



TOWN OF STOW, MASSACHUSETTS

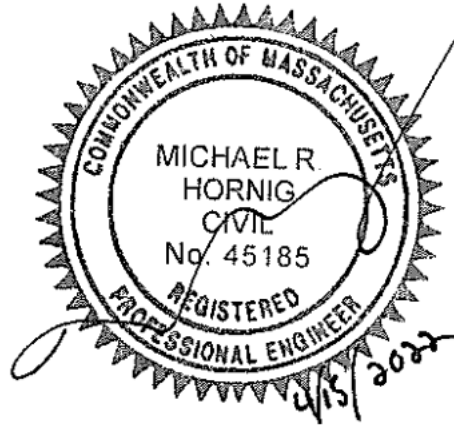
Dry Weather Outfall Screening Report

APRIL 2022

# Dry Weather Outfall Screening Report

Town of Stow, Massachusetts

April 2022



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Date: April 15<sup>th</sup>, 2022

Prepared By:

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## Section 1 Introduction

In December 2021 and March 2022, Wright-Pierce conducted two days of dry-weather outfall screening in the Town of Stow, Massachusetts in accordance with General Permits for Stormwater Discharges From Small Municipal Separate Storm Sewer Systems in Massachusetts (MS4) requirements. Outfalls were located using a tablet installed with ArcGIS and Survey 123, which are programs that utilize global positioning system (GPS) data to register points. A map of the outfalls, provided by the Town of Stow, was also used to help determine the exact locations and is included in Appendix A. A preset structure ID was assigned to each outfall in the database based on the data provided by the Town; new structure IDs were assigned in the case a new outfall was discovered.

Recorded outfall characteristics included location, receiving waterbody, outfall type, material, size, condition, and erosion and sediment levels. If outfalls were not accessible, their submergence level was noted, and the first upstream structure recorded and screened instead. Weather at the time of each outfall inspection was noted, considering precipitation levels over the past 24 hours, air temperature, cloud cover, and wind. As these were dry weather screenings, care was taken to ensure no inspections were conducted without 48 hours of dry weather in the area in advance. The following were used as indicators of potential illicit discharges when screening: odor, flow clarity, flow color, evidence of staining, evidence of abnormal vegetation, outfall damage or deposits, growth on outfall, or other abnormal indicators. General comments and the necessity of a follow-up inspection were noted for each outfall. Pictures of each outfall showing location and condition were taken and are included in after each outfall inspection report.

## Section 2 Outfall Data

Wright-Pierce located and inspected a total of 22 outfalls for the Town of Stow. Full reports for each of these outfalls are included in Appendix B. As discussed in the following sections, the 22 inspected outfalls include five requiring follow-up sampling due to potential illicit discharge indicators or dry weather flow.

### 2.1 Outfalls Requiring Follow-Up

Outfall screening was performed to identify potential illicit, non-stormwater discharges. Screening techniques included looking for consistent water flows, staining, stressed vegetation, odor, color, oil sheen, and other pollution indicators. The outfalls determined to have potential illicit discharge are numbered as 1, 5, 13, 15, and 21, and are summarized in Table 2-1. Outfall 1 was flagged due to evidence for pollution and Outfalls 5, 13, 15, and 21 were flagged due to flow during prolonged dry weather conditions, with no other indicators of illicit discharge present. Further investigation and sample testing for these outfalls is recommended to determine the source of these discharges and subsequent removal of illicit connections from the stormwater system.

Table 2-1 Outfalls with Illicit Discharge Indicators and/or Flow

Structure ID	Receiving Waterbody	Location	Indicator of Illicit Discharge
1	Unnamed Tributary to Elizabeth Brook	Adjacent to catch basin at 8 Gleasondale Road	Oil Sheen
5	Open waterbody	Manhole upstream of pond next to fire supply at 17 Militia Circle	Steady Flow
13	Dry stream	Next to mailbox for 48 Birch Hill Road	Staining, flow
15	Unnamed Tributary to Assabet River	At 80 Robert Road, behind water source sign and hydrant	Steady flow
21	Unnamed pond	Across from Southern intersection of Lowell and Kirkland next to 57 Kirkland mailbox	Steady flow

### 2.2 Unconfirmed Outfalls

Out of the 22 outfalls in the Town's original database, 7 could not be located and/or accessed during screening but are assumed to exist. The first available upstream structure (manhole, catch basin) was inspected for outfalls that could not be located. Future stormwater mapping is recommended to identify which of these unconfirmed outfalls exist, and where they are located. These outfalls are numbered as 3, 4, 5, 9, 10, 12, and 17, and inaccessibility is noted in the 'Accessibility and Flow' category in the reports in Appendix B.

### 2.3 Damaged Outfalls

Out of the 22 outfalls in the Town's original database, 4 were observed to be in poor working condition due to either physical damage or sediment blockage. These outfalls are numbered as 2, 7, 11, and 16 and are summarized in Table 2-2. While it is recommended to check and clear natural debris from all 22 outfalls inspected to maintain good working order, these 4 are of particular concern and should be unblocked and/or repaired.

Table 2-2 Outfalls with Damage or Sediment Blockage

Structure ID	Receiving Waterbody	Location	Damage Type
2	Heath Hen Meadow Brook	Across the street and approximately 100 feet North of 172 West Acton road, at the rock wall.	$\frac{3}{4}$ plugged full with sediment
7	Great Pine Swamp Wetland system	25 feet North from 85 Red Acre Road, directly across from the driveway.	$\frac{3}{4}$ plugged full with sediment
11	Assabet River	Just before the bridge over the Assabet River, past the intersection of White Pond Road and Shore Avenue.	Corroded pipe with chipped rim and natural debris blocking flow path.
16	Assabet River	At the intersection of Old Marlboro Road and Gleasondale Road, by the stop sign next to the 2 Old Marlboro Road building.	Metal pipe is corroded, compressed, and clogged from natural debris. Pipe rim is chipped from corrosion.

## Section 3 Recommendations

Based on the screening of the 22 outfalls in the Town of Stow, Wright-Pierce recommends the following:

- Follow-up sampling of outfalls 1, 5, 13, 15, and 21.
- Compliance with sampling requirements of the MS4 permit.
- Utilizing stormwater mapping to identify which unconfirmed outfalls exist, and where they exist.
- Compliance with mapping requirements of the MS4 permit.
- Repair of Outfalls 11 and 16, and blockage removal at Outfalls 2 and 7.

Dry weather samples should be analyzed for:

- Ammonia,
- Chlorine,
- Conductivity,
- Salinity,
- E. coli (freshwater receiving water),
- Surfactants (such as MBAS),
- Temperature, and
- \*Pollutants of concern; phosphorus, dissolved oxygen

\*Stow is located within the Concord River (SuAsCo) watershed. The Assabet River (MA82B-05) has an approved TMDL (35107), and Boon's Pond (MA82011) has an approved TMDL (2353) as noted in Appendix F of the Permit. When the discharge is directly into a water quality limited water, or a water subject to an approved TMDL as indicated in Appendix F of the MS4 Permit, the sample will be analyzed for the pollutant(s) of concern identified as the cause of the impairment.



Appendix A  
Town of Stow – MS4 Outfall Locations Map






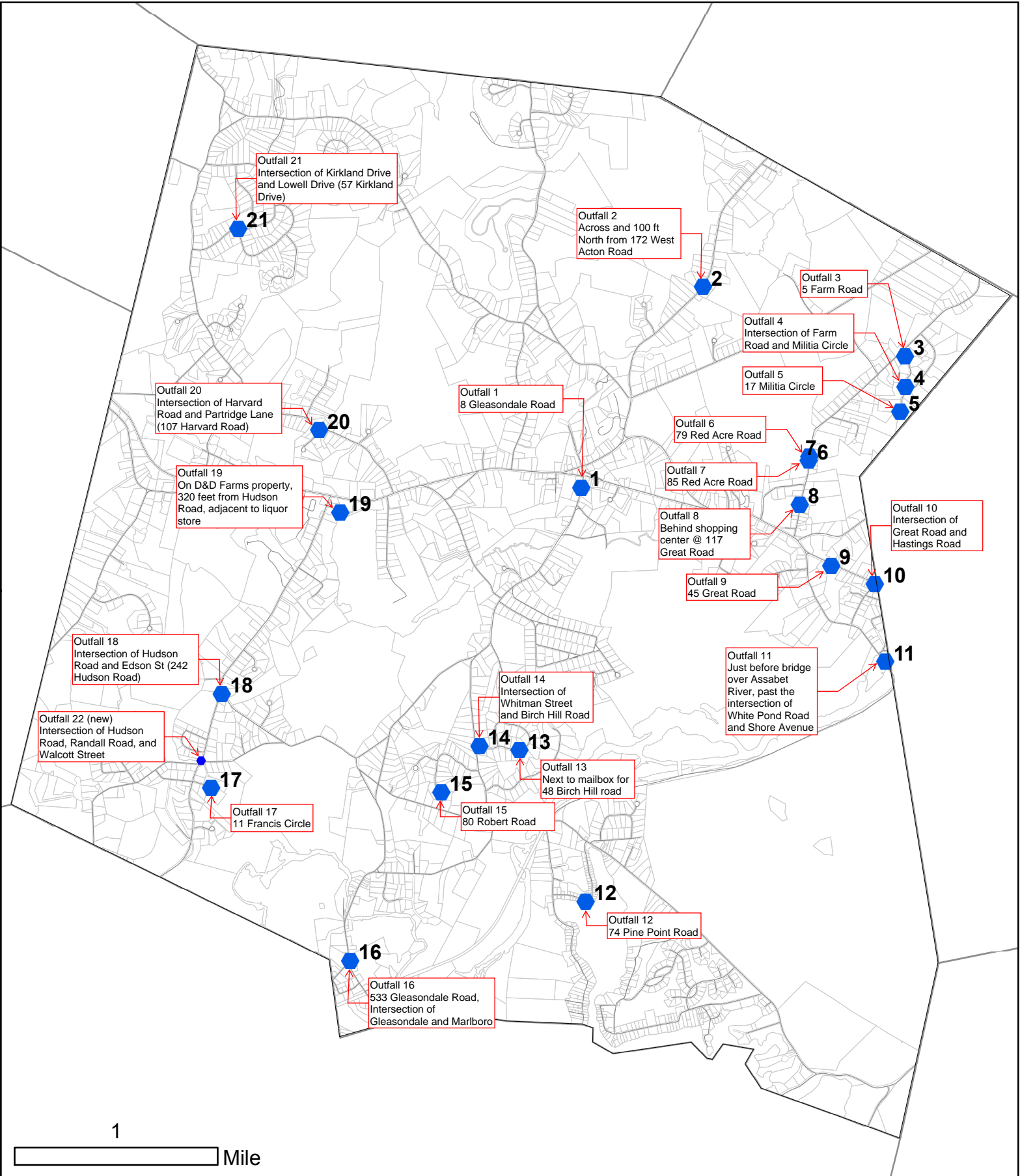
# Town of Stow

## MS4 Outfall Locations

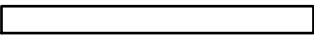
### Preliminary Mapping

October 1, 2018

 Approximate  
Outfall Location



1

 Mile

**Town of Stow**  
**MS4 Outfall Locations, Preliminary Mapping**  
**October 1, 2018**

<b>Outfall Number</b>	<b>Receiving Water</b>
<b>1</b>	Unnamed Tributary to Elizabeth Brook
<b>2</b>	Heath Hen Meadow Brook
<b>3</b>	Unnamed Tributary to Great Pine Swamp
<b>4</b>	Unnamed Tributary to Great Pine Swamp
<b>5</b>	Unnamed Pond to Great Pine Swamp
<b>6</b>	Great Pine Swamp Wetland System
<b>7</b>	Great Pine Swamp Wetland system
<b>8</b>	Unnamed Pond
<b>9</b>	Unnamed Tributary to Elizabeth Brook
<b>10</b>	Assabet River
<b>11</b>	Assabet River
<b>12</b>	Lake Boon
<b>13</b>	Tributary to Unnamed Pond
<b>14</b>	Unnamed Pond
<b>15</b>	Unnamed Tributary to Assabet River
<b>16</b>	Swale to Assabet River
<b>17</b>	Sandy Brook
<b>18</b>	Sandy Brook
<b>19</b>	Elizabeth Brook
<b>20</b>	Unnamed Tributary to Elizabeth Brook
<b>21</b>	Unnamed Pond



Appendix B  
Outfall Inspection Reports

## 20835 Stow, MA Outfall Inspection

<b>Date</b>	December 17, 2021 4:05 PM
<b>Inspector</b>	Mia Jordan

### Location Information

<b>Outfall ID</b>	1
<b>Outfall Location (Description)</b>	Outfall located on eastern side of road, adjacent to catch basin at 8 Gleasondale Road.
<b>Discharges To:</b>	Wetland
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	1 Unnamed Tributary to Elizabeth Brook
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Pipe End
<b>Other Outfall Type</b>	
<b>Material</b>	RCP
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	12
<b>Condition</b>	Good
<b>Sediment</b>	Open/None
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	50
<b>Cloud Cover</b>	Clear
<b>Wind</b>	Yes

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	No
<b>Is outfall accessible?</b>	Yes
<b>If not accessible, give reason.</b>	
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	No Flow

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	Oil Sheen
<b>Odor</b>	None
<b>Flow Clarity</b>	N/A (not flowing)
<b>Flow Color</b>	N/A (not flowing)
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe:</b>	
<b>Potential Sources/Actions Taken</b>	Large notable oil sheen in water. Sheen came back together when disturbed.
<b>Needs follow up?</b>	Yes
<b>Reason for follow up:</b>	Come back to sample, illicit discharge evidence noted during first visit.
<b>General Comments</b>	Based on the flow of the pipe on the western side of the road, the pipe on the eastern side is an outfall, not a culvert. Oil sheen noted on first visit evidence of illicit discharge. Oil sheen not seen on second site visit.

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



## 20835 Stow, MA Outfall Inspection

Photo 2



## 20835 Stow, MA Outfall Inspection

Photo 3





## 20835 Stow, MA Outfall Inspection

Photo 4



## 20835 Stow, MA Outfall Inspection

<b>Date</b>	March 30, 2022 11:31 AM
<b>Inspector</b>	Taylor Gray

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	N/A (not flowing)
<b>Flow Color</b>	N/A (not flowing)
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe: Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Outfall is full of sediment, no evidence of flow.

### Location Information

<b>Outfall ID</b>	2
<b>Outfall Location (Description)</b>	Across the street and approximately 100 ft north of 172 West Acton road, northeastward of culvert. Outfall is located at rock wall.
<b>Discharges To:</b>	Wetland
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	2 Heath Hen Meadow Brook
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Other
<b>Other Outfall Type</b>	Headwall
<b>Material</b>	CMP
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	12
<b>Condition</b>	Fair
<b>Sediment</b>	3/4
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	40
<b>Cloud Cover</b>	Clear
<b>Wind</b>	No

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	No
<b>Is outfall accessible?</b>	Yes
<b>If not accessible, give reason.</b>	
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	No Flow

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



## 20835 Stow, MA Outfall Inspection

Photo 2



## 20835 Stow, MA Outfall Inspection

Photo 3



## 20835 Stow, MA Outfall Inspection

Photo 4



## 20835 Stow, MA Outfall Inspection

<b>Date</b>	March 30, 2022 1:05 PM
<b>Inspector</b>	Taylor Gray

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	N/A (not flowing)
<b>Flow Color</b>	N/A (not flowing)
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe:</b>	
<b>Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Outfall inspected was manhole. Two drainage pipes connect into manhole that is also a culvert connection. The two pipes that contributed drainage from street had no flow and there were no signs of illicit discharge. Culvert pipe had flow. 8" DI and 8" RCP

### Location Information

<b>Outfall ID</b>	3
<b>Outfall Location (Description)</b>	Outfall is the manhole on the southwestern side of Farm Road.
<b>Discharges To:</b>	Wetland
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	3 Unnamed Tributary to Great Pine Swamp
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Other
<b>Other Outfall Type</b>	Manhole
<b>Material</b>	DI
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	8
<b>Condition</b>	Fair
<b>Sediment</b>	Open/None
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	40
<b>Cloud Cover</b>	Clear
<b>Wind</b>	No

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	No
<b>Is outfall accessible?</b>	No
<b>If not accessible, give reason.</b>	Outfall is connected into manhole that connects a culvert across the road.
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	Inspected manhole that connects contributing catch basins.
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	No Flow

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1





## 20835 Stow, MA Outfall Inspection

Photo 2



**20835 Stow, MA Outfall Inspection**

**Photo 3**



## 20835 Stow, MA Outfall Inspection

Photo 4



## 20835 Stow, MA Outfall Inspection

<b>Date</b>	March 30, 2022 12:46 PM
<b>Inspector</b>	Taylor Gray

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	Clear
<b>Flow Color</b>	Clear
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe:</b>	
<b>Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Outfall similar to OF#3, outfall is manhole that has drainage pipes connected into it. WP and town staff were unable to open suspected manhole, no signs of flow from contributing catch basins suspected.

### Location Information

<b>Outfall ID</b>	4
<b>Outfall Location (Description)</b>	Outfall is manhole located on the southwestern side of Militia Circle, just after the intersection of Farm Road and Militia Circle.
<b>Discharges To:</b>	Wetland
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	4 Unnamed Tributary to Great Pine Swamp
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Other
<b>Other Outfall Type</b>	Manhole
<b>Material</b>	RCP
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	8
<b>Condition</b>	Good
<b>Sediment</b>	Open/None
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	40
<b>Cloud Cover</b>	Clear
<b>Wind</b>	No

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	No
<b>Is outfall accessible?</b>	No
<b>If not accessible, give reason.</b>	Outfall is connected into manhole that connects a culvert across the road.
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	Unable to open suspected manholes, checked contributing catch basins.
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	No Flow

## 20835 Stow, MA Outfall Inspection

### Asset Photos



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5

## 20835 Stow, MA Outfall Inspection

<b>Date</b>	March 30, 2022 9:24 AM
<b>Inspector</b>	Taylor Gray

### Location Information

<b>Outfall ID</b>	5
<b>Outfall Location (Description)</b>	Manhole upstream of pond next to fire supply. 17 militia circle.
<b>Discharges To:</b>	Open Waterbody
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	5 Unnamed Pond to Great Pine Swamp
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Other
<b>Other Outfall Type</b>	Manhole
<b>Material</b>	RCP
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	10
<b>Condition</b>	Good
<b>Sediment</b>	Open/None
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	30
<b>Cloud Cover</b>	Clear
<b>Wind</b>	No

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	No
<b>Is outfall accessible?</b>	No
<b>If not accessible, give reason.</b>	Outfall is suspected to discharge into nearby pond. Headwall located but no pipe, suspected to be submerged.
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	Inspected upstream manhole next to fire supply pipe.
<b>Location of first accessible upstream structure</b>	Manhole next to fire supply pipe.
<b>Pipe Flow</b>	Trickle

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	Possible pollution. Flow during dry weather, musty smell and off color flow.
<b>Odor</b>	Musty
<b>Flow Clarity</b>	Cloudy
<b>Flow Color</b>	Other
<b>Flow Color Description</b>	Off-color, darker.
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe:</b>	
<b>Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	Yes
<b>Reason for follow up:</b>	Return for sampling due to flow.
<b>General Comments</b>	Could not find outfall discharging into pond. Found headwall but no pipe, expected to be submerged or broken. Inspected upstream manhole. Trickle of off color flow seen, damp and musty smell. Return for sampling due to flow.

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1





**20835 Stow, MA Outfall Inspection**

**Photo 2**



**20835 Stow, MA Outfall Inspection**

**Photo 3**



**20835 Stow, MA Outfall Inspection**

**Photo 4**



## 20835 Stow, MA Outfall Inspection

<b>Date</b>	March 30, 2022 2:19 PM
<b>Inspector</b>	Taylor Gray

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	N/A (not flowing)
<b>Flow Color</b>	N/A (not flowing)
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe: Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Outfall discharges into catch basin. Catch basin also incorporates culvert that runs across the street and discharges into small pond. There was a small trickle of flow in culvert pipe to pond, no flow in drainage pipe.

### Location Information

<b>Outfall ID</b>	6
<b>Outfall Location (Description)</b>	Across the street and 30 ft north of 79 Red Acre Road mailbox. Outfall in catch basin also located next to electrical pole.
<b>Discharges To:</b>	Open Waterbody
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	6 Great Pine Swamp Wetland System
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Pipe End
<b>Other Outfall Type</b>	
<b>Material</b>	CMP
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	14
<b>Condition</b>	Fair
<b>Sediment</b>	Open/None
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	45
<b>Cloud Cover</b>	Overcast
<b>Wind</b>	No

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	No
<b>Is outfall accessible?</b>	Yes
<b>If not accessible, give reason.</b>	
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	No Flow

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



**20835 Stow, MA Outfall Inspection**

**Photo 2**



**20835 Stow, MA Outfall Inspection**

**Photo 3**



## 20835 Stow, MA Outfall Inspection

Photo 4





## 20835 Stow, MA Outfall Inspection

<b>Date</b>	March 30, 2022 2:25 PM
<b>Inspector</b>	Taylor Gray

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	N/A (not flowing)
<b>Flow Color</b>	N/A (not flowing)
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe: Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Pipe is full of sediment. Contributing catch basin seems to be buried by grass/dirt.

### Location Information

<b>Outfall ID</b>	7
<b>Outfall Location (Description)</b>	Outfall is 25 ft north from 85 Red Acre Road, directly across from driveway.
<b>Discharges To:</b>	Wetland
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	7 Great Pine Swamp Wetland system
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Pipe End
<b>Other Outfall Type</b>	
<b>Material</b>	RCP
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	12
<b>Condition</b>	Fair
<b>Sediment</b>	3/4
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	40
<b>Cloud Cover</b>	Overcast
<b>Wind</b>	No

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	No
<b>Is outfall accessible?</b>	Yes
<b>If not accessible, give reason.</b>	
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	No Flow

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



## 20835 Stow, MA Outfall Inspection

Photo 2



## 20835 Stow, MA Outfall Inspection

Photo 3



**20835 Stow, MA Outfall Inspection**

**Photo 4**



## 20835 Stow, MA Outfall Inspection

<b>Date</b>	December 17, 2021 4:27 PM
<b>Inspector</b>	Mia Jordan

### Location Information

<b>Outfall ID</b>	8
<b>Outfall Location (Description)</b>	Outfall located behind Stow shopping center near the yellow bollard and transformer.
<b>Discharges To:</b>	Open Waterbody
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	8 Unnamed Pond
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Pipe End
<b>Other Outfall Type</b>	
<b>Material</b>	RCP
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	18
<b>Condition</b>	Fair
<b>Sediment</b>	1/4
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	50
<b>Cloud Cover</b>	Clear
<b>Wind</b>	Yes

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	Partially
<b>Is outfall accessible? If not accessible, give reason.</b>	Yes
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	No Flow

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	N/A (not flowing)
<b>Flow Color</b>	N/A (not flowing)
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	Yes
<b>If yes, please describe:</b>	Pipe is weathered, aggregate on pipe crown is exposed.
<b>Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Outfall is submerged, does not look like it is flowing.

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



## 20835 Stow, MA Outfall Inspection

Photo 2





**20835 Stow, MA Outfall Inspection**

**Photo 3**



## 20835 Stow, MA Outfall Inspection

Photo 4



## 20835 Stow, MA Outfall Inspection

<b>Date</b>	March 30, 2022 1:20 PM
<b>Inspector</b>	Taylor Gray

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	N/A (not flowing)
<b>Flow Color</b>	N/A (not flowing)
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	Yes
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe:</b>	
<b>Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Outfall is a manhole that takes in catch basins to the northwest. Outfall dumps into manhole which also conveys a culvert across the road. Town staff confirmed that previous inspections indicated no flow from contributing catch basins.

### Location Information

<b>Outfall ID</b>	9
<b>Outfall Location (Description)</b>	Outfall is manhole located on the southern side of 46 Great Road, just after the turn for J Melone and Sons Concrete.
<b>Discharges To:</b>	Wetland
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	9 Unnamed Tributary to Elizabeth Brook
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Pipe End
<b>Other Outfall Type</b>	
<b>Material</b>	CMP
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	12
<b>Condition</b>	Poor
<b>Sediment</b>	Full/Plugged
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	40
<b>Cloud Cover</b>	Clear
<b>Wind</b>	No

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	Fully
<b>Is outfall accessible?</b>	No
<b>If not accessible, give reason.</b>	Outfall is dumps into manhole that also conveys culvert. Manhole inaccessible due to traffic.
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	
<b>Location of first accessible upstream structure</b>	Manhole in road on top of culvert, could not open due to traffic.
<b>Pipe Flow</b>	No Flow

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



**20835 Stow, MA Outfall Inspection**

**Photo 2**



## 20835 Stow, MA Outfall Inspection

Photo 3



## 20835 Stow, MA Outfall Inspection

Photo 4



## 20835 Stow, MA Outfall Inspection

<b>Date</b>	December 17, 2021 11:03 AM
<b>Inspector</b>	Mia Jordan

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	N/A (not flowing)
<b>Flow Color</b>	N/A (not flowing)
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe:</b>	
<b>Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Outfall is interconnection catch basin that leads into Town of Maynard drainage system.

### Location Information

<b>Outfall ID</b>	10
<b>Outfall Location (Description)</b>	Interconnection catch basin located at the intersection of Great Road and Hastings Street.
<b>Discharges To:</b>	Other
<b>Other Discharge Environment Type:</b>	Pipe system
<b>Receiving Waterbody (OFID)</b>	10 Assabet River
<b>Receiving Waterbody if Other</b>	Pipe

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Other
<b>Other Outfall Type</b>	Catch Basin
<b>Material</b>	RCP
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	12
<b>Condition</b>	Fair
<b>Sediment</b>	1/4
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	36
<b>Cloud Cover</b>	Clear
<b>Wind</b>	Yes

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	No
<b>Is outfall accessible?</b>	No
<b>If not accessible, give reason.</b>	Catch basin leads to drainage system for the town of Maynard.
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	Inspection performed for upstream interconnection catch basin.
<b>Location of first accessible upstream structure</b>	Intersection of Hastings street and Great road on Maynard-Stow town lines.
<b>Pipe Flow</b>	No Flow



## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



**20835 Stow, MA Outfall Inspection**

**Photo 2**



## 20835 Stow, MA Outfall Inspection

Photo 3



## 20835 Stow, MA Outfall Inspection

Photo 4



## 20835 Stow, MA Outfall Inspection

Date	December 17, 2021 11:21 AM
Inspector	Mia Jordan

### Indicators of Potential Non-Stormwater Discharges

### Location Information

Outfall ID	11
Outfall Location (Description)	Outfall located just before bridge over Assabet River, past intersection of White Pond Road and Shore Ave
Discharges To:	Open Waterbody
Other Discharge Environment Type:	
Receiving Waterbody (OFID)	11 Assabet River
Receiving Waterbody if Other	

### Asset Description/Condition

Ownership	Public
Outfall Type	Headwall
Other Outfall Type	
Material	CMP
Shape	Circular
Diameter/Dimension (in)	12
Condition	Poor
Sediment	1/4
Erosion/Scouring	No
BMP Visible	Other
Other BMP Type	None

### Weather

Wet or Dry Weather Inspection	Dry
Precipitation in past 24 hours?	No
Air Temperature (°F)	50
Cloud Cover	Clear
Wind	Yes

### Accessibility and Flow

Is Outfall Submerged?	Partially
Is outfall accessible? If not accessible, give reason.	Yes
If outfall inaccessible or submerged, complete inspection at next upstream structure.	
Location of first accessible upstream structure	
Pipe Flow	No Flow

Evidence of Pollution (select all that apply)	None
Odor	None
Flow Clarity	N/A (not flowing)
Flow Color	N/A (not flowing)
Flow Color Description	
Evidence of Staining	No
Evidence of Abnormal Vegetation	No
Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge If yes, please describe:	Yes Pipe is in poor condition, rim is chipped, pipe is corroded.
Potential Sources/Actions Taken	
Needs follow up?	No
Reason for follow up:	
General Comments	Natural debris blocking flow path.

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



**20835 Stow, MA Outfall Inspection**

**Photo 2**



## 20835 Stow, MA Outfall Inspection

Photo 3





## 20835 Stow, MA Outfall Inspection

Photo 4



## 20835 Stow, MA Outfall Inspection

<b>Date</b>	December 17, 2021 11:49 AM
<b>Inspector</b>	Mia Jordan

### Indicators of Potential Non-Stormwater Discharges

### Location Information

<b>Outfall ID</b>	12
<b>Outfall Location (Description)</b>	Outfall suspected to be located between 76 and 74 Pine Point Road.
<b>Discharges To:</b>	Open Waterbody
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	12 Lake Boon
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Other
<b>Other Outfall Type</b>	Unknown
<b>Material</b>	PVC
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	10
<b>Condition</b>	Good
<b>Sediment</b>	1/4
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	55
<b>Cloud Cover</b>	Clear
<b>Wind</b>	Yes

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	Fully
<b>Is outfall accessible?</b>	No
<b>If not accessible, give reason.</b>	Could not find outfall.
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	Inspected upstream catch basin manhole.
<b>Location of first accessible upstream structure</b>	Between 76 and 74 Pine Point Road.
<b>Pipe Flow</b>	No Flow

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	N/A (not flowing)
<b>Flow Color</b>	N/A (not flowing)
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe:</b>	
<b>Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Outfall most likely submerged near house. No flow coming from inlet pipes, but outlet pipe is fully submerged. Plastic pipe is 10 inch, metal is 6 inch.

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



**20835 Stow, MA Outfall Inspection**

**Photo 2**



**20835 Stow, MA Outfall Inspection**

**Photo 3**



**20835 Stow, MA Outfall Inspection**

**Photo 4**



## 20835 Stow, MA Outfall Inspection

<b>Date</b>	December 17, 2021 3:50 PM
<b>Inspector</b>	Taylor Gray

### Location Information

<b>Outfall ID</b>	13
<b>Outfall Location (Description)</b>	Outfall located next to mailbox for 48 Birch Hill road.
<b>Discharges To:</b>	Other
<b>Other Discharge Environment Type:</b>	Dry stream
<b>Receiving Waterbody (OFID)</b>	13 Tributary to Unnamed Pond
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Pipe End
<b>Other Outfall Type</b>	
<b>Material</b>	RCP
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	32
<b>Condition</b>	Good
<b>Sediment</b>	Open/None
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	50
<b>Cloud Cover</b>	Clear
<b>Wind</b>	Yes

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	No
<b>Is outfall accessible?</b>	Yes
<b>If not accessible, give reason.</b>	
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	Trickle

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	Clear
<b>Flow Color</b>	Clear
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	Yes
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	Yes
<b>If yes, please describe:</b>	White staining observed on pipe invert.
<b>Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	Yes
<b>Reason for follow up:</b>	Return for sampling due to flow.
<b>General Comments</b>	Outfall had small trickle during first site visit and steady flow during second site visit. White staining observed on pipe invert. Return for sampling due to flow.

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1





**20835 Stow, MA Outfall Inspection**

**Photo 2**



## 20835 Stow, MA Outfall Inspection

Photo 3



## 20835 Stow, MA Outfall Inspection

Photo 4



## 20835 Stow, MA Outfall Inspection

<b>Date</b>	December 17, 2021 3:33 PM
<b>Inspector</b>	Taylor Gray

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	N/A (not flowing)
<b>Flow Color</b>	N/A (not flowing)
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe: Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Outfall slightly submerged, no evidence of flow. Second pipe seen to the right of outfall. Second pipe extends into pond and is submerged. Oil sheens seen near second pipe.

### Location Information

<b>Outfall ID</b>	14
<b>Outfall Location (Description)</b>	Outfall located on birch hill road adjacent to the intersection with Whitman, to the right of the fire supply water pipe.
<b>Discharges To:</b>	Open Waterbody
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	14 Unnamed Pond
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Pipe End
<b>Other Outfall Type</b>	
<b>Material</b>	RCP
<b>Shape</b>	
<b>Diameter/Dimension (in)</b>	16
<b>Condition</b>	Good
<b>Sediment</b>	1/4
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	50
<b>Cloud Cover</b>	Clear
<b>Wind</b>	Yes

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	Partially
<b>Is outfall accessible?</b>	Yes
<b>If not accessible, give reason.</b>	
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	No Flow

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



**20835 Stow, MA Outfall Inspection**

**Photo 2**



## 20835 Stow, MA Outfall Inspection

Photo 3



## 20835 Stow, MA Outfall Inspection

Photo 4





## 20835 Stow, MA Outfall Inspection

<b>Date</b>	December 17, 2021 3:25 PM
<b>Inspector</b>	Taylor Gray

### Location Information

<b>Outfall ID</b>	15
<b>Outfall Location (Description)</b>	Outfall located at 80 Robert Road, behind water department water source sign and hydrant.
<b>Discharges To:</b>	Open Waterbody
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	15 Unnamed Tributary to Assabet River
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Pipe End
<b>Other Outfall Type</b>	
<b>Material</b>	RCP
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	15
<b>Condition</b>	Good
<b>Sediment</b>	Open/None
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	50
<b>Cloud Cover</b>	Clear
<b>Wind</b>	Yes

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	No
<b>Is outfall accessible? If not accessible, give reason.</b>	Yes
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	Trickle

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	Clear
<b>Flow Color</b>	Clear
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	Yes
<b>If yes, please describe:</b>	Moss growth on pipe invert.
<b>Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	Yes
<b>Reason for follow up:</b>	Return for sampling due to flow.
<b>General Comments</b>	Outfall had small trickle during first and second site visit. No evidence of illicit discharge. Return for sampling due to flow.

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



**20835 Stow, MA Outfall Inspection**

**Photo 2**



**20835 Stow, MA Outfall Inspection**

**Photo 3**



**20835 Stow, MA Outfall Inspection**

**Photo 4**



## 20835 Stow, MA Outfall Inspection

<b>Date</b>	December 17, 2021 12:34 PM
<b>Inspector</b>	Mia Jordan

### Indicators of Potential Non-Stormwater Discharges

### Location Information

<b>Outfall ID</b>	16
<b>Outfall Location (Description)</b>	Outfall located at the intersection of Old Marlboro and Gleasondale Road, by the stop sign next to the 2 Old Marlboro Road building.
<b>Discharges To:</b>	Vegetated Swale
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	16 Swale to Assabet River
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Pipe End
<b>Other Outfall Type</b>	
<b>Material</b>	CMP
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	10
<b>Condition</b>	Poor
<b>Sediment</b>	1/4
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	55
<b>Cloud Cover</b>	Clear
<b>Wind</b>	Yes

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	Partially
<b>Is outfall accessible?</b>	Yes
<b>If not accessible, give reason.</b>	
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	No Flow

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	N/A (not flowing)
<b>Flow Color</b>	N/A (not flowing)
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	Yes
<b>If yes, please describe:</b>	Corroded metal pipe, compressed, clogged outflow area from natural debris, chipped pipe rim from corrosion.
<b>Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Outfall partially submerged, pipe in poor condition.

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



## 20835 Stow, MA Outfall Inspection

Photo 2





## 20835 Stow, MA Outfall Inspection

Photo 3



**20835 Stow, MA Outfall Inspection**

**Photo 4**



## 20835 Stow, MA Outfall Inspection

<b>Date</b>	December 17, 2021 2:00 PM
<b>Inspector</b>	Taylor Gray

### Location Information

<b>Outfall ID</b>	17
<b>Outfall Location (Description)</b>	Catch basin inspected at 11 Francis Circle.
<b>Discharges To:</b>	Open Waterbody
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	17 Sandy Brook
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Pipe End
<b>Other Outfall Type</b>	
<b>Material</b>	RCP
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	12
<b>Condition</b>	Good
<b>Sediment</b>	Open/None
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	55
<b>Cloud Cover</b>	Clear
<b>Wind</b>	Yes

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	No
<b>Is outfall accessible?</b>	No
<b>If not accessible, give reason.</b>	Could not located outfall.
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	Inspected catch basin at 11 Francis Circle.
<b>Location of first accessible upstream structure</b>	Inspected upstream catch basins at 11 Francis Circle.
<b>Pipe Flow</b>	No Flow

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	N/A (not flowing)
<b>Flow Color</b>	N/A (not flowing)
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe: Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Could not locate outfall, inspected upstream catch basins. No flow and no evidence of illicit discharge.

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



**20835 Stow, MA Outfall Inspection**

**Photo 2**



## 20835 Stow, MA Outfall Inspection

Photo 3



## 20835 Stow, MA Outfall Inspection

Photo 4



## 20835 Stow, MA Outfall Inspection

<b>Date</b>	December 17, 2021 2:39 PM
<b>Inspector</b>	Taylor Gray

### Indicators of Potential Non-Stormwater Discharges

### Location Information

<b>Outfall ID</b>	<b>18</b>
<b>Outfall Location (Description)</b>	Outfall located at intersection of Hudson and Edson. Between 242 Hudson road and Edson Road, between two stone markers.
<b>Discharges To:</b>	Vegetated Swale
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	18 Sandy Brook
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Headwall
<b>Other Outfall Type</b>	
<b>Material</b>	PVC
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	10
<b>Condition</b>	Good
<b>Sediment</b>	Open/None
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	55
<b>Cloud Cover</b>	Clear
<b>Wind</b>	Yes

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	Partially
<b>Is outfall accessible?</b>	Yes
<b>If not accessible, give reason.</b>	
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	No Flow

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	N/A (not flowing)
<b>Flow Color</b>	N/A (not flowing)
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe:</b>	
<b>Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Pipe partially submerged, no evidence of flow or illicit discharge.



## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



## 20835 Stow, MA Outfall Inspection

Photo 2



## 20835 Stow, MA Outfall Inspection

Photo 3



**20835 Stow, MA Outfall Inspection**

**Photo 4**



## 20835 Stow, MA Outfall Inspection

<b>Date</b>	March 30, 2022 1:44 PM
<b>Inspector</b>	Taylor Gray

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	Clear
<b>Flow Color</b>	Clear
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe: Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Small amount of standing water in pipe.

### Location Information

<b>Outfall ID</b>	19
<b>Outfall Location (Description)</b>	Outfall located approximately 320 feet from Hudson Road to outfall, located on D&D Farms property, adjacent to liquor store.
<b>Discharges To:</b>	Open Waterbody
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	19 Elizabeth Brook
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Pipe End
<b>Other Outfall Type</b>	
<b>Material</b>	PE
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	14
<b>Condition</b>	Good
<b>Sediment</b>	Open/None
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	40
<b>Cloud Cover</b>	Overcast
<b>Wind</b>	No

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	No
<b>Is outfall accessible?</b>	Yes
<b>If not accessible, give reason.</b>	
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	No Flow

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



## 20835 Stow, MA Outfall Inspection

Photo 2



## 20835 Stow, MA Outfall Inspection

Photo 3





## 20835 Stow, MA Outfall Inspection

Photo 4



## 20835 Stow, MA Outfall Inspection

<b>Date</b>	December 17, 2021 1:53 PM
<b>Inspector</b>	Mia Jordan

### Location Information

<b>Outfall ID</b>	<b>20</b>
<b>Outfall Location (Description)</b>	Outfall located at intersection of Partridge Lane and Harvard road, across from mailbox 107. Outfall located under small wooden bridge in property.
<b>Discharges To: Other Discharge Environment Type:</b>	Vegetated Swale
<b>Receiving Waterbody (OFID)</b>	20 Unnamed Tributary to Elizabeth Brook
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Pipe End
<b>Other Outfall Type</b>	
<b>Material</b>	CMP
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	12
<b>Condition</b>	Fair
<b>Sediment</b>	1/4
<b>Erosion/Scouring</b>	Yes
<b>BMP Visible</b>	Outlet Guard
<b>Other BMP Type</b>	None

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	55
<b>Cloud Cover</b>	Clear
<b>Wind</b>	Yes

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	Partially
<b>Is outfall accessible? If not accessible, give reason.</b>	Yes
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	No Flow

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	N/A (not flowing)
<b>Flow Color</b>	N/A (not flowing)
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe: Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Outfall is partially submerged, discharges into culvert flow. Did not seem like it was flowing, no evidence of illicit discharge.

**20835 Stow, MA Outfall Inspection**

**Asset Photos**



Photo 1



Photo 2



Photo 3



Photo 4

## 20835 Stow, MA Outfall Inspection

<b>Date</b>	December 17, 2021 2:13 PM
<b>Inspector</b>	Taylor Gray

### Indicators of Potential Non-Stormwater Discharges

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	Clear
<b>Flow Color</b>	Clear
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe: Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	Yes
<b>Reason for follow up:</b>	Return for sampling due to flow.
<b>General Comments</b>	Steady flow was observed for both site visits. No evidence of illicit discharge. Return for sampling.

### Location Information

<b>Outfall ID</b>	21
<b>Outfall Location (Description)</b>	Outfall located across from the southern intersection of Lowell and Kirkland next to 57 Kirkland mailbox.
<b>Discharges To:</b>	Open Waterbody
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	21 Unnamed Pond
<b>Receiving Waterbody if Other</b>	

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Headwall
<b>Other Outfall Type</b>	
<b>Material</b>	RCP
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	30
<b>Condition</b>	Good
<b>Sediment</b>	Open/None
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	
<b>Other BMP Type</b>	

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	55
<b>Cloud Cover</b>	Clear
<b>Wind</b>	Yes

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	No
<b>Is outfall accessible?</b>	Yes
<b>If not accessible, give reason.</b>	
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	Steady Flow

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



**20835 Stow, MA Outfall Inspection**

**Photo 2**



## 20835 Stow, MA Outfall Inspection

Photo 3



## 20835 Stow, MA Outfall Inspection

Photo 4





## 20835 Stow, MA Outfall Inspection

<b>Date</b>	December 17, 2021 3:08 PM
<b>Inspector</b>	Taylor Gray

### Indicators of Potential Non-Stormwater Discharges

### Location Information

<b>Outfall ID</b>	22
<b>Outfall Location (Description)</b>	Outfall located at the intersection of Hudson, Walcott, and Randall, off the west side of Randall road. Outfall surrounded by riprap.
<b>Discharges To:</b>	Vegetated Swale
<b>Other Discharge Environment Type:</b>	
<b>Receiving Waterbody (OFID)</b>	Other
<b>Receiving Waterbody if Other</b>	Unnamed stream

### Asset Description/Condition

<b>Ownership</b>	Public
<b>Outfall Type</b>	Pipe End
<b>Other Outfall Type</b>	
<b>Material</b>	PVC
<b>Shape</b>	Circular
<b>Diameter/Dimension (in)</b>	12
<b>Condition</b>	Good
<b>Sediment</b>	Open/None
<b>Erosion/Scouring</b>	No
<b>BMP Visible</b>	Other
<b>Other BMP Type</b>	Rip rap and a straw sock.

### Weather

<b>Wet or Dry Weather Inspection</b>	Dry
<b>Precipitation in past 24 hours?</b>	No
<b>Air Temperature (°F)</b>	50
<b>Cloud Cover</b>	Clear
<b>Wind</b>	Yes

### Accessibility and Flow

<b>Is Outfall Submerged?</b>	No
<b>Is outfall accessible?</b>	Yes
<b>If not accessible, give reason.</b>	
<b>If outfall inaccessible or submerged, complete inspection at next upstream structure.</b>	
<b>Location of first accessible upstream structure</b>	
<b>Pipe Flow</b>	No Flow

<b>Evidence of Pollution (select all that apply)</b>	None
<b>Odor</b>	None
<b>Flow Clarity</b>	N/A (not flowing)
<b>Flow Color</b>	N/A (not flowing)
<b>Flow Color Description</b>	
<b>Evidence of Staining</b>	No
<b>Evidence of Abnormal Vegetation</b>	No
<b>Outfall Damage, Deposits, Growth on Outfall, or Other Indicators of Illicit Discharge</b>	No
<b>If yes, please describe:</b>	
<b>Potential Sources/Actions Taken</b>	
<b>Needs follow up?</b>	No
<b>Reason for follow up:</b>	
<b>General Comments</b>	Outfall is new, recent construction.

## 20835 Stow, MA Outfall Inspection

### Asset Photos

Photo 1



## 20835 Stow, MA Outfall Inspection

Photo 2



## 20835 Stow, MA Outfall Inspection

Photo 3



## 20835 Stow, MA Outfall Inspection

Photo 4





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