.

| Outfall / Interconnection ID | Sample date | Ammonia | Chlorine | Conductivity | Salinity | E. coli or Enterococcus | Surfactants | Water Temp | Pollutant of concern |
|------------------------------|-------------|---------|----------|--------------|----------|-------------------------|-------------|------------|----------------------|
| | | | | | | | | | |
| | | | | | | | | | |

3. Catchment Investigation data (Appendix B (A)(7)(e) / page 9)

3.1 System Vulnerability Factor Summary

For those catchments being investigated for illicit discharges (i.e. categorized as high priority, low priority, or problem) document the presence or absence of System Vulnerability Factors (SVF). If present, report which SVF's were identified. An example is provided below.

| Outfall ID | Receiving Water | System Vulnerability Factors |
|------------|-----------------|------------------------------|
| | | |
| | | |

Where SVFs are:

- History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages.
- Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs.
- Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints.
- Common or twin-invert manholes serving storm and sanitary sewer alignments.
- Common trench construction serving both storm and sanitary sewer alignments.
- Crossings of storm and sanitary sewer alignments.
- Sanitary sewer alignments known or suspected to have been constructed with an underdrain system;
- Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations.
- Areas formerly served by combined sewer systems.
- Any sanitary sewer and storm drain infrastructure greater than 40 years old in medium and densely developed areas.

11. Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather than poor owner maintenance).
12. History of multiple local health department or sanitarian actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather than poor owner maintenance).

3.2 Key junction manhole dry weather screening and sampling data

| Key Junction Manhole ID | Screening / Sample date | Visual/ olfactory evidence of illicit discharge | Ammonia | Chlorine | Surfactants |
|-------------------------|-------------------------|---|---------|----------|-------------|
| | | | | | |
| | | | | | |

3.3 Wet weather investigation outfall sampling data

| Outfall ID | Sample date | Ammonia | Chlorine | Surfactants |
|------------|-------------|---------|----------|-------------|
| | | | | |
| | | | | |

3.4 Data for each illicit discharge source confirmed through the catchment investigation procedure

| Discharge location | Source location | Discharge description | Method of discovery | Date of discovery | Date of elimination | Mitigation or enforcement action | Estimated volume of flow removed |
|--------------------|-----------------|-----------------------|---------------------|-------------------|---------------------|----------------------------------|----------------------------------|
| | | | | | | | |
| | | | | | | | |

Part IV: Certification

“I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute.”

| Chief Elected Official or Principal Executive Officer | Document Prepared by |
|---|------------------------------|
| Print name: Terri Dominguez | Print name: Michael Dietz |
| Signature / Date: | Signature / Date: |