

# Operations and Maintenance of Parks and Open Spaces

## Introduction

Parks and open space operations and maintenance activities commonly involve the operation of equipment such as mowers and tractors; disposal of waste from mowing, planting, weeding, raking, pruning, and trash collection; application of pesticides, herbicides, and fertilizers; cleaning and maintenance of park amenities such as play equipment, restrooms, and structures; and snow removal. These activities have the potential to generate contaminants such as sediments and toxic chemicals that may be picked up by rainwater, thereby entering the storm drainage system and receiving waters. The goal of this written Standard Operating Procedure (SOP) is to provide guidance to municipal employees to reduce the discharge of pollutants from the MS4 and to receiving waters as a result of parks and open space operations and maintenance. If services are contracted, this SOP should be provided to the contractor. The contract should specify that the contractor is responsible for compliance with all applicable laws.

The City of Haverhill performs a variety of operations and maintenance activities at its municipal parks and open spaces.

Within two years of the effective date of the MS4 Permit, the City will create an inventory of all municipal parks and open spaces and update this inventory annually.

## Procedures

The City of Haverhill will implement the following procedures at municipal parks and open spaces to reduce the discharge of pollutants from the MS4:

### General

- Repair damage to landscaped or mulch or vegetated bare areas as soon as possible to prevent erosion. If there are areas of erosion or poor vegetation, repair them as soon as possible, especially if they are within 50 feet of a surface water (e.g., pond, lake, or river).
- Remove (sweep or shovel) materials such as soil, mulch, and grass clippings from parking lots, streets, curbs, gutters, sidewalks, and drainage-ways.
- Do not clean up any unidentified or possibly hazardous materials found during maintenance; notify a supervisor immediately.

## **Maintenance**

- Wastewater from power washing signs, structures, or bleachers cannot be discharged into the Stormwater system.
- When painting park equipment, use a drop cloth and clean up any spills immediately.
- Do not leave open containers on the ground where they may accidentally tip over.
- Sweep parking lots with a street sweeper and dispose of street sweepings in designated areas.
- Never wash debris from parking lots into the storm drain.

## **Mowing**

- Remove debris and trash from landscaped areas prior to mowing.
- Collect grass clippings and leaves after mowing. Do not blow or wash them into the street, gutter, or storm drains.
- Properly recycle or dispose of organic waste after mowing, weeding, and trimming.
- Reduce mowing frequencies wherever possible by establishing low/no-mow areas in lesser-used spaces.
- Brush off mowers (reels and decks) and tractors over grassy areas or in contained washout areas.
- Leave clippings on grassy areas or dispose of them in the trash or by composting.
- Do not hose off mowers over paved areas that drain into the MS4 or directly to surface waters.
- Follow proper vehicle and equipment maintenance procedures to prevent leaks.
- Do not allow grease from mowers to fall onto areas where they can be washed into the stormwater system.

## **Irrigation**

- Repair broken sprinkler heads as soon as possible.
- Only irrigate at a rate that can infiltrate into the soil to limit run-off.
- Avoid irrigating close to impervious surfaces such as parking lots and sidewalks.

## **Landscaping**

- When establishing new plantings, use alternative landscaping materials, such as drought resistant or native plants to reduce the need for irrigation and extensive application of fertilizers and pesticides.
- Follow proper fueling procedures for all equipment to ensure that petroleum products do not enter the Stormwater system.
- Fertilizers, herbicides, and pesticides should be properly used, stored, and handled.
- Municipalities that discharge into waters with phosphorus or nitrogen Total Maximum Daily Loads (TMDLs)
  - In accordance with impaired water requirements, the City of Haverhill will use slow-release fertilizers in addition to reducing fertilizer use to reduce runoff to all catch basins particularly those discharging to the Merrimack River. Phosphorus will only be applied in areas where a soil test indicates that it is not present in sufficient quantities. Phosphorus-free fertilizer options will be considered.

- The City of Haverhill discharges into the following impaired waterbodies:
  - Creek Brook (MA84A-37)
  - Kenoza Lake (MA84028)
  - Lake Pentucket (MA84051)
  - Lake Saltonstall (Plug Pond) (MA84059)
  - Little River (MA84A-09)
  - Merrimack River (Downstream of Little River) (MA84A-05)
  - Merrimack River (Upstream of Little River) (MA84A-04)

Under MS4 Permit requirements, the City acknowledges that blowing organic waste material (grass cuttings, leaf litter) is strictly prohibited.

### **Snow Removal**

- Store salt or sand for snow removal indoors under a roof or in a covered container and on impervious surfaces.
- Any damage done to vegetated areas caused by plows or deicing materials should be repaired as early as possible in the spring.

### **Trash Management**

- All waste and recycling containers must be leak-tight with tight-fitting lids or covers.
- Place waste and recycling containers indoors or under a roof or overhang whenever possible.
- Clean and sweep up around outdoor waste containers regularly.
- Arrange for waste and recyclables to be picked up regularly and disposed of at approved disposal facilities.
- Do not wash out waste or recycling containers outdoors or in a parking lot.
- Conduct periodic inspections of waste areas to check for leaks and spills.
- Ensure there are enough trash and recycling containers at appropriate areas.
- Monitor waste and recycling containers at heavily-used sites and on holidays to ensure that there is no overflow.

### **Other Activities**

- Provide pet waste stations with bags and trash receptacles where pets are permitted. Post signs describing the proper disposal of pet waste.
- All portable toilets should be staked down in flat, secure locations where they are less likely to be knocked down or blown over. They should be placed in a location that would retain any spillage from washing into the MS4 or receiving waters. Ensure routine maintenance and cleaning of portable toilets.
- Identify undesirable waterfowl congregation areas and take steps to prevent waterfowl droppings from entering the Stormwater system or surrounding waterbodies.
  - Take measures to discourage congregation near waterbodies and the storm system (e.g., use strobe lights or reflective tape, establish no-mow zones to reduce available feeding

areas, or plant thick vegetation along waterlines). If waterfowl congregation cannot be managed, then isolate the drainage from congregation areas away from the storm system and waterbodies.

- Install signage to educate the public on the negative effects of waterfowl feces entering the Stormwater system or nearby waterbodies in order to discourage public feeding. Alternatively, enact feeding bans.

### **Employee Training**

- Employees who perform maintenance or other applicable work at municipal parks and open spaces are trained one times per year on these procedures and the proper operation of related equipment.
- If services are contracted, the contractor should be given a copy of this and any applicable SOPs to ensure compliance with MS4 regulations.