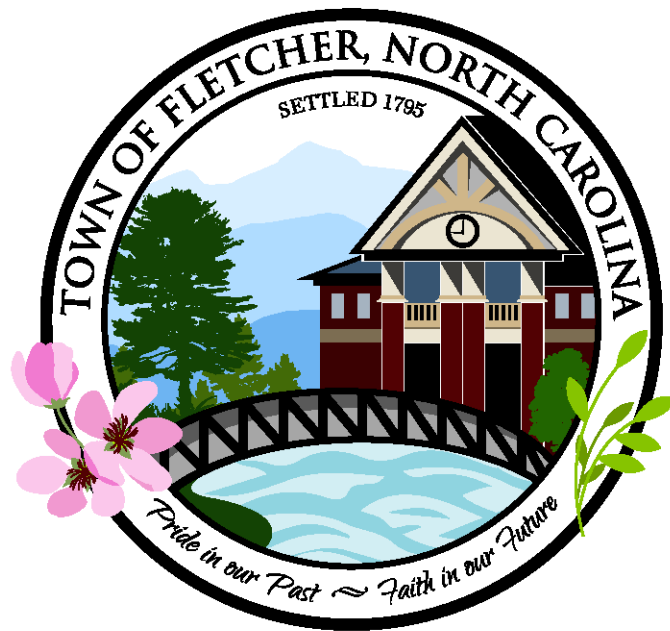


# Illicit Discharge Detection & Elimination Plan Town of Fletcher



Drafted 12/12/2022



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## Program Overview

### Purpose

The purpose of the Illicit Discharge Detection & Elimination (IDDE) Program is to identify, detect, and eliminate all non-stormwater discharges from the Town of Fletcher's Municipal Separate Storm Sewer System (MS4). In addition to the involvement of Town staff, it is recognized that public education and public involvement in pollution identification, detection, and prevention are key elements of a successful IDDE program for Fletcher. The IDDE program is required in the Town's National Pollutant Discharge Elimination System (NPDES) Phase II stormwater discharge permit issued by the State of North Carolina Department of Environmental Quality (DEQ). The person designated as the stormwater administrator will lead implementation of the IDDE program to help ensure that any identified illicit discharges and improper disposals are addressed in a timely and effective manner to reduce potential impacts on surface water quality.

Importantly, the IDDE program helps protect public and environmental health through elimination of illicit discharges to local receiving streams, some of which drain into sources of public drinking water supply.

### Responsibility and contact information

Calls to Town Hall or Public Works regarding potential illicit discharges, water pollution, and/or water quality problems are to be directed to the Planning Director, who serves as the stormwater administrator.

The town provides a Stormwater Hotline on town's website, see the [Stormwater page](#).

### Program components

The IDDE program consists of the following components:

- 1) A local ordinance prohibiting illicit discharges to the storm sewer and receiving surface waters within the jurisdiction of Town of Fletcher,
- 2) An inventory and map of Town of Fletcher MS4 outfalls and receiving surface waters,
- 3) A plan and process to identify, detect, and eliminate illicit discharges,
- 4) Integrated spill response procedures,
- 5) IDDE training for town staff, and
- 6) Public education, public outreach, and public involvement to enhance IDDE program effectiveness.

The IDDE plan for the program will be reviewed annually.

### IDDE tracking

The Town has developed and maintains an IDDE Program Database to log, track, and resolve illicit discharges and illicit connections. The Town will also document the results of dry weather outfall screening activities, spills and follow-up activities, findings from on-site/facility inspections, enforcement actions, Town employee IDDE training programs, and IDDE public education and public involvement activities.

Electronic files will be developed and maintained by the Town staff as appropriate.

### IDDE program legal authority

The Town of Fletcher has adopted an IDDE ordinance (Article 6 Sec. 6.6-6-19 Illicit Discharges) that provides adequate legal authority to implement and enforce the IDDE Program. The framework for the ordinance is based on the State of North Carolina Phase 2 model ordinance developed by the UNC School of Government.

## Illicit Discharge Detection & Response

### Identifying an illicit discharge

The determination of an Illicit Discharge (ID) is made by the Town Stormwater Administrator or designee based upon the routine, intentional, non-intentional, or habitual nature of the person or practice creating the incident or other determinations as needed. In general, an ID is any non-stormwater discharge with the following **exceptions**:

1. Drinking water line flushing
2. Discharge from emergency firefighting activities
3. Irrigation water
4. Diverted stream flows
5. Uncontaminated ground water
6. Uncontaminated pumped ground water
7. Discharges from potable water sources
8. Residential foundation/footing drains
9. Air conditioning condensation
10. Uncontaminated Springs
11. Water from crawl space pumps
12. Individual non-commercial car washing operations
13. Flows from riparian habitats and wetlands
14. Street wash water
15. Other non-stormwater discharges for which a valid NPDES discharge permit has been authorized and issued by the U.S. Environmental Protection Agency or by the State of North Carolina, and provided that any such discharges to the municipal separate storm sewer system shall be authorized by the Town of Fletcher.

**Typical IDs include**, but are not limited to, the following:

1. Wastewater lines (such as from washing machines)

2. Sanitary sewer lines
3. Food waste
4. Oil
5. Grease
6. Household, industrial and chemical waste
7. Anti-freeze
8. Animal waste
9. Paints
10. Paint wash water
11. Garbage
12. Litter
13. Swimming pool discharges
14. Leaves
15. Grass clippings
16. Dead plants.

**Illicit connections are also prohibited** and include connections to a stormwater conveyance or stormwater conveyance system that allow the discharge of non-stormwater, other than the exclusions described in Section 6.6.B, are unlawful. Prohibited connections include, but are not limited to: Industrial/commercial floor drains, wastewater or sanitary sewers, wash water from commercial vehicle washing or steam cleaning, and wastewater from septic systems.

**An ID may generally be discovered in one of the following ways:**

- field observations, notifications, and/or complaints (from citizens or staff)
- dry weather screening at MS4 outfalls
- spills
- sampling
- on-site/facility inspections
- special studies (such as stormwater system field inventory and mapping).

#### [Field observations, notifications, and complaints](#)

The Stormwater Administrator and/or Staff may notice potential problems as they conduct routine site inspections, perform maintenance work or repairs, or perform other field-based activities. Information

may also come as a complaint from residents, businesses, or other concerned parties via the Stormwater Hotline on the Stormwater webpage.

#### Stormwater Hotline SOP

1. Calls and reports are directed to the Stormwater Administrator.
2. The potential ID will be evaluated within 24 hours of the report.

The Stormwater Administrator or designee will determine the nature of the complaint and conduct a full investigation (see below). Note: If the complaint call is regarding a spill, then the steps for handling a spill in the following section need to be followed.

3. The results of the investigation are recorded in the IDDE Program Database.

#### ID investigation

Incidences can range widely in nature, but generally the investigation entails determining the nature of the complaint and whether there is a discharge to the receiving stream and/or impact to water quality. If a discharge or noted impact is deemed legitimate, the responsible individual or party is tracked down, the discharge or problem resolved, and the responsible party educated on the nature of the violation. The original caller is also informed of what actions took place to remedy the situation.

Investigation of suspicious discharges will be made by visual inspection and/or testing of discharges within the storm drainage system upstream of the suspicious discharge. Other options that may be considered in locating illicit discharges or illicit connections include televising the storm sewer or dye testing facilities in the area where there is a discharge. Letters may also be sent to residents and businesses alerting them to the problem that is under investigation to solicit their assistance in finding the source.

In general, the following steps should be followed to investigate an ID report:

1. The Stormwater Administrator or designee assigned to the incident can use the MS4 FieldMap app or may print a drainage system inventory map of the area(s) surrounding the ID (or potential ID). Town personnel or other involved parties may also have other information pertinent to the case. From the information gathered, and the stormwater system mapping, the probable path of the ID will be determined, and the field investigation will promptly follow.
2. In the field, the Stormwater Administrator or designee will initially track the ID through the stormwater conveyance system via visual inspection and investigation.
  - Note: The potential ID may or may not have reached a Town MS4 outfall.
3. If the source of the problem is not readily identified through a visual inspection, the Town may conduct and/or organize other tracking methods, such as dye testing, smoke testing, system televising procedures, etc.
4. When the source is determined, the responsible person or party will be identified, if possible.
5. The Stormwater Administrator will interview involved parties, document and photograph any pertinent findings, and ensure that the responsible party (if one can be identified) is educated so that the ID incident is not repeated.

6. The responsible party must take appropriate corrective action for ID clean-up. Correction action could be cleaning it up directly or contracting with an environmental cleaning service to clean up the impacted area.

7. If enforcement is necessary, the enforcement guidance and criteria in the IDDE ordinance should be followed.

### Spills

In the case of accidental discharges, the responsible party shall immediately begin to collect and remove the discharge and restore all affected areas to their original condition. The responsible party shall immediately notify the Town of Fletcher of the accidental discharge including the location of the discharge, type of pollutant, volume or quantity discharges, time of discharge and the corrective actions taken. Notification shall not relieve any person of any expenses related to the restoration, loss, damage, or any other liability which may be incurred as a result of said spill or leak, nor shall such notification relieve any person from other liability which may be imposed by State or other law.

For major spills and hazardous materials, the primary responders will be the appropriate contracted Fire Department, Henderson County Emergency Services, HAZMAT Team, and/or the County Health Department.

Where required, the key role of the Stormwater Administrator in case of a spill, is to help advise the primary responders (Fire, HAZMAT, other) regarding connectivity of the local storm sewer system and stream network. Additionally, the Stormwater Administrator will follow up with clean-up companies, the responding fire chief, and others to see that effects of the spill were adequately mitigated and that any issues have been resolved.

The Stormwater Administrator may also act as a liaison between different parties, if necessary, to ensure full cooperation with all involved groups.

### Dry weather screening of MS4 outfall

The purpose of the dry-weather screening program is to identify, track, and eliminate potential IDs from the MS4. Dry-weather screening focuses on all known MS4 outfall within the Town of Fletcher jurisdiction. If there is a flow present from a MS4 outfall during dry-weather conditions, then the flow is either an appropriate non-stormwater discharge such as uncontaminated groundwater seepage into the storm sewer system OR a potential illicit discharge. The dry-weather screening/sampling program will seek to document and classify the nature of discharges from MS4 outfalls during non-storm event periods. Identification and elimination of any continuous, intermittent, or transitory sewage or septic system discharges are the highest priority for the program.

Frequency of MS4 Outfall Screenings: The Town will seek to perform at least one dry- weather screening on each MS4 outfall in priority areas during its five-year Phase II permit period.

#### **Basic steps in the dry-weather screening of MS4 outfalls will include:**

1. Maintain an inventory map of MS4 outfalls and streams within Fletcher.
2. Perform a dry-weather condition field inspection of each MS4 outfall.



- The best time for dry-weather surveys is generally during leaf-off seasons, but do not limit program implementation based on season. Always perform dry-weather screenings no earlier than 48 hours following a rainfall event. Always maintain basic safety and first aid equipment during field inspections. Where possible, a two-person crew should perform the outfall assessment and screening. Always maintain proper identification as a Town employee or authorized stormwater services contractor.

3. Utilize the ID Form in the MS4 FieldMap app or appropriate documentation developed by the Stormwater Administrator to document findings. If flow is present an email will be automatically sent to the Stormwater Administrator for follow-up investigation.

4. If an ID is suspected, track the source of the ID up the contributory drainage system. Businesses, residential properties, and other upstream facilities may need to be visited to track down and eliminate the ID, as the source may be intermittent or transitory.

5. Prioritize regular MS4 outfall inspection program by actual findings and analysis of contributory land uses within watershed.

- a. Industrial and commercial land uses are highest priority.
- b. Institutional, public, and multi-family residential are second tier priority.
- c. Older single-family residential are third tier priority.
- d. Newer single-family residential are fourth tier priority.

### Documenting an illicit discharge

Documenting ID investigations and resolutions, especially those resulting in the issuance of an NOV letter, is a critical step in implementing the IDDE program for the Town of Fletcher. In addition, ID cases where responsible parties are assessed fines must have proper documentation in order to decrease the risk of an unsupported claim. IDs will be photo-documented, and pertinent information will be recorded in the IDDE Program Database or other files. The ID Form (see standard form in forms and document section) will be useful for recording data in the field. Any digital photos will be put into an electronic folder for future reference. NOV letters or other correspondence pertaining to the ID will be saved in electronic form in a folder to be filed with the Stormwater Administrator.

## Illicit Discharge Education Program

### Employee Training

In addition to ongoing coordination with the Stormwater Administrator, the Town trains municipal employees to identify and eliminate illicit discharges. The training is given to full-time and part-time employees with field-based responsibilities within the first year hired.

### Public Education

The Town will continue to integrate the illicit discharge program into its overall stormwater public education and public involvement activities. The Town recognizes that the most successful IDDE program for Fletcher must and will involve the education, awareness, and involvement of each member of the community.

### Used Oil & Hazardous Waste Management

Henderson County operates the Household Hazardous Waste (HHW) program. Residents and businesses will be encouraged to utilize the HHW facility when applicable.

### On-Site Wastewater Treatment

Henderson County Health Department has authority over on-site wastewater treatment systems within Henderson County including the Town of Fletcher. If a potential ID from a failing septic system is identified it will be reported to Henderson County, and the resulting action taken will be documented.

### Potential Pollution Generators

The goal of this outreach is to identify and educate potential polluters before there is a problem, thereby preventing illicit discharges, illicit connections and improper disposals to the stormwater conveyance and stream system. More specifically, this group incorporates local commercial, industrial, and public facilities. This education program is designed to raise awareness among the commercial and industrial community about water quality concerns, non-point source pollution, and other stormwater issues. The Town will always respond to individual complaints and/or requests for site review, as they may arise.

# Forms and Documentation

## Dry Weather Screening and IDDE Follow-up

The following form can be accessed via the Town's MS4 FieldMap app, and provides both a mechanism for recording an ID and for documenting follow-up actions.

12:51  
Field Maps

MS4 Outfall Inspections Fletcher

Choose Inspection Type: \*

Outfall Inspection  IDDE Inspection

▼ IDDE Inspection

Is dry weather flow present?

No  Yes

Oil/Sheen?

No  Yes  Not Assessed

Odor?

No  Yes  Not Assessed

Color?

No  Yes  Not Assessed

Sedimentation?

No  Yes  Not Assessed

Staining?

No  Yes  Not Assessed

Turbidity?

No  Yes  Not Assessed

✓

12:52  
Field Maps

MS4 Outfall Inspections Fletcher

Staining?

No  Yes  Not Assessed

Turbidity?

No  Yes  Not Assessed

List other characteristics observed

Discharge Comments

Follow-Up Management Actions

To be populated after a follow-up visit and/or implementation of management actions

Image 1 \*

Take a photo (required)

Image 2

Take a photo (optional)

✓

Figure 1. IDDE Form, screen 1

Figure 2. IDDE Form, screen 2

## IDDE Program Database

All ID reports and follow-up actions are maintained in a Survey123 database available through ArcGIS Online and hosted by Land of Sky Regional Council.

The screenshot displays the ArcGIS Survey123 interface for a survey titled "Stormwater System Inspection Fletcher". The interface includes a navigation bar with "Overview", "Design", "Collaborate", "Analyze", "Data", and "Settings" options. Below the navigation bar, there are controls for date range (12/9/21 - 12/15/21), filter, report, export, and map viewer options. A map of the world is visible in the background. Below the map, a data table is shown with the following columns: Date, Inspector, Grate Condition, Box Condition, Outfall Condition, Debris Present?, Vegetation Present?, Maintenance Required?, Maintenance Comments, Priority, Dry weather flow?, Precipitation in past 48hrs?, and Flow Amount Description. A dropdown menu is open over the "Maintenance Required?" column, showing "Sort Ascending" and "Sort Descending" options. The table contains six rows of data.

Date	Inspector	Grate Condition	Box Condition	Outfall Condition	Debris Present?	Vegetation Present?	Maintenance Required?	Maintenance Comments	Priority	Dry weather flow?	Precipitation in past 48hrs?	Flow Amount Description
12/11/2021, 1:46	Scott	Good	Good	Good	No	No	No		Low	No		
12/11/2021, 2:20	Scott	Good	Good	Good	No	No	No			Yes	Yes	High
12/11/2021, 2:25	Scott	Good	Good	Good	No	No	No		Low	Yes	No	High
12/11/2021, 3:02	Scott	Good	Good	Good	No	No	Yes		High	Yes		
12/11/2021, 3:05	Scott	Good	Good	Good	No	No	No		Low	Yes	Yes	Low
12/15/2021, 12:43	Mary	Good	Good	Good	No	No	No		Low	No		

Figure 3. IDDE Program Database