Illicit Discharge Detection and Elimination Program (IDDEP)

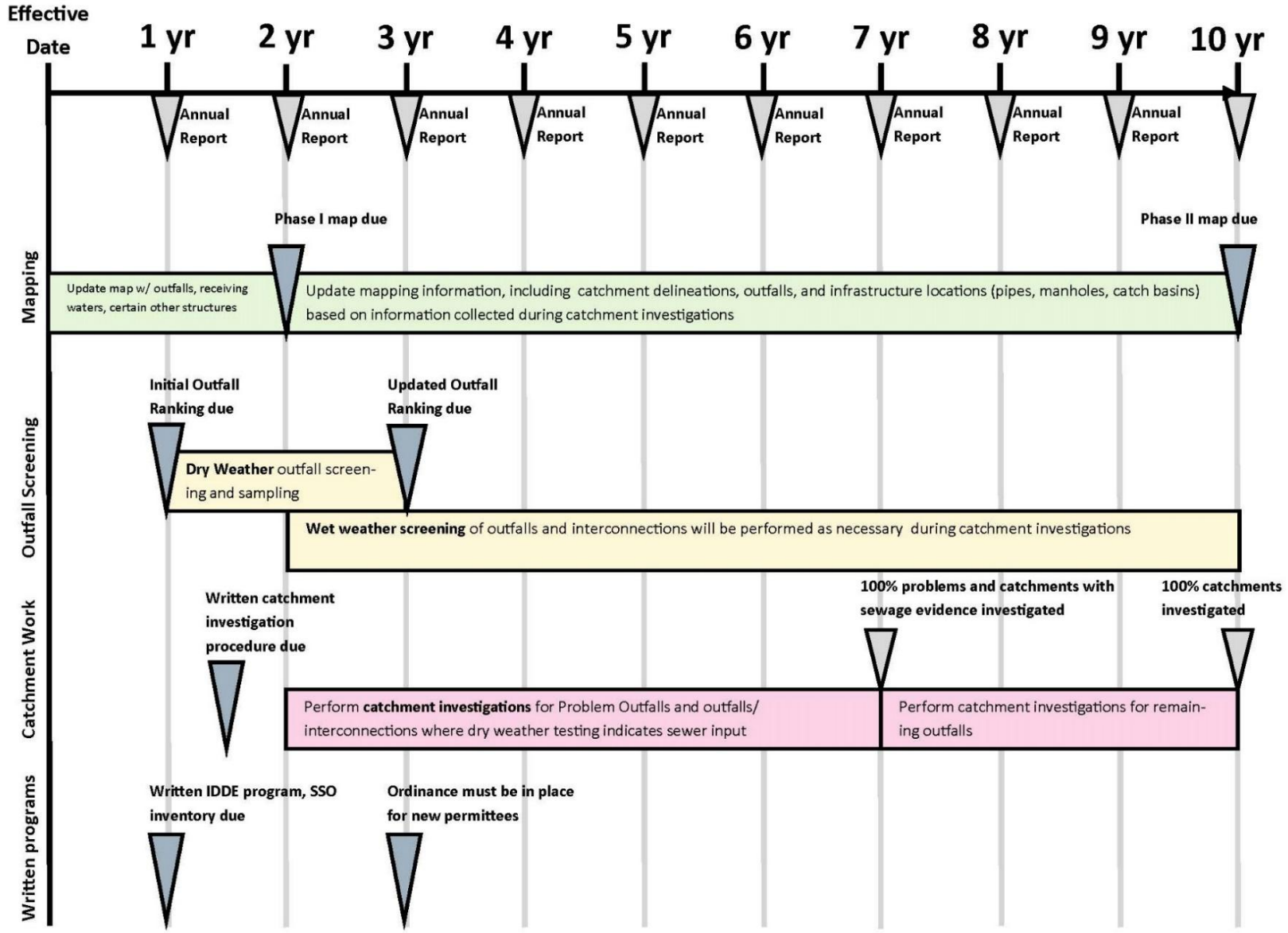
Town of Pelham

Permit Year 7

June 30, 2025

EPA NPDES Permit Number NHR041025

2017 MS4 PERMIT IDDEP SCHEDULE



Source: Nashua-Manchester Stormwater Coalition, 2019

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D1 IDDEP Implementation Timeline

D1.1 MS4 Program

This Illicit Discharge Detection and Elimination Program (IDDEP) has been developed by the Town of Pelham to address the requirements of the U.S. Environmental Protection Agency's (EPA) 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 "Permit".

The 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 (MCM 3), the permittee is required to implement an IDDEP to systematically find and eliminate sources of non-stormwater discharges to its MS4s and implement procedures to prevent such discharges. The IDDEP must be recorded in a written (hardcopy or electronic) document. This IDDEP has been prepared to address these requirements.

D1.2 Illicit Discharges

An "illicit discharge" is any discharge to a drainage system that is not composed entirely of stormwater, except for discharges related to an individual NPDES permit (other than the permit for discharges from the MS4 regulated area) and other allowable discharges as outlined in the Permit (*Part 1.4*).

Illicit discharges may take a variety of forms and may enter the drainage system through direct or indirect connections. Direct connections may be relatively obvious, such as connections from non-stormwater sources into a municipal piped 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, or a sump pump that discharges contaminated water on an intermittent basis.

Some illicit discharges are intentional, such as dumping used oil (or other pollutants) into catch basins, a resident or contractor illegally tapping into a municipal storm drainage pipe or structure, or illegal dumping of yard wastes into surface waters, including wetlands.

Some illicit discharges are related to the unsuitability of original infrastructure to the modern regulatory environment. An example of illicit discharges in this category may include floor drains in old buildings connected to a town drainage system. Sump pumps legally connected to the storm drain system may be used inappropriately, such as for the disposal of floor wash water or disposal of old household products, in many cases due to a lack of understanding on the part of the property owner.

Some illicit discharges are due to obstructing the municipal storm drain system. A resident or contractor may not obstruct or interfere with the storm drain system without permission of the Town.

If any evidence of a potential illicit discharge is found, access to the storm drainage system may be suspended to address the threat of the discharge. Elimination of some discharges may require substantial cost and effort. Others, such as improving self-policing of dog waste management, can be accomplished by outreach in conjunction with the minimal cost of dog waste bins and a municipal commitment to disposal of collected materials and supplies replenishment on a regular basis.

Regardless of 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 and wetlands.

In Year 5, the Town investigated potential illicit connections noticed during catch basin inspections in the summer and fall of 2022. Of the eleven potential connections, none were found to be actual illicit connections.

D1.3 Allowable Non-Stormwater Discharges

The following categories of non-stormwater discharges are allowed under the Permit unless the EPA identifies any category or individual discharge of non-stormwater discharge as a significant contributor of pollutants to the Town's MS4s:

- Natural flows from riparian habitats and wetlands;
- Diverted stream flows;
- Flows from potable water sources;
- Rising groundwater or uncontaminated pumped groundwater;
- Uncontaminated groundwater infiltration;
- Discharge from landscaped irrigation or lawn watering;

  irrigation water, springs;
  Discharge from dechlorinated swimming pool water, hot tubs, ice skating rinks, and other non-commercial recreational water uses;
- Water from foundation and footing drains (not including active groundwater dewatering systems, such as dewatering excavations for foundation or pipelines), basement and crawl space pumps, or HVAC systems;
- Discharges of inconsequential amounts of water during normal street sweeper operations;
- Waterline flushing, culvert, or storm drain cleaning;
- Fire-fighting activities;
- Dye testing, provided that verbal notification is given to the Pelham Planning Director or their designee(s) and approval is obtained prior to the time of the test;
- Air conditioning condensation;
- Water from residential vehicle washing, house exterior or household item washing;
- Non-stormwater discharges permitted under another NPDES permit, waiver, or waste discharge order administered under the authority of the EPA, provided that the discharge is in full compliance with the requirements of the permit, waiver, or order and applicable laws and regulations; and
- Discharges for which advanced written approval is received from the Pelham Planning Director or their designee(s), if necessary, to protect public health, safety, welfare, or the environment.

If these discharges are identified as significant contributors to an MS4, they must be considered an “illicit discharge”, investigated, and addressed under this IDDEP (i.e., control these sources so they are no longer significant contributors of pollutants, and/or eliminate

them entirely). **Figure D1-1** shows the general format of an illicit discharge investigation program, and **Table D1-1** outlines the Town's proposed schedule for implementing this IDDEP under the current Permit.

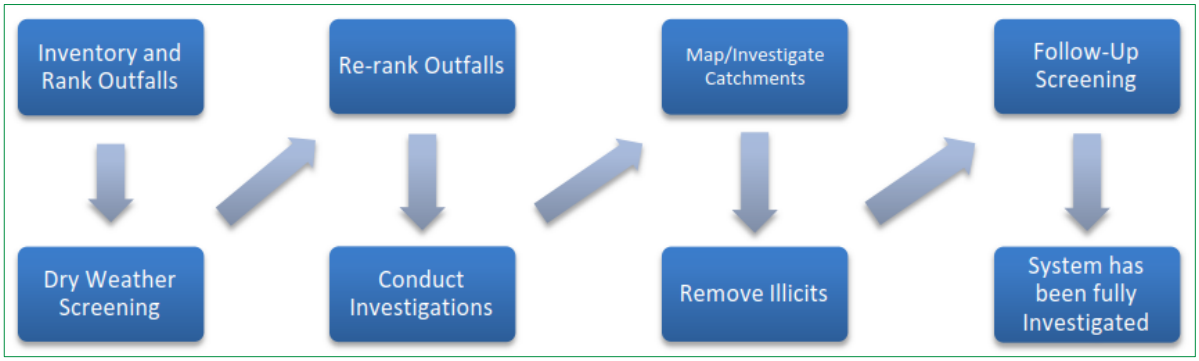


Figure D1-1. IDDEP Investigation Procedure Framework

TABLE D1-1 Pelham NH IDDEP Implementation Timeline

IDDEP Requirement	Completion Date from Effective Date of Permit					
	1 Year	1.5 Years	2 Years	3 Years	7 Years	10 Years
Written IDDEP Plan	X					
Initial Outfall Ranking	X					
Written Catchment Investigation Procedure		X				
Phase I Mapping			X			

TABLE D1-1 Pelham NH IDDEP Implementation Timeline						
IDDEP Requirement	**Completion Date from Effective Date of Permit**					
	1 Year	**1.5 Years**	**2 Years**	**3 Years**	**7 Years**	**10 Years**
Phase II Mapping						**X**
IDDEP Regulatory Mechanism or By-Law			**X**			
Dry Weather Outfall Screening				**X**		
Follow-up Ranking of Outfalls and Interconnections				**X**		
Catchment Investigations Problem Outfalls (if any)					**X**	
Catchment Investigations All Outfalls						**X**

Effective date of the permit is July 1, 2018

D2 Authority and Statement of IDDEP Responsibilities

D2.1 Legal Authority

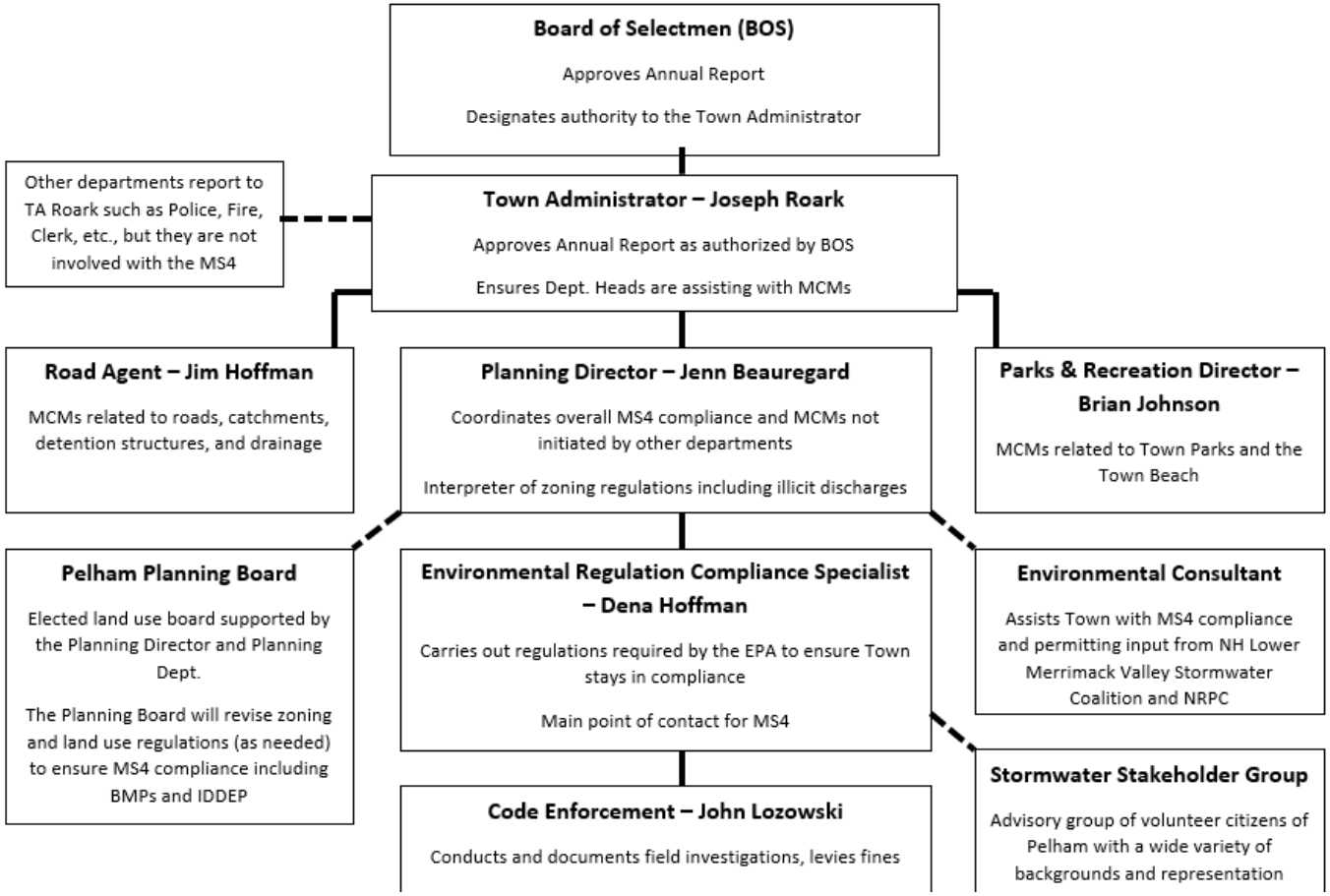
The Town of Pelham has adopted Zoning Ordinance Article VIII-I*, Illicit Discharge Detection and Elimination (IDDE) Ordinance*, (March 2020) with legal authority to:

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

A copy of the Ordinance is included in **Appendix DA**. This revised Ordinance incorporates language and requirements of the 2017 MS4 Permit and fully replaces the Town's previous 2010 Illicit Discharge Ordinance.

D2.2 Statement of Responsibilities

The Pelham Planning and Zoning Department is the lead municipal agency responsible for implementing the IDDEP per the provisions of the Zoning Ordinance Article VIII-I. Agencies or departments with responsibility for aspects of the program include:



D3 Stormwater System Mapping

A copy of the Town's current storm system map is provided in **Appendix DB**. The Permit requires the storm system map to be updated in two phases as outlined below. The Town's Planning Department in consultation with the Nashua Regional Planning Commission and the Town's environmental consultant, if applicable, assists the Town in updating the stormwater system mapping per the Permit. The Town will report on the progress towards ongoing improvement of the storm system map in each annual report. Updates to the stormwater mapping will be included in subsequent annual issues of the SWMP, this IDDEP, and in the annual reporting.

The adoption of a spatial asset management program (system mapping) for the Town's regulated area is an essential component to assist in the prioritization of implementing this IDDEP, as well as overall resource and capital planning in managing and operating the Town's MS4 infrastructure. In general, this approach should include:

- creating a spatial inventory (system mapping);
- prioritizing outfalls for IDDEP investigations (outfall ranking);
- assessing the physical condition of assets (i.e., catch basins, outfalls, etc.), (dry-weather screening and infrastructure inspections);
- identifying optimal preventive maintenance, maintenance schedules, and operating strategies for MS4 infrastructure (inspections & maintenance);
- identifying potential resources and capital planning requirements; and
- implementing long-term funding plans to implement the SWMP, including this IDDEP.

D3.1 Phase I Mapping

Under the 2003 MS4 Permit the Town was required to map outfalls and receiving waterbodies with the intent that this mapping would form the basis for future improvements, planning, and IDDEP identification and development.

The Town completed digital mapping of outfalls and initial catch basin structures town-wide, as known and accessible, both within and outside of the MS4 regulated area. The data collection was achieved by a team using GPS (global positioning system) equipment and online forms. Data collected for each MS4 structure included:

- latitude and longitude location;
- approximate address location;
- outfall type/material;
- outfall size;
- condition of outfall;
- presence of flow;
- headwall type/material;
- watershed;
- additional notes;
- date data collected; and
- photos.

Each location was assigned a unique identifier. A total of 418 outfalls, 1763 catch basins, and 20 miscellaneous structures were located and cataloged. **Table D3-1** shows the breakdown of the Town's mapped stormwater points both within and outside of the regulated MS4 areas.

TABLE D3-1 Pelham NH Infrastructure Inventory

Stormwater Inventory	All Pelham	MS4 Regulated Area	Percent
Basis of Area (square miles)	26.8	16.2	60%
Outfalls	418	311	74%
Catch Basins	1763	1310	75%
Miscellaneous	20	13	65%

The 2017 MS4 Permit expanded the mapping requirements in two phases. In Phase I additional features were added to the mapping within the first two years of the Permit. These features included all MS4 regulated area:

- outfalls and receiving waters;
- waterbodies identified by impairments per the current EPA-approved NHDES 303(d) and 305(b) lists;
- interconnections with other MS4s;
- initial outfall catchment delineations;

- town-owned stormwater treatment structures (detention ponds, infiltration, oil/water separators, etc.); and
- open channel conveyances (man-made swales, ditches, etc.).

D3.2 Phase II Mapping

Mapping must be updated annually as additional and/or improved information becomes available. Phase II mapping is to be completed by Year 10 of the Permit and at a minimum includes:

- spatial locations and updated data of outfalls, pipes, manholes, catch basins; and
- refined catchment delineations for outfalls based on screening, sampling, and investigation programs.

D4 Sanitary Sewer Overflows (SSOs)

Town of Pelham has no municipally owned sewer and therefore no Sanitary Sewer Overflows (SSOs).

D5 Assessment and Priority Ranking of Outfalls

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

D5.1 Outfall and Interconnection Inventory and Initial Ranking

The Town must complete a ranking of all outfalls within the regulated area (*Part 2.3.4.7*). The required ranking is intended to prioritize outfall screening and investigations for illicit discharges (IDs) and determine milestones for the IDDEP. The Permit provides the following minimum categories and thresholds for ranking and prioritizing outfalls:

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.[4]

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; and/or
- determined by the permittee as high priority based on the characteristics listed in the table with scores equal to or greater than 10.

Low Priority Outfalls: Outfalls/interconnections determined by the permittee as low priority based on the characteristics listed the table with scores less than 10.

Excluded outfalls: Outfalls/interconnections with no potential for illicit discharges may be excluded from the IDDEP. This category is limited to roadway drainage in undeveloped areas with no dwellings and no sanitary sewers; drainage for parks or undeveloped green space not receiving fertilizers; and cross-country drainage alignments through undeveloped land (that neither cross nor are in proximity to sanitary sewer alignments).

The Town Planning Department, in consultation with the Town's environmental consultant, completed an initial outfall and interconnection inventory and priority ranking to assess illicit discharge potential based on available existing information. The inventory will be updated annually

to include data collected in connection with dry weather screening, sampling, and other relevant inspections.

Outfalls were ranked into the above categories based on the following characteristics where information was available. To prioritize mapping and outfall assessment work the permittee used location-specific characteristics as noted in **Appendix DC.** For the initial screening and catchment investigations, the approach targets the highest ranked areas first as identified in the Permit and supporting guidance.

Characteristics local to each estimated MS4 outfall that may have been considered include:

- **Water quality limited waterbodies** that receive a discharge from the Town's regulated area 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.
- **Discharging in an area of public health concern.**
- **Past discharge complaints and reports.**
- **Density of generating sites** – Generating sites are those places, including institutional, municipal, commercial, industrial sites, or zoning districts 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; or industrial manufacturing zoned areas.
- **Age of development and infrastructure** – Industrial areas greater than 40 years old and areas where the sanitary systems may be more than 40 years old will probably have a higher illicit discharge potential. Developments 20 years or younger will probably have a lower illicit discharge potential.
- **Surrounding density of aging septic systems** – Septic systems 30 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.
- **Poor receiving water quality** – the following guidelines are recommended to identify waters as having a high illicit discharge potential:
    - Exceeding water quality standards for bacteria;

- Ammonia levels above 0.5 mg/l; or
- Surfactants levels greater than or equal to 0.25 mg/l.

The following **Figure D5-1** is an initial outfall prioritization flowchart, see **Appendix DC** for the outfall inventory and priority ranking matrix:

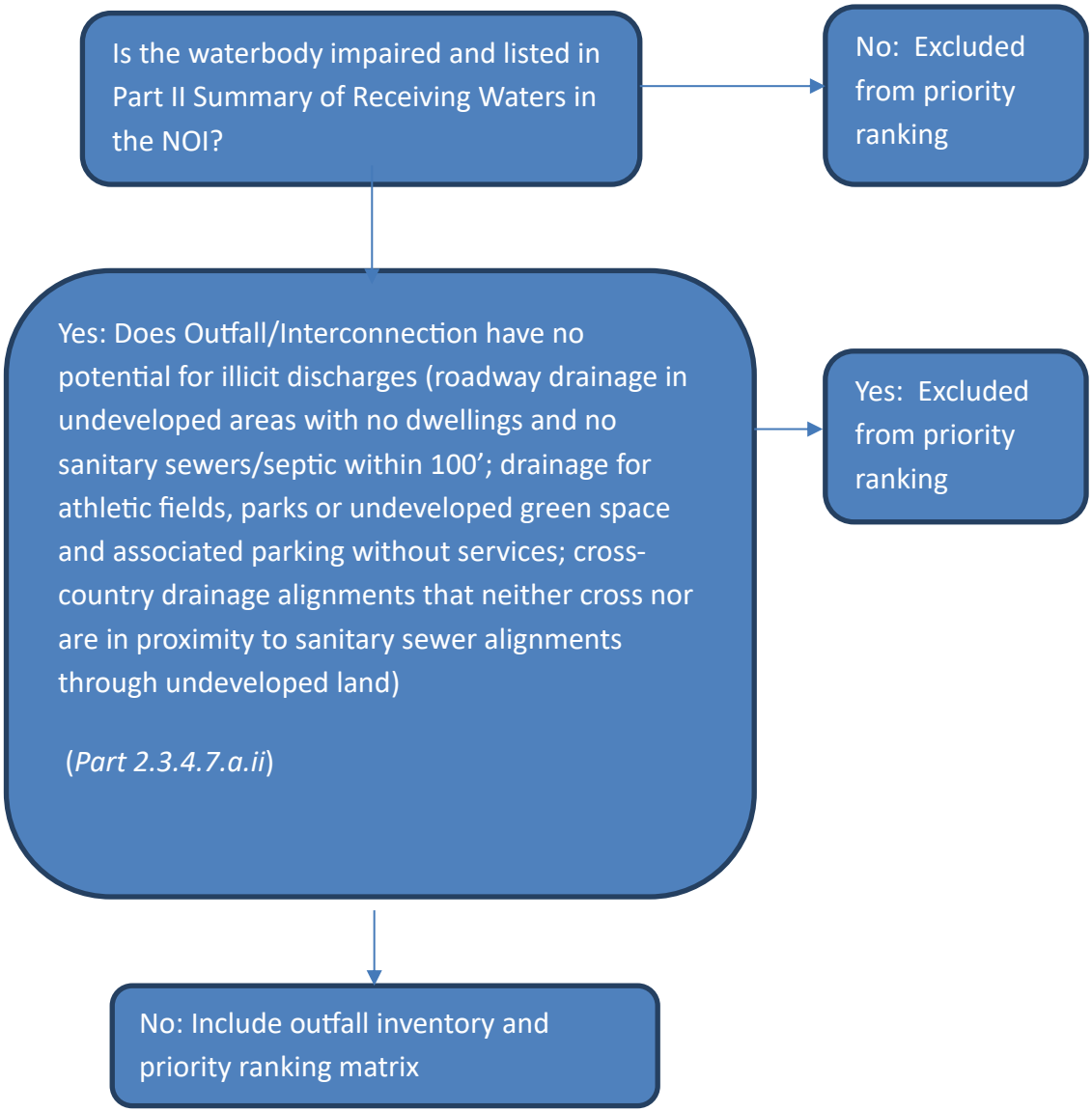


Figure D5-1. IDDEP Investigation Prioritization

D5.2 Initial Ranking Methodology (Permit Year 1)

Initial outfall ranking was completed for Year 1 of the Permit (*Part 2.3.4.7.a*). The initial ranking identified 313 outfalls within the Town's regulated MS4 areas in six watersheds (NHDFES AUID). The ranking of each outfall was completed using a matrix approach and Permit required categories as applicable to the Town (sewer-related criteria do not apply to the Town). The tabulated ranked data is included in **Appendix DC**.

Outfall scoring was completed for mapped outfalls within the MS4 regulated area (only). Identification of outfalls in each category was accomplished through GIS spatial analyses of previously mapped outfalls, Nashua Regional Planning Commission (NRPC), and watershed data sets. Weighted scoring was assigned to the categories as described in **Table D5-1**.

In addition to the required Permit categories, this initial ranking assessment compiled publicly available data sets related to potential pollutant sources and resources to be protected into the Town's GIS and tabulated the results of spatial overlay analyses between the data sets and the mapped town MS4 outfall locations. These additional GIS sub-categories were combined into a single table that matched each resulting outfall with each sub-category, individually scored each outfall for each sub-category, and summed the total score for each outfall into a single category ("GIS Weighted Data"), then added to the full outfall ranking as shown in **Table D5-1**.

For each GIS sub-category, scoring was assigned similar to the Permit categories, and based upon the level of likelihood that the data type has the potential to contribute to water quality-related pollution or is located in or adjacent to an area of human health or environmental concern.

The GIS sub-categories included 14 data sets obtained from various sources including the Nashua Regional Planning Commission, NH GRANIT[2], NHDES OneStop Data Mapper[3], and OLIVER (MA

[2] http://www.granit.unh.edu/

[3] http://nhdesonestop.sr.unh.edu/html5viewer/

GIS)[4], USGS National Map[5], and USGS NLCD[6]. The sub-categories used for the additional GIS outfall ranking and related data is shown below in **Table D5-2**.

For Year 3, mapping was refined based upon the dry-screening and additional desktop analyses to review the outfall inventory. The desktop analyses were completed using the Town's current MS4 mapping with publicly available imagery and street views, NHDOT structure data, and previously developed town GIS data. As a result of this effort, the outfall inventory was reduced from 313 to 134 outfalls and 7 interconnections. The reductions were related to the following criteria to estimate previously mapped outfalls as:

- public (Pelham) versus private or NHDOT (retained public structures);
- cross-culverts (removed);
- outfalls located within 300-feet of a regulated waterbody (Waters of the US (WOTUS)) or 150-feet of a wetland; and
- outfall catchments receiving runoff from the MS4 regulated area.

Outfalls not meeting the above criteria were removed from the inventory. This analysis also added 8 new outfalls and 7 interconnections to the inventory.

[4] http://maps.massgis.state.ma.us/map_ol/oliver.php

[5] https://viewer.nationalmap.gov/basic/

[6] https://www.mrlc.gov/

TABLE D5-1 Year 3 Outfall Ranking Categories, Parameters, and Scoring

Scoring Criteria:	In Subwatershed with Impairment?	Receiving Water Body Impairment?	Discharging to Area of Concern to Public Health?	Frequency of Past Discharge Complaints	Density of Generating Sites	Age of Development/ Infrastructure	Aging Septic?	Culverted Streams?	Additional GIS Characteristics
Data Sources:	NHDES Impaired Waters List, GIS	NHDES Impaired Waters List, GIS	GIS	Town Staff	Zoning/Land Use/GIS, Town Staff (TBD)	Land Use Data, Visual Observation, Town Staff	Land Use Data, BOH/Town Staff	GIS	GIS Data
Specifies:	NHDES impairment categories 4 and 5	outfalls within 250-feet of impaired waterbody for bacteria (TMDL) and phosphorus (water quality limited)	public beaches: within 250-foot buffer (Shoreland Buffer) recreational areas: within 250-foot buffet (Shoreland Buffer) drinking water supply: public: 300-foot buffer registered water users: 300-foot buffer private: 150-foot buffer (2x required protection radius)	locations of known past and current illicit discharge investigations (none Year 1 through Year 3)	outfalls located in Town Zoning for Industrial and Business Site-Specific by Town (TBD)	older development and/or infrastructure where past connections may exist to Town MS4s (TBD)	older septic systems that have higher potential to be failed (TBD)	piped stream flow that is longer than a simple road crossing	See Table D5-2
Scoring Applied:	Yes: Category 5 = 5 Category 4 = 3 No = 0	Yes = 10 (impairment listed as high priority in permit) No = 0	Yes = 10 No = 0	Frequent = 3 Occasional = 2 None = 0	High = 5 Medium = 3 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	

TABLE D5-1 Year 3 Outfall Ranking Categories, Parameters, and Scoring									
Scoring Criteria:	In Subwatershed with Impairment?	Receiving Water Body Impairment?	Discharging to Area of Concern to Public Health?	Frequency of Past Discharge Complaints	Density of Generating Sites	Age of Development/ Infrastructure	Aging Septic?	Culverted Streams?	Additional GIS Characteristics
# Outfalls:	52	51	5	2	10				141

TABLE D5-2 Pelham Additional Outfall Ranking Category "GIS Data"				
Dataset used in GIS sub-category for outfall ranking	Dataset levels or areal/point (high - low)	Sub-category score	Buffer analysis applied	# Outfall results in spatial overlay analyses
NH National Wetlands Inventory	areal	3	within	12
Pelham Conservation / Recreation Land	areal	3 1	within 150-feet	32
NH Wildlife Action Plan Habitat Tiers (2020)	1 2 3	3 2 1	150-feet	67
NHDES Well Inventory	point	1 each	150-feet	19
NHDES OneStop Potential Pollutant Sources	point	1-5 depending on estimated potential (Additive per occurrence)	within regulated outfall catchment area	6
NHDES Auto Salvage				
NHDES Registered Hazardous Waste Generators				
NHDES Registered Potential Contamination Sources				
NHDES Registered Remediation Sites				
NHDES Registered Solid Waste Facilities				

Using a total scoring threshold of 10, within the Town's regulated area the updated outfall ranking yielded 54 High Priority Outfalls, and 87 Low Priority Outfalls. The update also added 8 new outfalls and 7 interconnections to the inventory. This list will provide the basis for developing and scheduling future screening and catchment investigations. New outfalls/interconnections were dry weather screened in Year 4.

D5.3 Continuous Ranking, Screening, and Investigations

Following the initial ranking of outfalls within the Town's regulated area, the Town is required to continue to update the ranking annually with collected data from screenings, inspections, and investigations, as well as with improved overall assessment information. Screening and ranking of outfalls were required to be completed by the end of Year 3.

Additionally, based on the ranking of each outfall, the Town is required to investigate catchments and upstream infrastructure to determine potential source(s) of pollution if identified in outfall screening. Milestones for catchment investigations are outlined in the Permit (relative to the effective date of the Permit):

Within 18-months (December 31, 2019)	Written catchment investigation procedures in place that outline how outfalls and their upstream catchment areas will be investigated to determine the source(s) of potential pollution.
Within two (2) years (June 30, 2020)	Begin catchment investigations for Problem Outfalls (none identified for Pelham).
Within seven (7) years (June 30, 2025)	Complete catchment investigations for Problem Outfalls (none identified for Pelham).
Within ten (10) years (June 30, 2028)	Complete High and Low ranked catchment investigations.

D5.4 Outfall Catchment Delineations

The catchments for each of the 313 initially identified MS4 outfalls have been delineated to define contributing areas for investigation of potential sources of illicit discharges. Per the Permit, initial catchment delineations were to be completed as part of the Phase I mapping through Year 2, and refined catchment delineations, if needed, will be completed as part of the Phase II mapping through Year 10 to reflect information collected during catchment investigations.

D6 Dry Weather Outfall Screening and Sampling

Dry weather flow is a common indicator of potential illicit connections. The Permit requires all High and Low ranked outfalls/interconnections to be inspected for the presence of dry weather flow. The Planning Department conducted dry weather outfall screening through Year 3 based on the initial rankings described in the previous section starting with High Priority outfalls, followed by Low Priority outfalls.

Dry weather outfall screening and sampling was completed in accordance with *Part 2.3.4.7.b* of the Permit and as described in SOPs and forms in **Appendices DD and DE**.

D6.1 Year 3 Dry Weather Screening Summary

Between the months of June and November of 2020, the Town with its environmental consultants performed dry-weather outfall screening in accordance with the IDDEP SOPs and the Permit. The outfall inventory included a total of 314 outfalls within the town. A total of 307 outfalls were screened during the 2020 (Year 3) field program. While in the field, staff determined that 5 of the 314 outfalls did not meet the definition of an MS4 outfall due to location, purpose, or function, and 2 others were not able to be located. Of 307 outfalls screened, none were observed to have dry-weather discharge or found to have any of the visual or olfactory indicators of a current or past illicit discharge. Table 2 is a summary of the outfall screening.

TABLE 2: Dry-Weather Screening Data

Total Outfalls	Outfalls Screened	Outfalls with No Discharge	Outfalls Sampled	Outfalls with an Initial priority ranking as 'High'	Outfalls with ranked as 'High' post 2020 screening
311	311	311	0	110	52

As a result of the field screening efforts, where no outfalls were found to have dry-weather flow or other illicit discharge indicators, all outfalls were reprioritized to a 'Low' ranking in the outfall inventory per *Part 2.3.4.7.c* of the Permit. A summary report and screening results are included in Volume 2 of the SWMP.

Next steps for the Town as related to outfall screening are to complete catchment investigations (*Permit Part 2.3.4.8*) and wet-weather screening and sampling, as applicable. SOPs for both catchment investigations and wet-weather screening are included in this IDDEP appendices. Additionally, each outfall that remains part of the inventory is required to be scheduled for on-going dry-weather screening once every five years per *Permit Part 2.3*.

D6.2 Weather Screening/Sampling Procedures

The dry weather screening SOP and field form is provided in **Appendix DD**. Water Quality SOPs and forms are in **Appendix DE**.

The dry weather outfall screening and sampling procedure consists of the following general steps.

1. Identify outfall(s) to be screened based on initial outfall inventory and priority ranking.
2. Acquire the necessary staff, mapping, and field equipment (see **Table D6-1** for list of potential field equipment).
3. Conduct the outfall screening during dry weather:
    a. photograph the outfall;
    b. record the information and outfall characteristics (using paper or digital form) (see forms in **Appendix DD/DE**); and
    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 a flow is observed, sample and test the flow following the procedures described in the **Section D6.4** of this IDDEP.
5. If no flow is observed, but evidence of illicit flow exists per above observations (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 screening during evenings or weekends.

6. Document results from screening and sampling in a spreadsheet or database. Include pertinent information in the outfall/interconnection inventory and priority ranking.
7. Include all screening data in the Annual Report.

D6.3 Field Equipment

TABLE D6-1 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 screening and dry weather sampling should be available with extras
Tablet/Cell Phone with Digital Screening Form	A digital screening form was developed for use in the field
Chain of Custody Forms	To promote proper handling of all samples
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 screening or sampling
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

TABLE D6-1 Field Equipment – Dry Weather Outfall Screening and Sampling	
Equipment	Use/Notes
Water Quality Meter	Handheld 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 pre-cleaned and supplied by a laboratory Always keep extra sample containers on hand Make sure there are proper sample containers for what is being sampled for (i.e., bacteria require sterile containers)
Pry Bar or Pick	For opening catch basins and manholes when necessary
Sandbags	For damming low flows 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
Paper Towels	For clean up
PPE	As applicable

D6.4 Sample Collection and Analysis

If flow is present during a dry weather outfall screening, perform field testing and sampling for the required permit parameters as discussed in the SOPs. 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 DD** for Sample Labels and Field Sheets).
2. Put on protective gloves (nitrile/latex/other) before sampling.
3. Collect samples 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 (do not use dipper for bacteria sampling).
5. Use test strips, test kits, and field meters (rinse similar to dipper).
6. Place laboratory samples on ice for analysis of bacteria and pollutants of concern, as applicable.
7. Fill out chain-of-custody form (**Appendix DD**) for laboratory samples.
8. Deliver samples to the qualified laboratory.
9. Dispose of used test strips and test kit material properly.
10. Decontaminate all testing personnel and equipment.

If an outfall is submerged, either partially or completely, or inaccessible, and there is not an obvious positive flow emanating from the outfall or the flow cannot be sampled distinctly from the receiving water, 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 pollutants of concern (phosphorus). Field kits need to have appropriate detection limits and ranges.

D6.5 Follow-up Ranking of Outfalls and Interconnections

For Year 3, the Town of Pelham updated and re-prioritized the initial outfall and interconnection rankings based on information gathered during dry weather screening. The

rankings will be updated periodically as future screening and/or sampling information becomes available.

No outfalls/interconnections were found with evidence of septage input to the MS4. If future screening or sampling results indicate potential septage input outfall rankings will be adjusted according to the Permit requirements.

D7 Catchment Investigations

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

Catchment Investigations shall be completed in accordance with *Part 2.3.4.8* of the Permit. A written catchment investigation procedure is incorporated into this IDDEP plan. If applicable, 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 (none identified in Pelham).

SOPs and forms for IDDEP source investigations are in **Appendix DF**.

D7.1 Illicit Discharge Removal

When the specific source of an illicit discharge is identified, the Town of Pelham will exercise its authority as necessary to require its removal. The annual report will include the status of IDDEP 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; and
- Estimate of the volume of flow removed.

Table DF-1 provides some examples of potential sources of intermittent illicit discharges that may warrant screening and/or investigations.

D8 Training

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

D9 Progress Reporting

The progress and success of the IDDEP 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 illicit discharges identified and removed;
- Number and percent of total outfall catchments within the MS4 regulated area evaluated using the catchment investigation procedure;
- Number of dry weather outfall screenings;
- Number of wet weather outfall sampling events;
- All dry weather and wet weather screening and sampling results;
- Estimate of the volume of sewage inflow eliminated, as applicable; and
- Number of employees trained annually.

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

Appendix DA

Legal Authority (IDDE Ordinance)

ARTICLE VIII-I
ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) ORDINANCE
[Added by ballot March 2010, Replaced in its entirety by ballot March 2020]

307-48-1-1 Purpose and Intent

The purpose of this Illicit Discharge Detection and Elimination Ordinance (the Ordinance) is to protect water quality in the Town of Pelham (Pelham or the Town) necessary to provide for the health, safety, and general welfare of the citizens through the regulation of non-storm water discharges to storm drain systems, surface waters, or ground water to the maximum extent practicable as required by federal and state law.

To comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit, this Ordinance intends to provide for the protection of Pelham's local natural resources by establishing and enforcing the prohibition of illicit discharges that can carry pollutants into local surface waters and ground water.

The objectives of this Ordinance are to:

1. prevent pollutants from entering Pelham's storm drain systems, surface waters, or ground water.
2. prevent the pollution of surface waters and ground water that serve as a primary source of local drinking water supplies.
3. prohibit illicit discharges and connections to Pelham's storm drain systems, surface waters, or ground water.
4. require the removal of all known illicit connections.
5. comply with state and federal statutes and regulations relating to storm water discharges.
6. establish legal authority to carry out all inspection, surveillance, monitoring, and enforcement procedures necessary to ensure compliance with this Ordinance.

307-48-1-2 Definitions

A. Best Management Practice (BMP) An activity, procedure, restraint, or an accepted and proven structural, non-structural, or vegetative measure which reduces the quantity or improves the quality of storm water runoff.

B. Discharge Access (Point) The outlet location of a discharge conveyance.

C. Discharger Any person, entity, property owner or lessee of a property engaged in causing an illicit discharge from their property.

D. Environmental Protection Agency (EPA) The Federal agency responsible for implementing the Federal Water Pollution Control Act, (3 U.S.C. § 1251 et seq.) aka the "Clean Water Act".

E. Illicit Connection An illicit, unauthorized, or illegal connection that drains into or is connected to a storm drain system, surface waters, or ground water, shall mean either of the following:

1. any pipe, drain, open channel, or other conveyances that has the potential to allow an illicit discharge. Including, but not limited to any conveyances which allow non-storm water discharge such as sewage, process wastewater, or wash water to enter storm drain systems, surface waters, or ground water. This includes any connections to storm drain systems, surface waters, or ground water from indoor drains and sinks regardless of whether said drain or connection had been

previously allowed, permitted, or approved by the Town.

OR

2. any pipe, drain, open channel, or conveyance connected from a residential, commercial, or industrial land use, that has not been documented in plans, maps, or equivalent records or has not been approved by an authorized federal, state, or local enforcement agency.

F. Illicit Discharge Any direct or indirect non-storm water discharge to storm drain systems, surface waters, or ground water, excepting discharges authorized by a specific NPDES permit, or firefighting activities.

G. Infiltration The act of conveying surface water into the ground resulting in ground water recharge and the reduction of storm water runoff.

H. National Pollutant Discharge Elimination System (NPDES) The water quality program established as part of the Clean Water Act and implemented by the EPA to authorize the discharge of pollutants into surface waters of the United States.

I. Non-Storm Water Discharge Discharge to storm drain systems, surface waters, or ground water not composed entirely of storm water.

J. Outfall The point at which storm water flows out from a discernible source; a confined and discrete conveyance into Waters of the State of New Hampshire or Waters of the United States.

K. Owner A person or entity with a legal or equitable interest in a property.

L. Pollutant Anything which causes or contributes to pollution whether originating at a point or nonpoint source, and that is or may be introduced into any sewage treatment works or Waters of the State of New Hampshire or Waters of the United States.

Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

M. Storm Water Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation or resulting from such precipitation.

N. Storm Water Management Plan (SWMP) Town regulations required by the EPA (NPDES) that describes the Town's management of storm water by using pollutant source controls, BMPs, and construction phase practices.

O. Storm Water Pollution Prevention Plan (SWPPP) A plan required by the Town from a person or entity to identify potential sources of pollution or contamination at a site, and to eliminate or reduce the opportunity for the introduction of pollutants into storm water runoff through improved site design, pollutant source controls, structural BMPs, and construction phase practices.

P. Storm Water Runoff Any water coming from rainfall, snowmelt, or irrigation systems (etc.) that is not absorbed, evaporated, or otherwise stored within the contributing drainage area.

Q. Town The governing body of the Town of Pelham as the authorized enforcement agency under this Ordinance including, but not limited to: officers of the Town; Town departments, boards and commissions; and any other entity or designee(s) directed by the Town officials to act on behalf of the Town.

307-48-1-3 Applicability

This Ordinance shall apply to all water, pollutants, or other flows entering storm drain systems, wetlands, surface waters, or ground water generated from any public or private, developed or undeveloped lands within the Town of Pelham, unless explicitly exempted by the Town. This Ordinance applies to all discharges including construction activity.

307-48-1-4 Responsibility

It is the responsibility of the Town, property and facility owners, property and facility users, and all citizens to act in a way to prevent pollution, protect natural resources, and safeguard public health and safety.

All property and facility owners and their assigns or lessees have the responsibility to manage and discharge non-storm water flows legally and in compliance with all federal, state, and local ordinances, regulations, rules, and laws. All property and facility owners and their assigns or lessees have the responsibility to maintain and operate storm water devices and systems under their control in a manner consistent with all federal, state, and local ordinances, regulations, rules, and laws, and to ensure continuous and lawful functioning.

Every person or entity (or person or entity's lessee) owning property through which a watercourse passes shall keep and maintain that part of the watercourse within the property free of trash, debris, excessive vegetation, obstructions, or other matter that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

The Town is responsible for oversight of Pelham's storm drain systems, surface waters, and ground water to ensure that the discharge of pollutants is prohibited and to provide a mechanism to regulate and enforce the prohibitions.

The standards set forth herein and promulgated pursuant to this Ordinance are minimum standards; therefore, this Ordinance does not intend nor imply that compliance by any person or entity will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants.

307-48-1-5 Authority

The Town of Pelham shall administer, implement, and enforce the provisions of this Ordinance. Any powers granted or duties imposed upon the Town may be delegated in writing by the Town to other persons or entities acting in the beneficial interest of or in the employ of the Town.

5.1 Access to Property and Facility

To the extent permitted by law, this Ordinance provides authorization for the Town of Pelham to access properties and facilities to act on the detection and elimination of suspected and known illicit discharges including, but not limited to, inspection, monitoring, and enforcement. Unless determined by the Town to present imminent and substantial danger to the environment, or to public health or welfare, no entry shall be made without due notice and the consent of the property/facility owner or their assigns/lessees.

1. The Town shall be permitted to enter and inspect property and facilities subject to regulation under this

Ordinance as often as may be necessary to determine compliance with this Ordinance. If a discharger has security measures in force which require proper identification and clearance before entry into the premises, the discharger shall make the necessary arrangements to allow access to representatives of the Town.

2. Property owners and facility operators shall allow the Town ready access to all parts of the premises for the purposes of inspection, sampling, and if applicable, examination and copying of records that must be kept under the conditions of an NPDES permit to discharge storm water, and the performance of any additional duties as defined by state or federal law.

3. The Town shall have the right to set up on any property or facility such devices as are necessary, in the opinion of the Town, to conduct monitoring and/or sampling of storm water discharge.

4. The Town has the right to require dischargers to install monitoring equipment as necessary. Such sampling and monitoring equipment shall always be maintained in a safe and proper operating condition by the discharger at their own expense. All devices used to measure storm water flow and quality shall be calibrated to ensure accuracy.

5. Any temporary or permanent obstruction to safe and easy access to the property or facility to be inspected and/or sampled shall be promptly removed by the operator at the written or oral request of the Town and shall not be replaced. The costs of clearing such access shall be borne by the operator.

6. Unreasonable delays in allowing the Town access to the property or facility is a violation of this Ordinance. If the Town has been refused access to any part of the premises from which storm water is discharged, and the Town is able to demonstrate probable cause to believe that there may be a violation of this Ordinance, or when there is a need to inspect and/or sample as part of an inspection and sampling program designed to verify compliance with this Ordinance or any related order issued, or to protect the overall public health, safety, and welfare of the community, then the Town may seek issuance of an administrative search warrant from a court of competent jurisdiction.

5.2 Requirement to Manage Storm Water Pollutants using Best Management Practices

The Town has adopted Best Management Practice requirements for any activity, operation, or facility which may cause or contribute to pollution or contamination of storm water, storm drain systems, surface waters, or ground water.

Any person or entity responsible for a property or premise shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into storm drain systems or watercourses through the use of structural and non-structural BMPs. Further, any person or entity responsible for a property or premise, which is, or may be, the source of an illicit discharge, may be required to implement, at said person or entity's expense, additional structural and non-structural BMPs to prevent further discharge of pollutants.

307-48-1-6 Non-Storm Water Discharge

6.1 Prohibition of Illegal Discharges

No person or entity shall throw, drain, or otherwise discharge, cause, or allow others under their control to throw, drain, or otherwise discharge any pollutants or waters containing any pollutants, other than storm water, into storm drain systems, surface waters, or ground water.

The commencement, conduct, or continuance of any illegal discharge to storm drain systems, surface waters, or ground water is prohibited except as identified below.

1. The following uncontaminated discharges are exempt from discharge prohibitions established by this

Ordinance:

- water line flushing;
- discharges from potable water sources;
- landscape irrigation or lawn watering (not agricultural);
- diverted stream flows;
- rising ground water;
- ground water infiltration;
- pumped ground water;
- foundation or footing drains (not including active ground water dewatering systems)
- water from crawl space or sump pumps;
- natural springs;
- natural riparian habitat or wetland flows;
- street wash waters;
- culvert or storm system cleaning;
- non-commercial washing of vehicles or other non-commercial wash water;
- dechlorinated swimming pool, hot tub, skating rinks or other non-commercial recreational water (less than 1 PPM chlorine);
- air conditioning condensation; and
- any other water source not containing pollutants.

2. Discharges or flows from fire-fighting activities are exempt from prohibition.
3. Discharges specified in writing by the Town as being necessary to protect public health and safety are allowed.
4. Dye testing is an allowable discharge but requires a verbal notification to the Town prior to the time of the test.
5. The prohibitions shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the EPA, provided that the discharger is in full compliance with all requirements of the permit, waivers or orders, and other applicable laws and regulations.

6.2 Prohibition of Illicit Connections

No person or entity shall connect, convey, or otherwise discharge or allow others under their control to connect, convey, or otherwise discharge any non-storm water flow into storm drain systems, surface waters, or ground water without express written consent and approval by the Town. The commencement, conduct, or continuance of any illegal discharge to storm drain systems, surface waters, or ground water is prohibited as follows:

1. The construction, use, maintenance, or continued existence of illicit connections to storm drain systems, surface waters, or ground water is prohibited.
2. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
3. A person or entity is considered to be in violation of this Ordinance if the person or entity connects a line conveying sewage to storm drain systems, surface waters, or ground water (except approved and compliant subsurface and/or wastewater disposal systems), or allows any such connection to continue.
4. Improper connections in violation of this Ordinance must be disconnected and legally redirected, if necessary, to an approved onsite wastewater management system or an appropriate sanitary sewer system.
5. No person or entity shall obstruct or interfere with the normal flow of storm water into or out of storm drainage systems or natural conveyances without prior approval from the Town (at a minimum).

6. Upon receipt of written Notice of Violation from the Town, any drain or conveyance that has not been documented in plans, maps, or equivalent, and that may be connected to a storm sewer system, shall be field located by the owner or occupant of that property, at their own expense. The notice will specify: a schedule for the location of the drain or conveyance to be completed; that the type of drain or conveyance is to be identified as storm sewer, sanitary sewer, or other discharge; and that the outfall location or point of connection to the storm sewer or other storm water discharge point be identified and accurately show on a plan or map. These investigations are to be documented in writing and provided to the Town.

6.3 Industrial or Construction Activity Discharges

Any person or entity subject to an industrial or construction activity NPDES storm water discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the Town prior to the allowing of discharges.

This Ordnance is in addition to and does not circumvent or replace the requirements of any entity operating under a NPDES permit. Such entities continue to be required to comply with all permits and other applicable laws and regulations.

6.4 Notification of Spills or Other Non-Storm Water Discharges

Notwithstanding other requirements of law, as soon as any person or entity responsible for a property, facility, site activity, or operation has information of any known or suspected release of pollutants or non-storm water discharges which are resulting or may result in illicit discharges or pollutants discharging into the storm water systems, surface waters or ground water, said person or entity shall take all necessary steps to ensure the discovery, containment, and cleanup of the release so as to minimize the effects of the discharge.

1. If the spill/discharge poses an immediate health or safety concern, the State of New Hampshire Emergency Services (911) shall be immediately notified.
2. If the spill/discharge does not pose an immediate health or safety concern, the Town Health Officer and Code Compliance Official shall be notified as soon as possible, however, no more than twenty-four (24) hours after the spill/discharge event. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the Town within three business days of the initial notice.
3. If the spill/discharge originates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to remedy, mitigate, and prevent recurrence. Such records shall be retained for at least three years.

Failure to provide notification of a release to the Town or other appropriate jurisdictional authority as prescribed above is a violation of this Ordinance.

307-48-1-7 Violations, Enforcement, And Penalties

7.1 Notice of Violation

It shall be unlawful for any person or entity to violate any provision or fail to comply with any of the requirements of this Ordinance. Any person or entity who has violated or continues to violate the provisions of this Ordinance may be subject to the enforcement actions outlined in this section or may be restrained by injunction or otherwise abated in a manner provided by law.

Whenever the Town finds that a person or entity has violated a prohibition or failed to meet a requirement of this Ordinance the Town may order compliance by written notice of violation to the responsible person or entity. Such notice may require without limitation:

1. the performance of monitoring, analyses, and reporting;

2. the implementation of source control or treatment BMPs;
3. the elimination of illicit connections or discharges;
4. the abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property;
5. a cease and desist of violating discharges, practices, or operations;
6. termination of discharge access;
7. payment of a fine to cover administrative costs; and
8. payment of remediation costs.

The notice shall set forth a deadline within which the prescribed remedy must be completed. The notice shall further advise that should the violator fail to act within the established deadline, the remedy will be completed by the Town and the expense thereof shall be the responsibility of the violator.

In the event the violation constitutes an immediate danger to public health or public safety, the Town is authorized to enter upon the subject property, without prior notice, to take any and all measures necessary to abate the violation. The Town is authorized to seek costs of abatement as outlined in Section 7.7 of this Ordinance.

Based on the severity and level of violation, the Town will escalate notice and/or action on a case-by-case basis. Such escalation of illicit discharge and connection enforcement notice may include:

Warning Notice
When the Town finds that any person or entity has violated or continues to violate, any provision of this Ordinance, the Town may serve upon that person or entity a written Warning Notice, specifying the particular violation believed to have occurred and requesting the discharger to immediately investigate the matter and/or cooperate with the Town to seek a resolution whereby any illicit discharge or connection will be eliminated. Investigation and/or resolution of the matter in response to the Warning Notice in no way relieves the alleged violator of liability for any violations occurring before or after receipt of the Warning Notice.

Notice of Intent to Enforce
If following the warning notice the identified responsible person or entity does not act within the prescribed timeline, or if the violation is deemed by the Town to be of high severity or a threat to public health or safety, the Town shall issue a Notice of Intent to Enforce. Such notice will require an immediate response to the Town, define a critical path timeline, prescribe specific requirements for investigation or remedy, identify the consequences and penalties as a result of non-response and non-compliance of this Ordinance. This notice may also assign fines for the violation.

7.2 Violations Deemed A Public Nuisance

In addition to the enforcement processes and penalties provided, any condition caused or that continues to exist in violation of any of the provisions of this Ordinance is considered a threat to public health, safety, and welfare, and is declared and deemed a public nuisance, and may be summarily abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

The Town may, without prior notice, suspend discharge access when a situation presents or may present imminent and substantial danger to the environment, or to public health or safety. If the violator fails to comply with a suspension order issued in an emergency, the Town may take such steps as deemed necessary to prevent or minimize damage to storm drain systems, surface waters, or ground water and to minimize the potential danger.

7.3 Enforcement

1. The Town is authorized to enforce this Ordinance including related terms and conditions of all related permits, notices, and orders. The Town may pursue all civil and criminal remedies needed to resolve violations of this Ordinance.
2. The Town may seek injunctive relief to restrain the person or entity that violates the provisions of this Ordinance, or related permits, notices, or orders issued from activities that would create further violations, and to compel the person or entity to abate or remediate the violation.
3. If the Town determines that abatement or remediation of contamination is required, a written notice shall set forth a deadline for completion of the abatement or remediation. The order shall further advise that, should the violator or property owner fail to abate or perform remediation within the specified deadline, the Town may, at its option, undertake such work, and expenses thereof shall be charged to the violator or property owner as described in Section 7.7 of this Ordinance.
4. Any person or entity who violates any provision of this Ordinance, or the terms or conditions in any related permit or order issued hereunder, shall be subject to fines as defined in the Town's current Illicit Discharge Fine Schedule or as determined by a court of competent jurisdiction. Each day of non-compliance shall represent a separate offense. The Illicit Discharge Fine Schedule can be obtained from the Pelham Planning Department.
5. To the extent permitted by law, or if authorized by the owner or other party in control of the property, the Town may enter upon privately owned property for the purpose of performing their duties under this Ordinance and may make or cause to be made such examinations, surveys or sampling as deemed reasonably necessary to determine the source and extent of the illicit discharge.
6. The decisions or orders of the Town shall be final unless overturned on appeal by the Pelham Zoning Board of Adjustment. Further relief shall be to a court of competent jurisdiction.

7.4 Suspension of Discharge Access

Any person or entity discharging to storm drain systems, surface waters, or ground water in violation of this Ordinance may have their discharge access terminated if such termination would abate or reduce an illicit discharge. The Town will notify a violator in writing of the proposed termination of discharge access. The violator may petition the Pelham Zoning Board of Adjustment for reconsideration and hearing.

The Town may suspend access to storm drain systems, surface waters, or ground water to any person, entity, or property without written notice when such suspension is necessary to stop an actual or suspected illicit discharge that presents or may present imminent risk of harm to the public health, safety, welfare or to the environment. If any person or entity fails to comply with an emergency suspension order, the Town may take all reasonable steps necessary to prevent or minimize harm to the public health, safety and welfare, or to the environment, at the expense of the violator and/or property owner.

A person or entity is in violation of this Ordinance if the person or entity reinstates access to the terminated discharge without the prior approval of the Town.

7.5 Injunctive Relief

If a person or entity has violated or continues to violate the provisions of this Ordinance, the Town may petition for a preliminary or permanent injunction restraining the person or entity from activities which would create further violations or compelling the person or entity to perform abatement or remediation of the violation.

7.6 Criminal Prosecution

Any person or entity that has violated or continues to violate this Ordinance shall be liable to criminal

prosecution to the fullest extent of the law, and shall be subject to a criminal penalty of fines as defined in the Town's current Illicit Discharge Fine Schedule per violation and per day, and/or imprisonment for a period of time as determined by a court of competent jurisdiction.

7.7 Cost of Abatement of Violation

If the Town incurs any costs to investigate, manage, or remedy an illicit discharge or connection, within thirty (30) days after abatement of the violation, the owner of the property will be notified of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment within thirty (30) days of the notice of cost. If the amount due is not paid within a timely manner as determined by the decision of the authority, or by the expiration of time in which to file an appeal, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment.

Any person or entity violating any of the provisions of this Ordinance shall become liable to the Town by reason of such violation. Assessed and notified costs shall be paid to the Town in not more than twelve (12) equal payments. Interest at the rate of 18-percent per annum shall be assessed on the balance beginning on the 1st day of each month following discovery of the violation.

The Town may recover all attorney's fees court costs and other expenses associated with enforcement of this Ordinance.

7.8 Compensatory Action

In lieu of enforcement proceedings, penalties, and remedies authorized by this Ordinance, the Town may impose upon a violator or mediate alternative compensatory actions, such as storm drain stenciling, attendance at compliance workshops, cleanup, etc.

7.9 Remedies Not Exclusive

The remedies listed in this Ordinance are not exclusive of any other remedies available under any applicable federal, state, or local law and it is within the discretion of the Town to seek cumulative remedies.

307-48-1-8 Appeal of Notice of Violation

Any person or entity receiving a Notice of Violation may appeal the determination of the Town. The Notice of Appeal must be received within thirty (30) days from the date of the Notice of Violation. Hearings on the appeal before the appropriate Town authority shall take place within fifteen (15) days from the date of receipt of the Notice of Appeal. The decision of the Town shall be final.

In the event of an appeal, if the violation has not been corrected pursuant to the requirements set forth in the Notice(s) of Violation, or within sixty (60) days of the decision of the authority upholding the decision of the Town, then the Town shall enter upon the subject property and is authorized to take any and all measures necessary to abate the violation. It shall be unlawful for any person, entity, owner, or agent in possession of any premises to refuse to allow the Town or its designated contractor(s) to enter upon the premises for the purposes set forth above.

307-48-1-9 Compatibility with Other Regulations

The Town of Pelham may adopt and periodically amend regulations, rules, and/or written guidance relating to the terms, conditions, definitions, enforcement, fees, procedures, and administration of this Ordinance by majority vote of the Town authority after conducting a public hearing to receive comments. Such hearing shall be advertised in a newspaper of general local circulation at least fourteen (14) days prior to the hearing date. Failure of the Town to issue such rules or regulations, or a legal declaration of invalidity by a court, shall not act to suspend or invalidate the effect of this Ordinance.

The requirements of this Ordinance are in addition to the requirements of any other federal, state, and local ordinances, rules, regulations, or other provisions of law, and where any provision of this Ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation, or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human health or the environment shall control.

307-48-1-10 Severability

The provisions of this Ordinance are hereby declared to be severable. If any provision, paragraph, sentence, or clause of this Ordinance or the application thereof to any person, entity, establishment, or circumstance shall be held invalid such invalidity shall not affect the other provisions or application of this Ordinance.

situation and have it resolved; a modest fine may help move it along. Mr. Lynde felt after sixty days the fine should increase to $500 and if that isn't paid, they go to court.

Mr. Forde wasn't sure it was the right move to increase fines for something that hasn't happened. She feared moving things up in those increments would make the Town look combative. She said they were trying to have everyone do the right thing because it was the right thing to do, not because they have large fines. Mr. Lynde felt waiting two months was more than reasonable for anyone.

Mr. Gowan reviewed the compliance schedule and pointed out after forty days the Town could start escalating the fines and the pain that goes along with them. He predicted they wouldn't have people ignore the Town; he simply wanted them to have tools to use. Mr. Lynde believed most people who did things by mistake would fix things fairly quickly. Mr. Haverty told Mr. Lynde he could offer a motion to change the schedule.

Mr. Lynde made a motion to change the schedule as follows: the first thirty days there was no fine; at forty days the fine will be $100 and at fifty days the fine will be $500. Mr. Cote seconded the motion. Mr. Haverty clarified that all subsequent letters (after fifty days) will carry a $500 fine. Mr. Lynde answered yes. Mr. Cote agreed as it was an environmental issue.

MOTION: (Lynde/Cote) To amend the fine schedule: first thirty days no fine. At forty days the fine will be $100. At fifty days the fine will be $500. Each subsequent letter will also carry a $500 fine.

VOTE: (4-1-0) The motion carried. Mr. Bergeron voted in opposition.

Mr. Haverty asked for a motion to approve the Illicit Discharge Fine Schedule as amended.

MOTION: (Cote/Lynde) To approve the Illicit Discharge Fine Schedule as amended.

VOTE: (4-1-0) The motion carried. Mr. Bergeron voted in opposition.

**At this point in the meeting Mr. Haverty asked the Selectmen to address the motion made regarding the expenditure amount from the Highway Building Capital Reserve – verbiage inserted above for consistency with discussion topic.*

Zack Fentross/Melanson & Heath: 2019 Audit Report.

Mr. Fentross came forward and summarized the Town's 2019 Audit Report.

Mr. Lynde spoke about impact fees. He said there were times the Town started collecting impact fees and had a six-year requirement to spend those funds. He said the money they spend is not targeted to any specific portion of a total project. He viewed the Town's obligation to carefully track the money and believed Mr. Fentross implied the Town had additional obligation. Mr. Fentross said some of the expenses weren't being tracked. He referenced page 4 and read aloud the RSA requirements. He said the impact fees were not currently being tracked back to the general ledger. He didn't think there was anything egregious going on but felt small improvements could be made. He spoke about the 'side letter' which contained things to be brought to the Town's management; the items aren't serious enough to be brought to the governing body. There was a brief discussion regarding cash reconciliation. Mr. Fentross said cash is maintained/tracked in the general ledger and maintained/tracked by the Treasurer. It is important for the two to match.

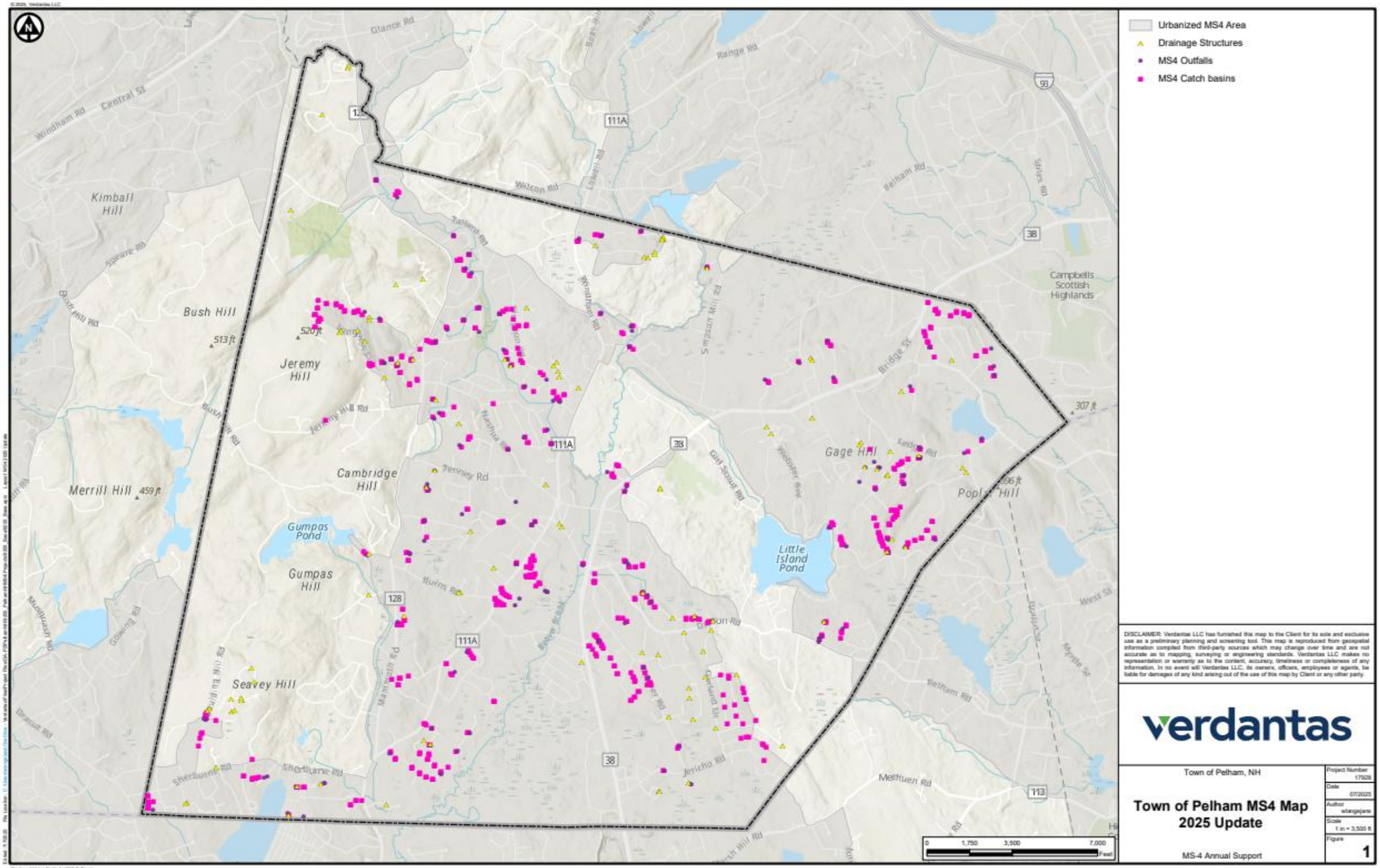
Appendix DB

List of Impaired Waters,

Storm System Mapping, and Mapping Guidance

Table DB-1 Town of Pelham MS4 Impaired Waters				
2020/2022 NHDES 303(d) List Impairment Assessment Outcome				
Severe: Not Supporting, Severe (5-P)				
Indicator Contributing to Impairment	**Beaver Brook NHRIV700061203-22**	**Beaver Brook - Tony's Brook NHRIV700061205-01**	**Long Pond NHLAK700061205-02-01**	
Benthic-Macroinvertebrate Bioassessments (Streams)	5-P	5-P		
Chlorophyll-a			5-P	
Cyanobacteria Hepatotoxic Microcystins			5-M	
Dissolved Oxygen Saturation			5-P	
Dissolved Oxygen			5-P	
Escherichia coli (E. coli)	4A-M	4A-P		
Habitat Assessment (Streams)*		4C-P		
Phosphorus (Total)			5-M	
Mercury**	4A-M	4A-M	4A-M	
Poor: Not Supporting, Marginal (5-M and 4A-M)				
Indicator Contributing to Impairment	**Beaver Brook NHRIV700061203-21**	**Little Island Pond NHLAK700061204-02**	**Long Pond - Town Beach NHLAK700061205-02-02**	**Frost Brook - Gumpas Pond NHRIV700061205-05**
Cyanobacteria Hepatotoxic Microcystins		5-M	5-M	
pH	5-M	4A-M		5-M
Mercury**	4A-M	4A-M	4A-M	
*TMDL not required for this parameter				
**Completed TMDL does not apply to the NH MS4 General Permit (per Part 2.2.1.c)				

Table DB-2 NHDES Impaired Waters Category Descriptions	
NHDES Category	**General Description: This table is intended to give an overview of the NHDES Categories. See *Table 3-6* in the *2020/2022 Consolidated Assessment and Listing Methodology [CALM]* for more details.**
Severe: Not supporting, severe	
5-P	Parameter is a pollutant that requires a TMDL. The impairment is more severe and causes poor water quality as defined in NHDES sub-category 4A-P.
4A-P	The parameter is a pollutant which is assessed as an impairment per the CALM, and an EPA-approved TMDL has been completed. However, the impairment is more severe and causes poor water quality conditions.
4C-P	Parameter is not a pollutant but is causing impairment per the CALM. The impairment is more severe and causes poor water quality as defined in NHDES sub-category 4A-P.
Poor: Not supporting, marginal	
5-M	Parameter is a pollutant that requires a TMDL. The impairment is marginal as defined in NHDES sub-category 4A-M.
4A-M	The parameter is a pollutant which is assessed as an impairment per the CALM, and an EPA-approved TMDL has been completed. However, the impairment is relatively slight or marginal.


Urbanized MS4 Area
Drainage Structures
MS4 Outfalls
MS4 Catch basins
DISCLAIMER: Verdantas LLC has furnished this map to the Client for its sole and exclusive use as a preliminary planning and screening tool. This map is reproduced from geospatial information compiled from third-party sources which may change over time and are not accurate as to mapping, surveying or engineering standards. Verdantas LLC makes no representation or warranty as to the content, accuracy, timeliness or completeness of any information. In no event will Verdantas LLC, its owners, officers, employees or agents, be liable for damages of any kind arising out of the use of this map by Client or any other party.
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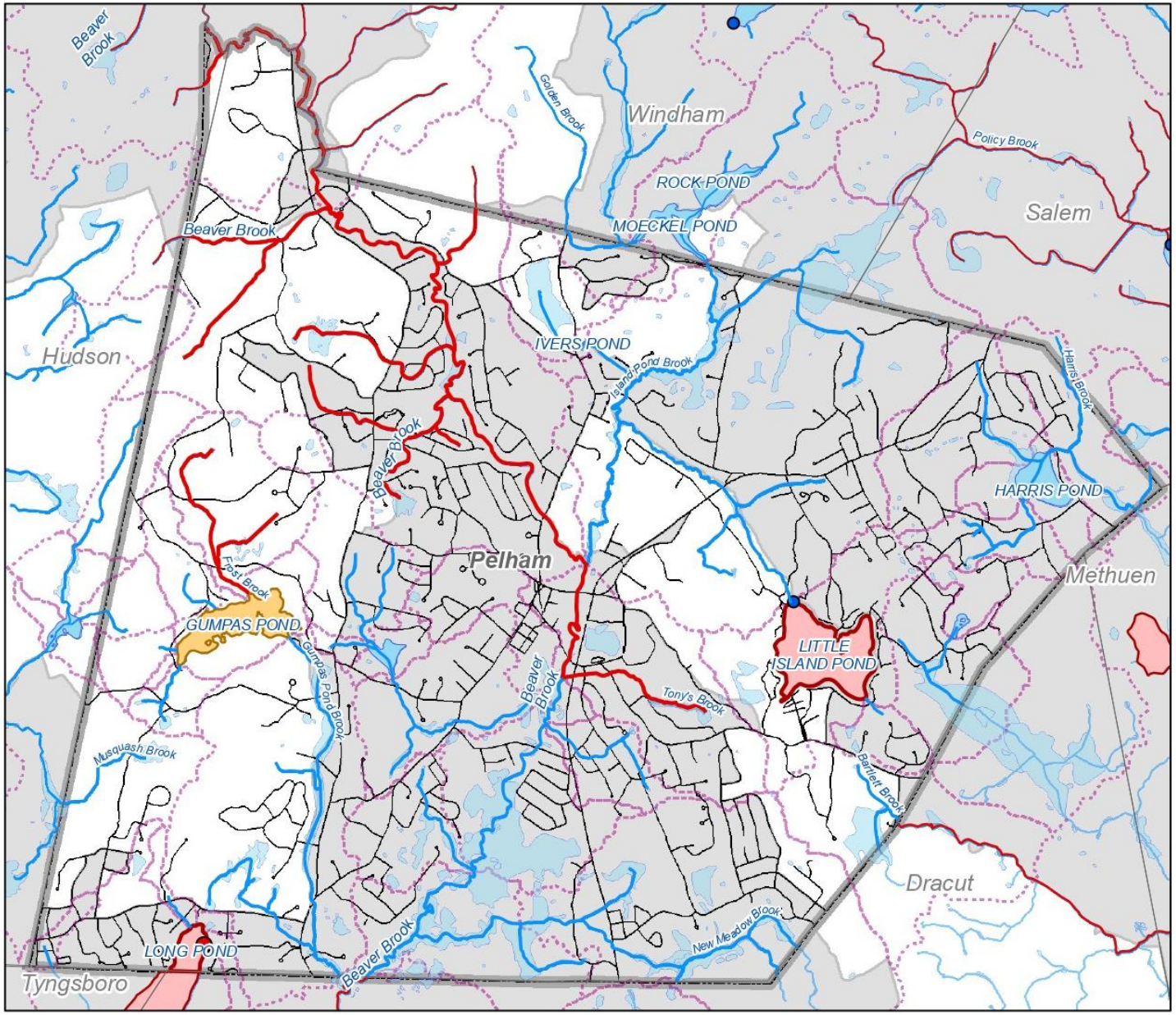
Town of Pelham, NH
Town of Pelham MS4 Map
2025 Update
MS-4 Annual Support
Project Number
17928
Date
07/2025
Scale
1 in = 3,500 ft
Figure
1
0
1,750
3,500
7,000
Feet
Kimball Hill
Bush Hill
Jeremy Hill
Cambridge Hill
Merrill Hill
Gumpas Pond
Gumpas Hill
Seavey Hill
Gage Hill
Little Island Pond
Campbells Scottish Highlands
111A
128
38
Range Rd
Glance Rd
Wilson Rd
Tenney Rd
Burns Rd
Jericho Rd
Methuen Rd
Bridge St
Pelham Rd
Sherburne Rd
Jeremy Hill Rd
West St
Central St
Windham Rd



0 0.25 0.5 1 1.5 2 Miles

Town of Pelham

MS4 MCM3 Mapping
MS4 Impaired Waters
Date: 06/26/2023

N

Legend

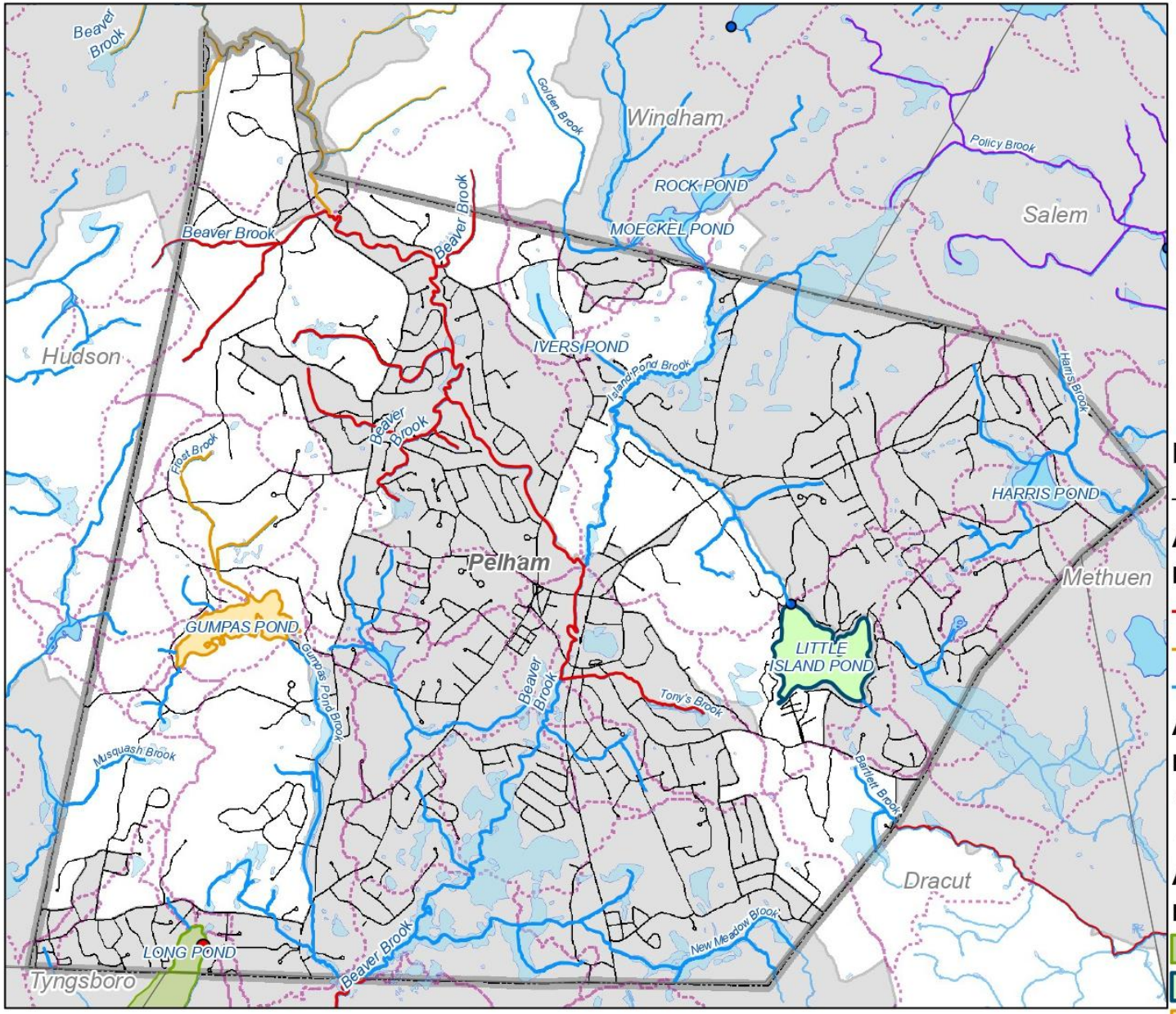
- Road
- Urbanized Area

NHDES Stream 2018
NHDES_AUID_18
- Not Impaired
- 5-M
- 5-P

NHDES Beach 2018
NHDES_AUID_18
- Unimpaired
- 5-M

AUID Streams NHDES 2018
NHDES AUID 18
- Unimpaired
- 5-M
- 5-P

AUID Ponds NHDES 2018
NHDES_AUID_18
- Not Impaired
- 4A-M
- 5-M
- 5-P



0 0.25 0.5 1 1.5 2 Miles

Town of Pelham

MS4 MCM3 Mapping
MS4 Primary Impairments
Date: 06/26/2023

N

Legend

Road

AUID Streams NHDES 2018

Primary Impairment

- Bacteria TMDL
- pH
- Not Impaired

AUID Beaches NHDES 2018

Primary Impairment

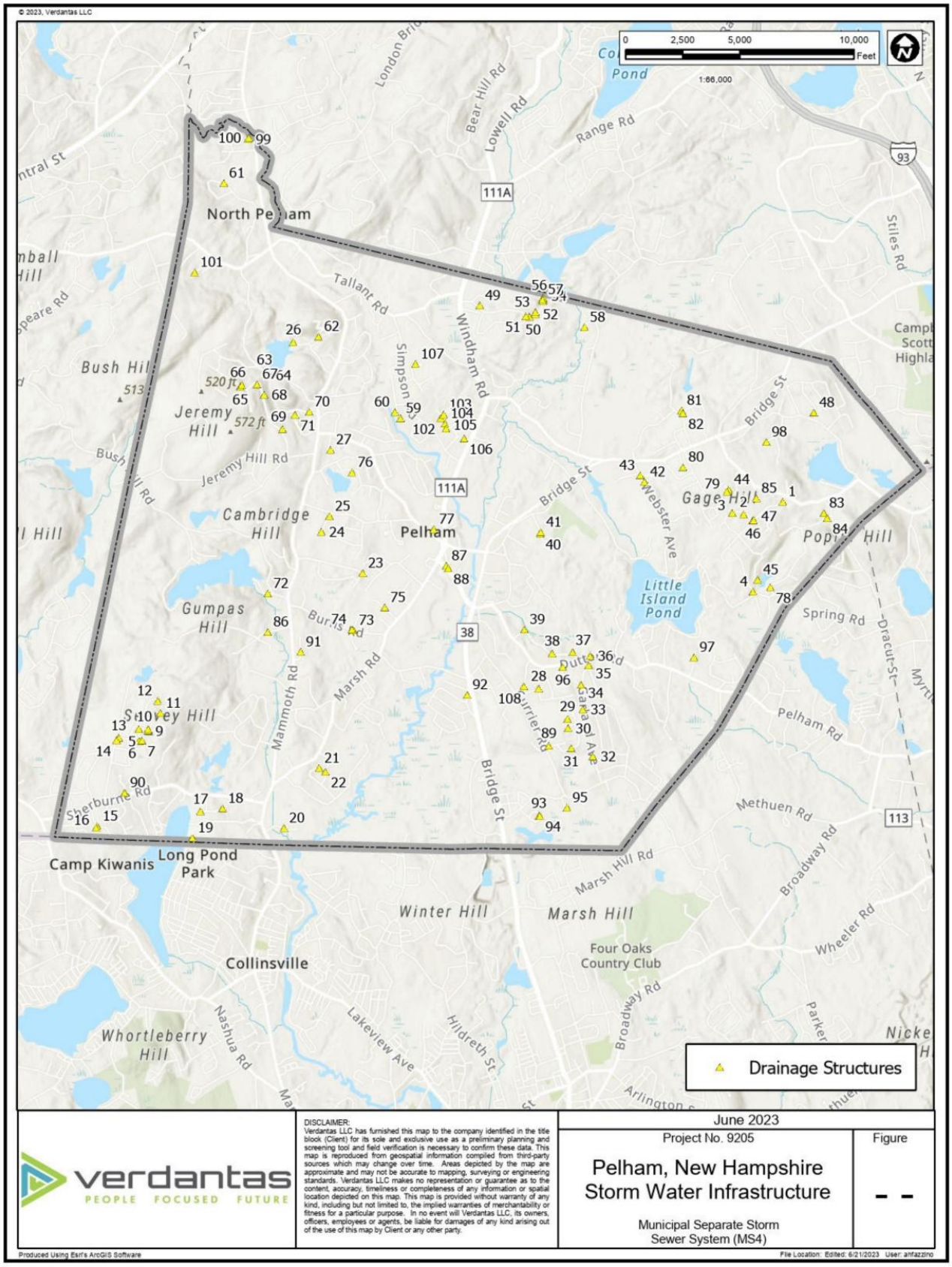
- Bacteria TMDL
- Not Impaired

AUID Ponds NHDES 2018

Primary Impairment

- Total Phosphorus
- P-Related Impairment
- pH
- Not Impaired

AUID Watersheds NHDES 2018



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PEOPLE FOCUSED FUTURE

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June 2023

Project No. 9205

Pelham, New Hampshire
Storm Water Infrastructure

Municipal Separate Storm Sewer System (MS4)

Figure

- -

Produced Using Esri's ArcGIS Software

File Location: Edited: 6/21/2023 User: ahfazzino

Standard Operating Procedure for:	
A.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.

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.

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

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.

Standard Operating Procedure for:	
A.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:	
A.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:	
A.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

Appendix DC

Outfall Inventory and Priority Ranking Matrix

Pelham, NH 6/30/2025

IDDEP TABLE C.1 UPDATED OUTFALL RANKING IN MS4 REGULATED AREA (POST 2020 DRY-SCREENING)

Information Source		Scoring Criteria									Score	Initial Priority Ranking	2020 Priority Update from Dry-Weather Screening
		In Subwatershed with Impairment? [1]	Receiving Water Body Impairment? [2]	Discharging to Area of Concern to Public Health? [3]	Frequency of Past Discharge Complaints [4]	Density of Generating Sites [5]	Age of Development/ Infrastructure [6]	Aging Septic? [7]	Culverted Streams? [8]	Additional Characteristics [9]			
		Impaired Waters List	Impaired Waters List	Maps	Town Staff	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Land Use, Town Staff	GIS and Storm System Maps	GIS Weighted Data			
Receiving Water Watershed	Out_ID	Yes: Category 5 = 5 Category 4 = 3 No = 0	Yes = 10 (impairment listed as high priority in permit) No = 0	Yes = 10 No = 0	Frequent = 3 Occasional = 2 None = 0	High = 3 Medium = 2 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	See Notes below and Description in SWMP			
Unnamed Brook	1	5		10		2				3	20	HIGH	LOW
Long Pond	3	5				2				1	8	LOW	LOW
Long Pond	4	5				2					7	LOW	LOW
Long Pond	5	5		10						4	19	HIGH	LOW
Long Pond	6	5									5	LOW	LOW
Long Pond	10	5	10			2				1	18	HIGH	LOW
Musquash Brook	14									1	1	LOW	LOW
Musquash Brook	15									1	1	LOW	LOW
Long Pond	16	5	10							3	18	LOW	LOW

Unnamed Brook	18	5								3	8	LOW	LOW
Long Pond	19	5		10							15	HIGH	LOW
Long Pond	20	5									5	LOW	LOW
Long Pond - Town Beach	21	5								2	7	LOW	LOW
Long Pond	23	5	10								15	LOW	LOW
Long Pond	25	5									5	LOW	LOW
Long Pond	26	5									5	LOW	LOW
Long Pond	29	5									5	LOW	LOW
Beaver Brook_1205-14	44	5								1	6	LOW	LOW
Beaver Brook_1205-14	45	5		10						1	16	HIGH	LOW
Gumpas Pond Brook	47			10						6	16	HIGH	LOW
Beaver Brook_1205-04	48	5								4	9	LOW	LOW
Beaver Brook_1205-14	49	5								1	6	LOW	LOW
Beaver Brook_1205-04	52	5								1	6	LOW	LOW
Beaver Brook_1205-14	54	5									5	LOW	LOW
Unnamed Brook	58	5								1	6	LOW	LOW
Gumpas Pond Brook	60										0	LOW	LOW
Unnamed Brook	62	5								1	6	LOW	LOW
Gumpas Pond Brook	63			10							10	HIGH	LOW

Gumpas Pond Brook	65										0	LOW	LOW
Unnamed Brook	67	5								1	6	LOW	LOW
Unnamed Brook	70	5								11	16	HIGH	LOW
Unnamed Brook	72	5								1	6	LOW	LOW
Beaver Brook_1203-22	73	5	10								15	HIGH	LOW
Beaver Brook_1203-22	76	5	10								15	HIGH	LOW
Beaver Brook_1203-22	77	5								1	6	LOW	LOW
Beaver Brook_1203-22	80	5		10						1	16	HIGH	LOW
Beaver Brook_1203-22	81	5	10								15	HIGH	LOW
Burns Road Dam	84	5									5	LOW	LOW
Burns Road Dam	85	5									5	LOW	LOW
Burns Road Dam	86	5									5	LOW	LOW
Beaver Brook_1203-22	87	5								1	6	LOW	LOW
Beaver Brook_1203-22	88	5		10							15	HIGH	LOW
Beaver Brook_1203-22	90	5								1	6	LOW	LOW

Beaver Brook_1203-22	91	5								3	8	LOW	LOW
Unnamed Brook	93	5								1	6	LOW	LOW
Beaver Brook_1205-02	94	5									5	LOW	LOW
Beaver Brook_1203-22	95	5								1	6	LOW	LOW
Beaver Brook_1203-22	96	5	10							2	17	HIGH	LOW
Beaver Brook_1203-22	97	5								2	7	LOW	LOW
Beaver Brook_1203-22	98	5	10	10							25	HIGH	LOW
Beaver Brook_1203-22	99	5	10							2	17	HIGH	LOW
Beaver Brook_1203-22	100	5	10	10						1	26	HIGH	LOW
Beaver Brook_1203-22	101	5		10						2	17	HIGH	LOW
Beaver Brook_1203-22	102	5								2	7	LOW	LOW
Beaver Brook_1203-22	103	5	10			2				2	19	HIGH	LOW
Beaver Brook_1203-22	105	5	10	10						5	30	HIGH	LOW

Beaver Brook_1205-02	106	5								2	7	LOW	LOW
Beaver Brook_1205-02	107	5								2	7	LOW	LOW
Beaver Brook_1203-22	108	5								1	6	LOW	LOW
Beaver Brook_1203-22	109	5									5	LOW	LOW
Unnamed Brook	110	5								1	6	LOW	LOW
Beaver Brook_1203-22	111	5									5	LOW	LOW
Beaver Brook_1203-22	112	5									5	LOW	LOW
Beaver Brook-Tony's Brook	113	5		10		2				10	27	HIGH	LOW
Beaver Brook_1203-22	114	5									5	LOW	LOW
Unnamed Brook	115	5		10						1	16	HIGH	LOW
Beaver Brook_1203-22	116	5		10						3	18	HIGH	LOW
Beaver Brook_1203-22	117	5		10						3	18	HIGH	LOW
Beaver Brook_1205-02	118	5									5	LOW	LOW
Unnamed Brook	119	5								3	8	LOW	LOW

Beaver Brook_1203-22	120	5				2					7	LOW	LOW
Beaver Brook_1205-02	121	5									5	LOW	LOW
Beaver Brook_1203-22	122	5				2					7	LOW	LOW
Beaver Brook_1203-22	123	5								1	6	LOW	LOW
Beaver Brook_1203-22	124	5									5	LOW	LOW
Beaver Brook_1203-22	130	5									5	LOW	LOW
Beaver Brook_1203-21	131	5	10							2	17	HIGH	LOW
Beaver Brook_1203-22	134	5	10								15	HIGH	LOW
Beaver Brook_1203-22	135	5	10							2	17	HIGH	LOW
Beaver Brook_1203-22	137	5	10							1	16	HIGH	LOW
Beaver Brook_1203-22	139	5	10							1	16	HIGH	LOW
Beaver Brook_1203-22	140	5								3	8	LOW	LOW

Beaver Brook_1203-22	144	5								1	6	LOW	LOW
Beaver Brook_1203-22	146	5								2	7	LOW	LOW
Beaver Brook_1203-22	147	5								1	6	LOW	LOW
Beaver Brook_1203-22	148	5									5	LOW	LOW
Beaver Brook_1203-22	150	5								1	6	LOW	LOW
Beaver Brook_1203-22	151	5								3	8	LOW	LOW
Beaver Brook_1203-22	152	5									5	LOW	LOW
Beaver Brook_1203-22	153	5								1	6	LOW	LOW
Beaver Brook_1203-22	154	5									5	LOW	LOW
Beaver Brook_1203-22	155	5	10							5	20	HIGH	LOW
Beaver Brook_1203-22	156	5								3	8	LOW	LOW
Beaver Brook_1203-22	157	5		10		2				1	18	HIGH	LOW

Beaver Brook_1203-22	158	5	10							1	16	HIGH	LOW
Beaver Brook_1203-22	159	5		10						1	16	HIGH	LOW
Beaver Brook_1203-22	160	5		10							15	HIGH	LOW
Beaver Brook_1203-22	161	5								1	6	LOW	LOW
Beaver Brook_1203-22	162	5									5	LOW	LOW
Beaver Brook_1203-22	165	5	10								15	HIGH	LOW
Unnamed Brook	166	5								4	9	LOW	LOW
Unnamed Brook	167	5								1	6	LOW	LOW
Beaver Brook_1203-22	168	5									5	LOW	LOW
Beaver Brook_1205-02	169	5		10						1	16	HIGH	LOW
Gumpas Pond Brook	170										0	LOW	LOW
Beaver Brook_1205-04	171	5								2	7	LOW	LOW
Beaver Brook_1205-14	172	5									5	LOW	LOW
Musquash Brook	177										0	LOW	LOW

Beaver Brook-Tony's Brook	180	5		10		2				7	24	HIGH	LOW
Beaver Brook_1205-02	182	5								6	11	HIGH	LOW
Beaver Brook-Tony's Brook	183	5		10		2				8	25	HIGH	LOW
Beaver Brook-Tony's Brook	184	5				2				7	14	HIGH	LOW
Beaver Brook-Tony's Brook	185	5				2				3	10	HIGH	LOW
Golden Brook_1204-03	186	5									5	LOW	LOW
Golden Brook_1204-03	188	5									5	LOW	LOW
Little Island Pond Brook	189	5		10							15	HIGH	LOW
Moeckel Pond	190	5									5	LOW	LOW
Golden Brook_1204-03	191	5		10							15	HIGH	LOW
Golden Brook_1204-03	192	5									5	LOW	LOW
Golden Brook_1204-03	193	5									5	LOW	LOW
Unnamed Brook	194	5								1	6	LOW	LOW
Golden Brook_1204-03	195	5									5	LOW	LOW
Golden Brook_1204-03	201	5		10						1	16	HIGH	LOW

Golden Brook_1204-03	202	5									5	LOW	LOW
Golden Brook_1204-03	203	5									5	LOW	LOW
Golden Brook_1204-03	204	5									5	LOW	LOW
Little Island Pond Brook	207	5								2	7	LOW	LOW
Little Island Pond Brook	210	5									5	LOW	LOW
Little Island Pond Brook	213	5								1	6	LOW	LOW
Little Island Pond Brook	214	5									5	LOW	LOW
Little Island Pond Brook	215	5								1	6	LOW	LOW
Little Island Pond Brook	216	5		10						1	16	HIGH	LOW
Little Island Pond Brook	217	5									5	LOW	LOW
Little Island Pond Brook	218	5									5	LOW	LOW
Little Island Pond Brook	219	5									5	LOW	LOW
Little Island Pond Brook	220	5		10						2	17	HIGH	LOW
Little Island Pond Brook	221	5								1	6	LOW	LOW
Little Island Pond Brook	222	5									5	LOW	LOW
Little Island Pond Brook	223	5				2					7	LOW	LOW
Little Island Pond Brook	224	5									5	LOW	LOW

Little Island Pond Brook	225	5									5	LOW	LOW
Little Island Pond Brook	226	5								1	6	LOW	LOW
Little Island Pond Brook	227	5				2					7	LOW	LOW
Little Island Pond Brook	228	5									5	LOW	LOW
Little Island Pond Brook	230	5									5	LOW	LOW
Little Island Pond Brook	231	5									5	LOW	LOW
Little Island Pond Brook	232	5									5	LOW	LOW
Little Island Pond Brook	233	5				2				2	9	LOW	LOW
Little Island Pond Brook	234	5									5	LOW	LOW
Little Island Pond Brook	235	5									5	LOW	LOW
Little Island Pond Brook	236	5									5	LOW	LOW
Little Island Pond Brook	237	5		10							15	HIGH	LOW
Little Island Pond Brook	238	5		10		2					17	HIGH	LOW
Little Island Pond Brook	239	5									5	LOW	LOW
Little Island Pond Brook	240	5									5	LOW	LOW
Little Island Pond	241	3									3	LOW	LOW
Little Island Pond	242	3									3	LOW	LOW
Unnamed Brook	243										0	LOW	LOW
Unnamed Brook	244									1	1	LOW	LOW

Unnamed Brook	245									3	3	LOW	LOW
Harris Pond	246									1	1	LOW	LOW
Little Island Pond	247	3									3	LOW	LOW
Little Island Pond Brook	248	5								1	6	LOW	LOW
Harris Brook	249										0	LOW	LOW
Harris Brook	250										0	LOW	LOW
Harris Brook	251									1	1	LOW	LOW
Harris Brook	252										0	LOW	LOW
Harris Brook	253										0	LOW	LOW
Harris Brook	254									2	2	LOW	LOW
Unnamed Brook	255										0	LOW	LOW
Harris Brook	256										0	LOW	LOW
Unnamed Brook	257										0	LOW	LOW
Unnamed Brook	258									3	3	LOW	LOW
Unnamed Brook	259										0	LOW	LOW
Unnamed Brook	260									3	3	LOW	LOW
Unnamed Brook	261									5	5	LOW	LOW
Unnamed Brook	262									3	3	LOW	LOW
Unnamed Brook	263					2				1	3	LOW	LOW
Little Island Pond Brook	264	5								4	9	LOW	LOW
Unnamed Brook	265			10						1	11	HIGH	LOW
Little Island Pond Brook	266	5									5	LOW	LOW

Little Island Pond	267	3								1	4	LOW	LOW
Unnamed Brook	268			10							10	HIGH	LOW
Unnamed Brook	269			10						1	11	HIGH	LOW
Little Island Pond Brook	270	5									5	LOW	LOW
Little Island Pond Brook	271	5									5	LOW	LOW
Little Island Pond Brook	272	5									5	LOW	LOW
Bartlett Brook_1207-02	273			10							10	HIGH	LOW
Unnamed Brook	274			10							10	HIGH	LOW
Unnamed Brook	275									1	1	LOW	LOW
Unnamed Brook	277										0	LOW	LOW
Bartlett Brook_1207-02	278										0	LOW	LOW
Bartlett Brook_1207-02	279			10		2				1	13	HIGH	LOW
Unnamed Brook	280									1	1	LOW	LOW
Spring Street Dam	281			10							10	HIGH	LOW
Bartlett Brook_1207-02	282									4	4	LOW	LOW
Spring Street Dam	283			10							10	HIGH	LOW
Unnamed Brook	284										0	LOW	LOW

Unnamed Brook	285									1	1	LOW	LOW
Unnamed Brook	286									1	1	LOW	LOW
Unnamed Brook	287			10							10	HIGH	LOW
Unnamed Brook	288										0	LOW	LOW
Unnamed Brook	289	3								1	4	LOW	LOW
Unnamed Brook	290										0	LOW	LOW
Unnamed Brook	291	3									3	LOW	LOW
Spring Street Dam	292										0	LOW	LOW
Spring Street Dam	293										0	LOW	LOW
Unnamed Brook	294	3								2	5	LOW	LOW
Unnamed Brook	295	3								1	4	LOW	LOW
Unnamed Brook	296	3								1	4	LOW	LOW
Unnamed Brook	297										0	LOW	LOW
Unnamed Brook	298	3									3	LOW	LOW
Unnamed Brook	299										0	LOW	LOW
Bartlett Brook MA	300								0	1	1	LOW	LOW
Bartlett Brook_1207-02	301										0	LOW	LOW
Spring Street Dam	302										0	LOW	LOW

Unnamed Brook	303										0	LOW	LOW
Unnamed Brook	305	3									3	LOW	LOW
Spring Street Dam	306										0	LOW	LOW
Beaver Brook-Tonys Brook	317	5									5	LOW	LOW
Beaver Brook-Tonys Brook	318	5									5	LOW	LOW
Beaver Brook-Tonys Brook	320	5									5	LOW	LOW
Beaver Brook-Tonys Brook	321	5									5	LOW	LOW
Beaver Brook-Tony's Brook	323	5	10	10						1	26	HIGH	LOW
Beaver Brook-Tony's Brook	325	5	10	10		2					27	HIGH	LOW
Beaver Brook-Tony's Brook	327	5	10							1	16	HIGH	LOW
Little Island Pond Brook	329	5		10		2				8	25	HIGH	LOW
Beaver Brook-Tonys Brook	331	5	10							1	16	LOW	LOW
Beaver Brook-Tony's Brook	332	5		10						1	16	HIGH	LOW
Beaver Brook-Tonys Brook	334	5								1	6	LOW	LOW
Little Island Pond Brook	335	5				2					7	LOW	LOW
Beaver Brook-Tony's Brook	336	5	10							1	16	HIGH	LOW
Unnamed Brook	337	5		10		2				6	23	HIGH	LOW
Beaver Brook_1205-02	338	5		10		2				9	26	HIGH	LOW

Gumpas Pond Brook	339										0	LOW	LOW
Gumpas Pond Brook	340			10						1	11	HIGH	LOW
Little Island Pond	341	3									3	LOW	LOW
New Meadow Brook	342	5				3				12	20	HIGH	LOW
New Meadow Brook	345	5									5	LOW	LOW
Beaver Brook-Tony's Brook	346	5		10						8	23	HIGH	LOW
New Meadow Brook	347	5									5	LOW	LOW
New Meadow Brook	348	5		10							15	HIGH	LOW
New Meadow Brook	349	5									5	LOW	LOW
New Meadow Brook	350	5									5	LOW	LOW
New Meadow Brook	351	5		10							15	HIGH	LOW
New Meadow Brook	352	5									5	LOW	LOW
Beaver Brook-Tony's Brook	353	5		10						8	23	HIGH	LOW
New Meadow Brook	354	5		10							15	HIGH	LOW
New Meadow Brook	356	5									5	LOW	LOW
New Meadow Brook	357	5									5	LOW	LOW
New Meadow Brook	358	5									5	LOW	LOW
New Meadow Brook	359	5		10							15	HIGH	LOW
New Meadow Brook	360	5									5	LOW	LOW

New Meadow Brook	361	5		10							15	HIGH	LOW
Unnamed Brook	362	5		10						4	19	HIGH	LOW
Unnamed Brook	363	5								5	10	HIGH	LOW
New Meadow Brook	364	5		10							15	HIGH	LOW
Unnamed Brook	365	5								6	11	HIGH	LOW
Unnamed Brook	367	5		10						6	21	HIGH	LOW
Beaver Brook-Tonys Brook	368	5									5	LOW	LOW
Beaver Brook-Tonys Brook	370	5									5	LOW	LOW
Beaver Brook-Tony's Brook	372	5		10							15	HIGH	LOW
Beaver Brook-Tony's Brook	373	5	10		1	2				11	29	HIGH	LOW
Beaver Brook_1205-13	374	5		10						6	21	HIGH	LOW
Beaver Brook-Tonys Brook	375	5									5	LOW	LOW
Beaver Brook_1205-13	376	5								6	11	HIGH	LOW
Unnamed Brook	377	5		10						1	16	HIGH	LOW
Beaver Brook_1205-13	378	5									5	LOW	LOW
Beaver Brook_1205-13	379	5								9	14	HIGH	LOW

Beaver Brook_1205-13	380	5		10							15	HIGH	LOW
Beaver Brook_1205-13	381	5		10							15	HIGH	LOW
Beaver Brook-Tony's Brook	382	5		10							15	HIGH	LOW
Beaver Brook-Tony's Brook	383	5		10							15	HIGH	LOW
New Meadow Brook	386	5									5	LOW	LOW
New Meadow Brook	387	5									5	LOW	LOW
Beaver Brook_1205-13	388	5		10		2				9	26	HIGH	LOW
Beaver Brook_1205-13	389	5		10						4	19	HIGH	LOW
New Meadow Brook	390	5									5	LOW	LOW
New Meadow Brook	391	5				3				15	23	HIGH	LOW
New Meadow Brook	392	5		10							15	HIGH	LOW
New Meadow Brook	393	5									5	LOW	LOW
Beaver Brook_1203-21	395	5	10	10						9	34	HIGH	LOW
Unnamed Brook	397	5								4	9	LOW	LOW
Beaver Brook_1205-14	402	5									5	LOW	LOW
Beaver Brook-Tony's Brook	403	5	10	10		2				10	37	HIGH	LOW

Beaver Brook-Tonys Brook	404	5									5	LOW	LOW
Beaver Brook_1205-02	405	5	10			2				13	30	HIGH	LOW
Beaver Brook-Tonys Brook	406	5									5	LOW	LOW
Beaver Brook_1205-13	407	5		10		2					17	HIGH	LOW
Beaver Brook-Tonys Brook	408	5									5	LOW	LOW
Beaver Brook_1205-02	409	5		10						1	16	HIGH	LOW
New Meadow Brook	410	5		10		3				6	24	HIGH	LOW
Beaver Brook_1205-13	411	5								9	14	HIGH	LOW
New Meadow Brook	412	5				3				15	23	HIGH	LOW
New Meadow Brook	413	5				3				6	14	HIGH	LOW
New Meadow Brook	414	5									5	LOW	LOW
Beaver Brook_1205-02	415	5		10						6	21	HIGH	LOW
Beaver Brook_1203-22	416	5				2					7	LOW	LOW
New Meadow Brook	417	5		10		3				6	24	HIGH	LOW
Beaver Brook_1205-02	418	5								5	10	HIGH	LOW
Long Pond	419	5				2					7	LOW	LOW

Long Pond	420	5									5	LOW	LOW
Beaver Brook-Tony's Brook	421	5				2				7	14	HIGH	LOW
Little Island Pond Brook	422	5				2					7	LOW	LOW
Little Island Pond Brook	423	5									5	LOW	LOW
Harris Brook	424									1	1	LOW	LOW
Unnamed Brook	425									1	1	LOW	LOW
Gumpas Pond Brook	426			10							10	HIGH	LOW
Beaver Brook-Tony's Brook	427	5		10		2				7	24	HIGH	LOW
New Meadow Brook	428	5									5	LOW	LOW
Unnamed Brook	429	5		10						4	19	HIGH	LOW
Beaver Brook_1205-13	430	5		10						8	23	HIGH	LOW
Unnamed Brook	431	5								4	9	LOW	LOW
Beaver Brook_1203-22	433	5	10								15	HIGH	LOW

IDDEP TABLE C.1 UPDATED MS4 REGULATED OUTFALL-INTERCONNECT RANKING (2025 WotUS)

Information Source	Scoring Criteria									Score	2021 UPDATED Priority	2020 Priority Update from
	In Subwatershed with	Receiving Water Body	Discharging to Area of Concern	Frequency of Past Dischar	Density of Generati	Age of Development/	Aging Septic? [7]	Culverted Streams? [8]	Additional Characteristics [9]			

		Impairment? [1]	Impairment? [2]	to Public Health? [3]	ge Complaints [4]	ng Sites [5]	Infrastructure [6]					Ranking	Dry-Weather Screening
		Impaired Waters List	Impaired Waters List	Maps	Town Staff	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Land Use, Town Staff	GIS and Storm System Maps	GIS Weighted Data			
Receiving Water Watershed (AUID Name)	Out_ID (INTERC_ID)	Yes: Category 5 = 5 Category 4 = 3 No = 0	Yes = 10 (impairment listed as high priority in permit) No = 0	Yes = 10 No = 0	Frequent = 3 Occasional = 2 None = 0	Industrial Zone = 5 Business Zone = 3 Densely Settled = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	See Notes below and Description in SWMP			
Unnamed Brook_1205-11	1			10		1				0	11	HIGH	LOW
Musquash Brook_1206-20	14									0	0	LOW	LOW
Musquash Brook_1206-20	15									0	0	LOW	LOW
Long Pond_1205-02-01	16	5	10							0	15	HIGH	LOW
Unnamed Brook_1205-10	18									0	0	LOW	LOW
Long Pond-Town Beach_1205-02-02	21	5	10							0	15	HIGH	LOW
Long Pond_1205-02-01	23	5	10							1	16	HIGH	LOW
Long Pond_1205-02-01	25	5	10			1				0	16	HIGH	LOW
Beaver Brook_1205-14	44					1				6	7	LOW	LOW
Gumpas Pond Brook_1205-06	47									1	1	LOW	LOW
Beaver Brook_1205-04	48									3	3	LOW	LOW
Beaver Brook_1205-14	49									3	3	LOW	LOW
Beaver Brook_1205-04	52									2	2	LOW	LOW
Unnamed Brook_1205-16	58									1	1	LOW	LOW
Unnamed Brook_1205-16	62									1	1	LOW	LOW

Gumpas Pond Brook_1205-06	63									1	1	LOW	LOW
Gumpas Pond Brook_1205-06	65									1	1	LOW	LOW
Beaver Brook_1203-22	73	5	10							1	16	HIGH	LOW
Beaver Brook_1203-22	74	5	10							2	17	HIGH	
Beaver Brook_1203-22	76	5	10							0	15	HIGH	LOW
Beaver Brook_1203-22	81	5	10							0	15	HIGH	LOW
Burns Road Dam_1205-02	86									0	0	LOW	LOW
Unnamed Brook_1205-17	93									0	0	LOW	LOW
Beaver Brook_1203-22	96	5	10							1	16	HIGH	LOW
Beaver Brook_1203-22	97	5	10							2	17	HIGH	LOW
Beaver Brook_1203-22	98	5	10							3	18	HIGH	LOW
Beaver Brook_1203-22	99	5	10							0	15	HIGH	LOW
Beaver Brook_1203-22	100	5	10							5	20	HIGH	LOW
Beaver Brook_1203-22	101	5	10							8	23	HIGH	LOW
Beaver Brook_1203-22	102	5	10							1	16	HIGH	LOW
Beaver Brook_1203-22	103	5	10							0	15	HIGH	LOW
Beaver Brook_1203-22	105	5	10							2	17	HIGH	LOW
Beaver Brook_1205-02	106									3	3	LOW	LOW
Beaver Brook_1203-22	108	5	10							6	21	HIGH	LOW
Unnamed Brook_1205-17	110									3	3	LOW	LOW
Beaver Brook_1205-02	118									0	0	LOW	LOW
Beaver Brook_1203-22	123	5	10							0	15	HIGH	LOW
Beaver Brook_1203-21	131	5								3	8	LOW	LOW
Beaver Brook_1203-22	134	5	10							2	17	HIGH	LOW
Beaver Brook_1203-22	135	5	10							4	19	HIGH	LOW
Beaver Brook_1203-22	137	5	10							3	18	HIGH	LOW
Beaver Brook_1203-22	139	5	10							2	17	HIGH	LOW
Beaver Brook_1203-22	144	5	10							5	20	HIGH	LOW
Beaver Brook_1203-22	150	5	10							0	15	HIGH	LOW
Beaver Brook_1203-22	151	5	10							0	15	HIGH	LOW
Beaver Brook_1203-22	152	5	10							0	15	HIGH	LOW
Beaver Brook_1203-22	153	5	10							2	17	HIGH	LOW
Beaver Brook_1203-22	154	5	10							0	15	HIGH	LOW
Beaver Brook_1203-22	155	5	10							5	20	HIGH	LOW
Beaver Brook_1203-22	156	5	10							0	15	HIGH	LOW
Beaver Brook_1203-22	158	5	10							2	17	HIGH	LOW

Beaver Brook_1203-22	159	5	10							1	16	HIGH	LOW
Beaver Brook_1203-22	163	5	10							3	18	HIGH	

IDDEP TABLE C.1 UPDATED MS4 REGULATED OUTFALL-INTERCONNECT RANKING (2022 WotUS)

Information Source		Scoring Criteria									Score	2021 UPDATED Priority Ranking	2020 Priority Update from Dry-Weather Screening
		In Subwatershed with Impairment? [1]	Receiving Water Body Impairment? [2]	Discharging to Area of Concern to Public Health? [3]	Frequency of Past Discharge Complaints [4]	Density of Generating Sites [5]	Age of Development/ Infrastructure [6]	Aging Septic? [7]	Culverted Streams? [8]	Additional Characteristics [9]			
		Impaired Waters List	Impaired Waters List	Maps	Town Staff	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Land Use, Town Staff	GIS and Storm System Maps	GIS Weighted Data			
Receiving Water Watershed (AUID Name)	Out_ID (INTERC_ID)	Yes: Category 5 = 5 Category 4 = 3 No = 0	Yes = 10 (impairment listed as high priority in permit) No = 0	Yes = 10 No = 0	Frequent = 3 Occasional = 2 None = 0	Industrial Zone = 5 Business Zone = 3 Densely Settled = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	See Notes below and Description in SWMP			
Beaver Brook_1203-22	165	5	10							0	15	HIGH	LOW
Unnamed Brook_1205-17	166									0	0	LOW	LOW
Unnamed Brook_1205-17	167									0	0	LOW	LOW
Beaver Brook_1205-02	169									1	1	LOW	LOW
Beaver Brook_1205-04	171									3	3	LOW	LOW
Beaver Brook_1205-14	172									2	2	LOW	LOW
Golden Brook_1204-03	186									0	0	LOW	LOW

Golden Brook-Island Pond Brook_1204-04	189									1	1	LOW	LOW
Unnamed Brook_1204-18	194									0	0	LOW	LOW
Golden Brook_1204-03	201									4	4	LOW	LOW
Golden Brook-Island Pond Brook_1204-04	206									3	3	LOW	
Golden Brook-Island Pond Brook_1204-04	207									4	4	LOW	LOW
Golden Brook-Island Pond Brook_1204-04	213									3	3	LOW	LOW
Golden Brook-Island Pond Brook_1204-04	214									3	3	LOW	LOW
Golden Brook-Island Pond Brook_1204-04	220									2	2	LOW	LOW
Golden Brook-Island Pond Brook_1204-04	221									3	3	LOW	LOW
Golden Brook-Island Pond Brook_1204-04	226									0	0	LOW	LOW
Harris Pond_1102-05	246									0	0	LOW	LOW
Golden Brook-Island Pond Brook_1204-04	248									3	3	LOW	LOW
Harris Brook-Unnamed Brook_1102-26	251									1	1	LOW	LOW
Harris Brook-Unnamed Brook_1102-26	253									0	0	LOW	LOW
Harris Brook-Unnamed Brook_1102-26	254									0	0	LOW	LOW
Unnamed Brook_1102-31	255									0	0	LOW	LOW
Unnamed Brook_1102-31	259									0	0	LOW	LOW
Unnamed Brook_1102-25	265									2	2	LOW	LOW
Little Island Pond_1204-02	267	5	10							0	15	HIGH	LOW
Unnamed Brook_1102-25	268									1	1	LOW	LOW
Unnamed Brook_1102-25	269									1	1	LOW	LOW
Unnamed Brook_1102-25	274									2	2	LOW	LOW
Unnamed Brook_1102-25	277									0	0	LOW	LOW
Unnamed Brook-going into Mass_1207-02	278									3	3	LOW	LOW

Unnamed Brook-going into Mass_1207-02	279									3	3	LOW	LOW
Unnamed Brook_1102-25	280									4	4	LOW	LOW
Unnamed Brook-going into Mass_1207-02	282									4	4	LOW	LOW
Unnamed Brook-Spring Street Dam_1207-01	283									1	1	LOW	LOW
Unnamed Brook_1102-25	285									4	4	LOW	LOW
Unnamed Brook_1102-25	286									0	0	LOW	LOW
Unnamed Brook_1102-25	287									1	1	LOW	LOW
Unnamed Brook_1204-11	289									3	3	LOW	LOW
Unnamed Brook_1204-11	291									0	0	LOW	LOW
Unnamed Brook_1204-11	294									3	3	LOW	LOW
Unnamed Brook_1204-11	295									0	0	LOW	LOW
Unnamed Brook_1204-11	296									1	1	LOW	LOW
Unnamed Brook_1102-25	299									1	1	LOW	LOW
Bartlett Brook (MA)	300	5	10							2	17	HIGH	LOW
Unnamed Brook-going into Mass_1207-02	302									0	0	LOW	LOW
Beaver Brook-Tonys Brook_1205-01	319	5	10							1	16	HIGH	LOW
Beaver Brook-Tonys Brook_1205-01	323	5	10							2	17	HIGH	LOW
Beaver Brook-Tonys Brook_1205-01	325	5	10			3				3	21	HIGH	LOW
Beaver Brook-Tonys Brook_1205-01	327	5	10							4	19	HIGH	LOW
Golden Brook-Island Pond Brook_1204-04	330					3				4	7	LOW	

IDDEP TABLE C.1 UPDATED MS4 REGULATED OUTFALL-INTERCONNECT RANKING (2025 WotUS)

Information Source		Scoring Criteria									Score	2021 UPDATED Priority Ranking	2020 Priority Update from Dry-Weather Screening
		In Subwatershed with Impairment? [1]	Receiving Water Body Impairment? [2]	Discharging to Area of Concern to Public Health? [3]	Frequency of Past Discharge Complaints [4]	Density of Generating Sites [5]	Age of Development/ Infrastructure [6]	Aging Septic? [7]	Culverted Streams? [8]	Additional Characteristics [9]			
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Receiving Water Watershed (AUID Name)	Out_ID (INTERC_ID)	Yes: Category 5 = 5 Category 4 = 3 No = 0	Yes = 10 (impairment listed as high priority in permit) No = 0	Yes = 10 No = 0	Frequent = 3 Occasional = 2 None = 0	Industrial Zone = 5 Business Zone = 3 Densely Settled = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	See Notes below and Description in SWMP			
Beaver Brook-Tonys Brook_1205-01	331	5	10			3				1	19	HIGH	LOW
Beaver Brook-Tonys Brook_1205-01	334	5	10							1	16	HIGH	LOW
Golden Brook-Island Pond Brook_1204-04	335					3				2	5	LOW	LOW
Beaver Brook-Tonys Brook_1205-01	336	5	10							1	16	HIGH	LOW
Unnamed Brook_1205-15	337									3	3	LOW	LOW
Beaver Brook_1205-02	338									3	3	LOW	LOW
Gumpas Pond Brook_1205-06	340									3	3	LOW	LOW

New Meadow Brook_1205-03	350									2	2	LOW	LOW
Unnamed Brook_1205-15	362									5	5	LOW	LOW
Unnamed Brook_1205-15	363			10						1	11	HIGH	LOW
Unnamed Brook_1205-15	365			10						4	14	HIGH	LOW
Unnamed Brook_1205-15	367									5	5	LOW	LOW
Beaver Brook-Tonys Brook_1205-01	371	5	10							1	16	HIGH	LOW
Beaver Brook_1205-13	378									0	0	LOW	LOW
Beaver Brook_1205-13	380									1	1	LOW	LOW
Beaver Brook_1205-13	381									1	1	LOW	LOW
Beaver Brook_1205-13	388									6	6	LOW	LOW
Beaver Brook_1205-13	389									3	3	LOW	LOW
New Meadow Brook_1205-03	391									3	3	LOW	LOW
Unnamed Brook_1205-15	397									0	0	LOW	LOW
Beaver Brook_1205-14	402									0	0	LOW	LOW
New Meadow Brook_1205-03	410									1	1	LOW	LOW
Unnamed Brook_1102-25	425									4	4	LOW	LOW
Gumpas Pond Brook_1205-06	426									3	3	LOW	LOW
New Meadow Brook_1205-03	428									2	2	LOW	LOW
Unnamed Brook_1205-15	429									5	5	LOW	LOW
Unnamed Brook_1205-17	431									0	0	LOW	LOW
Beaver Brook_1203-22	433	5	10							1	16	HIGH	LOW

Appendix DD

Screening SOPs and Field Forms

SOP ID-0: STORMWATER SAMPLING QUALITY ASSURANCE PROJECT PLAN

1.0 Background

The EPA requires that "*all projects involving environmental monitoring performed by or for the EPA shall not be undertaken without an adequate Quality Assurance Project Plan (QAPP)"*. The purpose of this document is to describe the process used to develop, select, manage, and finalize stormwater monitoring projects. In describing this process, quality assurance goals and methods are to be established, thus ensuring that the overall program and each monitoring project will meet or exceed EPA requirements for quality assurance.

The objective of these projects will be to collect data that is usable by the town and the EPA. The primary focus of this project will be on urban stormwater outfalls in the Town of Pelham's MS4.

2.0 Sampling overview

Sampling, dry and wet, is to be performed on an as needed basis per requirements outlined in the current NH MS4 Permit and the Town's IDDEP. Samples will be collected from discharge at outfalls where dry-weather screening and sampling have indicated a potential source of pollution for the Permit required parameters or at areas that need further investigation. Sample sites will be located using existing GIS mapped outfall locations as completed previously by the town.

The primary focus of this sampling will be used to identify potential illegal discharges. Results from the sampling will be used by the town for MS4 Permit analyses and reporting. For this project, sampling will be conducted according to the Town's IDDEP. Town staff may assist with sampling. All procedures that are specified in Table 1 will be followed. Parameters to be sampled will be predetermined based on data needs.

A. Locations

Sampling site locations will be determined using existing mapped outfall locations and dry-weather screening and sampling results by project staff. If subject outfalls are inaccessible, or for catchment investigations, samples may be taken from structures upstream of an outfall. Sample analyses will be predetermined prior to sampling based on conditions known about the sampling location. Any of the parameters listed in Table 2 may be analyzed.

B. Analytical Methods and Reporting limits

Sample analyses will be conducted by EPA-certified laboratories. This effort will test and compare the most appropriate analytical methods including, but not limited to; laboratory analysis, test kits, and field analysis to determine the most effective and cost-efficient outfall sampling approach. If bacteria are found to be present, multiple, and repeated testing will occur at the location to compare different methods for identifying sewage contamination.

E. coli (bacteria) must be analyzed by an EPA-certified laboratory. Phosphorus may also need to be laboratory tested but is only required for outfalls that discharge directly to a waterbody with an identified phosphorus impairment. Ammonia, total chlorine, and surfactants can be analyzed with field test kits, but can be laboratory analyzed. Temperature and conductivity will be measured in the field with a YSI instrument. Depending on the YSI instrument used, salinity may be an available reading on the YSI, or a sample will be collected for lab analysis. Depending on severity of field results, additional laboratory analyses may be performed on any of the parameters. The laboratory used for each sampling event will be determined prior to sampling by the Project Manager based on the required analyses, laboratory availability, and costs.

All field equipment shall be calibrated for every 100 tests and per manufacturer's recommendations.

Table 1: Field and Laboratory References

Parameter	Field Method Reference	Analytical Method Reference
Water sampling	IDDEP SOPs	n/a
Conductivity, Salinity, Temperature	YSI Manufacturer's Guidance	SM 2510 B
Ammonia	Field Kit/Test Strips	ASTM D1426 EPA 350.1
Total Chlorine	Field Kit/Test Strips	EPA 330.5 ASTM D1253
Surfactants	Field Kit	EPA 425.1

		ASTM D2330
Total Phosphorus	Field Kit	EPA 365.1
Bacteria (E. coli)	EPA-Certified Lab	EPA 1603
Chain of custody of samples	Per Laboratory Requirements	n/a

Table 2: Benchmark Field Measurements for Select Parameters

Analyte or Parameter	Benchmark
Ammonia	< 0.5 mg/L
Total Chlorine	detectable range to < 0.02 mg/L
Surfactants (Detergents)	< 0.25 mg/L
Conductivity	< 100 mS/cm
Salinity	< 72.6 g/L
Bacteria (E. coli)	TMDL < 406 count/100mL (non-beach) TMDL < 88 count/100mL (beach)
Total Phosphorus	< 50 ug/L (direct input to water body) < 100 ug/L (indirect input to water body)

C. Quality Control

Calibration: The project team will calibrate its equipment according to the manufacturer's requirements.

Field duplicate: One duplicate sample will be collected for each sampled outfall approximately for every ten samples.

Trip Blank: One blank sample will be collected for approximately every ten bacteria samples. Reported data that is less than 5 times the trip (field) blank concentration will be flagged.

QC Criteria: Benchmark data is specified in Table 2 above. Data not meeting these criteria will be reviewed by the Senior Project Manager. Data that does not meet laboratory QA/QC criteria will be flagged.

Collection/Delivery For samples to be laboratory analyzed, collection specifications for holding times and sample preservation are shown in Table 3 and Table 4.

D. Chain of Custody

The chain of custody procedures will follow the laboratory's requirements.

3.0 Data Review

All field data and draft data reports will be reviewed by the Project Manager. The Project Manager will prepare a summary of the data, noting any flagged data or results in exceedance of the thresholds for the Senior Project Manager review.

4.0 Data reports

Data reports will be reviewed by the Senior Project Manager and the Town before a final report is released for public reporting.

Table 3: Required Parameter Specifications for Lab Samples (minimum)*

Parameter	Preservation	Holding time
Bacteria - E. coli (lab required)	Sodium Thiosulfate	8 hours 6 hours to lab
Ammonia (field kit or test strips)	Sulfuric Acid	28 days

Total Chlorine (field kit or test strips)	None	Immediate
Surfactants (field kit)	Ice	48 hours
Temperature (YSI)	None	Immediate
Conductivity (YSI)	None	Immediate
Salinity (YSI or lab)	Ice	28 days
Total Phosphorus (field kit or lab)	Sulfuric Acid	28 days

*record additional YSI parameters that are not Permit required as available, including pH and DO.

**phosphorus testing is only required for outfalls that discharge directly to a waterbody with a phosphorus impairment.

Table 4: Bottle Sampling List (for lab samples)

Parameter	Bottle	Preservation
Primary analyses		
Bacteria (E. coli)	sterile 100 mL	Ice
Salinity (if not from YSI)	50mL amber glass	Ice
Optional analyses		
Total Phosphorus*	125 mL	H_2SO_4 (pH <2) + Ice

*Phosphorus testing is required for outfalls that discharge directly to a waterbody with phosphorus impairment.

5.0 Field Equipment List (Minimum)

Waste Containers (5 total – clearly labeled)

1-liter plastic for general waste

1-liter amber plastic for ammonia kit waste

1-liter amber plastic for chlorine kit waste

1-liter amber plastic for surfactants/detergents kit waste

1-liter amber plastic for phosphorus kit waste

D9.1 Sample Bottles (4 potential total for each sample location)

100mL sterile – E. coli

50mL amber glass – Salinity

125 mL – Total Phosphorus

1 extra 120ml-250ml plastic – Field Kit Bottle

to be used on site for kits listed above as needed

***Fill out chain of custody

D9.2 Field Gear

- Sampling plan & GPS locations
- GPS/digital field pad
- Logbook
- Digital camera
- YSI Multiparameter Meter
- Field test kits
- Extra sample bottles
- Bottle labels
- Chain of Custody forms
- Sharpies and/or Write-On-Rain pens
- Colored tape
- Squirt bottle of DI water
- Coolers with ice
- Measuring tape
- Flashlight
- Utility knife
- Sampling pole with cup
- Pry bar
- Small mallet or hammer
- Sandbags
- Safety cones
- Waders/boots
- Powder-free gloves
- Hand sanitizer
- Paper towels
- PPE

Attachments

SOP ID-1 Dry *Weather Outfall Inspection Form*

Related Standard Operating Procedures

1. SOP ID-1 Dry *Weather Outfall Inspection*
2. SOP ID-2 Wet *Weather Outfall Inspection*
3. SOP ID-3 Catchment *Investigations*
4. SOP ID-4 Water *Quality Screening in the Field*
5. SOP ID-5 Locating *Illicit Discharges*

Approved Date: June 30, 2025

Revisions:

Source:

"EPA New England Bacterial Source Tracking Protocol, Draft, January 2012"; Title 40: Part 136, *Guidelines Establishing Test Procedures for The Analysis of Pollutants*

SOP ID-1: DRY WEATHER OUTFALL INSPECTION

Introduction

Outfalls from an engineered storm drain system can be in the form of closed pipes or open channels. Under current regulations, it is important to inspect and document water quality from these outfalls in dry weather conditions, and when warranted, wet weather conditions. SOP ID-2, "*Wet Weather Outfall Inspection*", covers the objectives of wet weather 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 no flow or minimal flow from stormwater outfalls will be observed. Therefore, dry weather inspections aim to characterize any flow observed during a dry weather period to identify potential source(s) of illicit discharge through qualitative testing, further described in SOP ID-4, "*Water Quality Screening in the Field*".

Definition of Dry Weather

A dry weather period is a time interval where less than 0.1-inch of rain is observed over 24 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 discharges from a stormwater outfall during a period without recorded rainfall. The objective of inspections during a dry weather period is to characterize observed flows 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 qualitative characteristics of any flows conveyed by the system during a period of dry weather.

For any visually observed discharge from a stormwater outfall, an investigation into the potential 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 to engineered storm drain systems; leaking or failing septic systems; intentional discharge of pollutants to catch basins; connected floor drains; and sump pumps connected to the system. Additional guidelines for illicit discharge investigations are included in SOP ID-5, "*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.), an attempt should be made to identify the source of flow (e.g., irrigation, 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 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.

Optical enhancers, fluorescent dyes added to laundry detergent, are typically detected using clean, white cotton pads placed within the discharge for several days, dried then viewed under 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, a testing method should be used to confirm the presence of optical enhancers.

The *Dry Weather Outfall Inspection Survey* form 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 descriptions and details in the comments section. If the indicator in question is not present, mark "No".

Within the comments section, provide additional information regarding recorded precipitation totals, more detailed descriptions of observations made during the inspection, additional investigations (source location), and corrective actions taken or recommended, if any.

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 ID-4, "*Water Quality Screening in the Field*." The *Water Quality Screening Form* 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 or initial laboratory results 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 SOP ID-4 and 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. 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 or 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 date, time, and location.
14. Document on the Dry 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 analytical sample collection, the samples must be sent or delivered to an EPA-approved laboratory for analytical testing. Quality control and assurance are important to ensuring accurate analytical test results.

Sample preservation is required to prevent 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

SOP ID-1 *Dry Weather Outfall Inspection Form*

Related Standard Operating Procedures

1. SOP ID-0 *Stormwater Sampling Quality Assurance Project Plan*

2. SOP ID-2 *Wet Weather Outfall Inspection*
3. SOP ID-3 *Catchment Investigations*
4. SOP ID-4 *Water Quality Screening in the Field*
5. SOP ID-5 *Locating Illicit Discharges*

Approval Date: June 30, 2025
Revisions:

Source: Central Massachusetts Regional Stormwater Coalition

Outfall ID: _____ **Date:** _____

Town Official: _____

Time of Inspection: _____

Street Name: _____

Last rainfall event: _____

Town of Pelham, NH

Town of Pelham, NH

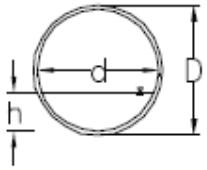
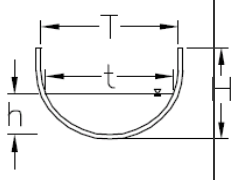
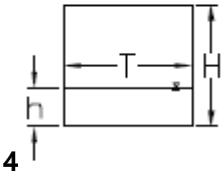
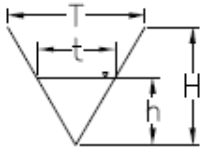
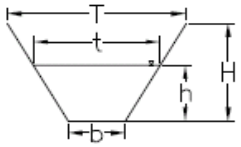
Highway Department

SOP ID-1: 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 ☐
D10 SWALE MATERIAL:	Paved (asphalt) ☐ Concrete ☐ Earthen ☐ Stone ☐ Other: ☐	**Swale Condition:**	Good ☐	Poor ☐
			Fair ☐	Crumbling ☐

Shape of Pipe/Swale (check one)

 **D11** ☐ **D12** ☐	 **D13** ☐	 **D14** ☐	 ☐	 ☐
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 ☐	
Pipe Height (in): H= _____	Flow Height (in): h= _____*	Fair ☐ Crumbling ☐	
Flow Width (in): h= _____*	Bottom Width (in): b= _____		

Description of Flow: Heavy ☐ Moderate ☐ Trickling ☐ (use reverse side of form for sampling) 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:**	
Odor: Yes ☐ No ☐	Rip rap	Sheen: Bacterial
Optical enhancers suspected? Yes ☐ No ☐		

Has channelization occurred?	Yes ☐	No ☐	Excessive sediment	Sheen: Petroleum
Has scouring occurred below the outlet?	Yes ☐	No ☐	Foam	Floatables
Required Maintenance:	Tree Work Ditch Work Structural Corrosion N/A	Remove Trash/Debris Blocked Pipe Erosion at Structure Other	Sanitary Waste	Algae
			Orange Staining	Excessive Vegetation
Comments:				

Town of Pelham, NH

Highway Department

Outfall ID: _____ **Date:** _____

Town Official: _____

Time of Inspection: _____

Street Name: _____

Last rainfall event: _____

SOP ID-1: DRY WEATHER OUTFALL INSPECTION SURVEY SAMPLING (if flow is observed)

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	**Test Method**	**Benchmark**	**Field Screening Result**	**Full Analytical?**
Ammonia	Field Kit/Test Strips	< 0.5 mg/L		☐ Yes ☐ No
Total Chlorine	Field Kit/Test Strips	detectable range < 0.02 mg/L		☐ Yes ☐ No
Surfactants/Detergents	Field Kit	< 0.25 mg/L		☐ Yes ☐ No

Conductivity	YSI	< 100 mS/cm		☐ Yes ☐ No
Salinity	YSI	< 72.6 g/L		☐ Yes ☐ No
Temperature	YSI	n/a		n/a
Bacteria (E. coli)	EPA-Certified Lab	406 count/100mL(non-beach) 88 count/100mL (beach)		REQ.
Total Phosphorus	Field Kit	< 50 ug/L (direct to waterbody) < 100 ug/L (indirect to waterbody)		☐ Yes ☐ No
Comments:				

SOP ID-2: WET WEATHER OUTFALL INSPECTION

Introduction

Outfalls from an engineered storm drain system can be in the form of closed pipes or open channels. Under current regulations, it is required to inspect and document water quality from these outfalls in dry weather for all ranked outfalls in the Town's MS4 regulated area, and in wet weather conditions for all outfalls having dry-weather discharge, any system vulnerability factors (SVF), or discharging directly to NHDES classified as impaired waters in the state's current EPA-approved 303(d) and 305(b) reports. SOP ID-1, "*Dry Weather Outfall Inspection*", covers the objectives of dry weather 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 at that discharge point.

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 24 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 time, allowing inspectors to refine an approach for future inspections and sampling.

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 60% chance of rain or greater. If the inspector intends to collect analytical samples, coordination with the laboratory for bottles and sample drop-off needs to occur in advance.

Visual Condition Assessment

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

- oil sheen;

- discoloration; and/or
- trash and debris.

For any visual observation of potential pollutants in a stormwater outfall discharge, an investigation into the pollution source should be performed, but the following often occur at an outfall:

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 to engineered storm drain systems; leaking or failing septic systems; intentional discharge of pollutants to catch basins; and floor drains and/or sump pumps connected to the system (under some circumstances). Additional guidelines for illicit discharge investigations are included in SOP ID-5, "*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. The 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 few 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 using clean, white cotton pads placed within the discharge for several days, dried then viewed under 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, a testing method should be used to confirm the presence of optical enhancers.

The *Wet Weather Outfall Inspection Survey* form 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 indicator in question is not present mark "No".

Within the comments section, provide additional information regarding recorded precipitation totals within the past 72-hours, more detailed descriptions of observations made during the inspection, and corrective actions taken or recommended.

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 ID-4, "*Water Quality Screening with Field Test Kits*", and the *Wet Weather Outfall Inspection Survey* form includes fields to document the results of such screening. The *Inspection Survey* forms also provide 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 these IDDEP SOPs (per 40 CFR 136). A discrete 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. 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 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 degradation between sampling and analysis and should be completed in accordance with these IDDEP SOPs.

Maximum acceptable holding times are 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

SOP ID-2 *Wet Weather Outfall Inspection Survey*

Related Standard Operating Procedures

6. SOP ID-0 *Stormwater Sampling Quality Assurance Project Plan*
7. SOP ID-1 *Dry Weather Outfall Inspection*
8. SOP ID-3 *Catchment Investigations*
9. SOP ID-4 *Water Quality Screening in the Field*

10. SOP ID-5 *Locating Illicit Discharges*

Approved Date: June 30, 2025
Revisions:

Source: Central Massachusetts Regional Stormwater Coalition

Town of Pelham, NH

Outfall ID: _____ **Date:** _____

Town Official: _____

Time of Inspection: _____

Street Name: _____

Last rainfall event: _____

Town of Pelham, NH

Highway Department

SOP ID-2: 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	Test Method	Benchmark	Field Screening Result	Full Analytical?
Ammonia	Field Kit/Test Strips	< 0.5 mg/L		☐ Yes ☐ No
Total Chlorine	Field Kit/Test Strips	detectable range < 0.02 mg/L		☐ Yes ☐ No
Surfactants/Detergents	Field Kit	< 0.25 mg/L		☐ Yes ☐ No
Conductivity	YSI	< 100 mS/cm		☐ Yes ☐ No
Salinity	YSI	< 72.6 g/L		☐ Yes ☐ No
Temperature	YSI	n/a		n/a

Bacteria (E. coli)	EPA-Certified Lab	406 count/100mL(non-beach) 88 count/100mL (beach)		REQ.
Total Phosphorus	Field Kit	< 50 ug/L (direct to waterbody) < 100 ug/L (indirect to waterbody)		☐ Yes ☐ No
Comments:				

SOP ID-3: CATCHMENT INVESTIGATIONS

Introduction

Stormwater outfalls with evidence of illicit discharges may be identified. Various methods can be used to investigate the source of the discharge within each outfall catchment area. Common catchment investigation techniques include, but are not limited to:

- review of maps, historic plans, and records;
- manhole and catch basin inspection;
- dry and wet weather screening and sampling;
- video inspection;
- smoke testing; and
- dye testing.

This Standard Operation Procedure (SOP) outlines a systematic procedure to investigate outfall catchments and identify the source(s) of potential illicit discharges. Information and data collected as part of these catchment investigations is to be maintained and reported to the EPA annually.

Reference herein is also made to the 2017 New Hampshire Small MS4 General Permit (the Permit), the Town's Stormwater Management Plan (SWMP), and the Illicit Discharge and Detection Elimination Program (**IDDEP**, **Appendix D** of the SWMP).

Map and Record Review

The Town reviews relevant mapping and historic plans and records to identify areas in the municipal separate storm sewer system (MS4) with a higher potential for illicit connections. The following information is expected to be reviewed:

- plans related to the construction of drainage networks;
- prior work orders for storm drain system construction and repairs;
- Health Department or other municipal data on septic system failures or required upgrades; and
- records related to septic system breakouts.

From this review and other IDDEP required ranking criteria, catchments are prioritized for inspection through Year 10 of the Permit.

System Vulnerability Factors

The Town will identify and tabulate System Vulnerability Factors (SVFs). SVFs indicate a risk of potential sewage input to the MS4 under wet weather conditions, including the potential for failing septic systems.

The outfall/catchment inventory will be updated to include the following SVFs:

- storm drain infrastructure greater than 40 years old in medium and densely developed areas.

- areas of widespread code-required septic system upgrade due to inadequate soils, water table separation, or other physical constraints other than poor owner maintenance.
- sites with a history of multiple health department actions addressing septic system failures due to inadequate soils, water table separation, or other physical constraints other than poor owner maintenance.
- sites with a history of health department actions addressing septic system failures due to improper installation and/or poor owner maintenance.

Dry Weather Investigation (Manhole Inspections)

The Town will implement a dry weather storm drain network investigation that involves systematically and progressively observing, sampling (if applicable), and evaluating key junction manholes in the MS4 to identify potential or suspected illicit discharges.

The Town will be responsible for implementing the dry weather manhole inspection program and making updates to the mapping and inventories and ranking, as necessary. Updated infrastructure information will be incorporated into the storm system map, and catchment delineations will be refined, if needed, based on the field investigations. The outfall inventory with SVF data will also be updated based on information collected during field investigations, as applicable.

Important terms related to the dry weather manhole inspection program are defined by the MS4 Permit as follows:

> *Junction Manhole is a manhole or structure with two or more inlets accepting flow from two or more MS4 alignments. Manholes with inlets solely from private storm drains, individual catch basins, or both are not considered junction manholes for these purposes.*
>
> *Key Junction Manholes are those junction manholes that can represent one or more junction manholes without compromising adequate implementation of the illicit discharge program. Adequate implementation of the illicit discharge program would not be compromised if the exclusion of a particular junction manhole as a key junction manhole would not affect the permittee's ability to determine the possible presence of an upstream illicit discharge. A permittee may exclude a junction manhole located upstream from another located in the immediate vicinity or that is serving a drainage alignment with no potential for illicit connections.*

For all catchments identified for investigation, during dry weather field crews will systematically inspect key junction manholes for evidence of illicit discharges and confirm or identify potential SVFs. This program involves progressive inspection and sampling (if required) at manholes in storm drain networks to isolate and eliminate illicit discharges.

The manhole inspection methodology will be conducted in one of two ways (or a combination of both):

- by working progressively upstream from the outfall and inspecting key junction manholes along the way; or
- by working progressively downstream from the upper areas of the catchment toward the outfall and inspecting key junction manholes along the way.

For most catchments, manhole inspections will proceed from the outfall moving upstream along the system. However, the decision to move upstream or downstream in the system depends on the nature of the drainage system, the surrounding land use, and the availability of information about the catchment and drainage system. Moving up the system can begin immediately when an illicit discharge is detected at an outfall and only a map of the storm drain system is usually required. Moving down the system requires more advance preparation and reliable drainage system information on the upstream segments of the storm drain system; however, may be more efficient if the sources of illicit discharges are suspected or known to be located in upstream portions of the catchment area. Once a manhole inspection methodology has been selected, investigations continue systematically through the catchment.

Dry-weather inspection of key junction manholes is to proceed as follows:

1. Dry weather screening and sampling shall proceed only when no more than 0.1-inches of rainfall has occurred in the previous 24-hour period and no significant snow melt is occurring.
2. A field inspection form is provided with this SOP. Tools required for investigations are outlined in the IDDEP, **Table D6-1 Field Equipment**. Opening structures for investigation is a two-person task and requires that all safety precautions be taken.
3. Manholes will be opened and inspected for visual or olfactory evidence of illicit connections. The following are often indicators of an illicit discharge from stormwater outfall:
    - Foam: indicator of upstream vehicle washing activities, or an illicit discharge.
    - Oil sheen: result of a leak or spill.
    - Cloudiness: indicator of suspended solids such as dust, ash, powdered chemicals and ground up materials.
    - Color or odor: indicator of raw materials, chemicals, or sewage.
    - Excessive sediment: indicator of disturbed earth of other unpaved areas lacking adequate erosion control measures.
    - Sanitary waste and optical enhancers (fluorescent dyes added to laundry detergent): indicator of the cross-connection of a sewer service.
    - Orange staining: indicator of high mineral concentrations.

4. If flow is observed, a sample will be collected and analyzed. At a minimum, field testing will be completed for the following pollutants:
    - ammonia;
    - chlorine;
    - surfactants; and
    - bacteria (e. Coli by laboratory analysis).

    Field kits can be used for these analyses, except for bacteria sampling, provided they meet the minimum threshold indicator concentrations as outlined in *Section 2.3.4.7.b.iii.4.b* of the Permit. **Appendix DE** of the SWMP contains tables for parameter thresholds, field test methods, field kit information, equipment and instrumentation, and suggested supplies.
5. Sampling and analysis will be in accordance with procedures outlined in the IDDEP and Appendices within the SWMP, as well as EPA updates as available. Additional indicator sampling may also be necessary to assist in determining other suspected pollutants and sources, or for areas identified in the SWMP (or NHDES) with impaired waters and/or TMDLs.
6. Where sampling results, or visual or olfactory evidence indicates potential illicit discharges, the area draining to the junction manhole will be flagged for further upstream manhole investigation and/or isolation and confirmation of source(s).
7. Subsequent key junction manhole inspections will proceed upstream until the location of suspected illicit discharge(s) can be isolated to a pipe segment between two manholes.
8. If after a complete investigation of the drainage network in the suspect catchment no evidence of an illicit discharge is found, catchment investigations will be considered concluded upon completion of key junction manhole sampling, with documentation of the sampling results below applicable benchmarks, and steps taken to investigate the source.

Wet Weather Investigation (Outfall Sampling)

Where a minimum of one (1) SVF is identified in the outfall inventory or based on previous information or during the catchment investigation, a wet weather investigation must also be conducted at the associated outfall. The Town will be responsible for implementing the wet weather outfall sampling program as defined in SOPs ID-2 and ID-4 and making updates to the SWMP map and outfall inventory, as applicable.

SVF outfalls will be inspected and sampled under wet weather conditions, to the extent necessary to determine whether wet weather-induced flows or high groundwater in areas served by septic systems result in sanitary discharges to the MS4.

Wet weather outfall sampling will proceed as follows:

1. At least one wet weather sample will be collected at the identified outfall for the same parameters required during dry weather sampling. Field kits can be used for these analyses except for bacteria, provided they meet the minimum threshold indicator concentrations as

outlined in *Section 2.3.4.7.b.iii.4.b* of the Permit. **Appendix DE** of the SWMP contains tables for parameter thresholds, field test methods, field kits, equipment and instrumentation, and suggested supplies.

2. Wet weather sampling will occur during or after a storm event of sufficient depth or intensity to produce a stormwater discharge at the outfall.
    a. To the extent feasible, sampling should occur during the spring (March through June) when groundwater levels are relatively higher.
    b. Sampling during the initial period of discharge ("first flush") is to be avoided. This initial period is generally through the first 0.5-inch to 1-inch of rainfall, or 15-minutes after the start of a steady rainfall.
3. If wet weather outfall sampling indicates a potential illicit discharge, then additional wet weather source sampling will be performed, as warranted, moving upstream through key junction manholes until the sampling results do not indicate the suspected pollutant.
4. Once an upstream manhole field test is found to fall below pollutant thresholds (SOP ID-4), source isolation and confirmation procedures are to be followed as described below.
5. If wet weather outfall sampling of a catchment does not identify evidence of illicit discharges, and no evidence of an illicit discharge is found during dry weather manhole inspections, that catchment investigation will be considered complete. All documentation of a complete investigation is required to be included in the town's annual MS4 report to the EPA.

Source Isolation and Confirmation

Once an illicit discharge is approximated between two manholes, more detailed investigation techniques will be used to isolate and confirm the source of the illicit discharge. The following methods may be used in isolating and confirming the source of illicit discharges:

- sandbagging;
- CCTV/video inspections;
- smoke testing;
- dye testing;
- optical brightener monitoring; and/or
- illicit discharge canines.

These methods are described below. Public notification is an important aspect of a detailed source investigation program. Prior to video inspections, smoke testing, or dye testing, the Town will notify property owners in the affected area. Testing notification may include robocalls, hanging notifications on doors/mailboxes, in-person door-to-door, and/or email.

Sandbagging

This technique can be particularly useful when attempting to isolate intermittent illicit discharges or those with very little perceptible flow. The technique involves placing sandbags or similar barriers (e.g., caulking, weirs/plates, or other temporary barriers) within outlets to manholes to form a temporary dam that collects any intermittent flows that may occur. Sandbags are typically left in place for 48 hours and should only be installed when dry weather is forecast. If flow has collected behind the sandbags/barriers after 48 hours, the flow accumulation can be assessed using visual and olfactory observations, or by sampling. If no flow collects behind the barrier, the upstream pipe network can be ruled out as a source of the illicit discharge. This technique can be performed by a single person, however, identifying appropriate durations of dry weather and the need for multiple trips to each manhole can make this method both time-consuming and somewhat limiting.

Smoke Testing

Smoke testing involves injecting non-toxic smoke into drain lines and noting the emergence of smoke in illegally connected buildings or from cracks and leaks in the system itself. Smoke testing can also be effective in confirming and locating upstream or downstream structures within a drainage system. Typically, a smoke bomb or smoke generator is used to inject the smoke into the system at a catch basin or manhole and air is then forced through the system. A team of two or more people is needed to perform smoke testing (ideally, all with two-way radios). Test personnel are placed in areas where there are suspected illegal connections or cracks/leaks, noting any escape of smoke (indicating an illicit connection or damaged storm drain infrastructure). It is important when using this technique to make proper notifications to area residents and business owners as well as local police and fire departments.

It should be noted that smoke may cause minor irritation of respiratory passages. Residents with respiratory conditions may need to be monitored or evacuated from the area of testing altogether to ensure safety during testing.

Dye Testing

Dye testing involves flushing non-toxic dye into plumbing fixtures such as toilets, showers, and sinks and observing nearby storm drains and manholes as well as stormwater outfalls for the presence of the dye. Like smoke testing, it is important to inform residents and business owners. Police, fire, and local public health staff should also be notified prior to testing in preparation of responding to citizen phone calls concerning the dye and the presence in local surface waters.

A team of two or more people is needed to perform dye testing (ideally, all with two-way radios). One person is located inside the building, while the others are stationed at the appropriate storm drain structures (which should be opened prior to adding dye) and/or outfalls. The person inside the building adds dye into a plumbing fixture (i.e., toilet or sink) and runs a sufficient amount of water to move the dye through the system. The person inside the building then

radios to the outside crew that the dye has been added, and the outside crew watches for the dye in the storm drain system, recording the presence or absence of the dye over a set time.

This testing can be relatively quick (about 30 minutes per test), effective (results are usually definitive), and inexpensive. Dye testing is best used when the likely source of an illicit discharge has been narrowed down to a few specific buildings and the suspected dry-weather flow is perceptible.

Closed Circuit Television (CCTV)/Video Inspection

Another method of source isolation involves the use of mobile video cameras that are guided remotely through storm drain lines to observe possible illicit discharges or connections. IDDEP staff can review the videos and note any visible illicit discharges. While this tool is both effective and usually definitive, it can be costly and time consuming when compared to other source isolation techniques.

Optical Brightener Monitoring

Optical brighteners are fluorescent dyes that are used in detergents and paper products to enhance their appearance. The presence of optical brighteners in surface waters or dry weather discharges suggests there is a possible illicit discharge or insufficient removal by local septic systems or other wastewater treatment. Optical brightener monitoring can be done in two ways. The most common and least expensive methodology involves placing a cotton pad in a wire cage and securing it in a pipe, manhole, catch basin, or inlet to capture intermittent dry weather flows. The pad is retrieved at a later date and placed under UV light to determine the presence/absence of brighteners during the monitoring period. A second methodology uses handheld fluorometers to detect optical brighteners in a water sample collected from outfalls or ambient surface waters. Use of a fluorometer, while more quantitative, is typically more costly and is not as effective at isolating intermittent discharges as other source isolation techniques.

IDDE Canines

Dogs specifically trained to smell human related sewage are becoming a cost-effective way to isolate and identify sources of illicit discharges. While not widespread at the moment, the use of IDDE Canines is growing as is their accuracy. The use of these dogs is not currently recommended as a standalone practice for source identification; rather it can be used as a tool to supplement other conventional methods in order to fully verify sources of illicit discharges.

Illicit Discharge Removal

When the specific source of an illicit discharge is identified, the Town will exercise its authority as necessary to require its removal. The Permit annual report will include the status of all IDDEP investigations 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; and
- an estimate of the volume of flow removed.

Confirmatory Outfall Sampling

Within one (1) year of removal of an identified illicit discharge, confirmatory outfall sampling will be conducted. Confirmatory sampling will be conducted in dry weather unless SVFs have been identified, in which case both dry weather and wet weather confirmatory sampling will be conducted. If confirmatory sampling indicates continued evidence of or additional illicit discharges, the catchment will be scheduled for further investigations as described above. Confirmatory screening is not required in catchments where illicit discharges or SVFs have not been identified, or no previous screening indicated suspicious flows.

Follow-up Screening

Upon completion of each catchment investigation and illicit discharge removal and confirmation (as applicable), each outfall or interconnection will be scheduled for follow-up screening within five (5) years or sooner based on the catchment's illicit discharge priority. Ongoing screening will consist of dry weather screening and sampling consistent with the procedures described in the IDDEP and town SOPs. Ongoing wet weather sampling will also be conducted at outfalls where wet weather sampling was required due to SVFs and will be conducted in accordance with the procedures described in the IDDEP and town SOPs. All sampling results will be reported in the Permit annual reports.

Illicit Discharge Detection and Elimination Training

The Town will implement a training program for employees involved in the IDDEP, including how to recognize illicit discharges and the process related to illicit discharge investigation, removal, and enforcement. The permittee shall report on the frequency and type of employee training in the Permit annual report.

Attachments

SOP ID-3 Drain *Manhole Inspection Log*

Related Standard Operating Procedures

1. SOP ID-0 Stormwater *Sampling Quality Assurance Project Plan*
2. SOP ID-1 Dry *Weather Outfall Inspection*
3. SOP ID-2 Wet *Weather Outfall Inspection*
4. SOP ID-4 Water *Quality Screening in the Field*
5. SOP ID-5 Locating *Illicit Discharges*

Approval Date: June 30, 2025
Revisions:

D14.1 *Source: New Hampshire Lower Merrimack Valley Stormwater Coalition*

Town of Pelham SOP ID-3 Drain Manhole Inspection Log **Manhole ID:**

Inspection Date: _____ Tributary Area: _____

Street: _____ Town Official: _____

Inspection Condition: Not Found _____ Surface _____ Internal _____ Follow Up Inspection Needed? _____

Time Since Last Rain: < 24 hours _____ 24 - 48 hours _____ 48 - 72 hours _____

Observations:

Standing Water in Manhole: Yes ___ No ___ Color of Water: Clear ___ Cloudy ___ Other _____

Flow in Manhole: Yes ___ No ___ Velocity: Slow ___ Medium ___ Fast ___ Depth of Flow: _____ in.
Color of Flow: No Flow: ____ Clear ____ Cloudy _____ Suspended Solids _____ Other _____
Blockages: Yes ___ No ___ Sediment in Manhole: Yes ___ No___ If Yes: Percent of Pipe Filled: ___

% Floatables: None ____ Sewage ____ Oily Sheen ____ Foam ____ Other _____

Odor: None _____ Sewage _____ Oil _____ Soap _____ Other _____

Field Testing:

Temp ____ Conductivity ____ Salinity ____ Ammonia: Yes/No Chlorine Yes/No Surfactants: Yes/No

Lab analysis:

E. coli _____ Pollutants of Concern* _____

* Total Phosphorus

MH DETAILS

Location:		Material:		MH Cover size:		MH Diameter:		Invert/Flow Channel:	
Roadway		Brick		24"		48"		Present Y/N	
Gutter		Block		26"		60"		Material:	
Grass		Concrete		30"		Other (describe below)		Concrete	
Easement		Lined		36"				Brick/mortar	
Other (describe below)		Other (describe below)		Other (describe below)				Other (describe below)	

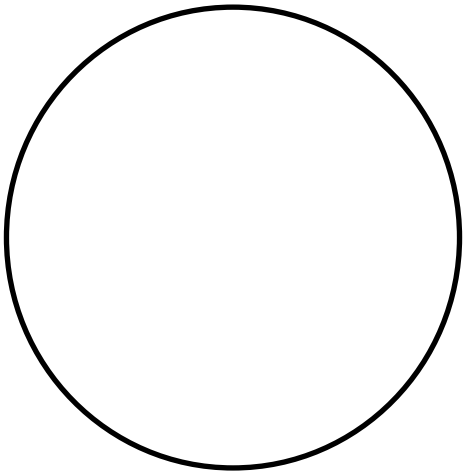
CONDITION

Cover:		Ring &Frame		Chimney:		Wall:		Rungs:	
Serviceable		Serviceable		Serviceable		Serviceable		Serviceable	
Loose		Loose		Cracked/Broken		Cracked/Broken		Unsafe	
Below Grade		Displaced		Corroded		Corroded		Missing any	
Damaged		Missing Grout		Misaligned		Misaligned		Corroded	
Sealed		Raise		Infiltration		Infiltration		N/A - no rungs	
Holes (# of holes)		Lower		Roots at Joints		Roots at Joints			

Include any pertinent notes regarding component conditions below:

MANHOLE DIAGRAM

(Outflow should be at the 6:00 position. Label all pipes with size/type and flow direction)



FLOW MEASUREMENTS

Field Data for Flowing Outfalls				
Method / Parameter		**Result**	**Unit**	**Equipment**
☐ #1	Volume		Liter	Bottle
	Time to fill		Sec	Stopwatch
☐ #2	Flow Depth		In	Tape measure
	Flow Width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		Sec	Stopwatch

Appendix DE

Water Quality Analysis Sampling SOPs and Field Forms

SOP ID-4: WATER QUALITY SCREENING IN THE FIELD

Introduction

Outfalls from an engineered storm drain system can be in the form of pipes or swales/ditches. Under current regulations, it is important to inspect and document water quality within the MS4 system under both dry weather and wet weather conditions as required. SOP ID-1, "*Dry Weather Outfall Inspection*" and SOP ID-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 HW-1, "*Catch Basin Inspection and Cleaning*", also describes how these operations and maintenance activities can serve as an additional opportunity to collect water quality data.

SOP ID-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 that 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 assist in the illicit discharge detection and elimination investigations, as described in SOP ID-5, "*Locating Illicit Discharges*".

Visual Condition Assessment

SOPs ID-1 through ID-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/staining;
- odor;
- evidence of sanitary waste;
- optical enhancers (fluorescent dyes added to laundry detergent); and
- turbidity.

If a *Visual Condition Assessment* indicates the presence of these potential 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;
- chlorine;
- conductivity;
- salinity;
- bacteria (E. coli);
- surfactants;
- temperature; and
- total phosphorus*.

*Phosphorus testing is only required for outfalls that discharge directly to a waterbody with a phosphorus impairment.

Field Kits and Sampling Methods Available

Table 1 shows field test kits and portable meters that can be used for field screening parameters. Each field test kit should include instructions specific to that test kit, and most kits are available in configurations that detect different ranges of the parameter.

Table 1
Field Measurements, Test Kits, and Instrumentation

Analyte or Parameter	Field Test Kit	Field Test Consumables*
Ammonia	Hanna Instruments H1700 Freshwater Low Range Ammonia Colorimeter-Checker HC	Hanna Instruments Ammonia Reagent H1700-25 (25 tests) and H1700-11 Calibration set (1/100 tests) AND/OR Hach #2755325 Ammonia (Nitrogen) Test Strips 0-6.0 mg/L (25 tests)
Total Chlorine	Hanna Instruments H1761 Ultra-Low Range Total Chlorine Colorimeter-Checker HC	Hanna Instruments Total Chlorine Ultra-Low Range Reagent H1761-25 (25 tests) and H1761-11 Calibration set (1/100 tests) AND/OR LaMotte 2963LR-G Insta-Test Analytic Total Chlorine Test Strips (25 tests)
Surfactants (Detergents)	CHEMetrics Detergents CHEMets Visual Kit K-9400 AND/OR UV Light	CHEMetrics Detergents Refill R-9400 (20 tests) AND/OR absorbent material placed in flow
Conductivity Salinity Temperature	YSI PROplus (or other device capable of these measurements)	N/A
Bacteria	Bacteria field test kits require 24-hour window for Laboratory analysis field samples must be to lab within 6-hours of collection.	

Total Phosphorus	Hanna Instruments H1713 Low Range Phosphate Colorimeter-Checker HC AND/OR CHEMetrics Phosphate, ortho CHEMets Visual Kit K-8510 AND/OR Grab Sample for Lab Analysis	Hanna Instruments Phosphate Low-Range Reagent H1713-25 (25 tests) and H1713-11 Calibration set (1/100 tests) AND/OR CHEMetrics Phosphate, ortho Refill R-8510 (30 tests) and Activator Solution A-8500 (200 tests)

* Waste products from some tests may be considered hazardous materials and must be disposed of in accordance with all regulations.

Table 2 shows benchmark values identified in the Permit and other related guidance. These represent the concentration (or value) of each parameter where when found or exceeded in stormwater, may be indicative of pollution and/or illicit discharges and require further sampling and catchment investigation.

Table 2
Benchmark Field Measurements for Select Parameters

Analyte or Parameter	Benchmark
Ammonia	< 0.5 mg/L
Total Chlorine	detectable range < 0.02 mg/L
Surfactants (Detergents)	< 0.25 mg/L
Conductivity	< 100 mS/cm
Salinity	< 72.6 g/L
E. coli (bacteria)	TMDL < 406/100mL (non-beach) TMDL < 88/100mL (beach)
Total Phosphorus	< 50 ug/L (direct to waterbody) < 100 ug/L (indirect to waterbody)

Whether using laboratory analyses, field test kits, or portable meters, if and when water quality screening samples exceed benchmark concentrations, the inspector may also consider collecting analytical samples for laboratory analysis depending on severity.

Field test kits can be convenient for use as a screening tool, initial purchase costs are lower, and the costs are far less than full analyses at a laboratory. However, some disadvantages of this screening method include:

- generation of wastes, including glass vials and used reagent;
- some spent kits may require hazardous waste handling;
- labor cost associated with the inspector's time;
- steps and processes for each kit can vary widely, and can result in errors;
- limited detection ranges.
- not all kits are accepted by all regulatory agencies; and
- limited shelf life;

Portable instrumentation such as the colorimeters shown in Table 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:

- higher initial purchase costs;
- requirement for ongoing calibration and maintenance;
- individual probes require periodic replacement;
- specific storage requirements to maintain calibration; and
- trained staff are required in order to effectively utilize.

Attachments

1. Attachment 1 Field Sampling Kits
2. Sample Bottle Labels
3. Chain-of-Custody Record Example
4. SOP ID-4 Water *Quality Screening Form*

Related Standard Operating Procedures

1. SOP ID-0 Stormwater *Sampling Quality Assurance Project Plan*
2. SOP ID-1 Dry *Weather Outfall Inspection*
3. SOP ID-2 Wet *Weather Outfall Inspection*
4. SOP ID-3 Catchment *Investigations*
5. SOP ID-5 Locating *Illicit Discharges*

Approved Date: June 30, 2025
Revisions:

Source: Central Massachusetts Regional Stormwater Coalition, NH Stormwater Coalitions, EPA 2017 New Hampshire Small MS4 General Permit, Calculation of Total Phosphorus Limits for NPDES Permits in New Hampshire, EPA New England Bacterial Source Tracking Protocol 2014, New Hampshire Statewide Total Maximum Daily Load (TMDL) for Bacteria Impaired Waters, 2010.

SOP ID-4 WATER QUALITY SCREENING FORM

Outfall I.D.			
Outfall Location			
Town Official'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

Ammonia		< 0.5 mg/L		☐ Yes ☐ No
Total Chlorine		detectable range < 0.02 mg/L		☐ Yes ☐ No
Surfactants/Detergents		< 0.25 mg/L		☐ Yes ☐ No
Conductivity		< 100 mS/cm		☐ Yes ☐ No
Salinity		< 72.6 g/L		☐ Yes ☐ No
Temperature		n/a		n/a
Total Phosphorus		< 50 ug/L (direct to waterbody) < 100 ug/L (indirect to waterbody)		☐ Yes ☐ No

FULL ANALYTICAL TESTING WATER QUALITY RESULTS

Sample Parameter	**Analytical Test Method**	**Sample Collection (Time/Date)**	**Testing Lab**	**Analytical Testing Result**
Bacteria (E. coli, required)	EPA 1603			
Salinity	SM 2510 B			
Total Phosphorus*	EPA 365.1			

*Phosphorus testing is only required for outfalls that discharge directly to a waterbody with a phosphorus impairment.

SAMPLE BOTTLE LABELS

If discharge is observed during the dry weather screening, a sample of the discharge must be collected for analytical testing in accordance with the Permit. Dry weather discharge kits from a laboratory will include sample bottles, with or without preservatives depending on the type of analysis. Sample bottles should be labeled with the following information:

Sampler: _____ Date: _____ Time: _____
Field ID: _____
Analysis: _____ Preservative: _____

Appendix DF

Source Isolation and Confirmation Methods:

Instructions, Manuals, and SOPs

TABLE DF-1 Potential Intermittent Illicit Discharge Sources		
Land Use	Likely Source Loctions	Condition or Activity the 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	Airports Camps Car dealers/rental car companies Car washes Commercial laundry/dry cleaning Gas stations/auto repair shops Golf courses Nurseries and garden centers Oil change shops Restaurants	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 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	Landfills Maintenance depots Municipal fleet storage areas Public works yards Streets and highways 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

SOP ID-5: LOCATING ILLICIT DISCHARGES

Introduction

An "illicit discharge" is any discharge to an engineered storm drain system that is not composed entirely of stormwater unless the discharge is defined as an allowable non-stormwater discharge under the current New Hampshire MS4 Permit. Illicit discharges may enter the engineered storm drain system through direct or indirect connections, such as: cross-connections to engineered storm drain systems; leaking or failing septic systems; intentional discharge of pollutants to catch basins; connected floor drains; and sump pumps connected to the system (under some circumstances). Illicit discharges can contribute high levels of pollutants, such as heavy metals, toxics, oil, grease, solvents, nutrients, and pathogens to receiving waterbodies.

Illicit discharges can be located by several methods, including routine dry weather outfall inspections and catch basin inspections, which are described in detail in SOP ID-1, "*Dry Weather Outfall Inspection*", SOP ID-3, *Catchment Investigations,* and SOP HW-1, "*Catch Basin Inspection and Cleaning*", as well as from citizen reports.

This SOP has legal authority under the Zoning Article VIII-I, *Illicit Discharge Detection and Elimination (IDDE) Ordinance,* to prohibit the connection of non-stormwater discharges into any town storm drain system. The authority or department for addressing illicit discharge reports is identified in the Town's legal authority.

The Town's Code Compliance Officer has legal authority to enter the site. However, if denied permission to enter the site, the Town's Code Compliance Officer should never force entry but instead should notify the Planning Director.

Identifying Illicit Discharges

The following are often indicators of an illicit discharge from stormwater outfall:

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): indicator of the cross-connection of a sewer service.
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 sheen is not a pollutant but should be noted.

Citizen Call in Reports

Reports by residents and other users of waterbodies can be effective tools in identifying the presence of illicit discharges. The Town has set up a phone hotline for this purpose to manage data reported in this manner. Town staff employees and the general public receive education to help identify the signs of illicit discharges and are informed how to report such incidents.

When a call is received about a suspected illicit discharge, the attached *IDDE Incident Tracking Sheet* shall be used to document appropriate information. Subsequent steps for taking action to trace, document, and eliminate the illicit discharge are described in the following sections.

Potential illicit discharges reported by citizens should be reviewed on an annual basis to locate patterns of illicit discharges, identify high-priority catchment areas, and evaluate the call-in inspection program.

Tracing Illicit Discharges

Whenever an illicit discharge is suspected, regardless of how it was identified, the attached *IDDE Incident Tracking Sheet* must be utilized. The *Incident Tracking Sheet* shall be provided to the Environmental Regulation Compliance Specialist in the Planning Department and the discharge shall be promptly investigated.

If the presence of an illicit discharge is confirmed, but its source is unidentified, additional procedures to determine the source of the illicit discharge should be completed.

1. Review and consider information collected when illicit discharge was initially identified, for example, the time of day and the weather conditions for the

previous 72-hours. Also consider and review past reports or investigations of similar illicit discharges in the area.

2. Obtain storm drain mapping for the area of the reported illicit discharge.
3. Document current conditions at the location of the observed illicit discharge point, including odors, water appearance, estimated flow, presence of floatables, and other pertinent information. Photograph relevant evidence.
4. If there continues to be evidence of the illicit discharge, collect water quality data using the methods described in SOP ID-4, "*Water Quality Screening in the Field*". This may include using field test kits or instrumentation or collecting analytical samples for full laboratory analysis.
5. Move upstream from the point of observation to identify the source of the discharge, using the system mapping to determine infrastructure, tributary pipes, and drainage areas that contribute. At each point, survey the general area and surrounding properties to identify potential sources of the illicit discharge. Document observations at each point on the *IDDE Incident Tracking Sheet* as well as with photographs.
6. Continue this process until the illicit discharge is no longer observed, which will define the boundaries of the likely source. For example, if the illicit discharge is present in catch basin X but not the next upstream catch basin Y, the source of the illicit discharge is between these two structures.

If the source of the illicit discharge could not be determined by visual survey, consider using dye testing, smoke testing, or closed-circuit television inspection (CCTV) to locate the illicit discharge. During dry weather or for intermittent flows, use sandbags and/or weirs to pool and collect flow for sampling, if applicable. At a minimum, sample suspected discharge for bacteria.

Dye Testing

Dye testing is used to confirm a suspected illicit connection to a storm drain system. Prior to testing, permission to access the site should be obtained. Dye is discharged into the suspected fixture, and nearby storm drain structures and sanitary sewer manholes observed for presence of the dye. Each fixture, such as sinks, toilets, and

sump pumps, should be tested separately. A third-party contractor may be required to perform this testing activity.

Smoke Testing

Smoke testing is a useful method of locating the source of illicit discharges when there is no obvious potential source. Smoke testing is an appropriate tracing technique for short sections of pipe and for pipes with small diameters. Smoke added to the storm drain system will emerge in connected locations. A third-party contractor may be required to perform this testing activity.

Closed Circuit Television Inspection (CCTV)

Televised video inspection can be used to locate illicit connections. In CCTV, cameras are used to record the interior of the storm drainpipes. They can be manually pushed with a stiff cable or guided remotely on treads or wheels. A third-party contractor may be required to perform this testing activity.

If the source is located, follow steps for removing the illicit discharge. Document repairs, new connections, and other corrective actions required to accomplish this objective. If the source still cannot be located, add the pipe segment to a future inspection program.

A process flow chart is provided on the last page of this SOP.

Removing Illicit Discharges

Proper removal of an illicit discharge will ensure it does not recur. Refer to SOP ID-7 *IDDEP Enforcement* for detailed notification and enforcement procedures. In general, removal of confirmed illicit discharges will include:

- determination of who is financially responsible.
- suspension of access to the storm drain system if an "imminent and substantial danger" exists or if there is a threat of serious physical harm to humans or the environment.
- issuance of a Notice of Violation.

- repair/correct/remediation of the cause of the discharge by the property owner.
- a follow-up inspection to confirm that the illicit discharge has been removed.
- collection of a confirmatory bacteria sample (or other pollutant of concern) after the removal.

Attachments

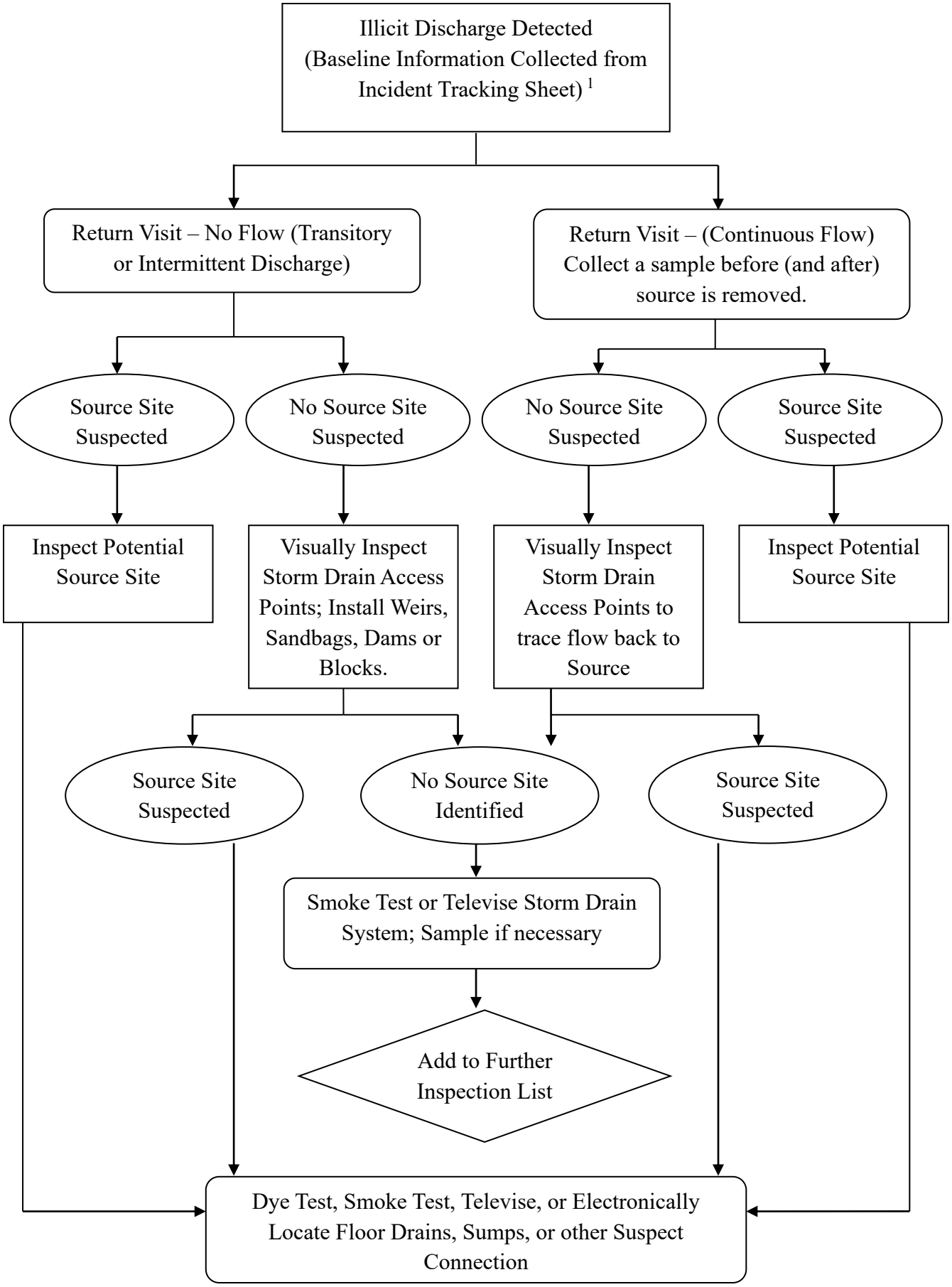
1. SOP ID-5 Illicit *Discharge Incident Tracking Sheet*
2. Example *IDDEP Notice of Violation Letter*

Related Standard Operating Procedures

1. SOP ID-0 *Stormwater Sampling Quality Assurance Project Plan*
2. SOP ID-3 *Catchment Investigations*
3. SOP ID-6 *Private Drainage Connection Inspection*
4. SOP ID-7 *IDDEP Enforcement*

Approval Date: June 30, 2025
Revised:

Source: Central Massachusetts Regional Stormwater Coalition; Guidelines and Standard Operating Procedures, Illicit Discharge Detection and Elimination and Pollution Prevention/Good Housekeeping, for Stormwater Phase II Communities in New Hampshire, New Hampshire Estuaries Project and NHDES, November 2006.


Illicit Discharge Detected (Baseline Information Collected from Incident Tracking Sheet) [1]
Return Visit – No Flow (Transitory or Intermittent Discharge)
Return Visit – (Continuous Flow) Collect a sample before (and after) source is removed.
Source Site Suspected
No Source Site Suspected
No Source Site Suspected
Source Site Suspected
Inspect Potential Source Site
Visually Inspect Storm Drain Access Points; Install Weirs, Sandbags, Dams or Blocks.
Visually Inspect Storm Drain Access Points to trace flow back to Source
Inspect Potential Source Site
Source Site Suspected
No Source Site Identified
Source Site Suspected
Smoke Test or Televise Storm Drain System; Sample if necessary
Add to Further Inspection List
Dye Test, Smoke Test, Televise, or Electronically Locate Floor Drains, Sumps, or other Suspect Connection

[1] – *Guidelines and Standard Operating Procedures: Illicit Discharge Detection and Elimination and Pollution Prevention/Good Housekeeping for Stormwater Phase II Communities in New Hampshire,* New Hampshire Estuary Project, 2006, p. 25, Figure 2-1.

SOP ID-5 Illicit Discharge Incident Tracking Sheet

Incident ID:				
Responder Information (for Citizen-Reported issues)				
Call Taken By:	Call Date:			
Call Time:	Precipitation (inches) in past 24-48 hours:			
Observer Information				
Date and Time of Observation:	Observed During Regular Maintenance or Inspections? ☐ Yes ☐ No			
Caller Contact Information (optional) or Town Employee Information:				
Observation Location: (complete one or more below)				
Latitude and Longitude:				
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 (stormwater pond, wetland, etc..):		
Narrative description of location:				
Upland Problem Indicator Description				
☐ Dumping	☐ Oil/Solvents/Chemicals	☐ Sewage		
☐ Detergent, 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	☐ Foam
	☐ Optical enhancers	☐ Discolored		
	☐ Other: Describe in "Narrative" section			
Floatables	☐ None	☐ Sewage (Toilet paper, etc.)	☐ Algae	☐ Trash or debris
	☐ Other: Describe in "Narrative" section			
Narrative description of problem indicators:				
Suspected Source (name, personal or vehicle description, license plate #, address, etc.):				

Standard Operating Procedure for:	
A.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.

Standard Operating Procedure for:	
A.6 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:	
A.7 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 2-9) 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 2-9: 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

---EXAMPLE---

ILLICIT DISCHARGE DETECTION and ELIMINATION PROGRAM

NOTICE OF VIOLATION

Town of Pelham, NH

Planning Department

6 Village Green

Pelham NH 03076

(603) 635-7811

DATE

Property Owner

Address

TOWN, NH ZIP

RE: Pelham Parcel #: MAP XX LOT XX

Dear Property Owner:

On [DATE OF ID CONFORMATION], the Town's Code Compliance Officer and/or the Environmental Regulation Compliance Specialist responded to a report of a discharge to a storm drain system as connected from property owned by you at [PROPERTY ADDRESS] in Pelham, NH. On this date, we confirmed the presence of [POLLUTANT FOUND] in the discharge.

This letter is to notify you that the discharge from your property has been determined to be illicit as prohibited by the Town in Zoning Article VIII-I, *Illicit Discharge Detection and Elimination (IDDE) Ordinance*, and the US EPA Clean Water Act, and that you, as the property owner, are in violation of Town and federal regulation. Enclosed is a copy of the Ordinance for your review.

Under the Town's regulations, you are required to remove all connections from your property to the Town's stormwater system within 30 days and keep the Town informed as to the progress of your remedial work. Relocation of the illicit discharge to local surface waters is also prohibited and such action will constitute an additional violation.

If we can be of further assistance, please do not hesitate to contact our office.

Sincerely,

Dena Hoffman

Environmental Regulation Compliance Specialist

SOP ID-6: PRIVATE DRAINAGE CONNECTION INSPECTION

The EPA's New Hampshire MS4 Permit describes several non-stormwater discharges to an engineered storm drain system that are considered "allowable", as long as an individual community has not prohibited the discharge. EPA allowable non-stormwater discharges can include the following:

- water line flushing
- diverted stream flows
- rising ground water
- uncontaminated ground water infiltration (as defined at 40 CFR § 35.2005(20))
- uncontaminated pumped ground water
- discharge from potable water sources
- foundation drains
- air conditioning condensation
- water from crawl space pumps
- footing drains
- flows from riparian habitats and wetlands

The inspector has the right to enter and inspect the premises where a drainage connection is located, including tanks and storage areas that may discharge or be caused to discharge to a town storm system. The inspector also has the right to sample or monitor any substances or parameters at such a location for purposes of assuring compliance with the EPA Clean Water Act. In addition, the inspectors shall be given access to any records kept relative to the discharge connection.

When inspecting private drainage connections to a storm drain system, this form should be used by the inspectors to ensure that the connection remains in compliance with the town's regulations.

Prior to the Inspection

The inspectors shall review the following form prior to completing an on-site inspection. The inspectors should inform the owner of the property where the private connection exists of the inspection in advance.

GENERAL INFORMATION

Address of Connection			
Private Drainage Description			
Inspector's Name			
Date of Inspection		Date of Last Inspection	
Start Time		End Time	

Compliance Review

Each of the following conditions should be evaluated as "True" during the on-site inspection to demonstrate compliance. If any of the following conditions, as recorded during the inspection, are not satisfied (i.e., if the evaluation is "False"), if existing, the drainage connection could be considered an Illicit Discharge.

Condition	**Evaluation**	**Comment**
There is a covenant for the property to reflect the drainage connection that has been recorded at the Registry of Deeds.	True ☐ False ☐	
Record drawings documenting the location of the discharge were supplied to the town after construction.	True ☐ False ☐	
If property has an oil/water separator: documentation of annual maintenance of the separator was provided to town.	True ☐ False ☐	
If property was required to complete analytical monitoring: results of analytical testing of the	True ☐ False ☐	

discharge were provided to town.		
Other:		

During the On-Site Inspection

The inspectors shall make the following observations during the on-site inspection and note the results in the table.

Condition	**Evaluation**	**Comment**
The drainage connection is used for allowed discharges only.	True ☐ False ☐	
The discharge is visibly free of oil or other pollutants.	True ☐ False ☐	
Grey water/black water is not visibly present in the discharge or similar source evident.	True ☐ False ☐	
Sediment-laden surface water is not visibly present in the discharge.	True ☐ False ☐	
Flow from the connection does not exceed approved flow, as applicable.	True ☐ False ☐	
No prohibited fixtures are connected to a town system from the property.	True ☐ False ☐	
If a pump has been approved: the pump presently utilized is the same as the pump approved by	True ☐ False ☐	

the town.		
If required in original application: backflow preventer, cleanout, and shutoff device remain operational and easily accessible to the town.	True ☐ False ☐	
Other:		

Review of Compliance with Private Drainage Connection Policy

If any of the following conditions are applicable, as recorded during the inspection, the Town shall have the right request improvements at or upstream of the discharge connection, or the Town may revoke the approval of the private drainage connection.

☐	There is an increase above the approved flow.
☐	The private drainage includes flow from town users or non-approved sources.
☐	The stormwater outfall that includes the private property discharges to a waterbody identified as impaired in the most current Integrated List of Impaired Waters (303(d) list) or has become subject to additional controls.
☐	The connection is located within 100-feet of a subsurface wastewater disposal system, such as a septic system.
☐	The connection is located within a public drinking water protection area.
☐	Flow conveyed to the discharge creates a safety hazard (such as ponding or freezing) to vehicular, pedestrian, bicycle, or other transportation or creates erosion or the potential for erosion.
☐	The connection is deemed to jeopardize public health, safety, or natural resources.

☐	The connection fails to meet the terms and conditions of this SOP.

Non-Compliance Actions

The Town shall provide the property owner with written notice of any violation with the required corrective action(s) that must be taken. The property owner shall have thirty (30) days from the receipt of the notice to commence remedy action of the violation(s).

Attachments

Related Standard Operating Procedures

1. SOP ID-0 Stormwater *Sampling Quality Assurance Project Plan*
2. SOP ID-3 *Catchment Investigations*
3. SOP ID-5 *Locating Illicit Discharges*
4. SOP ID-7 *IDDEP Enforcement*

Approval Date: June 30, 2025
Revisions:
Source: *Central Massachusetts Regional Stormwater Coalition*

SOP ID-7: IDDEP ENFORCEMENT

Introduction

Zoning Article VIII-I, *Illicit Discharge Detection and Elimination (IDDE) Ordinance,* of the Town Code prohibits the discharge of pollutants to town stormwater systems by illicit discharges, illicit connections, or illegal dumping activities. Specifically,

> *307-48-1-6.1 No person or entity shall throw, drain, or otherwise discharge, cause, or allow others under their control to throw, drain, or otherwise discharge any pollutants or waters containing any pollutants, other than storm water, into storm drain systems, surface waters, or ground water.*

The Town performs comprehensive stormwater system outfall and catchment investigations to identify direct and indirect illicit discharges to town drainage systems. In addition, town staff are trained annually, and public education is used to increase overall awareness of illicit discharges. Town staff and the public are encouraged to help identify illegal dumping activities, especially those that result in the discharge of pollutants to town stormwater systems or local waterbodies.

If potential illicit stormwater system discharges (or illegal dumping into catch basins or drain manholes) are identified, the Town will determine whether the illicit discharge is a result of town work or private activities and if enforcement is necessary.

The Town shall enforce the ordinance through progressive actions starting with written orders. The Town may issue a written order to enforce the provisions of the ordinance which may include:

1. elimination of illicit connections or discharges to the MS4;
2. performance of monitoring, analyses, and reporting;
3. that unlawful discharges, practices, or operations shall cease and desist; and/or
4. remediation of contamination in connection therewith.

Escalation of non-compliance following repeated notices will result in escalation of penalties including fines, and/or civil or criminal remedies for violations.

Applicability

This Standard Operating Procedure (SOP) describes the enforcement actions that will be used by the Town to address identified illicit discharges. These actions are intended to be progressive, aiming to first educate the public and to then eliminate the illicit discharge.

Corrective actions will focus first on education to promote voluntary compliance and escalate to increasingly severe enforcement actions if voluntary compliance is not obtained.

The Town will use judgment in exercising the right mix of compliance assistance and enforcement to correct identified problems. The Town may immediately levy fines if the violation is found to be willful, intentional, or egregious.

Discharge Prohibitions and Restrictions Applicable to the Stormwater System

1. Prohibited Activities

   a. Illicit Discharges. No person shall dump, discharge, cause or allow to be discharged any pollutant or non-stormwater discharge into a town stormwater system or into any waterbody.

   b. Illicit Connections. No person shall construct, use, allow, maintain, or continue any illicit connection to a town stormwater system, regardless of whether the connection was at one time permissible under applicable law, regulation, or custom at the time of connection.

2. Exempted Activities

   The Town ordinance identifies the following stormwater system discharges, if occurring, that are exempted from enforcement action as listed in Table 1. The Town may modify this list if it is determined that any of these discharges contribute an adverse level of pollution that must be curtailed to protect public health, safety, welfare, and/or the environment.

Table 1 Allowable Non-Stormwater Discharges†	
1. water line flushing	10. irrigation water, springs
2. landscape irrigation	11. water from crawl space pumps
3. diverted stream flows	12. footing drains
4. rising ground water	13. lawn watering
5. uncontaminated groundwater infiltration (As defined at 40 CFR § 35.2005(20))	14. individual resident car washing
	15. flows from riparian habitats and wetlands
6. uncontaminated pumped ground water	16. de-chlorinated swimming pool discharges
7. discharge from potable water sources	17. street wash waters
8. foundation drains	18. residential building wash waters without detergents

9. air conditioning condensation	19. firefighting activities

† As defined in the EPA 2017 NH MS4 Permit.

3. Potential Pollutants

Examples of potential pollutants include, but are not limited to, those listed below in Table 2. Discharge or dumping of pollutants is prohibited under the Town ordinance and the US Clean Water Act.

Table 2 Potential Pollutants			
1.	sewage, fecal coliform, and pathogens	7.	paints, varnishes, and solvents
2.	oil and other automotive fluids	8.	dissolved and particulate metals
3.	non-hazardous liquid and solid wastes and yard wastes	9.	animal wastes
4.	pesticides, herbicides, and fertilizers	10.	rock, sand, salt, soils
5.	refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordnances, accumulations, and floatables	11.	construction wastes and residues
6.	hazardous materials and wastes, including medical wastes, chemical wastes, biological materials, radioactive materials	12.	certain characteristics of wastewater (e.g., pH, temperature, TSS, turbidity, color, BOD, COD, toxicity, or odor)
		13.	noxious or offensive matter of any kind

Notification and Compliance

1. Notification

Whenever the Town finds that an entity has violated a prohibition or failed to meet a requirement of the Town's ordinance, the Town may order compliance by written notice of the violation to the responsible person and/or property owner. If the Town determines that abatement or remediation of contamination or adverse impacts is required, the notice shall set forth a deadline by which such abatement or remediation must be completed. The order shall further advise that, should the violator or property owner fail to abate or perform remediation within the specified deadline, the Town may, at its option, undertake such work, and expenses which will be charged to the violator.

2. Voluntary Compliance

   The Town's preferred approach to address illicit discharge problems is to pursue voluntary compliance through property owner or responsible party education. Often, business operators and property owners are not aware of the existence of illicit connections or activities on their properties that may constitute an illegal discharge. In these cases, providing the responsible party with information about the connection or operation, the environmental consequences, and suggestions on how to remedy the problem may be enough to secure voluntary compliance.

   Education begins during the site investigation when the operation or connection is first confirmed. Property owners and operators should be notified that the problems must be corrected in a timely manner and that the Town will be conducting a follow-up site visit to verify compliance. Field staff should also provide the property operator with educational materials describing illicit discharge violations and a copy of the regulations prohibiting the discharge. Field staff should also remind property owners of their obligation to report discharges to the proper agencies.

   When voluntary compliance does not produce the desired result, the Town shall pursue follow-up non-criminal enforcement action. Table 4 outlines the enforcement steps. More serious violations or continued non-compliance may warrant a more aggressive, enforcement-oriented approach that may include additional civil or criminal penalties.

3. Compliance Approach Operational Problems/Illegal Dumping

   Property owners are responsible for correcting operational problems that are leading to illegal discharges to the storm drainage system. This could include moving washing activities indoor or undercover, covering material storage areas, locating an appropriate discharge location for liquid wastes, or other operational modifications. Through site visits and education (such as informing the property owner or person of the town 's hazardous waste collection days), the Town can provide technical assistance to aid property owners in identifying the required modifications to eliminate the illegal discharges.

   Persons illegally dumping potential pollutants into the stormwater system will be notified. Once notified, the illegal activity should be discontinued immediately. If the activity continues, the Town is authorized to send subsequent violation letters and fines until the illegal activity ceases. If unresolved or egregious, and in non-compliance, the Town may seek civil or criminal penalties.

Table 3 Non-Criminal Illicit Discharge Enforcement Steps		
Enforcement Step	**Details**	**Compliance Schedule**
Step 1 **First Violation**	• Encourage voluntary compliance and provide educational materials. • Provide written warning letter identifying issues and setting expected compliance date for the elimination of the illicit activity. • If resolved, require evidence of corrected problem (if applicable). • Site visit to verify compliance via dye testing.	• Town will send a letter within one week of identification of violation(s). • Property owner and/or violator will be given a maximum of 30-days to eliminate the discharge.
Step 2 **Follow-up Actions**	• Send a “Second Violation" letter to property owner regarding unresolved issues and assign a fine of $100. • "Third Violation" Letter to property owner has a fine of $200 and "Fourth Violation" Letter and subsequent letters have a fine of $300 each.	• If after 30 days the property owner is still in noncompliance, a second violation letter will be sent out and the property owner will have a 10-day compliance period. • Subsequent violations letters will be sent out for each 10-day non-compliance.
Step 3 **Final Actions**	• The Town may physically correct problems and/or remove access to the town stormwater system. A bill for the cost of completing the work will be sent to the property owner. • The Town may refer the issue for criminal prosecution.	• After 60 days of non-compliance, the Town will follow-up with additional violation letters or resolve the violation at the property owner's expense.

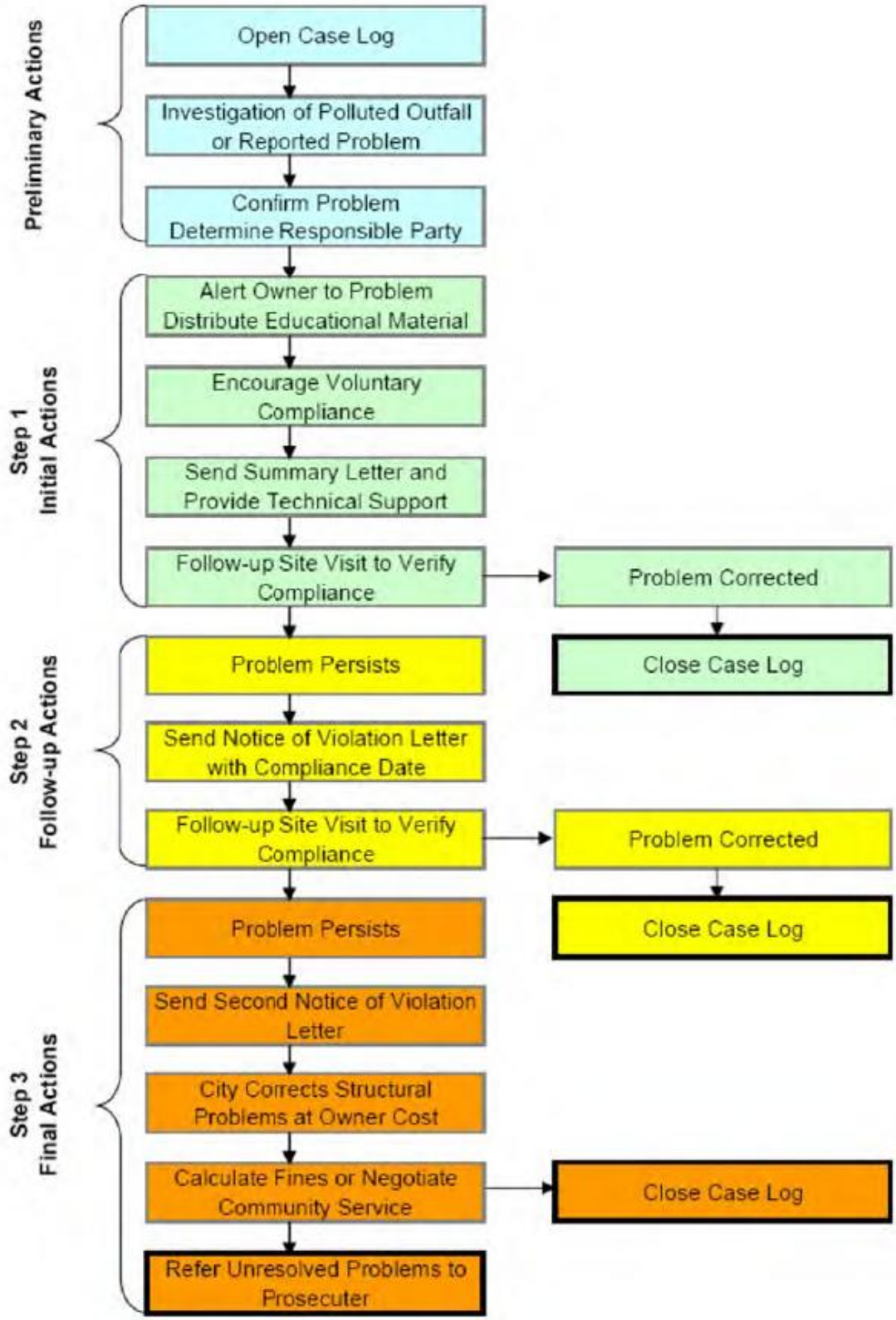

Preliminary Actions
Open Case Log
Investigation of Polluted Outfall or Reported Problem
Confirm Problem Determine Responsible Party
Step 1 Initial Actions
Alert Owner to Problem Distribute Educational Material
Encourage Voluntary Compliance
Send Summary Letter and Provide Technical Support
Follow-up Site Visit to Verify Compliance
Problem Corrected
Close Case Log
Step 2 Follow-up Actions
Problem Persists
Send Notice of Violation Letter with Compliance Date
Follow-up Site Visit to Verify Compliance
Problem Corrected
Close Case Log
Step 3 Final Actions
Problem Persists
Send Second Notice of Violation Letter
City Corrects Structural Problems at Owner Cost
Calculate Fines or Negotiate Community Service
Close Case Log
Refer Unresolved Problems to Prosecuter

Figure 1

4. Structural Illicit Discharges

   Many illicit connection problems will require the property owner to complete a structural repair to correct the problem. Structural repairs may consist of new pipe connections to redirect pipe discharges from sewage, industrial, and commercial cross-connections. Such cross-connections must be re-routed to an approved sanitary sewer system.

   The private property owner is responsible for correcting any structural connection problems contributing to an illicit discharge if there is no past town permit authorizing the connection. When an illicit connection is discovered, the Town shall notify the property owner if the property owner is primarily responsible for removing the illicit connection. Upon notification, the property shall have 60 days to remove the documented illicit.

   The Town understands that the property owner's work to remove a structural connection to the stormwater system requires a more significant level of effort and cost to eliminate the illicit discharge. The Town intends to work cooperatively with the property owner to allow a reasonable period of time to complete the structural repair. However, if the property owner is unresponsive or purposefully delays, the Town may assign fines payable by the property owner, and if the situation continues to be unresolved or openly egregious, the Town may seek civil or criminal penalties.

5. Confirmation by the Town

   Upon notification by the property owner, the Town will confirm that modifications were made to eliminate the illicit discharge. The Town will inspect the property to confirm that the modification was made by the property owner to eliminate the illicit discharge. This confirmation may be made by direct observation, CCTV inspection, or dye testing.

6. Non-Performance by the Property Owner

   During the notification process, the property owner will be duly notified that if the illicit discharge is not eliminated within the specified deadline, and/or that sufficient progress is not made by the property owner within that time frame, that the Town may, at its option, undertake to complete such work that is necessary to eliminate the illicit discharge. If the Town completes such work, the expenses undertaken by the Town to eliminate the illicit discharge shall be charged to the property owner. Within 30 days after completion by the Town of all measures necessary to abate the violation and/or perform remediation, the property owner will be notified of the costs incurred by the town, including administrative costs.

The property owner may file a written protest objecting to the amount or basis of costs with the town within 30 days of receipt of the town notification of costs incurred. If the amount due is not received by the expiration of the time in which to file a protest or within 30-days following a decision of the town affirming or reducing the costs, or from a final decision of a court of competent jurisdiction, the costs shall become a special assessment against the property owner and shall constitute a lien on the property for said costs.

Interest of 18% annually shall begin to accrue on any unpaid costs starting on the 31st day on which the costs first become due.

Penalties

The Town Code identifies the different penalties that may be incurred by private property owners if found to be the cause of an illicit discharge to town stormwater systems and may include, but not limit to:

1. Non-Criminal Disposition
   The Town prefers to use the voluntary compliance and non-criminal actions procedure set forth in this SOP and as adopted by the town in which case the Town shall be the enforcing entity. The penalty for the first violation notice shall be a written warning. The penalty for the second violation notice shall be $100. The penalty for the third violation notice shall be $200. The penalty for the fourth and subsequent notices shall be $300.
2. Emergency Suspension of Storm Drainage System Access
   The Authorized Enforcement Agency may suspend municipal storm drain system access to any person or property without prior written notice when such suspension is necessary to stop an actual or threatened discharge of pollutants that presents imminent risk of harm to the public health, safety, welfare, or the environment. In the event any person fails to comply with an emergency suspension order, the Town may take all reasonable steps to prevent or minimize harm to the public health, safety, welfare, or the environment.

3. Civil Relief
   If a person violates the provisions of the Town's ordinance, or any permit, notice, or order issued thereunder, the Town may seek injunctive relief in a court of competent jurisdiction restraining the person from activities that would create further violations or compel the person to perform abatement or remediation of the violation. The Town may also levy civil penalties of not more than $5,000 per

violation. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.

4. Criminal Penalty
   Any person who violates any provision of the Town's ordinance, its resulting regulations, or any permit, notice, or order issued thereunder, may be punished by a fine of not more than $5,000. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.

Appeals

The decisions or orders shall be final. Further relief shall be to a court of competent jurisdiction. The remedies listed in this SOP are not exclusive of any other remedies available under any applicable federal, state, or local law.

Record Keeping

Effective enforcement procedures require comprehensive recordkeeping and documentation to show that all program steps have been followed. Throughout the problem investigation and corrective action activities, all information related to the incident or property in question must be documented by the town in the case log.

Attachments

Related Standard Operating Procedures

1. SOP ID-5 Locating *Illicit Discharges*
2. SOP ID-6 Private *Drainage Connection Inspection*

Approval Date: June 30, 2025

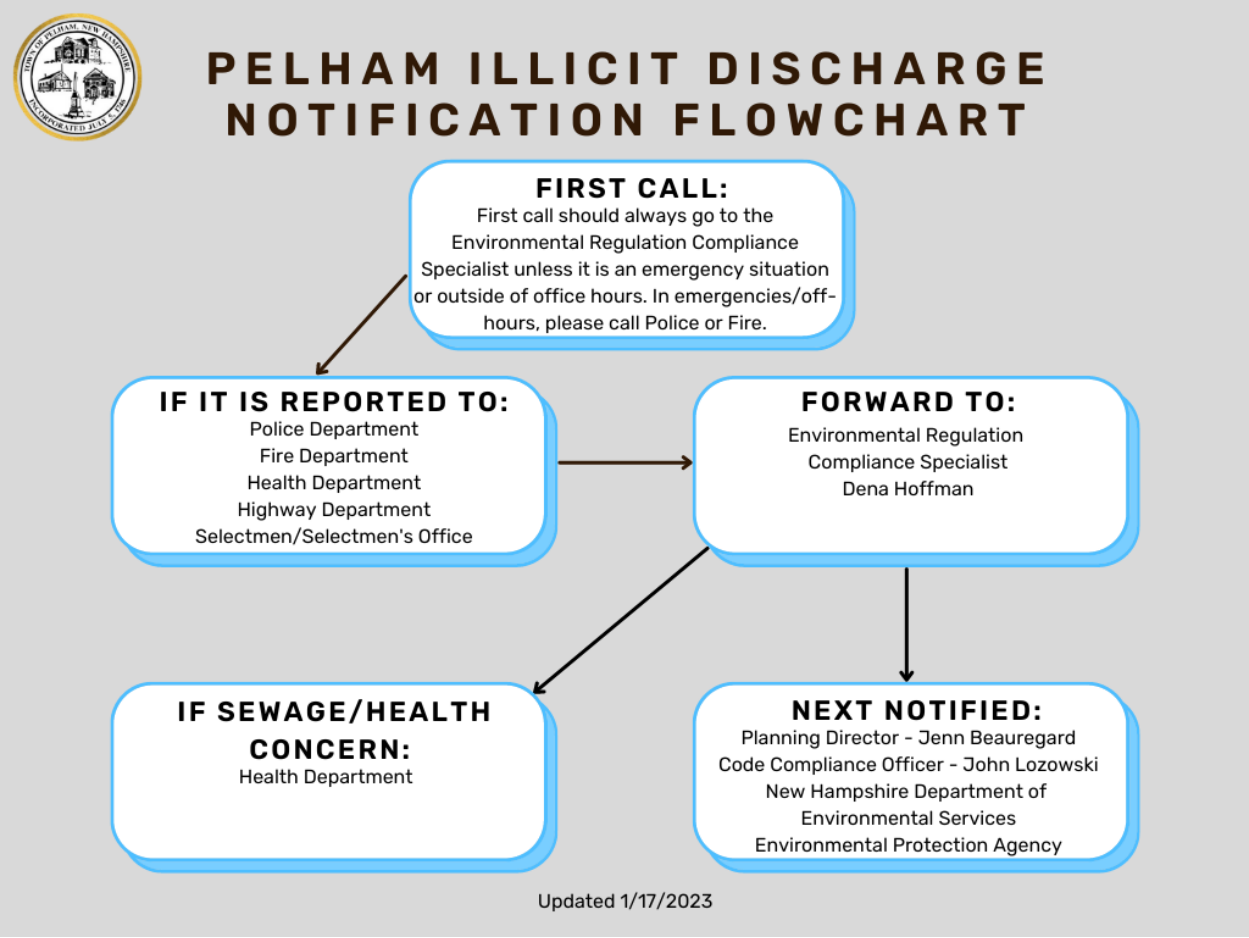
Revisions:

Source: Camas WA IDDE Manual; Haverhill MA IDDE Manual; and Weston MA Illicit Discharge Regulations

SOP ID-8: NOTIFICATION PROTOCOL FOR ILLICIT DISCHARGE CASES

Introduction

The Town of Pelham has many avenues for receiving illicit discharge case reports. The flowchart below illustrates the possible paths for a call to turn into an illicit discharge case. The case will be confirmed as an illicit discharge when it reaches the Environmental Regulation Compliance Specialist. The New Hampshire Department of Environmental Services (NHDES) and the Environmental Protection Agency (EPA) may need to become involved in certain cases.



Essential Municipal Personnel Contact List

Dena Hoffman
Environmental Regulation Compliance Specialist
Email: dhoffman@pelhamweb.com
Tel: (603)-508-3000 ext. 3101

Jenn Beauregard
Planning Director
Email: jbeauregard@pelhamweb.com
Tel: (603) 508-3084

John Lozowski
Code Compliance Officer
Email: jlozowski@pelhamweb.com
Tel: (603) 508-3095

Health Department: (603) 635-8233
Highway Department: (603) 635-8526 or (603) 635-3964
Pelham Fire Department: (603) 635-2703
Pelham Police Department: (603) 635-2411
Selectmen/Selectmen's Office: (603) 635-8233

Who to Notify at the State and the EPA for Sewage Overflow

In the case of a sewage overflow, both NHDES and the EPA will need to be notified. Listed below are the contacts for NHDES and the EPA. When it comes to illicit discharges, you have 24 hours to report verbally to NHDES and the EPA and 5 days for written notice to the NHDES and the EPA from when you are alerted of the issue. Written notice includes email format.

NHDES

Wastewater Engineering Bureau
Email: des.wastewaterengineering@des.nh.gov
Tel: (603) 271-3908

EPA

Solanch Pastrana Del-Valle
Environmental Engineer
Email: pastrana-del-valle.solanch@epa.gov
Tel: 617-918-1746

Who to Notify for Hazardous Waste

Following a hazardous waste spill, you need to call the NHDES Spill Response number immediately. They will determine what to do with your situation and direct you to the correct section of NHDES for handling the issue.

To report a spill, call (603) 271-3899. If for any reason you need to email, the address is orcb.wmd@des.nh.gov.

Who to Notify for Other Illicit Discharges

If the illicit discharge is composed of another material not listed above, please immediately contact the Environmental Regulation Compliance Specialist and the Stormwater Coordinator at NHDES and they will tell you how to proceed from there.

Deb Loiselle
Stormwater Coordinator
Email: Deborah.Loiselle@des.nh.gov
Tel: 603-271-1352

Related Standard Operating Procedures

1. *SOP ID-7: IDDEP Enforcement*
2. *SOP ID-5: Illicit Discharge Incident Tracking Sheet*

Approval Date: June 30, 2025

Appendix DG

IDDEP Employee Training Record

Town of Pelham

Illicit Discharge Detection and Elimination (IDDE)

Employee Training Record

Date	Type of Training	Participants
06/23/2020	GENERAL IDDEP STAFF TRAINING, VIDEO PRESENTATION/CONFERENCE	Town Staff
05/19/2021	IDDEP Staff Training Presentation	Town Staff
04/07/2022	IDDEP Staff Training Presentation and Video	Town Staff
03/16/2023	IDDEP Staff Training Presentation and Video	Town Staff
03/05/2024	IDDEP Staff Training Presentation and Video	Town Staff
03/12/2025	IDDEP Staff Training Presentation and Video	Town Staff

IDDE/SWPPP Training 2025 Sign-in Sheet (3/12/2025)	
Name	**Department**
Jared Fairweather	Highway
DOUG CHRISTIAN	TRANSFER
Callen Aubrey	Cemetery
Sean Cunningham	Cemetery Dept.
DAN NEWMAN	FIRE
ROB HORNE	FIRE
Matt Kenliside	Police

Appendix DH

Confirmed Illicit Discharges in Pelham

Appendix DH Table of Contents:

Date of First Notice: March 17, 2022

Location: 9 Chagnon Lane

Summary of Situation/Violation: Thursday, March 17, 2022, the Fire Department received a call from a concerned resident stating that there was oil appearing in their yard at 9 Chagnon Lane and that they could smell an odor of oil. The Fire Department alerted the New Hampshire Department of Environmental Services spill response investigator Mark Demgard and then Planning Director Jenn Beauregard and Code Compliance Officer John Lozowski. Environmental Regulation Compliance Specialist Dena Hoffman was notified on Monday, March 21.

On March 22, Ms. Hoffman went to 9 Chagnon Lane to gather more information and inspect the property with Fire Chief Jim Midgley. Fire Inspector John Hodge later joined the observations as well.

Chief Midgley informed Ms. Hoffman that the residence had two oil tanks, one above ground and one below ground. The underground tank was placed there in the 1960s and the aboveground tank was from 1995. The tank below ground had 4 inches of liquid (likely water and oil) in it. The aboveground tank was filled with oil at the beginning of March and had emptied halfway by the time the resident became suspicious of a leak occurring in their tank. They called the Fire Department after noticing a large amount of oil in their yard as well as an oil odor throughout the property. The sump pump below their house had picked up the leaking oil from the groundwater and pumped it into their yard. The pump was underneath a slab. Mr. Hodge estimated that 130 gallons of oil leaked from the aboveground tank. There were no clear observations to suspect that the underground tank was leaking, too. The sump pump liquid coming out of the house was mostly clear with an oil sheen. Flood barriers were put in place to help contain the discharge directly by the house and at the end of the lawn where the wetlands begin. At the house, white absorbent pads that were placed were stained a light brown/orange color. Mr. Demgard organized a response and cleanup for this spill.

NHDES Notified: Yes, by phone call.

EPA Notified: No.

Required Actions: This case is closed.

Documented in NH MS4 Annual Report: Yes, this was reported in the Year 4 MS4 Annual Report.

Pictures:

Figure 1. Spill containment area.

Figure 2. Above ground oil tank.

Figure 3. Spill containment from different view.

Figure 4. Oil sheen from spill.

Date of First Notice: March 25, 2022

Location: 150 Bridge St. between AL Prime and Dunkin'

Summary of Situation/Violation: On March 25, 2022, JP Fine of AL Prime stated that his office received a call from a concerned resident reporting a sewage leak out of a manhole in the truck turnaround at 150 Bridge St. that morning. They dispatched Chris LaFrance, from LaFrance Septic as well as Steward Septic to deal with the complaint. Code Compliance Officer John Lozowski spoke with Mr. LaFrance, and he stated that he arrived on scene at approximately 5:15 PM and that he observed a discharge of sewage running from the sewer cover down to the storm sewer on Livingston Road. Mr. LaFrance stated that the system had a pump failure and that they installed green inspection ports to hopefully help with any future failures. Mr. Lozowski spoke with Steward Septic, and they advised that they had been on scene at approximately 6:00 PM and had drained the tank down. Steward also reports that they observed a discharge leading down to Livingston Road storm drain. Both Steward and LaFrance stated that when they returned on Saturday morning there was no issue with a discharge and the ground in the area was dry. Steward also responded to the property on March 28, 2022, to pump down the rest of the tank.

John Lozowski spoke with the resident and asked them when the photos and videos they submitted were taken. They stated they were taken around 4:45 PM. Mr. Lozowski asked the resident when they first discovered that the septic was leaking, and they stated one of their workers reported it to them between 11:30 AM and 12:00 PM. The resident stated they had attempted to get in touch with the former property manager, JP Fine. They attempted to make several calls to Mr. Fine and others from Mr. Fine's office with no response initially. The resident also stated they had texted Police Chief Roark and Fire Inspector Hodge, but they did not respond to their text messages. The resident stated they then spoke with Kerry Zelonis in the Planning Office.

Mr. Lozowski advised the concerned resident that there was a pump failure which caused the spillage. Mr. Lozowski told them that all protocols were followed, and that Ms. Hoffman had notified NHDES of the illicit discharge.

Ms. Hoffman emailed and called Deb Loiselle, Theresa Ptak, and Stephanie Larson from NHDES to report the discharge. Town Health Agent Paul Zarnowski was emailed. The EPA was notified by verbal and written notice as well as NHDES. Ms. Hoffman called Solanch Pastrana-Del Valle from the EPA for the notification.

To watch the video evidence, follow this link: https://bit.ly/36BhvmP

NHDES Notified: Yes, by email and phone call.

EPA Notified: Yes, by email and voice message.

Required Actions: This case is closed.

Documented in NH MS4 Annual Report: Yes, this will be reported in the Year 4 MS4 Annual Report.

Picture:

Figure 1. Sewage overflow from manhole. Picture provided by the resident.

Public Law: CWA § 402(a)(1) and (2)

NPDES PERMITTED FACILITIES USE THIS FORM TO REPORT BYPASS OR OVERFLOWS FROM THEIR SYSTEMS.

NHDES BYPASS OR SEWER OVERFLOW REPORT	
Date of Report	3/28/2022

Time Report Submitted:	3:45pm		
Name of System			
Facility Name:	AL Prime		
NPDES Permit No.	NHR041025		
Contact Information for Person Reporting Incident:			
Name: Dena Hoffman		Title: Environmental Regulation Compliance Specialist	
Work Phone: 603-508-3000	Cell Phone:	Email: dhoffman@pelhamweb.com	
Incident Information			
Location of Overflow: 150 Bridge St. Pelham, New Hampshire 03076		Incident Duration	
		Date	Time
		From 3/25/2022	approx. 11:30am
		To 3/25/2022	6pm
		Estimated Total Flow:	

☒ Yes	☐ No	Did the overflow discharge to a surface water? If yes, name of receiving water: Tony's Brook

Describe the treatment: The sewage tank was pumped out, green inspection ports were installed, and the pump was repaired.
Explain the cause of incident: The owner, Pelham Realty Group, stated that the septic pump malfunctioned.
Describe mitigation measures taken: None were taken.
Additional Information/Comments: The Environmental Regulation Compliance Specialist was only notified of this incident on Monday morning following the occurrence due to it being reported after hours. The work phone extension number is 3101.

Reported to:	
Agency:	Staff
☒ USEPA	Solanch Pastrana-Del Valle
☒ NHDES	Teresa Ptak and Stephanie Larson

Date of First Notice: September 21, 2022

Location: 191 Marsh Road

Summary of Situation/Violation: On Wednesday, September 21, 2022, Dena Hoffman, the Environmental Regulation Compliance Specialist, was out checking catch basins with the Highway Department when they came across a house pumping pool water out of a hose that had water flowing into a catch basin on Patriot Drive. The hose was located on the property and not directly in the catch basin, but the flow went straight into the basin. The liquid smelled strongly of chlorine and a moderate flow was moving at a rapid rate into the catch basin. The water then flowed across the street to the next catch basin. That catch basin, across the street, has an outfall that outlets very closely to a wetland. Ms. Hoffman then alerted the Code Compliance Officer John Lozowski, who came out to assist with the case.

John Lozowski spoke with the man pumping the pool water and informed him that he needed to stop pumping water into the basin and that it was considered an illicit discharge. It is unknown the amount of water pumped, but the pool had lost at least a foot of water from the top of the pool. The size of the pool also remains unknown. The pumping was stopped entirely.

According to Town Zoning Ordinance Article VIII-I Illicit Discharge Detection and Elimination Ordinance 307-48-1-6 Non-Stormwater Discharge section 6.1, dechlorinated pool water is considered an exempt discharge, however, the water smelled strongly of chlorine, giving evidence to reason that this water was not dechlorinated and is therefore considered an illicit discharge. Any non-exempt discharge that is not solely composed of stormwater, “Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation or resulting from such precipitation”, is considered an illicit discharge (307-48-1-2 Definitions letter M).

In reference to the image of GIS attached, the green boxes are catch basins and the purple dots are outfalls, the flow went into catch basin #98 and was transported into catch basin #654. Catch basin #654 has an outfall, #47, which means that this water can be released back into the environment without prior treatment. The green and blue polygons represent wetlands.

NHDES Notified: Yes, by phone call and follow-up email.

EPA Notified: No.

Required Actions: None, this case is closed.

Documented in NH MS4 Annual Report: Yes, this will be reported in the Year 5 MS4 Annual Report.

Pictures:

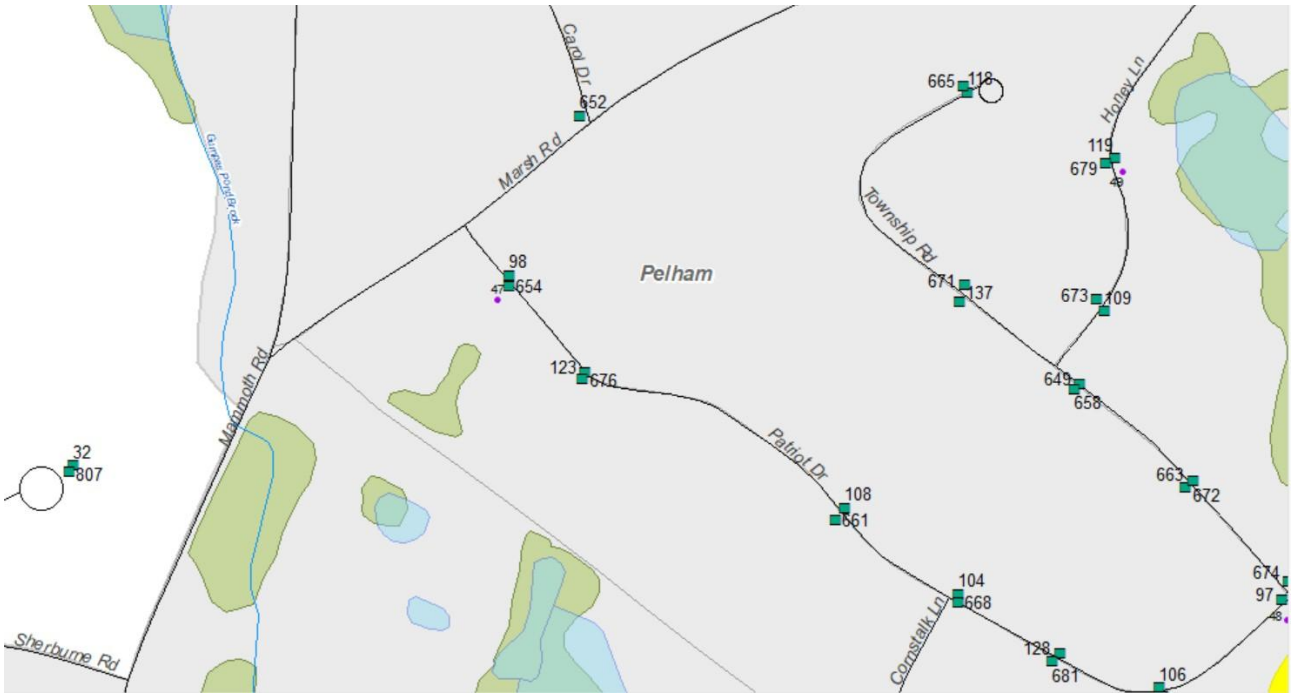


Figure 1. Location of catch basin on ArcMap GIS.

Figure 2. Pool water running into catch basin on Patriot Drive.

Figure 3. Pool water running from the hose in yard of 191 Marsh Road.

Date of First Notice: December 15, 2022

Location: 125 Bridge Street

Summary of Situation/Violation: On Thursday, December 15th, 2022, I received an email from a concerned resident about a potential illicit discharge occurring at Ya Mas Greek Tavern at 125 Bridge Street. Here is a copy of his email to me:

> Good morning. Last evening we had dinner at Yalah restaurant in Pelham. Behind the restaurant there's is a pool of groundwater that has a noxious chemical and decomposed odor.
> The water from this pool has contaminated our shoes and even the 2 vehicles we drove there in. My family and grandchildren. I am traveling on business today and will not land until 1 pm ET. Can you please check into this. Something has been dumped back there and it is not healthy.
> You have my email for a response.
> Thank you.
> [concerned resident's name]
>
> Sent from my iPhone

I am assuming that his phone autocorrected "Ya Mas" to "Yalah", based on the context of the email, the signature line, and the lack of a "Yalah" restaurant in Pelham.

At 9:00AM, Code Compliance Officer John Lozowski and I went to check out the property. We discovered a puddle of sewage in the back left side of the parking lot. The puddle took up approximately 3/4 of a parking spot and appeared to be leaking out from a manhole cover. Pictures have been attached to the end of this report for your review. The puddle smelled distinctly of sewage and was approximately 2-3 inches deep and iced over. Mr. Lozowski also observed puddling on the lawn between Ya Mas and the Dunkin' building.

We went in and found one of the employees who attempted to call the owner. He did not pick up and didn't have a voicemail box. Mr. Lozowski asked the employee to have the owner call when he came in later that morning. Mr. Lozowski also called health officers, Karen McGlynn and Paul Zarnowski, who advised him to have Ya Mas closed until the septic system was pumped, fixed, and the spillage cleaned up. They instructed to have him pump every day until the problem was solved and for pump slips to be brought to the Planning Department for record keeping.

The owner of Ya Mas, Mr. Nicholas Dimitriou, called Mr. Lozowski at 10:30am and said that he would comply with the advised instructions from officers McGlynn and Zarnowski. The problem discovered was the septic pump. The owner set up plans to have the tank pumped Thursday the 15th, Friday the 16th, Saturday the 17th, and Sunday the 18th with plans of being fixed on Monday, December 19th, 2022. The owner also plans to install a new sensor along with new wiring.

NHDES Notified: Yes, by phone and email.

EPA Notified: Yes, by phone and email.

Required Actions: No further action is required.

Documented in NH MS4 Annual Report: This will be reported in the Year 5 MS4 Annual Report.

Pictures:

Figure 1. Image of Ya Mas, with the septic puddle behind the car on the left.

Figure 2. Picture from behind Ya Mas, with the puddle and leaking manhole centered.

Figure 32. The septic puddle and leaking manhole.

Figure 4. Closer look of the sewage puddle in the back parking lot of Ya Mas.

Date of First Notice: December 21, 2022

Location: 150 Bridge Street

Summary of Situation/Violation: On December 21, 2022, I was notified by phone at 8:45PM by Planning Director, Jenn Beauregard, that an illicit discharge had occurred at 150 Bridge Street. This is the same location as illicit discharge case #5 that occurred on March 25, 2022, and included the same manhole and catch basin. She told me that a concerned resident had reported it, and that the Pelham Police Department and the Fire Department responded to the scene. A copy of their report is available to the public. The responding Fire Lieutenant noted that there was “a trail leading down the natural grades and into what appeared to be a storm water drain”. The Police Department notified the owner, JP Fine, of the issue at the Plaza and that the septic tanks would need to be emptied as soon as possible. Mr. Fine used LaFrance Septic to handle the situation. The Code Compliance Officer, John Lozowski, was also notified of the illicit discharge. He subsequently called Health Officer Karen McGlynn to alert her as well.

In the morning of December 22, 2022, I contacted the Fire Department for a copy of their report from the overflow. Mr. Lozowski called Mr. Fine, who explained more of the situation regarding the illicit discharge. The septic overflow was due to an overwhelming of the system, caused by two separate factors. Firstly, the New Hampshire Liquor and Wine Outlet located in the Plaza had a toilet that ran the entire weekend and was not reported until after the weekend was over. LaFrance Septic estimated that over 1000 gallons were contributed to the septic system from the constantly running toilet. The toilet in question has been repaired. Secondly, on Tuesday, December 20, 2022, the two septic tanks were scheduled to be pumped. However, only one tank was pumped instead of both. This is attributed to driver error. Mr. Fine informed Mr. Lozowski that in response to the overflow, the tanks were pumped and that all the filters in the system were replaced for extra pre-caution. It is unknown how many gallons were released.

Afterward, Mr. Lozowski and I went out to take a closer look at the illicit discharge location to see if there was evidence of the previous night’s event. We found that the manhole labeled A. in Figure 1 of Pictures and the manhole labeled B. had iced-over flows. Manhole A. is where the previous illicit discharge occurred. The sewage flowed into a catch basin that empties into Tony’s Brook, a feeder stream of Beaver Brook. Manhole B. sewage flowed to the east and to the southwest of the manhole. The fluid did not enter any catch basins but was spread over the pavement by car tires. When we arrived, both flows were solid ice and were not entering any catch basins. Pictures have been attached below. Manhole A. smelled of sewage, Manhole B. was not as easily distinguishable. Both runoffs were clear in appearance and did not have any noticeable floatables. Figures 2-10 were taken on December 22, 2022.

After viewing the scene, Mr. Lozowski called Mr. Fine again and asked if the frozen flows we looked at were from the septic overflow, from the cleanup, or a combination of both. Mr. Fine stated that it should have been mostly clean at that point, but that LaFrance was not able to completely get rid of it due to it freezing over. The reasoning behind this was that they did not want to take a power washer to it because they felt that it would make the situation worse. After discussing this with Health Officer McGlynn, she told Mr. Fine to bring in a front-end loader to break up and remove the ice from the property. After revisiting the site at 3PM, I saw that they had cleaned up the ice from the two manholes.

NHDES Notified: Yes, by phone and email.

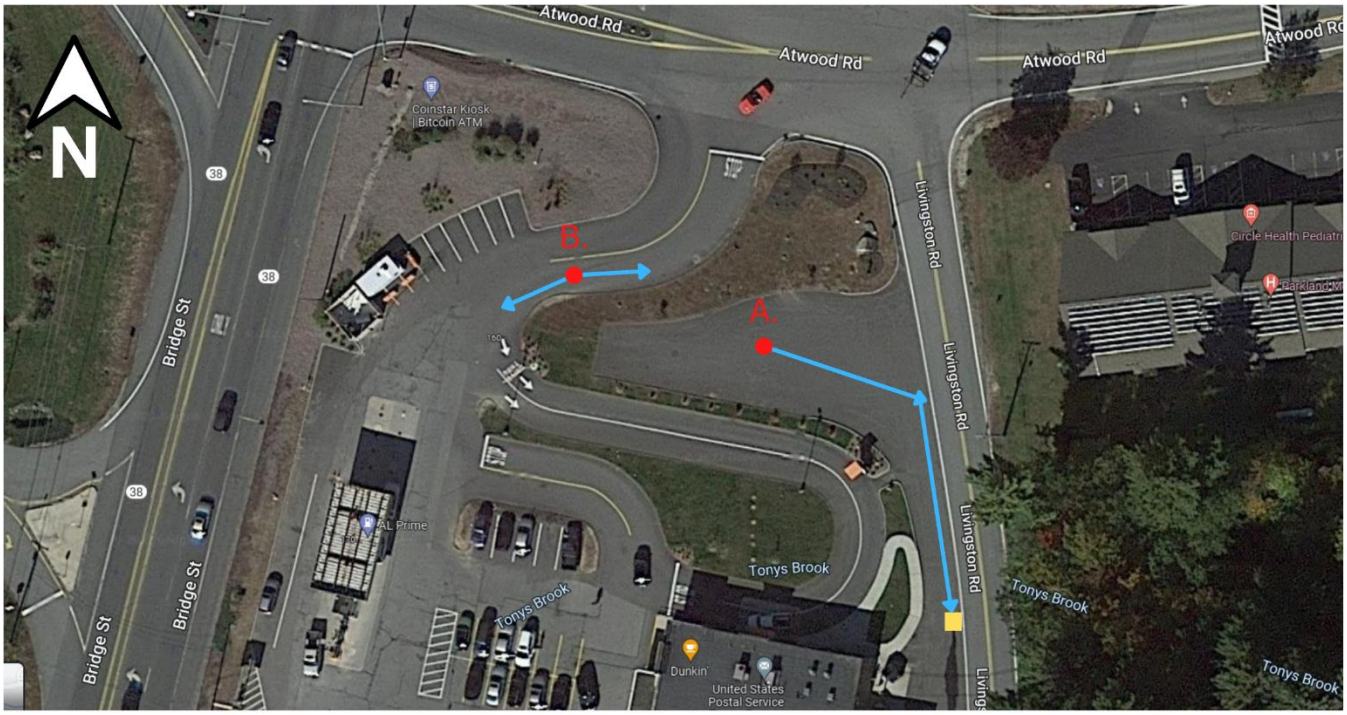
EPA Notified: Yes, by phone and email.

Required Actions: No further action is required.

Documented in NH MS4 Annual Report: This will be reported in the Year 5 MS4 Annual Report.

Pictures:

Map of December 21, 2022 Illicit Discharge Location
150 Bridge Street, Pelham, NH



= Manhole Cover Location

= Direction of Flow

= Catch Basin Location

Source: Google Maps

Figure 1. Map of Illicit Discharge Location, 150 Bridge Street.

Figure 2. Flow from Manhole A. into catch basin.

Figure 3. Close-up of catch basin that received flow from Manhole A. This catch basin empties into Tony's Brook.

Figure 4. Manhole A. with flow heading towards Livingston Road.

Figure 5. Wide view of Manhole A. flow.

Figure 6. Centered on Manhole B. with iced flow on both sides horizontally.

Figure 7. View of A.L. Prime for Manhole B flow.

Figure 8. View of Dunkin' drive-thru and Atwood Road entrance to the Plaza for Manhole B.

Figure 93. Manhole A cleaned up.

Figure 10. Manhole B cleaned up.

Date of First Notice: January 9, 2023

Location: 150 Bridge Street

Summary of Situation/Violation: On January 9, 2023, I was notified of an illicit discharge occurring at 150 Bridge Street on Sunday, January 8 around 4PM. Town Administrator Joe Roark informed Planning Director Jenn Beauregard that he received a complaint from a concerned resident on the 8th stating that they saw flow coming out of the manhole covers at the Plaza. Mr. Roark called the police so that they could check out the event.

I talked with J.P. Fine of Rubicon Real Estate to find out more information on the event. Mr. Fine told me that he was alerted of the overflow at 5PM on Sunday, the 8th. He sent out Chris LaFrance who did an emergency tank pumping to stop the overflow. 4500 gallons were pumped out of the tank at approximately 10PM on the 8th. Mr. LaFrance inspected the system and said that everything is in working order but had not recovered from the overflow at the end of December 2022. Mr. Fine stated that they believe it's possible another toilet has been continuously running and that they are investigating excess water usage in the plaza. He said that this time, an excess of 7000 gallons of water were in the tanks from the weekend. I also learned that the system at the Chunky's building flows into the tanks near A.L. Prime. Those tanks and their pumping capacity have been increased in an effort to have a more effective system; however, it seems to be overpowering the system at A.L. Prime when you add in the consistently running toilet.

Mr. Fine said that the tanks will be pumped out again either later on the 9th or on the 10th of January.

The pictures show evidence of an overflow occurring from one manhole of the two reported, but it is unknown if the flow reached the catch basin on Livingston Road. In person, it is unclear if it reached or dried out before getting to the road.

NHDES Notified: Yes, by email and phone.

EPA Notified: Yes, by email and phone.

Required Actions: No further action is required.

Documented in NH MS4 Annual Report: This will be reported in the Year 5 MS4 Annual Report.

Pictures:

Figure 1. Dry manhole cover that was reported to be flowing. On stretch heading toward Atwood Road.

Figure 2. Manhole cover with salt-outline indicating potential overflow toward Livingston Road.

Figure 3. A different angle of the manhole from Figure 2, showing the Dunkin' Drive-Thru.

Figure 34. The catch basin on Livingston Road that has received flow in the past from the Figures 2 and 3 manhole cover.

Date of First Notice: March 2, 2023

Location: Willow Street near Marsh Intersection

Summary of Situation/Violation: Around noon time on Thursday, March 2, Cassidy Pollard, Planning Clerk received a call from the Pelham Police Dispatcher Noelle LeMasurier stating that there was soap in the road on the corner of Willow Street and Marsh Road. ServPro cleaning bottles were reported to be on the road as well near the spill site. Ms. Pollard told this to me, and I went out to investigate around 12:15pm.

Upon arrival, I found that the road was white and sudsy looking, with rainbow sheen bubbles in the driving lane and in the catch basin on the corner of Willow and Marsh, opposite from the sidewalk. The soap continued for about 50-60 feet in the direction of Bridge Street. The soap had a floral-like fragrance to it and was mixing with the snow melt runoff and rain runoff from that morning. I met with Sergeant Vieira of the Pelham Police Department, who showed me that there was a ran-over bottle of ServPro Wall Rinse 353, along with two other intact bottles of ServPro cleaning product. I checked the labels on the Wall Rinse and saw that it had a pH of 6-8 and did not have any significant hazardous symbols. The material safety data sheet (MSDS) can be found at this link: https://assets.contentstack.io/v3/assets/blt0a0cb058815d4d96/blt41c038e075670ddb/60cb72c6bdf5ed4ae2de3b70/353_Wall_Rinse_SDS.pdf

I called Tom Swenson from NHDES, who got me in contact with Deb Loiselle. She advised me to have the spill cleaned up, which the MSDS had recommendations for doing so. The sheet said to clean up with sand, earth, or vermiculite, so I asked the Highway Department if they could sand the road and scoop up the remains of the spill. They went out after 1:30pm.

Ms. Loiselle then put me in contact with Amanda Bridge, an investigator of NHDES, who handles spills. She asked for my pictures of the scene and asked me questions about the spill. She called ServPro and found that ServPro of Lawrence, Massachusetts was taking responsibility for the spill and that they had been working in the area earlier that day. Ms. Bridge said that they would clean out the catch basin that was contaminated and that she would follow up with me if anything else occurred of significance, such as fish-kills. Amanda Bridge can be reached at (603) 271-7384.

NHDES Notified: Yes, by phone. Ms. Bridge said written notification was not necessary.

EPA Notified: No, Ms. Loiselle said it was not necessary for this case.

Required Actions: No further action is required. The site is cleaned up and the case is closed.

Documented in NH MS4 Annual Report: This will be reported in the Year 5 MS4 Annual Report.

Pictures:

Figure 5. Road suds, looking toward Marsh Road from Willow Street.

Figure 26. ServPro Wall Rinse bottle that was ran over and found in the street.

Figure 3. A second look at the ServPro bottle, with the health label on the side.

Figure 47. A third look at the ServPro bottle featuring descripion and application.

Figure 58. Catch basin on corner of Willow and Marsh with soap suds.

Figure 69. Close-up view of suds on the road.

Figure 710. Long distance view from the end of the soap path.

Figure 811. Corner of Willow and Marsh.

Figure 12. View of Willow from the intersection with Marsh.

Figure 10. Suds on the side of the road.

Figure 11. Runoff from snowmelt and rain that morning.

Figure 12. Cleaned up site, with sand evident from cleanup efforts by Highway.

Figure 1313. Farther down the street view of Willow cleanup.

Figure 1414. Catch basin without suds in it.

Date of First Notice: September 27, 2023

Location: 4 Millstone Road

Summary of Situation/Violation:

In the morning of September 27, 2023, I was alerted by Highway Agent Jim Hoffman that one of his workers suspected a pool dumping into a catch basin at 4 Millstone Road. They reported the catch basin smelling strongly of chemicals and that there was a visible flow path from the area of the garage where white residue was left.

I went out with Code Enforcement Officer John Lozowski, who spoke with the homeowner. He informed us that he had closed his pool and had backwashed out his pool filter with diatomaceous earth. John informed him of the illicit discharge ordinance and educated him about the impacts on the environment. The homeowner was cooperative and understood what we told him.

I notified Deb Loiselle at NHDES of the incident and took a sample of the catch basin water to Eastern Analytical, Inc. in Concord to test for chlorine residual.

NHDES Notified: Yes.

Required Actions: A letter was sent to the homeowner.

Documented in NH MS4 Annual Report: This will be documented in the Year 6 Annual Report.

Date of First Notice: April 17, 2024

Location: 150 Bridge St (Hannaford Plaza)

Summary of Situation:

On April 17, I received a call from Planning Director Jenn Beauregard that Town Administrator Joe Roark called her for a septic overflow complaint at 150 Bridge Street. Mrs. Beauregard went to investigate the complaint and found that the manhole in question had a small amount of water surrounding it, but it did not reach the catch basin or smell of sewage. After a short period of time, the manhole began to gush water out towards the catch basin on Livingston Road, behind Dunkin'. Mrs. Beauregard stated that the odor from that flow smelled strongly of sewage and flowed fast enough to reach the catch basin on Livingston Road. The Pelham Fire Department responded to the scene and reported this to a HAZMAT Consult who subsequently notified NHDES. NHDES did not recommend any actions for them to take. A copy of the summary email from Firefighter Matthew Emanuelson is pasted below. Stewart's Septic responded to the situation and pumped out the septic tanks. It is estimated that approximately three to five gallons of liquid flowed into the catch basin.

Attached at the end of this report are pictures taken by Mrs. Beauregard.

Chief,

I wanted to notify you of a significant event involving multiple agencies for a septic overflow at 150 Bridge Street - Pelham Plaza (Hannford's, etc.) This event was significant mostly due to the number of departments and agencies involved, not for the actions required by the fire department. I've included the four officers and acting officers on this email as it includes some information that could be helpful for a similar call in the future.

Summary: The septic tank for 150 Bridge Street overflowed into a storm drain catch basin behind the Dunkin drive through abutting Livingston Rd. The catch basin itself drains into Tony's Brook which feeds Beaver Brook across the street behind Walgreens on Bridge Street. This issue was brought to our attention from Jennifer Beauregard, Planning Director at the Planning Department who received a complaint from someone driving through the parking lot. Upon arrival and

discovering the above I called for a HAZMAT Consult with a team leader who then called NHDES and I contacted and notified the town Health Officer per DES request. Ultimately, no actions were recommended from DES due to the large amount of moving water that the brook flows in to, however they advised that they always want to be notified about events like this where any amount of bio-waste enters a body of water so they can investigate and determine if actions need to be taken.

The septic also overflowed and pooled in front of Prime Gas in the parking lot. Cones were placed by those employees to block the puddle until was gone.

Property owner was contacted by Jennifer Beauregard and they contacted Stewarts Septic who arrived within an hour to pump the tank.

Additional Notes:

- Pelham Health Officer advised that he has seen permitting for septic improvements for 150 Bridge Street to hopefully prevent this issue in the future.
- The NHDES investigator left me his card which includes the Spill Reporting phone number and the 24-hour Emergency phone number which will be answered by the State Police. It is on the Lieutenant's desk and I've included the numbers below. We can either call to report a spill directly, or we can go through the process and check all boxes by calling for a HAZMAT consult first and they can take care of making the necessary phone calls to DES.
- NHDES advised there is no "minimum acceptable amount" of bio-waste when it comes to spills and overflows into waterways. All require DES notification.

Thanks and please reach out with any questions or feedback.

DES Spill Reporting: 603-271-3899

24-Hour Emergency (State Police): 603-233-4381

Matthew Emanuelson - Firefighter / Paramedic

Pelham Fire Department

603-635-2703

NHDES Notified: Yes, by phone and by email.

EPA Notified: Yes, by phone and by email.

Required Actions: Sent J.P. Fine, owner of the plaza, notice of violation letter on May 1st.

Documented in NH MS4 Annual Report: This will be documented in the Year 6 Annual Report.

Pictures:

Figure 15. Septic overflow manhole referenced in report.

Figure 16. Flow path of the septic spill from the manhole to Livingston Road.

Figure 17. Catch basin on Livingston Road that feeds into Tony's Brook. Tony's Brook flows into Beaver Brook.

Figure 18. Stewart's Septic truck that arrived to pump out the tank.

Date of First Notice: December 19, 2024

Location: 150 Bridge Street

Summary of Situation/Violation:

In the afternoon of Thursday, December 19, Planning Director Jennifer Beauregard received a call from Town Administrator Joe Roark about an illicit discharge complaint at 150 Bridge Street. He said that the resident said the manhole covers were overflowing into the parking lot and the surrounding area. Code Compliance Officer John Lozowski and I went to investigate the issue. Upon arrival, it was obvious the manhole covers had been recently flowing as the ground was still wet. There was evidence of a flow to the catch basin on Livingston Road, behind Dunkin'. The other manhole, located near the Prime gas station, also had flowed out into the parking lot entrance, and was spread out by cars driving over it. There was a faint odor of waste around the manhole that flowed behind Dunkin'. Mr. Lozowski spoke with Chris LaFrance of LaFrance Septic, who said they had done maintenance work earlier in the day on the system and confirmed it had an overflow in the afternoon, unrelated to the work they performed.

We issued a notice of violation letter and $100 fine on December 23, 2024.

The fine was paid for and received on January 13, 2025. This case is now closed.

References for fining can be found on Page 141 of IDDEP which details the fine schedule and IDDE Ordinance Section 7.3 which details the ability to fine for violations.

NHDES Notified: Yes, verbally and in email format.

EPA Notified: Yes, verbally and in email format.

Required Actions: None required for now.

Documented in NH MS4 Annual Report: This will be documented in the Year 7 Annual Report due in September 2025.

Pictures:

Figure 19. View of the parking lot entrance, facing Atwood Road.

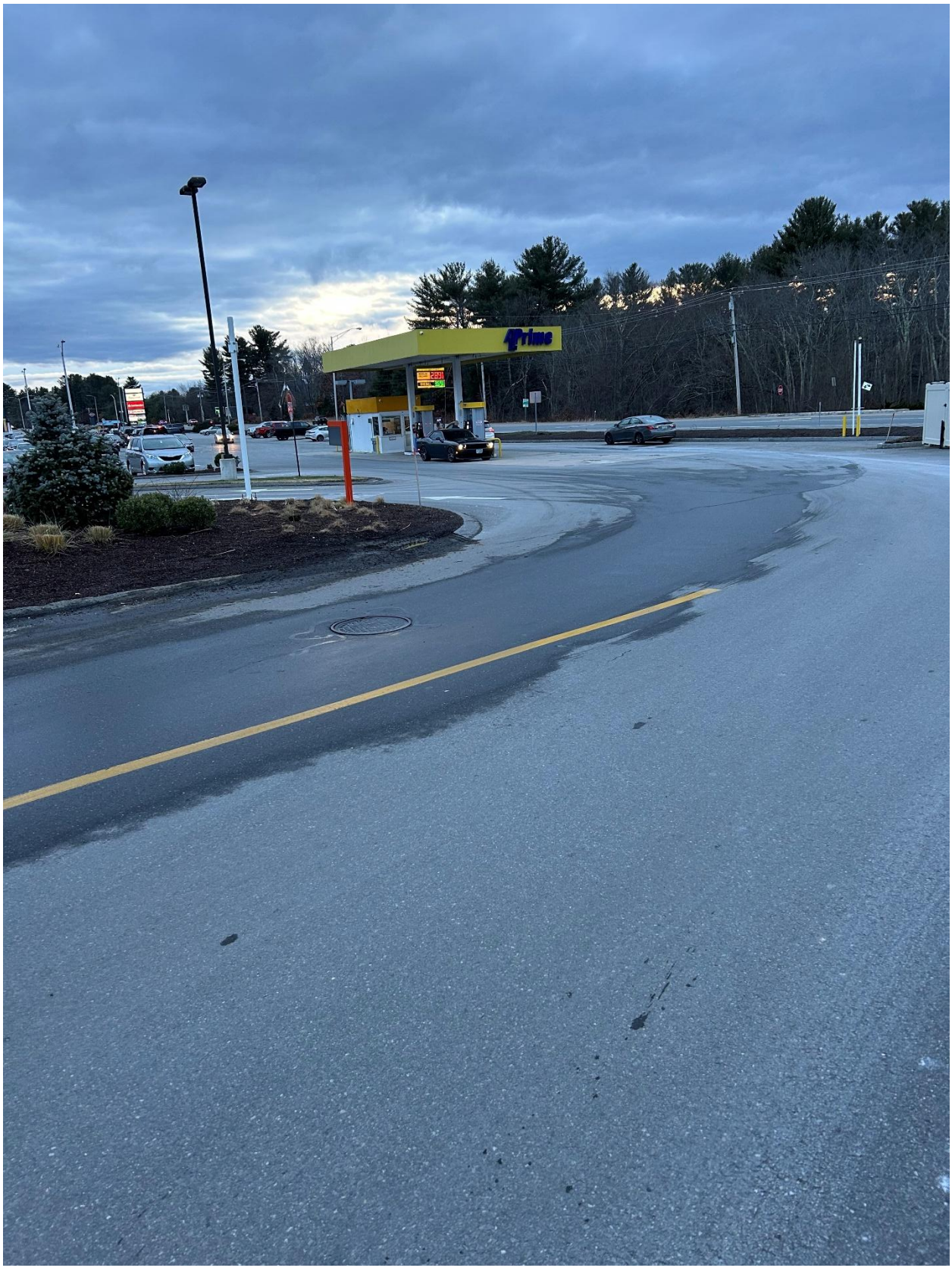


Figure 20. View of Prime gas station, illustrating the overflowing manhole.

Figure 21. Flow path into the catch basin on Livingston Road.

Figure 22. Flow path behind Dunkin' to the catch basin on Livingston Road.

Figure 23. Overflowing manhole, facing Livingston Road.