

ADAPTIVE MANAGEMENT FRAMEWORK PROPOSAL

Town of Durham, New Hampshire

INTRODUCTION

The United States Environmental Protection Agency (USEPA) Region 1 issued a Great Bay Total Nitrogen General Permit for Wastewater Facilities in New Hampshire (National Pollutant Discharge Elimination System [NPDES] General Permit: NHG58A000) for 13 eligible wastewater treatment facilities (WWTFs). The General Permit was issued on November 24, 2020 and became effective beginning on February 1, 2021.

The General Permit establishes total nitrogen effluent limitations, monitoring requirements, reporting requirements and standard conditions. The discharge of all pollutants other than nitrogen from these WWTFs is authorized by each WWTF's respective individual NPDES permit. USEPA developed the General Permit, as part of an Adaptive Management Framework (AMF), to comprehensively regulate nitrogen loading from the 13 WWTFs on a watershed-wide scale. The General Permit also incorporates an innovative and adaptive approach to achieve reductions in total nitrogen loads to the Great Bay estuary through a combination of mandatory load limits at the WWTFs and voluntary nonpoint source nitrogen reductions.

The General Permit is only one aspect of the AMF; other elements include ambient monitoring, pollution tracking, reduction planning, and review. Implementing an adaptive management approach would include collaboration among USEPA, the State of New Hampshire, and public and private stakeholders. The needed collaboration entails participating in the following:

- Monitoring ambient water quality in the Great Bay
- Tracking loads of total nitrogen
- Planning for overall source reductions
- Evaluating a load-based threshold, 0.32 milligrams per liter (mg/L) instream total nitrogen criterion, or other threshold for demonstrating attainment of water quality standards
- Establishing a timeline for completing a total nitrogen total maximum daily load (TMDL) for the Great Bay.

This detailed proposal demonstrates the Town of Durham's (the Town) election to opt into the voluntary AMF option.

BACKGROUND

The Town understands the value of the Great Bay Estuary as a resource for the New Hampshire seacoast communities. Great Bay is often dubbed New Hampshire's "hidden coast", due to its unique saltwater and freshwater ecosystem set apart from the coastline. This estuary serves as a magnet for tourism supporting the local economy and increase the value of properties near them. For these reasons, and many more, the Town is committed to continuing our efforts to improve water quality in the Great Bay watershed.

The Town owns and operates a 2.50 million gallon per day (MGD) WWTF which includes wastewater from the University of New Hampshire (UNH). UNH contributes approximately 50% of the total volume of flow received at the WWTF.

In 2016, the WWTF was upgraded with the purpose of reducing total nitrogen to the Great Bay, including modification of their existing secondary treatment system to a pilot four-stage Bardenpho process. The four-stage Bardenpho process has the capability to achieve an effluent total nitrogen limit of less than 8 mg/L, at current conditions. More recently, the Town has been able to further optimize the four-stage Bardenpho process to achieve further reductions in total nitrogen.

The Town received authorization to discharge under the General Permit beginning May 1, 2021 with a rolling seasonal average effluent limit of 59 lb total nitrogen/day.

Integrated Planning Effort

In 2014, the Town and UNH, developed the *Oyster River Integrated Watershed Plan for Nitrogen Load Reductions*¹ (Integrated Plan). The Integrated Plan sought to develop a more cost-effective and sustainable means to meet future permitting compliance needs and improve water quality in the Oyster River watershed, and ultimately the Great Bay, through an Integrated Permitting approach. This proposed approach, which is consistent with the USEPA’s *Integrated Municipal Stormwater and Wastewater Planning Approach Framework*², provided implementation strategies that balanced upgrades to the WWTF with nonpoint and point source stormwater control measures in an effort to reduce existing and future nitrogen loads to the Oyster River estuary and achieve other water quality objectives.

The Integrated Plan established the land uses and sources of total nitrogen from nonpoint sources from the Town and UNH. These land uses and sources are summarized in **Table 1** below. Understanding the developed land uses and sources of total nitrogen to the Great Bay helps the Town target what management practices and strategies would be most appropriate at improving water quality. The Town envisions that this AMF Proposal will build upon the Integrated Plan.

Table 1. Total Nitrogen Load by Land Use/Source (VHB and Woodward & Curran, 2014)

Land Use/Source	Town of Durham		UNH		TOTAL TN Load (lb/yr)	TOTAL Acreage (ac)
	TN Load (lb/yr)	Acreage ³ (ac)	TN Load (lb/yr)	Acreage (ac)		
Developed Land Uses/Sources						
Lawn	6,000	540	390	50	6,390	590
Impervious	4,640	480	2,580	220	7,220	700
Septic	4,760	-	30	-	4,790	-

¹ [VHB and Woodward and Curran. 2014. http://www.ci.durham.nh.us/sites/default/files/fileattachments/public_works/page/14331/or_integrated_watershed_plan_for_nitrogen_reductions_-_final_report_july_2014.pdf](http://www.ci.durham.nh.us/sites/default/files/fileattachments/public_works/page/14331/or_integrated_watershed_plan_for_nitrogen_reductions_-_final_report_july_2014.pdf)

² June 2012, USEPA Memo: Integrated Municipal Stormwater and Wastewater Planning Approach Framework

³ Acreage is based on estimates from 2010

Land Use/Source	Town of Durham		UNH		TOTAL TN Load (lb/yr)	TOTAL Acreage (ac)
	TN Load (lb/yr)	Acreage ³ (ac)	TN Load (lb/yr)	Acreage (ac)		
Agriculture	4,570	620	4,180	140	8,750	760
Managed	200	10	400	10	600	20
SUBTOTAL	20,170	1,650	7,580	420	27,750	2,070
<i>Undeveloped Land Uses/Sources</i>						
Natural	3,750	4,070	850	940	4,600	5,010
Open Water	2,560	500	140	30	2,700	530
SUBTOTAL	6,310	4,570	990	970	7,300	5,540
TOTAL (lb/yr)	26,480	6,220	8,570	1,390	35,050	7,610
TOTAL (tons/yr)	13.2		4.3		17.5	

lb/yr: pounds per year

TN: total nitrogen

Monitoring Efforts

The Town and UNH are active participants in monitoring efforts locally but also in the region. The efforts are summarized below.

Oyster River Watershed Association Volunteer River Assessment (VRAP) Data

The Oyster River Watershed Association (ORWA) has been collecting water quality data since 2001 as part of the NHDES Volunteer River Assessment Program (VRAP). The group has collected data from over twenty different sites along the mainstem and tributaries mostly within the freshwater portion, but several sites are on tributaries that drain to the tidal portion namely Reservoir Brook, Beards Creek and Johnson Creek. The data is collected monthly during the growing season months (April through October). The primary data routinely collected consists of field measurements of physical parameters including pH, temperature, dissolved oxygen, turbidity, and specific conductance.

UNH contributes financially to ORWA to assist with sampling and equipment.

Piscataqua Regional Estuaries Partnership (PREP)

For the past 5 years, the Town/UNH has provided funding (approximately \$18,590 per year) to the Piscataqua Regional Estuaries Partnership (PREP), which is part of the USEPA's National Estuary Program. The National Estuary Program is a joint local/state/federal program established under the Clean Water Act with the goal of protecting and enhancing nationally significant estuarine resources. PREP receives funding from the USEPA and is hosted and administered by the School of Marine Science and Ocean Engineering at the UNH.

The Town Administrator is an active member of PREP's Management Committee, which is responsible for development of the Comprehensive Conservation and Management Plan for the Piscataqua Region estuaries and coastal watershed. In January 2020, PREP and the Town commenced on a three-year partnership initiative to focus new financial resources totaling \$525,000 on areas of critical need identified by PREP, its partners, and the 52 communities of the Piscataqua Region watershed.

The Town has been active and participated in discussions with the other Seacoast communities about watershed scale efforts including nonpoint source pollution tracking and this AMF proposal. The Town will continue to collaborate with the other Seacoast communities to ensure that planning and implementation efforts are based on science, forward thinking and what's best for the Great Bay.

Tracking and Accounting Efforts

Since 2015, the Town and UNH have participated in the development of a tracking and accounting framework for total nitrogen through the Pollution Tracking and Accounting Project (PTAP). PTAP is being developed by NHDES and UNH, with significant input from USEPA, the Town and other Great Bay municipalities. Per the PTAP website, PTAP “will result in the creation of guidelines and recommendations for tracking and accounting systems and identify potential tools that will enable municipalities to perform a quantitative assessment of pollutant load reductions associated with nonpoint source management activities in the Great Bay region.” (<https://www.unh.edu/unhsc/ptapp>).

The Town and UNH has developed an inventory of the structural stormwater best management practices that have been constructed to date (**Attachment A**). This list does not represent a complete list and will be updated on a regular basis by both the Town and UNH.

Stormwater Regulations

The Town has Site Plan⁴ and Subdivision Regulations⁵ which include post-construction stormwater management regulations. Under the Site Plan regulations, developments and redevelopments that disturb 5,000 square feet or more must prepare and submit a Stormwater Management Plan (“the Plan”) describing the proposed stormwater management system elements, practices and associated designs. Stormwater management for new development must provide water quality treatment based on the underlying soil type and maximize infiltration on-site. For redevelopment projects, low impact development strategies shall be maximized to provide treatment for at least 50% of the entire site area.

Under the Subdivision Regulations Stormwater Drainage design standards (Section 9), developments that disturb 10,000 square feet or more must submit a Stormwater Management Plan. Similar to the Site Plan regulations, the applicants are required to provide water quality treatment for both new development and redevelopment projects.

These regulations ensure that as private development moves forward in the Town, that water quality improvements are being made to existing impervious cover through the redevelopment process and that new development projects are providing water quality treatment for changes in land cover.

UNH has Facilities Planning, Design and Construction Guidelines⁶ which requires the use of low impact development, treatment of the water quality volume and implementation of post-construction stormwater best management practices. These regulations ensure that new development on campus provides water quality treatment for the changes in land uses.

Permeable Reactive Barriers

⁴ [Durham site plan review \[regs\]](#)

⁵ [Subdivision Regulations | The Town of Durham New Hampshire](#)

⁶ <https://scholars.unh.edu/facilities/>

The Town has participated in a grant funded pilot project with the Strafford Regional Planning Commission (SRPC) for interested landowners to install permeable reactive barriers (PRBs) on private property to reduce nonpoint source pollution from residential septic systems. To date, 1 landowner in the Town have installed PRBs to treat groundwater downstream of septic systems. These systems have been being monitored and to date demonstrate that 95% of the nitrate entering the PRB has been removed⁷. A second landowner will have a PRB installed on their property in Fall of 2021.

Pet Waste Program

The Town has a pet waste disposal ordinance which requires pet owners to pick up their waste and dispose of it in trash receptacles. The Town also owns and maintains pet waste stations which provide bags to picking up pet waste and a disposal receptacle.

Fertilizer Efforts

New Hampshire State Statute (RSA: 431) as modified in 2013 states that no turf (lawn) fertilizer sold at retail shall exceed 0.9 lb per 1,000 square feet of total nitrogen per application when applied according to the instructions on the label. Furthermore, no turf fertilizers sold at retail shall exceed 0.7 lb per 1,000 square feet of soluble nitrogen per application when applied according to the label. This new law applies to synthetic (manufactured) fertilizers, natural inorganic fertilizers (from a mineral nutrient source), and natural organic fertilizers (derived from either plant or animal products). The guaranteed analysis of a lawn fertilizer is listed on the product label. Nitrogen sources and their solubility are listed individually⁸.

Under the New Hampshire Shoreland Protection Act, fertilizer cannot legally be applied to vegetation or soils located within 25 feet of the reference line of any public waters. Beyond 25 feet, slow or controlled release fertilizer may be used, but must be applied by horticultural professionals who have a pesticide application license issued by the New Hampshire Department of Agriculture⁹.

Slow or controlled release fertilizer means fertilizer that is guaranteed, as indicated on the package label, to contain the following:

- At most 2 percent phosphorous, and
- A nitrogen component which is contains at least 50% slow release nitrogen.

Currently, the Town applies fertilizer on a limited number of Town owned properties. The Town also does education outreach to residents on fertilizer use best management practices.

UNH has a detailed specification for the application of fertilizer on turfs and grasses on campus. UNH also has a detailed Landscaping Master Plan discourages cultivating large expanses of turf due to the labor-intensive nature of maintenance and runoff contamination from application of fertilizer and pesticides.

Structural Stormwater Best Management Practices

⁷ [Great Bay Permeable Reactive Barrier Pilot Project – Passive Treatment of Nitrate in Groundwater \(truslowrc.com\)](http://truslowrc.com)

⁸ [unh-nh-turf-law-fact-sheet.pdf](#)

⁹ [Protected Shoreland FAQ | NH Department of Environmental Services](#)

The Town evaluates opportunities for structural stormwater best management practices aimed at improving water quality from existing impervious cover for all capital improvement projects. The following is an example of a capital improvement project that the Town has completed.

Little Hale Pond

The Little Hale Pond culvert replacement project on Bagdad Road utilized USEPA 319 watershed assistance grant funding to replace a small structure, determined to be a dam, with a culvert. As part of this project, the Town also constructed a tree box filter and a retention basin to provide water quality treatment of existing impervious cover. Collectively, the two BMPs are expected to remove approximately 40 lb of total nitrogen per year.

Under UNH's Facilities Planning, Design and Construction Guidelines, all new development and redevelopment over 10,000 square feet require implementation of stormwater best management practices to provide water quality improvement. The BMPs implemented to date are included in **Attachment A**.

MS4 Program

Since 2003, the Town and UNH are both regulated under the NPDES Municipal Separate Storm Sewer System (MS4) permit. As part of this permit, the Town has implemented non-structural stormwater strategies aimed at reducing nonpoint source pollution. These strategies include street sweeping, leaf collection, catch basin cleaning, public education and outreach, and implementation of an illicit discharge detection and elimination program. The Town tracks their progress on an annual basis, through annual reports to USEPA.

Seacoast Stormwater Coalition

The Town and UNH have been active participants in the Seacoast Stormwater Coalition. The Coalition is made up of regulated communities under the Phase II MS4 Permit. Communities use this platform to collaborate and share resources to effectively work together to comply with the MS4 Permit.

PROPOSAL

This AMF Proposal describes the steps, activities, and measures that the Town and UNH will take to improve water quality from nonpoint sources into Great Bay from the town during this General Permit term. As outlined in the General Permit, this AMF Proposal is broken up into five areas (A through E):

- A. Ambient Water Quality Monitoring
- B. Track Reductions and Additions of Total Nitrogen
- C. Overall Source Reduction
- D. Load Based Threshold
- E. Completion of a total nitrogen TMDL

The Town and UNH's proposed approach for each of these categories is outlined in the sections below. This proposal will be a living document that will be reviewed, updated and/or modified (as needed) annually to reflect the current understanding of the Great Bay and the progress made by the Town, UNH and other relevant parties. The updates and modifications will be informed based upon the outcomes

from implementing the efforts outlined in this proposal and collaborating with the other seacoast communities and key stakeholders (PREP, NHDES and USEPA).

A. AMBIENT WATER QUALITY MONITORING IN GREAT BAY

Part 3-1.a. of the General Permit recommends an outline of an approach to monitor the ambient water quality in the Great Bay estuary to determine project trends.

Under this AMF Proposal, the Town will continue to fund and work closely with PREP to support PREP's annual and long-term monitoring initiatives. The Town will review and provide comments on PREP's ambient water quality monitoring program to ensure that the monitoring program meets regulatory compliance needs of the Town. The Town will work with PREP to gather a better understanding of the direct outcomes from the monitoring program including annual raw data output, annual summary reports and long-term trend reports.

B. TRACK REDUCTIONS AND ADDITIONS OF TOTAL NITROGEN

Part 3-1.b. of the General Permit recommends an outline of the method(s) to track reductions and additions of the total nitrogen over the course of the permit.

Under this AMF Proposal, the Town will track the implementation of nonpoint and point source efforts to reduce total nitrogen loads. The Town will estimate the reductions and additions of total nitrogen from developed lands and present this on an annual basis. The Town anticipates tracking the efforts outlined in **Section C** below.

The Town and UNH will continue to work with NHDES, other Great Bay communities, and consultants to develop a tracking and accounting system to perform a quantitative assessment of pollutant load reductions. If this effort is not developed before the first annual report is due, the Town and UNH will work with the Seacoast Stormwater Coalition communities to develop a methodology to calculate reductions in total nitrogen.

C. OVERALL SOURCE REDUCTION

Part 3-1.c. of the General Permit recommends an outline or plan for overall source reductions of total nitrogen over the course of the General Permit.

Under this AMF Proposal, the Town will implement point and nonpoint source reduction strategies to reduce total nitrogen. On an annual basis, the Town will review the strategies implemented and update the list to reflect progress. UNH, which is in the heart of town, is a regulated MS4 and implements a separate MS4 program. The programs that UNH implements that reduce total nitrogen are noted Table 2.

Point Source Reduction Strategies

The Town is currently operating below the wastewater discharge threshold (59 lb total nitrogen per year) established in the General Permit. The Town is currently in the process of updating their Wastewater Facility Plan. The Facility Plan will include recommendations for total nitrogen reductions including process optimization, process and tank upgrades, and supplemental chemical feed systems. The Town will continue to make efforts to further optimize operations at the WWTF to reduce total nitrogen.

The Town will continue to make efforts to reduce inflow and infiltration into the sewer network and ultimately to the WWTF. The Town plans to update data and information in the 2013 Inflow and Infiltration study and continue to find areas to reduce inflow and infiltration.

Non-point Source Reduction Strategies

A variety of strategies to reduce non-point source (stormwater and groundwater) total nitrogen will be evaluated as part of this AMF Proposal. The strategies evaluated, the targeted land use/source, and a description of how the Town and UNH will implement these strategies is summarized in **Table 2**.

Table 2. Proposed Non-point Source Reduction Strategies

STRATEGY	TARGET LAND USE/SOURCE	DESCRIPTION OF IMPLEMENTATION
Fertilizer Program	Lawn	<p>The Town will continue outreach to residents on fertilizer best management practices. UNH will continue to conduct outreach on fertilizer best management practices for students and community members. Additional outreach materials will be placed at the library.</p> <p>The Town and UNH will also participate in watershed scale efforts, if they are initiated, around fertilizer outreach and/or conducting surveys to understand the frequency of fertilizer use in the watershed.</p>
Post-Construction Regulations	Impervious	<p>The Town and UNH will continue to implement their post-construction stormwater regulations to ensure that new development and redevelopment projects provide water quality treatment of existing and proposed impervious cover.</p> <p>The Town and UNH will track and account for the implementation of post-construction stormwater BMPs on private development.</p>
Infrastructure Maintenance Program	Impervious	<p>The Town and UNH will develop and implement a program detailing the activities and procedures to maintain storm drainage infrastructure in a timely manner. The program will include routine inspections, cleaning, and maintenance of catch basins to maintain 50% free-storage capacity in the catch basin sump.</p> <p>The Town will subcontract catch basin cleaning to maintain sump capacity. UNH will provide targeted cleaning of catch basins in high traffic areas.</p>
Organic Waste and Leaf Litter Collection Program	Lawn Impervious	<p>The Town and UNH will gather, remove and properly disposal of landscaping wastes, organic debris, and leaf litter from impervious roadways and parking lots. UNH will provide disposal of landscaping waste, organic debris, and leaf litter on all vegetated areas of campus. The gathering and removal will occur immediately after any landscaping activities.</p> <p>The Town will dispose of these materials at the Town Transfer Station and Recycling Center. The Town will encourage residents to collect leaf litter and dispose of it at the Town Transfer Station and Recycling Center.</p>
Enhanced Street/ Pavement Cleaning Program	Impervious	<p>The Town will develop and implement a sweeping program to clean all curbed impervious cover (i.e., directly connected impervious cover) once per week.</p> <p>UNH will develop and implement a sweeping program to sweep all curbed impervious cover four times per year. UNH will also provide targeted</p>

STRATEGY	TARGET LAND USE/SOURCE	DESCRIPTION OF IMPLEMENTATION
		<p>sweeping of porous parking lots on a more frequent basis (as needed). UNH uses a vacuum assisted sweeper to conduct all sweeping.</p> <p>The Town and UNH will participate in the Clean Sweep Advisory Committee to develop consensus-based recommendations for pollutant load reductions for street sweeping BMPs.</p>
Septic System Program	Septic	The Town will consider regulations being proposed to the state legislature for inspection, maintenance and/or upgrade of private septic systems within a specific distance to a water body (both tidal and freshwater).
Agriculture Nutrient Management Program	Agriculture	The Town and UNH work with the Agricultural Commission to ensure that best management practices are being implemented on agricultural land on campus and within the Town. The Town will work with NRCS and local farmers to talk about nutrient management on agricultural land.
Planned Stormwater Structural BMP Sites	Impervious	<p>The Town will evaluate opportunities on existing capital improvement projects where stormwater BMPs can be installed to reduce the frequency, volume and pollutant loads of stormwater discharges.</p> <p>For each budgeted capital improvement project, the Town will ensure that stormwater BMPs are designed and constructed to optimize for nitrogen reduction. The Town will prioritize stormwater as part of these projects.</p>
Evaluate Town-Owned and Right-of-Way Properties for Stormwater Structural BMP Sites	Impervious	<p>The Town and UNH will conduct a Town- and campus wide assessment for implementation of structural stormwater BMPs to reduce the frequency, volume and pollutant loads of stormwater discharges.</p> <p>The Town and UNH will develop a plan that identifies conceptual BMP locations and designs for retrofit of existing impervious cover, consistent with the requirements in the MS4 permit. The Town and UNH will use this plan to systematically retrofit and treat existing impervious cover.</p>
Pet Waste	Lawn Impervious	The Town will implement and maintain its Pet Waste program.
Atmospheric Deposition	Lawn Impervious Agriculture	<p>The Town and UNH will work with USEPA and NHDES to understand how levels of nitrogen from atmospheric deposition are changing over time.</p> <p>The Town and UNH will account for changes in the atmospheric load as part of the tracking and accounting framework on an annual basis (or as data becomes available).</p>

D. LOAD-BASED THRESHOLD

Part 3-1.d. of the General Permit recommends an inclusive and transparent process for comprehensively evaluating any significant issues regarding the science and methods relating to the permit, including the choice of a load-based threshold of 100 kilograms per hectare per year (kg ha⁻¹ yr⁻¹) versus any other proposed threshold, including a concentration-based threshold of 0.32 mg/L.

At this time, the Town and UNH are not committed to recommending a process for evaluating a load-based threshold; nevertheless, the Town and UNH are committed to funding, reviewing and interpreting

monitoring initiatives; implementing nonpoint and point source projects targeted at reducing total nitrogen in the Great Bay; tracking and accounting of implementation efforts; and revising this AMF Plan to ensure that the efforts the Town is taking will have the greatest benefit to water quality. The Town and UNH are committed to working with USEPA, NHDES, PREP, and watershed stakeholders to ensure that the science and recommended next steps for continued improvement in water quality of the Great Bay and its tributaries are understood.

E. COMPLETION OF TMDL

Part 3-1.c. of the General Permit recommends a proposed timeline for completing a TMDL for total nitrogen in Great Bay and for submitting it to USEPA for review and approval.

At this time, the Town and UNH are not committed to developing a timeline for completion of a TMDL. What the Town and UNH are committed to is activities that can inform a future TMDL, including funding, reviewing, and interpreting monitoring initiatives; implementing nonpoint and point source projects targeted at reducing total nitrogen in the Great Bay; tracking and accounting for implementation efforts; and revising this plan to ensure that efforts will have the greatest benefit to water quality. The Town and UNH are committed to working with USEPA, NHDES, PREP, and watershed stakeholders to ensure that the science and recommended next steps for continued improvement in water quality of Great Bay and its tributaries are understood.

ATTACHMENTS

ATTACHMENT A

List of Structural Stormwater Best Management Practices

FACILITY ID	TYPE	UNIT DESCRIPTION
SWT0001	Proprietary BMP	MANUFACTURED TREATMENT DEVICE AT MILLS HALL
SWT0002	Proprietary BMP	MANUFACTURED TREATMENT DEVICE AT MILLS HALL
SWT0003	Detention Pond	DETENTION POND - SOUTH EDGE OF PARKING LOT C
SWT0004	Detention Basin	DETENTION BASIN - NORTH SIDE OF WHITTEMORE CENTER
SWT0006	Proprietary BMP	MANUFACTURED TREATMENT DEVICE AT COURTYARD KINGSBURY
SWT0007	Proprietary BMP	MANUFACTURED TREATMENT DEVICE - MCDANIEL DRIVE
SWT0008	Needs further investigation for type	MANUFACTURED TREATMENT DEVICE AT KINGSBURY
SWT0009	Proprietary BMP	MANUFACTURED TREATMENT DEVICE - MCDANIEL DRIVE
SWT0010	Proprietary BMP	MANUFACTURED TREATMENT DEVICE AT MILLS HALL
SWT0011	Detention Pond	DETENTION POND - ADJACENT TO WEST EDGE DRIVE
SWT0012	N/A	UNH STORM WATER CENTER-MULTIPLE STRUCTURES AT WEST EDGE
SWT0013	Wet-well for building	SUMP BASIN FOR DEMERITT HALL
SWT0014	Needs further investigation for type	MANUFACTURED TREATMENT DEVICE AT SOUTH DRIVE UNDERPASS
SWT0015	Proprietary BMP	STORMWATER SETTLING BASIN AT HAALAND HALL
SWT0016	Water Collection System for Toilets	CISTERN AT JAMES HALL
SWT0017	Water Collection System for Toilets	CISTERN AT JAMES HALL
SWT0019	Proprietary BMP	WET WELL AT WHITTEMORE CENTER
SWT0020	Outlet Structure for Porous Asphalt	PERVIOUS PAVEMENT AT ELLIOT ALUMNI CENTER
SWT0021	Inlet for Bioretention System	BIORETENTION SYSTEM AT A LOT
SWT0022	Bioretention System	BIORETENTION SYSTEM AT PAUL COLLEGE
SWT0023	Inlet for Subsurface Gravel Filter System	SUBSURFACE GRAVEL FILTER AT A LOT
SWT0024	Treebox Filter	BIORETENTION SYSTEM AT A LOT
SWT0025	Bioretention System	BIORETENTION SYSTEM AT A LOT
SWT0026	Subsurface Gravel Filter	SUBSURFACE GRAVEL FILTER AT A LOT
SWT0027	Bioretention System	BIORETENTION SYSTEM AT A LOT
SWT0028	Bioretention System	BIORETENTION SYSTEM AT A LOT
SWT0029	Bioretention System	BIORETENTION SYSTEM AT B LOT
SWT0030	Outlet Structure for Bioretention system	WET POND OUTLET CONTROL STRUCTURE AT HAMILTON SMITH HALL
SWT0031	Bioretention System	BIORETENTION AT A LOT
SWT0032	Bioretention System	BIORETENTION SYSTEM AT B LOT
SWT0033	Subsurface Gravel Filter	SUBSURFACE GRAVEL FILTER AT E LOT
SWT0034	Bioretention System	BIORETENTION SYSTEM AT EVERGREEN DRIVE
SWT0035	N/A	STORMWATER PUMP STATION AT MCGREGOR MEMORIAL EMS
SWT0037	Bioretention System	BIORETENTION SYSTEM AT HAMILTON SMITH HALL
SWT0038	Bioretention System	BIORETENTION SYSTEM AT HAMILTON SMITH HALL
SWT0039	N/A	LARGE CONCRETE BOX AT THE COGEN BLDG
SWT0040	Bioretention System	BIORETENTION SYSTEM AT PUTNAM HALL
SWT0041	Unfunctioning Treebox Filter Systems	TREE BOX FILTER AT WEST EDGE LOT
SWT0042	Subsurface Gravel Filter	SUBSURFACE GRAVEL FILTER AT B LOT
SWT0043	Subsurface Gravel Wetland	SUBSURFACE GRAVEL WETLAND AT WILDCAT STADIUM
SWT0044	Subsurface Gravel Wetland	SUBSURFACE GRAVEL WETLAND AT WILDCAT STADIUM
SWT0045	Infiltration Trench	INFILTRATION TRENCH AT EATON HOUSE
SWT0046	Porous Asphalt	PERVIOUS PAVEMENT AT WEST EDGE
SWT0047	Permeable Interlocking Concrete Pavers	PERVIOUS PAVEMENT AT HAMILTON SMITH HALL
SWT0048	Porous Asphalt	PERVIOUS PAVEMENT AT HAMEL RECREATION CENTER
SWT0051	Porous Asphalt	PERVIOUS PAVEMENT AT PAUL COLLEGE
SWT0052	Permeable Interlocking Concrete Pavers	PERVIOUS PAVERS AT PAUL CREATIVE ARTS CENTER
SWT0055	Bioswale	BIOSWALE AT WOODSIDES PARKING LOT
SWT0056	Subsurface Detention	MANUFACTURED TREATMENT DEVICE AT GABLES SOUTH
SWT0057	Subsurface Gravel Wetland	SUBSURFACE GRAVEL WETLAND AT SOCCER FIELD
SWT0058	Detention Pond	DETENTION POND AT WATER PLANT
SWT0059	Unfunctioning monitoring station for porous pavers	OUTLET AND WATER STRUCTURE AT HAMILTON SMITH HALL
SWT0060	Outlet Structure	WET POND OUTLET CONTROL STRUCTURE AT TUCKER FIELD
SWT0061	Outlet Structure	WET POND OUTLET CONTROL STRUCTURE AT WATER PLANT
SWT0062	Dry well	DRY WELL AT LOT E1
SWT0063	Porous Asphalt	PERVIOUS PAVEMENT AT E1 LOT
SWT0064	Porous Asphalt	PERVIOUS PAVEMENT AT ELLIOT ALUMNI CENTER LOT
SWT0065	Porous Asphalt	PERVIOUS PAVEMENT AT MAIN ST SIDEWALK
SWT0066	Porous Asphalt	PERVIOUS PAVEMENT AT MAIN ST SIDEWALK
SWT0067	Porous Asphalt	PERVIOUS PAVEMENT AT MAIN ST SIDEWALK
SWT0068	Rock Swale	ROCK LINED SWALE / INFILTRATION TRENCH ALONGSIDE HAMELTON SMITH HALL
SWT0069	Outlet Structure	WET POND OUTLET CONTROL STRUCTURE AT SPAULDING HALL
SWT0070	Retention Pond	RETENTION POND AT WATER PLANT
SWT0071	N/A	CURB INLET CULVERT AT ROUND-A-BOUT
SWT0072	Retention Pond	RAIN GARDEN RETENTION POND AT SPAULDING HALL