

MS4 General Permit
Naval Submarine Base New London
2017 Annual Report
New MS4 Permittee
Permit Number GSM 000117
July 1, 2017 – December 31, 2017

This report documents Naval Submarine Base (SUBASE) New London's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from July 1, 2017 to December 31, 2017.

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	Ongoing	<ul style="list-style-type: none"> Published SWMP, published article in the "Dolphin" (base newspaper) and notification in base "Plan of the Week" introducing base personnel to the MS4 permit and program, posted SWMP and POC number on public-accessible website: (http://www.cnric.navy.mil/Regions/cnrma/installations/Navsubase_new_london/om/Environmental_support.htm) Established pet waste bag area on base "perimeter road," typically used for walking/running, etc. Established on-line training resources for base personnel via Navy Environmental Compliance Assessment Training and Tracking System (ECATTS) website. 	<ul style="list-style-type: none"> Notices posted Training resources made available 	Environmental Division (EV) / Chris Koproski	Jul 1, 2019	1 Jul 2019	N/A

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
1-2 Address education/ outreach for pollutants of concern	Ongoing	<ul style="list-style-type: none"> Published a listing of Stormwater pollutants of concern in the SWMP. Current ECATS training modules address both Basic and Comprehensive Stormwater issues. Additional existing training modules cover Spill Prevention and Fuel/Oil storage, transfer and disposal. Installed "Do Not Feed Geese" sign at athletic fields. 	Number of personnel who successfully complete ECATS Stormwater training modules	Environmental Division (EV)	Jul 1, 2019	1 Jul 2019	N/A

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

SUBASENLON will make available department specific training for base employees without ready computer access in their daily functions, especially Public Works Utilities and Transportation employees.

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.
SWMP Notice and Publication	Base-wide / ~12,000	MS4 requirements	Bacteria, sediment, trash, metals, O&G, nutrients, herbicides/pesticides	EV
Dolphin article	Base-wide / ~12,000	MS4 overview, focused on "Housekeeping"	N/A	EV
ECATS Training modules	Key personnel / 20	Catch basins, Basic MS4 and Stormwater information	Bacteria, sediment, trash, metals, O&G, nutrients, herbicides/pesticides	EV
Do not feed birds sign (Athletic fields)	Athletic field users / 500	N/A	Bacteria	Morale, Welfare and Recreation Department

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	N/A	Plan posted to base website.	EV/Chris Koproski	Apr 3, 2017	1 Apr 2017	Site information forwarded to CTDEEP
2-2 Comply with public notice requirements for Annual Reports	Complete	Annual Report developed and posted to base website	Public notice provided via base command web site and social media accounts.	EV/Chris Koproski	Feb 15, 2018	14 Feb 2018	N/A

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

Development of Annual Report for Permit Year 2018.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan announced to public	Yes	3 Apr 2017	http://www.cnrc.ny.gov/regions/cnrcma/installations/nausubase_new_londn/om/environmental_support.html
Availability of Annual Report announced to public	Complete	14 Feb 2018	http://www.cnrc.ny.gov/regions/cnrcma/installations/nausubase_new_londn/

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	Complete	Completed SWMP	Completed plan	Environmental/Chris Koproski	Jul 1, 2019	9 Mar 2017	N/A
3-2 Develop list and maps of all MSA stormwater outfalls in priority areas	Complete	Completed Outfall/Interconnect Inventory	Number of outfalls / interconnects	Environmental/Chris Koproski	Jul 1, 2020	16 May 2017	Additions and modifications will be incorporated as necessary.
3-3 Implement citizen reporting program	Complete	Established reporting method	24/7 positive contact available	Environmental/Chris Koproski	Jul 1, 2017	1 Jul 2017	Utilized established 24-hr Environmental Duty Officer hotline. Also provided Stormwater Program Manager line in SWMP.
3-4 Establish legal authority to prohibit illicit discharges	Complete	Incorporated prohibition in base Environmental Instruction	Signed base Instruction, 5090.7B	Environmental/Chris Koproski	Jul 1, 2019	8 Aug 2017	Authority to implement and administer the IDDE Program formalized by updated SUBASENLON Environmental Protection Instructions (SUBASENLONINST 5090.7B)
3-5 Develop record keeping system for IDDE tracking	Complete	Developed tracking spreadsheet tool	N/A	Environmental/Chris Koproski	Jul 1, 2017	16 May 2017	IDDE Program Progress Spreadsheet Tracking tool
3-6 Address IDDE in areas with pollutants of concern	Ongoing				Not specified		Bacteria

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
3-7 Assess and Priority Rank Catchments	Complete	Completed Assessment and Priority Ranking of Catchments	Number of Catchments Assessed and Ranked	Environmental/Chris Koproski	Jul 1, 2019	16 May 2017	Bacteria

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

Catchment Investigations will commence this year (calendar year 2018).

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

Date of Report	Location / suspected source	Response taken
N/A		

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 MSD or surface water	Estimated volume discharged (Gallons)	Known or suspected cause / Responsible party	Corrective measures planned and completed (include dates)	Sampling data (if applicable)
Illicit discharges						
Alpha pier at marina, NW fingers	8/23/2017	Surface water	2.5	Blige pump pushed product into water when a fuel separator on the	Shut off valve, used booms and burn-off 8/23/17.	N/A

Pier 33 (Alpha pier)	9/11/2017	Surface water	5	small Honda engine leaked. / Security	Natural burn off for whatever can't be collected at Alpha pier, asked them to relocate storage locker, completed 11 Sept 2017.	N/A
USS California	9/26/2017	Surface water	.5	Hydraulic oil leak/spill from torpedo tube/starboard plane area--no drop in ship pressure systems, probably a residual leak from past maintenance. / Submarine	Diver inspected fitment, no drop in ship pressure, determined to be a residual leak from prior maintenance, contained by booms, port ops placed pads, cleanup completed by 26 Sept 17.	N/A
Marina pier whiskey boat area	10/21/2017	Surface water	.25	SF member dropped a quart of motor oil in river while on Whiskey boat. / Security	Booms/pads, reminded them of no activities in water, clean-up completed 21 Oct 2017.	N/A
SSO Section						
Pier 8 and 10 / Thames River	8/21/12	WATER	1800	Leak from Sewer main along quay wall / NAVFAC	Booms in place. PW UEM repaired pipe. There's a proposed FY21 project to replace sewer piping on Pier 8. Pier 10 will be demolished under the Pier 32 Milcon.	N/A
Amberjack Rd near B175	9/28/2012	PAVEMENT	5	NSSF employees in area noted strong sewage odor and saw water seep past sanitary manhole cover in street and onto roadway. / UEM	Pump at lift station was not on, crews reactivated the pump, asked them to increase inspection frequency. PW UEM performs weekly inspection and PM on all sewer pumping stations.	N/A
Quaywall between Piers 12 and 15	1/10/2013	WATER	100	Clamp that wraps around exterior sewer pipe broke free causing	PW UEM repaired pipe the following morning. PW UEM also checked the entire length of sanitary pipe that runs along quaywall above the water line to make sure it is secure. There's a proposed	N/A

				sections of pipe to disconnect. Sewage flowing in pipe spilled directly into the river at the point where the pipe disconnected. / UEM	FY21 project to replace sewer piping on Piers 12 and 15.	
PIER 12 NORTH NEAR QUAY WALL	6/30/2014	WATER	75	BROKEN SEWAGE LATERAL UNDER PIER 12 NORTH WAS DISCOVERED LEAKING DURING SEWAGE PUMP DOWN OPERATION TO PIER RISER. BETWEEN 50-100 GALLONS OF SEWAGE ESTIMATED TO BE RELEASED TO THAMES RIVER.	Shut down pump, emplaced alternate pump route 6/30/2014. PW UEM repaired pipe. There's a proposed FY21 project to replace sewer piping on Pier 12.	N/A
Pier 10 North	1/20/2015	PAVEMENT	5	Boat crew standing on top of hull opposite pier saw sewage dripping from under pier just after boat pumped their CHT tanks.	Told PW NLON UEM to investigate ways to ensure pipe inspections are routinely done. PW UEM repaired pipe. Pier 10 will be demolished under the Pier 32 Milcon. PW UEM performs monthly inspection on all Piers.	N/A
B33 Southwest Corner	5/5/2015	PAVEMENT	2	Electrical switch malfunction causing sewage overflow at lift station.	PW UEM repaired B33 sewage lift station.	N/A
Roadway in front of B175 and opposite Pier 33	12/1/2015	WATER	10	Sewage seen by NSSF FSG personnel in B175 overflowing into street from manhole.	PW UEM investigating potential mechanical problem at B175 sewage lift station. If necessary, repairs must be made. PW UEM repaired B175 sewage lift station.	N/A
Sewer Lift Station opposite pier 31	3/22/2016	PAVEMENT	50	USS San Juan saw sewage rise onto pavement opposite pier head & road where lift station is located. Strong odor, definite solids	Recommend Utilities institute a PM program if one doesn't exist yet for these stations. PW UEM performs weekly inspection and PM on all sewer pumping stations.	N/A

				collecting around lift station grate with water puddling up surrounding area.		
Sewage lift station opposite Pier 31	8/20/2017	WATER	100	PWDO and CDO reported that PW UEM saw that there was grease buildup in lift station which could have damaged pump operation. UEM manually started pump to get levels down and to make any necessary repairs & adjustments.	Tell boats to make sure they dispose of galley grease via pier dumpsters, not sewer system.	N/A
Underground pipe at 575	12/1/2017	PIER	Unknown	BUMED inspection found a cracked underground pipe when surveying for annual inspection	Contract awarded. Pipe to be relined.	N/A

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

The majority of illicit discharges onboard SUBASE are the result of spills and releases. All releases are tracked via an in-house database. Illicit discharges identified during inspections or investigations are tracked via the base Environmental Management System database. The base Environmental Department is responsible for tracking this information. All illicit discharges and SSOs were previously reported to CTDEEP in accordance with CTDEEP spill reporting requirements.

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
N/A – No active septic systems aboard SUBASENLON		

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	43
Estimated or actual number of interconnections	13
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	100%
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	0%
Number of catchment areas assessed and ranked	61

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).

SUBASENLON has current Stormwater and Spill Response training modules on the Navy ECATS training website available to the entire community. Dedicated/consolidated IDDE modules are scheduled to be completed this year (2018), with content covering the Purpose and Scope of the IDDE Program, the Definition of an Illicit Discharge, Recognizing Illicit Discharges, Reporting them, and Preventing Future Instances.

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
-----	--------	--	-----------------	---------------------------------	-----	---	--------------------

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	Ongoing	All construction contracts include requirements to follow CT regulations, including the 2002 Soil erosion and Sediment control Measure chart.	N/A	Public Works Facilities Engineering & Acquisition Division/Christopher Shukis	Jul 1, 2020		
4-2 Develop/implement plan for interdepartmental coordination in site plan review and approval	Complete	Plan included in SWMP	N/A	Environmental/Chris Koproski	Jul 1, 2017	9 Mar 2017	All construction contracts require interdepartmental review prior to award.
4-3 Review site plans for *stormwater quality concerns	Ongoing	Active review of contracts awarded.	Number of plans reviewed	Environmental/Chris Koproski	Jul 1, 2017	1 Jul 2017	Site Plan reviews will evaluate the adequacy and appropriateness of proposed construction and post-construction erosion and sediment control measures.
4-4 Conduct site inspections	Ongoing	Active contracts.	Number of site inspections conducted	Facilities Engineering & Acquisition Division/Christopher Shukis and Environmental/Chris Koproski	Jul 1, 2017	1 Jul 2017	A current responsibility/activity for FEAD prior to MS4 General Permit issuance. <i>Site Inspections</i> assess the adequacy of the installation, operation, maintenance, and repair of construction and post-construction erosion and sediment control measures.
4-5 Implement procedure to allow public comment on site development	Ongoing	Signage with contact information is posted at construction activities.	N/A	Facilities Engineering & Acquisition Division/Christopher Shukis	Jul 1, 2017	1 Jul 2017	
4-6 Implement procedure to notify developers about DEEP construction Stormwater permit	Ongoing	Included with construction contract specifications	Number of construction contracts awarded	Facilities Engineering & Acquisition Division/Christopher Shukis	Jul 1, 2017	1 Jul 2017	The required Environmental Management Plan for contractors includes the Stormwater Pollution Control Plan required by

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
							the CT DEEP Construction General Permit.

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

Continued efforts to update our Interdepartmental Coordination Plan, conduct Contract Reviews and Site Inspections, ensure contract inspectors complete ECATTS training, and notify contractors to obtain General Permits for stormwater and wastewater activities (as applicable) for large scale (1 acre+) disturbances.

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	N/A	N/A	PWD Project Management and Engineering/Michael Crooks, Senior Design Manager	Jul 1, 2022	1 Jul 2017	Legal authority to implement and enforce the Post-Construction Stormwater Management Program is established by inclusion of the Navy LID Policy standards, the DoD EISA Section 438 Policy standards, and the MS4 General Permit LID standards in SUBASENLON's standard construction specifications.
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	Ongoing	N/A	N/A	Environmental/Chris Koproski (initial mapping), Facilities Maintenance director/Jim Gentry (updates due to activities)	Jul 1, 2022	1 Jul 2017	Site Plan reviews check for compliance with Navy LID Policy standards, MS4 standards, and DoD EISA Section 438 Policy standards.
5-3 Identify retention and detention ponds in priority areas	Complete	Completed in March 2017 in anticipation of MS4 permit.	Number of ponds identified	Environmental/Chris Koproski	Jul 1, 2020	March 2017	Due to bacteria impairment of the Thames River, this program applies throughout SUBASENLON.
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	Ongoing	N/A	N/A	Facilities Sustainment Branch Head / Steven Cavanaugh Production Division Director / Jason Billings	Jul 1, 2020	1 Jul 2020	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
5-5 DCIA mapping	Complete	Completed DCIA mapping	N/A	Environmental/Chris Koproski (initial mapping), Facilities Maintenance Director/Jim Gentry (updates due to activities)	Jul 1, 2020	9 March 2017	Updated annually
5-6 Address post-construction issues in areas with pollutants of concern	Complete	Retention of Water quality volume, limits of disturbance, and CT Stormwater Quality Manual excerpts briefed to Stakeholders	N/A	Environmental/Chris Koproski	Not specified	6 Dec 2017	Due to bacteria impairment of the Thames River, this program applies throughout SUBASENLON.

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

SUBASENLON will consider the inclusion of the following watershed protection elements for future construction projects: Minimization of impervious surfaces by limiting or minimizing new development and encouraging the use of LID; Preservation, protection, restoration, and creation of ecologically sensitive areas (e.g., riparian buffers, headwaters, floodplains, and wetlands); Implementation of stormwater management practices that prevent or reduce thermal impacts on receiving waters (e.g., vegetated buffers, disconnection of impervious surfaces); Prevention of hydromodification of streams and other waterbodies due to development; Protection of trees and other vegetation with important evapotranspirative properties; Protection of native soils (e.g., prevention of topsoil stripping and soil compaction)

5.3 Post-Construction Stormwater Management reporting metrics

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	197.29 acres
DCIA disconnected (redevelopment plus retrofits)	0 this year / 1.41 acres total
Retrofits completed	11
DCIA disconnected	0 this year / 1.41 total since 2012
Estimated cost of retrofits	\$190,000.00
Detention or retention ponds identified	0 this year / 3 total

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

SUBASENLON maintains a GIS database that includes all stormwater outfalls, the drainage areas contributing to those outfalls, existing utilities (including stormwater infrastructure), and impervious areas such as roads, buildings, parking lots, etc. SUBASENLON used these existing data to calculate the DCIA contributing to each MS4 outfall. DCIA estimates are updated on annually to account for new development or redevelopment

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	Ongoing	Expanded ECATTs modules to include additional MS4 content.	Number of target audience trained	Environmental/Chris Koproski	Jul 1, 2019	1 Jul 2018	Administrator function within ECATTs allows training to be tracked. Most of the associated data is already on ECATTs in the form of Stormwater and spill response modules.
6-2 Implement MS4 property and operations maintenance	Ongoing	Briefed POC (David Heiny, Real Property Accountable Officer) of requirements at 6 Dec 2017 briefing.		PWD Facilities Management Division Director / Jim Gentry	Not specified	30 Jun 2022	SUBASENLON will fully implement the Property and Operations Maintenance Program by the end of the MS4 General Permit Term (June 30, 2022).
6-3 Implement coordination with interconnected MS4s	Ongoing	Initiated contact with Town of Groton MS4 Manager, Kristin Doundoulakis.	Positive contact	Environmental/Chris Koproski	Not specified	24 Jan 2018	The SUBASENLON MS4 is interconnected to the CT Department of Transportation (CTDOT), Town of Groton, and Town of Ledyard MS4s at various points along Route 12 and Crystal Lake Road.
6-4 Develop/implement program to control other sources of pollutants to the MS4	Ongoing	Leaf collection procedures revamped to include keeping piles awaiting collection away from storm drains.	BMPs	Environmental/Chris Koproski	Not specified	1 Jul 2017	N/A

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-5 Evaluate additional measures for discharges to impaired waters*	Ongoing	Completed IDDE Program; continued implementation of pet waste, waterfowl, and feral cat management BMPs	Actual implementation of various additional measures	Environmental/Chris Koproski	Not specified	1 Jul 2018	SUBASENLON's Implementation of the IDDE Program, pet waste management BMPs, and waterfowl / feral cat management BMPs effectively constitute its bacteria source reduction program.
6-6 Track projects that disconnect DCIA	Ongoing	Multiple stakeholder briefings were held to ensure necessary data are collected and shared	DCIA disconnected per project	PWD Facility Management Division Director / Jim Gentry	Jul 1, 2017	1 Jul 2017	SUBASENLON maintains a GIS database that includes all stormwater outfalls, the drainage areas contributing to those outfalls, existing utilities (including stormwater infrastructure), and impervious areas such as roads, buildings, parking lots, etc. SUBASENLON used these existing data to calculate the DCIA contributing to each MS4 outfall. DCIA estimates are updated on annually to account for new development or redevelopment.
6-7 Implement infrastructure repair/rehab program	Ongoing	Briefed key decision makers on MS4 requirements and explored how to work new requirements into existing capital project prioritization scheme.	Number of projects awarded and/or completed	PWD Facility Management Division Director / Jim Gentry and Production Division Director / Jason Billings	Jul 1, 2021	1 Jul 2021	
6-8 Develop/implement plan to identify/prioritize retrofit projects	Ongoing	Briefed key decision makers on MS4 requirements and explored how to work new requirements into existing capital project prioritization scheme.	Number of projects awarded and/or completed	PWD Facility Management Division Director / Jim Gentry	Jul 1, 2020	1 Jul 2020	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-9 Implement retrofit projects to disconnect 2% of DCIA	Ongoing	Briefed key decision makers on MS4 requirements and explored how to work new requirements into existing capital project prioritization scheme.	Percent of DCIA disconnected	PWD Facility Management Division Director / Jim Gentry	Jul 1, 2022	1 Jul 2022	SUBASENLON currently requires that development and redevelopment conform to UFC 3-210-10, LID, and EISA Section 438. In addition, SUBASENLON will begin to require its design and construction contractors to comply with the LID standards defined by the MS4 General Permit. SUBASENLON PWD staff will review development/ construction plans that include associated stormwater design calculations for compliance with these standards.
6-10 Develop/implement street sweeping program	Ongoing		Area/distance swept, volume of material collected	PWD Transportation Branch Head / Jim Cottrell	Jul 1, 2018	9 Mar 2017	
6-11 Develop/implement catch basin cleaning program	Ongoing	Meetings conducted with key personnel to discuss upcoming requirements and address any differences between the existing program and the proposed new methods.	Number of catch basins cleaned, volume of material removed	PWD Facilities Sustainment Branch Head / Steve Cavanaugh	Jul 1, 2020	1 Jul 2020	Refer to Section 6.4 of this Annual Report.
6-12 Develop/implement snow management practices	Ongoing	SUBASENLON evaluated and updated its snow and ice control practices as documented in its SWMP.	Quantity of deicing agent(s) used, distance/ area treated	Transportation Branch Head / Jim Cottrell	Jul 1, 2018	1 Jul 2018	SUBASENLON will include in its Annual Report the following items associate with its snow management practices: Summary of staff training on application methods and equipment Type(s) and quantities of deicing agents used Quantification of distance /

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
							area treated Equipment used Snow disposal methods Any changes in deicing practices

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

Continue to implement ECATTS training modules, conduct inspections, and review projects for MS4 compliance.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	Yes 6 Dec 2017
Street sweeping	N/A for this reporting period
Curb miles swept	
Volume (or mass) of material collected	N/A for this reporting period
Catch basin cleaning	
Total catch basins in priority areas	
Total catch basins in MS4	
Catch basins inspected	
Catch basins cleaned	
Volume (or mass) of material removed from all catch basins	
Volume removed from catch basins to impaired waters (if known)	
Snow management	N/A for this reporting period
Type(s) of deicing material used	
Total amount of each deicing material applied	

Type(s) of deicing equipment used	
Lane-miles treated	
Snow disposal location	
Staff training provided on application methods & equipment	
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	N/A for this reporting period
Reduction in application of fertilizers (since start of permit)	
Reduction in turf area (since start of permit)	
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	\$100.00

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]

SUBASENLON will award a contract to complete all stormwater drainage structure inspections by the end of the third year following the effective date of the MS4 General Permit (prior to July 1, 2020). Based on the results of the inspections and other applicable data gathered, the contractor will develop a stormwater drainage structure cleaning schedule that includes recommended cleaning frequencies for each drainage structure. Catchment areas for those outfall / drainage structures where excessive sediment or debris was observed will receive first priority. Further prioritization will be based on the following items:

- Staff and tenant complaints of localized flooding
- Stormwater drainage structures downstream of construction areas
- DCIA estimates developed as described in Section 6.2.3 of this SWMP

SUBASENLON will award an annual catch basin cleaning contract prior to October 1, 2020. The number of stormwater drainage structures to be cleaned annually will be estimated based on the previously completed inspections.

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.]

N/A

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.]

"Credit" for past renovations and planned projects will likely exceed first permit-term DCIA disconnection/reduction requirements, or SUBASENLON will plan for additional retrofits to meet DCIA disconnection goals as needed.

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.]

N/A

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 M54 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.

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	Status of drainage area investigation	Control measure implementation to address impairment

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

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:

1. History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages.
2. Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs.
3. Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints.
4. Common or twin-invert manholes serving storm and sanitary sewer alignments.
5. Common trench construction serving both storm and sanitary sewer alignments.
6. Crossings of storm and sanitary sewer alignments.
7. Sanitary sewer alignments known or suspected to have been constructed with an underdrain system;
8. 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.
9. Areas formerly served by combined sewer systems.
10. 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

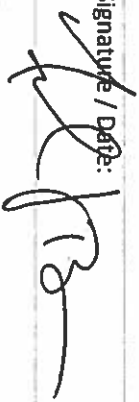
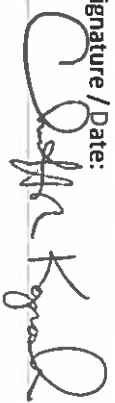
Outfall ID	Sample date	Ammonia	Chlorine	Surfactants

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: Michael Brown Installation Environmental Program Director	Print name: Christopher Koproski Stormwater Program Manager
Signature / Date:  2/13/18	Signature / Date:  13 Feb 18

