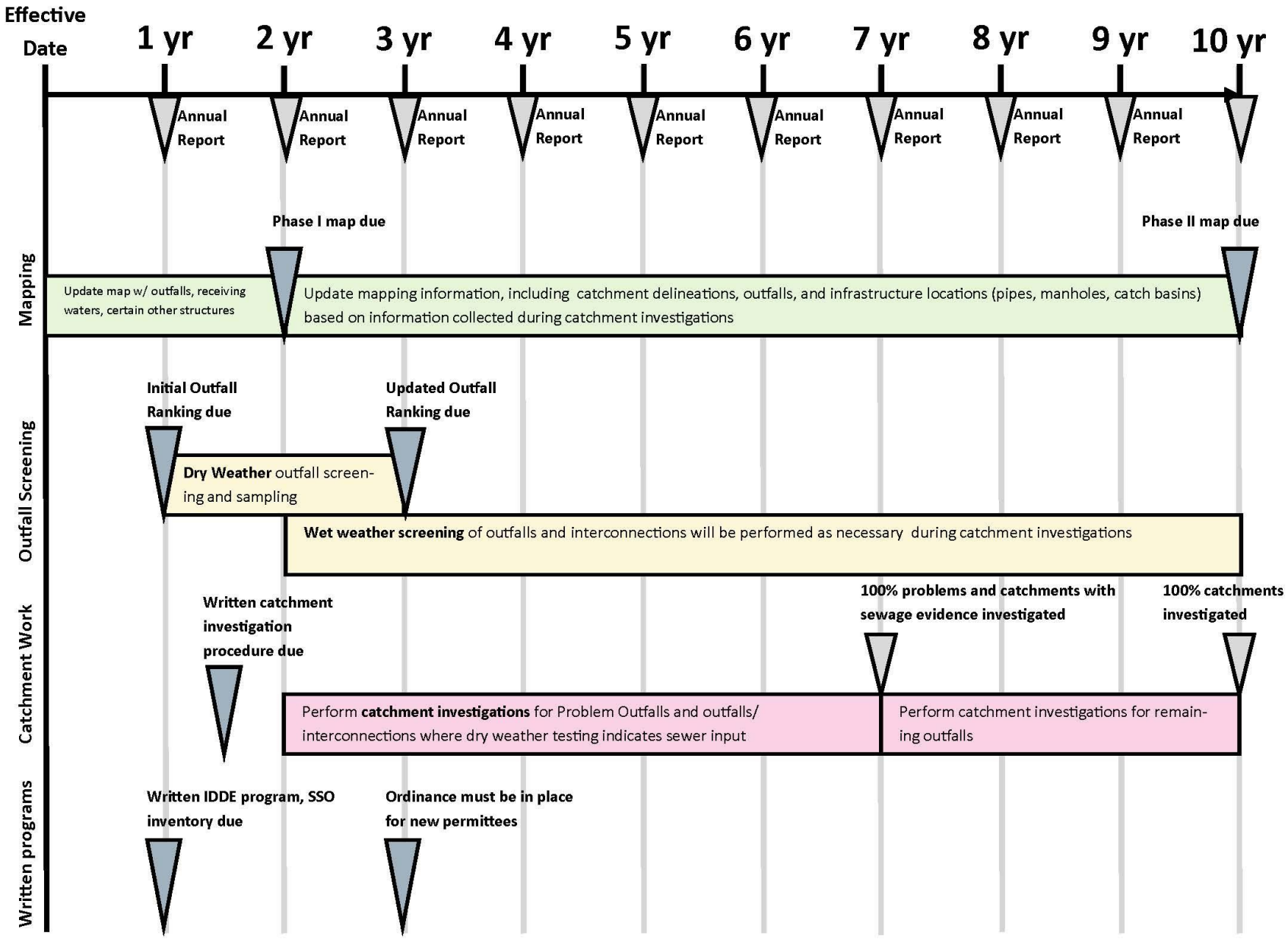
Illicit Discharge Detection and Elimination (IDDE) Plan

Town of Milford, NH

Prepared By:
Manchester/Nashua Stormwater Coalition
&
Town of Milford
Office of Community Development
Public Works Department

Revised April 2023, Permit Year 5

EPA NPDES Permit Number NHR041019


Effective Date
1 yr
2 yr
3 yr
4 yr
5 yr
6 yr
7 yr
8 yr
9 yr
10 yr
Annual Report
Mapping
Phase I map due
Phase II map due
Update map w/ outfalls, receiving waters, certain other structures
Update mapping information, including catchment delineations, outfalls, and infrastructure locations (pipes, manholes, catch basins) based on information collected during catchment investigations
Outfall Screening
Initial Outfall Ranking due
Updated Outfall Ranking due
Dry Weather outfall screening and sampling
Wet weather screening of outfalls and interconnections will be performed as necessary during catchment investigations
Catchment Work
Written catchment investigation procedure due
100% problems and catchments with sewage evidence investigated
100% catchments investigated
Perform catchment investigations for Problem Outfalls and outfalls/ interconnections where dry weather testing indicates sewer input
Perform catchment investigations for remaining outfalls
Written programs
Written IDDE program, SSO inventory due
Ordinance must be in place for new permittees

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1 IDDE Program Implementation Timeline

1.1 MS4 Program

This Illicit Discharge Detection and Elimination (IDDE) Plan has been developed by the Town of Milford to address the requirements of the United States Environmental Protection Agency's (USEPA's) 2017 National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) in New Hampshire, hereafter referred to as the "2017 New Hampshire MS4 Permit" or "MS4 Permit."

The 2017 New Hampshire MS4 Permit requires that each permittee, or regulated community, address six Minimum Control Measures. These measures include the following:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination Program
4. Construction Site Stormwater Runoff Control
5. Stormwater Management in New Development and Redevelopment (Post Construction Stormwater Management); and
6. Good Housekeeping and Pollution Prevention for Permittee Owned Operations.

Under Minimum Control Measure 3, the permittee is required to implement an IDDE program to systematically find and eliminate sources of non-stormwater discharges to its municipal separate storm sewer system and implement procedures to prevent such discharges. The IDDE program must also be recorded in a written (hardcopy or electronic) document. This IDDE Plan has been prepared to address this requirement.

1.2 Illicit Discharges

An "illicit discharge" is any discharge to a drainage system that is not composed entirely of stormwater, with the exception of discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from fire-fighting activities.

Illicit discharges may take a variety of forms. Illicit discharges may enter the drainage system through direct or indirect connections. Direct connections may be relatively obvious, such as cross-connections of sewer services to the storm drain system. Indirect illicit discharges may be more difficult to detect or address, such as failing septic systems that discharge untreated sewage to a ditch within the MS4, or a sump pump that discharges contaminated water on an intermittent basis.

Some illicit discharges are intentional, such as dumping used oil (or other pollutant) into catch basins, a resident or contractor illegally tapping a new sewer lateral into a storm drain pipe to avoid the costs of a sewer connection fee and service, and illegal dumping of yard wastes into surface waters.

Some illicit discharges are related to the unsuitability of original infrastructure to the modern regulatory environment. Examples of illicit discharges in this category include connected floor drains in old buildings, as well as sanitary sewer overflows that enter the drainage system. Sump pumps legally connected to the storm drain

system may be used inappropriately, such as for the disposal of floor washwater or old household products, in many cases due to a lack of understanding on the part of the homeowner.

Elimination of some discharges may require substantial costs and efforts, such as funding and designing a project to reconnect sanitary sewer laterals. Others, such as improving self-policing of dog waste management, can be accomplished by outreach in conjunction with the minimal additional cost of dog waste bins and the municipal commitment to disposal of collected materials on a regular basis.

Regardless of the intention, when not addressed, illicit discharges can contribute high levels of pollutants, such as heavy metals, toxics, oil, grease, solvents, nutrients, and pathogens to surface waters.

1.3 Allowable Non-Stormwater Discharges

The following categories of non-storm water discharges are allowed under the MS4 Permit unless the permittee, USEPA identifies any category or individual discharge of non-stormwater discharge as a significant contributor of pollutants to the MS4:

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20))
- Uncontaminated pumped groundwater
- Discharge from potable water sources
- Foundation drains
- Air conditioning condensation
- Irrigation water, springs
- Water from crawl space pumps
- Footing drains
- Lawn watering
- Individual resident car washing
- De-chlorinated swimming pool discharges
- Street wash waters
- Residential building wash waters without detergents

If these discharges are identified as significant contributors to the MS4, they must be considered an “illicit discharge” and addressed in the IDDE Plan (i.e., control these sources so they are no longer significant contributors of pollutants, and/or eliminate them entirely).

Figure 1-1. IDDE Investigation Procedure Framework

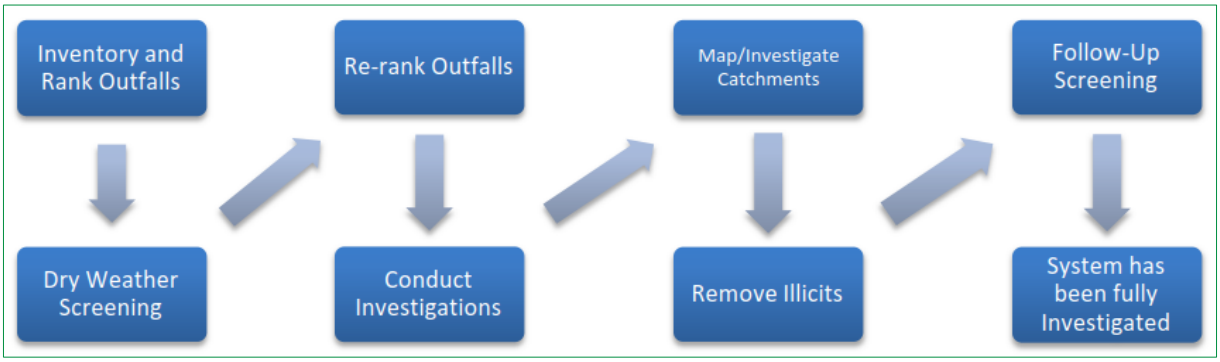


Table 1-1. IDDE Program Implementation Timeline

IDDE Program Requirement	***Completed***	***To be Completed in Upcoming Permit Years***	
	Permit Years 1- 5	***Year 7***	***Year 10***
Written IDDE Program Plan	***X***		
SSO Inventory	***X***		
Initial Outfall Ranking	***X***		
Written Catchment Investigation Procedure	***X***		
Phase I Mapping	***X***		
Phase II Mapping			***X***
IDDE Regulatory Mechanism or By-law (if not already in place)	***X***		
Dry Weather Outfall Screening	***X***		
Follow-up Ranking of Outfalls and Interconnections	***X***		
Catchment Investigations – Problem Outfalls		***X***	
Catchment Investigations – all Problem, High and Low Priority Outfalls			***X***

Effective date of the permit is July 1, 2018

2 Authority and Statement of IDDE Responsibilities

2.1 Legal Authority

Chapter V, Section 5.28 of the Town of Milford Municipal Code entitled Surface and Groundwater Protection provides the town with adequate legal authority to:

- Prohibit illicit discharges
- Investigate suspected illicit discharges
- Eliminate illicit discharges, including discharges from properties not owned by or controlled by the MS4 that discharge into the MS4 system
- Implement appropriate enforcement procedures and actions.

A copy of the bylaw is included in Appendix A. The Town of Milford will review its current bylaws and related land use regulations and policies for consistency with the 2017 MS4 Permit.

2.2 Statement of Responsibilities

The IDDE Program shall be the responsibility of the Board of Selectmen. The Office of Community Development and Public Works Department shall be responsible for implementing stormwater components. The Water and Waste Water Utilities Department shall be responsible for implementing wastewater components. The Board of Selectmen and Planning Board shall be responsible for implementing and enforcing required ordinances.

Point of Contact for Illicit Discharge:

a. Public Works Director, Leo Lessard, 603-249-0685
b. Town Engineer, Nicole Crawford, 603-249-0620

3 Stormwater System Mapping

A copy of the existing storm system map is provided in **Appendix B**.

The MS4 Permit requires the storm system map to be updated in two phases as outlined below. The Community Development Office is responsible for updating the stormwater system mapping pursuant to the 2017 MS4 Permit. The Town of Milford will report on the progress towards completion of the storm system map in each annual report. Updates to the stormwater mapping will be included in **Appendix B**.

3.1 Phase I Mapping

Phase I mapping must be completed within two (2) years of the effective date of the permit (July 1, 2020) and include the information per Part 2.3.4.5.a of the MS4 Permit.

- Outfalls and receiving waters (previously required by the MS4-2003 permit)
- Open channel conveyances (swales, ditches, etc.)
- Interconnections with other MS4s and other storm sewer systems
- Municipally owned stormwater treatment structures
- Water bodies identified by name and indication of all use impairments as identified on the most recent EPA approved Massachusetts Integrated List of Waters report
- Initial catchment delineations. Topographic contours and drainage system information may be used to produce initial catchment delineations.

3.2 Phase II Mapping

Phase II mapping must be completed within ten (10) years of the effective date of the permit (July 1, 2028) and include the information per Part 2.3.4.5.b of the MS4 Permit.

- Outfall spatial location (latitude and longitude with a minimum accuracy of +/-30 feet)
- Pipes
- Manholes
- Catch basins
- Refined catchment delineations. Catchment delineations must be updated to reflect information collected during catchment investigations.
- Municipal Sanitary Sewer system (if available)
- Municipal combined sewer system (if applicable).

4 Sanitary Sewer Overflows (SSOs)

Town of Milford has no Sanitary Sewer Overflows (SSOs).

Discharges of wastewater from any point sources, including sanitary sewer overflows (SSO's) shall be reported in accordance with Part II, Section D.1.e. of the General Requirements of the Publicly Owned Treatment Works General Permit.

5 Assessment and Priority Ranking of Outfalls

The MS4 Permit requires an assessment and priority ranking of outfalls in terms of their potential to have illicit discharges related to public health significance. The ranking helps determine the priority order for performing IDDE investigations and meeting permit milestones.

5.1 Outfall Catchment Delineations

The catchments for each of the MS4 outfalls will be delineated to define contributing areas for investigation of potential sources of illicit discharges. Initial catchment delineations will be completed as part of the Phase I mapping, and refined catchment delineations will be completed as part of the Phase II mapping to reflect information collected during catchment investigations.

5.2 Outfall and Interconnection Inventory and Initial Ranking

In Permit Year 1 the Community Development Office and Public Works Department completed an initial outfall and interconnection inventory and priority ranking to assess illicit discharge potential based on existing information. An updated inventory and ranking has been included in each annual report thereafter. The inventory will continue to be updated annually to include data collected in connection with dry weather screening and other relevant inspections.

Outfalls and interconnections are classified into one of the following categories:

1. **Excluded outfalls**: Outfalls/interconnections with no potential for illicit discharges including roadway drainage in undeveloped areas with no dwellings and no sanitary sewers; drainage for athletic fields, parks or undeveloped green space and associated parking without services; cross-country drainage alignments (that neither cross nor are in proximity to sanitary sewer alignments) through undeveloped land.

2. **Problem Outfalls**: Outfalls/interconnections with known or suspected contributions of illicit discharges based on existing information shall be designated as Problem Outfalls. This shall include any outfalls/interconnections where previous screening indicates likely sewer input. Problem Outfalls need not be screened pursuant to Dry Weather Outfall and Interconnection Screening and Sampling. Likely sewer input indicators are any of the following:
    - Olfactory or visual evidence of sewage,
    - Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and bacteria levels greater than the water quality criteria applicable to the receiving water, or
    - Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and detectable levels of chlorine.

3. **High Priority Outfalls**: Outfalls/interconnections that have not been classified as Problem Outfalls and that are:
    - Discharging to an area of concern to public health due to proximity of public beaches, recreational areas, drinking water supplies or shellfish beds
    - Determined by the permittee as high priority based on the characteristics listed in **Appendix C**.

4. **Low Priority Outfalls**: Outfalls/interconnections determined by the permittee as low priority based on the characteristics listed below or other available information.

Outfalls are ranked into the above priority categories (except for excluded outfalls, which may be excluded from the IDDE program) based on the following characteristics of the defined initial catchment areas, where information is available. To prioritize initial mapping and outfall assessment work the permittee is using location-specific characteristics of water body impairments to focus initial work as included in **Appendix B.** For the initial outfall ranking and catchment investigations this approach targets the worst areas first.

- **Previous screening results** – previous screening/sampling results indicate likely sewer input (see criteria above for Problem Outfalls).

- **Past discharge complaints and reports.**

- **Density of generating sites** – Generating sites are those places, including institutional, municipal, commercial, or industrial sites, with a potential to generate pollutants that could contribute to illicit discharges. Examples of these sites include, but are not limited to, car dealers; car washes; gas stations; garden centers; and industrial manufacturing areas.

- **Age of development and infrastructure** – Industrial areas greater than 40 years old and areas where the sanitary sewer system is more than 40 years old will probably have a high illicit discharge potential. Developments 20 years or younger will probably have a low illicit discharge potential.

- **Sewer conversion** – Contributing catchment areas that were once serviced by septic systems, but have been converted to sewer connections may have a high illicit discharge potential.

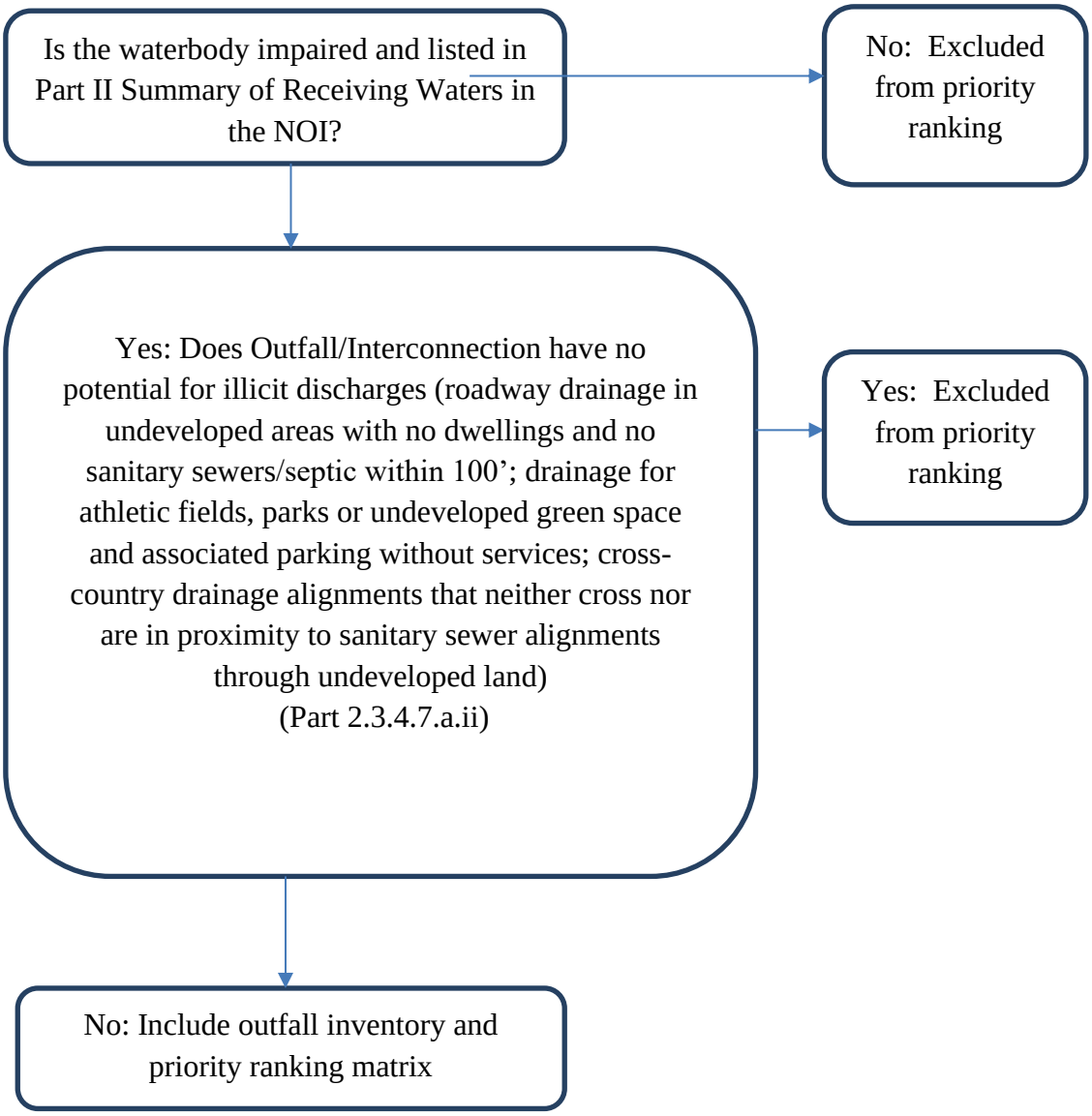
- **Historic combined sewer systems** – Contributing areas that were once serviced by a combined sewer system, but have been separated may have a high illicit discharge potential.

- **Surrounding density of aging septic systems** – Septic systems thirty years or older in residential land use areas are prone to have failures and may have a high illicit discharge potential.

- **Culverted streams** – Any river or stream that is culverted for distances greater than a simple roadway crossing may have a high illicit discharge potential.

- **Water quality limited waterbodies** that receive a discharge from the MS4 or waters with approved TMDLs applicable to the permittee, where illicit discharges have the potential to contain the pollutant identified as the cause of the water quality impairment.

The following is an initial outfall prioritization flowchart, see Appendix C for an outfall inventory and priority ranking matrix:



6 Dry Weather Outfall Screening and Sampling

Dry weather flow is a common indicator of potential illicit connections. The MS4 Permit requires all outfalls/interconnections (excluding Problem and Excluded Outfalls) to be inspected for the presence of dry weather flow. The Community Development Office and Public Works Department are responsible for conducting dry weather outfall screening, starting with High Priority outfalls, followed by Low Priority outfalls, based on the initial priority rankings described in the previous section by the end of Year 3.

Dry weather outfall Screening and Sampling shall be completed in accordance with Part 2.3.4.7.b of the MS4 Permit. Plans and procedures for such screening and sampling shall be incorporated into this plan.

6.1 Dry Weather Screening/Sampling Procedure

6.1.1 General Procedure

The dry weather outfall inspection and sampling procedure consists of the following general steps:

1. Identify outfall(s) to be screened/sampled based on initial outfall inventory and priority ranking
2. Acquire the necessary staff, mapping, and field equipment (see **Table 6-1** for list of potential field equipment)
3. Conduct the outfall inspection during dry weather:
   a. Mark and photograph the outfall
   b. Record the inspection information and outfall characteristics (using paper forms or digital form using a tablet or similar device) (see form in **Appendix D**)
   c. Look for and record visual/olfactory evidence of pollutants in flowing outfalls including odor, color, turbidity, and floatable matter (suds, bubbles, excrement, toilet paper or sanitary products). Also observe outfalls for deposits and stains, vegetation, and damage to outfall structures.
4. If flow is observed, sample and test the flow following the procedures described in the following sections.
5. If no flow is observed, but evidence of illicit flow exists (illicit discharges are often intermittent or transitory), revisit the outfall during dry weather within one week of the initial observation, if practicable, to perform a second dry weather screening and sample any observed flow. Other techniques can be used to detect intermittent or transitory flows including conducting inspections during evenings or weekends and using optical brighteners.
6. Input results from screening and sampling into spreadsheet/database. Include pertinent information in the outfall/interconnection inventory and priority ranking.
7. Include all screening data in the annual report.

6.1.2 Field Equipment

Table 6-1. Field Equipment – Dry Weather Outfall Screening and Sampling

Equipment	Use/Notes
Clipboard	For organization of field sheets and writing surface
Field Sheets	Field sheets for both dry weather inspection and Dry weather sampling should be available with extras
Chain of Custody Forms	To ensure proper handling of all samples

Equipment	Use/Notes
Pens/Pencils/Permanent Markers	For proper labeling
Nitrile Gloves	To protect the sampler as well as the sample from contamination
Flashlight/headlamp w/batteries	For looking in outfalls or manholes, helpful in early mornings as well
Cooler with Ice	For transporting samples to the laboratory
Digital Camera	For documenting field conditions at time of inspection
Personal Protective Equipment (PPE)	Reflective vest, Safety glasses and boots at a minimum
GPS Receiver	For taking spatial location data
Water Quality Sonde	If needed, for sampling conductivity, temperature, pH
Water Quality Meter	Hand held meter, if available, for testing for various water quality parameters such as ammonia, surfactants and chlorine
Test Kits	Have extra kits on hand to sample more outfalls than are anticipated to be screened in a single day
Label Tape	For labeling sample containers
Sample Containers	Make sure all sample containers are clean. Keep extra sample containers on hand at all times. Make sure there are proper sample containers for what is being sampled for (i.e., bacteria requires sterile containers).
Pry Bar or Pick	For opening catch basins and manholes when necessary
Sandbags	For damming low flows in order to take samples
Small Mallet or Hammer	Helping to free stuck manhole and catch basin covers
Utility Knife	Multiple uses
Measuring Tape	Measuring distances and depth of flow
Safety Cones	Safety
Hand Sanitizer	Disinfectant/decontaminant
Zip Ties/Duct Tape	For making field repairs
Rubber Boots/Waders	For accessing shallow streams/areas
Sampling Pole/Dipper/Sampling Cage	For accessing hard to reach outfalls and manholes

6.1.3 Sample Collection and Analysis

If flow is present during a dry weather outfall inspection, a sample will be collected and analyzed for the required permit parameters[1]. The general procedure for collection of outfall samples is as follows:

1. Fill out all sample information on sample bottles and field sheets (see **Appendix D** for Sample Labels and Field Sheets)
2. Put on protective gloves (nitrile/latex/other) before sampling
3. Collect sample with dipper or directly in sample containers. If possible, collect water from the flow directly in the sample bottle. Be careful not to disturb sediments.

4. If using a dipper or other device, triple rinse the device with distilled water and then in water to be sampled (not for bacteria sampling)
5. Use test strips, test kits, and field meters (rinse similar to dipper) for most parameters (see **Table 6-1**)
6. Place laboratory samples on ice for analysis of bacteria and pollutants of concern
7. Fill out chain-of-custody form (**Appendix D**) for laboratory samples
8. Deliver samples to Milford Water Treatment Facility
9. Dispose of used test strips and test kit ampules properly
10. Decontaminate all testing personnel and equipment

In the event that an outfall is submerged, either partially or completely, or inaccessible, field staff will proceed to the first accessible upstream manhole or structure for the observation and sampling and report the location with the screening results. Field staff will continue to the next upstream structure until there is no longer an influence from the receiving water on the visual inspection or sampling.

Field test kits or field instrumentation are permitted for all parameters except indicator bacteria and any pollutants of concern. Field kits need to have appropriate detection limits and ranges.

6.2 Follow-up Ranking of Outfalls and Interconnections

The outfall and interconnection rankings have been completed but will continue to be updated and re-prioritized as needed based on information gathered during dry weather screening.

It is noted that outfalls/interconnections where relevant information is found indicating sewer input to the MS4 or sampling results indicating sewer input are highly likely to contain illicit discharges from sanitary sources. Such outfalls/interconnections will be ranked at the top of the High Priority Outfalls category for investigation.

7 Catchment Investigations

Once stormwater outfalls with evidence of illicit discharges have been identified, various methods can be used to trace the source of the potential discharge within the outfall catchment area. Catchment investigation techniques include but are not limited to review of maps, historic plans, and records; manhole observation; dry and wet weather sampling; video inspection; smoke testing; and dye testing.

Catchment Investigations shall be completed in accordance with Part 2.3.4.8 of the MS4 Permit. A written catchment investigation procedure has been developed and incorporated into this plan.

Investigations of catchments associated with Problem Outfalls shall begin no later than two (2) years from the permit effective date and shall be completed within seven (7) years.

7.1 Illicit Discharge Removal

When the specific source of an illicit discharge is identified, the Town of Milford will exercise its authority as necessary to require its removal. The annual report will include the status of IDDE investigation and removal activities including the following information for each confirmed source:

- The location of the discharge and its source(s)
- A description of the discharge
- The method of discovery
- Date of discovery
- Date of elimination, mitigation or enforcement action OR planned corrective measures and a schedule for completing the illicit discharge removal
- Estimate of the volume of flow removed.

8 Training

Annual IDDE training will be made available to employees involved in the IDDE program. This training will at a minimum include information on how to identify illicit discharges and SSOs and may also include additional training specific to the functions of particular personnel and their function within the framework of the IDDE program. Training records will be maintained in **Appendix F**. The frequency and type of training will be included in the annual report.

9 Progress Reporting

The progress and success of the IDDE program will be evaluated on an annual basis. The evaluation will be documented in the annual report and will include the following indicators of program progress:

- Number of SSOs and illicit discharges identified and removed
- Number and percent of total outfall catchments served by the MS4 evaluated using the catchment investigation procedure
- Number of dry weather outfall inspections/screenings
- Number of wet weather outfall inspections/sampling events
- All dry weather and wet weather screening and sampling results
- Estimate of the volume of sewage removed, as applicable
- Number of employees trained annually.

The success of the IDDE program will be measured by the IDDE activities completed within the required permit timelines.

Appendix A

Legal Authority (IDDE Bylaw or Ordinance)

Town Municipal Code, Chapter V, Section 5.28
Surface and Groundwater Protection

Chapter 5.28 Surface and Groundwater Protection

Sections

5.28.010 Authority

The health ordinance codified in this chapter was recommended by the health officer and approved by the board of health of Milford under the authority granted in NH RSA 147:1, entitled “Local Regulations.” (Ord. 9-20-99, § I)

5.28.020 Purpose

To provide for the prevention of groundwater pollution of the town’s only remaining municipal source of drinking water and protection of other potential sources of drinking water. (Ord. 9-20-99, § II)

5.28.030 Inventory of potential contamination sources (PCSs)

An inventory of potential contamination sources that are located within the stratified drift aquifer and potential drainage to all surface waters was prepared prior to the adoption of the health ordinance codified in this chapter.

A. Place of Filing. The inventory, which is on file in the office of the health officer, is available for public review during regular business hours.
B. Inventory Update. The health officer shall update the inventory of potential contamination sources at least once every three years. (Ord. 9-20-99, § III)

5.28.040 Local groundwater and surface water protection management program

A. Applicability.
    1. This chapter shall apply to all land uses that are referenced in Section 5.28.030 as potential contamination sources located within the following areas in the town.
    2. The Wellhead Protection District is delineated on a map that is available for public viewing in the Office of Community Development, Town Hall.
B. Best Management Practices (BMPs) Required. Best Management Practices described in NH Department of Environmental Services Environmental Fact Sheet WD-DWGB22-4 2009 or as subsequently amended of this Health Code and State Administrative Rules ENV-WS 421, or as subsequently amended shall be utilized by all potential contamination sources in New Hampshire inaccordance with the Groundwater Protection Act of 1991, including those located within the area delineated for protection in Milford.
C. Notification of Potential Contamination Sources Landowners. Each potential contamination source owner shall receive a notification letter from the health officer at least once every three years which indicates:
    1. The date when the health officer will perform the next site inspection;
    2. The purpose of that inspection; and

3. A statement that activities performed on site are subject to the Best Management Practices required by subsection B of this section.

D. Site Inspection Required.
   1. The local health officer shall inspect all potential contamination sources located within areas of groundwater and surface waters in order to insure compliance with Best Management Practices at intervals not to exceed once every three years.
   2. The health officer shall fill out an inspection form upon completion of each inspection. The health officer, at no cost to the owner, shall perform the initial inspection. One copy of the form shall be provided to the potential contamination source owner and one copy shall be kept in the official records of the health officer.

E. Determination of compliance with or violation of Best Management Practices.
   1. Certificate of Compliance.
      1. A certificate of compliance shall be issued by the health officer, if the potential contamination source is found to employ Best Management Practices, based upon a site inspection performed in accordance with subsection D of this section. The certificate shall be good for a period of three years.
      2. A certificate of compliance, issued in accordance with this chapter, is not intended in any way to limit the powers of the health officer to enter property to perform additional inspections for the purpose of administration of this chapter.
   2. Written warning of violation.
      1. A written warning of violation shall be issued by the health officer:
         1. If the potential contamination source is found not to employ Best Management Practices, in accordance with subsection B of this section; and
            1. The violation is not an immediate threat to public health and safety in the opinion of the health officer.
      2. The written warning shall:
         1. Specify the actions or conditions which violate Best Management Practices;
         2. Identify what needs to be done to correct the violation(s); and
         3. Specify a reasonable timeframe within which the violation shall be corrected.
      3. One copy of the written warning shall be provided to the potential contamination source owner and one shall be kept in the official records of the health officer.
   3. Removal Order.
      1. A removal order shall be issued by the health officer:
         1. If the potential contamination source is found not. to employ Best Management Practices in accordance with subsection B of this section and an immediate threat to public health and safety exists, in the opinion of the health officer; or
         2. If a violation is not corrected within the timeframe specified in a written warning issued by the health officer.
      2. The removal order shall:
         1. Specify the actions or conditions which violate Best Management Practices;
         2. Identify what needs to be done to correct the violation(s); and
         3. Specify the timeframe within which the violation shall be corrected, based on the degree of threat to public health and safety.
      3. One copy of the removal order shall be provided to the potential contamination source owner and one shall be kept in the official records of the health officer.

F. Enforcement of Best Management Practices.
   1. The board of health of the town shall be responsible for enforcement of the provisions of this chapter.
   2. In the event that the owner or operator of a facility fails to comply with a removal order issued under subsection (E)(III) of this section within the specified time period, the health officer shall have the authority to cause the nuisance to be removed or destroyed.
   3. In the event that the owner or operator of a facility fails to comply with a removal order issued under subsection (E)(III) of this section within the specified time period, the health officer shall have the authority to commence an action for collection of nuisance abatement costs in accordance with NH RSA 147:7-b.

G. Fee for Site Re-inspection. There shall be a fee for re-inspection of noncompliant potential contamination sources, to be determined by the board of health. The owner or operator of the facility will pay the fee. A fee schedule shall be established by the board of health, which reasonably represents the cost of

performing an inspection on various types of facilities. The procedure for adoption of the fee schedule shall be as provided for in NH RSA 41-9:a. (Ord. 2010-016, 01-10-11 – amended Art. A:I, A:II, & B; Ord. 9-20-99, § IV)

5.28.050 Other regulations

When the provisions specified in this chapter for groundwater and surface water protection conflict with those of other ordinances or regulations, the most stringent requirements shall apply. (Ord. 9-20-99, § V)

Appendix B

List of Impaired Waters Storm System Mapping & SSO Inventory

LIST OF IMPAIRED WATERS

Town of Milford, New Hampshire

Assessment Unit ID (AUID)	Assessment Unit Name	Designated Use	Impairment Name	Impairment Category
NHIMP700060906-07	SOUHEGAN RIVER - GOLDMAN DAM	Aquatic Life	Dissolved oxygen saturation	5-M
NHIMP700060906-07	SOUHEGAN RIVER - GOLDMAN DAM	Aquatic Life	Oxygen, Dissolved	5-M
NHIMP700060906-07	SOUHEGAN RIVER - GOLDMAN DAM	Fish Consumption	PCBS - FISH CONSUMPTION ADVISORY	5-M
NHRIV700040401-04	SCAB MILL BROOK - UNNAMED BROOK	Aquatic Life	Aluminum	5-M
NHRIV700040401-04	SCAB MILL BROOK - UNNAMED BROOK	Aquatic Life	Oxygen, Dissolved	5-M
NHRIV700040401-04	SCAB MILL BROOK - UNNAMED BROOK	Aquatic Life	pH	5-M
NHRIV700040401-05	SPAULDING BROOK - UNNAMED BROOKS	Aquatic Life	pH	5-M
NHRIV700060904-07	PURGATORY BROOK	Aquatic Life	pH	5-M
NHRIV700060906-04	HARTSHORN BROOK	Aquatic Life	pH	5-M
NHRIV700060906-08	GREAT BROOK	Aquatic Life	pH	5-M
NHRIV700060906-12	GREAT BROOK - OX BROOK	Aquatic Life	Dissolved oxygen saturation	5-P
NHRIV700060906-12	GREAT BROOK - OX BROOK	Aquatic Life	Oxygen, Dissolved	5-P
NHRIV700060906-12	GREAT BROOK - OX BROOK	Aquatic Life	pH	5-M
NHRIV700060906-13	SOUHEGAN RIVER	Fish Consumption	PCBS - FISH CONSUMPTION ADVISORY	5-M
NHRIV700061001-02	WITCHES BROOK	Aquatic Life	Oxygen, Dissolved	5-P
NHRIV700061001-02	WITCHES BROOK	Aquatic Life	pH	5-P

This list of impaired waters is as shown in the spreadsheet titled “2020/2022 303(d) Water Quality Impairments” as provided on the DES website at the following link: https://www.nhms4.des.nh.gov/nh-resources/permittee-specific-resources/milford

TABLE B-1:
LAND USES, LIKELY SOURCE LOCATIONS AND ACTIVITIES THAT CAN PRODUCE TRANSITORY OR INTERMITTENT ILLICIT DISCHARGES

Land Use	Likely Source Locations	Condition or Activity that Produces Discharge
Residential	• Apartments • Multi-family • Single family detached	• Driveway cleaning • Dumping/spills (e.g., leaf litter and RV/boat holding tank effluent) • Equipment/vehicle wash-downs • Septic system maintenance • Swimming pool discharges
Commercial	• Campgrounds/RV parks • Car dealers/rental car companies • Car washes • Commercial laundry/dry cleaning • Gas stations/auto repair shops • Marinas • Nurseries and garden centers • Oil change shops • Restaurants • Swimming pools	• Building maintenance (power washing) • Dumping/spills • Landscaping/grounds care • Outdoor fluid storage • Parking lot maintenance (power washing) • Vehicle fueling • Vehicle maintenance/repair • Vehicle washing • Wash-down of greasy equipment and grease traps
Industrial	• Auto recyclers • Beverages and brewing • Construction vehicle washouts • Distribution centers • Food processing • Garbage truck washouts • Marinas, boat building and repair • Metal plating operations • Paper and wood products • Petroleum storage and refining • Printing	• Industrial process water or rinse water • Loading and un-loading area wash-downs • Outdoor material storage
Municipal	• Airports • Landfills • Maintenance depots • Municipal fleet storage areas • Ports • Public works yards • Streets and highways • Golf courses • Schools	• Building maintenance (power washing) • Dumping/spills • Landscaping/grounds care • Outdoor fluid storage • Parking lot maintenance (power washing) • Road maintenance • Emergency response • Vehicle fueling • Vehicle maintenance/repair • Vehicle washing • Aircraft deicing

TABLE B-2:
LAND USES, LIKELY SOURCE LOCATIONS AND ACTIVITIES THAT CAN PRODUCE *CONTINUOUS* ILLICIT DISCHARGES

Land Use	Condition or Activity that Produces Discharge
Residential	• Failed sanitary sewer infiltrating into storm drain • Sanitary sewer connection into storm drain • Failed septic systems discharging to storm drain system
Commercial/Industrial	• Failed sanitary sewer infiltrating into storm drain • Process water connections into storm drain • Sanitary sewer connection into storm drain
Municipal	• Failed sanitary sewer infiltrating into storm drain • Sanitary sewer connection into storm drain

SOURCE (Tables B-1 and B-2): Modified from Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, Center for Watershed Protection, 2004, p. 12, Table 2.

Standard Operating Procedure for:	
B.1 IDDE: Inspections During Mapping	
Purpose of SOP:	This SOP provides a basic checklist for managers and field crews conducting illicit discharge inspections during mapping.

Always:

- Characterize the outfall by recording information on the Storm Drain Characteristic Form.
- Conduct inspections during dry weather periods using the Dry Weather Outfall Inspection Form.
- Follow procedure below if an illicit discharge is encountered (such as raw sewage, paint, etc.).
- Conduct inspections with at least two staff per crew.
- Carry a list of emergency phone numbers.

Whenever Possible:

- Conduct inspections during low groundwater and leaf off conditions.
- Photograph the outfall with a digital camera (use dry erase or chalk board to identify outfall).
- Identify and label the outfall with a unique identifier. For example "SWO-013".
- If dry weather flow is present at the outfall, and the flow does not appear to be an illicit discharge attempt to identify the source of the flow (intermittent stream etc.), then document the discharge for future comparison.
- Carry an authorization letter.
- Collect samples of flowing discharges before and after source removal. (Contact NHDES for technical assistance.)

Never:

- Never put yourself in danger.
- Never enter private property without permission

Dry Weather Discharge

The CWP defines **dry weather** as a 48 hour period with no runoff-producing rainfall. NEIWPCC defines dry weather as a 48-72 hour period with less than 1/10-inch rainfall.

Equipment list for mapping:

1. Existing paper maps
2. Field sheets
3. Camera (preferably digital) on pole
4. GPS Unit
5. Spray paint (or other marker)
6. Cell phones or hand-held radios
7. Clip boards and pencils
8. First aid kit
9. Flash light or head lamp
10. Surgical gloves
11. Tape measure
12. Temperature probe
13. Waders
14. Watch with a second hand
15. Five 1-liter sample bottles
16. Dry erase board (for photos)
17. Hand sanitizer
18. Sampling pole
19. Mirror (for light)
20. Safety vests

Procedures to follow if illicit discharge is detected:

- Call dispatch / supervisor.
- Use the Dry Weather Outfall Inspection Form to document observations.
- Visually inspect general area for possible sources.
- Take photos.
- Estimate flow/collect samples if instructed to do so.

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed:		Outfall ID:	
Today's date:		Time (Military):	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: Last 48 hours:		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	

Land Use in Drainage Area (Check all that apply):

☐ Industrial
☐ Ultra-Urban Residential
☐ Suburban Residential
☐ Commercial
☐ Open Space
☐ Institutional
Other: _____
Known Industries: _____

Notes (e.g.., origin of outfall, if known):

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☐ **Closed Pipe**	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☐ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: _____	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☐ Yes ☐ No	***If No, Skip to Section 5***			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐Flow #2	Flow depth		In	Tape measure
	Flow width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, 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: 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	☐	☐ Spalling, 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: Overall Outfall Characterization

☐ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes	☐ No			
2. If yes, collected from:	☐ Flow	☐ Pool			
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type:	☐ OBM	☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)? ☐ Yes ☐ No

Storm Drain Outfall Characteristics Form

Location Information

Date:_____ **Inspector:**_____

Time: _____

Outfall ID:_____

Outfall Location: _____

Receiving Waterbody:_____

Photo Taken: Yes No **Photo ID:** _____

Weather: Clear Cloudy **Approximate Temp:** _____ **Wind Present:** Yes No

Precipitation in the past 3 days: No Yes_____inches _____

Dry Weather Inspection Form Used: Yes No - No Discharge No – No Dry Weather No - Other

Pipe Flow: None Trickle Steady 1/4 pipe flow or more

Seepage Flow: None Trickle Steady 1/4 pipe flow or more

Outfall Description *Select all that are applicable, fill in as necessary*

Submerged in water- no partially fully

Type: RCP CMP Dimension (inches) _____

Open Pipe- PVC HDPE Circular Box

Steel Other_____ Elliptical Other _____

Open Drainage- Concrete Trapezoidal Depth (inches)_____

Earthen Parabolic Top width (inches)_____

Riprap Other_____ Bottom width (inches)_____

Additional Information

Sediment Condition: Open ¼ Full ½ Full ¾ Full Plugged

Structure Condition: Excellent Good Fair Poor

Trash/litter present: Yes No

Yard waste observed: Yes No

General Comments: _____

Actions Taken: _____

Follow-up Required: Yes No

N↑

Standard Operating Procedure for:	
B.2 IDDE: Long-Term Inspections	
Purpose of SOP:	To provide supervisor and field crew with a punch list of things to remember during regularly scheduled inspections.

Always:

- Conduct inspections during dry weather periods.
- Check the outfall's dimensions, shape, and component material using the Storm Drain Characteristic Form.
- Characterize and record observations on basic sensory and physical indicators (e.g., odor, color, oil sheen).
- If an illicit discharge is encountered (such as raw sewage, paint, etc.), follow the procedure below.

Whenever Possible:

- Perform inspections of all the outfalls at least once per permit cycle (long term).
- Photograph the outfall with a digital camera (use dry erase board to identify outfall).
- Identify and label the outfall with a unique identifier. For example "SWO-013".
- Carry a letter of authorization with you during inspections that outline who you are and what you are doing.
- If dry weather flow is present at the outfall, and the flow does not appear to be an obvious illicit discharge (e.g., flow is clear, odorless, etc.), attempt to identify the source of the flow (intermittent stream, etc.) then document the discharge for future comparison.
- Collect samples before and after source removal. Contact NHDES for technical assistance.

Never:

- Never put yourself in danger.
- Never enter private property without permission.

Procedures to follow if illicit discharge is detected:

- Call dispatch / supervisor.
- Document observations using the Dry Weather Outfall Inspection Form.
- Visually inspect general area for possible sources.
- Take photos.
- Estimate flow/collect samples if instructed to do so.

Standard Operating Procedure for:	
B.3 IDDE: Opportunistic Inspections	
Purpose of SOP:	This SOP provides field personnel with a quick checklist of proper procedures to follow if they observe illicit discharges while conducting their regular duties.

Always:

- Call dispatcher, supervisor, or code enforcement if you see evidence of an illicit discharge.
- Assess the general area of the illicit discharge to see if you can identify its source.

Whenever Possible:

- Use the Incident Tracking Sheet to document observations.
- Take photographs of the illicit discharge.
- Carry a Dry Weather Outfall Inspection Form.
- Use the Catch Basin Cleaning Form to document observations during cleaning.

Never:

- Never enter private property without permission.
- Never put yourself in danger.

Standard Operating Procedure for:	
B.4 IDDE: Citizen Call-in Inspections	
Purpose of SOP:	To collect appropriate information from a citizen reporting a potential illicit discharge to increase the chances of identifying and removing its source.

Always:

- Use the Incident Tracking Sheet to collect the appropriate information.
- Promptly investigate reported incidents.
- Document any further action taken.

Whenever Possible:

- Train Dispatch Personnel in the use and importance of the Incident Tracking Sheet.
- Document and review incidents reported by citizens on an annual basis to look for patterns of illicit discharges and to evaluate the call-in inspection program.

Never:

- Never enter private property without permission.
- Never put yourself in danger.

ILLICIT DISCHARGE HOTLINE INCIDENT TRACKING SHEET

Copied with permission from: *Illicit Discharge Detection and Elimination-A Guidance Manual for Program Development and Technical Assessments*, CWP, 2004.

Incident ID:			
Responder Information			
Call taken by:			Call date:
Call time:			Precipitation (inches) in past 24-48 hrs:
Reporter Information			
Incident time:			Incident date:
Caller contact information (*optional*):			
Incident Location *(complete one or more below)*			
Latitude and longitude: Or other coordinate system			
Stream address or outfall #:			
Closest street address:			
Nearby landmark:			
Primary Location Description	**Secondary Location Description:**		
Stream corridor *(In or adjacent to stream)*	Outfall	In-stream flow	Along banks
Upland area *(Land not adjacent to stream)*	Near storm drain	Near other water source (storm water pond, wetland, etc.):	
Narrative description of location:			

Upland Problem Indicator Description				
Dumping	☐ Oil/solvents/chemicals		Sewage	
Wash water, suds, etc.	Other: _____			
Stream Corridor Problem Indicator Description				
Odor	None	Sewage	☐ Rancid/Sour	Petroleum (gas)
	Sulfide (rotten eggs); natural gas	Other: Describe in "Narrative" section		
Appearance	"Normal"	Oil sheen	Cloudy	Suds
	Other: Describe in "Narrative" section			
Floatables	None:	Sewage (toilet paper, etc)	Algae	Dead fish
	Other: Describe in "Narrative" section			
Narrative description of problem indicators:				
Suspected Violator (name, personal or vehicle description, license plate #, address, etc.):				

Standard Operating Procedure for:	
B.5 IDDE: Septic System Inspections	
Purpose of SOP:	Failed septic systems can adversely impact water quality. This SOP provides a quick reference list to supervisors and field crews that are conducting an initial screening for failures in areas that are identified in the full IDDE program.

Always:

- Refer potential septic system failures to the local Health Officer for enforcement.

Whenever Possible:

- Screen high risk areas (older areas or areas near lakes or impaired waterbodies).
- Look for indicators of failures, such as wet areas or disagreeable odors near the leach field.
- Document septic system inspections in a summary report for future reference.
- Refer troublesome enforcement actions to NHDES.

Never:

- Never enter private property without permission.
- Never put yourself in danger.

Related Guidance:	
	• NHDES Health Officer's Manual ENV-Ws 1000 Subdivision and Individual Sewage Disposal System Design rules

---SAMPLE---

NOTICE OF VIOLATION
Town of_____, New Hampshire
Planning and Permitting Services
Planning~Building~Electrical~Plumbing~Code Enforcement

Address here, New Hampshire 03210
TELEPHONE (603) XXX-XXXX FAX (603) XXX-XXXX

September 1, 20_____

Citizen
22 Main Street
Town, NH 03210

RE: Tax Map #_____

Dear Citizen:

On August 30, 20__ ,_____, Town Planner and I responded to a report of a discharge to the storm drain system on property owned by you at __ Street in_____, NH.

We did confirm the presence of _____ and we agreed you would have the correction-completed by_____. We discussed you will_____.

This discharge is in violation of the Town of Milford's Non-Storm Water Discharge Ordinance, which is required by the Clean Water Act. Please keep me informed of how the correction is proceeding. Enclosed is a copy of the Ordinance for your review.

If I can be of further assistance, please do not hesitate to contact my office. We are open from 8:30 a.m. to 4:30 p.m. and Monday through Friday. I can be reached at 249-0680..

Sincerely,

Joe Inspector
Code Enforcement Officer

Appendix C

Outfall Inventory and Priority Ranking Matrix

TOWN OF MILFORD,NEW HAMPSHIRE
IDDE OUTFALL CLASSIFICATION AND RANKING, BY OUTFALL ID

				PROBLEM OUTFALLS				HIGH PRIORITY OUTFALLS																		EXCLUDED					
														Density of Generating Outfalls						Age of development and infrastructure													
	Outfall ID	Map No.	Receiving Water Impairment	Known of Suspected contributions of illict discharges	olfactory or visual evidence of sewage	Ammonia ≥ mg/l surfactants ≥ 0.25 mg/l and bacteria > WQ criteria	Ammonia ≥ mg/l surfactants > 0.25 mg/l and detectable levels of chlorine	Discharge to / near public beach	Discharge to / near recreational area	Discharge to / near drinking water supply	Discharge to / near shellfish beds	Past Discharge Complaints	Ammonia ≥ mg/l surfactants ≥ 0.25 mg/l bacteria ≥ WQ criteria	Car dealers	Car washes	Gas Stations	Garden Center	Industrial Manufacturing	Other	Industrial areas > 40 years old	Sewer areas >40 years old	Catchment area serviced by septic system converted to sewer	Historic combined sewer system that has been seperated	Density of septic systems ≥ 30 years old in residential land use	Culverted stream lengths greater than a simple roadway crossing	Discharge to impaired waters & potential to carry pollutents	Presence of older industrial operations	Roadway drainage in undeveloped areas with no dwellings an no sanitary sewers	Outfall is drainage to athletic Fields, parks or undeveloped green space & associated parking without services	Cross-country drainage alignments through undeveloped land	Overall ranking (Problem, High, Low, Excluded)	Ranking score (Number of boxes checked)	Notes
1	OUT 29	22																	1			1		1		1	1				High	5	OLD POWER STATION
2	OUT 30	22																	1			1		1		1	1				High	5	OLD POWER STATION
3	OUT 39	21																			1	1			1	1				1	High	5	CATHOLIC CHURCH (UNDER)
4	OUT 42	21														1				1			1			1	1				High	5	AMHERST ST DRAINAGE
5	OUT 80	15																					1			1					High	2	
6	OUT 81	15																					1			1					High	2	
7	OUT 93	22														1				1		1	1			1	1				High	6	
8	OUT 101	22																					1			1					High	2	
9	OUT 241	12																						1		1					Low	2	N.RIVER @ MEMORIAL BRIDGE
10	OUT 244	12																						1		1					High	2	
11	OUT 245	12														1									1	1					High	3	DRAIN 101/ELM INTERSECTION
12	OUT 278	15							1										1							1					High	3	
13	OUT 317	21							1										1	1	1	1	1			1	1				High	8	MILFORD LUMBER/MEATSHOP
14	OUT 345	14												1									1			1					Low	3	DRAIN FROM DODGE TO TUCKER
15	OUT 349	13																	1				1			1					High	3	DRAIN FROM ELM ST TO TUCKER
16	OUT 387	15							1														1			1					Low	3	SUNSET CIRCLE
17	OUT 470	11																						1	1	1	1				High	4	MAPLE/MILL DRAIN
18	OUT 710	21							1							1			1				1			1					High	5	FROM COTTAGE/MILL ST
19	OUT 711	21							1																	1					High	2	KEYES FIELD
20	OUT 712	21							1																	1					Low	2	KEYES FIELD
21	OUT 713	21							1																	1					Low	2	KEYES FIELD
22	OUT 714	15							1																					1	Excluded	2	KEYES FIELD
23	OUT 715	21																					1			1					High	2	
24	OUT 716	21																					1								High	1	
25	OUT 718	14															1		1				1								High	3	TRACTOR SUPPLY
26	OUT 719	14																					1						1	1	Excluded	3	EASEMENT DRAIN
27	OUT 720	14																	1				1			1					High	3	
28	OUT 721	21																					1			1					High	2	AMHERST ST/SUMMER ST
29	OUT 722	21																					1			1					Low	2	OUT SWING BRIDGE
30	OUT 723	21																					1								High	1	
31	OUT 727	22							1	1																			1		Low	3	KALEY PARK
32	OUT 733	22							1	1																				1	Low	3	KALEY PARK
33	OUT 734	22							1	1																				1	Low	3	KALEY PARK
34	OUT 739	22								1													1			1					High	3	
35	OUT 740	22								1													1			1					High	3	
36	OUT 743	21																												1	Excluded	1	SOUHEGAN RIVER TRAIL OUT
37	OUT 744	21																												1	Excluded	1	SOUHEGAN RIVER TRAIL OUT
38	OUT 745	21																												1	Excluded	1	SOUHEGAN RIVER TRAIL OUT
39	OUT 746	15							1																						Excluded	1	SOUHEGAN RIVER TRAIL OUT
40	OUT 747	21							1																	1					Low	2	SOUHEGAN RIVER TRAIL OUT
41	OUT 748	21							1																	1					Low	2	KEYES PARK
42	OUT 749	21							1																						Low	1	KEYES PARK
43	OUT 751	21		1												1			1				1			1					Problem	5	AMHERST ST@CHOP SHOP
44	OUT 753	11																1					1			1					High	3	
45	OUT 754	14															1		1				1			1					High	4	TRACTOR SUPPLY
46	OUT 755	8																											1		Excluded	2	FIELD DRAIN
47	OUT 758	21							1														1			1					High	3	OUT BALES
48	OUT 760	21							1														1			1					High	3	OUT JACQUES
49	OUT 761	21							1														1			1					High	3	OUT JACQUES
50	OUT 762	15							1										1												Low	2	OUT JACQUES
51	OUT 763	12														1									1	1					High	3	DRAIN ELM @ MERRILS
52	OUT 771	14																											1	1	Excluded	2	
53	OUT 772	14																											1	1	Excluded	2	FIELD N.RIVER
54	OUT 774	22																	1				1			1	1				High	4	OPEN DRAINAGE
55	OUT 775	15							1									1		1			1			1	1				High	6	GAS OR OIL VISABLE ON SURFACE (127 ELM)
56	OUT 777	15																1					1			1	1				High	4	127 ELM
57	OUT 778	15																1					1			1	1				High	4	127 ELM
58	OUT 779	15																1					1			1	1				High	4	GAS SMELL PRESENT(127 ELM)
59	OUT 780	15																1					1			1	1				High	4	GAS SMELL PRESENT(127 ELM)
60	OUT 782	11																		1				1		1					Low	3	ELM/WILTON RD
61	OUT 784	11															1					1			1	1				High	4	ELM/WILTON RD

TOWN OF MILFORD,NEW HAMPSHIRE
IDDE OUTFALL CLASSIFICATION AND RANKING, BY OUTFALL ID

				PROBLEM OUTFALLS				HIGH PRIORITY OUTFALLS																				EXCLUDED						
	Outfall ID	Map No.	Receiving Water Impairment	Known of Suspected contributions of illict discharges	olfactory or visual evidence of sewage	Ammonia ≥ mg/l surfactants ≥ 0.25 mg/l and bacteria > WQ criteria	Ammonia ≥ mg/l surfactants > 0.25 mg/l and detectable levels of chlorine	Discharge to / near public beach	Discharge to / near recreational area	Discharge to / near drinking water supply	Discharge to / near shellfish beds	Past Discharge Complaints	Ammonia ≥ mg/l surfactants ≥ 0.25 mg/l bacteria ≥ WQ criteria	Density of Generating Outfalls						Age of development and infrastructure		Catchment area serviced by septic system converted to sewer	Historic combined sewer system that has been seperated	Density of septic systems ≥ 30 years old in residential land use	Culverted stream lengths greater than a simple raodway crossing	Discharge to impaired waters & potential to carry pollutents	Presence of older industrial operations	Roadway drainage in undeveloped areas with no dwellings an no sanitary sewers	Outfall is drainage to athletic fields, parks or undeveloped green space & associated parking without services	Cross-country drainage alignments through undeveloped land		Overall ranking (Problem, High, Low, Excluded)	Ranking score (Number of boxes checked)	Notes
														Car dealers	Car washes	Gas Stations	Garden Center	Industrial Manufacturing	Other	Industrial areas > 40 years old	Sewer areas >40 years old											
62	OUT 786	22							1	1																					High	2	KALEY PARK
63	OUT 797	21																					1			1					High	2	OUT BALES
64	OUT 798	21																					1								High	1	OUT BALES
65	OUT 799	21																					1			1					High	2	OUT BALES
66	OUT 2044	11																	1		1			1		1					High	4	DRAIN- ROAD/MCLOUDS ORCHARD
67	OUT 2045	11																	1		1			1		1					High	4	DRAIN- ROAD/MCLOUDS ORCHARD
68	OUT 2047	11																			1			1		1					High	3	
69	OUT 2052	11																								1				1	Low	2	
70	OUT 2054	11																								1				1	Low	2	

Appendix D

Field Forms,
Sample Bottle Labels, and
Chain of Custody Forms

Appendix to include copies of the following field sampling documents once fully developed in accordance with the 2017 MS4 Permit:

- Dry weather outfall inspection/sampling form
- Wet weather outfall inspection/sampling form
- Manhole inspection form
- Example sample labels (provided by laboratory)
- Example chain-of-custody form(s) (provided by laboratory(s))

Note: The Town of Milford is a participating member of the Nashua – Manchester Regional Stormwater Coalition. The following represent the current specific standard operating procedures and template forms for New Hampshire Communities that will be further evaluated and developed with the assistance of the Stormwater Coalition per the approved schedule.

STANDARD OPERATING PROCEDURES

SOP 1: DRY WEATHER OUTFALL INSPECTION

Introduction

Outfalls from an engineered storm drain system can be in the form of pipes or ditches. Under current and pending regulations, it is important to inspect and document water quality from these outfalls under both dry weather and wet weather conditions. SOP 2, "Wet Weather Outfall Inspection", covers the objectives of that type of inspection. This SOP discusses the dry weather inspection objectives, and how they differ from wet weather inspection objectives.

During a dry weather period, it is anticipated that minimal flow from stormwater outfalls will be observed. Therefore, dry weather inspections aim to characterize any/all flow observed during a dry weather period and identify potential source(s) of an illicit discharge through qualitative testing; further described in SOP 4, "Water Quality Screening in the Field".

Objectives of Dry Weather Inspections

A dry weather period is a time interval during which less than 0.1 inch of rain is observed across a minimum of 72 hours. Unlike wet weather sampling, dry weather inspections are not intended to capture a "first flush" of stormwater discharge, rather they are intended to identify any/all discharges from a stormwater outfall during a period without recorded rainfall. The objective of inspections during a dry weather period is to characterize observed discharges and facilitate detection of illicit discharges.

Visual Condition Assessment

The attached Dry Weather Outfall Inspection Survey is a tool to assist in documenting observations related to the both quantitative and qualitative characteristics of any/all flows conveyed by the structure during a dry period.

For any visual observation discharge from a stormwater outfall, an investigation into the pollution source should occur, but the following are often true:

1. Foam: indicator of upstream vehicle washing activities, or an illicit discharge.
2. Oil sheen: result of a leak or spill.
3. Cloudiness: indicator of suspended solids such as dust, ash, powdered chemicals and ground up materials.
4. Color or odor: Indicator of raw materials, chemicals, or sewage.
5. Excessive sediment: indicator of disturbed earth of other unpaved areas lacking adequate erosion control measures.
6. Sanitary waste and optical enhancers (fluorescent dyes added to laundry detergent): indicators of illicit discharge.
7. Orange staining: indicator of high mineral concentrations.

Both bacteria and petroleum can create a sheen on the water surface. The source of the sheen can be differentiated by disturbing it, such as with a pole. A sheen caused by oil will remain intact and move in a swirl pattern; a sheen caused by bacteria will separate and appear "blocky". Bacterial or naturally occurring sheens are usually silver or relatively dull in color and will break up into a number of small patches of sheen. The cause may

be presence of iron, decomposition of organic material or presence of certain bacteria. Bacterial sheen is not a pollutant but should be noted.
Many of these observations are indicators of an illicit discharge. Examples of illicit discharges include: cross-connections of sewer services to engineered storm drain systems; leaking septic systems; intentional discharge of pollutants to catch basins; combined sewer overflows; connected floor drains; and sump pumps connected to the system (under some circumstances). Additional guidelines for illicit discharge investigations are included in SOP 10, "Locating Illicit Discharges". If dry weather flow is present at the outfall, and the flow does not appear to be an obvious illicit discharge (e.g. flow is clear, odorless, etc.) attempt to identify the source of flow (e.g. intermittent stream, wetlands drainage, etc.) and document the discharge for future comparison.

Although many of the observations are indicators of illicit discharge it should be noted that several of these indicators may also occur naturally. Orange staining may be the result of naturally occurring iron, and thus unrelated to pollution. Foam can be formed when the physical characteristics of water are altered by the presence of organic materials. Foam is typically found in waters with high organic content such as bog lakes, streams that originate from bog lakes, productive lakes, wetlands, or woody areas. To determine the difference between natural foam and foam cause by pollution, consider the following:

1. Wind direction or turbulence: natural foam occurrences on the beach coincide with onshore winds. Often, foam can be found along a shoreline and/or on open waters during windy days. Natural occurrences in rivers can be found downstream of a turbulent site.
2. Proximity to a potential pollution source: some entities including the textile industry, paper production facilities, oil industries, and fire fighting activities work with materials that cause foaming in water. If these materials are released to a water body in large quantities, they can cause foaming. Also, the presence of silt in water, such as from a construction site can cause foam.
3. Feeling: natural foam is typically persistent, light, not slimy to the touch.
4. Presence of decomposing plants or organic material in the water.

Optical enhancers, fluorescent dyes added to laundry detergent, are typically detected through the use of clean, white cotton pads placed within the discharge for several days, dried then viewed under a UV light. If the cotton pad displays fluorescent patches, optical enhancers are present. Optical enhancers are occasionally visible as a bluish-purple haze on the water surface; however the testing method should be used to confirm the presence of optical enhancers.

The Dry Weather Outfall Inspection Survey includes fields where these and other specific observations can be noted. The inspector shall indicate the presence of a specific water quality indicator or parameter by marking "Yes". If "Yes" is marked, provide additional details in the comments section. If the indictor in question is not present, mark "No".

Within the comments section, provide additional information with regard to recorded precipitation totals, or more detailed descriptions of observations made during the inspection and corrective actions taken.

Measuring Water Quality

Based on the results of the Visual Condition Assessment, it may be necessary to collect additional data about water quality. Water quality samples can be in the form of screening using field test kits and instrumentation, or by discrete analytical samples processed by a laboratory.

Information on selecting and using field test kits and instrumentation is included in SOP 4, "Water Quality Screening in the Field." The Inspection Survey also provides values for what can be considered an appropriate benchmark for a variety of parameters that can be evaluated in the field.

If the results of screening using field test kits indicate that the outfall's water quality exceeds the benchmarks provided, collection of discrete analytical samples should be considered.

Analytical Sample Collection

Sample collection methods may vary based on specific outfall limitations, but shall follow test procedures outlined in 40 CFR 136. A discrete manual or grab sample can classify water at a distinct point in time. These samples are easily collected and used primarily when the water quality of the discharge is expected to be homogeneous, or unchanging, in nature. A flow-weighted composite sample will classify water quality over a measured period of time. These samples are used when the water quality of the discharge is expected to be heterogeneous, or fluctuating, in nature. Grab samples are more common for dry weather outfall inspections due to the time-sensitive nature of the process.

Protocols for collecting a grab sample shall include the following:

1. Do not eat, drink or smoke during sample collection and processing.
2. Do not collect or process samples near a running vehicle.
3. Do not park vehicles in the immediate sample collection area, including both running and non-running vehicles.
4. Always wear clean, powder-free nitrile gloves when handling sample containers and lids.
5. Never touch the inside surface of a sample container or lid, even with gloved hands.
6. Never allow the inner surface of a sample container or lid to be contacted by any material other than the sample water.
7. Collect samples while facing upstream and so as not to disturb water or sediments in the outfall pipe or ditch.
8. Do not overfill sample containers, and do not dump out any liquid in them. Liquids are often added to sample containers intentionally by the analytical laboratory as a preservative or for pH adjustment.
9. Slowly lower the bottle into the water to avoid bottom disturbance and stirring up sediment.
10. Do not allow any object or material to fall into or contact the collected water sample.
11. Do not allow rainwater to drip from rain gear or other surfaces into sample containers.
12. Replace and tighten sample container lids immediately after sample collection.
13. Accurately label the sample with the time and location.
14. Document on the Wet Weather Outfall Inspection Survey that analytical samples were collected, specify parameters, and note the sample time on the Inspection Survey. This creates a reference point for samples.

Analytical Sample Quality Control and Assurance

Upon completion of successful sample collection, the samples must be sent or delivered to a NHDES-approved laboratory for analytical testing. Quality control and assurance are important to ensuring accurate analytical test results.

Sample preservation is required to prevent contaminate degradation between sampling and analysis, and should be completed in accordance with 40 CFR 136.3.

Maximum acceptable holding times are also specified for each analytical method in 40 CFR 136.3. Holding time is defined as the period of time between sample collection and extraction for analysis of the sample at the laboratory. Holding time is important because prompt laboratory analysis allows the laboratory to review the data and if analytical problems are found, re-analyze the affected samples within the holding times.

Chain of custody forms are designed to provide sample submittal information and document transfers of sample custody. The forms are typically provided by the laboratory and must be completed by the field sampling personnel for each sample submitted to the lab for analysis. The document must be signed by both the person releasing the sample and the person receiving the sample every time the sample changes hands. The sampling personnel shall keep one copy of the form and send the remaining copies to the laboratory with the samples. Custody seals, which are dated, signed and affixed to the sample container, may be used if the samples are shipped in a cooler via courier or commercial overnight shipping.

Attachments

1. Dry Weather Outfall Inspection Survey

Outfall ID: _____ **Town:** _____

Inspector: _____ **Date:** _____

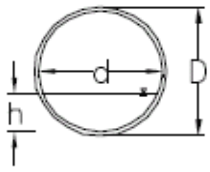
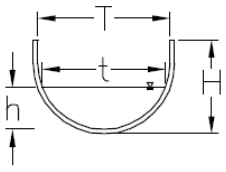
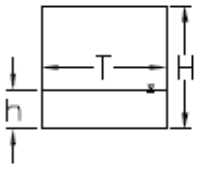
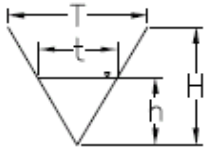
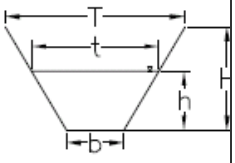
Street Name _____

Last rainfall event _____

DRY WEATHER OUTFALL INSPECTION SURVEY

Type of Outfall (check one):		**Pipe Outfall** ☐	**Open Swale Outfall** ☐
Outfall Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☐ **Other**_____		
Pipe Material:	Concrete ☐ Corrugated metal ☐ Clay Tile ☐ Plastic ☐ Other: _____ ☐	**Pipe Condition:**	Good ☐ Poor ☐ Fair ☐ Crumbling ☐
Swale Material:	Paved (asphalt) ☐ Concrete ☐ Earthen ☐ Stone ☐ Other: _____ ☐	**Swale Condition:**	Good ☐ Poor ☐ Fair ☐ Crumbling ☐

Shape of Pipe/Swale (check one)

 ☐	 ☐	 ☐	 ☐	 ☐
Rounded Pipe/Swale	**Rectangular Pipe/Swale**	**Triangular Swale**	**Trapezoidal Swale**

Pipe Measurements:	**Swale Measurements:**	**Is there a headwall?**	**Location Sketch**
Inner Dia. (in): d= _____	Swale Width (in): T= _____	Yes ☐ No ☐	
Outer Dia. (in): D= _____	Flow Width (in): t = _____	**Condition:**	
Pipe Width (in): T= _____	Swale Height (in): H= _____	Good ☐ Poor ☐ Fair ☐ Crumbling ☐	
Pipe Height (in): H= _____	Flow Height (in): h=_____*		
Flow Width (in): h=_____*	Bottom Width (in): b=_____		

Description of Flow: Heavy ☐ Moderate ☐ Trickling ☐ Dry ☐

If the outlet is submerged check yes and indicate approximate height of water above the outlet invert. h above invert (in):

Circle All Materials Present:

Rip rap	Sheen: Bacterial
Excessive sediment	Sheen: Petroleum
Foam	Floatables
Sanitary Waste	Algae
Orange Staining	Excessive Vegetation

Odor: Yes ☐ No ☐
Optical enhancers suspected? Yes ☐ No ☐
Has channelization occurred? Yes ☐ No ☐
Has scouring occurred below the outlet? Yes ☐ No ☐

Required Maintenance:
Tree Work
Ditch Work
Structural Corrosion
N/A
Remove Trash/Debris
Blocked Pipe
Erosion at Structure
Other

Comments:

STANDARD OPERATING PROCEDURES

SOP 2: WET WEATHER OUTFALL INSPECTION

Introduction

Outfalls from an engineered storm drain system can be in the form of pipes or ditches. Under current and pending regulations, it is important to inspect and document water quality from these outfalls under both dry weather and wet weather conditions. SOP 1, "Dry Weather Outfall Inspection", covers the objectives of that type of inspection. This SOP discusses wet weather inspection objectives and how they differ from dry weather inspection objectives. The primary difference is that wet weather inspection aims to describe and evaluate the first flush of stormwater discharged from an outfall during a storm, representing the maximum pollutant load managed by receiving water.

Definition of Wet Weather

A storm is considered a representative wet weather event if greater than 0.1 inch of rain falls and occurs at least 72 hours after the previously measurable (greater than 0.1 inch of rainfall) storm event. In some watersheds, based on the amount of impervious surface present, increased discharge from an outfall may not result from 0.1 inch of rain. An understanding of how outfalls respond to different events will develop as the inspection process proceeds over several months, allowing the inspectors to refine an approach for inspections.

Ideally, the evaluation and any samples collected should occur within the first 30 minutes of discharge to reflect the first flush or maximum pollutant load.

Typical practice is to prepare for a wet weather inspection event when weather forecasts show a 40% chance of rain or greater. If the inspector intends to collect analytical samples, coordination with the laboratory for bottleware and for sample drop-off needs to occur in advance.

Visual Condition Assessment

The attached Wet Weather Outfall Inspection Survey should be used to document observations related to the quality of stormwater conveyed by the structure. Observations such as the following can indicate sources of pollution within the storm drain system:

- Oil sheen
- Discoloration
- Trash and debris

For any visual observation of pollution in a stormwater outfall discharge, an investigation into the pollution source should occur, but the following are often true:

1. Foam: indicator of upstream vehicle washing activities, or an illicit discharge.
2. Oil sheen: result of a leak or spill.
3. Cloudiness: indicator of suspended solids such as dust, ash, powdered chemicals and ground up materials.
4. Color or odor: Indicator of raw materials, chemicals, or sewage.
5. Excessive sediment: indicator or disturbed earth of other unpaved areas lacking adequate erosion control measures.

6. Sanitary waste and optical enhancers (fluorescent dyes added to laundry detergent): indicators of illicit discharge.
7. Orange staining: indicator of high mineral concentrations.

Many of these observations are indicators of an illicit discharge. Examples of illicit discharges include: cross-connections of sewer services to engineered storm drain systems; leaking septic systems; intentional discharge of pollutants to catch basins; combined sewer overflows; connected floor drains; and sump pumps connected to the system (under some circumstances). Additional guidelines for illicit discharge investigations are included in SOP 10, "Locating Illicit Discharges".

Although many of the observations are indicators of illicit discharge it should be noted that several of these indicators may also occur naturally. Orange staining may be the result of naturally occurring iron, and thus unrelated to pollution. Foam can be formed when the physical characteristics of water are altered by the presence of organic materials. Foam is typically found in waters with high organic content such as bog lakes, streams that originate from bog lakes, productive lakes, wetlands, or woody areas. To determine the difference between natural foam and foam cause by pollution, consider the following:

1. Wind direction or turbulence: natural foam occurrences on the beach coincide with onshore winds. Often, foam can be found along a shoreline and/or on open waters during windy days. Natural occurrences in rivers can be found downstream of a turbulent site.
2. Proximity to a potential pollution source: some entities including the textile industry, paper production facilities, oil industries, and firefighting activities work with materials that cause foaming in water. If these materials are released to a water body in large quantities, they can cause foaming. Also, the presence of silt in water, such as from a construction site can cause foam.
3. Feeling: natural foam is typically persistent, light, not slimy to the touch.
4. Presence of decomposing plants or organic material in the water.

Both bacteria and petroleum can create a sheen on the water surface. The source of the sheen can be differentiated by disturbing it, such as with a pole. A sheen caused by oil will remain intact and move in a swirl pattern; a sheen caused by bacteria will separate and appear "blocky". Bacterial or naturally occurring sheens are usually silver or relatively dull in color and will break up into a number of small patches of sheen. The cause may be presence of iron, decomposition of organic material or presence of certain bacteria. Bacterial sheen is not a pollutant but should be noted.

Optical enhancers, fluorescent dyes added to laundry detergent, are typically detected through the use of clean, white cotton pads placed within the discharge for several days, dried then viewed under a UV light. If the cotton pad displays fluorescent patches, optical enhancers are present. Optical enhancers are occasionally visible as a bluish-purple haze on the water surface; however the testing method should be used to confirm the presence of optical enhancers.
The Wet Weather Outfall Inspection Survey includes fields where these and other specific observations can be noted. The inspector shall indicate the presence of a specific water quality indicator or parameter by marking "Yes". If "Yes" is marked, provide additional details in the comments section. If the indictor in question is not present mark "No".

Within the comments section, provide additional information with regard to recorded precipitation totals, or more detailed descriptions of observations made during the inspection and corrective actions taken.

Measuring Water Quality

Based on the results of the Visual Condition Assessment, it may be necessary to collect additional data about water quality. Water quality samples can be in the form of screening using field test kits or by discrete analytical samples processed by a laboratory.

Information on how to use field test kits is included in SOP 4, "Water Quality Screening with Field Test Kits", and the Wet Weather Outfall Inspection Survey includes fields to document the results of such screening. The Inspection Survey also provides values for what can be considered an appropriate benchmark for a variety of parameters that can be evaluated with field test kits.

If the results of screening using field test kits indicate that the outfall's water quality exceeds the benchmarks provided, collection of discrete analytical samples should be considered.

Analytical Sample Collection

Sample collection methods may vary based on specific outfall limitations but shall follow test procedures outlined in 40 CFR 136. A discrete manual or grab sample can classify water at a distinct point in time. These samples are easily collected and used primarily when the water quality of the discharge is expected to be homogeneous, or unchanging, in nature. A flow-weighted composite sample will classify water quality over a measured period of time. These samples are used when the water quality of the discharge is expected to be heterogeneous, or fluctuating, in nature. Grab samples are more common for wet weather outfall inspections due to the time-sensitive nature of the process.

Protocols for collecting a grab sample shall include the following:

1. Do not eat, drink or smoke during sample collection and processing.
2. Do not collect or process samples near a running vehicle.
3. Do not park vehicles in the immediate sample collection area, including both running and non-running vehicles.
4. Always wear clean, powder-free nitrile gloves when handling sample containers and lids.
5. Never touch the inside surface of a sample container or lid, even with gloved hands.
6. Never allow the inner surface of a sample container or lid to be contacted by any material other than the sample water.
7. Collect samples while facing upstream and so as not to disturb water or sediments in the outfall pipe or ditch.
8. Do not overfill sample containers, and do not dump out any liquid in them. Liquids are often added to sample containers intentionally by the analytical laboratory as a preservative or for pH adjustment.
9. Slowly lower the bottle into the water to avoid bottom disturbance and stirring up sediment.
10. Do not allow any object or material to fall into or contact the collected water sample.
11. Do not allow rainwater to drip from rain gear or other surfaces into sample containers.
12. Replace and tighten sample container lids immediately after sample collection.
13. Accurately label the sample with the time and location.
14. Document on the Wet Weather Outfall Inspection Survey that analytical samples were collected, specify parameters, and note the sample time on the Inspection Survey. This creates a reference point for samples.

Analytical Sample Quality Control and Assurance

Upon completion of successful sample collection, the samples must be sent or delivered to a NH DES-approved laboratory for analytical testing. Quality control and assurance are important to ensuring accurate analytical test results.

Sample preservation is required to prevent contaminant degradation between sampling and analysis and should be completed in accordance with 40 CFR 136.3.

Maximum acceptable holding times are also specified for each analytical method in 40 CFR 136.3. Holding time is defined as the period of time between sample collection and extraction for analysis of the sample at the laboratory. Holding time is important because prompt laboratory analysis allows the laboratory to review the data and if analytical problems are found, re-analyze the affected samples within the holding times.

Chain of custody forms are designed to provide sample submittal information and document transfers of sample custody. The forms are typically provided by the laboratory and must be completed by the field sampling personnel for each sample submitted to the lab for analysis. The document must be signed by both the person releasing the sample and the person receiving the sample every time the sample changes hands. The sampling personnel shall keep one copy of the form and send the remaining copies to the laboratory with the samples. Custody seals, which are dated, signed and affixed to the sample container, may be used if the samples are shipped in a cooler via courier or commercial overnight shipping.

Attachments

1. Wet Weather Outfall Inspection Survey

Outfall I.D.: _____ **Date:** _____

Inspector: _____

Time of Inspection: _____

Street Name: _____

Last rainfall event: _____

WET WEATHER OUTFALL INSPECTION SURVEY

Visual Inspection:	**Yes**	**No**	**Comments (Include probable source of observed contamination):**
Color	☐	☐	
Odor	☐	☐	
Turbidity	☐	☐	
Excessive Sediment	☐	☐	
Sanitary Waste	☐	☐	
Pet Waste	☐	☐	
Floatable Solids	☐	☐	
Oil Sheen	☐	☐	
Bacterial Sheen	☐	☐	
Foam	☐	☐	
Algae	☐	☐	
Orange Staining	☐	☐	
Excessive Vegetation	☐	☐	
Optical Enhancers	☐	☐	
Other _____			

Sample Parameters	**Analytical Test Method**	**Benchmark***	**Field Screening Result**	**Full Analytical?**
Ammonia[1]	EPA 350.2/SM4500-NH3C	>50.0 mg/L		☐ Yes ☐ No
Specific Conductance[1]	SM 2510B	>2,000		☐ Yes ☐ No
Detergents & Surfactants[2]	EPA 425.1/SM5540C	> 0.25 mg/L		☐ Yes ☐ No
Fluoride[2]	EPA 300.0	>0.25 mg/L		☐ Yes ☐ No
pH[1]	EPA 150.1/SM 4500H	<5		☐ Yes ☐ No
Potassium[1]	EPA 200.7	>20 mg/L		☐ Yes ☐ No
Comments:				

[1] – *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, Center for Watershed Protection and Robert Pitt of University of Alabama, 2004, p. 134, Table 45.

[2] – *Appendix I – Field Measurements, Benchmarks and Instrumentation*, Draft Massachusetts North Coastal Small MS4 General Permit, 2009.

STANDARD OPERATING PROCEDURES

SOP 3: CATCH BASIN INSPECTION AND CLEANING

Introduction

Catch basins help minimize flooding and protect water quality by removing trash, sediment, decaying debris, and other solids from stormwater runoff. These materials are retained in a sump below the invert of the outlet pipe. Catch basin cleaning reduces foul odors, prevents clogs in the storm drain system, and reduces the loading of suspended solids, nutrients, and bacteria to receiving waters.

During regular cleaning and inspection procedures, data can be gathered related to the condition of the physical basin structure and its frame and grate and the quality of stormwater conveyed by the structure. Observations such as the following can indicate sources of pollution within the storm drain system:

- Oil sheen
- Discoloration
- Trash and debris

Both bacteria and petroleum can create a sheen on the water surface. The source of the sheen can be differentiated by disturbing it, such as with a pole. A sheen caused by a oil will remain intact and move in a swirl pattern; a sheen caused by bacteria will separate and appear "blocky". Bacterial sheen is not a pollutant, but should be noted.

Observations such as the following can indicate a potential connection of a sanitary sewer to the storm drain system, which is an illicit discharge.

- Indications of sanitary sewage, including fecal matter or sewage odors
- Foaming, such as from detergent
- Optical enhancers, fluorescent dye added to laundry detergent

Each catch basin should be cleaned and inspected at least annually. Catch basins in high-use areas may require more frequent cleaning. Performing street sweeping on an appropriate schedule will reduce the amount of sediment, debris, and organic matter entering the catch basins, which will in turn reduce the frequency with which structures need to be cleaned.

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).
Catch basin inspection and cleaning procedures include the following:

1. Work upstream to downstream.
2. Clean sediment and trash off grate.
3. Visually inspect the outside of the grate.
4. Visually inspect the inside of the catch basin to determine cleaning needs.
5. Inspect catch basin for structural integrity.
6. Determine the most appropriate equipment and method for cleaning each catch basin.
    a. Manually use a shovel to remove accumulated sediments, or
    b. Use a bucket loader to remove accumulated sediments, or

c. Use a high pressure washer to clean any remaining material out of catch basin while capturing the slurry with a vacuum.
d. If necessary, after the catch basin is clean, use the rodder of the vacuum truck to clean downstream pipe and pull back sediment that might have entered downstream pipe.

7. If contamination is suspected, chemical analysis will be required to determine if the materials comply with the Massachusetts DEP Hazardous Waste Regulations, 310 CMR 30.000 (http://www.mass.gov/dep/service/regulations/310cmr30.pdf). Chemical analysis required will depend on suspected contaminants. Note the identification number of the catch basin on the sample label, and note sample collection on the Catch Basin Inspection Form.
8. Properly dispose of collected sediments. See following section for guidance.
9. If fluids collected during catch basin cleaning are not being handled and disposed of by a third party, dispose of these fluids to a sanitary sewer system, with permission of the system operator.
10. If illicit discharges are observed or suspected, notify the appropriate Department
11. At the end of each day, document location and number of catch basins cleaned, amount of waste collected, and disposal method for all screenings.
12. Report additional maintenance or repair needs to the appropriate Department.

Disposal of Screenings

Catch basin cleanings from storm water-only drainage systems may be disposed at any landfill that is permitted by NHDES to accept solid waste. NHDES does not routinely require stormwater-only catch basin cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means. Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Attachments

1. Catch Basin Inspection Form

Job No.: _____ **Town:** _____

Inspector: _____ **Date:** _____

CATCH BASIN INSPECTION FORM

Catch Basin I.D.	_____	**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:**_____	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☐ **Other**_____		
Basin Material:	Concrete ☐ Corrugated metal ☐ Stone ☐ Brick ☐ Other: _____ ☐	**Catch Basin Condition:**	Good ☐ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:_____	**Pipe Measurements:**	Inlet Dia. (in): d= ____ Outlet Dia. (in): D= ____

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☐ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _____ _____ _____

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☐ Other:_____ Properly Aligned: Yes ☐ No ☐	0-6 (in): _____ 6-12(in): _____ 12-18 (in): _____ 18-24 (in): _____ 24 + (in): _____	Heavy Moderate Slight Trickling	

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in):_	Yes ☐	No ☐

☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:**		**Circle those present:**	
	Color:		Foam	Oil Sheen
	Odor:		Sanitary Waste	Bacterial Sheen
Weather Conditions :	Dry > 24 hours ☐	Wet ☐	Orange Staining	Floatables
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			Excessive sediment	Pet Waste
Comments:			Other:_____	Optical Enhancers

NOTE: This information is to accompany the Dry Weather Outfall Inspection Form.

Odor – Most strong odors, especially gasoline, oils, and solvents are likely associated with high responses on the toxicity screening test.
Stale sanitary wastewater: sewage
Detergent, perfume: Laundromat or household laundry
Sulfur ("rotten eggs"): industries that discharge sulfide compounds or organics (meat packers, canneries, dairies)
Oil and gas: facilities associated with vehicle maintenance or petroleum product storage (gas stations) or petroleum refineries
Rancid-sour: food preparation facilities (restaurants, hotels)

Color – Important indicator of inappropriate industrial sources. Dark colors, such as brown, gray, or black are the most common.
Yellow: chemical plants, textile, and tanning plants
Brown: meat packers, printing plants, metal works, stone and concrete, fertilizers, and petroleum refining facilities [note: can be from natural organic acids if a wetland is upstream]
Green: chemical plants, textile facilities
Red: meat packers [note: can be from organic acids if a wetland is upstream]
Gray: dairies

Turbidity – The cloudy appearance of water caused by the presence of suspended or colloidal matter. In dry weather, high turbidity is often a characteristic of undiluted industrial discharges.
Cloudy: sanitary wastewater, concrete or stone operations, fertilizer facilities, automotive dealers
Opaque: food processors, lumber mills, metal operations, pigment plants

Floatable matter – a contaminated flow may contain floating solids or liquids directly related to industrial or sanitary wastewater pollution. Floatables of industrial origin may include animal fats, spoiled food, oils, solvents, sawdust, foams, packing materials, or fuel.
Oil sheen: petroleum refiners or storage facilities and vehicle service facilities. [note: there is a type of bacteria that looks like an oil sheen. If you take a stick and swirl around the sheen, it will break up into blocky pieces if it is the bacteria. A true oil sheen will quickly re-form and not look blocky.]
Toilet paper bits, fecal bits, food particles: sanitary wastewater
Soap suds: if white or a clear sheen, laundry discharge (check odor) [note: can also occur from natural surfactants; usually off-white or tan with an earthy-fishy odor.]

Deposits and Stains – Any type of coating near the outfall, usually a dark color. Deposits and stains will often contain fragments of floatable substances.
Lots of sediment: construction site erosion, sand and gravel pits, winter road applications
Oil stain: petroleum storage, vehicle service facilities, petroleum refineries
Rusty: precipitates from iron-rich water (natural or industrial) [note: if slimey and clumpy, it could be iron bacteria]
Grayish-black deposits and hair: leather tanneries
White crystalline powder: nitrogenous fertilizer waste

Vegetation – Vegetation surrounding an outfall may show the effects of industrial pollutants. Decaying organic materials coming from various food product wastes would cause an increase in plant life, while the discharge of chemical dyes and inorganic pigments from textile mills could noticeably decrease vegetation. It is important not to confuse the adverse effects on high storm water flows on vegetation with highly toxic dry-weather intermittent flows.
Excessive growth: food product facilities, fertilizer runoff (lawns, golf courses, and farms)
Inhibited growth: high storm water flows, beverage facilities, printing plants, metal product facilities, drug manufacturing, petroleum facilities, vehicle service facilities, and automobile dealers

Damage to Outfall Structures – Outfall damage can be caused by severely contaminated discharges that are very acidic or basic in nature. Primary metal industries have a strong potential to cause outfall structure damage because their batch dumps are highly acidic. Poor construction, hydraulic scour, and old age can also negatively affect the condition of al outfall structure.
Concrete or spalling (breaking off into chips or layers): industrial flows
Peeling paint: industrial flows
Metal corrosion: industrial flows

This sheet was courtesy of the NHDES (modified from Pitt et al., 1993 Investigation of Inappropriate Pollutant Entries into Storm Drainage Systems: a User's Guide. EPA Office of research and Development, EPA/600/R-92/238).

Appendix E

Water Quality Analysis Instructions, User's Manuals and Standard Operating Procedures

Appendix to include copies of water quality analysis instructions, procedures, and SOPs for all sample parameters and all meters or field test kits that are used for analysis once fully developed in accordance with the 2017 MS4 Permit. This includes the manufacturer's instructions for how to use field test kits as well as the manufacturer's instructions or user's manual for any field instrumentation.

Note: The Town of Milford is a participating member of the Nashua – Manchester Regional Stormwater Coalition. The following represent the current specific standard operating procedures and template forms for New Hampshire Communities that will be further evaluated and developed with the assistance of the Stormwater Coalition per the approved schedule.

SOP 4: WATER QUALITY SCREENING IN THE FIELD

Introduction

Outfalls from an engineered storm drain system can be in the form of pipes or ditches. Under current and pending regulations, it is important to inspect and document water quality within the MS4 system under both dry weather and wet weather conditions. SOP 1, "Dry Weather Outfall Inspection" and SOP 2, "Wet Weather Outfall Inspection", cover the objectives of these activities and how water quality parameters can be collected during both types of inspections. SOP 3, "Catch Basin Inspection and Cleaning", describes how this operations and maintenance activity can serve as an additional opportunity to collect water quality data.

SOP 2 included detailed information on how to collect discrete analytical samples to be processed by a laboratory. In contrast, this SOP addresses screening-level measurements than can be collected at outfalls, catch basins, receiving waters, or other water bodies. The measurements can be collected with field test kits or with portable meters.

Water quality screening data collected in this manner can feed into an illicit discharge detection and elimination investigation, like the process described in SOP 10, "Locating Illicit Discharges".

Visual Condition Assessment

SOP 1, SOP 2, and SOP 3 describe a Visual Condition Assessment to collect observations related to the quality of stormwater conveyed by an engineered storm drain system. These observations may include such visual evidence and/or potential pollutants as:

- Foaming (detergents)
- Discoloration
- Evidence of sanitary waste
- Optical enhancers (fluorescent dyes added to laundry detergent); and
- Turbidity

If a Visual Condition Assessment indicates the presence of these pollutants, it may be necessary to quantify the extent of each, and gather data on other parameters that cannot be visually observed but can be measured using field kits or meters. These parameters include:

- Ammonia
- Chloride (present in treated drinking water but not groundwater)
- Conductivity
- Fluoride
- Hardness
- pH
- Potassium

Field Kits and Sampling Methods Available

In recent drafts of new MS4 Permits, U.S. EPA Region 1 has identified several test kits that are acceptable for use in the field, and other regulatory agencies have also completed similar reviews. The following table shows field test kits and portable meters that can be used for screening parameters.

Table SOP 4-1
Field Measurements, Test Kits, and Instrumentation

Analyte or Parameter	Instrumentation (Portable meter)	Field Test Kit
Ammonia	CHEMetrics™ V-2000 Colorimeter Hach™ DR/890 Colorimeter Hach™ Pocket Colorimeter™ II	CHEMetrics™ K-1410 CHEMetrics™ K-1510 (series) Hach™ NI-SA Hach™ Ammonia Test Strips
Bacteria	Bacteria field test kits require 24-hour window	
Boron	N/A	Hanna™ HI 38074 Taylor™ K-1541
Chloride	CHEMetrics™ V-2000 Colorimeter Hach™ Pocket Colorimeter™ II LaMotte™ DC1200 Colorimeter	CHEMetrics™ K-2002 through K-2070 Hach™ CDS-DT Hach™ Chloride QuanTab® Test Strips
Color		Hach™ ColorDisc
Conductivity	CHEMetrics™ I-1200	N/A
Detergents (Surfactants)	CHEMetrics™ I-2017	CHEMetrics™ K-9400 and K-9404 Hach™ DE-2
Fluoride	CHEMetrics™ V-2000 Colorimeter Hach™ Pocket Colorimeter™ II	N/A
Hardness	N/A	CHEMetrics™ K-1705 and K-1710 CHEMetrics™ K-4502 through K-4530 Hach™ HA-DT Hach™ Hardness Test Strips
Optical enhancers	Field tests still under development	
pH	CHEMetrics™ I-1000	Hach™ 17J through 17N Hach™ pH Test Strips
Potassium	Horiba™ Cardy C-131	LaMotte™ 3138 KIW
Turbidity	CHEMetrics™ I-1300	N/A

Each field test kit will include instructions specific to that test kit, and most kits are available in configurations that detect different ranges of the parameter. For example, the CHEMetrics™ detergents kit K-9400 shown above detects concentrations of 0 to 3 milligrams per liter (mg/L) while the K-9404 kit detects concentrations of 0 to 1,400 mg/L.

The table below shows values identified by the U.S. EPA and the Center for Watershed Protection as typical screening values for select parameters. These represent the typical concentration (or value) of each parameter expected to be found in stormwater. Screening values that exceed these benchmarks may be indicative of pollution and/or illicit discharges.

Table SOP 4-2
Benchmark Field Measurements for Select Parameters

Analyte or Parameter	Benchmark
Ammonia	>50.0 mg/L
Conductivity	>2,000
Detergents (Surfactants)	> 0.25 mg/L
Fluoride	>0.25 mg/L
pH	<5
Potassium	>20 mg/L

If and when water quality screening samples, whether using field test kits or portable meters, exceed these benchmark concentrations, the inspector should consider collecting analytical samples for laboratory analysis.

Advantages and Disadvantages of Field Testing

Field test kits can be convenient for use as a screening tool, initial purchase costs are low (typically $0.50 to $5.00 for the kits included in Table SOP 4-1), and the costs are far less than full analyses at a laboratory. However, some disadvantages of this screening method include:

- Limited shelf life
- Labor cost associated with inspector's time
- Generation of wastes, including glass vials and used reagent
- Steps and processes for each kit can vary widely, resulting in errors
- Trained staff are required in order to effectively utilize kits
- Not all kits are accepted by all regulatory agencies
- Limited useful detection range

Portable instrumentation such as the colorimeters shown in Table SOP 4-1 have the benefit of providing accurate readings, measure to low detection limits, and can be purchased pre-programmed to measure concentrations of most parameters required. Disadvantages of portable instrumentation include:

- High initial purchase cost
- Requirement for ongoing calibration and maintenance
- Individual probes require periodic replacement
- Specific storage requirements to maintain calibration
- Trained staff are required in order to effectively utilize meters

Related Standard Operating Procedures

1. SOP 1, Dry Weather Outfall Inspection
2. SOP 2, Wet Weather Outfall Inspection
3. SOP 3, Catch Basin Cleaning and Inspection
4. SOP 10, Locating Illicit Discharges

WATER QUALITY SCREENING FORM

Outfall I.D.			
Outfall Location			
Inspector's Name			
Date of Inspection		Date of Last Inspection	
Start Time		End Time	
Type of Inspection: Regular ☐ Pre-Storm Event ☐ During Storm Event ☐ Post-Storm Event ☐			
Most Recent Storm Event			

FIELD WATER QUALITY SCREENING RESULTS

Sample Parameter	Field Test Kit or Portable Instrument Meter	Benchmark	Field Screening Result	Full Analytical Required?
Ammonia[1]		> 50.0 mg/L		☐ Yes ☐ No
Boron[1]		> 0.35 mg/L		☐ Yes ☐ No
Chloride[2]		230 mg/L		☐ Yes ☐ No
Color[1]		> 500 units		☐ Yes ☐ No
Specific Conductance[1]		> 2,000 µS/cm		☐ Yes ☐ No
Detergents & Surfactants[3]		> 0.25 mg/L		☐ Yes ☐ No
Fluoride[3]		> 0.25 mg/L		☐ Yes ☐ No
Hardness[1]		< 10 mg/L or > 2,000 mg/L		☐ Yes ☐ No
pH[1]		< 5		☐ Yes ☐ No
Potassium[1]		> 20 mg/L		☐ Yes ☐ No
Turbidity[1]		> 1,000 NTU		☐ Yes ☐ No

[1] – *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, Center for Watershed Protection and Robert Pitt of University of Alabama, 2004, p. 134, Table 45.

[2] –*Env-Ws 1703.21 Water Quality Criteria for Toxic Substances*, State of New Hampshire Department Surface Water Quality Regulations.

[3] – *Appendix I – Field Measurements, Benchmarks and Instrumentation*, Draft Massachusetts North Coastal Small MS4 General Permit, 2009.

FULL ANALYTICAL TESTING WATER QUALITY RESULTS

Sample Parameter	Analytical Test Method	Sample Collection (Time/Date)	Testing Lab	Analytical Testing Result
Ammonia	EPA 350.2/SM4500-NH3C			
Bacteria	E coli: 1103.1; 1603 Enterococcus: 1106.1; 1600			
Boron	EPA 212.3			
Chloride	EPA 9251			
Color	EPA 110.2			
Specific Conductance	SM 2510B			
Detergents & Surfactants	EPA 425.1/SM5540C			
Fluoride	EPA 300.0			
Hardness	EPA 130.1/SM 2340B			
Optical Enhancers	N/A*			
pH	EPA 150.1/SM 4500H			
Potassium	EPA 200.7			
Turbidity	SM 2130B			

*- There is presently no USEPA Standard Method for analysis of optical enhancers. Typically, sample pads are described as with “Present” or “Not Present” for fluorescing dye when exposed to UV light or a fluorometer.

Appendix F

IDDE Employee Training Record

Illicit Discharge Detection and Elimination (IDDE)

Employee Training Record

Town of Milford, NH

Date of Training: Spring 2023

Type of Training: Discussion at Staff Meeting

Name	Title	Signature
Leo Lessard	DPW Director	
Neal Beauregard	Highway Foreman	
Dave White	Sweeper Operator/Laborer	

Appendix G

Source Isolation and Confirmation Methods: Instructions, Manuals, and SOPs

Appendix to provide manufacturer instructions, manuals and procedures and any in-house SOPs used to perform source isolation and confirmation for illicit discharges once fully developed in accordance with the 2017 MS4 Permit.

Note: The Town of Milford is a participating member of the Nashua – Manchester Regional Stormwater Coalition. The following represent the current specific standard operating procedures and template forms for New Hampshire Communities that will be further evaluated and developed with the assistance of the Stormwater Coalition per the approved schedule.

Standard Operating Procedure for:	
G.1 IDDE: Tracing Illicit Discharges	
Purpose of SOP:	To provide a quick reference list of items to keep in mind during tracing activities to efficiently and systematically identify the source of an illicit discharge.

Always:

- Review / consider information collected when illicit discharge was initially identified (Incident Tracking Sheet or Dry Weather Outfall Inspection Form).
- Survey the general area / surrounding properties to identify potential sources of the illicit discharge as a first step.
- Trace illicit discharges using visual inspections of upstream points as a second step.
- Document tracing results for future reference.

Whenever Possible:

- Use weirs, sandbags, dams, or optical brightener monitoring traps to collect or pool intermittent discharges during dry weather.
- Smoke test or televise the storm drain system to trace high priority, difficult to detect illicit discharges.
- Dye test individual discharge points within suspected buildings.
- If the source cannot be found, add the location to a future inspection program.
- Collect bacterial samples of flowing discharges to confirm/refute illicit discharge.

Never:

- Never enter private property without permission.
- Never put yourself in danger.

Standard Operating Procedure for:	
G.2 IDDE: Removing Illicit Discharges	
Purpose of SOP:	Proper removal of an illicit discharge will ensure it does not recur. Using legal methods for the removal will minimize the municipality's liability. This SOP provides an overview of illicit discharge removal procedures.

Always:

- Determine who is financially responsible; and follow associated procedures on Table 2-9.
- Suspend access to storm drain if threats of death or serious physical harm to humans or the environment are possible.
- If the discharge is from an exempt facility (see Table G-1) notify the facility operator and the appropriate enforcement authority.
- Repair/correct cause of discharge if municipality is responsible.
- Collect a confirmatory sample after the removal. Seek technical assistance from NHDES, if needed.

Whenever Possible:

- Issue a Notice of Violation for violations of the municipal ordinance.

Never:

- Never repair/correct cause of discharge on private property until directed to do so by the appropriate municipal authority (storm water program manager, etc.)

TABLE G-1:
NOTIFICATION AND REMOVAL PROCEDURES FOR ILLICIT DISCHARGES INTO THE MUNICIPAL SEPARATE STORM SEWER SYSTEM

Financially Responsible Party	Source Identified	Enforcement Authority	Procedure to Follow
Private Property Owner	One-time illicit discharge (e.g., spill, dumping, etc.)	Ordinance enforcement authority (e.g.., Code Enforcement Officer)	• Contact Owner • Issue Notice of Violation • Issue fine
Private Property Owner	Intermittent or continuous illicit discharge from legal connection	Ordinance enforcement authority (e.g.., Code Enforcement Officer)	• Contact Owner • Issue Notice of Violation • Determine schedule for removal • Confirm removal
Private Property Owner	Intermittent or continuous illicit discharge from illegal connection or indirect (e.g., infiltration or failed septic)	Plumbing Inspector	• Notify plumbing inspector
Municipal	Intermittent or continuous illicit discharge from illegal connection or indirect (e.g., failed sewer line)	Ordinance enforcement authority (e.g., Code Enforcement Officer)	• Issue work order • Schedule removal • Remove connection • Confirm removal
Exempt 3rd Party • New Hampshire Department of Transportation (NHDOT) (in selected urbanized areas) • University of New Hampshire (UNH) (Durham) • Youth Development Center (Manchester) • Stafford County Complex (Dover) • Industrial Facilities with selected SIC codes	Any	USEPA	• Notify exempt third party and USEPA of illicit discharge

---SAMPLE---

NOTICE OF VIOLATION

Town of Milford, NH

Office of Community Development
Planning~Zoning~Building~Code Enforcement

1 Union Square

Milford, NH 03055
TELEPHONE (603) XXX-XXXX FAX (603) XXX-XXXX

September 1, 20___

Citizen
22 Main Street
Town, NH 03210

RE: Tax Map #_____

Dear Citizen:

On August 30, 20____,_____, Planning Inspector and I responded to a report of a discharge to the storm drain system on property owned by you at _____ Street in_____, NH.

We did confirm the presence of_____. This is to confirm the conversation I had with you. You are in the process of _____ and we agreed you would have the correction completed by_____. We discussed you will_____.

This discharge is in violation of the Town of_____'s Non-Storm Water Discharge Ordinance, which is required by the Clean Water Act. Please keep me informed of how the correction is proceeding. Enclosed is a copy of the Ordinance for your review.

If I can be of further assistance please do not hesitate to contact my office. We are open Mondays from 7:00 a.m. to 5:30 p.m. and Tuesday through Friday, from 8:00 a.m. to 4:30 p.m. I can be reached at 555-5555, extension _____.

Sincerely,

Joe Inspector
Code Enforcement Officer