

Town of Kingston, New Hampshire

Good Housekeeping and Pollution Prevention Operations and Maintenance Program for Town-Owned Facilities and Properties



TABLE OF CONTENTS

1	REGULATORY OPERATION AND MAINTENANCE REQUIREMENT	1
2	INTRODUCTION	2
3	TOWN PROPERTY OPERATION AND MAINTENANCE.....	3
3.1	PARKS AND OPEN SPACE	3
3.1.1	Overview	3
3.1.2	Parks and Open Space Inventory.....	3
3.1.3	Responsible Department.....	6
3.1.4	Training.....	6
3.1.5	Measurable Goal(s)	6
3.1.6	Best Management Practices.....	6
	Landscape Maintenance -	6
	Application of Fertilizers –	7
	Storage and Handling of Fertilizers	7
	Herbicide and Pesticide Use –	8
	Trash Management –	8
	Pet Waste Cleanup – As Needed	8
	Waterfowl Waste Management – As Needed	9
	Erosion and Poor Vegetative Cover – As Needed	9
3.2	BUILDINGS AND FACILITIES.....	10
3.2.1	Overview	10
3.2.2	Buildings and Facilities Inventory.....	10
3.2.3	Responsible Department/Parties.....	11
3.2.4	Training.....	11
3.2.5	Measurable Goal(s)	11
3.2.6	Best Management Practices.....	11
	Handling, Storage, Transfer, and Disposal of Trash and Recyclables	11
	Building Maintenance.....	12
	Storage of Petroleum Products and Other Potential Pollutants.....	12
	Floor Drains.....	13
3.3	VEHICLES AND EQUIPMENT.....	14
3.3.1	Overview	14
3.3.2	Responsible Department/Parties.....	14
3.3.3	Training.....	14
3.3.4	Measurable Goal(s)	14
3.3.5	Best Management Practices.....	14
	Vehicle Storage.....	14
	Vehicle Maintenance.....	15
	Fueling.....	15
	Petroleum and Chemical Handling	15
	Petroleum and Chemical Storage.....	16
	Petroleum and Chemical Disposal.....	17
	Vehicle Washing Procedures	17
	Heavy Equipment Washing Procedures	18
	Parts Cleaning and Storage.....	19
4	SPILL RESPONSE	20

5	GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES (BMP)	21
5.1	CATCH BASIN CLEANING PROGRAM	21
5.1.1	Overview	21
5.1.2	Measurable Goal(s)	22
5.2	STREET SWEEPING PROGRAM	23
5.2.1	Overview	23
5.2.2	Measurable Goal(s)	23
5.3	WINTER ROAD MAINTENANCE PROGRAM	24
5.3.1	Overview	24
5.3.2	Measurable Goal(s)	24
5.4	STORMWATER TREATMENT STRUCTURES INSPECTION AND MAINTENANCE PROCEDURES	25
5.4.1	Overview	25
5.4.2	Measurable Goal(s)	25
5.5	SWPPP	26
5.5.1	Overview	26
5.5.2	Measurable Goal(s)	26
6	CONTENT SOURCE AND REFERENCES	27

1 REGULATORY OPERATION and MAINTENANCE REQUIREMENT

The 2017 New Hampshire Small Municipal Separate Storm Sewer System (MS4) Permit (the Permit) as issued by the US Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System (NPDES) requires the Town of Kingston (the Town) to develop a separate Operations and Maintenance Plan (O&M) to comply with *Part 2.3.7* of the Permit. This section of the Permit addresses the requirement of the Town to develop Best Management Practices (BMPs) for Good Housekeeping and Pollution Prevention, also referred to as MCM 6. Non-structural O&M BMPs that are required under the Permit are intended to manage municipal stormwater and reduce source and nonpoint source pollution from stormwater runoff into local receiving waters.

This O&M Plan includes an inventory of town-owned facilities and properties, compiled into similar-type categories that are located within the Town's MS4 regulated area, and includes specific O&M BMPs associated with each category of property. The responsibilities to perform O&M activities for town-owned facilities and properties rests with the each of the Town's applicable departments. This Plan describes the good housekeeping and pollution prevention BMPs used by Town personnel associated with the operations and maintenance activities for town-owned properties.

The Permit identifies four (4) principal categories of town-owned properties that must be included in a formal O&M Plan:

- Parks and Open Space;
- Buildings and Facilities;
- Vehicles and Equipment; and
- Stormwater Infrastructure (e.g., catch basins, outfalls, and treatment BMPs).

Town-wide O&M Plan (the Plan) describes various O&M activities that are expected to occur for each category of town-owned property, is intended to be a living document, and should be updated as facilities, properties, and/or current practices evolve. This Plan should also be used as a reference guide to help maintain consistency and understanding of activities amongst the various departments as well as to help train new employees. This Plan can assist in tracking and documenting relevant activities for compliance purposes relative to annual MS4 reporting.

2 INTRODUCTION

Stormwater runoff containing pollutants including bacteria (E.coli), nutrients (nitrogen, phosphorus), road salts and sands, hydrocarbons (oil, gas), heavy metals (iron, lead), and other chemicals are harmful to humans and the environment. A listing of common pollutants found in stormwater are included in Table 2.1.

This Operations and Maintenance Plan (O&M) aims to outline procedures that the Town uses to minimize exposure of pollutants to stormwater through purposeful operations and maintenance of Town-owned property and equipment as well as regular inspections of facilities.

Table 2.1 Stormwater Pollutants, Sources, and Impacts¹

Pollutant	Source(s)	Impact(s)
Pathogens	pet and waterfowl wastes; livestock failing septic systems; septic overflows or illicit connections.	Risk to human health leading to closure of swimming areas and shellfish areas; potential drinking water contamination.
Nutrients (phosphorus, nitrogen)	Fertilizers; failing septic systems; livestock, pet, and waterfowl waste; vehicle/boat washing; grey water; decaying grass and leaves; septic overflows; leaking trash containers; vehicle/equipment exhaust.	Increased potential for nuisance or toxic algal blooms in surface waters; increased potential of hypoxia/anoxia (low levels of dissolved oxygen that can kill aquatic organisms) in surface waters.
Petroleum Hydrocarbons (PAHs, VOCs, etc.)	Vehicle and equipment leaks; vehicle and equipment emissions; pesticides; fuel spills; equipment cleaning; improper fuel storage and disposal.	Toxic at low levels.
Heavy Metals	Vehicle, brake, and tire wear; vehicle/equipment exhaust; batteries; galvanized metal; paint and wood preservatives; fuels; pesticides; cleaners.	Toxic at low levels; potential drinking water contamination.
Toxic Chemicals	Pesticide use; spills; illegal discharges; leaks; manufacturing.	Toxic at low levels.
Sediment	Construction sites; eroding streambanks and lakeshores; winter sand and salt applications; vehicle/boat washing; agricultural sites.	Degradation of plant and fish habitat; transport of attached oils, nutrients, and other pollutants; increased maintenance costs to infrastructure.
Debris/ Litter	Improper waste disposal and storage; fishing gear; leaking rubbish containers; littering.	Potential risk to human and aquatic life.

¹Infrastructure Operations and Maintenance Plan for Town of Danville, NH, Version 2.0, Comprehensive Environmental, Inc., December 2014.

3 TOWN PROPERTY OPERATION AND MAINTENANCE

3.1 Parks and Open Space

3.1.1 Overview

The Kingston Highway Department is responsible for the proper use, storage, and disposal of:

- pesticides, herbicides, and fertilizers (PHF) including minimizing the use of these products in accordance with manufacturer's instructions;
- trash management;
- pet waste disposal;
- waterfowl management;
- repair of erosion and poor vegetative cover; and
- stormwater management.

To protect water quality, the Highway Department annually evaluates lawn maintenance and landscaping activities to include:

- reducing use of fertilizers, particularly those containing higher levels of phosphorus or nitrogen;
- the use of low nitrogen/phosphorus slow-release fertilizers;
- proper disposal of lawn clippings and other vegetative waste;
- prohibition of blowing organic yard wastes onto adjacent impervious surfaces, into stormwater systems, or toward surface waters;
- reducing the overall use of water; and
- using native and drought resistant landscaping materials.
- repair of areas found to have erosion or poor vegetative cover, especially erosion within 50-feet of a surface water.

The Town also has an established schedule to manage trash containers at parks and other public-accessed properties (i.e., sufficient number and cleaning frequency) as well as placement of signage in areas promoting proper disposal of pet wastes.

3.1.2 Parks and Open Space Inventory

The following tables provide a list of town-owned properties within the MS4 regulated area that are managed under the Parks and Open Space category including: where fertilizers are stored, mixed, applied, recycled, or disposed; and Town properties where lawns or vegetation areas are mowed, trimmed, and maintained. As of 2021, the Town Highway Department performs most landscaping activities including mowing, fertilizers, and pesticides. This inventory below is reviewed annually and updated as needed.

Parks / Open Space Location	Managed Turf	Outdoor Fuel / Chemical Storage	Waste Collection	Sanitary Services (non-building)	Dog Waste Station
Parks, Recreation Fields, Open Space					
Kingston Town Plains Main Street	YES	NO	YES	NO	NO
Great Pond Boat Ramp 28 Main Street	NO	NO	YES	YES	YES
Kingston Parks & Recreation 24 Main Street	YES	YES	YES	YES	YES
Chase Street Recreational Fields	YES	NO	YES	YES	YES
Pine Grove Cemetery Danville Road	YES	NO	YES	NO	NO
Plains Cemetery Cemetery Lane	YES	NO	YES	NO	NO
Conservation Lands (multiple, minimally maintained natural areas)	NO	NO	YES	NO	YES

Parks / Open Space Location	Contracted Services					Other Maintenance/ Pollutants Potentially Exposed to Stormwater
	Lawn Mowing	Landscaping	Fertilizing	Pesticide / Herbicide Application	Trash / Recycle Collection	
Kingston Town Plains Main Street	X	X	X	X	X	<ul style="list-style-type: none"> Pet Waste
Great Pond Boat Ramp 28 Main Street					X	<ul style="list-style-type: none"> Pet Waste Non-building Restroom Gravel/Pavement Fuel / Motor Oil
Kingston Parks & Recreation 24 Main Street	X	X	X	X	X	<ul style="list-style-type: none"> Pet Waste Building maintenance Beach maintenance Non-building Restroom On-site Sanitary System PHF Storage Gravel/Pavement Fuel / Motor Oil Deicing Materials Storage
Chase Street Recreational Fields	X	X	X	X	X	<ul style="list-style-type: none"> Pet Waste Building maintenance Non-building Restroom PHF Storage Gravel/Pavement Fuel / Motor Oil
Pine Grove Cemetery Danville Road	X	X	X	X	X	<ul style="list-style-type: none"> Pet Waste Building maintenance PHF Storage Gravel/Pavement Fuel / Motor Oil Deicing Materials Storage
Plains Cemetery Cemetery Lane	X	X	X	X	X	<ul style="list-style-type: none"> Pet Waste Building maintenance PHF Storage Gravel/Pavement Fuel / Motor Oil Deicing Materials Storage
Conservation Lands (multiple, minimally maintained natural areas)					x	<ul style="list-style-type: none"> Pet Waste

3.1.3 Responsible Department

The Town of Kingston Highway Department is responsible for the operations and maintenance of the Town's parks and open space as described in this Plan.

3.1.4 Training

O&M training is made available to Highway Department employees on a seasonal basis for the activities described and as anticipated. Contractors are provided the information in this plan as applicable.

Example training video: <https://www.youtube.com/watch?v=6eD29UBINqE&feature=youtu.be>

3.1.5 Measurable Goal(s)

Implement the applicable BMPs at 100% of the Town's parks and open space properties.

3.1.6 Best Management Practices

The following best management practices (BMPs) are employed by the Highway Department to minimize potential pollutants in stormwater runoff:

Landscape Maintenance

- Mulch-mow grasses whenever possible; grass clippings are a natural fertilizer.
- Sweep grass clippings from sidewalks or streets back onto grassy areas.
- Do not blow organic waste into or toward surface waters, including stormwater treatment practices (catch basins, detention ponds, swales, etc.).
- Do not wash down or dispose of lawn clippings, leaves, tree trimmings, or other landscape waste in a storm drain, drainage ditch, or open body of water.
- Dispose of organic wastes by composting whenever possible. When composting is not possible, dispose of organic wastes at an approved disposal facility. In both cases, ensure that landscape waste does not enter a waterway.
- When feasible, collect and dispose of landscape wastes by cleaning equipment (e.g., grass clippings) into a trash receptacle or by composting.
- Consider landscape design that utilizes native, drought tolerant vegetation.
- Irrigate with the minimal amount of water needed. Never water at rates that exceed the infiltration rate of the soil.
- Maintain irrigation systems so that irrigation uses the minimum amount of water possible, is applied evenly, and does not run off from the irrigated area. Repair broken or leaking sprinkler heads as soon as possible.
- Use automatic timers or computer-controlled systems on irrigation equipment to minimize runoff.

Application of Fertilizers

- Properly calibrate fertilizer application equipment to ensure proper application rate per product instructions.
- Time the application of fertilizers to coincide with the manufacturer's recommendation for best results.
- Only using fertilizers with low-levels or no phosphorus/nitrogen.
- Use slow-release fertilizers.
- Base fertilizer application on soil test results to avoid excess application.
- Train employees on proper application methods, as recommended by the product manufacturers.
- Do not apply fertilizers when heavy rainfall or winds are expected.
- Never over-apply fertilizers.
- Designate "no spray zones" and/or "buffer areas" around ponds, lakes, and streams. Avoid spraying fertilizers within 50-feet of any surface water or storm drainage practice (unless stricter limits apply).
- Set mower height to no lower than 3-inches in buffer areas around water features to allow the vegetation to slow down and filter stormwater runoff.
- Do not apply fertilizers or pesticides in or near any drainage areas or drainage conveyances (ditches, swales, catch basins, etc).
- Sweep or blow granular fertilizers and clippings back onto grassy areas, away from pavement and sidewalks.

Storage and Handling of Fertilizers

- Store and mix fertilizers inside a covered area that has an impervious (i.e., hard or paved) surface, preferably indoors, so that spills or leaks will not contact soils or stormwater runoff.
- Do not handle or dispose of fertilizers, pesticides, herbicides, or fungicides in or near storm drains, irrigation ditches, or surface waters.
- Clean up all spills immediately and dispose into proper receptacles. Always dispose in accordance with local, state, and federal regulations.
- Dispose of excess or leftover chemicals according to the instructions on the product label.
- Ensure that spill kits and absorbents are available in the event of a spill. Clean up any spills or leaks of fertilizers or any chemicals promptly using dry cleanup methods.
- Mix only the minimum amount of treatment chemicals that will be needed for the immediate job.

Herbicide and Pesticide Use

- All pesticides, herbicides, and fertilizers (PHFs) shall be applied following manufacturer's instructions.
- PHFs shall not be applied during drought conditions or preceding heavy rainfall.
- Chemicals shall be reordered at an approximate frequency to minimize excess storage and disposal.
- Integrated Pest Management strategies shall be employed to reduce chemical use.
- Weeding shall be done manually where possible to reduce herbicide use.
- All PHF storage locations must:
 - have secondary containment and/or are located under cover;
 - contain spill response materials;
 - be **inspected quarterly** by Town Highway staff; and
 - maintain a chemical inventory that is updated annually.

Trash Management

- Routinely pick up any trash left along trails, parks, or parking facilities.
- Empty trash cans and dumpsters regularly. Waste collection/removal shall occur weekly at a minimum.
- Trash containers and locations are **inspected quarterly**. Look for container leaks and excess accumulation that may require additional container placement.
- Keep lids on all trash cans and dumpsters.
- **Inspect and provide litter collection biannually.**

Pet Waste Cleanup – Weekly Pickup & Restock

- Post signs in public areas concerning the proper disposal of pet wastes.
- Provide pet waste bags and waste containers at properties where the Town publicly allows pets.
- Collect pet waste and replenish supplies at collection stations regularly. Always dispose in accordance with local, state, and federal regulations. Collection and waste bag replenishment shall be no less than bimonthly.
- Post signage on properties where pets are NOT publicly allowed.

Waterfowl Waste Management – As Needed

- Do not feed waterfowl. Post signage to prohibit feeding.
- Shoo geese away from public areas.
- Install predator decoys.
- If in areas where waterfowl congregate due to waste storage or handling, or as result of resident feeding in Town parks, the Town posts educational materials/signage related to feeding, deploy predator (decoys), or plant shrubs or tall grasses along waterbodies to discourage geese from feeding on open grass areas.
- Clean and inspect storm drains in areas of high waterfowl congregation regularly to prevent wildlife from living in the storm drainage system.
- Sweep and clean bike paths and paved trails. Collect trash and dispose; do not sweep or wash trash into nearby surface water or drainage conveyances.
- Contact local animal or pest control, or New Hampshire Fish and Game Department to remove wild animals when other means prove unsuccessful.

Erosion and Poor Vegetative Cover – As Needed

- When erosion or poor vegetative cover as a result of stormwater runoff is observed, install temporary sediment and erosion control stabilization measures immediately.
- Re-establish grass or native plants as soon as feasible, especially within 50-feet of any surface water or stormwater practice.

3.2 Buildings and Facilities

3.2.1 Overview

This category of town-owned properties includes (but is not limited) town offices, police and fire stations, library, and the Town garage. This plan aims to:

- identify the departments responsible for property operations and maintenance;
- describe the proper storage of petroleum products as well as other potential stormwater pollutants;
- describe practices for property waste management;
- schedule paved parking lot and walkway sweeping, and general exterior property housekeeping to reduce the potential for the runoff of pollutants to drainage practices and surface water; and
- ensure, as applicable, spill prevention plans are in place and coordinated with the fire department;
- conduct employee training to ensure adherence to this Plan.

The Highway Department is responsible for the maintenance of town-owned buildings and facilities. The Highway Department also manages Town roads and stormwater infrastructure. For grounds O&M, see Section 3 Parks and Open Space.

3.2.2 Buildings and Facilities Inventory

The following table provides a list of town-owned properties within the MS4 regulated area that are managed under the Buildings and Facilities category. This inventory shall be updated annually during SWMP review.

Facility Name Location	Managed Turf	Outdoor Fuel or Chemical Storage	Waste Collection	Vehicle Maint. / Washing	Outdoor Bulk Materials
Kingston Central Fire Station 148 West Main Street	YES	NO	YES	YES	NO
Kingston Police Station and Highway Garage 16 Main Street	YES	NO	YES	YES	NO
Kingston South Fire Station (Station 2) 3 Hunt Road	NO	NO	YES	YES	NO
Kingston Town Hall 163 Main Street	YES	NO	YES	NO	NO

3.2.3 Responsible Department/Parties

The Highway Department is responsible for the maintenance of town-owned buildings and facilities. The Highway Department also manages Town roads and stormwater infrastructure.

3.2.4 Training

Annual training is made available to the Highway Department employees based upon the activities described and as anticipated. Contractors, if applicable, are provided the information in this plan as applicable.

3.2.5 Measurable Goal(s)

Implement the applicable BMPs at 100% of the Town's buildings and facilities.

3.2.6 Best Management Practices

The following BMPs are implemented at town-owned buildings and facilities.

Handling, Storage, Transfer, and Disposal of Trash and Recyclables

All liquid and solid waste must be disposed of properly. Some of the most common sources of pollution at Town facilities are a result of littering, improper collection of trash and debris, and improper disposal of wastes.

- All waste and recycling receptacles must be leak-tight with in-place and tight-fitting lids or covers.
- Place waste or recycling receptacles indoors or under a roof or overhang whenever possible.
- Keep lids on dumpsters and containers closed at all times unless adding or removing material.
- Locate dumpsters on a flat, paved surface and install berms or curbs around the storage area to prevent stormwater run-on and/or runoff.
- Do not locate dumpsters over, within, or adjacent to any type of catch basin or other stormwater practice.
- Prior to transporting waste, trash, or recycling, ensure that containers are not leaking (double bag if needed) and properly secure containers in transfer container or vehicle.
- Clean and sweep up around outdoor waste containers regularly.
- Arrange for waste or recycling to be picked up regularly and disposed of at approved disposal facilities. Trash is picked up from each property weekly at a minimum.
- Never place hazardous materials in a trash receptacle, dumpster, or recycling container.
- Clean up any leaks or spills with dry cleanup methods per facility spill response plan.

- Conduct **weekly inspections** of solid and liquid waste storage areas to check for leaks and spills. Clean up immediately if found and remove or repair the source.
- In compactor areas, regularly check the hydraulic fluid hoses and reservoir to ensure that there are no cracks or leaks. Regularly sweep the area.

Building Maintenance

- Sweep parking lots and walkways and keep areas surrounding buildings clean and reduce the potential for the runoff of pollutants and sediments.
- When power washing buildings and facilities, ensure that the wash water does not flow directly into a drainage system. Use containment or filtering systems as feasible.
- Paint and other chemicals should not be applied on the outside of buildings when it is raining or prior to expected rain.
- When sanding, painting, power washing, etc., ensure that sites are properly prepared (e.g., use tarps) and cleaned (e.g., use dry cleaning methods) especially if they are near storm drains. Protect catch basins when maintenance work is conducted upgradient.
- When painting, use a drop cloth and clean up spills immediately.
- Do not leave open containers on the ground where they may accidentally tip over.
- Do not discharge chlorinated water into a stormwater system. Water must be properly dechlorinated and tested before it is discharged.

Storage of Petroleum Products and Other Potential Pollutants

- Before use, evaluate the use, storage, and disposal of petroleum products and other potential stormwater pollutants.
- Buildings and facilities are visually **inspected quarterly** for areas of potential discharges or leaks around fuel ports and equipment.
- Ensure all floor drains are disconnected from any stormwater system.
- Train all on-site employees on proper spill response procedures.

Floor Drains

Facility managers should know the discharge location of each floor drain.

- Floor drains should either be connected to a regularly maintained holding tank (registered with NHDES) or to a regularly maintained oil/water separator that discharges to a sanitary system designed to accept expected floor drain wastes (as applicable).
- Drains not connected to an appropriate device should be closed and sealed.
- To protect storm water from pollution caused by discharges of hazardous materials to the subsurface, ground surface, waterway, or storm sewer through floor drains.

Where floor drains are used **always**:

- keep a spill kit in the vicinity of the drain.
- obtain and use drain mats, adsorbent booms, or covers to keep spills out of drains.
- register floor drains and holding tanks with the NHDES.
- minimize water use or run a "dry shop".
- test removed materials and analyze for *Toxicity Characteristics Leaching Procedure* (TCLP) prior to disposal to determine if it is a hazardous waste. Dispose of in accordance with all local, state, and federal laws.

Where floor drains are used **never**:

- dump hazardous materials down the floor drains.
- use floor drains if you are unsure of their discharge location.
- store regulated contaminants near a floor drain that discharges directly to the environment.

3.3 Vehicles and Equipment

3.3.1 Overview

Kingston has established the following plan for the maintenance and storage of town vehicles. Specifically:

- all vehicles with fluid leaks shall be stored indoors and containment shall be provided until repairs are completed.
- place fueling areas under cover with containment to minimize exposure to stormwater and prevent runoff from the area.
- regularly evaluate fueling areas for spills and leaks and make repairs immediately.
- ensure that vehicle wash waters are not discharged to Town storm drains or surface waters.

3.3.2 Responsible Department/Parties

Each town department assigned to vehicles or equipment is responsible for the maintenance of those assets, respectively.

3.3.3 Training

Training is made available to the departments based upon the activities described and as anticipated. Contractors, if applicable, are provided the information in this plan as applicable.

3.3.4 Measurable Goal(s)

Implement the applicable BMPs for 100% of the Town's vehicles and equipment.

3.3.5 Best Management Practices

The following BMPs are implemented for town-owned vehicles and equipment:

Vehicle Storage

- Vehicles with fluid leaks shall be stored indoors or containment shall be provided until repaired.
- Monitor vehicles and equipment for leaks and use drip pans as needed until repairs can be performed.
- When drip pans are used, monitor daily to avoid overtopping.
- Drain fluids from vehicles and equipment that have been placed out of service or from removed parts as soon as possible. Dispose of fluids properly in accordance with all laws and regulations.
- Store and park vehicles on impervious surfaces and/or under cover or indoors whenever possible.

Vehicle Maintenance

- All vehicle maintenance and especially fluid exchanges must be completed inside.
- Waste oil is to be stored indoors within an approved waste oil vessel until it can be lawfully disposal.
- Conduct routine inspections of heavy equipment and vehicles to proactively identify maintenance needs or potential leaks. At a minimum, heavy equipment is to be **inspected monthly**.
- Conduct **quarterly inspections** (at a minimum) of all other vehicles and equipment.
- Perform routine preventive maintenance to ensure vehicles and equipment maintain proper and safe operation.
- Recycle or dispose of all wastes properly and promptly.
- To facilitate regular visual inspections, sweep and pick up trash and debris as needed around vehicles and equipment.
- Do not dump any liquids or other materials outside.

Fueling

- Fueling areas owned by the Town should be covered.
- Fueling areas should be evaluated to ensure that pollutants (e.g., gasoline or oil) do not enter any storm drain or conveyance to surface waters.

Petroleum and Chemical Handling

Proper management of petroleum and chemical products used by municipalities will **always**:

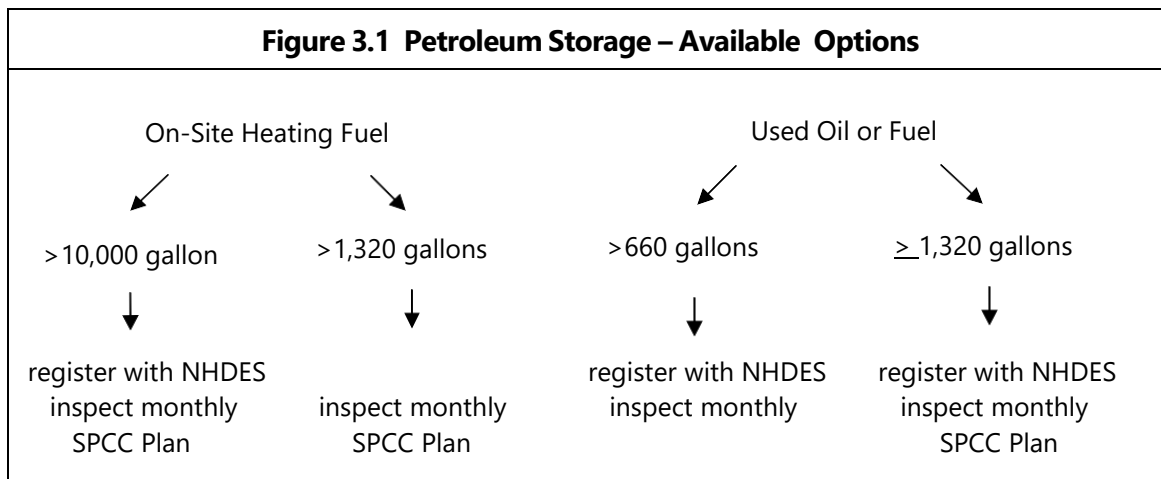
- annually train employees in hazardous material handling, safety, storage, spill cleanup and reporting.
- handle petroleum products and chemicals according to manufacturer's specifications.
- use proper protective equipment.
- maintain and make available Material Safety Data Sheets (MSDS) for all chemicals used and stored on-site.
- conduct oil changes and equipment maintenance indoors, as applicable.
- transfer materials from one container to another inside or under cover and in a well-ventilated area.
- assess material needs to minimize the amount and variety of hazardous material on-site.
- keep an inventory of hazardous materials, update annually.
- ensure all containers are properly labeled.

When handling petroleum or chemicals, **never**:

- treat or dispose of hazardous materials unless licensed to do so.
- mix petroleum or chemicals unless directed by manufacturer's instructions.

Petroleum and Chemical Storage

NHDES regulates above-ground storage tanks (ASTs) at facilities that store more than 660 gallons of used oil or fuel, or when at a facility stores more than 10,000 gallons of heating oil. ASTs must be registered with NHDES and **inspected monthly**. Federal regulations (40 CFR Part 112) require the development of a Spill Prevention Control and Countermeasure Plan (SPCC) for where more than 1,320 gallons of any petroleum product is stored. These regulations help protect local water quality by requiring regular inspections and spill prevention and clean-up procedures.



For storage of petroleum and chemical products **always**:

- store materials away from high traffic areas, with appropriate signage posted.
- store materials in approved containers according to manufacturer's specifications.
- store incompatible hazardous materials in separate areas.
- as appropriate, store bulk chemicals and petroleum products inside or under cover.
- store bulk items within secondary containment areas.
- transfer material in covered areas.
- have a spill kit nearby.
- storage areas are **inspected monthly** for leaks or drips.
- register ASTs per Figure 3.1.
- develop Spill Prevention Control and Countermeasure (SPCC) plans per Figure 3.1.
- dispose of unused or waste materials properly.
- **Never** store bulk chemicals or petroleum products near a storm drain.

Petroleum and Chemical Disposal

Proper disposal of petroleum and chemical products can minimize the impact to local waterbodies. Used oil can be recycled with a business registered with the NHDES. Wastes should **always** be managed as follows:

- fuel or any mixture of oil and water, must be managed as a hazardous waste and should not be mixed with used oil.
- residual solids from oil spills may be managed as a solid waste, unless from a volatile fuel such as gasoline. Volatile fuel residuals must be managed as a hazardous waste.
- track and document off-site disposal of chemicals and petroleum products. Products must be transported with a licensed transporter and records maintained for no less than five years.
- drain used oil filters for 24-hours before disposal regular trash.
- annually train employees on proper disposal practices.

When disposing of petroleum or chemical products **never**:

- place hazardous waste in solid waste dumpsters.
- pour liquid waste down floor drains, sinks, or storm drains.
- mix petroleum waste and chemical waste.
- dispose of any gasoline-contaminated waste in the regular trash.

Vehicle Washing Procedures

Full containment of wash water is ideal and to be achieved when possible. Vehicle wash water shall not be discharged to any drainage practices or to surface waters.

Where full containment of wash water cannot be achieved, adhere to the following procedures:

- Avoid discharge of wash water directly to any storm drainage system or surface water (e.g., stream, pond, or drainage swale).
- Minimize the use of water to the extent practical.
- Where the use of detergent cannot be avoided, use products that do not contain regulated contaminants such as phosphates. The use of a biodegradable, phosphate-free detergent is preferred.
- Do not use solvents except in dedicated solvent part wash systems.
- Do not power wash, steam clean, or perform engine or undercarriage cleaning except inside a closed and contained facility.
- Grassy and pervious (porous) surfaces may be used to promote direct infiltration of wash water providing the water is treated before entering the ground and runoff to adjacent stormwater systems is minimized.

- Impervious surfaces flowing to a storm drainage structure should not discharge directly to a surface water unless treatment is provided. The treatment device should be positioned such that drainage must flow through the device, and no bypass or short-circuiting can occur.
- Periodic sweeping and/or cleaning of wash areas should be completed to prevent accumulation of wash contaminants or sediments.

Heavy Equipment Washing Procedures

- Mud and heavy debris removal should occur on impervious surfaces or within a retention area.
- Maintain mud removal areas with frequent mechanical removal and proper disposal of wash-off.
- Do not wash equipment on impervious surfaces upgradient of storm drains that discharge directly to a surface water.
- All floor drains should be connected to a sanitary sewer or tight tank. Floor drains discharging to surface waterbodies or storm drain systems should be permanently stopped before any vehicle wash activities are completed.
- Where the use of detergent cannot be avoided, use products that do not contain regulated contaminants. The use of biodegradable, phosphate-free detergent is preferred.
- Detergents should not be used in areas where oil/water separators provide pre-treatment of drainage.
- Maintain absorbent pads and drip pans to capture and collect spills or noticeable leaks observed during washing activities.

Parts Cleaning and Storage

Three methods are used to clean vehicle and equipment parts: chlorinated solvents, citrus-based cleaners, or aqueous base cleaners. If chlorinated solvents are used, they must be disposed of as hazardous waste by a licensed hazardous waste contractor. Citrus based cleaners can be recycled by an off-site contractor. Steam cleaning or a commercial aqueous washer allows discharge to an appropriate sanitary system.

For parts cleaning and storage **always**:

- prioritize the use of citrus-based, steam cleaning, pressure washing, or aqueous washers instead of solvents. Wastewaters must be discharged to a NHDES registered holding tank.
- perform all cleaning in a designated area and minimize the potential for spills.
- close cleaning product lids when it is not in use.
- the number of cleaners kept on-site should be minimized.
- dispose of all waste cleaners properly with a licensed contractor.
- store waste cleaners in properly labeled containers in accordance with manufacturer label and regulations.
- store spare parts in a designated area.
- store spare parts inside or under cover.
- clean parts that are to be stored.
- use drip pans for stored parts.
- frequently monitor storage areas for staining or leaks.

For parts cleaning and storage **never**:

- dispose of spent cleaners in floor drains, sinks, storm drains, on the ground, or into the air.
- mix or add spent or fresh solvents to used oil.
- use gasoline as a cleaner or solvent.
- burn spent parts cleaning fluids.
- use a hand-held cleaner in or near the parts cleaner.
- mix cleaning products.

4 GENERAL SPILL RESPONSE

The following general spill response procedure applies to all Town property categories. For facilities with SWPPPs, refer to the site-specific spill response sections of those plans.

- Ensure that spill prevention plans are in place for all facilities.
- Call 911 if applicable.
- Notify the facility's supervisor immediately and ensure that other staff and/or members of the public are aware of the spill and removed from the spill area as appropriate.
- Coordinate with fire department, as necessary.
- For large oil spills (more than 25-gallons), the *NHDES Petroleum Spill Response Program* will be notified immediately at (603) 271-3899 (M-F 8am to 4 pm) or the State Police Dispatch at (603) 223-4381 (non-business hours), and an emergency response contractor will be called.
- Materials and equipment necessary for spill cleanup may include but are not limited to; gloves, goggles, pre-bundled spill kits, mops, rags, kitty litter, sand, sawdust, brooms, dust pans, and plastic and metal trash containers specifically for the purpose of spill collection and disposal.
- The spill area will be kept well-ventilated, and personnel will wear appropriate protective gear to prevent injury from contact with any hazardous substance.
- Assess the release site for potential safety issues and direction of flow. Stop downgradient flow as soon as possible.
- Spills of toxic or hazardous material will be reported to the appropriate State or local government agency as required by State and Local regulations.
- Disposal of any spilled materials must be disposed of in accordance with all local, state, and federal requirements.
- With proper training and personal protective equipment, complete the following:
 - Stop the contaminant release;
 - Contain the release using spill containment berms or absorbents;
 - Protect drains and/or catch basins with the use of absorbents, booms, berms or drain covers;
 - Clean up the spill; and
 - Report the spill as applicable.

5 GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES (BMP)

5.1 Catch Basin Cleaning Program

5.1.1 Overview

The Town currently uses an independent contractor to perform **annual inspections**, cleaning, and maintenance of the approximately 136 town-owned drainage structures including approximately 50 catch basins associated with 37 MS4 regulated outfalls including one estimated interconnection a NHDOT MS4. The Town's established plan for catch basin cleaning and inspection includes documentation using field forms per the Town's Standard Operating Procedure (SOP) **HW-1 Catch Basin Inspection and Cleaning**. The Town also keeps a dated log of catch basins cleaned or inspected.

The Town implements the following catch basin inspection and cleaning procedures to reduce the discharge of pollutants to the Town's regulated outfalls and receiving waters.

- **Annual inspection** and cleaning of catch basins. Catch basins are cleaned such that they are no more than 50% full at any time. The Town inspects all catch basins within the regulated area annually to evaluate sediment or debris accumulation and establish inspection and maintenance frequencies to meet the "less than 50 percent" goal.
- If a catch basin sump is found to be more than 50% full during two consecutive routine inspections or cleaning events, the finding is documented, the contributing drainage area is investigated for sources of excessive sediment loading, and to the extent practical, contributing sources are addressed. If no contributing sources are found, the inspection and cleaning frequency is increased. Documentation of investigations and increased cleaning is included in the catch basin inspection forms.
- Catch basins located near construction activities are inspected and cleaned more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings (i.e., catch basins more than 50% full).
- Catch basins that discharge to impaired waters are inspected and cleaned more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings (i.e., catch basins more than 50% full).
- Catch basin cleanings must be stored properly prior to disposal or reuse such that they do not discharge to receiving waters.
- Provide training for Town employees performing catch basin cleaning and inspection per SOPs. Contractors are provided with applicable Town SOPs.
- At a minimum, the following information must be included in each MS4 Permit annual report to the EPA:
 - any action taken in response to excessive sediment or debris loading (greater than 50% annually);
 - total number of catch basins associated with MS4 regulated outfalls;

- number and percentage of catch basins inspected;
- number and percentage of catch basins cleaned; and
- total volume or mass of material removed from catch basins.

5.1.2 Measurable Goal(s)

All catch basins associated with MS4 regulated outfalls are inspected and cleaned annually in accordance with the Town's SOP such that no catch basin is found to be more than 50% full at any given time.

5.2 Street Sweeping Program

5.2.1 Overview

Kingston maintains approximately 74 miles of paved Class V town roads within the MS4 regulated area (per available GIS data). The Town uses an independent contractor to sweep curbed town roads (currently none) and curbed parking (currently none) within the Towns MS4 regulated area once per year in the spring (following winter activities such as sanding) per SOP **HW-2: Street and Municipal Parking Lot Sweeping Procedures**. The Town implements the following street and parking lot sweeping procedures to reduce the discharge of pollutants:

- More frequent sweeping of curbed streets and lots (currently none in Kingston) is completed for targeted areas that discharge to nutrient-impaired waters. Sweeping must be performed in these areas a minimum of two times per year, once in the spring and once in the fall following leaf fall.
- Street sweepings must be stored properly prior to disposal or reuse such that they do not discharge to receiving waters.
- Provide training for Town employees performing street sweeping per SOPs. Contractors are provided with applicable Town SOPs.
- The following information will be included in each annual report:
 - Number of miles cleaned,
 - and the volume or mass of material removed.

5.2.2 Measurable Goal(s)

Sweeping of 100% of curbed streets and lots annually, or twice per year if discharging to a nutrient-impaired water, and in accordance with the Town SOPs.

5.3 Winter Road Maintenance Program

5.3.1 Overview

The Highway Department uses Town staff and vehicles as well as independent contractors to implement winter road maintenance in accordance with **SOP HW-3: Winter Maintenance Procedures – Snow Removal and Ice Control**. The SOP provides the following guidance:

- Minimize the use and optimize the application of sodium chloride and other salts (while maintaining public safety) and consider opportunities for the use of alternative deicing materials.
- As feasible, optimize sand and/or chemical application rates using automated application equipment (e.g., zero velocity spreaders), anti-icing and pre-wetting techniques, implementation of pavement management systems, and alternate chemicals.
- Maintain records of the application of sand and, anti-icing and/or deicing chemicals to document the reduction of chemicals to meet the goals of the Permit.
- Prevent exposure of deicing product (e.g., salt, sand, or alternative products) storage piles to precipitation by enclosing or covering the storage piles. Implement good housekeeping, diversions, containment, or other measures to minimize exposure resulting from adding to or removing materials from the piles. Store piles in such a manner as not to impact surface water resources, groundwater resources, recharge areas, or drinking water wells.
- Provide training for Town employees performing winter roadway maintenance per SOPs, and if available, applicator certification. Contractors are provided with applicable Town SOPs.

5.3.2 Measurable Goal(s)

Demonstrate a reduction in mass of salts per mile and evaluate at least one salt alternative for use in the Town over the term of the Permit.

5.4 Stormwater Treatment Structures Inspection and Maintenance Procedures

5.4.1 Overview

The Town implements **annual inspection** and maintenance for constructed town-owned stormwater BMPs such as water quality swales, retention/detention basins, infiltration structures, proprietary treatment devices, or other similar structures. All town-owned, MS4 regulated structural stormwater BMPs are inspected annually at a minimum and maintained as needed. **SOP PL-3: Inspection of Constructed Best Management Practices** includes inspection procedures and field forms for documentation.

5.4.2 Measurable Goal(s)

Annually inspect and maintain 100% of town-owned, MS4 regulated stormwater treatment structures.

5.5 SWPPP

5.5.1 Overview

The Town has developed and implemented a Stormwater Pollution Prevention Plan (SWPPP) for town-owned facilities within the MS4 regulated area where pollutants have the potential to be exposed to stormwater. Currently, only the **Highway Department Facility** (property) requires a SWPPP under the Permit.

At a minimum, the SWPPP must:

- identify all activities that occur at the facility and the potential pollutants associated with each activity including the location of floor drains.
- includes instructions for conducting employee training, routine facility inspections, and associated documentation forms.

5.5.2 Measurable Goal(s)

Implement SWPPPs for 100% of MS4 regulated town-owned facilities. Provide annual training including spill response to Town staff associated with each SWPPP facility.

6 CONTENT SOURCE AND REFERENCES

Section 6.6 – MCM #6; Good Housekeeping and Pollution Prevention for Permittee-Owned Operation prepared by Seacoast Stormwater Coalition & Manchester/Nashua Stormwater Coalition, June 7, 2019.

Section 6.6 – MCM #6; Good Housekeeping and Pollution Prevention for Permittee-Owned Operation and Procedures; Year 1 and Year 2 Requirements prepared by Seacoast Stormwater Coalition & New Hampshire Lower Merrimack Valley Stormwater Coalition, December 31, 2019.

Guidelines and Standard Operating Procedures, Illicit Discharge Detection and Elimination And Pollution Prevention/Good Housekeeping for Stormwater Phase II Communities in New Hampshire, Edwards and Kelcey, November 2006.

Draft Operations and Maintenance (O & M) Program, City of Rochester, New Hampshire, June 2019.

Infrastructure Operations and Maintenance Plan for Town of Danville, NH, Version 2.0, Comprehensive Environmental, Inc., December 2014.