

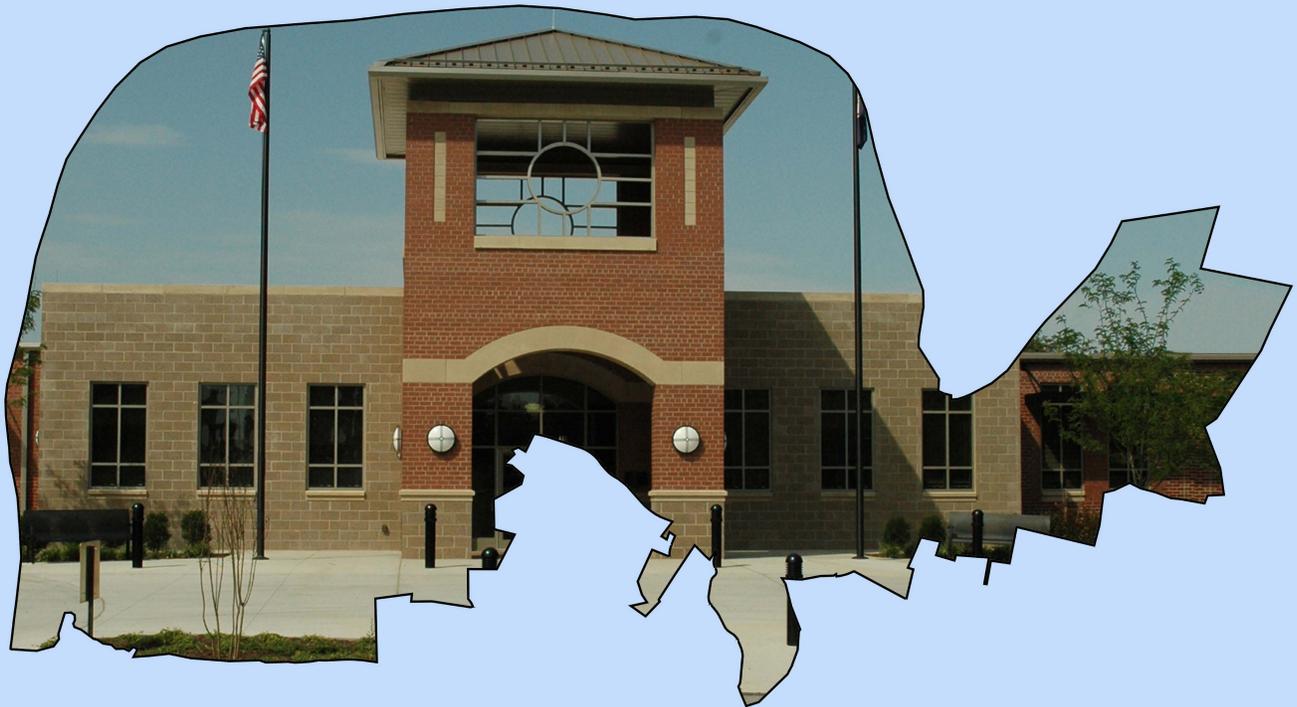
APPENDIX J

Standard Operating Procedures

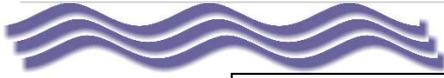
1. Asphalt Program
2. Building Maintenance
3. Detention Pond Maintenance
4. Drainageway Maintenance
5. Vehicle and Equipment Storage
6. Good Housekeeping
7. IDDE: Outfall Screening
8. Inlet, Pipe & Vault Cleaning and Disposal
9. Landscape Chemical Application
10. Disposal and Maintenance of Landscaping/Organic Waste
11. Parking Lot Sweeping and Repair
12. Recycling and Drop Center
13. Right-Of-Way (ROW) Maintenance
14. Salt and Spreader Shed Maintenance
15. Spill Prevention and Control
16. Street Sweeping for Water Quality Protection
17. Vehicle Maintenance
18. Vehicle Washing
19. Utility and Construction Maintenance



Standard Operating Procedures



Approved: June 30, 2016

**Standard Operating Procedure:****Good Housekeeping – ASPHALT PROGRAM**

Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of the **Good Housekeeping – ASPHALT PROGRAM** SOP is to provide guidance for City employees to control pollutant discharges during asphalt program construction and reconstruction activities, including maintenance, repair, replacement, and installation of asphalt pavement in the City. These procedures are critical steps that must be included in the basic practices of the Asphalt Program construction by City staff and contracted staff.

2.0 Scope

At Asphalt Program construction sites.

3.0 Responsibility

All City employees or City-contracted personnel who conduct asphalt paving construction and reconstruction.

3.1 Managers and Supervisors

All Supervisors are responsible for ensuring their staff's compliance with the correct methods of dealing with Building Maintenance. This includes City contractors who conduct asphalt paving construction and reconstruction. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **Good Housekeeping – ASPHALT PROGRAM** SOP's "Do's" and "Dont's"



4.0 Procedures

“DO’s”

- Cover inlets and manholes with protection during application of seal coat, tack slurry, slurry seal, and/or fog seal. Conduct operations during dry weather.
- Place drip pans, absorbent materials, or plastic under equipment when not in use to catch & contain drips & leaks to prevent soil contamination and runoff.
- When possible, recycle broken asphalt and old or spilled asphalt. If it cannot be recycled, collect and remove and dispose offsite as solid waste in accordance with standard specifications.
- Substances used to coat transport trucks, asphalt trucks, and spreading equipment shall not contain soap, shall be non-foaming and non-toxic.
- During thermoplastic striping, the pre-heater must be filled carefully to prevent splashing or spilling of materials; the same with filling the melting tanks during pavement marker application; leave 6” at top of pre-heater, and also in the melting tanks, to allow room for material to move and splash when vehicles are deadheaded.
- When servicing or filling melting tanks, ensure all pressure is released before removing lids to avoid spills.
- Monitor all asphalt program equipment closely for leaks; use drip pan as needed.

“DONT’s”

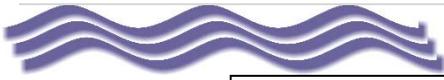
- **DO NOT** allow any materials or sediment to enter storm drain system. Apply temporary perimeter controls like silt fence until stabilized or permanent controls are in place.
- **DO NOT** apply seal coat, tack coat, slurry seal, or fog seal when rain is predicted; limit paving applications in wet weather.
- **DO NOT** let petroleum or petroleum covered aggregate enter the storm system during chip sealing application and sweeping.
- **DO NOT** transfer or load bituminous materials, or pre-heat, transfer or load thermoplastic near drain inlets or waterways.
- **DO NOT** wash down or hose down the paving equipment except where the wash water will only enter the sanitary sewer drain as an approved discharge.
- **DO NOT** repair asphalt paving equipment on a roadside surface; transport to the maintenance shop for repairs.
- **DO NOT** coat transport trucks and spreading equipment with soap, foaming products, or toxic substances.
- **DO NOT** fill pre-heaters or melting tanks beyond 6” from the top to leave room for splashing.

**5.0 Annual Review of Procedure/Training**

Supervisors are responsible for reviewing this procedure at least once each year with all employees. Any Supervisors who hire contractors are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford's illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.



**Standard Operating Procedure:
Detention Pond Maintenance**

Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of the **Detention Pond Maintenance** SOP is to provide guidance for City employees to control pollutant discharges by keeping these stormwater facilities operating properly with routine maintenance including mowing and debris control. These procedures are critical steps that must be included during pond maintenance on an annual basis, as an intermediate inspection, or on an as-needed basis after a storm event.

2.0 Scope

This procedure applies to all detention ponds currently existing at City facilities.

3.0 Responsibility

All City employees or City-contracted personnel responsible for maintenance of stormwater features.

3.1 Managers and Supervisors

All Supervisors are responsible for ensuring their staff's compliance with the correct methods of dealing with Detention Pond Maintenance. This includes non-City companies that are contracted to perform work for the City. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **Detention Pond Maintenance** SOP's "Do's" and "Dont's"



4.0 Procedures

“DO’s”

- Inspect inlet and outlet works initially on a monthly basis until the appropriate timing of maintenance is established; then conduct maintenance per schedule.
- Conduct maintenance per schedule, or on an as-needed basis as identified during an annual inspection or on an as-needed basis after a storm event.
- Keep screen and/or trash rack free from debris using established maintenance schedule or on an as-needed basis after a storm event; notify supervisor if screen or rack is in need of maintenance.
- Report damage/compromise to side slopes, pond banks, inlet pipe, trickle channels, outlet structure; prepare a repair schedule and complete repairs.
- Remove vegetation adjacent to outlet works that may interfere with operation; note if noxious weeds present and notify supervisor.
- Remove debris and trash from the detention pond and surrounding area and dispose properly.
- When mowing, collect grass clippings and all other clippings/trimmings and take offsite for disposal or dispose in trash on site.
- Notify supervisor any hazardous conditions or materials found during inspection.

“DONT’s”

- **DO NOT** mow detention pond too close to the surface; height should be 4 to 6 inches to maintain healthy grasses.
- **DO NOT** clean equipment or conduct maintenance on equipment in the detention pond, or near a storm drain or other stormwater conveyance feature.
- **DO NOT** leave grass clippings or trimming residue in pond; collect and dispose of in trash.
- **DO NOT** apply landscaping chemicals in pond area, or in areas where the residue could make it into the pond during a storm event.
- **DO NOT** attempt to clean up any unidentified or possibly hazardous materials found in or around pond during inspections; notify supervisor immediately upon discovery of hazardous materials.

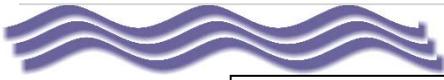
5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees. Any Supervisors who hire contractors are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford’s illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



**Standard Operating Procedure:
Drainageway Maintenance**

Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of the **Drainageway Maintenance** SOP is to provide guidance for City employees to control pollutant discharges by promoting maintenance of our primary "filter" for stormwater runoff reaching 'waters of the state', including our creeks, drainage channels, ditches, and grass swales with or without active flows. Drainageways can be a source of pollutants if not properly maintained. These procedures are critical steps that must be included for all maintenance activities in City drainageways.

2.0 Scope

This procedure applies to City drainageways and related surface water conveyance features.

3.0 Responsibility

All City employees or City-contracted personnel who maintain stormwater conveyance structures.

3.1 Managers and Supervisors

All Supervisors are responsible for ensuring their staff's compliance with the correct methods of dealing with Drainageway Maintenance. This includes non-City companies that are contracted to perform work for the City. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **Drainageway Maintenance** SOP's "Do's" and "Dont's"



4.0 Procedures

“DO’s”

- Conduct maintenance per schedule, or on an as-needed basis as identified during an inspection based on identified sediment and debris buildup, or on an as-needed basis after a storm event.
- Remove debris and trash from the drainageway and surrounding area and dispose properly before mowing; make note if noxious weeds present and notify supervisor.
- Inspect drainageway outfalls and trickle channel features (if applicable) while in field doing maintenance; note any feature that needs repair and/or replace due to defective materials; note any unusual conditions in the drainageway during the inspection and report them.
- Report any suspected illegal connections or other waste dumping activities in the drainageway; these would include flows during dry-weather conditions, or unusual fluids. These may require special disposal operations; report to Supervisor.
- Clean out sediment from culverts in drainageways, ditches and swales; check if needs to re-graded (invert has filled in with fine-graded sediments). When mowing, collect grass clippings and all other clippings/trimmings and take offsite for disposal or dispose in trash.
- Maintain a longer riparian fringe at top of bank when mowing to catch pollutants.
- Report bare ground that may lead to erosion; re-vegetate as necessary. Report locations of grass clippings, etc being placed in drainageway; remove these wastes.

“DONT’s”

- **DO NOT** mow drainageways, ditches, or swales too close to the surface; height should be 4 to 6 inches to maintain healthy grasses.
- **DO NOT** clean equipment or conduct maintenance on equipment in the drainageway, channel, ditch, or near a storm drain or other stormwater conveyance feature.
- **DO NOT** leave grass clippings or trimming residue in channel; collect and dispose of in trash.
- **DO NOT** apply landscaping chemicals in channel area, or in areas where the residue could make it into the drainageway during a storm event.
- **DO NOT** make contact with anyone suspected of an illicit discharge without first contacting supervisor for instructions.
- **DO NOT** attempt to clean up any unidentified or possibly hazardous materials found in or around channel during inspections; notify supervisor immediately upon discovery.

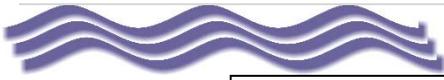
5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees. Any Supervisors who hire contractors are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford’s illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



**Standard Operating Procedure:
Vehicle and Equipment Storage**

Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of the **Vehicle and Equipment Storage** SOP is to provide guidance for City employees to control pollutant discharges by promoting proper storage of vehicles and equipment for longer periods of time that have the potential to leak, spill, or release chemicals or hazardous materials. The potential exists for vehicle or equipment to leak fluids that then are wither infiltrating into the ground or are carried off with stormwater. These procedures are critical steps that must be included in any long-term storage activities, at all city or City-contracted facilities that store vehicles and equipment for longer periods of time.

2.0 Scope

At all City or at City-contracted facilities where vehicles or equipment are stored or parked for longer periods of time.

3.0 Responsibility

All City or City-contracted employees who oversee the long-term storage of vehicles and equipment.

3.1 Managers and Supervisors

All Supervisors are responsible for ensuring their staff's compliance with the correct methods of dealing with Vehicle and Equipment Storage. This includes City-contracted employees who oversee the long-term storage of vehicles and equipment. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **Vehicle and Equipment Storage** SOP's "Do's" and "Dont's"



4.0 Procedures

“DO’s”

- Monitor parked vehicles and equipment closely for leaks; use drip pans as needed. Check drip pans frequently and dispose of fluids appropriately.
- Monitor vehicle and equipment fluids closely, and keep fluids at proper levels.
- Have spill cleanup materials available and ready to go to address any leaks or spills.
- Clean up spills promptly, with DRY methods (rags and absorbents), if possible. Clean up is not complete until absorbent is swept up and disposed properly.
- Conduct daily inspections to ensure that all vehicles and equipment are stored correctly.
- Keep clutter around stored vehicles and equipment to a minimum; a more organized storage area is easier to both spot a leak or spill, as well as to properly clean up.

“DONT’s”

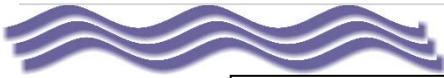
- **DO NOT** store outdoors a vehicle or piece of equipment that is KNOWN to have a leak; move indoors and schedule repair.
- **DO NOT** allow exposure of buildup of oil and grease on vehicle or equipment being stored outdoors. Clean off buildup before storing outdoors.
- **DO NOT** wash or hose down any outdoor vehicle or equipment storage areas except where the wash water will only enter the sanitary sewer drain as an approved discharge.
- **DO NOT** repair equipment or vehicles outside; use a covered, designated area for such repairs.
- **DO NOT** allow clutter and mess to conceal any leak problem in the storage area.

5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees. Any Supervisors who hire contractors are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford’s illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.



**Standard Operating Procedure:
Good Housekeeping**

Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of **Good Housekeeping** is to control pollutant discharges by promoting efficient and safe practices (storage, use, cleanup, and disposal) when handling materials potentially harmful to stormwater such as fertilizers, pesticides, herbicides, cleaning solutions, paint products, and automotive products. Good housekeeping is simply the practice of keeping **all materials, supplies and containers well organized; storing materials securely** when not in use; **cleaning up after work activities**; and **disposing of materials properly**. These procedures are simple steps that must be included in everyday work activities to protect stormwater from contact with pollutants, and are a joint responsibility of everyone in the work place.

2.0 Scope

This procedure applies to all offices where materials stored could be spilled; all outdoor work areas where materials are stored or used; and all areas that store or use equipment that has the potential to spill or leak.

3.0 Responsibility

All City employee's or City-contracted employees who work with any chemicals, cleaning solutions, paint products, automobile fluids, or any materials that could be spilled; or work with any equipment.

3.1 Managers and Supervisors

All Supervisors are responsible for ensuring their staff's compliance with the correct methods of Good Housekeeping. This includes non-City companies that are contracted to perform work for the City. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **Good Housekeeping** SOP's "Do's" and "Dont's"

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



4.0 Procedures

“DO’s”

- Keep all work areas neat and well organized.
- Sweep or pick up all trash and debris daily or as needed.
- Have spill cleanup materials available and ready to go.
- Clean up spills promptly, with DRY methods, if possible.
- Conduct daily inspections to ensure that equipment and materials are being handled, disposed and stored correctly.
- Recycle or dispose of all wastes properly and promptly.
- Keep equipment clean; do not allow a buildup of oil/grease.
- Monitor parked vehicles closely for leaks; use drip pan as needed.
- Keep unused containers closed with a tight fitting lid and label.

“DONT’s”

- **DO NOT** let waste accumulate at or around the work place.
- **DO NOT** transfer, pour or dispose of materials outdoors, near or in storm drains, or drainage ditches. Use signage to reinforce.
- **DO NOT** wash down or hose down any outdoor Dumpster or storage areas except where the wash water will only enter the sanitary sewer drain as an approved discharge.
- **DO NOT** handle containers alone if awkward or require over-exertion on your part. Get help and spread the weight load.
- **DO NOT** repair equipment or vehicles outside; use a covered, designated area for such repairs.
- **DO NOT** hose down work area (unless floor drain is connected to the sanitary sewer); use dry sweeping method if possible.
- **DO NOT** place a waste in an area not designated for its hazardous nature or if that areas’ disposal method is not a recommended one.

5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees. Any Supervisors who hire contractors are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford’s illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.



**Standard Operating Procedure:
Inlet, Pipe & Vault Cleaning and Disposal**

Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of the **Inlet, Pipe & Vault Cleaning and Disposal** SOP is to provide guidance for City employees to control pollutant discharges by promoting maintenance of our primary "filter" for stormwater runoff before it enters a waterway. Any pollutant that ends up on a street or in a parking lot can end up in the stormwater conveyance system which then transports urban runoff and snow melt to the waterway. Maintaining street inlets, storm sewers, culverts, vaults, and other conveyance features keep sediment and debris buildup from entering the stormwater system. This is accomplished most often using a Vactor Truck for the cleaning or pressure application, an operation which includes disposal of the wastes generated from the cleaning. Because wastes resulting from cleanup can contribute to the problem, the disposal of the wastes must be managed appropriately. These procedures are critical steps that must be included in every trip out in the VactorTruck, every transfer location during the day, and every trip back in to the Public Works Facility

2.0 Scope

This procedure applies to City storm drain inlets, storm sewers, outfalls, culverts, drainage ditches, catch basins, swales, vaults, and related.

3.0 Responsibility

All City employees or City-contracted personnel who are responsible for and/or who operate Vactor Truck equipment to maintain stormwater conveyance structures.

3.1 Managers and Supervisors

All Supervisors are responsible for ensuring their staff's compliance with the correct methods of dealing with Inlet, pipe, vault, culvert and similar cleaning. This includes non-City companies that are contracted to perform work for the City. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **Inlet, Pipe & Vault Cleaning and Disposal** SOP's "Do's" and "Dont's"

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



4.0 Procedures

“DO’s”

- Conduct stormwater system maintenance per schedule or as needed based on identified sediment and debris buildup; remove debris, rubbish, and sediment.
- Discharge Vector Truck wastes and flushing water at the Cloyd’s Mountain Landfill per the New River Resource Authority’s Guidelines.
- Inspect conveyance features while in field; note any conveyance feature that needs repair and/or replace due to defective materials.
- Report any suspected illegal connections or other waste dumping activities.
- Transport wastes from Vector Truck activities to a permanent disposal site as soon as possible, and dispose according to all regulations.
- Monitor parked Vector Truck closely for leaks; use drip pan as needed.
- Be on the lookout for contaminated sediments (oil sheen, floating wastes); it may require special disposal operations; report to Supervisor.

“DONT’s”

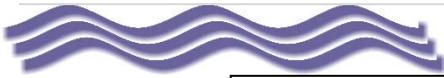
- **DO NOT** conduct Vector Truck flushing activities when a heavy rain is forecast.
- **DO NOT** transfer or dispose of collected sediments outdoors, near or in storm drains, or drainage ditches.
- **DO NOT** wash down/ hose down the Vector truck except where the wash water will only enter an approved discharge point (i.e. sanitary sewer, or designated cleanout area like the Cloyd’s Mountain Landfill)
- **DO NOT** discharge any contaminated stormwater from inlet, culvert, or other conveyance cleaning into surface water.
- **DO NOT** repair Vector Truck equipment or vehicles outside; use a covered, designated area for such repairs.
- **DO NOT** temporarily store Vector Truck wastes in areas where the debris may be returned back to storm sewer system with the next rainfall; transport to permanent disposal as soon as possible.

5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees. Any Supervisors who hire contractors are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford’s illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.



**Standard Operating Procedure:
Landscape Chemical Application**

Date: 6/30/2016* Rev: 10/13/2016
Version: 1.1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of the Landscape Chemical Application procedure is to supplement the City's **Nutrient Management Plan** during routine landscape maintenance activities is to minimize or prevent the discharge of pesticides and fertilizers deposited into the drainage system by promoting proper storage and application of chemicals during landscape maintenance activities. These procedures are critical steps that must be included in every landscape maintenance activity that includes chemical application to either control weeds or pests or to provide adequate fertilization.

2.0 Scope

This procedure applies to all City employees or City-contracted services, who work with any landscape chemicals, and all municipal facilities and operations where pesticides, herbicides or fertilizers are stored, mixed, applied, recycled or disposed.

3.0 Responsibility

All City staff are responsible for preventing illicit discharges from their operations.

3.1 Managers and Supervisors

The Public Works Superintendent, Supervisors and the City's Horticulturist are responsible for ensuring their staff's compliance with the correct methods of disposing of landscape waste materials. This includes non-City companies that are contracted to perform landscaping functions. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **Nutrient Management Plan** and the **Landscape Chemical Application** SOP's "Do's" and "Don'ts"

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



4.0 Procedures

“DO’s”

- Follow the City of Radford’s ***Nutrient Management Plan***.
- Utilize soil test analyses to optimize fertilizer applications.
- Follow label directions when storing, handling, mixing, recycling and disposing of chemicals and empty container; properly calibrate application equipment to ensure proper amount of chemicals are applied.
- Have spill cleanup materials available and ready to go in case of spill; clean up chemical spills promptly, with DRY methods, if possible.
- When watering landscaped area after fertilizer application, take care to not allow water to runoff into streets or other conduits to the waterways.
- Keep all fertilizer chemicals covered to keep dry and reduce water damage.
- Keep application equipment clean; do not allow a buildup of chemicals.
- Keep unused containers closed tightly; use a tight fitting lid; label containers.
- Keep all pesticide and herbicide chemicals in leak proof shelters away from elements to help prevent contamination of the stormwater system.
- Recycle or dispose of all spent or excess chemicals properly and promptly.

“DONT’s”

- **DO NOT** keep chemicals in a damaged container; replace or transfer chemicals to new holding containers.
- **DO NOT** transfer, pour or dispose of chemicals outdoors, near or in storm drains, or drainage areas; transfer over impervious surface so spills can’t seep into ground.
- **DO NOT** apply chemicals if not had proper training on uses, types, amounts, and application requirements.
- **DO NOT** handle chemical containers alone if awkward or require over-exertion on your part. Get help and spread the weight load so accidents don’t happen.
- **DO NOT** over-purchase landscaping chemicals; keep only necessary quantities on hand.
- **DO NOT** over-water landscape areas after fertilizer application such that water discharges off-site, to the street or to the waterway directly.
- **DO NOT** apply landscape chemicals to frozen ground.

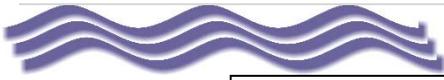
5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees who perform routine landscaping duties. Any Supervisors who hire contractors to perform these job duties are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford’s illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



Standard Operating Procedure:
Disposal and Maintenance of Landscaping/Organic Waste
Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of this procedure is to ensure that wastes generated as a result of landscaping or landscape maintenance operations do not clog or cause contamination of the stormwater sewer system.

2.0 Scope

This procedure applies to all landscaping maintenance activities and operations performed by City employees or outside contract companies.

3.0 Responsibility

All City employees **or City-contracted companies** responsible for maintenance of landscaped features.

3.1 Managers and Supervisors

The Public Works Superintendent and Supervisors are responsible for ensuring their staff's compliance with the correct methods of disposing of landscape waste materials. This includes non-City companies that are contracted to perform landscaping functions. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **Disposal and Maintenance of Landscaping/Organic Waste** SOP's Procedures and "Do's" and "Dont's"



4.0 Procedures

4.1 Vegetation Maintenance

All vegetation shall be maintained in such a way as keeps stormwater conveyances, including drains, clear and free of vegetative debris.

4.2 Landscape Waste Generation

Any organic, plant or soil wastes generated as a result of landscape maintenance, including but not limited to leaves, soil cores, grass clippings, or other debris shall be handled in an environmentally responsible manner to reduce likelihood of this material entering stormwater conveyances or local streams.

4.2.1 Grass Clippings

Grass clippings shall be collected or blown back on to grassed areas. In no cases shall grass clippings be blown onto pavement, where they can then be washed down a storm drain.

4.2.3 Leaves

Leaves shall be picked up as promptly as practical in order to keep storm drains clear from obstruction, which could cause damaging flooding, and keep leaves from entering the storm sewer system. In the event leaves cannot be picked up in a timely manner, they should be blown back onto vegetated surfaces.

4.2.4 Sticks, limbs, or whole vegetation

Limbs, sticks, or other vegetative debris generated either as a result of maintenance activities or from natural causes should be cleaned up immediately upon generation or discovery. If vegetative debris cannot be removed from a site in a timely manner, it should be moved to a vegetated area where it cannot block stormwater conveyances or storm drains.

4.3 Proper Disposal

The City has a landscape compost site located at Crackers Neck. All vegetative waste that cannot be re-used on site should be taken to the compost site. Contractors performing work, unless otherwise directed, are responsible for proper offsite disposal of materials.

**“DO’s”**

- Inspect newly landscaped areas initially on a monthly basis until the appropriate timing of maintenance is established; then conduct maintenance per schedule.
- Conduct routine maintenance per schedule, or on an as-needed basis as identified during an inspection, or on an as-needed basis after a storm event.
- Oversee landscape contractors to ensure that correct procedures are followed and contaminants are kept to a minimum, and contained.
- Ask the contractor for a list of items they will be bringing on site for landscape work, and how they will control, contain and dispose of the materials not used.
- Report damage/compromise to landscape areas or bare areas void of vegetation that may result in sediment being transported off site; prepare a repair schedule & complete repairs.
- Remove paper, debris and trash from the landscaped and surrounding areas, and rake leaves and dispose properly prior to mowing activities.
- After mowing & pulling & trimming, collect grass clippings and all other clippings/trimmings/wastes and take offsite for disposal or dispose in trash on site.
- Notify supervisor of any hazardous conditions or materials found during the performance of maintenance activities.

“DONT’s”

- **DO NOT** allow grass clippings to be blown onto pavement, where they can then be washed down a storm drain.
- **DO NOT** place leaves onto the roadway or sidewalk, where they can then be washed down a storm drain.
- **DO NOT** clean equipment or conduct maintenance on equipment on or near the landscaped area, or near a storm drain or other stormwater conveyance feature.
- **DO NOT** leave grass clippings or trimming residue on landscaped area; collect and dispose of in trash.
- **DO NOT** apply landscaping chemicals in areas where the residue could make it into the drainageway, channel, ditch, or detention pond (if applicable) during a storm event (see **Chemical Application SOP** for procedures).
- **DO NOT** water if chemical applications resulted in excess fertilizer, herbicide or pesticide on the landscaped areas or on the sidewalks or parking lots. Sweep up excess & dispose properly before applying water.
- **DO NOT** attempt to clean up any unidentified or possibly hazardous materials found on or around landscaped areas during maintenance; notify supervisor immediately upon discovery of hazardous materials.

5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees who perform routine landscaping duties. Any Supervisors who hire contractors to perform these job duties are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford’s illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



**Standard Operating Procedure:
Building Maintenance**

Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of the **Building Maintenance** SOP is to provide guidance for City employees to control the maintenance and construction activities that take place at municipal facilities and their surrounding grounds with procedures to mitigate the contaminated debris, trash, and potential chemicals from reaching our stormwater system.

These procedures are simple steps that must be included in everyday work activities to protect stormwater from contact with pollutants and are a joint responsibility of everyone in the work place conducting maintenance on buildings.

2.0 Scope

All buildings and facilities where maintenance activities occur.

3.0 Responsibility

All City employees or City-contracted personnel who work/conduct maintenance on City buildings, including painting, window washing, sidewalk cleaning and the like, and building contractors.

3.1 Managers and Supervisors

All Supervisors are responsible for ensuring their staff's compliance with the correct methods of dealing with Building Maintenance. This includes City contractors who work/conduct maintenance on City buildings. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **Building Maintenance** SOP's "Do's" and "Dont's"



4.0 Procedures

“DO’s”

- Remove trash and debris around building and grounds daily or as needed.
- Place temporary inlet protection at stormwater inlets to catch contaminants and wash water from maintenance activities.
- Have spill cleanup materials available and ready to go during painting activities or any activity that has chemicals standing by for use.
- Clean up paint or other spills promptly, with DRY methods, if possible.
- Oversee contractors to ensure that correct procedures are followed and contaminants are kept to a minimum, and contained.
- Ask the contractor for a list of chemicals they will be bringing on site for the maintenance work, and how they will control, contain and dispose of the unused portion of the chemicals and materials.
- Expect contractors to follow proper cleanup procedures; monitor progress.
- Keep maintenance equipment clean; do not allow a buildup of wastes. Maintain a record of contractor work, and if any spills/problems occurred.

“DONT’s”

- **DO NOT** let trash and waste accumulate at or around the building.
- **DO NOT** transfer, pour or dispose of maintenance materials outdoors in parking lots, near or in storm drains, drainage ditches, or any other location where they can runoff into the storm drain system.
- **DO NOT** let maintenance wash water, chemicals, paint, or any other maintenance residue enter the storm drain system.
- **DO NOT** handle containers alone if awkward or require over-exertion on your part. Get help and spread the weight load.
- **DO NOT** repair maintenance equipment outside; use a covered, designated area for such repairs.
- **DO NOT** hose down debris collected from sidewalk cleaning (unless floor drain is connected to the sanitary sewer); use dry sweeping method and dispose properly in trash.
- **DO NOT** let contractors conduct maintenance in conflict with proper procedures for the work; monitor closely.

5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees. Any Supervisors who hire contractors are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford’s illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



**Standard Operating Procedure:
Parking Lot Sweeping and Repair**

Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of the **Parking Lot Sweeping and Repair** SOP is to provide guidance for City employees to control pollutant discharges by promoting efficient pickup of fine-grained sediment particles on **parking lots, and other large outdoor paved surfaces** that carry a substantial portion of the pollutant load, as well as managing repair materials used to conduct routine pothole repair. In addition, because the operation and maintenance of street sweepers used to sweep parking lots can contribute to the problem if not handled properly, procedures for resultant sweeping debris and refuse must be managed appropriately. Please also use the **Street Sweeping SOP** for proper procedures. These procedures are critical steps that must be included in every trip out to sweep parking lots, maintain the parking lots, or similar, in conjunction with the **Street Sweeping SOP**.

2.0 Scope

Parking lots and other large outdoor paved surfaces within the City and other City-contracted areas.

3.0 Responsibility

All City employee and City-contracted personnel who operate street sweeping equipment, pothole patching and asphalt overlay equipment.

3.1 Managers and Supervisors

All Supervisors are responsible for ensuring their staff's compliance with the correct methods of dealing with Parking Lot Sweeping and Repair. This includes City-contracted employees who operate street sweeping equipment, pothole patching and asphalt overlay equipment. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **Parking Lot Sweeping and Repair Storage** SOP's "Do's" and "Dont's"

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



4.0 Procedures

“DO’s”

- Operate all sweeper equipment according to manufacturer’s settings and standards; perform regular maintenance of sweepers per schedule or as needed.
- Follow sweeping schedule established for that facility’s parking lot area. Note areas that are prone to additional sediment and debris buildup and add to schedule.
- Conduct additional inspections after large storm event, after snow piles melt, after a special event held in the parking lot or similar, and after temporary storage of materials; make note of a lot that has consistently higher content of debris & report.
- If parking lot has outfall or storm drain, protect this feature when materials are stored in parking lot or if snow is brought to parking lot for long-term melting; place snow piles away from these inlets so debris is not carried away with resulting melt.
- Make note of excessive litter and suggest putting a garbage receptacle at the site.
- If unusual sweeper debris is noted, bring to attention of supervisor for testing.
- Use **OSHA Material Handling & Storage**, and **Spill Prevention and Control SOPs** for repair (patching and pothole repairs) activities to make sure no adverse effects from repair activities. Make sure repair equipment does not contribute oil, diesel, or transmission fluid leaks to lot area and follow instructions on SOPs for clean up

“DONT’s”

- **DO NOT** ignore any leak or drips from sweeper equipment; put in a repair ticket and utilize a drip pan during temporary storage of vehicle.
- **DO NOT** make any repairs to sweeper equipment or vehicles in the parking lot; use a covered, designated area for such repairs.
- **DO NOT** wash down the parking lot with the exception of a very fine water spray for dust control.
- **DO NOT** empty sweeper hoppers wastes near storm drains or detention ponds or drainageways where rain event could mobilize sweeper wastes.
- **DO NOT** bring excess repair materials to the parking lot and use up what is brought. Never leave repair materials stored without proper storing techniques.
- **DO NOT** hose down left over materials after repair activities; use dry clean-up methods and sweep up excess material and properly dispose.

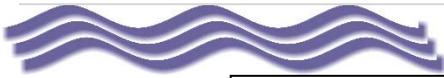
5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees. Any Supervisors who hire contractors are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford’s illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



**Standard Operating Procedure:
Recycling and Drop Center**

Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of the **Recycling and Drop Center** SOP is to provide guidance for City employees to help prevent stormwater pollution. Pollutants, such as blowing trash, residual chemicals and organics may be picked up by rainwater at these locations and discharged into the **New River** causing water pollution issues.

If services are contracted, this SOP should be provided to the Contractor. The contract should specify that the Contractor is responsible for compliance with all applicable laws.

2.0 Scope

This procedure applies to the Recycling and Drop Center located at Seventeenth Street.

3.0 Responsibility

All City employee's or City-contracted employees who work at this location.

3.1 Managers and Supervisors

All Supervisors are responsible for ensuring their staff's compliance with the correct methods of dealing with waste and recyclable items. This includes non-City companies that are contracted to perform work for the City. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **Recycling and Drop Center** SOP's "Do's" and "Dont's"



4.0 Procedures

“DO’s”

- All waste and recycle receptacles must be leak-tight with tight-fitting lids or covers. Plastic liners can be used to ensure leak tightness.
- Keep lids on dumpsters and containers closed at all times unless adding or removing material.
- Place waste or recycle receptacles indoors or under a roof or overhang whenever possible.
- Locate dumpsters on a flat, paved surface and install berms or curbs around the storage area to prevent run-on and run-off.
- Sweep up around outdoor waste containers regularly.
- Clean up any liquid leaks or spills with dry clean-up methods.
- Arrange for wastes or recyclables to be picked up regularly and disposed at approved disposal facilities.

“DONT’s”

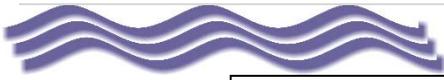
- **DO NOT** place hazardous materials, liquids, or liquid-containing wastes in a dumpster, recycle or trash receptacle.
- **DO NOT** wash out waste or recycle containers or dumpsters outdoors or in a parking lot.
- **DO NOT** wash down or hose down any outdoor Dumpster or storage areas except where the wash water will only enter the sanitary sewer drain as an approved discharge.

5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees. Any Supervisors who hire contractors are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford’s illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.



**Standard Operating Procedure:
Right-Of-Way (ROW) Maintenance**

Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of this procedure is to control pollutant discharges by using routine maintenance procedures for mowing and debris control, and weed control along City ROWs. Application of fertilizers, pesticides and herbicides activities should refer to the **Chemical Application SOP**. These procedures are critical steps that must be included during routine landscaping activities at City ROW areas by employees and contractors.

2.0 Scope

This procedure applies to all City ROW property, including vacant lots, medians and greenspace.

3.0 Responsibility

All City employees **or** City-contracted personnel responsible for maintenance of City ROW property.

3.1 Managers and Supervisors

The Public Works Superintendent and Supervisors are responsible for ensuring their staff's compliance with the correct methods for mowing, debris control, and weed control. Application of fertilizers, pesticides and herbicides activities should refer to the **Chemical Application SOP**. This includes non-City companies that are contracted to perform landscaping functions. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **ROW Maintenance SOP's**, "Do's" and "Dont's" for ROW Maintenance.

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



4.0 Procedures

“DO’s”

- Inspect new ROW areas or medians initially on a monthly basis until the correct timing of maintenance is established; then conduct maintenance per schedule.
- Conduct routine ROW maintenance per schedule, or on an as-needed basis as identified during an inspection or on an as-needed basis when conditions warrant.
- Oversee ROW landscape contractors to ensure that correct procedures are followed and contaminants are kept to a minimum and contained.
- Ask the contractor for a list of items they will be bringing on site for ROW landscape work, and how they will control, contain and dispose of the materials not used.
- Report damage/compromise to ROW areas, median areas or bare areas void of vegetation that may result in sediment being transported off site; prepare a repair schedule & complete repairs.
- Remove paper, debris and trash from the ROWs, medians, and surrounding areas. Rake leaves and dispose properly prior to mowing activities.
- After mowing & pulling & trimming, collect grass clippings and all other clippings/trimmings/wastes and take offsite for disposal or dispose in trash on site.
- Notify supervisor of any hazardous conditions or materials found during the performance of maintenance activities.

“DONT’s”

- **DO NOT** clean equipment or conduct maintenance on equipment on or near the ROW area, or near a storm drain or other stormwater conveyance feature.
- **DO NOT** leave grass clippings or trimming residue on median or ROW area; collect and dispose of in trash.
- **DO NOT** apply landscaping chemicals in areas where the residue could make it into the drainageway, channel, ditch, or detention pond (if applicable) during a storm event (see **Chemical Application SOP** for procedures).
- **DO NOT** use herbicide for weed control on the ROW areas or in the median unless instructed to by the City’s Horticulturist. Use only approved chemicals, in approved amounts, and never when a heavy rain is forecast.
- **DO NOT** attempt to clean up any unidentified or possibly hazardous materials found on or around median or ROW areas during maintenance; notify supervisor immediately upon discovery of hazardous materials.

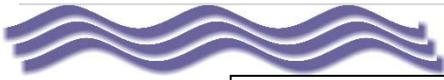
5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees who perform routine landscaping duties. Any Supervisors who hire contractors to perform these job duties are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford’s illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



**Standard Operating Procedure:
Salt and Spreader Shed Maintenance**

Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit, with salt storage facilities specifically included as having high priority status.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of this procedure is to outline the housekeeping measures that must be taken to prevent run-off of materials from entering groundwater and storm water systems.

2.0 Scope

This procedure applies to the Salt Shed and the Spreader Shed located at the rear of 699 Seventeenth Street.

3.0 Responsibility

All City staff are responsible for preventing illicit discharges from their operations. The salt storage shed and the spreader shed at the rear of 699 Seventeenth Street contains materials which must be kept under cover to prevent tracking and escape of those materials into groundwater and surface water.

3.1 Managers and Supervisors

The Public Works Superintendent and Supervisors are responsible for ensuring their staff's compliance with this procedure. Supervisors are to train their employees on keeping salt under roof protection. Managers and supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

Personnel must follow the correct procedures in accordance with this SOP.

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



4.0 Procedures

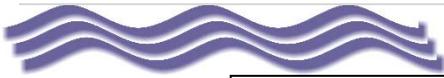
- 4.1** Deliveries of materials by outside vendors to the Salt Shed must be monitored so that any spilled materials are swept up and placed in the shed.
- 4.2** When loading salt onto trucks for deicing purposes, employees must be sure that any scattered materials are swept and returned to stockpiles under roof protection. Tracking of materials from the site must be prevented.
- 4.3** Salt in the spreader shed must be cleaned up after use so that these materials are not subject to runoff during heavy rains.

5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees who have these job duties.

6.0 Regulatory impacts

All outdoor material storage areas that contain products that would be expected to be mobilized in stormwater runoff are considered high priority facilities by the Virginia DEQ. The City of Radford received authorization to discharge to surface waters under the State General Permit Number VAR040135 effective August 19, 2014. Pollution prevention and good housekeeping practices are required and unannounced inspections by DEQ may occur.



**Standard Operating Procedure:
Spill Prevention and Control**

Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of the **Spill Prevention and Control** SOP is to provide guidance for City employees to control pollutant discharges by promoting proper use of equipment during fueling, cleaning, painting, chemical applications, and any other activities that involve a liquid that could be spilled. Spill prevention is one of the most preventable causes of water quality pollution that occurs. These procedures are critical steps that must be included in everyday work activities to protect stormwater from contact with pollutants, and are a joint responsibility of everyone in the workplace who utilize chemicals, fuel vehicles, maintain and repair equipment, apply landscape chemicals, and conduct municipal operations with liquids.

2.0 Scope

All indoor offices where materials stored could be spilled; all outdoor work areas where materials are stored or used; and all areas that store or use equipment that has the potential to spill or leak.

3.0 Responsibility

All City or City-contracted personnel who work with any landscape chemicals, cleaning solutions, paint products, automobile fluids, or any materials that could be spilled; work with any equipment; or fuel vehicles.

3.1 Managers and Supervisors

All Supervisors are responsible for ensuring their staff's compliance with the correct methods of dealing with **Spill Prevention and Control**. This includes non-City companies that are contracted to perform duties for the City. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's Spill Prevention and Control SOP's "Do's" and "Dont's"

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



4.0 Procedures

“DO’s”

- Keep all work areas neat & well organized with *only* enough chemical to get job done.
- Be knowledgeable about material you are working with; be familiar with MSDS fact sheets & SPCC plan.
- Have spill cleanup materials available and ready to go; familiarize yourself with locations of spill kits and cleaning materials and how to use them.
- Notify supervisor if spill is discovered and is unknown; there may be special instructions.
- Clean up spills promptly, with DRY methods (rags and absorbents), if possible. Clean up is not complete until the absorbent used is disposed properly.
- Conduct inspections of your work area materials to ensure equipment and containers are secure and stored responsibly. Transfer if leaking observed.
- Handle, use, transfer, store, and re-package all chemicals indoors or under cover to lessen potential for spills that can be carried away by stormwater.
- Keep unused containers closed with a tight fitting lid and label.

“DONT’s”

- **DO NOT** delay in cleanup of spills. Delay allows for spreading of wastes by wind, rain, and traffic. If you have to delay any cleanup, string warning tape or cone off to keep area secure.
- **DO NOT** transfer or pour materials outdoors near or in storm drains or drainage ditches.
- **DO NOT** hose down work area where spills could occur (unless floor drain is hooked to the sanitary sewer); use dry sweeping methods.
- **DO NOT** handle containers alone if awkward or require over-exertion on your part. Get help and spread the load.
- **DO NOT** remove or damage spill kits; these are available in case of a spill event. Notify supervisor if spill kit is gone from designated location or is missing some important components.

5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees. Any Supervisors who hire contractors are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford’s illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.

**Standard Operating Procedure:****Street Sweeping for Water Quality Protection**

Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of this procedure is to outline the housekeeping measures that must be taken to prevent run-off of materials from entering groundwater and storm water systems.

2.0 Scope

Street sweeping is an operational best management practice (BMP) developed to control pollutant discharges by promoting efficient pickup of fine-grained sediment particles on **city streets, bridges, public right-of-way, parking lots**, and other **large outdoor paved surfaces** that carry a substantial portion of the pollutant load. In addition, because the operation and maintenance of street sweepers can contribute to the problem, procedures for resultant sweeping debris and refuse must be managed appropriately.

3.0 Responsibility

All City staff are responsible for preventing illicit discharges from their operations. All sweeper hopper debris must be taken directly to a permanent disposal site, or if absolutely necessary, to a secure temporary storage area with no possible impact from wind and rain. These procedures are critical steps that must be included in every trip out to sweep City streets or similar, every transfer location during the day, and every trip back in.

3.1 Managers and Supervisors

The Public Works Superintendent and Supervisors are responsible for ensuring their staff's compliance with the correct methods of Street Sweeping. This includes non-City companies that are contracted to perform street sweeping for the City. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **Street Sweeping SOP's "Do's" and "Dont's"**

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



4.0 Procedures

"DO's"

- Before starting out, check pavement for leaks from the equipment; if leak observed, make note to repair and consider drip pan use.
- Operate all sweeper equipment according to manufacturer's settings and standards.
- Perform regular maintenance of sweepers per schedule or as needed.
- Make note of areas that indicate storage of construction materials, have higher than normal median maintenance (grass cuttings on street), and areas of snow melt that may require additional or increased sweeping activities.
- Make note of any streets that have consistently higher content of debris and/or sediments and inform supervisor who can increase schedule of operations.
- Make sure that sweeper debris is taken directly to the permanent disposal site or is taken to a secure temporary location, away from inlets or direct runoff, for storage.
- Washing of sweeper equipment only at wash rack to trap grease, oils and sediment.
- If unusual sweeper debris is noted, bring to attention of supervisor for testing.

"DONT's"

- **DO NOT** ignore any leak or drips from sweeper equipment; put in a repair ticket and utilize a drip pan during temporary storage of vehicle.
- **DO NOT** transfer or dispose of sweeper materials near or in storm drains, or drainage ditches, even temporarily.
- **DO NOT** wash street sweeping equipment outside except at the Road & Bridge Vehicle Wash area that has the benefit of the oil and grease trap to collect pollutant.
- **DO NOT** ignore routine maintenance requirements for the sweeper equipment that can possibly mitigate future problems and nip potential equipment leaks in the bud.
- **DO NOT** repair sweeper equipment or vehicles outside; use a covered, designated area for such repairs.
- **DO NOT** wash down any streets or curbs with the exception of very fine water spray for dust control.

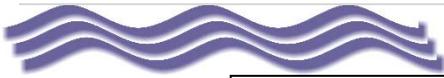
5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees who have these job duties.

6.0 Regulatory impacts

All outdoor material storage areas that contain products that would be expected to be mobilized in stormwater runoff are considered high priority facilities by the Virginia DEQ. The City of Radford received authorization to discharge to surface waters under the State General Permit Number VAR040135 effective August 19, 2014. Pollution prevention best management practices (BMP's) and good housekeeping practices are required and unannounced inspections by DEQ may occur.

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



**Standard Operating Procedure:
Vehicle Maintenance**

Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of the **Vehicle Maintenance** SOP is to provide guidance for City employees to control pollutant discharges by promoting regular maintenance of City-contracted vehicles and equipment, as well as appropriate activities within the maintenance shop and bays. Several operational components of vehicle maintenance activities have the potential for polluting receiving waters, including storage while waiting for repair (leaks); parts cleaning (spills), storage of maintenance fluids used in repairs and routine maintenance (leaks & spills); and the maintenance facility itself (poor good housekeeping practices). These procedures are critical steps that must be included during all maintenance activities, pre-repair storage and post-storage of vehicles to be maintained.

2.0 Scope

The City's Garage on Seventeenth Street, specifically the maintenance bays and corresponding storage areas.

3.0 Responsibility

City employees or City-contracted personnel who perform maintenance on City vehicles and equipment.

3.1 Managers and Supervisors

All Supervisors are responsible for ensuring their staff's compliance with the correct methods of dealing with Vehicle Maintenance. This includes non-City personnel who perform maintenance on City vehicles and equipment. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **Vehicle Maintenance** SOP's "Do's" and "Dont's"



4.0 Procedures

“DO’s”

- Keep all work areas neat & well organized. Sweep up all trash & debris daily or as needed. Label containers, sign procedures, and designate work areas.
- Conduct daily inspections to ensure that equipment & materials are being handled, disposed and stored correctly. Recycle or dispose of all wastes properly and promptly.
- Have spill cleanup materials nearby. Clean up spills promptly, with DRY methods; cleanup is completed ONLY after absorbent disposed properly and rags disposed of properly or sent to industrial laundry.
- Keep wastes separated to increase waste recycling/disposal options and reduce costs.
- Conduct maintenance and repair activities indoors or under cover whenever possible to minimize exposure of fluids to stormwater runoff.
- Park vehicles to be maintained in the designated areas. Monitor parked vehicles closely for leaks; use drip pan as needed.
- Drain fluids from leaking or wrecked vehicles, and from motor parts, as soon as possible and dispose of fluids properly.

“DONT’s”

- **DO NOT** let waste accumulate at or around the work place; more clutter equals more accident opportunities.
- **DO NOT** transfer, pour or dispose of maintenance fluids outdoors near or in storm drains or ditches.
- **DO NOT** wash or hose down the garage area except where the wash water will only enter the sanitary sewer drain as an approved discharge; use dry clean- up methods as often as possible.
- **DO NOT** repair equipment or vehicles outside; use a covered, designated area for such repairs.
- **DO NOT** leave a leaking vehicle unattended; use a drip pan temporarily and then drain fluids if not being repaired and waiting for final deposition.
- **DO NOT** mix waste oil, fuel, antifreeze or chlorinated solvents. Consult a hazardous waste hauler.

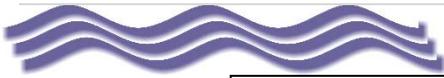
5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees. Any Supervisors who hire contractors are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford’s illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*

**Standard Operating Procedure:****IDDE: Outfall Screening**

Date: 6/30/2016* Version: 1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of the **IDDE: Outfall Screening** SOP is to provide basic guidance for City employees conducting illicit discharge inspections of storm drainage system outfalls.

2.0 Scope

This procedure applies to City outfalls as shown on the Stormwater Management Map located on the City's GIS website or the print map in the City's Engineering Department.

3.0 Responsibility

All City employees or City-contracted personnel who are responsible for and/or who will conduct illicit discharge inspections.

3.1 Managers and Supervisors

All Supervisors are responsible for ensuring their staff's compliance with the correct methods of dealing with IDDE: Outfall Screening inspections. This includes non-City companies that are contracted to perform work for the City. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **IDDE: Outfall Screening** SOP's "Do's" and "Dont's"



4.0 Procedures

4.1 Do's and Don't's

"DO's"

- Inspections are to occur during dry weather (no runoff producing precipitation in last 48 hours).
- Conduct inspections with at least two staff per crew.
- Conduct inspections during low groundwater and leaf off conditions if possible.
- Complete Site Info section on Outfall Field Screening Report Form before leaving the office.
- Ensure outfall is accessible
- Characterize the outfall by recording information on the Outfall Field Screening Report
- Photograph the outfall with a digital camera or Trimble GPS unit.
- If dry weather flow is present and does not appear to be an illicit discharge, attempt to identify the source of the flow (document flow for future comparison).
- Document dry outfalls for future comparison.
- Follow procedure below in if an illicit discharge is suspected.

"DONT's"

- **DO NOT** enter private property without permission.
- **DO NOT** inspect outfalls if it is not safe to do so.

4.2 Equipment List:

1. System map
2. Outfall Field Screening Report Forms
3. City identification
4. Digital camera (spare batteries)
5. Cell phone
6. Clip board and pencils
7. Dry erase board and pens
8. Flashlight (spare batteries)
9. Disposable gloves
10. Folding wood ruler
11. Temperature probe
12. pH probe
13. Ammonia test strips
14. Five 1-liter (polyethylene) sample bottles
15. Watch with second hand
16. Calculator
17. Hand sanitizer
18. Safety vests
19. First aid kit
20. Machete
21. Cooler
22. Permanent marker



4.3 Suspected Illicit Discharge Procedures

- Contact the Public Works Superintendent immediately.
- Use Outfall Field Screening Report Form to document observations
- Visually inspect general area for possible sources
- Take photos
- Estimate flow
- Collect samples if they would help with source identification.
- Attempt to locate where the discharge is coming from.

5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees. Any Supervisors who hire contractors are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford's illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.



**Standard Operating Procedure:
Vehicle Washing**

Date: 6/30/2016* Rev. 10/11/2016
Version: 1.1 Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact 'waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of the **Vehicle Washing** SOP is to provide guidance for City employees to control pollutant discharges by promoting a conscious effort when washing City-contracted vehicles and equipment to reduce the amount of sediment, antifreeze, heavy metals, oil and other materials that may runoff from the wash rack. Uncontrolled washing activities have a potential to produce a high concentration of pollutants in runoff wash water to the stormwater system. These procedures are critical steps that must be included in every vehicle washing activity.

2.0 Scope

All areas where vehicles and equipment are cleaned or rinsed.

3.0 Responsibility

All City employees and City-contracted personnel including Trustees, who provide vehicle washing services.

3.1 Managers and Supervisors

All Supervisors are responsible for ensuring their staff's compliance with the correct methods of dealing with **Vehicle Washing**. This includes non-City companies that are contracted to perform work for the City including Trustees. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's Vehicle Washing SOP's "Do's" and "Dont's"



4.0 Procedures

“DO’s”

- Keep the wash area neat and well organized. Sweep or pick up all trash and debris daily or as needed, before it is carried away during a storm event.
- Use a non-porous drain sock to hold back wash water from any storm drain and direct wash water to a sanitary sewer drain.
- Keep the non-porous drain sock handy and close by as it will be used frequently. Replace the non-porous drain sock when it can no longer hold back wash water from a storm drain.
- Prior to any washing activity, put the “sock” around all sides of a storm drain to block any sediment, debris and water from washing activity and route the water to a sanitary sewer drain.
- After each washing activity, sweep up the sediment and debris after it is dry to keep it from going back down the storm drain or off site during a storm event. Transfer to a container for storage. Use DRY cleanup only, do not hose down accumulated sediments.
- Transport the dried sediment to the Vactor Truck washout area when quantity collected and stored is sufficient to warrant a trip there.
- Use biodegradable, phosphate free detergents.
- Keep equipment clean; do not allow a buildup of oil/grease. Conduct daily inspections.

“DONT’s”

- **DO NOT** let waste accumulate at Wash Area.
- **DO NOT** let sediments that were kept from the storm drain with the non-porous drain sock go either back down the drain or be carried off site in a rain event.
- **DO NOT** wash or hose down the washing area except where the wash water will only enter the sanitary sewer drain as an approved discharge.
- **DO NOT** handle detergent containers alone if awkward or requires over-exertion on your part. Get help and spread the weight load.
- **DO NOT** use phosphate detergents.
- **DO NOT** use spray-on acid-based wheel cleaners where the rinse water may flow to a storm drain untreated.

5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees. Any Supervisors who hire contractors are required to convey the requirements of this procedure to the contractors.

6.0 Regulatory impacts

Discharges of any material other than stormwater are prohibited by the City of Radford’s illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



**Pollution Prevention Standard Operating Procedure:
Utility Construction and Maintenance Controls**

Date: 9/25/18*

Version: 1

Review Frequency: Annual

Reasons for Procedure

The City of Radford has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes the City to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Pollution prevention and good housekeeping practices are a requirement of this permit.

Standard Operating Procedures (SOPs) have been prepared for all activities conducted as part of the City's Municipal Operations that have the potential to impact waters of the state. One of the primary goals of these SOPs is to provide time-tested, generally accepted routine procedures that minimize the potential for release of pollutants from a site during the performance of municipal operations activities.

1.0 Purpose

The purpose of the **Pollution Prevention SOP for Utility Construction and Maintenance Controls** is to provide guidance for City employees to control pollutant discharges during utility construction and maintenance activities. These procedures are critical steps that must be included in the basic practices of the Utility Construction and Maintenance of the City staff and contracted staff.

2.0 Scope

At Utility Construction and Maintenance sites.

3.0 Responsibility

All City employees or City-contracted personnel who conduct utility construction and maintenance.

3.1 Managers and Supervisors

All Supervisors are responsible for ensuring their staff's compliance with the correct methods of dealing with Building Maintenance. This includes City contractors who conduct utility construction and reconstruction. Supervisors are responsible for ensuring training is conducted with the most recent version of the SOP.

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



3.2 Personnel Performing the Job

City Employee's and outside contract personnel are responsible for following the City's **Pollution Prevention SOP for Utility Construction and Maintenance Controls**.

4.0 Procedures

Project Planning

- To the extent possible, all maintenance and construction sites should be constructed during periods of dry weather.
- The extent of areas excavated at one time should be minimized where possible to limit the active construction area.

A. Excavation and Material Management – *Installing new, or uncovering existing underground utilities must be done with care to avoid the discharge of pollutants to the drainage system*

- Locate storm drain inlets prior to any excavation, and provide controls for inlets in close proximity to the work area.
- Existing vegetation in and around areas being excavated should be preserved to provide natural erosion control.
- The limits of the excavation should be minimized to the extent practicable.
- Material excavated during trenching activities should be neatly stockpiled. In the event that the stockpiles must remain overnight, proper covering (secured tarps) and perimeter controls (sediment logs, straw bales, etc.) must be used.
- Materials temporarily stockpiled in a roadway or other impervious surface that conveys directly to the storm drain should be removed by the end of the work day or prior to any precipitation, whichever comes first.
- If excavated material will not be used as backfill, the material should be removed from the site as soon as possible.
- If trench or pipe dewatering is necessary, provide appropriate sediment controls such as dewatering bags or other sediment traps at the point of discharge.
- Dispose all waste materials generated in the construction and maintenance process accordingly.

B. Fluid Storage and Handling

- Fluids should be stored in a general secondary containment structure (storage bin, truck bed, etc.) when not being actively used.
- All materials should be kept in tight fitting containers that are compatible with the material, and with proper labeling provided.

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*



- To the extent possible, fluids should be added to equipment in a location that is an adequate distance from a storm drain inlet. This is typically 25 feet or more.

C. Spills and Leaks

- Spill kits with absorbent materials should be onsite during all construction and maintenance activities.
- Dry clean-up methods shall be used to clean up spilled material. This includes the use of absorbent pads, granular absorbent, booms, and similar measures.
- Waste sorbent material shall be drained of free flowing material and disposed of as solid waste in accordance with local regulations.
- Water should never be used to clean up spilled material.
- Wash down of pavement should not occur until all spills and leaks have been cleaned up. If a buildup of waste materials is present on the pavement, the resulting wash water should be contained and disposed of in a sanitary sewer or by another appropriate means.

D. Other Town SOPs

- Refer to the Road, Street, Parking Lot, and Sidewalk Maintenance SOP for additional procedures for maintenance activities that involve asphalt and concrete surface repair and maintenance.
- Refer to the Outdoor Material Storage SOP for additional procedures for material storage.

5.0 Annual Review of Procedure/Training

Supervisors are responsible for reviewing this procedure at least once each year with all employees. Any Supervisors who hire contractors are required to convey the requirements of this procedure to the contractors.

This SOP will be incorporated into annual training for applicable employees in accordance to the City's MS4 Program Plan that involve utility construction and maintenance. Documentation of the training, including sign-in sheets and materials used, will be included in the Town's MS4 annual reports.

6.0 Regulatory Impacts

Discharges of any material other than stormwater are prohibited by the City of Radford's illicit Discharge Ordinance. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances. Proper handling and disposal of landscape wastes will help keep this material out of the stormwater drainage network.

**Printed versions of SOPs with previous review dates are considered current as long as the version number is the same as the current version.*