



# Stormwater Operations & Maintenance Plan

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## Environmental, Health & Safety

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# Stormwater Operations and Maintenance Plan

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## **A. PURPOSE**

This Operation and Maintenance Plan (O&M Plan) is designed to support the Southern Maine Community College South Portland (SMCC) General Permit for the Discharge of Stormwater from State or Federally Owned Municipal Separate Storm Sewer Systems (MS4 Permit) by:

- Identifying potential stormwater pollutants
- Documenting procedures to minimize stormwater pollution from activities conducted on SMCC campus including spill response
- Outlining specific stormwater infrastructure maintenance or inspections required by SMCC's MS4 Permit and/or the related Stormwater Management Plan to include timelines and procedures

As verified by the Maine DEP Division of Water Quality Management in 2014, this document will be followed in lieu of a Stormwater Pollution Prevention Plan (SWPPP) required of Minimum Control Measure (MCM) 6 within the MS4 Permit.

## **B. Responsibilities**

1. SMCC will review this plan annually for additions and/or procedural changes.
2. Facilities will provide this O&M Plan, or applicable sections, to Contractors.
3. Contractors are expected to follow these BMP's or similar best practices.
4. This document is applicable to all staff and contractors who perform tasks with the potential to create stormwater pollutants listed in Section C.
5. SMCC employees and contracted service providers may find they have responsibilities documented across multiple sections of this O&M Plan.
6. SMCC's expectation is that all applicable staff and contractors will make their best effort to prevent stormwater pollution on campus.
7. Consult with the Environmental Health and Safety Coordinator, at 207.741.5932, if there is a question on applicability.

## C. Inventory of Potential Pollutant Sources

POTENTIAL STORMWATER POLLUTANTS

Operations	Fats	Fuel	Oils	Greases	Fertilizer pesticides	General Trash	Sediment & Debris	Mop or Waste Water	Salt & Deicers	Solvents	Spills	Chlorinated Water
Cutting, Grinding, Drilling, Sawing and All Paving							X	X			X	
Deicing, Snow Removal, Salt Shed Management									X			
Food Services	X		X	X		X					X	
Hydrant Line Flushing							X					X
Landscaping Activities					X		X					
Outdoor Chemical Storage and Use		X									X	
Rubbish Storage						X					X	
Vehicles and Equipment: Washing, Storage, Fueling		X	X	X				X		X	X	

## D. Operations and Maintenance Procedures

Review best management practices for all potential stormwater pollutants associated with the activity to be performed. One activity may have multiple O&M Procedures. Applicable to all faculty, staff and contractors who perform tasks with the potential to create stormwater pollutants listed in the table above (Section C).

### 1) Cutting, Grinding, Drilling, Sawing and All Paving

The procedures in this section apply to wet sawing, grinding, cutting, drilling, or paving of brick, stone, asphalt, concrete and other hard materials/surfaces.

- Cutting, Grinding, Drilling or Sawing Procedures
  - Do not allow wet sawing, grinding, cutting or drilling wastewater to enter storm drains without first being filtered

- Block drains: locate all nearby storm drains, culverts and catch basins through which slurry or wastewater may enter. Prevent unfiltered wastewater from entering storm drains by placing straw bales, straw wattles (fiber rolls) or similar filtering material around storm structures
  - Sediment shall not be allowed to remain on the pavement after the operation has ceased. Sweep or shovel up the debris and sediment then dispose of the collected material in the proper location
  - Dispose of all filter material appropriately. Do not leave the items to be washed out by rain or left to dry
  - Water used for cleaning tools or equipment must be captured and properly disposed of in a sanitary sewer or a dedicated concrete washout bin
  - Do not leave wastewater to be washed away by rain or left to dry
- All Paving Procedures
    - Prior to the start of any paving activity, an in drain sediment catcher will be installed in each bar or grate style storm drain or catch basin within the work zone. Sediment catchers are not required inside storm drains with a solid lid.
    - The sediment catcher will remain in place until the project is complete
    - The sediment catcher and all collected debris will be removed and properly disposed in a dumpster
    - Collected sediment and debris is not permitted to be left on the ground beside the drain or dumped in the grass
    - All loose paving material and debris will be swept from the vicinity of storm drains with solid lids and disposed in a dumpster

## 2) Deicing and Snow Removal, Salt Shed Storage Procedures

### A. Deicing and Snow Removal:

- Snow Removal: snow removal is preferred to de-icing with chemicals
- Deicers: Select deicers and anti-icers that have the least adverse impact to the environment and apply only as needed using the minimum quantities
- Sweep or clean up accumulated deicing and anti-icing materials and grit from roadways as soon as possible when the road surfaces clear
- At the end of each storm season, Facilities will calculate and document the amount of deice material and salt used. EH&S may request the data for inclusion in the MS4 Annual Report.

### B. Salt Shed Storage Procedures:

- The Facilities supervisor shall determine how much salt is to be applied to the roadways and parking lots for each event

- Loaders and sanding equipment should not be overloaded in order to eliminate material being spilt
- The area in front of the shed is to be swept following each salt delivery
- The area in front of the shed is to be swept after each loading/transfer and salt event. This will take place after the roads have been cleared and the event is winding down or prior to the end of the shift
- The shed will be visually inspected on a monthly basis to evaluate the integrity of the floor

### 3) Food Services

#### A. General Housekeeping

- Dump mop or cleaning water into a sink connected to a sanitary sewer
- Never dump mop water, chemicals, or cleaners on the ground outside or into a storm drain
- Do not dump ice or melted water into a storm drain or onto the pavement
  - Ice or melted water should go down an interior sink drain
- Do not leave uncovered barrels, buckets, containers, boxes, or pails outside. Turn the containers upside or cover them to prevent rainwater from collecting
- All returnable/recyclable bottles (ME deposit) must be bagged and stored inside a shed or under an awning to prevent contact with rainwater

#### B. Dumpsters and Compost Bin Management

- Maintain the area around each dumpster or compost bin so it is free of waste
- Ensure dumpster and compost bin lids are kept closed when not in use
- Report signs of a damaged or leaking dumpsters to Facilities promptly
- Notify the compost vendor of damaged or leaking storage containers

#### C. Fat, Oil, Grease (FOG) Storage

- All FOG must be collected and stored in appropriate containers
- When not in use, containers must be fully closed to prevent entry of precipitation
- FOG collection containers with a capacity of 55 gallons or more must have secondary containment. Secondary containment must be maintained free of debris, rainwater and spilled grease
- All grease containers and surrounding areas shall be maintained in a clean, sanitary condition at all times
- FOG disposal will occur in a timely manner and collection containers will not be left to overflow
- Every effort should be made to prevent spilled liquid from entering into a nearby drain. Clean small spills and drips promptly

- Large FOG spills will be reported to Campus Security promptly

#### 4) Hydrant Flushing Procedures

Should Facility Maintenance or a contracted vendor perform this task, the following points must be followed:

- It is SMCC procedure for staff to flush water lines onto grassy, pervious areas where the water can infiltrate into the ground
- Sediment and erosion control BMP's will be employed to ensure that this activity does not result in erosion
- Should a flushing event discharge close to a storm drain, covers shall be used for the catch basins to allow for the water to continue on to a point where infiltration is possible
- Prior to beginning work, SMCC will brief the contracted service provider on these best management practices

Should the Portland Water District flush campus hydrants, this entity will follow their specific operating procedures.

#### 5) Landscaping Activities

##### A. Application of Fertilizers and Pesticides

- Where practical, utilize a professional pest control or landscaping company to apply materials
- If fertilizers or pesticides must be applied, selection must be in line with the City of South Portland Pesticide Ordinance and used in accordance with label instructions, the Federal Insecticide, Rodenticide and Fungicide Act (FIFRA) and applicable State laws
- Apply products according to manufacturer instructions
- Apply only the amount of product needed to do the job right. Make every effort not to apply fertilizer or pesticides in direct vicinity of a stormdrain
  - Consult EH&S for assistance locating stormdrains in the area
- Store fertilizer or pesticides in closed containers which are clearly labeled
- Do not store containers outside, uncovered or near stormdrains
- Visually inspect the storage area for leaks, spills, residue or trash
- Clean small spills right away
- Report large spills to Campus Security promptly

##### B. Mowing, Weed wacking, Leaf blowing

- Mow only as low as needed for the area's intended use
- Keep mower blades sharpened

- Mow in a pattern which will deposit the grass clippings into the grass and not onto paved surfaces
- Sweep or blow grass clippings off the paved surfaces and return them to the grassed area or the appropriate dumpster
- Do not use leaf blowers to blow grass clippings, leaves or debris into storm drains. Blow matter back into the grass or collect into a pile where it will be collected and properly disposed

#### C. Stockpile Management and Excavating/Digging

- Stockpiles are mounds of dirt, fill or mulch
- Cover stockpiles with tarps when not in use and secure tarp from wind
- Maintain the area around each stockpile and sweep frequently to minimize dirt and mulch from washing into a nearby storm drain
- When digging or excavating in an area where storm drains are located, apply sediment filter sock(s) around the perimeter of the work area at the end of each shift and when work is complete
  - Consult EH&S for assistance locating storm drains in the area
  - Reseed or plant the work area
  - Retain the sediment filter sock(s) until the soil is stabilized
  - When removing the filter sock(s), sweep sediment that built up around filter socks and dispose properly

### 6) Outdoor Chemical Storage and Use

#### A. Portable container storage and use

- All portable containers are to be stored inside when not in use
- Whenever using a portable container for fueling, ensure that sufficient spill materials are within close proximity
- Ensure the transfer of fluid does not take place over or around a storm drain
- Use a funnel when fueling mowers, weed wackers and all other power equipment

#### B. Storage of liquids in outdoor above ground storage tanks (ASTs)

- SMCC Maintains a Spill Pollution Control & Countermeasure Plan (SPCC) which governs the storage of petroleum products in outdoor ASTs.

### 7) Rubbish Storage (Dumpsters, Compactors, and Roll-off bins)

- Maintain the area around each dumpster so it is free of debris
- Ensure dumpsters are kept closed or covered when not in use
- Do not dispose of bulk liquids into a dumpster or compactor
  - Contact EH&S for disposal guidance
- Keep container drains plugged



- Report signs of damage or leaks to Facilities promptly

## 8) Vehicle and Equipment Fueling, Washing and Storage

### A. Vehicle and Equipment Washing

- It is SMCC's policy that all fleet vehicles and equipment are washed off site at a commercial car wash facility
- If a vehicle or piece of equipment is rinsed off, it shall be done on a grassy area with no storm drains in the vicinity of rinse site
  - Consult EH&S for assistance locating storm drains in the area

### B. Vehicle and Equipment Storage

- Inspect parking areas for stains /leaks on a regular basis
  - Clean small leaks promptly with absorbent
  - Report spills to Campus Security
- Sweep parking lots and storage areas to collect any debris
- Use dry mop methods when cleaning the Facilities shop floors
- Use drip pans or absorbents for leaking vehicles or equipment
  - Promptly repair leaking vehicles or equipment
- Park vehicles and store equipment in their designated areas
- Prior to operating a vehicle that was parked over night or for an extended period, conduct a walk around to ensure there are no leaks
- Do not park vehicles or store equipment over storm drains
- Avoid parking vehicles on the grass

### C. Vehicle and Equipment Fueling

- Fuel carefully to minimize drips or spills on the ground
- Use a funnel when fueling mowers, weed wackers and all other power equipment
- Clean all spills and drips immediately and properly dispose of the material
- Ensure spill supplies (spill pads, sorbent, etc.) are within close vicinity of the fueling area
- Fuel on a paved area if you must fuel while in the field & never on the grass
- Never "top off" fuel tanks
- Never hose down a fuel spill
- Never fuel near a storm drain or any body of water
- Never leave equipment or vehicles unattended when fueling
- Use dry mop methods when cleaning the fueling area floor

### D. Vehicle and Equipment Maintenance

- It is SMCC's policy that fleet vehicles are taken off site (dealer or garage) for repairs and normal/routine maintenance
- Vehicles shall be inspected regularly for leaks or potential hazards
- Routine maintenance of power equipment shall be conducted in the following

manner:

- Follow the manufacturer's instructions and maintenance plans
- Change fluids indoors using a drip pan, spigot and funnel as needed
- Equipment will be taken out of service if there are any leaks or potential hazards present
- Spill materials will be close at hand while maintenance is being performed

## **E. Spill Response Procedure Overview**

The complete spill response procedure is located with the school's SPCC plan. For spills with the direct potential to impact SMCC's stormwater management system, which the discoverer can not safely contain and easily clean themselves:

- Discoverer will notify Security at 207-741-5553
- 2a) Security will notify Facilities at 207-741-5636
- 2b) Security will notify the Facility Manager
- 3) Facilities will evaluate the spill
  - i. Facilities has the ability to clean petroleum spills under 5 gallons which are on pavement and do not threaten land, water or health/safety
  - ii. Facilities will activate SMCC's Emergency Response Vendor if the spill is beyond their capabilities
- 4) Additional notifications will be made, by the person in charge, to the South Portland Fire Dept., South Portland Water District, US Coast Guard and Maine DEP as appropriate

## **F. Other Stormwater Facilities**

Other facilities can include both structural and non-structural stormwater facilities, such as green stormwater infrastructure elements including trees, vegetation, and soil. All of these facilities require maintenance to ensure their functionality is maintained. Frequency and level of maintenance varies based on the facility location, function, and exposure to impacts.

## **G. Additional Stormwater Requirements**

Tasks below are applicable to Facility staff, the EH&S Coordinator, and some contractors. Each task is mentioned in brief. If/as applicable, the reader shall reference the Minimum Control Measure (MCM) referenced at the start of each section for additional details and direction.

### 1) Dry Weather Outfall Inspections (MCM3)

SMCC will perform a visual Dry Weather Outfall Inspection of each Outfall under

SMCC’s jurisdiction once per year: WB-15, WB-12, WB-11, BW-11, BW-10 and BW-12. The inspector should aim to perform this task during a period of low tide so all basins are visible. All inspections will occur during a period of dry weather.

Dry Weather is defined as less than 0.25 inch of rain, ice or snow melt in a 72 hour period (3 days).

The precipitation rate can be determined by viewing the 3 Day History for zip code 04106 located on the National Weather Service (NOAA) website or similar.

EH&S staff utilizes an electronic ArcGIS inspection form or a paper inspection form designed by SMCC to capture relevant details.

Refer to the SMCC Illicit Discharge Detection Elimination (IDDE) Plan for steps to take if an outfall is observed to be flowing.

Inspection results will be presented, in condensed format, within each MS4 Annual Report

## 2) Post-Construction BMP Inspections (Chapter 500 and South Portland)

To align with Chapter 500 and post-construction rules enacted by South Portland, once each year, SMCC will inspect and document stormwater and erosion control measures on campus.

<b>Post-Construction BMP Installation Details</b>		
<b>Unit Name</b>	<b>Date of Installation</b>	<b>DEP Permit #</b>
Spring Point Stormtreat System*	12/2007	L-7520-22-I-A
Hildreth Stormwater Retention/Infiltration Basin*	12/2007	L-7520-22-I-A
Spring Point Rain Garden*	12/2007	L-7520-22-I-A
Parking Lot D Infiltration Area*	12/2007	L-7520-22-I-A
Pickett Street Parking Lot StormTECH Isolator Row Treatment System**	8/2014	< 1 acre
Parking Lot B Infiltration Area*	9/2005	L-007520-22-H-B

\*Maine Stormwater Management Rules (Chapter 500).

\*\* South Portland *Stormwater Management Performance Standards (Section 27-1536)*

Because the StormTECH Treatment System discharges to the City of South Portland, an outside Inspector is required. An annual inspection report, on a specific form, is due to the City of South Portland by July 15<sup>th</sup>. The EH&S Coordinator will maintain a copy of this report.

SMCC staff can perform all other inspections themselves following these Post-Construction BMP inspection procures:

- Inspect during a rain event if warranted
- A specific socket is needed to open and access the StormTreat system. The necessary tools are maintained by Facilities (socket and ratchet)
- Utilize the college’s Post-Construction BMP Inspection Report and document all observations
- Take photos of each area inspected and incorporate them into the report
- Required maintenance such as stabilizing banks, reseeding or removing woody vegetation shall be documented via a work order for Facilities to complete the necessary tasks
- Track work orders through to completion
- In addition to the inspection report, inspection details must be maintained on the Post-Construction BMP Inspection Log which is an overview of the inspection
- BMP inspections required under Chapter 500 will be reported to the DEP every 5 years on forms provided by the agency.

3) Sweeping Campus Parking Lots and Roadways (MCM6)

This task is required under the MS4 Permit. SMCC’s schedule is

- Sweep all roadways and parking lots in the spring, after the snow melt, removing debris left over from the winter operation. This task must be completed no later than June 30<sup>th</sup> of each year.

If SMCC Facilities staff perform this task, they will follow the points below:

- A collector is attached to the sweeper unit and the debris collected from sweeping shall be dumped into the construction debris dumpster
- Waste shall not be dumped into the trash compactor or regular waste dumpsters
- If the collection unit is damaged or not being used, the debris shall be manually swept up and taken to the construction debris dumpster
- Debris will not be intentionally swept into any catch basin
- Effort will be made to track the estimated amount of debris collected during each sweeping event (in yards) for purpose of reporting to the DEP. The following format is recommended:

<b>Date</b>	<b># Hours Sweeping</b>	<b>Estimated Amount (in yards)</b>	<b>Area(s) Swept</b>

4) Catch Basin and Stormwater Structure Cleaning and Evaluation (MCM6)

- Each year, SMCC will evaluate and clean, as necessary catch basins and stormwater structures within its MS4 boundaries:

- Stormwater structures with excess sediment (Greater than 50%) will be cleaned at the frequency stipulated in MCM6
- SMCC will contract with a catch basin vendor to perform this task
  - EHS must request the vendor bring flex hose when necessary
  - A detailed map of drains to be inspected and cleaned will be provided to the vendor prior to the start of work
  - The vendor will collect and document each basin inspection/cleaning on SMCC's Catch Basin Inspection Form
- EHS will maintain appropriate data in SMCC's Master Storm Drain Clean Out Inspection Database
- EHS will scan and retain digital copies of all SMCC Catch Basin Inspection Forms
- The data will be presented, in condensed format, within each MS4 Annual Report