AECOM Environment

Prepared for:
The Town of Tewksbury, MA

Prepared by:
AECOM
Chelmsford, MA
60303397
August 27, 2013

JOHN F. RYAN ELEMENTARY SCHOOL

Operations and Maintenance Plan

Draft

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Operations and Maintenance Plan
Draft

_____
Prepared By [Name]

_____
Reviewed By [Name]

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List of Acronyms

AST – Above Ground Storage Tank

BMP – Best Management Practice

DEP – Department of Environmental Protection

DPW – Department of Public Works

SOP – Standard Operating Procedures

SPCC - Spill Prevention and Countermeasure

SWPPP - Stormwater Pollution Prevention Plan

NPDES – National Pollutant Discharge Elimination System

1.0 Purpose

The purpose of the Operation and Maintenance Plan is to minimize the impact of stomwater pollution from various operations and maintenance activities in order to comply with Draft IMS Small MS4 NPDES Permit. Specific Operations and Maintenance Procedures are included if applicable to parks and open space, buildings and facilities, and vehicles and equipment.

2.0 Coverage Area

The coverage area considered in this report includes the John F Ryan Elementary School, which is located on 135 Pleasant Street, and includes the facility itself, the parking lot in the rear of the building, and the open space behind the facility. A figure of the coverage area and the school facility is included in Appendix A. This figure is based on ortho imagery and includes nearby wetlands, swamps, and property boundaries.

3.0 Applicable Operations

The O&M Plan covers the following school operations:

- All routine and preventative maintenance of the school's stormwater system
- Road and parking lot maintenance practices, which include deicing, snow removal, and sanding
- External building maintenance, which includes exterior cleaning, washing, painting, and other maintenance activities
- Grounds maintenance, which includes the usage of fertilizer, pesticide, herbicide, green waste disposal, trash management, pet waste and waterfowl maintenance, and sediment and erosion control
- Material storage, which includes stockpiling of debris such as gravel, and equipment storage

4.0 Operations and Maintenance Procedures

All school operations listed in Section 3.0 shall be conducted in accordance with the applicable Standard Operating Procedures included in Appendix B and summarized in Table 4-1 below.

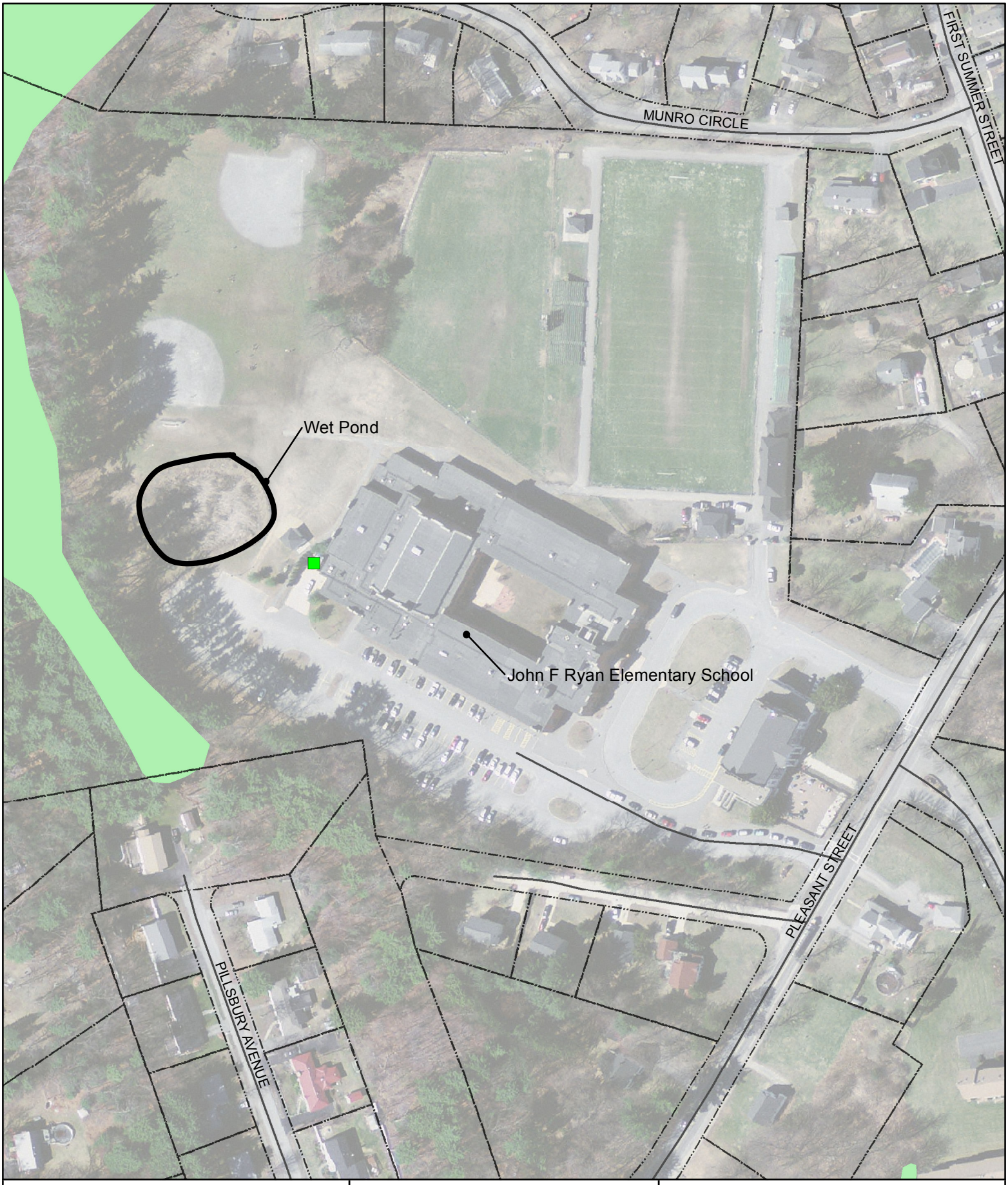
All scheduled inspections and maintenance of the school stormwater system are contained in the Stormwater Management System Inspection and Maintenance Logs, attached as Appendix C.

Table 4-1. Summary of Standard Operating Procedures for school Operations and Maintenance

Standard Operating Procedures	Applicable Work
General Good Housekeeping Procedures	All work conducted by any school employee
Stormwater System Maintenance	Routine and preventative work on the school's Stormwater System
Road & Parking Lot Maintenance	Snow plowing, winter salt, sand, or deicer application, paving or patching asphalt or concrete work, painting and striping, trash and debris removal
Equipment Maintenance	Equipment maintenance, good housekeeping & waste disposal
Building Maintenance	Janitorial practices, waste management, pressure washing & exterior surface cleaning, painting, sanding, HVAC system maintenance
Grounds Maintenance	Landscape maintenance, mowing, mulching, graveling trails & parking lots, trash removal/ waste management
Fertilizer, Herbicide, & Pesticide Application	Storage, mixing, and application of fertilizers, herbicides, and pesticides
Materials Storage	Liquid materials storage, stockpiling materials including: sand & gravel, decommissioned equipment

Appendix A

Figure



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Feet

John F Ryan Elementary School
Project Location Map

NPDES O&M
Tewksbury, MA

September 2013

Legend

Dumpster
Wetlands
Roads
Property boundaries

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Appendix B

Standard Operating Procedures

Standard Operating Procedures (SOPs)

Good Housekeeping for Outdoor Operations and Maintenance	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the course of conducting all outdoor operations and maintenance work at the John F Ryan Elementary School.
Location of SOP:	
Last Update:	
Administrator of SOP:	

Prerequisites

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
2. Employees should read the procedures contained in this SOP and any related references.

Equipment and Materials Needed

1. Weatherproof containment and storage materials, including containers, drums, pallets, etc.
2. Spill Kit and equipment for dry cleanup, including kitty litter, absorbent pads, brooms, etc.
3. Storm drain inlet protection, including drain covers, berms, etc.

Standard Operating Procedures

1. All employees should be familiarized with the location of all storm drains and conveyance facilities.
2. Protect stormwater facilities during all work to ensure that only rain water enters the drainage system.
3. Do not dump liquids or other materials outside.
4. Pick up trash and dispose in dumpster.
5. Keep trash receptacles closed at all times.
6. Do not put liquids in trash receptacles.
7. Do not put hazardous materials in trash receptacles.
8. Keep outside work areas clean and sweep up after projects.
9. Do not hose down outside work areas.
10. Quickly clean up and contain all solid or liquid pollutant spills. Use solid absorbents and rags for clean-up of liquid spills and leaks.
11. Sweep paved maintenance and material usage areas often as needed.
12. Promptly repair or replace leaking connections, pipes, valves, hoses, or other leaking equipment that could contaminate stormwater.
13. Report any suspected illegal connections or illegal discharges to the Department of Environmental Protection (DEP).

Hazardous Waste Disposal

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, herbicides, and pesticides, oil, fuels, acids, poisons, antifreeze, brake fluid, and solvents.
2. Hazardous Waste materials must be given to the DPW.

Standard Operating Procedures (SOPs)

Stormwater System Maintenance	
Purpose of SOP:	To maintain the purpose of the stormwater management system at the John F Ryan Elementary School and to guarantee the proper disposal of waste.
Location of SOP:	
Last Update:	
Administrator of SOP:	

Prerequisites

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
2. Employees should read the procedures contained in this SOP and any related references.

Equipment and Materials Needed

1. Stormwater Management System inspection and Maintenance Log.
2. Stormwater Management System Map
3. Vactor Truck

Standard Operating Procedures

1. Inspect and maintain stormwater system according to the Stormwater Management System Inspection and Maintenance Logs once in the spring and once in the fall.
2. Schedule catch basin cleaning annually based on inspection.
3. Inspect all catch basins for obstructions, structural damage, and depth of sediment every month. Clean out catch basins if they are half full of sediment.
4. Schedule street and parking lot sweeping biannually after winter snow & ice management and again in the fall after the summer dry season and before winter rains mobilize accumulated sediments and pollutants from impervious surfaces.
5. Maintain side slopes on ditches at a grade that does not cause side-slope erosion.
6. Maintain 4 to 9 inches of vegetation in ditches.
7. Remove mowed or cut vegetation from ditches and do not dispose of in adjacent waterway or storm drainage system.
8. Do not apply herbicide, pesticide, or fertilizer in ditches or on adjacent roadways.
9. Reseeding of ditches should be done in late spring or early fall. This allows vegetation to be re-established before the next wet season to minimize erosion.

Standard Operating Procedures (SOPs)

Road and Parking Lot Maintenance	
Purpose of SOP:	To prevent discharge of pollutants to stormwater during school maintenance activities.
Location of SOP:	
Last Update:	
Administrator of SOP:	

Prerequisites

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
2. Employees should read the procedures contained in this SOP and any related references.

Equipment and Materials Needed

1. Spill kit and equipment for dry cleanup including kitty litter, absorbent pads, etc.
2. Storm drain inlet protection including drain covers, berms, etc.
3. Tarps

Standard Operating Procedures

General Maintenance

1. Employees should be familiarized with the location of all storm drains and conveyance facilities in the work areas.
2. Collect and dispose of trash along roadsides and in parking lots when observed.

Street Maintenance

1. Protect nearby storm drains using drain covers, inserts, berms, etc. over or around inlets when doing any maintenance work within 25 feet of an inlet.
2. Sweep or vacuum wastes from all maintenance work when the project is complete and before any rain event.

Parking Lot Maintenance

1. Clean leaves, trash, sand, and other debris from parking lots regularly or as needed to prevent debris from reaching any storm drain inlet or storm detention area.
2. Make sure to sweep or vacuum the pavement area after the final snowmelt. Paved areas should also be vacuumed as necessary during the summer months.
3. Any automotive leaks, drips, or spills must be cleaned up with dry methods, such as absorbents, and disposed of properly.
4. Inspect dumpsters and waste disposal areas regularly. Clean up any trash, spills or leaks and report leaking dumpsters to the disposal company.

5. Repair pavement along the parking lot, and include annual inspections.
6. Make sure catch basins are placed on areas where they will receive runoff.
7. Repair areas with significant erosion.
8. Make sure that dumpsters are not located uphill of a nearby catch basin.
9. Make sure dumpsters are located on pavement, are in good condition, and remain covered at all times.

Street Sweeping

1. Schedule street sweeping to be at least twice per year, and schedule additional sweeping after large storm events or for maintenance projects that leave debris behind.

Painting and Striping

1. Only schedule painting and striping projects during dry weather.
2. Stop painting if rain is expected.
3. Block nearby storm drain inlets (within 25 feet down gradient from work site).
4. Promptly clean up any spill of paints, cleaners or other chemicals.
5. Conduct all loading, mixing, and cleanup activities at a covered location, far away from any storm drain inlet.
6. Make sure striper does not flow into nearby catch basins when it is being disposed of.

Cleaning Sidewalks and Parking Lots

1. Do not hose down sidewalks or parking lots unless the wash water will only enter gravel or grassy areas where the water can infiltrate into the ground.
2. If you do not use any chemicals or detergents and are only cleaning surfaces of ambient dust, then you may direct the wash water to nearby landscaping or contain it on site and allow it to evaporate. When discharging to landscaping, make sure the water is being absorbed in the ground and not running off into a storm drain or paved area.
3. Dry cleanup methods should be used prior to any pressure washing. These include using absorbents (kitty litter, rages, sand, etc.) to clean up spills, sweeping, vacuuming, and scrapping off dried debris. Use absorbents on oily spots prior to sweeping or washing. The waste material should be disposed of properly.
4. If you must pressure wash, identify all storm drains are before starting. Wash water must not be allowed to flow down gutters or enter storm drains. All wash water must be captured for proper disposal.
   - Determine where water will puddle for collection.
   - Use the following types of equipment to protect storm drains and to contain and collect wash water: vacuum pumps, booms/berms, portable containment areas, weighted storm drain covers, inflatable plumber's plugs, oil/water separators, holding tanks, portable sump pumps, hoses, absorbents.

Snow Plowing

1. Avoid plowing, pushing, blowing, or storing excess snow or other debris into storm drains. Do not hose down sidewalks or parking lots except where wash water will only enter grassy or graveled areas where it can infiltrate into the ground.
2. If you do not use any chemicals or detergents and are only cleaning surfaces of ambient dust, then you may direct the wash water to nearby landscaping or contain it on site and allow it to evaporate. When discharging to landscaping, make sure the water is being absorbed in the ground and not running off into a storm drain or paved area.
3. Avoid plowing, pushing, blowing, or storing excess snow or other debris into storm drains.

Snow Storage and Disposal

1. Do not dispose of snow in wetlands, ditches, open water, or directly on top of storm drains.
2. Cleanup and sweep sediment and debris from paved surfaces after snowmelt.
3. Establish snow storage areas that are:
   - On a grass or gravel surface where melt water can infiltrate.
   - Down gradient from water courses or wetlands.
   - Not located on or near storm drains.

Sanding

1. Only use clean sand for winter road maintenance.
2. Use the lowest possible application rate that will be effective.
3. Make sure to sweep roads and parking lots after winter sanding operations.

Salt/Deicer Application

1. Hand apply salt and/or chemical deicers only on sidewalks where required for pedestrian safety.
2. Use the lowest amount of product that will be effective.
3. Do not apply salt and/or chemical deicers near storm drains.

Hazardous Waste Disposal

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, herbicides, and pesticides, oil, fuels, acids, poisons, antifreeze, brake fluid, and solvents.
2. Hazardous Waste materials must be given to the DPW.

Standard Operating Procedures (SOPs)

Equipment Maintenance	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the course of school equipment maintenance, good housekeeping & waste disposal.
Location of SOP:	
Last Update:	
Administrator of SOP:	

Prerequisites

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
2. Employees should read the procedures contained in this SOP and any related references.

Equipment and Materials Needed

1. Weather proof containers
2. Polly or plastic pallets
3. Drum covers
4. Tarps
5. Spill kit and equipment for dry cleanup (socks, absorbent pads, kitty litter, broom, and dustpan)
6. Drip pan
7. Parts washer

Standard Operating Procedures

Equipment Maintenance

1. Conduct all maintenance and repair work inside or under cover.
2. Only emergency maintenance or maintenance that does not involve fluids may be performed outside.
3. Move leaking vehicles or equipment indoors or under cover.
4. Use drip pans for leaking vehicles or equipment that need to be stored outside.
5. Perform all maintenance activities involving fluids indoors only (except in emergency cases).
6. Promptly transfer used fluids to recycling drums or hazardous waste containers.
7. Dispose of liquid waste properly.

Clean Up of Leaks, Drips, or Spills

1. Clean up leaks, drips, or spills thoroughly and promptly.
2. If fluids leak or have spilled on an impervious surface, such as a road or parking lot, locate nearest down gradient storm drain and dike or berm the drain to prevent fluids from entering.
3. Put absorbent on the spill area.
4. After clean up, sweep up the contaminated absorbent and remove berm or dike from the storm drain.
5. If spills occur on a pervious surface such as gravel or grass, mark the area and contact the 24-Hour Emergency Spill Response line at 888-304-1133.
6. Never hose down leaks, drips, or spills.
7. Always use dry methods for cleanup of fuel spills (gas, diesel or kerosene).
   - Spread absorbents (kitty litter or loose absorbents, sheets, pillows, pigs, or socks) on the spill.
   - Sweep up or pick up the absorbed materials.
   - Dispose of wastes properly.

Hazardous Waste Disposal

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, herbicides, and pesticides, oil, fuels, acids, poisons, antifreeze, brake fluid, and solvents.
2. Hazardous Waste materials must be given to the DPW.

Standard Operating Procedures (SOPs)

Building Maintenance	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the course of school building maintenance activities, including: janitorial practices, waste management, pressure washing & exterior surface cleaning, painting, sanding, & sandblasting.
Location of SOP:	
Last Update:	
Administrator of SOP:	

Prerequisites

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
2. Employees should read the procedures contained in this SOP and any related references.

Equipment and Materials Needed

1. Spill kit and equipment for dry cleanup (socks, absorbent pads, kitty litter, broom, and dustpan)
2. Inlet protection (wattles, drain covers, berms, and/or filter fabric)
3. Containers for collecting paint wastes
4. Tarps or ground cloths

Standard Operating Procedures

Janitorial Practices and Waste Management

1. Never dump mop water or cleaning wastewater outside, on paved surfaces, or into storm drains. Dispose of wastewater in mop sink or other sanitary sewer drain.
2. Do not pour, transfer, or dispose of any material outdoors or near a storm drain.
3. All waste containers must be leak-tight with tight-fitting lids or covers.
4. Keep container lids closed at all times unless adding or removing material. If possible, store waste receptacles.
5. Sweep around outdoor waste containers regularly.
6. When working in the field, collect all wastes in bags or other leak-proof containers and bring back to the garage for proper disposal.
7. Do not wash dumpsters with water outdoors. If a dumpster requires washing, contact the service provider and have them remove it for cleaning, or move it to the designated wash down facility at the school for washing to sanitary sewer.
8. Minimize waste by purchasing products that have minimal packaging. Recycle cardboard, plastics and paper products in the proper container.

9. Purchase the least toxic cleaning product possible to accomplish the job. Purchase biodegradable cleaning products where possible.

Painting, Staining, Scraping, Sanding, and Sandblasting

1. Use a ground cloth securely attached to the base on the building for any scraping or sanding of the exterior surface.
2. Use a ground cloth or oversized tub for paint mixing and tool cleaning. Properly dispose of the wastes.
3. Enclose spray-painting operations with tarps or other means, as possible, to minimize wind drift and to contain overspray.
4. Clean paintbrushes and tools used to apply water-based paints in sinks plumbed to a sanitary sewer or in portable containers that can be emptied into sanitary sewer drains.
5. Brushes and tools used for oil-based paints, finishes, thinners, solvents or other materials must be cleaned over a tub or container and the cleaning wastes disposed or recycled at an approved hazardous waste facility.
6. Never clean tools over a storm drain or outside.
7. Promptly cleanup any spills of paints, cleaners or other maintenance chemicals or supplies.

Pressure Washing & Exterior Surface Cleaning

1. Prior to pressure washing, identify where all storm drains are located; wash water must not be allowed to flow down gutters or enter into storm drains.
2. Block or cover all storm drains with booms and weighted storm drain covers before pressure washing.
3. Determine where water will pool for collection. Use a wet vac to vacuum up the wastewater or allow water to evaporate.
4. Use dry cleanup methods, including sweeping, vacuuming, and scrapping off dried debris prior to pressure washing any surface.
5. Use minimal water when Pressure washing.
6. If you are not using any chemicals or detergents, the wash water can be directed to a grassy or gravel area where it can infiltrate. Verify that water is not running out of the area and encountering a paved surface.
7. If any additives are used in the wash water, the waste water must be captured for disposal to sanitary sewer.
8. Solids should be removed from the area prior to pressure washing and a filter bag or similar filtration device should be used to remove suspended solids from the wastewater.
9. A visible sheen must not be evident in the discharge. Use an absorbent pad or boom to eliminate any oil from the discharge.
10. Do not pressure wash an entire building. Spot clean, steam clean, or scrape dirty areas rather than pressure washing the entire structure.

Hazardous Waste Disposal

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, herbicides, and pesticides, oil, fuels, acids, poisons, antifreeze, brake fluid, and solvents.
2. Hazardous Waste materials must be given to the DPW.

Standard Operating Procedures (SOPs)

Grounds Maintenance	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the course of school grounds maintenance activities, including: landscape maintenance, mowing, mulching, graveling trails & parking lots, trash removal/ waste management
Location of SOP:	
Last Update:	
Administrator of SOP:	

Prerequisites

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
2. Employees should read the procedures contained in this SOP and any related references.

Equipment and Materials Needed

1. Dumpster covers
2. Tarps
3. Spill kit and equipment for dry cleanup (socks, absorbent pads, kitty litter, broom, and dustpan)

Standard Operating Procedures

Mowing & Landscape Maintenance

1. Mulch-mow grass. Sweep and dispose of any grass clippings on paved surfaces.
2. Do not dispose of green waste or clippings in waterways, ditches, or detention basins.
3. Maintain sprinkler systems at rates that do not exceed the infiltration rate of the soil. Observe any runoff on paved surfaces and adjust sprinkler heads to irrigate only pervious surfaces.
4. Sweep areas around landscape beds regularly and after applying new mulch to keep wood products from entering the storm drain system.

Graveling Trails and Parking Lots

1. Stockpiled gravel should be stored under cover or covered with a tarp.
2. When loading gravel, care should be taken not to overload the truck or vessel.
3. Sweep area after loading to keep gravel from entering the storm water management system.
4. Take care not to cover any storm drain inlets with gravel.

Non-Hazardous Waste Management and Disposal

1. When working in the field, collect all wastes in bags or other leak-proof containers and bring back to the shop for proper disposal.
2. Minimize waste by purchasing products that have minimal packaging. Recycle cardboard, plastics and paper products in the proper container.
3. Never place hazardous materials, liquids, or liquid-containing wastes in the dumpster. If liquid wastes must be disposed of in the trash, absorb them first with kitty litter or other absorbents.
4. Non-hazardous liquid waste may be disposed of in sanitary sewer.

Pet Waste and Waterfowl Maintenance

1. Have signage in areas where pets are prohibited.
2. If pets are allowed, have signage to indicate that pet waste must be properly disposed of and have receptacles to make it easier for people to clean up after their pets.
3. If any area is positively identified to be a popular area of waterfowl congregation, use a preventative measure such as a scarecrow to prevent unwanted congregation.
4. Include “No feeding” signage in areas of waterfowl congregation.

BMP Maintenance

1. Make sure vegetation in and around the wet pond is maintained and mowed regularly.
2. Debris and litter control checks for inlet, outlet and orifice obstructions should be made after every rainfall producing runoff.
3. Inspections should be made to check the operations of any valves, pumps, fence gates, or locks or mechanical components on a regular basis and make immediate repairs.
4. Ensure effective bank stabilization by keeping an effective ground cover on all vegetated areas. Reseed if needed.
5. Every six months, any accumulated sediment should be removed from the bottom of the outlet structure.

Hazardous Waste Disposal

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, herbicides, and pesticides, oil, fuels, acids, poisons, antifreeze, brake fluid, and solvents.
2. Hazardous Waste materials must be given to the DPW.

Standard Operating Procedures (SOPs)

Fertilizer, Herbicide, & Pesticide Application	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater resulting from the application of fertilizer, herbicide or pesticide.
Location of SOP:	
Last Update:	
Administrator of SOP:	

Prerequisites

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
2. Employees should read the procedures contained in this SOP and any related references.
3. Employees should read the procedures contained in this SOP and any related references. Pesticide application must be done under the supervision of staff holding a Public Applicator's License.
4. All employees who handle or apply fertilizers, herbicides, or pesticides must be trained on the most recent Material Safety Data Sheets (MSDS).

Equipment and Materials Needed

1. ANSI approved sprayers.
2. Polly or plastic pallets and pails for secondary containment.
3. Spill kit and equipment for dry cleanup (socks, absorbent pads, kitty litter, broom, and dustpan).
4. Proper PPE (rubber gloves and eye protection).

Standard Operating Procedures

General

1. Always follow the manufacturer's recommendations for mixing, application, and disposal.
2. Use manual or mechanical methods for weed control whenever possible.
3. When chemicals are used, use the least toxic and most biodegradable product possible.

Mixing

1. Mix fertilizers, herbicides, and pesticides inside a protected area with impervious secondary containment so that spills and leaks will not contact soil or enter the storm water system.
2. Label all containers.
3. Only mix the minimum amount of product that will be needed for the immediate job.
4. If possible, use rinse water from cleaning of containers and application equipment as a

dilution for the next batch.

Application

1. Follow application guidance on the product label.
2. Time the application to concur with manufacturer's recommendation for best results. Do not spray if rain is expected.
3. Limit use of pesticides in general and do not broadcast spray pesticides.
4. Spot spray herbicides whenever possible.
5. Use herbicide only when there is vegetation to manage (do not use preventatively or more often than required).
6. Fertilizers may be broadcast sprayed, with care taken to avoid waterways or any inlet to the storm drain system.
7. Use granular materials when possible to avoid application losses.
8. Do not apply fertilizers, herbicide, or pesticides within 50 feet of any open water, drainage ditch, wetland, storm water basin or inlet to the storm drain system.
9. See Manager of Planning & Environmental Services to obtain an NPDES permit before spraying any herbicide in wetland mitigation areas for weed control.

Cleanup

1. Follow all manufacturers' recommendations for cleanup of the chemical.
2. Sweep paved areas where any granular product has fallen and direct product into grassy areas.
3. Dispose of excess chemicals and empty expired fertilizer, herbicide or pesticide containers according to the instructions on the label and preferably on the target vegetation or pest.
4. If possible reuse the triple rinsate from containers as dilution for the next batch.
5. Never dispose of rinsate by pouring into the storm drain system.
6. Any product that cannot be disposed of through application on the target vegetation or pest must be disposed of as Hazardous Waste.

Storage

1. Store fertilizers, herbicides, and pesticides inside a protected area with impervious secondary containment so that spills or leaks will not enter soils or the storm drain system.
2. All containers must be clearly and accurately labeled.

Hazardous Waste Disposal

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, herbicides, and pesticides, oil, fuels, acids, poisons, antifreeze, brake fluid, and solvents.
2. Hazardous Waste materials must be given to the DPW.

Standard Operating Procedures (SOPs)

Materials Storage	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater resulting from materials storage associated with school maintenance & operations, including liquid materials storage, hazardous materials storage, stockpiling materials including: sand & gravel, wood products such as lumber, chips, sawdust, or hog fuel.
Location of SOP:	
Last Update:	
Administrator of SOP:	

Prerequisites

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
2. Employees should read the procedures contained in this SOP and any related references.

Equipment and Materials Needed

1. Weather proof containers
2. Polly or plastic pallets
3. Drum covers
4. Tarps
5. Spill kit and equipment for dry cleanup (socks, absorbent pads, kitty litter, broom, and dustpan)
6. Inlet protection (wattles, drain covers, berms, and/or filter fabric)

Standard Operating Procedures

Outdoor Storage Areas

1. If possible, store all containers indoors. If they must be stored outdoors, place them in a shed or under a roof.
2. All containers and dry materials should be covered or have secondary containment.
3. Place all containers on a plastic pallet or other device that elevates them off the ground or pavement and provides containment. This avoids contact with storm water on the ground.
4. Place containers on paved, impervious surfaces and as far from (or at lower elevation than) storm drain inlets and drainage ditches as possible.
5. Keep a spill kit near storage areas. Clean up any spills, leaks or discharges promptly.
6. Inspect all containers stored outdoors regularly.
7. If a container is found to be leaking either empty the contents into a leak-tight container or

place entire leaking container inside of a larger leak-tight container. Clean up spills promptly.

8. Make sure outdoor barrels are covered at all times, and use barrels that do not have holes in the bottom.
9. If rain water collects in a secondary containment structure, allow the water to evaporate if possible. If not possible, verify with sight & smell that the water is not contaminated with a hazardous substance and then pump to sanitary sewer for disposal. If water is suspected of containing hazardous waste (oil sheen, odor), the water must be treated as hazardous waste and be disposed of properly.

Sand, Salt, Dirt or Gravel Stockpiles

1. Cover sand/salt piles with a tarp or store inside a building or under a roof.
2. Contain stormwater runoff from dirt and gravel stockpiles by using barriers or berms.

Liquid Bulk Material Storage

1. Make sure an adequate spill kit with sufficient equipment and supplies is located near storage areas where spills are possible. Clean up any spills, leaks or discharges immediately.
2. Make sure that inspections for boilers occur regularly.

Hazardous Waste Disposal

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, herbicides, and pesticides, oil, fuels, acids, poisons, antifreeze, brake fluid, and solvents.
2. Hazardous Waste materials must be given to the DPW.

Appendix C

Inspection and Maintenance Log

STORMWATER MANAGEMENT SYSTEM INSPECTION AND MAINTENANCE SCHEDULE

SPRING INSPECTION AND MAINTENANCE LOG

(To be completed annually between February 1st and April 1st, after the last expected significant snow & ice event)

Inspection Date:_____ Property Location: _____

Inspection Conducted By: _____

Instructions: Complete inspection by answering yes/no questions and check follow-up boxes when action is complete. Make any notes necessary to document the condition of the facility and maintenance actions taken. When inspection & maintenance actions are complete, submit form to Manager of Planning & Environmental Services. When inspection and maintenance actions are complete, submit form to Manager of Planning & Environmental Services.

Ditches Is there evidence of erosion or channeled flow? Yes:__ No:__ ☐ If yes, consult Engineer and regrade Are there bare spots? Yes:__ No:__ ☐ If yes, reseed and monitor. Is there sediment debris build up? Yes:__ No:__ ☐ If yes, remove, correct source, and monitor.	**Notes:**
Catch Basins Has debris accumulated in the catch Basin? Yes:__ No:__ ☐ If yes, clear obstructions/debris Has more than 1 inch of soil or 6 inches Yes:__ No:__ of sludge accumulated in the catch basin? ☐ If yes, schedule vactoring.	**Notes:**
Ponds Are outlets/culvert structures clogged by debris? Yes:__ No:__ ☐ If yes, clear obstructions/debris Is vegetation around the pond in poor condition? Yes:__ No:__ ☐ If yes, mow and maintain.	**Notes:**

Building Is there evidence of flooding? Yes:__ No:__ ☐ If yes, contact Engineer Is the pavement in poor condition? Yes:__ No:__ ☐ If yes, repair Is there proper storage and labeling for all chemicals? Yes:__ No:__ ☐ If yes, store and label containers properly	**REPAIR**
Wildlife Is there evidence of waterfowl in the area? Yes:__ No:__ ☐ If yes, note the species and contact the DPW Is there evidence of pets in the area? Yes:__ No:__ ☐ If yes, contact DPW	**Notes:**
Other Are there any uncovered barrels or dumpsters? Yes:__ No:__ ☐ If yes, obtain necessary barrels Are there large amounts of salt/sand or other sediment? Yes:__ No:__ ☐ If yes, sweep or vacuum area	**Notes:**
Additional Spring Maintenance ☐ Schedule street sweeping. ☐ Re-seed any exposed ground in the system	
Additional Notes:	

John F Ryan Elementary School:
Tewksbury, MA
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STORMWATER MANAGEMENT SYSTEM INSPECTION AND MAINTENANCE SCHEDULE

FALL INSPECTION AND MAINTENANCE LOG

(To be completed annually between August 1st and October 15th, before the first expected significant snow & ice event)

Inspection Date:_____ Property Location: _____

Inspection Conducted By: _____

Instructions: Complete inspection by answering yes/no questions and check follow-up boxes when action is complete. Make any notes necessary to document the condition of the facility and maintenance actions taken. When inspection & maintenance actions are complete, submit form to Manager of Planning & Environmental Services. When inspection and maintenance actions are complete, submit form to Manager of Planning & Environmental Services.

Ditches Is there evidence of erosion or channeled flow? Yes:__ No:__ ☐ If yes, consult Engineer and regrade Are there bare spots? Yes:__ No:__ ☐ If yes, reseed and monitor. Is there sediment debris build up? Yes:__ No:__ ☐ If yes, remove, correct source, and monitor.	**Notes:**
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Ponds Are outlets/culvert structures clogged by debris? Yes:__ No:__ ☐ If yes, clear obstructions/debris Is vegetation around the pond in poor condition? Yes:__ No:__ ☐ If yes, mow and maintain.	**Notes:**

Building Is there evidence of flooding? Yes:__ No:__ ☐ If yes, contact Engineer Is the pavement in poor condition? Yes:__ No:__ ☐ If yes, repair Is there proper storage and labeling for all chemicals? Yes:__ No:__ ☐ If yes, store and label containers properly	**REPAIR**
Wildlife Is there evidence of waterfowl in the area? Yes:__ No:__ ☐ If yes, note the species and contact the DPW Is there evidence of pets in the area? Yes:__ No:__ ☐ If yes, contact DPW	**Notes:**
Other Are there any uncovered barrels or dumpsters? Yes:__ No:__ ☐ If yes, obtain necessary barrels Are there large amounts of salt/sand or other sediment? Yes:__ No:__ ☐ If yes, sweep or vacuum area	**Notes:**
Additional Fall Maintenance ☐ Schedule street sweeping. ☐ Re-seed any exposed ground in the system	
Additional Notes:	

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