

MCM 3:ILLICIT DISCHARGE DETECTION AND ELIMINATION

The Town has established a program to detect and eliminate illicit discharges in the Town's storm sewer system by developing and adopting ordinances and regulations, outfalls inspections, and an enforcement program to minimize illicit discharges and to prevent illegal discharges into the storm drain system.

The goal of the illicit connection and discharge elimination plan is to inspect known stormwater outfalls to Tinker, Glade, and Wolf Creeks and the Roanoke River as identified through review of existing storm sewer maps; eliminate illicit discharges as they are identified through visual monitoring of known stormwater outfalls; and field observations to identify and verify additional stormwater outfalls that may not have been identified through review of existing storm sewer maps. The programs that have been put in place to complete this measure are:

BMP 3-1. A Town-wide Storm Sewer System Map

A town-wide storm sewer system map in the GIS Database has been completed for all known locations of municipal storm sewer systems. The Town storm sewer database will be maintained through Roanoke County GIS Division, so that a map of all the public storm sewers in the Town will be available to the public.

BMP 3-2. The Town's Illicit Discharge Ordinance

The adoption of an ordinance to prohibit illicit discharges and enforcement authority by the Vinton Town Council. Additionally, policy, procedures, reporting, and enforcement measures have been developed to minimize non stormwater discharges into the storm drainage system.

BMP 3-3. MS4 Outfall Inspections

The Town will design and implement a program to inspect a minimum of 50 storm drain outfalls, within its MS4 area, annually.

BMP 3-4. Illicit Discharge Detection and Elimination Program

The Town will prepare and implement written procedures to detect, identify, and address non-stormwater discharges to the MS4 system.

Included in this document is a detailed description of the objectives and Measurable Goal of each BMP, the strategies to ensure consistency with identified TMDLs, implementation schedules, responsible parties, and supporting documents that include policies, ordinances, schedules, inspection forms, written procedures, and other documents necessary for the implementation of the BMPs. The TMDL compliance is broken down by the identified impairment type: E. coli, fecal coliform (EC/FC) and sediment (SED).

BMP 3-1: Town of Vinton Storm Sewer System Map

Roanoke County Department of Communication/Information Technology GIS Division has been responsible for Town's mapping services and needs. Since 2003, under the direction of Town Planning and Zoning Department, the County has developed and continued to update the Town's storm drain map.

Goal: To continue working with Roanoke County GIS Division in developing and updating the storm drain map which identifies all of the municipal separate storm sewers within the Town which discharge to natural drainage ways.

Measurable Goal: The Town will continue this program by expanding and updating the storm sewer map of the Town with Roanoke County assistance. In addition to locating any new storm sewer outfalls, the stormwater map has been updated to show the current outfalls and their associated Hydrologic Unit Code (HUC) of the waters that are being discharged to, and the names and locations of all the impaired surface waters that receive discharges from these systems.

TMDL Consistency: An updated and accurate storm drain map which identifies all of the municipal separate storm sewer systems will help the Town with the discovery of illicit discharge connections (EC/FC) and the locations where sediment may be entering the regulated MS4 (SED).

Evaluation and Modification: An updated and accurate storm sewer system map which identifies all of the Town's separate storm sewer system has greatly assisted the Town in the discovery of illicit connections and the locations where sediment may be entering the regulated MS4. No modifications are planned for this BMP. Town believes that the process of mapping the storm drain by the County of Roanoke is an appropriate method to aid in the enforcement, detection, and elimination of illicit discharges to the storm sewer system.

BMP 3-2: Illicit Discharge Ordinance

Illicit discharge detection, identification, and enforcement will be addressed by Town personnel as authorized under Article 3. Illicit Discharge Division 4. Inspections and Monitoring and Division 5. Enforcement and Penalties of the Stormwater Management Ordinance adopted on May 20, 2014.

Goal: To detect and eliminate illicit discharges into the MS4 by developing and adopting regulations and an enforcement program to prevent illegal discharges into the storm drain system.

Measurable Goal: Suitable measures for effective enforcement are included in the Illicit Discharge Ordinance. The ordinance has allowed for notice of violation being sent to property owners from complaints/requests that were received by Town personnel.

TMDL Consistency: The illicit discharge ordinance has greatly assists in the enforcement of the illicit discharges to the MS4 system. This legal method has helped the Town in discontinuing existing connections and discouraging future illicit discharges to the system (EC/FC and SED).

Evaluation and Modification: No modifications are planned for this BMP. The Town believes that the adoption of this ordinance is an effective tool in the enforcement, detection, and elimination of illicit discharges to the Town's storm sewer system.

Evaluation and Modification: Due to changes in the Virginia Stormwater Law and Regulations, the Town adopted a new Stormwater Management Ordinance in 2014, to include, a new, stand-alone Illicit Discharge Ordinance.

Year	Action	Modifications
2013 - 2014 (Year 1)	New Illicit Discharge Ordinance Developed and Adopted	n/a
2014 - 2015 (Year 2)	None	None
2015 – 2016 (Year 3)	None	None
2016 – 2017 (Year 4)	None	None

BMP 3-3. MS4 Outfall Inspections

The Town has a total of 71 with 35 outfalls discharging to TMDL streams of Roanoke River, Tinker Creek and Glade Creek. Currently, formal dry weather screenings are done by Roanoke County's personnel, which are based on their scheduling cycle. Additionally, these outfalls are also inspected by the Town Public Works personnel during the regular maintenance of these outfalls.

Goal: To detect dry weather illicit discharges so that actions may be taken to eliminate illegal connection and/or discharges.

Measurable Goal: For Year Four Reporting, **35** known outfalls were inspected, with no illicit discharges identified. The selection process in each year for the chosen outfalls followed these criteria, in descending order:

- In the MS4 area
- Drains to an impaired waterway
- Within 1/10th of a mile from the nearest receiving water

TMDL Consistency: Outfall inspections can detect an illicit discharge will greatly assist in the enforcement of the illicit discharges to the MS4 system. This inspection can help the Town in discontinuing existing illegal connections and discouraging future illicit discharges to the system. Once identified, appropriate enforcement action may be taken to track the discharge back to its source and ensure the illicit discharge or illegal connection is eliminated using BMPs 3-2 and 3-4 – (EC/FC, SED, and Nutrients).

Evaluation and Modification: The Town proposes to continue with its MS4 outfall inspection program to detect dry weather illicit discharges that enter its municipal separate storm sewer systems. No modifications are planned for this BMP, as it is required by the MS4 Permit. However, inspecting outfalls for the purpose of identifying illicit discharges and illegal connections has not yet proven to be successful.

Year	# Outfalls Inspected	# of Illicit Discharges Found
2013 - 2014 (Year 1)	15	None
2014 – 2015 (Year 2)	15	None
2015 – 2016 (Year 3)	18	None
2016 – 2017 (Year 4)	35	None

BMP 3-4. Illicit Discharge Program to Minimize Illicit Discharges

Goal: To detect, identify, and address non-stormwater discharges into the Town's regulated storm sewer system. The Illicit Discharge Detection and Elimination Program will have written procedures for the following components:

1. A prioritized schedule of field screening activities,
2. Minimum number of field screening activities to be performed annually,
3. Methodologies to collect general information,
4. A time frame upon which to conduct an investigation to identify and locate the source of any observed continuous or intermittent non-stormwater discharge.
5. Methodologies to determine the source of all illicit discharges.
6. Mechanisms to eliminate identified sources of illicit discharges.
7. Methods for conducting a follow-up investigation to verify that the discharge has been eliminated.
8. A mechanism to track all investigations to document the date(s) that the illicit discharge was observed and reported, results of investigation, any follow-up to the investigation, resolution of the investigation, and the date that the investigation was closed.

Measurable Goal: The Town has developed procedures to detect, address, and report illicit discharges that enter the Town's separate storm sewer system. The illicit discharge ordinance (BMP 3-2) includes procedures to address illicit discharges through enforcement process.

TMDL Consistency: An illicit discharge program will assist in locating illicit discharges to the MS4 system. This will give staff the methodology needed to screen, target and monitor the storm drain system in an effort to discover existing illegal connections to the Town's storm drain system (EC/FC, SED).

Evaluation and Modification: No modifications are planned for this BMP. The Town believes that the illicit discharge program is a critical component in the detection and elimination of illicit discharges to the Town's storm sewer system.

Complaints about illicit discharges can be called in to Vinton Public Works and Planning and Zoning Departments during normal business hours. Additionally, complaints/concerns can also be reported online by clicking on "Report a Concern" on the Town's homepage or by completing the "Illicit Discharge Reporting Form" that can be accessed from the Town's stormwater page. The Town Planning and Zoning Department keeps a record of complaints, inspections and correspondence concerning needed corrective actions to be taken concerning alleged illicit connections and discharges.

Year	# of Illicit Discharge Complaints Received	# Resolved and Closed
2013 - 2014 (Year 1)	N/A	N/A
2014 - 2015 (Year 2)	6	6
2015 - 2016 (Year 3)	6	6
2016 - 2017 (Year 4)	2	2