

**Phase II MS4 General Permit
Stormwater Pollution Prevention Plan**

City Yards

301 E. Cork St.
Winchester, VA 22601
(540) 667-1815 ext. 1451



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SWPPP Preparation Date: April 3, 2023

Stormwater Pollution Prevention Plan (SWPPP) Overview

The Stormwater Pollution Prevention Plan (SWPPP) is a required document that is developed and implemented in accordance with Part I.E.6.c of City of Winchester Municipal Separate Storm Sewer System (MS4) Permit. SWPPPs have been developed for all applicable City of Winchester high-priority municipal facilities that have a potential for pollutant discharge.

This SWPPP should be kept on-site at all times and in an area that is readily accessible to the appropriate staff. SWPPPs are designed to be a living document. Throughout each year, tasks within this SWPPP (inspections, spills, site assessments) are required to be addressed and documented per the SWPPP requirements. Additionally, major site changes related to site activities, operations, and site layout also need to be documented and kept up to date in this SWPPP. The overall goal of the MS-4 permit, and ultimately the SWPPP, is to minimize or eradicate stormwater and non-stormwater pollutant discharges from a site and its corresponding activities.

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Site Description

Facility Information

Street Address: 301 E. Cork Street

City/County: Winchester

State: Virginia

ZIP Code: 22601

Latitude: 39.1779 ° N

Longitude: 78.1624 ° W

Discharge Information

Receiving Water Body: Town Run (HUC12: 020700040902; VAHU6 PU17)

Impaired Water Body (Yes/No): No

Site Information: City Yards is a single parcel located off East Cork Street (State Route 657) between Pall Mall St. and East Cork Street. City Yard houses both the Public Services and Public Schools Administration Buildings, and is the main location for bus (school and public transportation) parking. The site is bordered by the CSX Railroad to the west, residential subdivision to the north and east, and Pall Mall Street and Town Run to the south. The northern portion of the site conveys to a bioretention facility which, along with the remainder of the site, drains to Town Run.

Site Operations and Activities: Main operations at City Yard include equipment and material handling and storage. All equipment and materials are housed in one of several warehouses or pole barns, with hazardous liquids stored in the appropriate containers within. The site includes two stationary site service generators and associated fuel cells.

Photo Log



1 – Pesticide Chemical Storage (Building #2)



2 – Flammable Stores (Building #2)



3 – Grounds Maintenance Equipment Storage (Building #2)



4 – Grounds Maintenance Specialty Equipment Storage (Building #2)



5 – Vehicle Storage (Building #4)



6 – Deck Drain (Building #4)



7 – Used Waste Oil and Antifreeze Storage (Vehicle Maintenance Building)



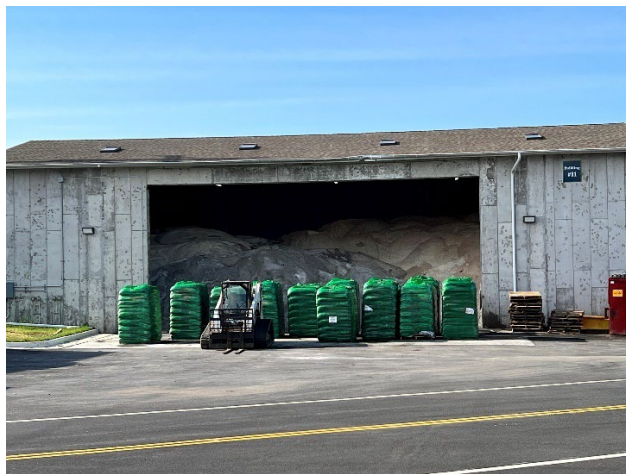
8 – Covered Trash Cans (Vehicle Maintenance Building)



9 – Street Sweeping Equipment (Building #6)



10 – Utility Maintenance Equipment (Building #7)



11 – Salt Storage Building (Building #11)



12 – Covered Dumpster (Building #11)



13 – Bus Parking (Parking Area #1)



14 – Fueling Canopy



15 – Fueling Canopy Spill Kit



16 – Hydrodynamic Separator (Proximate to Fueling Canopy)



17 – Site Service Generator #1



18 – Site Service Generator #2



19 – Utility Maintenance Equipment Storage (Pole Barn)



20 – Storm Outfall (To Bioretention Forebay)



21 – Bioretention Forebay



22 – Bioretention Outlet Structure



23 – Vehicle Wash Building

Appendix A

Inventory of Potential Pollutant/Pollutant Sources

Inspection Date	Potential Pollutant Source – Image	Potential Pollutant	Existing/Recommended Management Practice
4.4.2023	Covered Trash Can(s) - 8	Trash	Replace any leaking/corroding trash can(s); <i>Refer to City of Winchester SOP 4.1 – Standard Operating Procedures for Road, Street, and Parking Lot Maintenance</i>
4.4.2023	Covered Dumpster - 12	Trash, Leachate, Chemical Wastes	Locate trash cans or dumpsters on a flat concrete surface that do not drain towards a storm drain or water body; <i>Refer to City of Winchester SOP 4.1 – Standard Operating Procedures for Road, Street, and Parking Lot Maintenance</i>
4.4.2023	Salt Stores	Salt	Cover all materials and guard against exposure to the elements; <i>Refer to City of Winchester SOP 4.2 – Roads, Streets, & Parking Lot Maintenance – Salt Deicing Application</i>
4.4.2023	Stationary Generator(s) – 17, 18	VOC's/Fuel	Replace/Repair any leaks form fuel cells and clean up any fuel spills immediately; <i>Refer to City of Winchester SOP 5.3 – Vehicle/Equipment – Fueling Areas</i>
4.4.2023	Propane Tanks / Equipment Fueling - 14, 15	Fuel	Monitor for spills and clean up drippings or spills immediately; <i>Refer to City of Winchester Annual Stormwater Training</i>
4.4.2023	Maintenance Building / Covered Equipment Storage - 3, 5, 6	Oil, grease, fuel from storing equipment	Isolate interior drainage and filter prior to discharge; <i>Refer to City of Winchester SOP 5.3 – Vehicle/Equipment – Fueling Areas</i>
4.4.2023	Maintenance Building / Covered Equipment Storage - 4, 9, 19	Oil, grease, fuel from storing equipment	Clean equipment prior to placing in storage; <i>Refer to City of Winchester SOP 5.1 – Vehicle/Equipment – Storage and Maintenance</i>
4.4.2023	Equipment Washing Area at Maintenance Building - 23	Detergents, oils, grease, heavy metals, sediment	Avoid detergents whenever possible. If detergents are necessary, a phosphate free, non-toxic, biodegradable soap is recommended; <i>Refer to City of Winchester 5.2 – Vehicle/Equipment – Washing Areas</i>
4.4.2023	Bus Parking Area - 13	Oil, grease, fuel from parked vehicles	Monitor equipment and clean up any spills or leaking fluids immediately. <i>Refer to City of Winchester SOP 5.1 – Vehicle/Equipment – Storage and Maintenance</i>

Potential Pollutants: Oil, Grease, Fuel, Coolant, Lubricant, Solvents, Detergent, Acid Wash, Paint, Sediment, Soil, Salt, Sand, Raw Materials, Aggregates, Cement, Pesticides, Herbicides, Waste, Trash, Wastewater, Building Materials.

Potential Pollutant Sources: Uncovered Trash Cans, Open, Deteriorated, or Leaking Containers, Uncovered Outdoor Storage Facilities, Unmaintained Containers/Storage, Gas Pump, Material Loading/Unloading areas, On-site Waste Disposal Practices, Maintenance Areas, Wash Down Areas, Areas Exposed to Erodible Soils, Unprotected stockpile areas.

Appendix B

Inventory of Potential Non-Stormwater Discharges

Inspection Date	Potential Non-stormwater Discharges	Discharge Present	Corrective Action Recommended/Taken			Recommended BMPs / Pollution Prevention Measures (Reference SOP)
4.4.2023	Bus Parking	No	Yes	No	N/A	Monitor equipment and clean up any spills or leaking fluids immediately; see City of Winchester Stormwater Training
4.4.2023	Fueling Canopy	No	Yes	No	N/A	Maintain Spill Containment Kit and service downstream hydraulic separator regularly; see City of Winchester Stormwater Training
			Yes	No	N/A	
			Yes	No	N/A	
			Yes	No	N/A	
			Yes	No	N/A	

“Non-Storm Water Discharge” means any discharge to an MS4 that is not composed entirely of Stormwater.
 Non-stormwater Discharges: Process Water, Wastewater, Vehicle Wash Water, Building or Pavement Wash Water, Cooling System Condensate, Non-Contact Cooling Water, Boiler Blowdown, Chlorinated Pool Water, Filter Backwash Water, Pumped Groundwater, Fire Suppression Test Water, Landscape Irrigation Water.

Appendix C

Standard Operating Procedures (SOP) to Reduce/Prevent Pollutant Discharges

SOP Section 1 – Purpose and Scope

Per the requirements of the General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 Permit), the City of Winchester shall develop and implement daily good housekeeping procedures, in accordance with Sec. II(B)(6)(a) and Table 1, for all applicable municipal operations within 24 months of permit coverage.

The scope of work includes daily good housekeeping procedures development in accordance with the MS4 Permit requirements for inclusion in the City's MS4 Program Plan.

SOP Section 2 – Background

Municipal operations such as vehicle/equipment storage and maintenance, grounds maintenance, and parking lot maintenance can be a source of stormwater pollution if good housekeeping practices are not implemented during active municipal operations. The Pollution Prevention/Good Housekeeping components of the MS4 Permit require municipalities to re-evaluate municipal operations and storm infrastructure management to develop written procedures that minimize or prevent pollutant discharge from their daily operations. The daily good housekeeping procedures assists the City of Winchester in meeting the MS4 Permit requirements and encourages City employees to use best management practices (BMPs) in their daily municipal operations.

Per Sec. I(E)(6)(a) of the MS4 Permit, the written procedures are designed to minimize or prevent pollutant discharge from (i) daily operations such as road, street, parking lot maintenance; (ii) equipment maintenance; and application, storage, transport, and disposal of pesticides, herbicides, and fertilizers. These written procedures, at a minimum, are designed to:

1. Prevent illicit discharges;
2. Ensure the proper disposal of waste materials, including landscape wastes;
3. Prevent the discharge of municipal vehicle wash water into the MS4 without authorization under a separate VPDES permit;
4. Prevent the discharge of wastewater into the MS4 without authorization under a separate VPDES permit;
5. Require implementation of best management practices when discharging water pumped from utility construction and maintenance activities;
6. Minimize the pollutants in stormwater runoff from bulk storage areas (e.g. - salt storage, topsoil stockpiles) through the use of best management practices;
7. Prevent pollutant discharge into the MS4 from leaking municipal automobiles and equipment;
8. Ensure that the application of materials, including fertilizers and pesticides, is conducted in accordance with the manufacturer's recommendations.

To address the MS4 Permit requirements, six general operations within the City were identified and good housekeeping procedures were written for activities under each operation. These operations include:

1. Municipal Facilities/Operations
2. Parking Lot Maintenance
3. Vehicle/Equipment Maintenance
4. Grounds Maintenance
5. Municipal Operations
6. Utility Maintenance

The six City operations and associated procedures are described in Section 3 through Section 8. Unless otherwise stated, the City's Engineering Division, led by the City Engineer, is responsible for ensuring good housekeeping practices are implemented for all municipal facilities and operations. At the beginning of each section pertinent City departments responsible for implementing the good housekeeping procedures are identified.

Each standard operating procedure by itself is not intended to meet every requirement per Sec. II(B)(6)(a)(1-8); but the document as a whole meets all requirements listed.

SOP Section 3 – Standard Operating Procedures - Municipal Facilities

Municipal facilities have the potential to produce pollutants from their day-to-day operations. It is imperative to implement good housekeeping procedures on all municipal facilities.

Included in this section are general good housekeeping practices and general spill/leak cleanup procedures that are to be implemented on all municipal facilities by each facility supervisor. Facility inspections are to be completed and records maintained as specified in the following procedures for inclusion in the facility's Stormwater Pollution Prevention Plan (SWPPP) binder.

The City's Engineering Division will work in close coordination with each facility supervisor to ensure good housekeeping procedures are being applied and to ensure the City of Winchester remains compliant with the MS4 Permit requirements.

SOP 3.1 – Standard Operating Procedures – Municipal Facilities

Municipal facilities have the potential to produce pollutants from their day-to-day operations. It is imperative to implement good housekeeping procedures on all municipal facilities.

Included in this section are general good housekeeping practices and general spill/leak cleanup procedures that are to be implemented on all municipal facilities by each facility supervisor. Facility inspections are to be completed and records maintained as specified in the following procedures for inclusion in the facility's Stormwater Pollution Prevention Plan (SWPPP) binder.

The City's Engineering Division will work in close coordination with each facility supervisor to ensure good housekeeping procedures are being applied and to ensure the City of Winchester remains compliant with the MS4 Permit requirements.

Purpose: To protect stormwater from pollutants by implementing general good housekeeping practices.

Practices:

- All operations and activities at the City yard facility are to be in accordance with the General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems General Permit number VAR040053.
- Do not dispose of leaves, grass clippings, tree trimmings, trash, oil, fuel, sediment, or any other pollutant into a storm drain or water body.
- Keep open, exposed areas clean and protected from precipitation.
- Keep equipment, stockpiles, chemicals, paints, etc. covered.
- Post signs and labels in problem areas and areas containing hazardous materials.
- Consider additional control measures in conjunction with coverings; including curbing, grading, or elevating materials to divert stormwater run-on and to contain stormwater run-off.
- Identify and label any storm drain inlets at or near the facility to notify employees and contractors not to dispose of any materials or waste.
- Do not wash down or hose down any outdoor work areas or trash/waste container storage areas except where wash water will only enter the sanitary sewer following treatment.
- Recycle waste, used oil, solvents, grease rags, wash water, and other spent liquids. Store materials to be recycled under cover with secondary containment.
- Install secondary containment devices where appropriate. Secondary controls include curbing, drip pans, basins, sumps, oil/water separators, catch basin inserts, oil pads/skimers, and impervious work areas.
- Use oil/water separators, or other commercially available devices to minimize oil and grease discharge to stormwater runoff.
- Stabilize or cover exposed denuded areas to minimize erosion and sedimentation during rain events. This can be done by applying mulch or permanent vegetation that

will hold the soils in place.

- Install erosion and sediment controls in accordance with the *Virginia Erosion and Sediment Control Handbook (VESCH)* as needed during construction and utility maintenance activities.
- Do not use chemicals when cleaning outside of buildings. Filter building wash water before it enters the storm drain.
- If possible, dispose of building wash water at an approved location connected to sanitary sewer.

Inspections/Maintenance/ Spill Response /Reporting:

- Schedule routine inspections focusing on areas that have a greater potential to spill, leak, discharge into stormwater runoff.
- Monitor floor drains and storm inlets and/or catch basins, and inspect, remove/replace as appropriate.
- Inspect oil/water separators and floor drain systems periodically to determine maintenance needs.
- Inspect equipment and storage areas at regularly scheduled days/times for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including by whom, when, and where inspections were done, what was found, and any actions that were taken because of the inspections.

SOP 3.2 – Standard Operating Procedures - Municipal Facilities

Purpose: To protect stormwater from spilled pollutants by implementing proper spill cleanup procedures and preventative measures.

Practices:

- Do not use water to clean up spills/leaks.
- Do not wash spills/leaks into storm drain, ditch, creek, stream, pond, wetland or any other water body.
- Do not leave spill/leak without cleaning it up.
- Stop the source of the spill/leak immediately, if safe to do so.
- Contain any spilled/leaked liquids, if safe to do so.
- Clean up spill/leak in accordance with spill kit directions.
- Inspect City vehicles/equipment before leaving City property yard.
- Sweep up granules and dispose of properly.
- Install control measures on nearby storm drains and water bodies if spill could potentially reach the stormwater systems.
- Position mats to contain leaks from vehicles and equipment until they can be repaired.
- Use secondary containment under or around petroleum and chemical storage containers.
- Notify supervisor of any spills greater than five (5) gallons or any spill that reaches the storm drain. If a supervisor is unavailable, call the stormwater hotline (540)-542-1346 or the Police Department's non-emergency line (540)-662-4131. Immediately call 911 if a spill presents a threat to health or safety or is considered an emergency.

Inspections/Maintenance/ Spill Response /Reporting:

- Develop and maintain a site-specific spill prevention/spill response plan.
- Maintain a spill kit in areas where petroleum or hazardous materials are stored.
- Maintain spill kits on all City owned equipment/vehicles that are used for municipal operations.
- Notify supervisor of any spills greater than five (5) gallons or any spill that reaches the storm drain. If a supervisor is unavailable, call the stormwater hotline (540)-542-1346 or the Police Department's non-emergency line (540)-662-4131. Immediately call 911 if a spill presents a threat to health or safety, or is considered an emergency.

Training:

- Train applicable employees in site specific spill response procedures and equipment. The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

SOP Section 4 – Standard Operating Procedures – Road, Street, and Parking Lot Maintenance

Road, street, and parking lot maintenance activities have the potential to produce pollutants that may discharge into stormwater runoff if good housekeeping procedures are not implemented in and around municipal parking lots. Potential sources of these pollutants may include parked cars, dumpsters, trash cans, and material stockpiles.

Included in this section are good housekeeping practices for municipal road, street, and parking lot maintenance operations. The procedures are to be implemented on all City owned/operated roads, streets, and parking lots and all construction activities associated with these facilities.

The City's Department of Parks and Recreation (DPR) is responsible for ensuring that all applicable DPR employees comply with the following procedures for parking lots associated with City parks and recreation facilities. Likewise, the City's Department of Public Works (DPW) is responsible for ensuring that the Streets Division staff comply with these procedures for maintenance activities associated with roads and streets. If applicable, all inspections for municipally owned parks and recreation parking lots are to be completed and records maintained for inclusion in the facility's SWPPP binder.

The City's Engineering Division will work in close coordination with the DPR and DPW to ensure good housekeeping procedures are being applied to all municipally owned/operated roads, streets, and parking lots and during construction/maintenance operations to ensure that the City of Winchester remains compliant with the MS4 Permit requirements.

SOP 4.1 – Standard Operating Procedures for Road, Street, and Parking Lot Maintenance.

Purpose: To protect stormwater from trash and debris by properly cleaning and maintaining roads, streets, and parking lots through general practices.

Practice:

- Sweep all City maintained roads and streets in accordance with the City’s established street sweeping schedule.
- Dispose of street sweeping material properly and never store street sweeping material in areas where storm water could transport fines to the storm drain system or a waterbody.
- Locate trash cans and dumpsters in areas that are readily accessible to users.
- Do not hose down parking lots or sidewalks within parking lots.
- Do not sweep trash, sediment, or any other pollutants to or down a storm drain or water body.
- Do not place trash cans or dumpsters near a storm drain or water body.
- Do not place hazardous waste in a dumpster or trash can.
- Do not wash out dumpsters. Return to owner for cleaning at owner’s facility. If municipally owned containers must be washed, do so in an approved location where wastewater is either recycled or treated before discharging to the sanitary sewer with approval.
- Locate trash cans or dumpsters on a flat concrete surface that does not drain towards a storm drain or water body.
- Ensure all trash cans and dumpsters within parking lots remain covered and have no leaks.
- Request/use dumpsters with properly plugged drain holes whenever possible.
- Pick up trash and debris and dispose of in covered trash can or dumpster.
- Empty trash cans and dumpsters scheduled days/times. Do not overfill trash cans or dumpsters.
- Provide properly labeled recycling bins in an area readily accessible to users to reduce the amount of garbage disposed.

Inspections/Maintenance/ Spill Response /Reporting:

- Inspect parking lots for trash and debris at regularly scheduled days/times.
- Inspect trash cans and dumpsters at regularly scheduled days/times for leaks, corrosion, broken/missing lids or leaking drain valves.
- Maintain street sweeping equipment for maximum effectiveness.
- Immediately repair or replace any damaged trash cans or dumpsters.
- Regularly inspect parking lots for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including by whom, when, and where inspections were done, what was found, and any actions that were taken as a result of the inspections. Document all relevant inspection activities on the proper forms

provided in the SWPPP.

Training:

- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

SOP 4.2 – Roads, Streets, & Parking Lot Maintenance – Salt/Deicing Application

Purpose: To protect stormwater from salt/deicers and sand by properly storing and applying the materials.

Practice:

- Do not store salt, sand, deicer, or snow near storm drain or water body.
- Do not dispose of salt, sand, deicer, or snow in a storm drain or water body.
- Do not use nitrogen or phosphorus as deicing agents.
- Apply appropriate amount of salt, sand, or deicer as needed to be effective.
- When loading salt, sand, or deicer, minimize salt spillage by not exceeding the capacity of equipment (i.e. front end loader, truck bed).
- When unloading salt, sand and deicer materials move excess materials that may have fallen outside of desired storage area to the desired storage area.
- Operate equipment at low speed for effective spreading.
- Control spread patterns to concentrate material where most effective.
- Consider the use of deicing alternatives such as calcium magnesium acetate, potassium acetate, sand, etc. in sensitive areas.
- If using sand, use coarse, clean (washed) sand, which is free of fine particles and dust and easier to clean in the spring.
- Locate salt, sand, or deicer stockpiles on flat, covered, impervious sites that are protected from runoff and divert run-on around stockpile. Store salt, sand, or deicer in accordance with SOP 5.1.
- Provide diversion where runoff leaves salt storage area to direct runoff to holding tank or stormwater treatment device.
- Where possible, remove snow manually without the use of salt/deicer.

Inspections/Maintenance/ Spill Response /Reporting:

- Regularly inspect salt/deicer storage area to ensure the area remains dry and the materials remain within the designated storage area.
- During the winter months, regularly inspect spreader equipment and calibrate to manufacturer's specifications to maximize the effectiveness of the equipment.
- Maintain accurate logs of amount of salt/deicing material applied to each parking lot.
- Keep up-to-date records of inspections including by whom, when, and where inspections were done, what was found, and any actions that were taken as a result of the inspections. Document all relevant inspection activities on the proper forms provided in the SWPPP.

Training:

- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

SOP 4.4 – Roads, Streets, and Parking Lot Maintenance – Erosion and Sediment Control

Purpose: To protect stormwater from pollutants during construction or maintenance operations by implementing proper erosion and sediment control practices.

Practice:

- Do not stockpile materials near storm drains or water bodies.
- Do not remove erosion control measures before construction or maintenance operations are complete and stabilized.
- Do not dispose of sediment or other captured pollutants in a storm drain or a water body.
- Prior to moving control measures, inspect the site and ensure all accumulated debris or other pollutants are cleaned up and removed.
- Minimize the land disturbance and stabilize the disturbed area once construction or maintenance is complete.
- Divert clean water around construction or maintenance sites.
- Install erosion control devices in accordance with the VESCH.
 - Install inlet protection on all storm drain inlets near the construction or maintenance operations, per Chapter 3.07 of the VESCH, or approved equivalent.
 - Contain material stockpiles (salt, topsoil, gravel) to prevent pollutant runoff. Stockpiles should be temporary and removed once construction or maintenance is complete and stabilized.
 - If needed, install sediment traps and basins per Chapters 3.13 and 3.14 of the VESCH to protect downstream channels and water bodies from sediment runoff.
 - Cover bare soil with mulch or other approved cover to prevent sediment runoff.
 - Use an appropriately sized sediment dewatering device when dewatering construction or maintenance area. Dispose of captured sediment at a properly permitted location prior to removing storm drain protection.
- Regularly inspect and maintain erosion and sediment control devices.

Inspections/Maintenance/ Spill Response /Reporting:

- Inspect, maintain, and repair control measures in accordance with the VESCH and the Virginia Erosion and Sediment Control Regulations and the Virginia Erosion and Sediment Control Law.
- Keep up-to-date records of inspections including by whom, when, and where inspections were done, what was found, and any actions that were taken because of the inspections. Document all relevant inspection activities on the proper forms provided in the SWPPP.

Training:

- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

SOP 5 – Standard Operating Procedures – Vehicle/Equipment

Vehicle and equipment maintenance operations include fueling, washing, repairing, maintaining, and storage for large and small vehicles (fire trucks, emergency vehicles, and utility vehicles) and large and small equipment (lawn mowers, weed-eaters, chemical spreaders). Both operations have the potential to produce pollutant discharge if good housekeeping procedures are not implemented.

Included in this section are good housekeeping practices for vehicle and equipment maintenance operations. The procedures are to be implemented on all City owned/operated facilities where vehicles and equipment are stored and maintained.

The DPR is responsible for ensuring all applicable DPR employees comply with the following procedures. Inspections are to be completed and records maintained as specified in the following procedures for inclusion in the facility's SWPPP binder. If applicable, all inspections for municipally owned parks and recreation parking lots are to be completed and records maintained for inclusion in the facility's SWPPP binder.

The City's Engineering Division will work in close coordination with the DPR to ensure good housekeeping procedures are being implemented where vehicles and equipment are being stored and maintained to ensure that the city remains compliant with the MS4 Permit requirements.

SOP 5.1 – Vehicle/Equipment – Storage and Maintenance

Purpose: To protect stormwater from solvents, antifreeze, battery acid, motor oil, fuel, grease, brake fluid, metals, and sediment by properly storing and maintaining the vehicles and equipment.

Practice:

- Do not park vehicles or place equipment over, on, or near a storm drain or water body.
- Do not store vehicles or equipment near storm drains or water bodies.
- Do not dispose of fluids in storm drains or water bodies.
- Whenever possible, store vehicles and equipment inside to minimize the potential for pollutant discharge in stormwater runoff. Where indoor storage is not possible, store on paved areas and under a covered facility.
- If storing vehicles and equipment inside, ensure floor drains have been properly connected and do not outfall into storm drain system. If the drain does outfall to a storm drain system, floor drain should be sealed.
- Store drums, tanks, and containers in low-traffic areas and on pallets.
- Store cracked batteries in leak-proof secondary containers.
- Store drip pans and draining boards in designated and marked holding tubs for reuse.
- Store limited amounts of solvents, antifreeze, motor oil, fuel, grease, etc. to prevent surplus or expiration of fluids. Store in a dry controlled area.
- Store salt, sand, or deicer in limited amounts under cover. If stockpiled outdoors, cover with tarp to minimize stormwater runoff and install fabric barrier around to capture polluted runoff.
- Vehicle maintenance activities must be performed inside the fleet maintenance garages.
- Use drip pans and other containment devices to prevent spills when performing maintenance.
- Move leaking vehicles and equipment indoors or under cover as soon as possible and use a drip pan to contain any leaks as needed. If possible, drain the leaking fluid and tag the vehicle/equipment to alert others of the leak.
- Clean equipment prior to placing in storage. Equipment shall be washed in a controlled location in accordance with SOP 5.2.
- Clean trucks, equipment and tools in designated equipment wash facilities where wash water will not drain to a storm drain, ditch, creek, stream, pond, wetland or any other water body.
- Use non-hazardous cleaners when possible.
- Use steam cleaning, pressure washing, or aqueous washers instead of solvents.
- Drain all liquid filters before disposal or recycling and dispose of properly.
- Pour drip pan fluids in appropriate waste/recycle containers as the first step in clean up after repair work is completed.
- Dispose of or recycle all fluids properly.

Inspections/Maintenance/ Spill Response /Reporting:

- Inspect parking areas for stains, leaks, and spills at regularly scheduled days/times.
- Inspect equipment, drums, tanks, and containers for leaks, condition, proper storage and proper labeling.
- Maintain vehicles and equipment on a regular basis to prevent leaks.
- Sweep maintenance areas at regularly scheduled days/times to remove dirt/debris.
- Pickup and dispose of waste materials and scrap equipment at regularly scheduled days/times.
- If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including; by whom, when, and where inspections were done, what was found, and any actions that were taken as a result of the inspections.

Training:

- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

SOP 5.2 – Vehicle/Equipment – Washing Areas

Purpose: To protect stormwater from detergents, oils, grease, and heavy metals by properly washing vehicles and equipment.

Practice:

- All vehicles must be washed in the City Yards wash bay.
- Clean trucks, equipment and tools in designated equipment wash facilities where wash water will not drain to a storm drain, ditch, creek, stream, pond, wetland or any other water body.
- Do not release vehicle/equipment wash water into a storm drain or water body without prior authorization under a separate VPDES permit.
- If no wash facility is available, clean equipment over a layer of absorbent material spread on a paved surface and/or heavy plastic sheeting and install curbs, berms, or dikes around outdoor wash area to control and contain wastewater. Use wet/dry vacuum or vacuum truck to collect wash water and discharge to the sanitary sewer.
- Use drain guards (filter inserts) or approved equivalent on nearby storm drain inlets to catch sediments and other pollutants that might enter the storm drains as a result of vehicle washing.
- Avoid detergents whenever possible. If detergents are necessary, a phosphate-free, non-toxic, biodegradable soap is recommended.
- Minimize water use when washing and rinsing.

Inspections/Maintenance/ Spill Response /Reporting:

- Inspect and maintain washing equipment such as hoses, wands, and nozzles at regularly scheduled days/times to ensure said devices are delivering proper rate of water and shutoff automatically when not in use.
- Where wash racks are used, inspect for leaks, overspray, or other signs of ineffective containment. Immediately correct any observed defects. Clean periodically to remove particulate matter and other pollutants.
- Inspect plumbing, recycling, and pretreatment systems at regularly scheduled days/times to ensure they are functioning properly.
- Keep up-to-date records of site inspections including; by whom, when, and where inspections were done, what was found, and any actions that were taken as a result of the inspections.

Training:

The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

SOP 5.3 – Vehicle/Equipment – Fueling Areas

Purpose: To protect stormwater from gasoline and diesel fuel by properly maintaining fueling areas and by properly fueling vehicles and equipment.

Practice:

- Do not fuel vehicle or equipment near storm drain or water body.
- Do not hose down or bury fuel spills.
- Do not “top off” fuel tanks. This will minimize the possibility of spills.
- Use a permitted off-site facility such as a fuel/gas station to refuel vehicles and equipment, whenever possible.
- If refueling onsite, use a designated fueling area. Designated fueling area should contain a spill kit, spill response practices, and a covered garbage can for proper cleanup and disposal of spilled fuel.
- Protect fuel storage tanks whenever possible to prevent polluting stormwater runoff.
- Cover nearby storm drains during loading/transfer of fuel storage tanks.
- Use overflow protection devices on tanks and enclose fuel tanks with secondary containment.
- When fueling small equipment from portable containers, fuel in a designated area away from storm drains and water bodies. Use a funnel to minimize spills.
- Fuel carefully to minimize drips to the ground.
- Use absorbent material under small equipment during fueling to collect any drips, overflow, or leaks.
- For new or remodeled facilities, the fuel-dispensing area should be covered and paved with an impervious surface. The surface should be sloped to prevent ponding and contain a grade break that allows for polluted runoff to drain inward to a contained area and the remaining runoff to be diverted away from the fueling, storage, and disposal area.

Inspections/Maintenance/ Spill Response /Reporting:

- Inspect fueling equipment at regularly scheduled days/times for corrosion and structural failure, cracks in foundations, and physical damage to container systems.
- Maintain clean fuel dispensing areas using dry cleanup methods.
- Maintain fuel storage tanks in accordance with local, state, and federal laws.
- Regular maintenance is required if oil/water separators are used.
- Inspect fuel storage area and tanks at regularly scheduled days/times for leaks, overfills due to operator error and spills during pumping from truck to storage facility or vice versa. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including; by whom, when, and where inspections were done, what was found, and any actions that were taken as a result of the inspections. Document all relevant inspection activities on the proper forms provided in the SWPPP.

Training:

- Train applicable employees and subcontractors on proper fueling methods and spill cleanup materials.
- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

SOP 6 – Standard Operating Procedures – Grounds Maintenance

Grounds maintenance activities such as mowing, tree trimming, irrigating, fertilizing, spraying pesticides, etc. have the potential to produce pollutant discharge if good housekeeping procedures are not implemented during grounds maintenance operations.

Included in this section are good housekeeping practices for grounds maintenance operations. The procedures are to be implemented on all City owned/operated facilities where vegetated areas are maintained and fertilizers, pesticides, and herbicides are applied, handled, and stored.

The DPR is responsible for ensuring all applicable DPR employees comply with the following procedures. If applicable, all inspections for municipally owned parks and recreation facilities are to be completed and records maintained for inclusion in the facility's SWPPP binder.

The City's Engineering Division will work in close coordination with the DPR to ensure good housekeeping procedures are being implemented during grounds maintenance operations to ensure that the City remains compliant with the MS4 Permit requirements.

SOP 6.1 – Grounds Maintenance – Storage and Disposal Pesticides, Herbicides, and Fertilizers

Purpose: To protect stormwater from untreated chemicals by properly storing and disposing of pesticides, herbicides, and fertilizers.

Practice:

- Do not store pesticides, herbicides, and fertilizers near storm drains or water bodies.
- Do not dispose of pesticides, herbicides, and fertilizers near or in storm drains or water bodies.
- Store pesticides, herbicides, and fertilizers in accordance with manufacturer's specifications.
- Where possible, store pesticides, herbicides, and fertilizers in an enclosed, controlled area. (i.e. locked storage shed or cabinet)
- Use proper containers for storing chemicals and clearly label.
- Use and clearly label secondary containers.
- Store Material Safety Data Sheets (MSDS) near chemical storage areas.
- Order only the amount needed to prevent surplus or expired chemicals.
- Order chemicals just prior to usage to reduce storage time.
- Use entire order of chemicals to minimize disposal.
- If disposal is necessary dispose of fertilizers and pesticides in accordance with manufacturer's specifications and applicable regulations.
- Follow all applicable federal and state regulations for storing pesticides, herbicides, and fertilizers.
- Maintain dog park signs, enforce dog park rules as stated on signage and clean up after dogs as appropriate.
- Maintain "Do Not Feed Geese" signs and clean up after geese as appropriate.

Inspections/Maintenance/ Spill Response /Reporting:

- Annually check expiration dates and dispose of expired products in accordance with the manufacturer's specifications.
- Keep an up-to-date inventory of all pesticides, herbicides and fertilizers stored. The list should include the name of the product, the manufacturer, the number of bags/containers and expiration date.
- Compile a binder of all Material Safety Data Sheets (MSDS) for pesticide, herbicides and fertilizers and have a general location to store it.
- Keep an up-to-date list of all Certified Pesticide Applicators.
- Keep an up-to-date list of pesticides, herbicides and fertilizers being applied. The list should include the name of the product, employee who applied the product, date of application, amount applied and location.
- Inspect storage areas at regularly scheduled days/times for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including; by whom, when, and where inspections were done, what was found, and any actions that were taken as a result of

the inspections.

Training:

- All applicable employees who handle or apply pesticides and herbicides shall be certified in accordance with the Virginia Pesticide Control Act through Virginia Department of Agriculture and Consumer Services (VDACS).
- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

SOP 6.2 – Grounds Maintenance – Handling and Application of Pesticides, Herbicides, and Fertilizers

Purpose: To protect stormwater from untreated chemicals by properly handling and applying pesticides, herbicides, and fertilizers.

Practice:

- Do not apply pesticides, herbicides, and fertilizers before a heavy rainfall.
- Do not dispose of pesticides, herbicides, and fertilizers in storm drains or water bodies.
- City employees who use or supervise the use of any pesticide on any area in the performance of their official duties must be certified as either commercial applicators not for hire or a registered technician.
- City employees who use or supervise the use of any fertilizer on any area in the performance of their official duties must be a certified fertilizer applicator.
- Use proper Personal Protection Equipment (PPE) when handling and applying pesticides, herbicides, and fertilizers.
- All employees handling, mixing, and applying pesticides, herbicides, and fertilizers should be knowledgeable of the corresponding MSDS for pesticides, herbicides, and fertilizers.
- Mix only enough chemical for immediate use.
- Follow manufacturer's recommendations for handling, mixing, and applying pesticides, herbicides, and fertilizers.
- Follow all federal and state regulations when handling, mixing, and applying pesticides, herbicides, and fertilizers.
- Mix pesticides, herbicides, and fertilizers in designated areas and away from storm drains or water bodies.
- Employees applying pesticides, herbicides, and fertilizers should read the MSDS for each product they use.
- Calibrate application equipment to ensure proper amount of product is applied.
- Use caution when broadcasting product near a waterway or storm drain structure.
- If fertilizer is broadcast or spilled on a sidewalk, street or driveway, sweep up the excess and dispose of in accordance with manufacturer's specifications.
- Promptly cleanup any spills or leakage. Use dry absorbent for liquids and sweep up solid product. Dispose of waste in accordance with manufacturer's specifications. Do not rinse with water.
- Use fertilizers with no phosphorous content.
- Pesticide application equipment should have an emergency shut-off switch.
- Use the least toxic product or method available to do the job.
- Use biodegradable products when available.
- Spot treat problem areas with pesticides rather than treating larger areas.
- Avoid broadcast spraying of pesticides or herbicides.
- Use the granular form of fertilizers, herbicides, and pesticides to minimize

application losses. If using liquids, be aware of wind direction to avoid wind drift of chemicals.

- Wash equipment in accordance with SOP 5.2.
- Apply products when ground is thawed; if applicable, fertilizer in accordance with any pertinent Nutrient Management Plan (NMP), apply pesticides and herbicides only as needed.

Inspections/Maintenance/ Spill Response /Reporting:

- Annually check expiration dates and dispose of expired products in accordance with the manufacturer's specifications.
- Keep an up-to-date inventory of all pesticides, herbicides, and fertilizers stored. The list should include the name of the product, the manufacturer, the number of bags/containers and expiration date.
- Compile a binder of all MSDS for pesticides, herbicides, and fertilizers and have a general location to store it.
- Keep an up-to-date list of all Certified Pesticide Applicators.
- Keep an up-to-date list of pesticides, herbicides, and fertilizers being applied. The list should include the name of the product, employee who applied the product, date of application, amount applied and location.
- Regularly inspect storage areas for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including; by whom, when, and where inspections were done, what was found, and any actions that were taken as a result of the inspections.

Training:

- All applicable employees who handle or apply pesticides and herbicides shall be certified in accordance with the Virginia Pesticide Control Act through Virginia Department of Agriculture and Consumer Services (VDACS).
- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

Section 6.3 – Grounds Maintenance – Mowing, Irrigation, and Disposal of Landscape Waste

Purpose: To protect stormwater from organic matter, sediments, nutrients, and other pollutants by using proper mowing and irrigation techniques and by properly disposing of landscape waste.

Practice:

- Do not dispose of leaves, clippings, or compost in storm drain or water body.
- Do not pile leaves, clippings, and compost piles near a storm drain or water body.
- Do not dump gas from lawn mowing equipment, waste, or contaminated water in storm drain or water body.
- Do not refuel or change mower oil near storm drains.
- Mow only as low as needed for the area's intended use. Where possible, mow once or twice a year to allow for meadow growth.
- Use a bag to catch grass clippings and appropriately dispose of clippings.
- Water at appropriate times (no rain in forecast and cooler time of day) and do not overwater. Overwatering can result in excess runoff.
- If used for composting, use appropriate compost bin away from storm sewer or water body.
- If temporary stockpile is necessary, cover leaves, clippings, and compost piles with tarp or enclose with a barrier so that runoff does not enter storm drain system or water body.
- Do not pile tree trimmings. Dispose of properly at a yard waste facility, chip material and use as mulch, or burn in controlled area as regulated under City Ordinances.

Inspections/Maintenance/ Spill Response /Reporting:

- Store and maintain lawn care equipment in controlled location per SOP 5.1.
- Wash lawn care equipment in controlled location per SOP 5.2.
- Fill gas tanks in a controlled location per SOP 5.3.
- Regularly inspect lawn care equipment and storage areas for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including by whom, when, and where inspections were done, what was found, and any actions that were taken as a result of the inspections.

Training:

- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

Section 6.4 – Grounds Maintenance – Portable Toilet Management

Purpose:

To protect stormwater from bacteria, organic matter, disinfectants, and suspended solids by properly placing and maintaining portable toilets.

Practices:

- Do not place toilets on top of storm drain inlets.
- Do not dispose of waste or pollutants in storm drains or water bodies.
- Portable toilets should be placed away from all storm drains and streets.
- Portable toilets should not be located adjacent to any stream or lake.
- Portable toilets shall be placed on a level ground surface that provides unobstructed access to users and servicing pump trucks.
- Portable toilets should, wherever possible, be located upon natural ground and not on or within 5 feet of a paved surface such as asphalt, concrete, or similar.
- If portable toilets must be placed on a paved surface exposed to rainwater or stormwater runoff, extra care must be taken during servicing to ensure any wastewater spilled onto the paved surface is rinsed and adequately collected so as not to leave any residue. A wet shop vacuum or similar would provide for adequate collection.
- To prevent spills, portable toilets should not be moved more often than is absolutely necessary.
- Portable toilets should be anchored down to prevent from tipping over.
- Owner identification and contact information must be effectively displayed in a prominent location on the exterior of each unit for reporting purposes.
- Collected portable toilet waste must be disposed of at a properly permitted wastewater disposal facility by a capable servicing company. Users of portable toilets should make all reasonable efforts to ensure that the waste hauler is disposing of waste at a permitted location.
- Damaged toilets must be repaired and/or replaced immediately.

Inspections/Maintenance/ Spill Response /Reporting:

- Clean and remove waste from portable toilets each week. Additional cleaning may be necessary depending on the volume of use.
- Portable toilet rinsing (excluding the inside of portable toilet waste tank) may be completed on site when the following conditions are met:
 - Rinse water is controlled to prevent it from entering into a storm drain;
 - No more than one (1) gallon of rinse water is used per portable toilet (i.e. low volume high- pressure cleaners, or bucket and rag. No common household hoses.);
 - Rinsing is completed away from a street or storm drain;
 - Where the portable toilet must be located on a paved surface, any rinse water that comes in contact with the paved surface must be adequately

- collected;
- Where the portable toilet is located on a non-paved surface, rinsing should be completed at least 5 feet away from a paved surface and rinsing wastewater is drained to the ground at a rate that allows it to immediately soak into the ground;
 - Rinse water generated during the cleaning of portable toilet waste tanks must not be discharged to the ground or to a storm drain and must be retained within the tank;
 - Portable toilet wastewater (human waste/sewage) must never be disposed of on-site.

- Inspect portable toilets daily to ensure proper functionality and to detect leaks or spills. In the event of a toilet unit being tipped over, immediately lift the unit back to its original position and inspect for spills, leakage, or damage to the unit. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including; by whom, when, and where inspections were done, what was found, and any actions that were taken as a result of the inspections. Document all relevant inspection activities on the proper forms provided in the SWPPP.

Training:

- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

SOP 7 – Standard Operating Procedures – Municipal Operations

Municipal operations such as paving, concrete replacement, refuse collection etc. have the potential to produce pollutant discharge if good housekeeping procedures are not implemented during municipal operations.

Included in this section are good housekeeping practices for municipal operations. The procedures are to be implemented during all City operations outside of City owned facilities.

SOP 7.1 – Municipal Operations – General

Purpose: To protect stormwater from contaminants during municipal operations.

Practice:

- Concrete
 - Collect concrete slurry and dispose of waste and water or allow slurry to dry and sweep up direct waste
 - Require concrete trucks to wash out in a designated location where wash water will not drain to a storm drain, ditch, creek, stream, pond, wetland or any other water body.
- Paving and Pavement Repair
 - When milling, do not allow grindings to accumulate where they can wash into the storm drain, ditch, creek, stream, pond, wetland or any other water body.
 - Mix only the amount of patching material necessary to complete the repair.
 - Locate stockpiles of asphalt patching material on a paved surface. Cover stockpiles to prevent contact with rain.
 - Use less harmful products rather than diesel for asphalt patching and cleanup activities.
 - Promptly sweep up absorbent material and dispose of in accordance with established procedures.
- Street Sweeping
 - Keep street sweepers maintained and in operation.
 - Sweep as close to the curb as possible.
 - Maintain an effective speed.
 - Keep accurate logs of the lane miles swept and/or the amount of material collected.
- Leaf Collection
 - Remove leaves from gutters, ditches and around inlets.
 - Dispose of leaves at City Yards composting area.
- Refuse Collection
 - Do not pick up hazardous material
 - Empty accumulated liquids from trash collection activities at a properly permitted landfill.

Inspections/Maintenance/ Spill Response /Reporting:

- Store and maintain municipal equipment in controlled location per SOP 5.1.
- Wash municipal equipment in controlled location per SOP 5.2.
- Fill gas tanks in a controlled location per SOP 5.3.
- Regularly inspect equipment used for municipal operations for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including; by whom, when, and where inspections were done, what was found, and any actions that were taken as a result of the inspections.

Training:

- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan. Section 8 Standard Operating Procedures - Utility Maintenance

Section 8 – Standard Operating Procedures – Utility Maintenance

Utility maintenance activities such as fire hydrant testing, waterline repair, and sanitary sewer repair have the potential to produce pollutant discharge if good housekeeping procedures are not implemented during the described activities.

The City's Engineering Division will work in close coordination with the Department of Public Utilities (DPU) to ensure good housekeeping procedures are being followed during utility maintenance operations to ensure that the City remains compliant with the MS4 Permit requirements.

SOP 8.1 – Standard Operating Procedures – Water System Maintenance

Purpose: To protect stormwater from contaminants during water line maintenance operations.

Practice:

- Install inlet controls and filtering devices for planned and previously approved discharges into storm drain.
- Prior to discharge, inspect discharge flow path and clear/cleanup any debris or pollutants found (i.e., remove trash, leaves, sediment, and wipe up liquids, including oil spills).
- Stop unplanned discharges as quickly as possible.
- Notify DPU of unplanned discharge and discharge extent.
- Identify unplanned discharge location and repair as needed.
- Inspect unplanned discharge flow path and repair damaged areas as needed.

Inspections/Maintenance/ Spill Response /Reporting:

- Store and maintain equipment in controlled location per SOP 5.1.
- Wash municipal equipment in controlled location per SOP 5.2.
- Fill gas tanks in a controlled location per SOP 5.3.
- Regularly inspect equipment used for utility operations for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including by whom, when, and where inspections were done, what was found, and any actions that were taken because of the inspections.

Training:

- The City provides annual good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

SOP 8.2 – Standard Operating Procedures – Sewer System Maintenance

Purpose: To protect stormwater from contaminants during sewer line maintenance operations.

Practice:

- Remove tree roots and other identified obstructions in sewer lines.
- Immediate clearing of blockage or repair is required where an overflow is currently occurring or for urgent problems that may cause an imminent overflow (e.g. pump station failures, sewer line ruptures, sewer line blockages).
- Clean sewer lines on a regular basis to remove grease, grit, and other debris that may lead to sewer backups.
- Review previous sewer maintenance records to help identify “hot spots” or areas with frequent maintenance problems and locations of potential system failure.
- Identify and track sanitary sewer discharges. Identify dry weather infiltration and inflow first. Wet weather overflow connections are very difficult to locate.
- Locate wet weather overflows and leaking sanitary sewers using conventional source identification techniques such as monitoring and field screening. Techniques used to identify other illicit connection sources can also be used for sewer system evaluation surveys.
- Implement community awareness programs for monitoring sanitary sewer wet weather overflows. A citizen’s hotline for reporting observed overflow conditions should be established to supplement field screening efforts.
- When a spill, leak, and/or overflow occurs and when disinfecting a sewage contaminated area, take every effort to ensure that the sewage, disinfectant and/or sewage treated with the disinfectant is not discharged to the storm drain system or receiving waters.

Inspections/Maintenance/ Spill Response /Reporting:

- Store and maintain equipment in controlled location per SOP 5.1.
- Wash equipment in controlled location per SOP 5.2.
- Regularly inspect equipment used for utility operations for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- During routine maintenance and inspection note the condition of sanitary sewer structures and identify areas that need repair or maintenance.
- Establish routine maintenance program. Cleaning should be conducted at an established minimum frequency and more frequently for problem areas such as restaurants that are identified
- Keep up-to-date records of site inspections including; by whom, when, and where inspections were done, what was found, and any actions that were taken

as a result of the inspections.

Training:

- The City provides annual good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

SOP 9 – City Yard – General Site Inspections

For the routine facility inspections to be performed:

- The names of the person(s), or the positions of the person(s), responsible for inspection: Superintendent of Operations, City Engineer, and Engineer
- Schedule: Routine facility inspections shall be conducted at least quarterly. At least one routine facility inspection per year should occur while runoff is discharging from the site.
- Specific areas of the facility to be inspected, including schedules for specific outfalls: Inspections must include all areas where industrial materials or activities are exposed to stormwater as identified in Sections 2.1 and 2.2 of this document. The following areas shall be included in all inspections:
 - ✓ Vehicle Storage Area
 - ✓ Material and Equipment Storage Area
 - ✓ Fueling Station
 - ✓ Maintenance Area
 - ✓ Salt and De-Icing Chemical Storage
- Scope: Ensure compliance with SWPPP in each area noted above.
- Non-Compliance: Any instances of non-compliance shall be brought into compliance within fourteen (14) days of the inspection. If the infraction cannot be brought into compliance within that time, the reason must be documented in the SWPPP and it must be brought into compliance as soon as possible.
- Illicit Discharges – Any spills or other unintended discharges are to be reported to the Stormwater Engineer and recorded in the Illicit Discharge, Detection, and Elimination log below.

For the comprehensive site inspections to be performed:

- The names of the person(s), or the positions of the person(s), responsible for inspection: Superintendent of Operations, City Engineer, Engineer, Director of Public Works, Director of Public Services, Traffic Crew Supervisor, and Streets Crew Supervisor
- The schedules to be used for conducting inspections: Comprehensive site inspections shall be conducted at least once per year.
- Specific areas of the facility to be inspected, including schedules for specific outfalls: Inspections must include all areas where industrial materials or activities are exposed to stormwater as identified in Sections 2.1 and 2.2 of this document. The following areas shall be included in all inspections:
- The following items shall be inspected:
 - ✓ Vehicle Storage Area
 - ✓ Material and Equipment Storage Area
 - ✓ Fueling Station
 - ✓ Maintenance Area
 - ✓ Salt and De-Icing Chemical Storage

IDDE Report Log

Date	Time of Event	Staff Contact	Phone Number	Description of Event		Remediation Action

Appendix D

Routine Daily Inspection Checklist

Routine Facility Inspection Form

Date of
Inspection
: _____

Time: _____

Inspectors
: _____

Vehicle Storage Areas	
Is area in full compliance with SWPPP? <input type="checkbox"/> Yes	If no, list instances of non-compliance: _____ _____ _____
<input type="checkbox"/> No	
Inspector Initials:	

Fueling Area	
Is area in full compliance with SWPPP? <input type="checkbox"/> Yes	If no, list instances of non-compliance: _____ _____ _____
<input type="checkbox"/> No	
Inspector Initials:	

Salt Barn	
Is area in full compliance with SWPPP? <input type="checkbox"/> Yes	If no, list instances of non-compliance: _____ _____ _____
<input type="checkbox"/> No	
Inspector Initials:	

Waste Oil / Antifreeze Tanks	
Is area in full compliance with SWPPP?	If no, list instances of non-compliance:
<input type="checkbox"/> Yes	_____
<input type="checkbox"/> No	_____

Inspector Initials:	

Mulch / Waste Storage Area	
Is area in full compliance with SWPPP?	If no, list instances of non-compliance:
<input type="checkbox"/> Yes	_____
<input type="checkbox"/> No	_____

Inspector Initials:	

Temporary Trash Storage Area	
Is area in full compliance with SWPPP?	If no, list instances of non-compliance:
<input type="checkbox"/> Yes	_____
<input type="checkbox"/> No	_____

Inspector Initials:	

Hydrodynamic Separator	
Is area in full compliance with SWPPP?	If no, list instances of non-compliance:
<input type="checkbox"/> Yes	_____
<input type="checkbox"/> No	_____

Inspector Initials:	

BMP Inspection Form - Bioretention

BMP #: _____

Tax Map #: _____

Date: ____ / ____ / 20__

Project Name: _____

Inspector: _____

Note: Leave section blank, if item N/A.

BMP Elements	Problems	Recommended Solution*	Checked? (Y/N)	Maint. Req'd.?	Comments
Contributing Drainage Area	Inadequate vegetation	Supplement as necessary			
	There is excessive trash/debris	Remove as soon as possible			
	There is evidence of erosion and / or bare or exposed soil	Depending on severity, monitor or stabilize the area (reseed/re-vegetate)			
	There are excessive landscape waste or yard clippings	Remove as soon as possible, and recycle or compost			
	Oil, grease, or other unauthorized substances are entering the facility	Identify and control the source of this pollution. It may be necessary to erect fences, signs, etc.			
Pre-Treatment	There is inadequate access to the pre-treatment facility	Establish adequate access			
	Stormwater discharge is ponding at point of disconnection	Remove as soon as possible			
	There is evidence of clogging (standing water, noticeable odors, water stains, algae, floating aquatic vegetation, or oil/grease)	Identify and eliminate the source of the problem. If necessary, remove and clean, or replace the clogged material			
	There is evidence of erosion and / or bare or exposed soil	Depending on severity, monitor or stabilize the area (reseed/re-vegetate)			
	There is dead vegetation or exposed soil in the grass filter	Replace dead vegetation as necessary			

BMP Elements	Problems	Recommended Solution*	Checked? (Y/N)	Maint. Req'd.?	Comments
<i>Inlets</i>	Check for sediment build-up at curb cuts, gravel diaphragms, or pavement edges that prevent flow from getting in the bed, and check for bypassing	Remove sediment and correct any other problems that block inflow			
	There is excessive trash/debris/sediment	Remove as soon as possible			
	There is evidence of erosion and / or bare or exposed soil at or around inlet	Depending on severity, monitor or stabilize the area (reseed/re-vegetate)			
	Inflow is hindered by trees and/or shrubs	Remove woody vegetation from points of inflow and directly above underdrains (trees and shrubs may be located closer to the perimeter)			
<i>Side Slopes</i>	There is evidence of rill or gully erosion or bare soil	Identify the source of erosion damage and prevent it from recurring. Depending on severity, monitor or stabilize the area (reseed/re-vegetate)			
	There is excessive sediment accumulation	Remove as soon as possible			
	Side slopes support nuisance animals	Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed from the area			
<i>Vegetation</i>	Plant composition is inconsistent with the approved plans	Determine if existing plant material is at least consistent with general bioretention design criteria and replace inconsistent species			

BMP Elements	Problems	Recommended Solution*	Checked? (Y/N)	Maint. Req'd.?	Comments
Vegetation	There should be 75%-90% cover (mulch + vegetation) and the mulch cover should be 2"-3" deep	Supplement vegetation and mulch as needed			
	There is evidence of hydrocarbons or other deleterious materials, resulting in unsatisfactory plant growth or mortality	Replace contaminated mulch. If problem persists, test soils for hydrocarbons and other toxic substances. If excess levels are found, the soils, plants, and mulch may all need to be replaced in accordance with the approved construction plans			
	Invasive species or weeds make up at least 10% of the facility's vegetation	Remove invasive species and excessive weeds as soon as possible and replace vegetation as needed			
	The grass is too high	Mow within a week. Grass species should be selected that have dense cover, are relatively slow growing, and require the least mowing and chemical inputs. Grass should be from 6"-10" high			
	Vegetation is diseased, dying, or dead	Remove and replace. Increase watering, but avoid using chemical fertilizers, unless absolutely necessary			
	Winter-killed or salt-killed vegetation is present	Replace with hardier species			

BMP Elements	Problems	Recommended Solution*	Checked? (Y/N)	Maint. Req'd.?	Comments
Filter Media	The filter media is too low, too compacted, or the composition is inconsistent with design specifications	Raise the level, loosen and amend, or replace the media, as needed, to be consistent with the state design criteria for bioretention (85%-88% sand, 8%-12% soil fines, 3%-5% organic matter in form of leaf compost). Other remediation options are described in the maintenance section of the state design criteria for bioretention			
	The mulch is older than 3 years or is otherwise in poor condition	The mulch must be replaced every 2-3 years			
	There is evidence that chemicals, fertilizers, and/or oil/grease are present	Remove undesirable chemicals from media and facility as soon as possible. Replace mulch or media as needed			
	There is excessive trash/debris/sediment accumulation	Remove trash and debris as soon as possible. Check plant health, and without damaging plants, manually remove the sediment, especially if the depth exceeds 20% of the facility's design depth			
	There is evidence of concentrated flows, erosion, or exposed soil	Identify the source of erosion damage and prevent it from recurring. Depending on severity, monitor or stabilize the area (reseed/re-vegetate)			
	The filter bed is clogged and/or filled inappropriately	Redistribute the soil substrate and remove sediment within 2 weeks			

BMP Elements	Problems	Recommended Solution*	Checked? (Y/N)	Maint. Req'd.?	Comments
	The topsoil is in poor condition (e.g. the pH level is not 6-7, the composition is inappropriate, etc.)	Ensure a 3-inch surface depth of topsoil consistent with the state design criteria for bioretention (loamy sand or sandy loam texture, with less than 5% clay content, and organic matter content of at least 2%). If pH is less than 6.5, spread lime			
Underdrain / Proper Drainage	The perforated pipe is not conveying water as designed	Determine if the pipe is clogged with debris or if woody roots have pierced pipe. As necessary, clean out or replace pipe			
	The underlying soil interface is clogged (there is evidence on the surface of soil crusting, standing water, the facility does not dewater between storms, or water ponds on the surface of basin for more than 48 hours after a rain event)	Measure the draw-down rate of the observation well for 3 days following a storm event in excess of 1/2 inch in depth. After 3 days, if there is standing water on top but not in the underdrain, this indicates a clogged soil layer that must be replaced. If standing water is both on the surface and in the underdrain, then the underdrain is probably clogged. This should be promptly investigated and remediated to restore proper filtration. Grading changes or underdrain repairs may be needed. The filter media may need to be raked, excavated, cleaned, or replaced to correct the problem			

BMP Elements	Problems	Recommended Solution*	Checked? (Y/N)	Maint. Req'd.?	Comments
Planters	The planter is unable to receive or detain stormwater prior to infiltration. Water does not drain from the reservoir within 3-4 hours after a rain event	Identify and correct sources of clogging. Topsoil and sand/peat layer may need to be amended with sand or replaced altogether			
	The planter has structural deficiencies -- including rot, cracks, or failure -- or the planter is unable to contain the filter media or vegetation	Make needed repairs as soon as possible			
Outlet / Overflow Spillway	Outlets are obstructed or erosion and soil exposure is evident below the outlet	Remove obstructions and stabilize, as needed			
	There is excessive trash/debris/sediment accumulation	Remove as soon as possible			
	Any grates present are in good condition	Repair or replace as necessary			
Observation Well	Is the observation well still capped?	Repair, as necessary			
Overall	Access to the facility or its components is adequate	Establish adequate access. Remove woody vegetation and debris that may block access. Ensure that hardware can be opened and operated			
	There is evidence of standing water	Fill in low spots and stabilize. Correct flow problems causing ponding			
	Complaints from local residents	Correct real problems			

BMP Elements	Problems	Recommended Solution*	Checked? (Y/N)	Maint. Req'd.?	Comments
	Mosquito proliferation	Eliminate stagnant pools if feasible, and treat for mosquitoes as needed. If sprays are considered, then a mosquito larvicide (such as Bacillus thurendensis or Altoside formulations) can be applied, only if absolutely necessary			
	Encroachment on the filter or easement by buildings or other structures	Inform involved property owners of BMPs status. Clearly mark the boundaries of the receiving pervious area, as needed			

Appendix E
Annual Comprehensive Site
Compliance Evaluation Checklist

Annual Comprehensive Site Compliance Evaluation Checklist

The following site components shall be inspected annually:

- ✓ Vehicle Storage Areas
- ✓ Material and Equipment Storage Areas
- ✓ Fueling Station
- ✓ Maintenance Area
- ✓ Salt Storage Area

An Annual Comprehensive Site Compliance Evaluation assures that the Stormwater Pollution Prevention Plan (SWPPP) remains congruent with the duties and responsibilities of City Yards.

- Assessment of all known pollutant sources and evaluate their potential to contaminate stormwater.
- Assessment of all site pollution prevention measures to evaluate their adequacy and effectiveness, and if additional measures are necessary.
- Assessment of spill containment and/clean up equipment, and whether replacement or restocking is needed.

The following information shall be documented in the Annual Comprehensive Site Compliance Evaluation:

- Personnel who conducted the evaluation;
- Date of the evaluation;
- Results of the evaluation;
- SWPPP modifications required;
- SWPPP modification date; and,
- Event(s) of non-compliance and corrective action(s) taken.

Any revisions to the SWPPP required to address deficiencies noted in the Annual Comprehensive Site Compliance Evaluation shall be completed within 90 days. The Comprehensive Site Inspection Report / Checklist, Table E-1, is located in this Appendix (Appendix E) and shall be used to track the Annual Comprehensive Site Compliance Evaluations and document any SWPPP revisions.

Appendix F

Site Specific Best Management Practices (BMP) and maintenance Schedule

Site Specific BMPs and Inspection and Maintenance Schedule

Site Best Management Practices (BMPs)

This section outlines the existing Stormwater (See Site Maps for Locations of BMPs) controls (both structural and nonstructural), which are currently in place in City Yard to prevent pollutants from entering the stormwater sewer system and adjacent Town Run.

Existing Nonstructural BMPs

Good housekeeping: The grounds are regularly inspected and checked for trash and litter by staff.

Minimizing Exposure: Hazardous materials are stored inside buildings as are all trash receptacles. There are no exterior dumpsters or trash receptacles on site. Any trash receptacles placed outside for collection are fitted with lids and all lids are to remain closed. Trash receptacles are not to be filled to the extent that the lid is prevented from closing.

Existing Structural BMPs

Stormwater Management Facilities: There are 2 BMP currently in operation in City Yard. One (1) Bioretention Facility and one (1) Hydrodynamic Separator in the locations shown on the Site Maps and in the corresponding photolog. These BMPs provide water quality control for all stormwater leaving the City Yard facility via the stormwater system. Quantity control from City Yards is not required as all systems discharge to the floodplain of Town Run.

Maintenance of Stormwater Management Facilities

The effectiveness of BMPs and Pollution Prevention measures depend on consistent inspection and routine maintenance. The General VPDES Permit for discharges of stormwater from Small Municipal Separate Storm Sewer Systems (MS4 Permit) states that an inspection and maintenance schedule for source controls BMPs shall be included in each SWPPP. As with the other sections of the SWPPP, the inspection and maintenance schedule should be evaluated and modified as necessary to accurately reflect the changing conditions on site. At a minimum, BMP inspections shall:

- Occur annually. All annual inspections are to be completed by the Stormwater Engineer;
- Include a visual inspection, and documentation of deficiencies, for all structural and non-structural BMPs and Pollution Prevention measures;
- Address any follow up maintenance activities/corrective actions that may be needed;
- Include BMP specific comments that help define any reoccurring maintenance activities or routine maintenance issues (i.e. BMP is filled with trash and sediment, BMP has an oily sheen on surface, etc.)
- Include photo documentation that illustrates BMP locations, identified deficiencies, and SWPPP implementation progress;
- Be documented in an Inspection Report, located in this Appendix (Appendix E). Maintenance ensures that each specific BMP is functioning to its proper design standards. Maintenance should be addressed as a holistic task that encompasses preventative, routine, and irregular (non-routine) maintenance activities. BMP maintenance should adhere to the following parameters:

-
- All BMPs should follow their respective long-term maintenance plan and schedule, as applicable;
 - If a long-term maintenance plan has not been developed, or is not available for a particular BMP, maintenance should be addressed on an “as needed” basis; and,
 - All maintenance activities should be logged in the BMP Maintenance Log located in this Appendix (Appendix F).

Following the source control inspections and maintenance documentation, any revisions to the SWPPP, if needed, should be completed within 90 days. All inspection and maintenance revisions should be documented in the BMP Inventory Database located at:
Z:\Engineering\Stormwater\BMPs\BMP Master Spreadsheet (DO NOT MOVE).xlsx.

Table F-1 – BMP Inspection Log

Inspection Date	BMP/ P2 Measure	Deficiencies Noted	Type of Maintenance Required	Comments	Maintenance Addressed
6/23/2023	Bioretention Facility	None	None	Facility in good condition. Plants are established and mulch is stable	N/A

