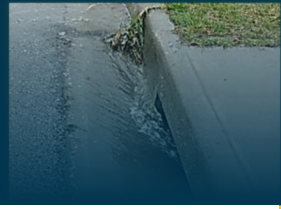
DCC Stormwater Program



Danville Community College

Staff Handbook of Good Housekeeping and Pollution Prevention

Policies and Procedures for DCC staff to protect water quality

Latest Revision: June 6, 2025

(Incorporated, by reference, into the DCC MS4 Program Plan)

DCC

Danville Community College

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Appendices

1.0 Background and Purpose

Danville Community College (DCC) owns and operates a municipal separate storm sewer system (MS4). The college's MS4 consists of features such as curb and gutter, drop inlets, ditches, and stormwater management (SWM) facilities to convey, treat, and ultimately discharge stormwater runoff to surface waters. The discharge of runoff from the MS4 is regulated under the Clean Water Act, as amended and pursuant to the State Water Control Law and Regulations. DCC is authorized to discharge stormwater runoff from the campus's MS4 under the Virginia SWM Program regulations, Virginia Pollutant Discharge Elimination System Regulations (VPDES), and the Virginia State Water Control Law.

DCC has been issued permit coverage to discharge stormwater by the Virginia Department of Environmental Quality (DEQ) and in accordance with the General VPDES Permit for Discharges of Stormwater from Small MS4s (General Permit). Generally, compliance with the General Permit requires DCC to develop, implement, and enforce an MS4 program designed to achieve the following goals:

- ✓ Reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP) and
- ✓ Protect water quality.

Towards addressing these goals, this Handbook incorporates written policies and procedures for the following activities:

- ➢ Detecting, identifying, and addressing unauthorized non-stormwater (illicit) discharges;
- ➢ Good housekeeping and pollution prevention procedures; and
- ➢ Inspections and maintenance of SWM facilities.

This Handbook shall serve as the guiding document for DCC staff engaged in any activity on campus that could potentially impact water quality. For each activity described, applicable staff shall follow the prescribed procedure in this Handbook.

2.0 Illicit Discharge

Generally, an **illicit discharge** is defined as:

> **Any discharge to an MS4 that is not composed entirely of stormwater.**

Characteristics representative of an illicit discharge can include:

1. Flow from a storm drain during dry weather;
2. A unique frequency, composition, and mode of entry into the storm drain system;
3. Interaction with sanitary sewers (e.g. overflows or illicit connections); or
4. Pollutants generated from specific source areas.

Sources of an illicit discharge to the DCC MS4 could originate from a variety of areas. Pollutants associated with activities by DCC staff would most likely occur in the vicinity of the Maintenance/Receiving Building, Charles R. Hawkins Engineering & Industrial Technologies Building (vehicle repair/storage), and the welding building. However, sources could be generated throughout campus, such as from the dumping of janitorial wash-water outdoors, a vehicle fluids leak in a parking lot, or a leaky dumpster.

2.1 Policy

DCC policy **prohibits** non-stormwater (illicit) discharges, including illegal dumping, into the college's storm sewer system. Elimination of any sources of an illicit discharge and enforcement of the prohibition is implemented utilizing language within the *Standards of Conduct* for DCC employees and *Student Handbook* for DCC students. Disciplinary action, including restitution, can be taken by the college in cases of negligent, willful or continued cause of illicit discharge.

Certain activities performed on campus that could potentially contribute to an illicit discharge necessitate the need for training and/or certifications. Specifically, the following is required:

- Employees and contractors who apply pesticides and herbicides shall be trained or certified in accordance with the Virginia Pesticide Control Act (§ 3.2-3900 et seq. of the Code of Virginia). Certification by the Virginia Department of Agriculture and Consumer Services (VCACS) Pesticide and Herbicide Applicator program shall constitute compliance with this requirement;
- Employees and contractors serving as plan reviewers, inspectors, program administrators, and construction site operators shall obtain the appropriate certifications as required under the Virginia Erosion and Sediment Control Law and its attendant regulations;
- Employees and contractors implementing the stormwater program shall obtain the appropriate certifications as required under the Virginia Stormwater Management Act and its attendant regulations; and
- DCC employees whose duties include emergency response shall have been trained in spill response. Training of emergency responders such as firefighters and law-enforcement officers on the handling of spill releases as part of a larger emergency response training shall satisfy this training requirement. Documentation shall be provided to the DCC Facilities Manager.

2.2 Recognition of Illicit Discharges

Potential illicit discharge violations not only include direct dumping to a storm sewer inlet or conveyance; but also can encompasses the improper storing of material, maintenance of equipment and vehicles, or other activities that results in material being left outdoors with potential to be transported in runoff to the MS4. Pollutants, such as those in **Table 1**, are common examples of those susceptible to transport from impervious cover that cannot infiltrate stormwater into the ground, such as parking lots and streets. These surfaces drain stormwater to the MS4 that directly discharges to nearby waterways. Therefore, an individual that dumps waste oil from an oil change or mop water from janitorial activities into the parking lot, or other outdoor location draining to the storm sewer, is contributing to an illicit discharge. In summary, if exposed to rain, it can get in the drain.

Table 1. Common pollutants that can contribute to illicit discharge.

➢ Automotive fluids (oil, fuel, antifreeze)	➢ Paints
➢ Animal carcasses (bacteria)	➢ Pet waste (bacteria)
➢ Cooking oil and grease	➢ Solvents (i.e. acetone, ethanol)
➢ Chemical cleansers (e.g. detergents, soaps)	➢ Salt and other deicing agents
➢ Dumpster leachate	➢ Sanitary sewer overflows
➢ Misuse of fertilizer	➢ Sediment (i.e. stockpiles, un-vegetated/mulched areas)
➢ Misuse of pesticides & herbicides	➢ Trash
➢ Landscaping waste (i.e. grass clippings)	➢ Vehicle/equipment washwater

There are some discharges not considered as illicit discharges unless DCC identifies them as a significant contributor of pollutants. Allowable discharges, as listed in **Table 2**, may not be easily identified as the source of a flow within the storm sewer. These flows can occur during dry weather, indicating a potential illicit discharge and resulting in an investigation to determine the source may be necessary. If the source is unknown it should be reported to the DCC Facilities Manager. Procedures for investigating the source of an illicit discharge are further described in Section 2.5 of this Handbook.

Table 2. Discharges not typically considered as illicit discharges.

➢ Water line flushing	➢ Air conditioning condensation
➢ Landscape irrigation	➢ Irrigation water
➢ Diverted stream flows	➢ Springs
➢ Rising ground waters	➢ Water from crawl space pumps
➢ Uncontaminated ground water infiltration	➢ Footing drains
➢ Uncontaminated pumped ground water	➢ Lawn watering
➢ Discharges from potable water sources	➢ Individual residential car washing
➢ Foundation drains	➢ Flows from riparian habitats and wetlands
➢ Dechlorinated swimming pool discharges	➢ Street wash water

2.3 Local Impaired Surface Waters

The Commonwealth has adopted water quality standards that consist of statements and numeric limits that describe water quality necessary to meet and maintain certain designated uses. Generally, the standards are intended to protect state waters for swimming and other water-based recreation, public water supply, wildlife, propagation and growth of aquatic life, and the production of edible and marketable fish and shellfish. Once a surface water, such as a creek or river, is designated as impaired by the Virginia DEQ, a study is required that determines necessary reductions of the impairing pollutant(s) to achieve the total maximum daily load (TMDL). The TMDL is a calculation of the maximum amount of the impairing pollutant a waterbody can assimilate and still meet water quality standards.

The Dan River was listed as impaired based on monitoring data that found exceedances of the fecal coliform, or E. coli, standards for primary contact recreation. Subsequently, a TMDL was developed and approved by the State Water Control Board in 2009. Fecal coliform and E. coli bacteria are indicators of the presence of human sewage and other warm-blooded animal feces in the water. Such feces can contain pathogens that can be harmful to human health. When elevated bacteria are present, it can represent an increased risk of contracting waterborne illness as a result of exposure to pathogens while recreating in the water. Potential sources of bacteria into the Dan River include:

- Runoff from livestock grazing
- Manure applications
- Industrial processes
- Failed septic systems
- Domestic pet waste
- Wildlife

2.4 Dry Weather Outfall Screening

Towards achieving the goals of: **(1)** reducing the discharge of pollutants from the MS4 to the MEP and **(2)** protecting water quality, DCC implements a dry-weather outfall screening program. An **outfall** is generally defined as:

> **A point where an MS4 discharges to surface waters, including from pipes, ditches, swales, and other points of concentrated stormwater flow.**

DCC implements dry-weather outfall screening (> 48 hours since rainfall) as a proactive practice to identify any potential illicit discharge occurring from campus. Screening is performed during dry weather since stormwater would not be discharging from the pipe, allowing for observation of any occurring non-stormwater discharge or signs of a previous non-stormwater discharge (i.e. pipe discoloration). At a minimum, DCC performs annual screening of all campus outfalls with support of the DCC MS4 Mapping and Outfall Table available on the DCC stormwater webpage.

Outfall screenings are performed using the "DCC Outfall Reconnaissance Screening Form" provided in **Appendix A** of this Handbook. Completion of the form ensures the dry-weather field screening protocols are consistent with those required per the MS4 General Permit. Findings from the screenings are used to make a characterization regarding the potential occurrence, or past occurrence, of an illicit discharge at each outfall.

2.5 Investigation and Resolution

If dry-weather outfall screening results in the characterization for the potential, suspicious, or obvious illicit discharge, DCC shall conduct an investigation based on the timeframes described in **Table 3**. An investigation may also be initiated from an observation or report from the campus community. Investigations are intended to identify and locate the source of any illicit discharge with the purpose of eliminating the discharge. In the case that the source of an illicit discharge is found to be generated from off-campus, DCC shall notify the MS4 operator from which the discharge is originating. All investigations must be documented using the "DCC Illicit Discharge Investigation Form" in **Appendix B** of this Handbook. Forms shall be maintained by the Facilities Manager electronically for annual reporting to DEQ.

Table 3. Investigation timeframes based on dry-weather screening illicit discharge characterization.

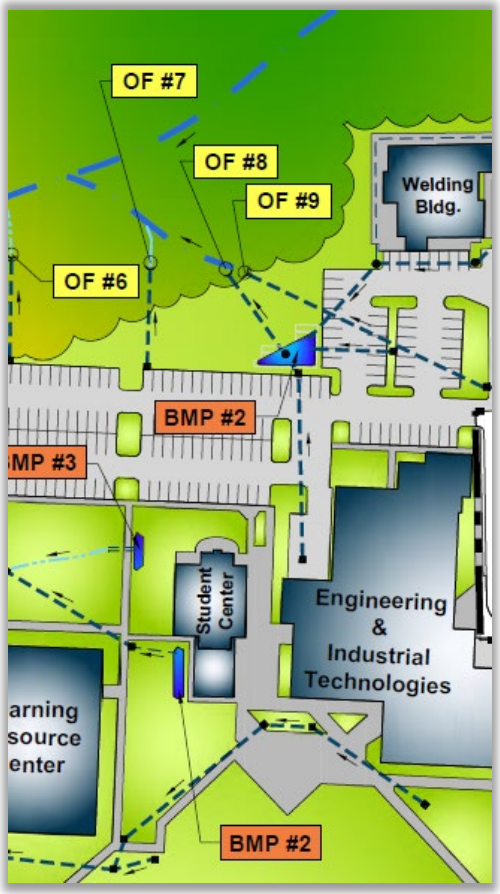
Characterization	General Description[1]	Investigation Timeframe[2]
Unlikely	No indication of an occurring or previously occurring illicit discharge.	No investigation needed.
Potential	There is potential an illicit discharge is occurring, or has occurred, generally as a result of a single indicator observed with low severity.	An investigation should be initiated no later than 10 business days from the screening date.
Suspect	There is suspicion an illicit discharge has occurred, generally as a result of ≥ 1 indicator observed with medium to high severity.	An investigation should be initiated no later than 5 business days from the screening date. If there is concern of a discharge that could be a threat to public health (i.e. sewage), the investigation should be initiated within 2 business days.
Obvious	It is obvious an illicit discharge is occurring or previously occurred.	If occurring, an investigation should begin immediately to eliminate the source as soon as possible. If obvious that the discharge had previously occurred, an investigation should begin within 2 business days.

[1] Refer to the DCC Outfall Reconnaissance Screening Form in Appendix A for description of indicators and severity characterizations.

[2] Priority of investigations shall be given to discharges of sanitary sewage and those believed to be a risk to human health and public safety.

Once a potential, suspected or obvious illicit discharge has been identified, the designated DCC staff (designated by the Facilities Manager) shall attempt to track the source with the intent to eliminate the discharge. Methods to identify and eliminate the source, if not immediately obvious, should include:

- ✓ Use of the DCC MS4 Mapping, available on the DCC stormwater webpage. The mapping provides the location of each campus outfall (OF), point of interconnection to other MS4s (POI) and the upstream storm sewer infrastructure. The investigator should use the map to:
  - i. Follow the storm sewer upstream to attempt to identify the entry point of the discharge into the system. If the discharge is occurring, follow the flow path. If the discharge is not occurring, search for signs, such as stains, odors or other indicators. If the source originates from off-campus, notify the City of Danville MS4 administrator.
  - ii. Once the entry point has been identified, visually survey the area draining to the entry point to see if the source can be identified. If the discharge is not occurring at the time of inspection and the source is not readily identifiable, monitor the area over time at varying days of the week and times of day.
- ✓ Documentation of the investigation using the "DCC Illicit Discharge Investigation Form" in **Appendix B**. If the investigator is unable to identify the source of an illicit discharge within six months of beginning the investigation, then it shall be documented that the source remains unidentified. If the observed discharge is intermittent, the investigator shall document that attempts to observe the discharge flowing were unsuccessful.
- ✓ Follow-up investigation for illicit discharges that are continued or expected to occur more frequently than a one-time discharge to verify the discharge has been eliminated.



3.0 Good Housekeeping and Pollution Prevention

The MS4 General Permit requires DCC to maintain and **implement written procedures** for activities that occur on campus such as any road, street, and parking lot maintenance; equipment maintenance; and the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers. The intent of the procedures is to minimize/prevent pollutant discharge into stormwater from daily operations by:

1. Preventing illicit discharge;
2. Ensuring proper disposal of waste ;
3. Preventing discharge of vehicle wash water to storm sewer;
4. Preventing discharge of wastewater to storm sewer;
5. Requiring practices to filter water pumped from maintenance activities;
6. Requiring practices to prevent pollutants in runoff from bulk storage (salt storage, topsoil stockpiles);
7. Preventing pollution discharge from leaking automobiles & equipment; and
8. Ensuring proper application of pesticides and fertilizers.

To assist college staff with achieving the goals listed above, the following sections provide the following:

- ***Section 3.1***: A list of materials and activities that are prohibited on campus; and
- ***Section 3.2***: Sub-sections for various activities that may occur on campus with:
    1. A description of the pollutants that could result from the activity and be introduced into stormwater runoff; and
    2. A listing of best practices that should be implemented when conducting the activity.

3.1 Prohibited Practices and Activities

DCC seeks to **eliminate** certain materials and activities that could be expected to impact water quality as a result of pollutant exposure to stormwater resulting from rain, snow, snowmelt or runoff. As a result, the following are prohibited on campus:

- Areas where residuals from using, storing or cleaning machinery or equipment remain and are exposed to stormwater;
- Materials or residuals on the ground or in stormwater inlets from spills or leaks;
- Material handling equipment (maintained outdoors and exposed to stormwater);
- Materials or products that would be expected to be mobilized in stormwater runoff during loading or unloading or transporting activities (e.g., rock, salt, fill dirt);
- Materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants);
- Materials or products that would be expected to be mobilized in stormwater runoff contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;
- Waste material except waste in covered, non-leaking containers (e.g., dumpsters);
- Application or disposal of process wastewater or vehicle washwater (unless otherwise permitted); or
- Particulate matter or visible deposits of residuals from roof stacks, vents or both not otherwise regulated

In the case that any of the instances listed above occur on campus, the DCC Facilities Director shall immediately eliminate the instance by ceasing the activity or removing any materials susceptible to runoff. If the instance cannot be eliminated and is expected to be recurring, the DCC Facilities Director shall complete, or gave completed, the annual Stormwater Pollution Prevention plan (SWPPP Assessment Form) in **Appendix C** within 2 weeks of start of the recurring instance.

3.2.1 Vehicle and Equipment Maintenance

Potential Pollutants (Examples)

- ✗ Fuels, solvents, grease, fluids, cleaning detergents, oil, and other products either dripped, spilled or on parts.

Best Management Practices

- ✓ Preform all maintenance and repair activities indoors, if possible.
- ✓ Properly dispose of materials in designated containers/receptacles.
- ✓ Discharge wastewater generated from steam cleaning and pressure washing to an appropriate treatment control.
- ✓ Store all equipment and parts under cover when not in use.
- ✓ Clean receiving storm drain inlets(s) regularly.
- ✓ Provide a designated area for vehicle maintenance and, keep equipment clean, don't allow excessive build-up of oil and grease.
- ✓ If work is being conducted outside, use a tarp, ground cloth, or drip pans to capture all spills and drips.
- ✓ Regularly inspect vehicles and equipment for leaks, and repair immediately.
- ✓ If outdoors, non-caustic detergent should be used instead of caustic cleaning agents.
- ✓ Use detergent-based or water-based cleaning systems in place of organic solvent degreasers.
- ✓ Non-chlorinated solvent should be used in place of chlorinated organic solvents for parts cleaning.
- ✓ Designate a special area to drain and replace motor oil, coolant, and other fluids. This area should not have any connections to the storm drain or the sanitary sewer.
- ✓ Keep adequate stockpiles of cleanup materials where they are readily accessible.
- ✓ Remove and dispose of materials used for cleaning spills promptly and properly.
- ✓ Do not pour liquid waste to floor drains, sinks or outdoor storm drain inlets

3.2.2 Vehicle and Equipment Storage

Potential Pollutants (Examples)

- ✗ Fuels, solvents, grease, fluids, oil, and other products either dripped or on parts and exposed to stormwater.

Best Management Practices

- ✓ Store equipment and unused vehicles inside or under cover, if possible.
- ✓ Store equipment as far away from storm drains as possible if it must be stored outside. Equipment is best stored over pervious cover such as grass or gravel to minimize potential of impact to the storm sewer.
- ✓ Conduct regular inspection of stored equipment and storage areas for leaks or spills and properly clean any spills or leaks observed.
- ✓ Provide drip pans beneath vehicles that are stored outdoors and will not be used for periods of time. Inspect pans and dispose of any fluids properly.

3.2.3 Vehicle and Equipment Fueling

Potential Pollutants (Examples)

- ✗ Fuels and associated hydrocarbons and heavy metals.

Best Management Practices

- ✓ Maintain a spill-kit nearby. Properly dispose of any materials resulting from cleaning a spill or leaks.
- ✓ Do not overfill tanks so as not to cause spillage.
- ✓ Routinely inspect fueling pumps and equipment for proper function. If malfunctions are noted, have immediately corrected.

3.2.4 Vehicle and Equipment Washing

Potential Pollutants (Examples)

- ✗ Sediment, grease, solvents, petroleum products, detergents.

Best Management Practices

- ✓ Vehicle washing should occur at commercial car washes.
- ✓ Wash in designated wash bays only. For rinsing equipment on campus, perform the activity in a designated areas with the proper drainage to capture runoff into an inspected/maintained oil/water separator.
- ✓ Never rinse over impervious cover. If a designated area is not available and rinsing is necessary on campus, rinsing should occur over pervious cover, such as gravel or grass, without soaps or detergents and away from any type of surface water or stormwater conveyance (i.e. ditches) to allow for infiltration of washwater.

3.2.5 Material Stockpiling

Potential Pollutants (Examples)

- ✗ Various erodible materials subject to outdoor stockpiling such has sediment and salt.

Best Management Practices

- ✓ If possible, stockpile materials indoors or under cover in a manner that the material cannot be exposed to rainfall or runoff.
- ✓ Avoid placing materials on impervious cover, near storm sewer inlets, conveyance channels or surface waters.
- ✓ If stored outdoors, provide cover (e.g. tarp) and/or perimeter controls, such as silt fence. Routinely inspect to ensure covering and/or perimeter controls are appropriately maintained and functioning as intended.

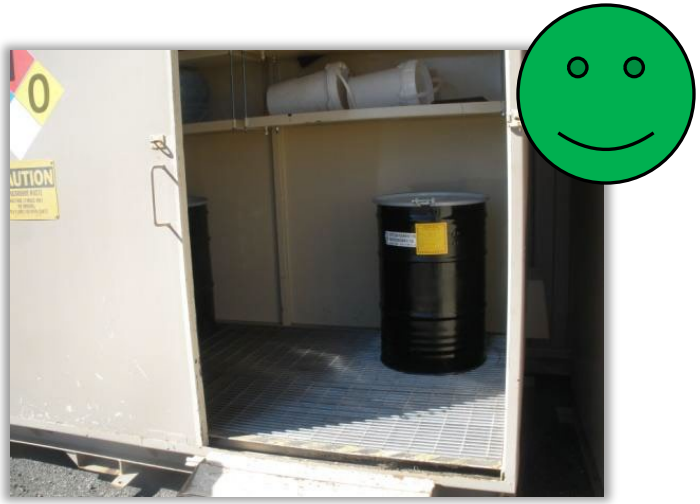
3.2.6 Outdoor Material Storage

Potential Pollutants (Examples)

- ✗ Varies dependent on material stored; but could include chemicals, waste oils, and other bulk materials.

Best Management Practices

- ✓ Protect materials and containers from rainfall, run-on, runoff, and wind dispersal as much as possible.
- ✓ Materials should not be stored in the vicinity of storm drains, conveyances, or surface waters.
- ✓ Containerized materials should always be labeled to identify the contents, ideally maintained in original containers.
- ✓ Ensure lids are properly secured to prevent stormwater from entering the storage container.
- ✓ Routinely inspect to ensure there are no leaks or corrosion of storage containers. If found, immediately clean any spills and provide a container in good condition.
- ✓ Provide secondary containment as needed to ensure the capture of leaked materials.
- ✓ As deemed necessary, protection from the potential of vandalism.



3.2.7 Waste Receptacles

Potential Pollutants (Examples)

- ✗ Garbage, leachate, and other waste materials that could include various toxic compounds and chemicals.

Best Management Practices

- ✓ Waste receptacles should always be covered. Signage on dumpsters to close the cover after use is recommended.
- ✓ Place receptacles in strategic areas to minimize littering and dumping. Providing a sufficient number on campus.
- ✓ Routinely inspect to ensure: (1) receptacles are not overfilled; (2) covers are secure and (3) there are no leaks. Address issue as soon as possible. If a leak is occurring, provide controls such as berms to prevent discharge to the storm sewer, as necessary.
- ✓ Ensure adequate location and number of receptacles for special events are provided.
- ✓ After emptying or dumping of receptacles, ensure the area is cleaned, as necessary, to prevent transport of waste in runoff. If on impervious cover, any leachate should be cleaned with absorbent and properly disposed of instead of rinsing. Use berms or other devices, as necessary, to prevent discharge to the storm sewer.
- ✓ Place receptacles under cover, when possible.

3.2.8 Loading Operations

Potential Pollutants (Examples)

- ✗ Varies, dependent on the material being loaded or unloaded.

Best Management Practices

- ✓ Only perform loading and unloading in designated areas, preferably undercover and during dry weather, when possible.
- ✓ Avoid loading and unloading in the vicinity of storm drains. If loading occurs over impervious cover that directly drains to a storm sewer inlet, a filtering practice at the inlet or a berm is suggested if materials loaded or unloaded are susceptible to spillage and transport in stormwater.
- ✓ Ensure materials, whether those being loaded or unloaded, are placed indoors or undercover as part of the loading/unloading procedures, unless materials are otherwise suited to be maintained outdoors without concern of contribution to pollution.

3.2.9 Washwater (Non-vehicle and Equipment Washing)

Potential Pollutants (Examples)

- ✗ Varies, dependent on the type of washing (i.e. power washing or rinsing various surface types)

Best Management Practices

- ✓ Use dry methods to perform as much cleaning as possible prior to water application.
- ✓ Minimize water used for washing/rinsing by prioritizing areas needed for cleaning.
- ✓ Avoid using detergents or other cleaning agents, if possible. In the case detergents or other cleaning agents are used, a written plan should be developed to ensure washwater is captured, detained and properly disposed of, dependent on the agent used, unless otherwise previously deemed acceptable for discharge.
- ✓ Provide filtering measures for any drains or other stormwater conveyances that may receive the washwater.

3.2.10 Pumped Water (Utility Construction and Maintenance Activities)

Potential Pollutants (Examples)

- ✗ Sediment.

Best Management Practices

- ✓ Pumped water shall be directed through a filtering device consistent with those identified in the Virginia Erosion and Sediment Control Handbook (VESCH), latest edition.
- ✓ Routinely inspect and maintain filtering devices per VESCH or the manufacturer's specifications. Repair/replace, as needed to ensure the proper function of the device.
- ✓ Place pumps within secondary containment to prevent spills of fuel or oil to the ground surface.

3.2.11 Pesticides, Herbicides, Fertilizers

Potential Pollutants (Examples)

- ✗ Chemicals associated with pesticides and herbicides and excess nutrients associated with fertilizer.

Best Management Practices

- ✓ As described in Section 2.1 of this Handbook, employees and contractors who apply pesticides and herbicides shall be trained or certified in accordance with the Virginia Pesticide Control Act (§ 3.2-3900 et seq. of the Code of Virginia). Herbicides and pesticides shall be applied in accordance with the manufacturer's recommendations.
- ✓ Store containers in covered areas on impervious flooring in labeled and closed containers.
- ✓ Fertilizer shall not be applied unless in accordance with the college's current Nutrient Management Plan.
- ✓ Fertilizers should be worked into the soil rather than dumped or broadcast onto the surface
- ✓ Sweep pavement and sidewalk if fertilizer is spilled on these surfaces before applying irrigation water.

3.2.12 Road, Street, Sidewalk and Parking Lot Maintenance

Potential Pollutants (Examples)

- ✗ An abundance of pollutants exists on the surface of streets and parking lots, including sediment and associated nutrients, heavy metals, and other chemicals.

Best Management Practices

- ✓ Routinely observe parking lots, especially within curb and gutter and around drop inlets, for the accumulation of sediment. Conduct sediment removal operations, whether hand sweeping or street sweeping, as necessary to minimize the accumulation of sediment. Do not rinse or power wash roads, streets or parking lots to remove sediment unless sediment trapping devices are employed.
- ✓ In the case the excessive sediment has accumulated on the road, street, sidewalk or parking lot surface, provide filtering controls, as described in the Virginia Stormwater Management Handbook (VESCH) at locations where the sediment could be transported from the surface to the storm sewer system (i.e. inlets or adjacent channels).
- ✓ Dispose of materials collected during cleaning operations at an approved landfill. In the case it is necessary to temporarily stockpile collected materials, ensure the practices described in Section 3.2.5 are applied.
- ✓ Track the weight or volume of material collected as a result of each cleaning operation.

3.2.13 Exterior Maintenance and Renovation

Potential Pollutants (Examples)

- ✗ Dependent on the exterior work being done, a variety of pollutants could be discharged to the storm sewer, including, but not limited to, paint and other building surface materials, cleaning solutions and solvents.

Best Management Practices

- ✓ Identify storm drains and possible conveyances to storm drains prior to commencing work and take measures to prevent wash water from entering them. No cleaning or rinsing should occur without proper measures in place to prevent discharge to the storm sewer.
- ✓ Use dry cleanup methods to remove debris prior to washing surfaces.
- ✓ Determine where wastewater may pool and prepare to vacuum pooled rinse water or allow it to evaporate.
- ✓ Water not containing chemicals or cleaning agents may be allowed to infiltrate in grass or gravel areas. Wash water containing chemical pollutants must be captured and disposed of in the sanitary sewer. Suspended solids and oils must be removed from the wash water using booms, absorbent pads, or other devices.
- ✓ Prioritize dirty areas rather than cleaning or pressure washing an entire area.
- ✓ Do not stockpile waste materials on impervious surfaces. Waste materials should be maintained in covered debris receptacles or otherwise under cover to prevent exposure to stormwater.
- ✓ Ensure containers with product that could be exposed to stormwater are closed or under cover (e.g. paint cans).
- ✓ Wash water from work tools and equipment shall not be washed where the rinse water could enter the storm sewer.
- ✓ Conduct daily inspections in the work area and take necessary actions to prevent exposure of pollutants to stormwater.
- ✓ Immediately properly address spills and notify the college in the case of pollutant discharge to the storm sewer. Properly dispose of materials used to clean a spill.
- ✓ Implement all pollution prevention best practices described on any plans and documents associated with the work.

3.2.14 Anti-icing and Deicing

Potential Pollutants (Examples)

- ✖ Chloride and sediment.

Best Management Practices

- ✓ Salt and sand storage, loading, and unloading areas should be covered or enclosed to prevent exposure to stormwater when not being applied for anti-icing and deicing applications.
- ✓ Salt transport should ensure total containment and cover to prevent leaks during transport and exposure to stormwater.
- ✓ During material delivery or loading, immediately clean spilled or tracked materials.
- ✓ Routinely inspect storage areas for migrating materials or deterioration of containment structures.
- ✓ Maintain salt spreading equipment indoors or undercover so as not to expose residuals to stormwater.
- ✓ Minimize application of anti-icing and deicing products to locations necessary for safety and operations and apply amounts specified by the manufacturer. Consider blocking off areas that are not critical to minimize use of product.
- ✓ When possible, make efforts to sweep up and dispose of anti-icing and deicing products remaining on the surface if no longer needed. Dispose of collected materials in dumpsters or other containers that will have contents landfilled.
- ✓ Prohibition: The application of any anti-icing or deicing agent containing urea or other forms of nitrogen and phosphorus is prohibited.

3.3 Waste Disposal

The **proper disposal of waste** materials can greatly reduce the amount of pollution in stormwater runoff. Table 4 lists types of waste that could occur on campus and may impact stormwater quality along with the proper way to dispose of the type of waste. For types of wastes not specifically listed, staff shall contact the Facilities Manager for investigation and instruction.

Table 4. Proper disposal of waste materials to protect water quality.

Common Campus Waste	Proper Waste Management
Animal Carcasses	Collect and place in dumpster as soon as possible
Landscape waste	Maintain any stockpiled waste (i.e. grass clippings, tree limbs) on pervious areas so as not to allow leaching of nutrients into the storm sewer, instead allowing for infiltration. Landscape waste shall not be disposed of in the storm sewer system or maintained on impervious cover.
Solid waste	When outdoors, contain solid waste within receptacles in accordance with Section 3.2.7 of this Handbook.
Spent or remaining pesticides/herbicides	Maintain in labeled and designated containers for collection by licensed vendors for hazardous waste.
Surplus and excess property	When outdoors, maintain surplus and excess material that could potentially contribute pollutants to stormwater in accordance with Section 3.2.6 of this Handbook.
Waste fluids and filters associated with vehicles and equipment maintenance	Dispose of in labeled and designated containers for collection by licensed vendors, as applicable and in accordance with hazardous waste regulations. Maintain documentation of materials collected by vendors.

4.0 Stormwater Management Facilities

DCC maintains stormwater management (SWM) facilities on campus that are intended to protect water quality using various processes such as detaining stormwater to allow for the settling of pollutants or filtering pollutants through soils media. Each of the college's SWM facilities are shown on the DCC MS4 Mapping available on the DCC stormwater webpage. For a SWM facility to function properly, DCC implements an inspection and maintenance program described with the following written procedures:

1. **Inspections**: Perform, or have performed, a SWM facility inspection for each facilities annually. Inspections shall:
   - Be performed by an individual with a current DEQ stormwater inspector certification;
   - Include completion of the operations and maintenance (O&M) inspection forms provided in **Appendix D**. The inspection shall complete the form specific to the SWM facility type provided in the appendix (i.e. extended detention, bioretention, etc.).+
2. **Maintenance**: In a timely manner, dependent on the severity of any issues identified during inspection, DCC staff will perform, or have performed, maintenance needs identified on the completed inspection forms. Specifically, DCC will:
   - Correct all issues identified as a "Problem" in the third column of the inspection form. Actions to be taken are provided in the "How to Fix" column of the form, or otherwise described in the "Comments" column. Depending on the effort necessary, if actions to correct an identified problem cannot be taken within 60 days from the time of inspection, the Facilities Manager shall develop, or have developed, a written plan of the actions to be taken with a schedule identifying timeframes the actions will be completed.
   - Investigate all issues identified as with "Investigate" in the fourth column of the inspection form. If the investigation cannot be performed within 60 days from the date of inspection, a written plan should be developed as described above. Similarly, any maintenances needs identified should be completed within the timeframe described above, or a written plan developed.
3. **Documentation**: Indicate "yes" within the "Repaired" column of the original inspection form once all actions to correct or investigate a problem have been completed. Attach additional supportive documentation regarding the actions, as needed to demonstrate the procedures in this Section have been adhered to.

Appendix A: Outfall Reconnaissance Screening Form

OUTFALL RECONNAISSANCE FORM

Section 1: Background Data

Unique Outfall ID:		
Date of Screening:	**Time:**	**Temp. (°F):**
Investigators:	**Form completed by:**	
Time since last precipitation event (days/hours):	**Depth of previous rainfall (inches):**	
Photo #s: (See attached to the end of this form if necessary to demonstrate a concern)		
Notes (include description of the dominant land uses draining to the outfall):		

Section 2: Outfall Description

LOCATION	MATERIAL	CROSS-SECTION (SHAPE)		DIMENSIONS (IN.)	SUBMERGED
☐ **Closed Pipe**	☐ Concrete ☐ Corrugated Metal ☐ Plastic ☐ Other: _____	☐ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☐ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: _____	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open channel**	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:	
Flow Present?	☐ Yes ☐ No	***If No, Skip to Section 5***			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization for Flows where Illicit Discharge is Occurring

FIELD DATA FOR FLOWING OUTFALLS			
PARAMETER	**RESULT**	**UNIT**	**EQUIPMENT**
Flow depth		In	Tape measure
Flow width	_____' (Top)_____" (Bottom)	Ft	Tape measure

Section 4: Physical Indicators for Flowing Outfalls Only

Any Physical Indicators Present in the flow? ☐ Yes ☐ No ☐ No Flow (*If No Indicators or No Flow, skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: General Physical Indicators for both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No (*If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Illicit Discharge Characterization

An illicit discharge characterization can generally be defined as described below. However, the investigator shall use best judgement. *

☐ **Unlikely:** No indicator in Section 4 AND only outfall damage or abnormal vegetation in Section 5.

☐ **Potential:** One indicator in Section 4 with severity index of one OR ≥ one indicator in Section 5, unless outfall damage and abnormal vegetation.

☐ **Suspect:** ≥ one indicator(s) checked in Section 4 with a severity index ≥ two OR > 2 indicators in Section 5.

☐ **Obvious:** ≥ one indicator(s) checked in Section 4 with a severity index of three OR ≥ 3 indicators in Section 5.

*** If potential, suspect, or obvious illicit discharge, immediately refer to Section 2.4 of *Staff Handbook of Good Housekeeping and Pollution Prevention.***

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Appendix B: Illicit Discharge Investigation Form

DCC ILLICIT DISCHARGE INVESTIGATION FORM

1. Date potential, suspect or obvious Illicit Discharge observed or reported: _____

2. Initial Characterization (as identified on screening form):

   ☐ Potential ☐ Suspect ☐ Obvious ☐ None (Reported)

3. Discovery Method: _____

4. Date of the start of the investigation: _____

5. Description of the potential, suspect or obvious illicit discharge:

   _____
   _____
   _____

6. Investigation methods and findings (include source and results of investigation):

   _____
   _____
   _____
   _____

7. Was the discharge eliminated (resolved)? ☐ Yes ☐ No

8. If "Yes" answered in Item # 7, provide the resolution to eliminate the discharge:

   _____
   _____
   _____
   _____

9. If "No" answered in Item # 7, described the reasons:

   _____
   _____
   _____
   _____

10. Are any addition follow up action necessary (i.e. the discharge anticipated to recur)? ☐ Yes ☐ No

11. If yes, describe follow up actions with a timeline to perform the actions.

    _____
    _____
    _____

12. Date the investigation was closed: _____

Note: Attach supporting documentation to this form for responses provided, as applicable. If the investigation was initiated from a dry-weather outfall screening, attach the associated Outfall Reconnaissance Form.

Appendix C: SWPPP Assessment Form

Annual SWPPP Assessment Form: Determination of the Presence of High Priority Facilities with High Potential for Discharging Pollutants

Assessment Performed by: _____

Date of Assessment: _____

Campus: _____

Indicate below if any of the following are present on campus:

1. Areas where residuals from using, storing or cleaning machinery or equipment remain and are exposed to stormwater?
   ☐ Yes ☐ No
2. Materials or residuals on the ground or in stormwater inlets from spills or leaks?
   ☐ Yes ☐ No
3. Material handling equipment?
   ☐ Yes ☐ No
4. Materials or products that would be expected to be mobilized in stormwater runoff during loading or unloading or transporting activities (e.g., rock, salt, fill dirt);
   ☐ Yes ☐ No
5. Materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants);
   ☐ Yes ☐ No
6. Materials or products that would be expected to be mobilized in stormwater runoff contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;
   ☐ Yes ☐ No
7. Waste material except waste in covered, non-leaking containers (e.g., dumpsters);
   ☐ Yes ☐ No
8. Application or disposal of process wastewater (unless otherwise permitted); or
   ☐ Yes ☐ No
9. Particulate matter or visible deposits of residuals from roof stacks, vents or both not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater runoff.
   ☐ Yes ☐ No

NOTE: If yes is answered to any of the items above and: (1) residuals are expected to be exposed to stormwater and (2) immediate action cannot be taken to prevent exposure, a Stormwater Pollution Prevention Plan (SWPPP) must be developed for the area in accordance with Part I E 6 d of the MS4 General Permit.

First Page of Sample Form is provided as Context for Section 4.0

Full versions of the SWM Facility O&M Inspections Forms are available upon request from the DCC Facilities Manager.

Appendix D: SWM Facility O&M Inspection Forms

Adapted from Virginia Stormwater Management Handbook, Chapter 9

Bioretention (Bio-swale) Practices: O&M Checklist

Inspection Date: _____

SWM Facility ID:_____Campus: _____

Inspector:_____DEQ Certification #: DCA-xxx

Inspection follow-up notes (attach photos, as needed, to demonstrate conditions:

_____

_____

Facility Location:
- ☐ Surface
- ☐ Underground

Filtration Media:
- ☐ No filtration
- ☐ Sand
- ☐ Bioretention Soil
- ☐ Peat
- ☐ Other: _____

Hydraulic Configuration:
- ☐ On-line
- ☐ Offline

Type of Pre-Treatment Facility:
- ☐ Sediment forebay (above ground)
- ☐ Stone diaphragm
- ☐ Grass filter strip
- ☐ Grass channel
- ☐ Other: none

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to fix problem	Comments
Contributing Drainage Area	Inadequate vegetation				Supplement as necessary	
	There is excessive trash and debris				Remove immediately	
	There is evidence of erosion and / or bare or exposed soil				Stabilize immediately	
	There are excessive landscape waste or yard clippings				Remove immediately and recycle or compost	
	Oil, grease or other unauthorized substances are entering the facility				Identify and control the source of this pollution. It may be necessary to erect fences, signs, etc.	
Pre-Treatment	Inadequate access to the pre-treatment facility				Establish adequate access	
	Excessive trash, debris, or sediment.				Remove immediately	
	There is evidence of clogging (standing water, noticeable odors, etc.)				Identify and eliminate the source of the problem. If necessary, remove and clean or replace the clogged	
	There is evidence of erosion and / or exposed soil				Stabilize immediately	
	There is dead vegetation or exposed soil in the grass filter				Restabilize and revegetate as necessary	