

**Attachment 12: Employee Training Plan,
Sign-in Sheet, and Training Presentations**

Stormwater Pollution Prevention Employee Training Plan
Town of Ashland
MS4 Requirements
June 2014

Addressing MS4 Permit Requirements

Requirement 1: *The operator shall provide biennial training to applicable field personnel in the recognition and reporting of illicit discharges.*

- Presentation covering recognition and reporting of illicit discharges. (Year 3)
- Staff can review/sign off the Town's *Illicit Discharge Guidance Document & Field Screening Procedures* (Year 5)
- Applicable Staff:
 - Building and Grounds
 - Public Works Engineering Staff
 - Deputy Zoning Administrator
 - Public Works Street Crew
 - Ashland Police Department

Requirement 2: *The operator shall provide biennial training to applicable employees in good housekeeping and pollution prevention practices that are to be employed during road, street, and parking lot maintenance.*

- Presentation covering pollution prevention for road, street, and parking lot maintenance. (Year 3)
- Review with staff/sign off the *Road, Street, Parking Lot Maintenance SOP* (Year 5)
- Applicable Staff:
 - Building and Grounds
 - Public Works Engineering Staff
 - Public Works Street Crew

Requirement 3: *The operator shall provide biennial training to applicable employees in good housekeeping and pollution prevention practices that are to be employed in and around maintenance and public works facilities.*

- Presentation covering pollution prevention around maintenance and public works facilities. (Year 3)
- Review with staff/ sign off the pollution prevention plan (Year 5)
- Applicable Staff:
 - Building and Grounds
 - Public Works Engineering Staff
 - Public Works Street Crew

Requirement 4: *The operator shall ensure that employees, and require that contractors, who apply pesticides and herbicides are properly trained or certified in accordance with the Virginia Pesticide Control Act (§ 3.2-3900 et seq. of the Code of Virginia).*

- Verify pesticide operators are certified through the Virginia Department of Agriculture and Consumer Services (VDACS) (Year 3)
- VDACS website contains list of certified applicators.
<http://www.vdacs.virginia.gov/pesticides/>
- Applicable Staff:
 - Building and Grounds

Requirement 5: *The operator shall ensure that employees and contractors serving as plan reviewers, inspectors, program administrators, and construction site operators obtain the appropriate certifications as required under the Virginia Erosion and Sediment Control Law and its attendant regulations.*

- Applicable staff will obtain certification as soon as possible.
- Staff keep their E&S certifications current with required renewals
- Contractors serving as construction site operators will have current E&S certification
- Applicable Staff:
 - Public Works Engineering Staff

Requirement 6: *The operator shall ensure that applicable employees obtain the appropriate certifications as required under the Virginia Erosion and Sediment Control Law and its attendant regulations.*

- New applicable staff will obtain certification as soon as possible.
- Staff keep their E&S certifications current with required renewals
- Applicable Staff:
 - Public Works Engineering Staff

Requirement 7: *The operators shall provide biennial training to applicable employees in good housekeeping and pollution prevention practices that are to be employed in and around recreational facilities.*

- Detailed training on pollution prevention around recreational facilities. (Year 3)
- Review with staff/ sign off the pollution prevention plan (Year 5)
- Applicable Staff:
 - Building and Grounds
 - Public Works Engineering Staff
 - Deputy Zoning Administrator
 - Public Works Street Crew

Requirement 8: *The appropriate emergency response employees shall have training in spill responses. A summary of the training or certification program provided to emergency response employees shall be included in the first annual report.*

- Emergency Response is handled by Hanover County. Therefore, no Training will be performed by the Town of Ashland

Requirement 9: *The operator shall keep documentation on each training event including the training date, the number of employees attending the training, and the objective of the training event for a period of three years after each training event.*

- Create spreadsheet for record keeping or update existing one
- Applicable Staff:
 - Public Works Engineering Staff

**IDDE Good Housekeeping
Training**

Public Works (Street) Sign in

Donnie Warriner

Stephen Davidson

JADIE Locklear

Dannis Woody

SCOTT Samuel

Dave DUNSMORE

Mat Reynard

Raul Jent

Donald J. Jett

Michael J. Jett

Paul Jett

Steve Jett

Moody

Pollution Prevention and Good Housekeeping



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What is Pollution Prevention/Good Housekeeping?

- o An operations and maintenance program that includes training with an ultimate goal of preventing or reducing pollutant runoff from municipal operations.
- o Typical activity locations:
 - parks and open spaces maintenance
 - fleet and building maintenance
 - new construction and land disturbances
 - stormwater system maintenance

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Why is a Pollution Prevention/Good Housekeeping Important?

- o Stormwater contaminated from municipal, state, or federal operations may be discharged to the MS4.
- o Pollution prevention and good housekeeping measures will minimize stormwater contamination.

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Potential pollutants likely associated with specific municipal facilities

Municipality Facility Activity	Potential Pollutants							
	Solvents	Hydrocarbons	Trash	Metals	Refrigerants	Oil & Grease	Hydrochloric Acid	Other
Building and Grounds Maintenance and Repair	X	X	X	X	X	X	X	X
Parking Storage Area Maintenance	X	X	X	X	X	X	X	X
Waste Handling and Disposal	X	X	X	X	X	X	X	X
Vehicle and Equipment Pooling			X	X	X	X	X	X
Vehicle and Equipment Maintenance and Repair	X	X	X	X	X	X	X	X
Vehicle and Equipment Washing and Steam Cleaning	X	X	X	X	X	X	X	X
Outdoor Loading and Unloading of Materials	X	X	X	X	X	X	X	X
Outdoor Container Storage of Liquids	X	X	X	X	X	X	X	X
Outdoor Storage of Raw Materials	X	X	X	X	X	X	X	X
Outdoor Process Equipment	X	X	X	X	X	X	X	X
Overseas Activities	X	X	X	X	X	X	X	X
Landscape Maintenance	X	X	X	X	X	X	X	X

Source: California Stormwater BMP Handbook (<http://www.rubrightandbank.com/>) slightly modified

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Best Management Practices

- o Effective performance depends on proper maintenance of the BMPs used.
- o Effective stormwater management programs should begin with municipal employees
 - sets an example for citizens

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Hazardous materials Storage

- Properly label storage containers
- Train employees in hazardous material storage and maintenance
- Identify facilities equipped to store hazardous materials



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Signs on hazardous material storage containers indicate the dangers associated with each substance

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Landscaping and Lawn Care

- Proper use and storage of chemicals and fertilizers used
- Proper disposal of grass clippings
- Use E & S controls when necessary

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A street sweeper cleans up pollutants and sediments on the street to reduce the amount of pollutants entering receiving waters

Parking Lot and Street Cleaning

- Keep inventory of roads and parking lots cleaned
- Number of scheduled road cleanings
- Volume of debris collected from street sweeping
- Discard debris collected in proper place

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Pest Control

- Keep list of products used
- Train employees in proper use of chemicals
- Store materials where accidental spills can be contained



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Pet Waste Collection

- Keep pet waste stations clean and stocked



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Road Salt Application and Storage

- Regular inspection of storage facilities
- Keep track of repairs
- List of products used
- Check water quality at outfalls nearby and downstream of storage facilities



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Spill Response and Prevention

- Create inventory of municipal facilities at risk for spills created
- Perform preventative maintenance procedures performed on tanks, valves, pumps, pipes, etc
- Develop response a plan for municipal facilities
- Train personnel in spill response
- Regularly inspect high-risk facilities



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Storm Drain System Cleaning

- Inventory areas with high pollutant loadings and prioritize for cleaning
- Length of storm drain pipe cleaned regularly
- Number of outfalls cleaned regularly
- Amount of trash, sediment, and other pollutants removed during cleaning
- Water quality at storm drain system outfalls



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Used Oil Recycling

- Keep track of number of gallons of used oil collected from municipal operations
- Recycling facilities should be in contained area to prevent spills



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Vehicle Washing

- All vehicle washing to be conducted only at approved washing facilities



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Preventing Stormwater Pollution

Employee Training Recognizing and Reporting Illicit Discharges

Illicit Connection:
Any man-made conveyance that is connected to a municipal separate storm sewer (MS4) without a permit, excluding roof drains and other similar type connections.



Illicit Discharge:
Any discharge to a municipal separate storm sewer (MS4) not composed entirely of stormwater, except discharges pursuant to a NPDES permit (other than authorized and conditionally allowed discharges-addressed in subsequent sections of this presentation).



Discharge: The release of any matter into the MS4 and/or Waters of the State that is not entirely composed of stormwater.




Authorized Discharges

- Water line flushing;
- Landscape irrigation;
- Diverting stream flows or rising groundwater;
- Infiltration of uncontaminated groundwater;
- Public safety activities (Ex. : law enforcement and fire suppression);
- Well-point dewatering or pumping of uncontaminated ground water from potable water sources, foundation drains, irrigation waters, springs, or water from crawl spaces or footing drains;
- Air conditioning condensation;



Authorized Discharges (Cont.)

- Watering and maintenance with landscaping chemicals in accordance with manufacturer's recommendations;
- Individual residential car washing;
- Flows from riparian habitats or wetlands;
- Swimming pool discharges that have been de-chlorinated or are free of other disinfecting agents;
- Street cleaning;



Common Types of Illicit Discharges

- **Total Petroleum Hydrocarbons (TPH)** – (oil, gasoline, diesel) Visual and/or olfactory evidence, dead organisms (sheen, odor, potential nearby sources).
- **Foam** – Usually attributed to natural causes, sometimes affiliated with an illicit discharge/connection. Iridescence, lathers when agitated, large bubbles, white in color, unnatural odor.
- **Sewage** – Grey waters containing solids, bubbles, etc., odor, grayish/"dirty" hue, odor, dead organisms.
- **Solid Waste/Dumping** – Noticeable accumulations in the MS4 and/or Waters of the State;
- **Construction Sites** – Muddy or silted water draining from site.

Route of Entry to Drainage System

- **Intermittent Sources**
 - End of work wash up
 - Over-irrigation of lawns
 - Vehicle maintenance
- **Direct Connections**
 - Sanitary sewer lines
 - Foundation drains/residential sumps
 - Commercial laundries/car wash
- **Infiltration**
 - Nearby failing septic tanks
 - Leaking underground storage tanks/pipes
 - Landfill seepage



What are we really looking for...

The common sense approach

- If it isn't raining, the storm drain should be dry;
- Groundwater is crystal clear;
- If it looks/smells polluted, it probably is;
- Streaks of lush green grass during a drought should suggest that something is wrong.



Visual Inspection

- Visual observations of outfall and inlet conditions can be very useful in detecting illicit discharge. When conducting a visual inspection take note of what is in the surrounding area. For example, is the outfall or inlet in a commercial or residential area? Observations to be made include odor, color, turbidity, floatable material, deposits and stains, condition of vegetation, and condition of structures, as well as a description of the flow rate.

Odor

The odor of a discharge can vary widely and often directly reflects the source of contamination. Any detection of sewage, oil, gasoline, specific chemical or solvent odors should be reported.

Color

Color is another important indicator of inappropriate discharges, especially from industrial sources. Make note of equipment and work area cleaning water discharged to ditches, grates, or floor drains as well as spills during loading operations (and subsequent washing of the material into the storm drain). Industrial dry-weather discharges may be of any color. Dark shades, such as brown, gray, or black, are most common.



Turbidity

Turbidity, or the clarity, of water is often affected by the degree of contamination. Dry-weather flows with moderate turbidity can be cloudy and difficult to see through, while high turbidity flows will be opaque and practically impossible to see through. High turbidity is often a characteristic of undiluted dry-weather industrial discharges, such as those coming from some continual flow sources, or some intermittent spills. Sanitary sewage is also often cloudy in nature.

Floatable Material

A contaminated flow may also contain floatables (floating solids or liquids). Evaluation of floatables often leads to the identity of the source of wastewater pollution, since these substances are usually direct products or byproducts of commercial activity, or distinctive of sewage discharges. Examples include substances such as animal fats, spoiled food products, oils, plant parts, solvents, sawdust, foams, packing materials, or fuel.



Deposits and Stains

Deposits and stains (residue) refer to any type of coating which remains after a non-stormwater discharge has ceased. They will cover the area surrounding the outfall and are usually of a dark color. Deposits and stains often will contain fragments of floatable substances.

Structural Damage

Structural damage is another readily visible indication of both continual and dry-weather discharge contamination. Cracking and deterioration of concrete or peeling of surface paint, occurring at an outfall are usually caused by severely contaminated discharges, usually of industrial origin. Poor construction, hydraulic scour, and old age should also be noted but may not always be directly related to illicit discharge.



Vegetation

Vegetation surrounding an outfall will also show the effects of random non-stormwater discharges. Food product wastes can cause an increase in plant life. Chemical and non-organic waste can decrease vegetation. These effects on vegetation will be noticeable after the cause of the pollution is gone.

In order to accurately judge if the vegetation surrounding an outfall is normal, the observer must take into account the current weather conditions as well as the time of year. If growth just beyond the outfall doesn't match growth near the outfall, this may be a sign of potential pollution.

What should you do if you suspect an illicit discharge?

Employees should be on the lookout for solids and liquids that are spilled, dumped, or washed, either indirectly or directly, in the driveway, sidewalk, street, parking lot, drainage ditch, or storm drain.

Examples of what to report may include:

- Dirty water in the street (e.g., sediment runoff from a construction site)
- Washout of concrete, paint, or oil
- Unusually colored discharges (e.g., milky white, red, purple, blue, black, green)
- Grass clippings blown down a storm drain or left in the street, trash in inlet
- Leaks around dumpsters

Take notes

- Date, time, location and weather.
- Type of discharge/activity (i.e., dumping or connection).
- Smell, color, trash or other floatables.
- Contact Engineering or APD

Enforcement

- Willful illicit discharge is a violation of Town Code 4.1-500 et seq. and is a Class 1 Misdemeanor.
- Each day that a continuing violation of this ordinance is maintained or permitted to remain shall constitute a separate offense.
- The Public Works director or designee shall have authority to make such lawful inspections and conduct monitoring of stormwater outfalls or other components of the storm sewer system as may be necessary or appropriate in the administration and enforcement of the code.

Questions?