NVCC 2016 MS4 Staff Training
- Illicit Discharge Detection & Elimination
- Good Housekeeping/Pollution Prevention
- Stormwater Facility Inspections & Maintenance
AGENDA

• Regulatory requirements
  – Written procedures and training
  – Implementation Tools

• Recognizing Illicit Discharges
  – Prevention, screening, and reporting

• Good Housekeeping/Pollution Prevention Measures
  – Best Management Practices
  – Generating sources/sites
  – Inspections/documentation

• Closing the Compliance Loop

• Stormwater Facility Inspections
Clean Water Act (CWA) authorization to regulate “point source” discharges

MS4 General Permit
- Localities & State Entities within urbanized areas
  - Minimum Control Measures
  - Special Conditions for TMDLs

Compliance & Enforcement

APPLICABLE STORMWATER REGULATIONS

3e
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

- Collects & conveys stormwater
  - Potential to convey pollutants downstream
  - Ultimately leads to a point discharge at a natural drainage way (outfall)

- Activities/operations draining to outfalls are regulated if within a Census Urbanized Area (MS-4 Area)
• Areas identified by population census
• MS4 entities are cities, counties, towns, and federal and state facilities
• Must own and operate a storm sewer system
Requires the operator to:

“... develop, implement, and enforce a MS4 Program designed to reduce the discharge of pollutants from the regulated small MS4 to the maximum extent practicable ...”

Maximum Extent Practicable (MEP)

– Ensures compliance to water quality standards if the MS4 Program:
  o Addresses Minimum Control Measures with Best Management Practices (BMP) implementation
    • Structural and nonstructural BMPs
  o Addresses Special Conditions for TMDLs
TOTAL MAXIMUM DAILY LOAD (TMDL)

- **TMDL** is a plan (pollution diet) that establishes the maximum amount of a pollutant the waterbody can hold and meet water quality standards.
- **WLA** is the quantity of the pollutant (sediment, nitrogen, bacteria, etc.) that may be discharged.
Special Conditions

1. Local Waterbody TMDLs
2. Chesapeake Bay TMDL

Minimum Control Measures

1. Public Education & Outreach
2. Public Involvement/Participation
3. Illicit Discharge Detection & Elimination
4. Construction Site Runoff Controls
5. Post-construction Runoff Controls
6. Pollution Prevention/Good Housekeeping
PAST DEQ/EPA AUDIT VIOLATIONS IN VIRGINIA

• DEQ audits approx. 10 MS4s per year (100 MS4s total)

• Common violations include failure to:
  – Implement/enforce illicit discharge program
  – Adequately address runoff from construction sites/implement ESC regs
  – Adequately manage stormwater discharges from maintenance facilities
  – Adequately document
  – Reduce pollutants to the Maximum Extent Practical

• Penalties
  – Not to exceed $32,500/day/violation
    • Typically include a consent order
• Effective Training = Implementation = Compliance
  – Program overview
  – Familiarize staff with written procedures
    • Available resources
    • Documentation
    • Implementation Tools
  – Closing the compliance loop
  – Protect surface water quality
    • Elimination of non-stormwater discharge
MS4 PROGRAM COMPONENTS

General Permit ➔

Program Plan ➔

Supporting Materials ➔

Implementation (Documentation) ➔

Training ➔
GUIDANCE DOCUMENTS (BINDERS)

Good Housekeeping/Pollution Prevention Program Manual and Implementation Plan
Programmatic Overview of NVCC’s IDP

Illicit Discharge Detection
Programmatic Overview of NVCC’s IDP

Post-Construction Stormwater Management
Inspection & Maintenance
Program Manual

NVCC - Alexandria Campus
5000 Dawes Avenue
Alexandria, VA 22311

NVCC - Loudoun Campus
21200 Campus Drive
Sterling, VA 20164

June 2014

NVCC - Annandale Campus
8333 Little River Turnpike
Annandale, VA 22003

NVCC – Woodbridge Campus
15200 Neabsco Mills Road
Woodbridge, VA 22191

June 2014
CLOSING THE COMPLIANCE LOOP

Program Inspection

COMPLIANCE to the Maximum Extent Practical

Training

Documentation

Retain for 3 Years

Guidance

Good Housekeeping Manual
- Scrub with broom
- Remove in timely manner

Retain for 3 Years
DEFINING AN ILLICIT DISCHARGE

- **Illicit Discharge** - Any discharge to an MS4 that is not composed entirely of stormwater, except discharges specifically identified in the Virginia Administrative Code and determined by NVCC not to be a significant contributor of pollutants to the MS4.
DEFINING AN ILLICIT DISCHARGE

An illicit discharge can:
1. Be a measurable flow from a storm drain during dry weather that contains pollutants or pathogens;
2. Have a unique frequency, composition, and mode of entry in the storm drain system;
3. Be caused when the sewage disposal system interacts with the storm drain system; and
4. Can be discharges from pollutants from specific source areas

<table>
<thead>
<tr>
<th>Table 1. Examples of source pollutants of an illicit discharge.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Automotive fluids (oil, fuel, antifreeze)</td>
</tr>
<tr>
<td>- Cooking oil and grease</td>
</tr>
<tr>
<td>- Solvents</td>
</tr>
<tr>
<td>- Paints</td>
</tr>
<tr>
<td>- Chemical cleansers (detergents, soaps)</td>
</tr>
<tr>
<td>- Improperly applied pesticides/herbicides</td>
</tr>
<tr>
<td>- Improperly managed salts</td>
</tr>
<tr>
<td>- Landscape waste (grass clippings, etc.)</td>
</tr>
<tr>
<td>- Improperly applied fertilizer</td>
</tr>
<tr>
<td>- Sediment</td>
</tr>
<tr>
<td>- Vehicle wash water</td>
</tr>
<tr>
<td>- Sanitary sewer wastewaters</td>
</tr>
<tr>
<td>- Dumpster leachate</td>
</tr>
<tr>
<td>- Trash</td>
</tr>
</tbody>
</table>
DEFINING AN ILlicit DISCHARGE

Table 2. Examples of sources that are not considered illicit discharges.

- Fire-fighting activities
- Water line flushing
- Landscape/lawn irrigation
- Diverted stream flows
- Rising groundwater
- Uncontaminated groundwater infiltration
- Uncontaminated pumped groundwater
- Air conditioning condensate
- Footing or foundation drains
- Springs
- Water from crawl space pumps
- Dechlorinated swimming pool wastewater
- Discharges from potable water sources
- Flows from riparian habitats and wetlands
DEFINING AN ILLICIT DISCHARGE
DEFINING AN ILLICIT DISCHARGE
DEFINING AN ILLICIT DISCHARGE
DEFINING AN ILLICIT DISCHARGE
DEFINING AN ILLICIT DISCHARGE
REPORTING AN ILLICIT DISCHARGE

1. Reported or Observed Concern
2. Potential Illicit Discharge?
   - Yes: Report to NVCC MS4 Program Manager
   - No: Prevention Action Necessary?
3. Prevention Action Necessary?
   - Yes: Perform Action
   - No: No Action Necessary

Observation: Uncovered dumpster → Action: Cover dumpster
Observation: Uncovered container → Action: Store container indoors
Observation: Oil/hydraulic fuel on ground → Action: Clean & dispose of properly
## NVCC’s Prohibition of Illicit Discharge

<table>
<thead>
<tr>
<th>Source/Discharge Type</th>
<th>Elimination Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intentional by Student</td>
<td>Student Handbook</td>
</tr>
<tr>
<td>Intentional by Faculty/Staff</td>
<td>Standards of Conduct for Employees</td>
</tr>
<tr>
<td>Staff During Daily Operations</td>
<td>Good Housekeeping/Pollution Prevention Manual</td>
</tr>
<tr>
<td>Contractor Operations</td>
<td>Contract Language</td>
</tr>
</tbody>
</table>

---

**Student Conduct & Integrity**

**NOVA Northern Virginia Community College**

---

3e
**Question # 1:** NOVA enforces a pollution prevention policy that prohibits non-stormwater discharges.

> A. True
B. False

**Question # 2:** Which of the following are sources of an illicit discharges?

> A. Vehicle wash-water
B. Air conditioner condensate
> C. Areas of erosion or sediment transport
D. Discharge from foundation drains
**Question # 3:** Vehicles can be washed under the following conditions

- A. In a designated wash bay that drains to sanitary sewer
- B. Near a storm drain
- C. Over grass with no soap or detergents
- D. At a commercial car wash

**Question # 4:** What would you do if hydraulic fuel is observed on the ground beneath stored/parked equipment?

- A. Hose it down with water to a storm drain.
- B. Leave it there for the rain to wash it off.
- C. Place absorbent, sweep it all up and dispose of it in a container.
- D. Fill out a Findings and Follow up form.
• Develop and implement written procedures to minimize or prevent pollutant discharge from daily operations to:
  – Prevent illicit discharge
  – Ensure proper disposal of waste (including landscape wastes)
  – Prevent discharge of vehicle wash water to storm sewer
  – Prevent discharge of wastewater to storm sewer
  – Require BMPs to filter water pumped from maintenance activities
  – Require BMPs to prevent pollutants in runoff from bulk storage (salt storage, topsoil stockpiles)
  – Prevent pollution discharge from leaking college automobiles/equipment
  – Ensure proper application of pesticides and fertilizers
• Training Plan
• Reporting/Documentation
• Inspection Guidance
  – Checklist/Mapping
  – Documentation
• Maintenance & operations procedures as non-structural BMP
  – Manage vehicle washing and maintenance, dumpster operations/locations, power washing, fueling, chemical storage, and other applicable practices
• Waste Management
  – Oil, gas, and diesel
  – Absorbents
  – Other applicable wastes
IMPLEMENTATION TOOLS: SWPPP MAP

- Flip the map ...
  - List & discussion of potential pollutants and potential nonstormwater discharges
  - General BMP information for each activity
  - References to relevant Sections of the Good Housekeeping/Pollution Prevention Manual
  - Lists of source controls
  - Documentation instruction
  - Procedures for comprehensive site compliance evaluation
  - Campus specific supports implementation

### NVCC MS4 CAMPUS COMPLIANCE EVALUATION MAPPING TOOL & SWPPP

Individuals utilizing this SWPPP map for annual inspections are required to have completed the training program described in the NVCC MS4 Program Plan. Procedures for completing the annual comprehensive compliance evaluation and associated reporting are provided in Section 4.5 of the NVCC Good Housekeeping/Pollution Prevention Manual.

**Upfront**

SWPPP Maps are required to be updated when any new infrastructure is built (i.e., buildings, storm sewer, outfalls, etc.) or any possible pollutant generating activities are created, moved, or eliminated (i.e., dumpsters, new maintenance building, etc.).

**Reportable Spill List**

If any unusual or extraordinary discharge should occur from a facility and the discharge enters or could be expected to enter surface waters, the operator shall promptly notify, in no case later than sixty (60) days, DEC by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse effects on aquatic life and the known number of fish killed. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

- Unusual spillage of materials resulting directly or indirectly from processing operations;
- Breakdown of processing or accessory equipment;
- Failure or taking out of service some or all of the facilities; and
- Flooding or other acts of nature.

**NOTE!** The immediate (within 24 hours) reports required to be provided to DEC may be made to the appropriate Regional Office Pollution Response Program as found at http://www.dec.state.va.us/Programs/PollutionResponsePrograms.aspx. Reports may be made by telephone or by fax. For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24-hour telephone service at 1-800-646-8582.

* Use this map in conjunction with the NVCC Campus Comprehensive MS4 Compliance Evaluation Form. The activities and pollutants below are most likely to occur at the specified location. General BMPs are provided and reference to the applicable section of the NVCC Good Housekeeping and Pollution Prevention Program Manual. Additional information is needed to address as an identified issue.

### CW WAREHOUSE

- **Vehicle Storage:** Store vehicles under cover or away from storm drains. (Section 6.17)
  - Potential Pollutants: Solvents, Grease, Sediment, Petroleum Products
  - Source Controls: (1) Drip pans, (2) spill kits

### DUMPSTERS

- **Dumspster:** Keep dumpster covered. If leaking, use absorbent, scrub with a broom to remove as much of the chemical as possible, and promptly recover all material. Use plastic sheeting, barrier pads, and absorbent material. (Section 6.12)
  - Potential Pollutants: Various
  - Source Controls: Overeced.

### MAINTENANCE BUILDING

- **Vehicle Maintenance:** Use absorbent, scrub with a broom to remove as much as possible, and promptly recover all material. (Section 6.13)
  - Potential Pollutants: Various
  - Source Controls: (1) Sweep (2) Spill Kit

### Vehicle Storage:

- **Vehicle Storage:** Store vehicles under cover or away from storm drains, contain any leaking fluid and spills. (Section 6.17)
  - Potential Pollutants: Solvents, Grease, Sediment, Petroleum Products
  - Source Controls: (1) Drip pans, (2) spill kits

- **Vehicle Washing:** Wash in designated wash bays that drain directly to the sanitary sewer. (Section 6.18)
  - Potential Pollutants: Solvents, Grease, Sediment, Petroleum Products
  - Source Controls: (1) Spill Kit (2) Secure all chemical storage system (3) Utilize SPCC containment system.

- **Filling Areas:** Fuel in designated or offsite areas and above from storm sewer or water bodies. (Section 6.12)
  - Potential Pollutants: Toxic fuel
  - Source Controls: Spill Kit
# CAMPUS MS4 COMPLIANCE MONTHLY INSPECTIONS

## AUTOMOTIVE

### Vehicle Maintenance
- Indicators of vehicles leaking oil or other fluids? Indicators of leaks, drips, or spills?
- Any containers of fluids on the ground or exposed to precipitation?
- Any batteries stored outside or exposed to precipitation?
- Any oily vehicle parts exposed to precipitation?
- Are vehicles maintained near storm drains?

If answered yes to any of the above, consult the Good Housekeeping/Pollution Prevention Manual section 6.2. Provide documentation on any applicable item and complete a follow-up inspection.

**Comments:**

### Vehicle Storage
- Indicators of vehicles leaking oil or other fluids? Indicators of leaks, drips, or spills?
- Indicators of corrosion on vehicles that could affect water quality or possibly cause chemical releases in the future?
- Any containers of fluids on the ground or exposed to precipitation?
- Any batteries stored outside or exposed to precipitation?
- Any oily vehicle parts exposed to precipitation?
- Are vehicles maintained near storm drains?

If answered yes to any of the above, consult the Good Housekeeping/Pollution Prevention Manual section 6.3. Provide documentation on any applicable item and complete a follow-up inspection.

**Comments:**
**REPORTING FORMS**

**Good Housekeeping FINDINGS &**

- This finding was a result of: [ ] Routine Inspection  [ ] Day to Day Good  
- Location of incident or finding: ____________________________
- Date of incident or finding: _______________  Material Discharged: _______________
- Quantity discharged, released, or spilled: _______________
- Was finding resolved?  [ ] Yes  [ ] No
- If yes, please explain clean-up measures and disposal. If no, please explain why.

**Contractor Oversight FORM**

Use this form in conjunction with bi-weekly inspections of work being performed by contractors that could potentially pollute stormwater and retain records for annual reporting.

**Contractor Name:** ____________________________

**Campus location:** ____________________________  Dates and duration of work: ____________________________

**General description of the work:** ____________________________

**First Inspection**  [ ]  **Followup Inspection**  [ ]

If this is a followup inspection, were any previous inspection items that needed to be addressed?  [ ] Yes  [ ] No

If yes, please describe: ______________________________________

Describe the potential pollutants associated with this work and how they will be contained:

__________________________________________________________

**Are there any areas of concern regarding pollution prevention/good housekeeping best management practices?**  [ ] Yes  [ ] No

If yes, describe the concern and how it should be addressed:

__________________________________________________________

**Is any follow-up action required?**  [ ] Yes  [ ] No

If yes, please explain:

__________________________________________________________

Attach photographs to this form and retain for records.
7.1 Power washing

Overview

Power washing can concentrate organic sediment into wash water, which is characterized as an illicit cleaning agent, and other compounds should not be taken to prohibit the wash water from downspouts, and any other conveyances leading to.

Best Management Practices

- Identify storm drains and possible conveya cleaning or washing, and take measures to
- Use dry cleanup methods to remove debris
- Determine where wash water may pool an
- Water not containing chemicals or cleaning areas. Wash water containing chemical po sanitary sewer. Suspended solids and oils i absorbent pads, or other devices.
- Apply minimal water and prioritize dirty at entire surface.

7.4 Parking Structure Cleaning

Overview

Parking structures can accumulate the same materials associated with parking lots, roads, and vehicle storage areas. Automotive lubricants, oils, and antifreeze, even in covered areas of a garage, may be swept into the storm drain system or tracked elsewhere by way of stormwater or vehicle tires. An additional, larger concern with parking structures is the need to apply sand and salt more often than regular parking lots, as the structure will freeze before the ground. These materials can accumulate in significant amounts and pose a serious threat to local waterways, clog stormwater inlets, as well as increase the sediment load to stormwater basins. Regular parking structure cleaning will extend the useful life of stormwater basins and reduce accumulation in inlet sumps and downstream transport.

Best Management Practices

- Contract a local street sweeping service provider to clean accessible areas of the parking structure. Use smaller, more portable machines to access tighter spaces. Clean remaining areas with vacuum recovery surface cleaners, rather than a standard power washers.
- If vacuum recovery cleaners cannot be employed, all power washing material and wash water must be prevented from entering the stormwater system. Use a series of dams, berms, and diversions to isolate water and material for recovery. Water may be allowed to evaporate, at which point leftover material can be collected. Only wash water free of oils, grit, and material that could clog pipes should be disposed of in the sanitary sewer.
- Materials collected should be directly transported to an offsite landfill.
- Establish a schedule that best addresses the rate of accumulated salt and sand on parking structures, and amend the schedule as needed after precipitation events.
- Ensure oil drippings and spills are managed appropriately. If leaking vehicles are stored in parking garages or structures, consider moving the vehicle away from storm drains and placing a drip pan beneath the leaking equipment. Captured leaking fluids should be disposed in designated hazardous waste containers and any absorbents swept up and properly disposed of.
- Validate inlet protection and other erosion and sedimentation control measures are installed correctly before performing any maintenance operations where sediment or other pollutants could enter the storm system.
GROUP EXERCISE

Please get together in Groups of about two (2) and answer the following questions:

1. Identify the areas on the SWPPP maps where pollutants could be generated that effect water quality?

2. What are some of the pollutants?

3. What is done to ensure that these potential pollutants are managed properly and not exposed to precipitation?
GOOD HOUSEKEEPING & POLLUTION PREVENTION PRACTICES
GOOD HOUSEKEEPING & POLLUTION PREVENTION PRACTICES
GOOD HOUSEKEEPING & POLLUTION PREVENTION PRACTICES
GOOD HOUSEKEEPING & POLLUTION PREVENTION PRACTICES
<table>
<thead>
<tr>
<th>Campus</th>
<th>TMDL</th>
<th>Pollutant</th>
<th>Approval Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annandale</td>
<td>Accotink Creek (Lower)</td>
<td>E. Coli</td>
<td>4/28/2009</td>
</tr>
<tr>
<td></td>
<td>Chesapeake Bay</td>
<td>N, P, TSS</td>
<td>-</td>
</tr>
<tr>
<td>Alexandria</td>
<td>Ches Bay</td>
<td>N, P, TSS</td>
<td>-</td>
</tr>
<tr>
<td>Woodbridge</td>
<td>Neabsco Creek Watershed</td>
<td>E. Coli</td>
<td>4/28/2009</td>
</tr>
<tr>
<td></td>
<td>Chesapeake Bay</td>
<td>N, P, TSS</td>
<td>-</td>
</tr>
<tr>
<td>Loudoun</td>
<td>Chesapeake Bay</td>
<td>N, P, TSS</td>
<td>-</td>
</tr>
</tbody>
</table>
Illicit Discharge Detection and Elimination
PROGRAM MANUAL
Programmatic Overview of NVCC’s IDDE Program and Process

• Methods for field observations/screening (outfalls screened annually)
• Data collection (field screening – Methods for investigation of specific timeframe – Mechanisms for elimination of source)
• Policies
• Follow-up & documentation

IDDE PROGRAM MANUAL

NOVA Northern Virginia Community College

Illicit Discharge Detection and Elimination PROGRAM MANUAL
Programmatic Overview of NVCC’s IDDE Program and Process

NVCC - Alexandria Campus
5000 Dawes Avenue
Alexandria, VA 22311

NVCC - Annandale Campus
8333 Little River Turnpike
Annandale, VA 22003

NVCC - Loudoun Campus
21200 Campus Drive
Sterling, VA 20164

NVCC - Woodbridge Campus
18200 Neabsco Mills Road
Woodbridge, VA 22191

June 2014
## IDDE IMPLEMENTATION TOOLS

### Sample Outfall Reconnaissance Inventory: Sample Collection Field Sheet

#### Section 1: Background Data

- **Sample:**
- **Outfall ID:**
- **Today's Date:**
- **Time:**
- **Investigator:**
- **Form completed by:**

#### Temperature (°F):

- **Reference (m):**
- **Last 24 Hours:**
- **Last 48 Hours:**

#### Notes (e.g., origins of outfall, known hazards):

#### Section 2: Outfall Description

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>MATERIAL</th>
<th>CROSS SECTION SHAPE</th>
<th>DIMENSIONS (in.)</th>
<th>SUBMERGED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Closed Pipe</td>
<td>Circular</td>
<td>Diameter/Conversions: In Water:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Open channel</td>
<td>Irregular</td>
<td>Top Width:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

#### Flow Present?

- **Yes**
- **No**

#### Flow Description (if present):

- **Tidally**
- **Moderate**
- **Substantial**

#### Section 3: Quantitative Characterization

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>FIELD DATA FOR FLOWING OUTFALLS</th>
<th>RESULT</th>
<th>UNIT</th>
<th>EQUIPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow #1</td>
<td>Volume</td>
<td>Ltr</td>
<td>Bottle</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time to fill</td>
<td>Sec</td>
<td>Stop watch</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flow depth</td>
<td>In</td>
<td>Tape measure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Measured length</td>
<td>Ft</td>
<td>Tape measure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time of travel</td>
<td>S</td>
<td>Stop watch</td>
<td></td>
</tr>
<tr>
<td></td>
<td>pH</td>
<td>pH Unit</td>
<td>Test strips/Paper</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ammonia</td>
<td>mg/L</td>
<td>Test strip</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flow #2</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Section 4: Physical Indicators for Flowing Outfalls Only

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>CHECK</th>
<th>Present</th>
<th>DESCRIPTION</th>
<th>RELATIVE SEVERITY INDEX (0-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor</td>
<td></td>
<td></td>
<td></td>
<td>1-3</td>
</tr>
<tr>
<td>Color</td>
<td></td>
<td></td>
<td></td>
<td>4-6</td>
</tr>
<tr>
<td>Tidally</td>
<td></td>
<td></td>
<td></td>
<td>7-9</td>
</tr>
</tbody>
</table>

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

#### Page 3: Severity Index

An IDDE score will be calculated by summing the Severity Indices in Section 4 and adding the number of indicators checked as present in Section 5. Only one (1) indicator checked as present in Section 4. If only one (1) indicator checked as present in Section 5, any two (2) indicators checked as present in Section 5. If a total of severities equal to three (3), the IDDE score of greater than three (3). If a total of severities in Section 4 plus indicators checked as present in Section 5 is greater than three (3).

**IDDE Notes:**

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

IDDE TRACKING Form

Data Illicit Discharge Observed/Reported: ____________________________  Outfall # (if applicable): ____________________________

Description of IDDE: ____________________________________________

Date of Investigation: __________________________________________

Was the Source found?  ☐ Yes    ☐ No

If "Yes", please describe: ________________________________________

Was IDDE Resolved?  ☐ Yes    ☐ No

If "Yes", please explain how it was resolved (Please include any personal or outside parties contacted or involved):

________________________________________________________________

________________________________________________________________

If "No", please explain why it was not resolved:

________________________________________________________________

________________________________________________________________

Is any follow-up action required?  ☐ Yes    ☐ No

If "Yes", please explain: ________________________________________

________________________________________________________________

________________________________________________________________

Date investigation closed: ____________________________

Attach photos to this form and retain for records.
• Training Plan
• Reporting/Documentation
• Inspection Guidance
  – Checklist/Mapping
  – Documentation
• Maintenance & operations procedures as non-structural BMPs
  – Vehicle washing, vehicle maintenance, dumpster operations/locations, power washing, fueling, chemical storage, other applicable practices
• Waste Management
  – Oil, gas, and diesel
  – Absorbents
  – Other applicable wastes
## POST-CONSTRUCTION COMPLIANCE

### BMP Operation & Maintenance Inspection for Bioretention

<table>
<thead>
<tr>
<th>Owner Name: JTCC</th>
<th>Facility ID # (See Map):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Inspection:</td>
<td></td>
</tr>
<tr>
<td>Date of Last Inspection:</td>
<td>Inspected:</td>
</tr>
<tr>
<td>Were issues identified during the previous inspection that required maintenance? Y N</td>
<td></td>
</tr>
<tr>
<td>If so, was the maintenance performed and recorded on a BMP Maintenance Follow-up Form? Y N</td>
<td></td>
</tr>
<tr>
<td>No, explains:</td>
<td></td>
</tr>
<tr>
<td>Does the current inspection, as summarized herein, identify maintenance needs? Y N</td>
<td></td>
</tr>
<tr>
<td>If yes, please complete a BMP Maintenance Follow-up Form and provide to the Director of Facilities upon completion.</td>
<td></td>
</tr>
</tbody>
</table>

### BMP Element vs Problem Table

<table>
<thead>
<tr>
<th>BMP Element</th>
<th>Problem</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributing Drainage Area</td>
<td>Excessive trash/debris</td>
<td></td>
<td></td>
<td></td>
<td>Remove trash/debris and properly dispose of.</td>
</tr>
<tr>
<td></td>
<td>Excessive exposed soil</td>
<td></td>
<td></td>
<td></td>
<td>Stabilize with seed and mulch. E&amp;S measures may be warranted until the area is stabilized.</td>
</tr>
<tr>
<td></td>
<td>Evidence of erosion</td>
<td></td>
<td></td>
<td></td>
<td>Backfill area, seed, mulch and consider mowing. E&amp;S measures may be warranted until stabilization.</td>
</tr>
<tr>
<td></td>
<td>Excessive landscape waste/yard clippings</td>
<td></td>
<td></td>
<td></td>
<td>Remove landscape waste and yard clippings to prevent clogging and properly dispose of them.</td>
</tr>
<tr>
<td></td>
<td>Excessive trash/debris/sediment</td>
<td></td>
<td></td>
<td></td>
<td>Remove trash/debris/sediment and properly dispose of.</td>
</tr>
<tr>
<td></td>
<td>Evidence of clogging</td>
<td></td>
<td></td>
<td></td>
<td>Rule material to determine level of clogging, remove clogged material and replace with clean material per the plan specifications.</td>
</tr>
<tr>
<td></td>
<td>Dead vegetation, exposed soil</td>
<td></td>
<td></td>
<td></td>
<td>Replace vegetation and stabilize with seed and mulch according to plan. E&amp;S measures may be warranted until area is stabilized.</td>
</tr>
<tr>
<td></td>
<td>Evidence of erosion</td>
<td></td>
<td></td>
<td></td>
<td>Backfill area, seed, mulch and consider mowing. E&amp;S measures may be warranted until stabilization.</td>
</tr>
<tr>
<td></td>
<td>Evidence of ponding, noticeable sump, water stains, presence of algae or floating aquatic vegetation</td>
<td></td>
<td></td>
<td></td>
<td>Determine source of issue and remove/react it. Consult management and the IDOE manual as needed.</td>
</tr>
<tr>
<td></td>
<td>Inlets provide inadequate conveyance into facility</td>
<td></td>
<td></td>
<td></td>
<td>Repair inlets to drain to facility per plan.</td>
</tr>
<tr>
<td></td>
<td>Presence of invasive species/weeds</td>
<td></td>
<td></td>
<td></td>
<td>Remove invasive species/weeds.</td>
</tr>
</tbody>
</table>
BMP Maintenance Follow-up FORM

To be completed by inspector

Campus: ___________________________ BMP ID #: (use campus BMP Inventory map): __________

Was the maintenance need generated from an inspection? ________ If yes, date of inspection: ________

Description of required maintenance: ________________________________

Is maintenance critical to the function of the BMP? □ Yes □ No □ Not sure

To be completed by the Director of Facilities

Individual performing or overseeing maintenance: _______________________

Requested date for maintenance to be completed by: ____________________

Date(s) maintenance completed: _______________________

Did maintenance solve the identified problem?  □ Yes □ No □ Not sure

If no or not sure, describe further necessary maintenance and a date for the additional maintenance to be performed:

__________________________________________________________________________

__________________________________________________________________________

Description of maintenance performed: ____________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

Attach photographs to this form and retain for records.
POTENTIAL COMPLIANCE ISSUES
POTENTIAL COMPLIANCE ISSUES
NVCC
Pat Didonato (MS4 Program Administrator)

EEE
Kay Cabe, PE: kcabe@eee-consulting.com
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