Year 3 Annual Report
Massachusetts Small MS4 General Permit
Reporting Period: July 1, 2020-June 30, 2021

Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form

Unless otherwise noted, all fields are required to be filled out. If a field is left blank, it will be assumed the requirement or task has not been completed. Please ONLY report on activities between July 1, 2020 and June 30, 2021 unless otherwise requested.

Part I: Contact Information

Name of Municipality or Organization: Town of Medway

EPA NPDES Permit Number: MAR041132

Primary MS4 Program Manager Contact Information

Name: Stephanie Carlisle Title: Compliance Coordinator

Street Address Line 1: 45 Holliston Street

Street Address Line 2:

City: Medway State: MA Zip Code: 02053

Email: scarlisle@townofmedway.org Phone Number: (508) 321-4871

Stormwater Management Program (SWMP) Information

SWMP Location (web address): https://www.townofmedway.org/stormwater-management/webforms/reports

Date SWMP was Last Updated: Jun 8, 2021

If the SWMP is not available on the web please provide the physical address:

Part II: Self-Assessment

First, in the box below, select the impairment(s) and/or TMDL(s) that are applicable to your MS4. Make sure you are referring to the most recent EPA approved Section 303(d) Impaired Waters List which can be found here: https://www.epa.gov/tmdl/region-1-impaired-waters-and-303d-lists-state

Impairment(s)

☒ Bacteria/Pathogens ☐ Chloride ☐ Nitrogen ☒ Phosphorus
☐ Solids/ Oil/ Grease (Hydrocarbons)/ Metals

TMDL(s)

In State: ☐ Assabet River Phosphorus ☒ Bacteria and Pathogen ☐ Cape Cod Nitrogen
☒ Charles River Watershed Phosphorus ☐ Lake and Pond Phosphorus

Out of State: ☐ Bacteria/Pathogens ☐ Metals ☐ Nitrogen ☐ Phosphorus

Clear Impairments and TMDLs

Next, check off all requirements below that have been completed. ***By checking each box you are certifying that you have completed that permit requirement fully.*** *If you have not completed a requirement leave the box unchecked. Additional information will be requested in later sections.*

Year 3 Requirements

☒ Inspected and screened all outfalls/interconnections (excluding Problem and Excluded outfalls)

☐ Updated outfall/interconnection priority ranking based on the information collected during the dry weather inspections as necessary

☒ Post-construction bylaw, ordinance, or other regulatory mechanism was updated and adopted consistent with permit requirements

Optional: If you would like to describe progress made on any incomplete requirements listed above, provide any additional information, and/or if any of the above year 3 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

1. The DPW is in the process of updating the priority ranking based on the information collected during dry weather inspections, which were completed in the spring of 2021.

Annual Requirements

☒ Provided an opportunity for public participation in review and implementation of SWMP and complied with State Public Notice requirements

☒ Kept records relating to the permit available for 5 years and made available to the public

☒ The SSO inventory has been updated, including the status of mitigation and corrective measures implemented

○ This is not applicable because we do not have sanitary sewer
◉ This is not applicable because we did not find any new SSOs

- ○ The updated SSO inventory is attached to the email submission
- ○ The updated SSO inventory can be found at the following website:

☒ Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters

☒ Provided training to employees involved in IDDE program within the reporting period

☒ All curbed roadways were swept at least once within the reporting period

☒ Updated system map due in year 2 as necessary

☒ Enclosed all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt

☒ Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities

☒ Updated inventory of all permittee owned facilities as necessary

☐ O&M programs for all permittee owned facilities have been completed and updated as necessary

☐ Implemented all maintenance procedures for permittee owned facilities in accordance with O&M programs

☐ Implemented program for MS4 infrastructure maintenance to reduce the discharge of pollutants

☐ Inspected all permittee owned treatment structures (excluding catch basins)

Optional: If you would like to describe progress made on any incomplete requirements listed above, provide any additional information, and/or if any of the above annual requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

1. The town prioritized creating a SWPPP for the new DPW Complex; and therefore, the O&M program update is incomplete.
2. The O&M maintenance procedures for all permittee owned facilities will be addressed in the upcoming year.
3. The DPW is developing a MS4 infrastructure maintenance program.
4. The DPW began locating, mapping, and inspecting the treatment structures in town; however, the task is incomplete at this time.

Bacteria/ Pathogens (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

Annual Requirements

*Public Education and Outreach**

☒ Annual message was distributed encouraging the proper management of pet waste, including noting any existing ordinances where appropriate

☐ Permittee or its agents disseminated educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time

☐ Provided information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria

** Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)*

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

1. The DPW partnered with the Town Clerks office and the dog licensing portal provider so we will have messaging disseminated to dog owners at the time of issuance and/or renewal of dog licenses during Year 4. The DPW is waiting for new educational signs to be posted in the town's dog park as well.
2. The DPW will partner with the BOH to distribute information about septic system maintenance.

Phosphorus (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

Annual Requirements

*Public Education and Outreach**

☒ Distributed an annual message in the spring (April/May) encouraging the proper use and disposal of grass clippings and encouraging the proper use of slow-release and phosphorus-free fertilizers

☒ Distributed an annual message in the summer (June/July) encouraging the proper management of pet waste, including noting any existing ordinances where appropriate

☒ Distributed an annual message in the fall (August/September/October) encouraging the proper disposal of leaf litter

** Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)*

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

☒ Increased street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.a.iii.(c) to a minimum of two times per year (spring and fall)

Potential structural BMPs

☐ Any structural BMPs already existing or installed in the regulated area by the permittee or its agents was tracked and the phosphorus removal by the BMP was estimated consistent with Attachment 3 to Appendix F. The BMP type, total area treated by the BMP, the design storage volume of the BMP and the estimated phosphorus removed in mass per year by the BMP were documented.

- ◉ The BMP information is attached to the email submission
- ○ The BMP information can be found at the following website:

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

During Year 3 the DPW reviewed past plans to identify existing stormwater structures. The known BMPs have been mapped. BMPs have been entered into the BATT tool; however, the Town cannot claim phosphorus removal credit because they have not been maintained. Furthermore, the DPW is still trying to determine the impervious/pervious ratios and land use for each BMP drainage area. Many of the stormwater structures identified in past plans do not include the details needed to complete the BATT tool calculations, so additional investigations are required. In order to gauge what the town currently has for BMPs (and their phosphorus reduction credits when they are regularly maintained), the DPW entered the BMPs into the BATT tool using a few assumptions including: each BMP has been maintained, each drainage area is 50%

impervious and 50% pervious, all infiltration basins infiltrate at 1.02inches/hour, anything labeled as a "retention" structure in a plan was deemed a "bioretention" structure, anything labeled as "infiltration" structure in a plan was deemed an "infiltration basin" and anything labeled "detention" was deemed an "extended dry detention basin." However, as the DPW continues to investigate these structures, we will update the BATT tool with corrected information.

Charles River Watershed Phosphorus TMDL

☐ Completed the funding source assessment

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

During Year 3, we worked to identify and map our existing BMPs and calculate the phosphorus removal using the BATT tool. We are currently working on cost estimates to maintain what we have and are examining the costs of adding new BMPs throughout town in order to meet the Charles River TMDL requirements.

Optional: Use the box below to provide any additional information you would like to share as part of your self-assessment:

The DPW will be using the Phosphorus Control Plan template created by the Charles River Watershed Association and Kleinfelder.

Part III: Receiving Waters/Impaired Waters/TMDL

Have you made any changes to your lists of receiving waters, outfalls, or impairments since the NOI was submitted?

- (●) Yes
- ( ) No

If yes, describe below, including any relevant impairments or TMDLs:

The DPW updated the outfall inventory. We corrected information that was misidentified in the field (i.e. culverts recorded as outfalls) and also found more outfalls while doing inspections. There are now 487 outfalls.

The updated List of Impaired Waters changed Chicken Brook (segment 72-34) from a Category 2 water to a Category 5 water with E.coli as the listed impairment. Hopping Brook (segment 72-35) was also changed from a Category 2 water to a Category 5 water with E.coli as the listed impairment. This change was incorporated during Year 2.

Part IV: Minimum Control Measures

Please fill out all of the metrics below. If applicable, include in the description who completed the task if completed by a third party.

MCM1: Public Education

Number of educational messages completed **during this reporting period**: 7

*Below, report on the educational messages completed **during this reporting period**. For the measurable goal(s) please describe the method/measures used to assess the overall effectiveness of the educational program.*

BMP:Leaf Litter Management

Message Description and Distribution Method:

Message distributed on the Town's Facebook page "Help protect our waterways by keeping yards, driveways, and sidewalks clear of leaves and debris. 60% of the annual phosphorus yield comes from leaf litter in the fall." The post included a link to the Think Blue Massachusetts education campaign as well.

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

1,347 people reached, 74 engagements, 5 likes, 1 comment, and 2 shares.

Message Date(s): October 5, 2020

Message Completed for: Appendix F Requirements ☒ Appendix H Requirements ☐

Was this message different than what was proposed in your NOI? Yes ◉ No ○

If yes, describe why the change was made:

We wanted to focus specifically on leave litter management as it relates to phosphorus loading as opposed to landscape management in general. By using the Town's social media accounts, we are able to reach a large audience and the message can easily be shared among residents and groups.

BMP:Stormwater 101

Message Description and Distribution Method:

Using the Town's social media account, we were able to send general awareness messaging to the public. The intent is to familiarize the public with stormwater and how it relates to the places we like to swim, fish, boat etc.

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

1,078 people reached, 23 engagements, 5 likes, 1 comment, and 2 shares.

Message Date(s): April 9, 2021

Message Completed for: Appendix F Requirements ☒ Appendix H Requirements ☐

Was this message different than what was proposed in your NOI? Yes ◉ No ○

If yes, describe why the change was made:

General stormwater and MS4 education is planned to take place during community events so there can be a dialogue. However, the community events were canceled again this year due to the pandemic.

BMP: Landscape Management and Nutrient Education

Message Description and Distribution Method:

Social media post stated the following, "You can help conserve water and improve the Charles River water quality right in your own backyard! Did you know a lawn only needs 1 inch of water per week to stay green? Please remember a water ban in effect starting on May 1 (use a rain barrel to collect FREE stormwater). Also, apply fertilizers only as needed (especially phosphorus-based fertilizers.) Excess phosphorus is a significant issue in our Charles River Watershed. It causes algae blooms which removes oxygen from the water, killing fish and other wildlife. It can even be toxic to humans. The EPA issued a phosphorus removal requirement for the 36 towns in the watershed, and Medway is charged with removing 882 pounds per year! From a perspective, we are currently able to remove approximately 150 pounds per year. Do your part by applying only what you need, get your soils tested, and clean up fertilizers that spill on driveways and walkways." A link to the Think Blue Massachusetts campaign was included in the post as well.

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

1,910 people reached, 100 engagements, 18 likes, 2 comments, and 3 shares.

Message Date(s): April 15, 2021

Message Completed for: Appendix F Requirements ☒ Appendix H Requirements ☐

Was this message different than what was proposed in your NOI? Yes ◉ No ○

If yes, describe why the change was made:

Although the messaging is similar to what was proposed in the NOI, we have since learned more about the nutrient removal requirements, and therefore, the Town wanted to align this important messaging as part of a larger Earth Month education campaign. Also, we wanted to show how proper lawn maintenance covers a variety of issues including water conservation and water quality.

BMP: Businesses Best Management Practices

Message Description and Distribution Method:

Using the Town's social media platform, we posted the following, The Medway DPW would like to remind business owners that they play an important role in keeping our waterways clean and healthy! Follow these tips to reduce polluted runoff, prevent flooding, and make a good impression with your customers." We included a link to the Think Blue Massachusetts site as well as an image demonstrating what to do and what not to do.

Targeted Audience: Businesses, institutions and commercial facilities

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

1,154 people reached, 19 engagements, and 3 likes.

Message Date(s): June 10, 2021

Message Completed for: Appendix F Requirements ☒ Appendix H Requirements ☐

Was this message different than what was proposed in your NOI? Yes ◉ No ○

If yes, describe why the change was made:

The message doesn't differ from what was proposed in the NOI; however, in Year 4 we will send out brochures to all businesses in Town with a more targeted outreach effort.

BMP:Pet Waste Management

Message Description and Distribution Method:

Messages posted on Town's social media account, "Did you know there are over 1500 licensed dogs in Medway? Each of these dogs produces about ¾ pound of solid waste and over 7 billion bacteria daily. Bacteria and other parasites found in pet waste, such as Giardia and Cryptosporidium, can survive for long periods when left on the ground. During a rainstorm, these pollutants can be washed into local rivers and ponds! So scoop the poop…it's the right thing to do!" A link to the Think Blue Massachusetts page was also included in the post.

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

13,743 people reached, 1,067 engagements, 71 likes, 2 comments, and 15 shares.

Message Date(s): June 14, 2021. June 21, 2021. June 28, 2021.

Message Completed for: Appendix F Requirements ☐ Appendix H Requirements ☒

Was this message different than what was proposed in your NOI? Yes ◉ No ○

If yes, describe why the change was made:

The message did not change but the distribution method did. This was our most successful outreach messaging of the reporting year.

Add an Educational Message

MCM2: Public Participation

Describe the opportunity provided for public involvement in the development of the Stormwater Management Program (SWMP) **during this reporting period**:

On the Town's Stormwater Management web page, there is a link for the public to leave comments on the Stormwater Management Program. They may also report a violation if they see it. This opportunity is available for residents 24/7.

Was this opportunity different than what was proposed in your NOI? Yes ○ No ◉

Describe any other public involvement or participation opportunities conducted **during this reporting period**:

During this reporting period, the Town participated in the Charles River Watershed Flood Model project. There were several opportunities for the public to comment on how stormwater is managed within the Town. Also, the Town is currently updating its Master Plan, and there have been numerous opportunities for residents to comment stormwater management in Town.

MCM3: Illicit Discharge Detection and Elimination (IDDE)

Sanitary Sewer Overflows (SSOs)

Check off the box below if the statement is true.

☐ This SSO section is NOT applicable because we DO NOT have sanitary sewer

*Below, report on the number of SSOs identified in the MS4 system and removed **during this reporting period**.*

Number of SSOs identified: 0

Number of SSOs removed: 0

MS4 System Mapping

Optional: Provide additional status information regarding your map:

The DPW completed its stormwater mapping requirement during Year 3. All interconnections are mapped,

catchment area delineations for all outfalls and catch basin is complete and mapped, and all known BMPs have been mapped. During this process, we corrected any errors in our culvert, manhole, catch basin, outfall and drain pipe classifications.

Screening of Outfalls/Interconnections

If conducted, please submit any outfall monitoring results from this reporting period. Outfall monitoring results should include the date, outfall/interconnection identifier, location, weather conditions at time of sampling, precipitation in previous 48 hours, field screening parameter results, and results from all analyses. Please also include the updated inventory and ranking of outfalls/interconnections based on monitoring results.

- ○ No outfalls were inspected
- ◉ The outfall screening data is attached to the email submission
- ○ The outfall screening data can be found at the following website:

*Below, report on the number of outfalls/interconnections screened **during this reporting period**.*

Number of outfalls screened: 468

*Below, report on the percent of outfalls/interconnections screened **to date**.*

Percent of outfalls screened: 100

Optional: Provide additional information regarding your outfall/interconnection screening:

Catchment Investigations

If conducted, please submit all data collected during this reporting period as part of the dry and wet weather investigations. Also include the presence or absence of System Vulnerability Factors for each catchment.

- ○ No catchment investigations were conducted
- ◉ The catchment investigation data is attached to the email submission
- ○ The catchment investigation data can be found at the following website:

*Below, report on the number of catchment investigations completed **during this reporting period**.*

Number of catchment investigations completed this reporting period: 8

*Below, report on the percent of catchments investigated **to date.***

Percent of total catchments investigated: 2

Optional: Provide any additional information for clarity regarding the catchment investigations below:

All of the outfalls have been inspected. When there was flow present the DPW took a sample and tested for chlorine, ammonia, conductivity, salinity, pH, temperature, detergent, total phosphorus and E.coli. Phosphorus and E.coli samples were assessed a laboratory and based upon the results, we would determine if a catchment

area investigation was needed. If the results were within the allowable limit as defined by the Massachusetts Surface Water Quality Standards, then DPW did not conduct an investigation, if they exceeded the limits we looked at plans, septic pump out records, sewer connections, land use etc to try and identify a cause and or a source. We conducted additional sampling and used a camera to rule out cross connections. Catchment area investigations for results that detected detergent are planned for Year 4.

IDDE Progress

If illicit discharges were found, please submit a document describing work conducted over this reporting period, and cumulative to date, including location source; description of the discharge; method of discovery; date of discovery; and date of elimination, mitigation, or enforcement OR planned corrective measures and schedule of removal.

- ○ No illicit discharges were found
- ◉ The illicit discharge removal report is attached to the email submission
- ○ The illicit discharge removal report can be found at the following website:

*Below, report on the number of illicit discharges identified and removed, along with the volume of sewage removed **during this reporting period.***

Number of illicit discharges identified: 18

Number of illicit discharges removed: 2

Estimated volume of sewage removed: 0 gallons/day

*Below, report on the total number of illicit discharges identified and removed to date. At a minimum, report on the number of illicit discharges identified and removed **since the effective date of the permit (July 1, 2018)**.*

Total number of illicit discharges identified: 19

Total number of illicit discharges removed: 2

Optional: Provide any additional information for clarity regarding illicit discharges identified, removed, or planned to be removed below:

Explanations are included in the IDDE report and included in the catchment area discussion above.

Employee Training

Describe the frequency and type of employee training conducted **during this reporting period**:

The DPW field staff who implement the IDDE program watched the "Illicit Discharge Detection & Elimination (IDDE) (Module 1): MS4 Permit Compliance Workshop" video as a refresher. They also watched "Finding & Fixing Hidden Sources of Water Pollution: Illicit Discharge Detection & Elimination" video. They also watched information videos on cyanobacteria. The DPW staff was trained on the SWPPP on June 29, 2021.

MCM4: Construction Site Stormwater Runoff Control

Below, report on the construction site plan reviews, inspections, and enforcement actions completed ***during this reporting period****.*

Number of site plan reviews completed: 13

Number of inspections completed: 156

Number of enforcement actions taken: 6

Optional: Enter any additional information relevant to construction site plan reviews, inspections, and enforcement actions:

MCM5: Post-Construction Stormwater Management in New Development and Redevelopment

As-built Drawings

Below, report on the number of as-built drawings received ***during this reporting period****.*

Number of as-built drawings received: 0

Optional: Enter any additional information relevant to the submission of as-built drawings:

No projects have been completed during this reporting year.

Street Design and Parking Lots Report

Describe the status of the street design and parking lots assessment due in year 4 of the permit term, including any planned or completed changes to local regulations and guidelines:

DPW Compliance Coordinator is beginning the review process.

Green Infrastructure Report

Describe the status of the green infrastructure report due in year 4 of the permit term, including the findings and progress towards making the practice allowable:

DPW compliance coordinator is beginning the review process.

Retrofit Properties Inventory

Describe the status of the inventory, due in year 4 of the permit term, of permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas and report on any properties that have been modified or retrofitted:

This item is completed. The Town secured funding to design BMPs at two of the locations identified in the plan.

MCM6: Good Housekeeping

Catch Basin Cleaning

Below, report on the number of catch basins inspected and cleaned, along with the total volume of material removed from the catch basins ***during this reporting period****.*

Number of catch basins inspected: 2,140

Number of catch basins cleaned: 2,140

Total volume or mass of material removed from all catch basins: 153 tons

Below, report on the total number of catch basins in the MS4 system.

Total number of catch basins: 2,598

If applicable:

Report on the actions taken if a catch basin sump is more than 50% full during two consecutive routine inspections/cleaning events:

Street Sweeping

Report on street sweeping completed ***during this reporting period*** *using one of the three metrics below.*

- (•) Number of miles cleaned: 177
- ( ) Volume of material removed: [Select Units]
- ( ) Weight of material removed: [Select Units]

Stormwater Pollution Prevention Plan (SWPPP)

Below, report on the number of site inspections for facilities that require a SWPPP completed ***during this reporting period****.*

Number of site inspections completed: 2

Describe any corrective actions taken at a facility with a SWPPP:

N/A

Additional Information

Monitoring or Study Results

Results from any other stormwater or receiving water quality monitoring or studies conducted during the reporting period not otherwise mentioned above, where the data is being used to inform permit compliance or permit effectiveness must be attached.

- (•) Not applicable
- ( ) The results from additional reports or studies are attached to the email submission
- ( ) The results from additional reports or studies can be found at the following website(s):

If such monitoring or studies were conducted on your behalf or if monitoring or studies conducted by other entities were reported to you, a brief description of the type of information gathered or received shall be described below:

Additional Information

Optional: Enter any additional information relevant to your stormwater management program implementation during the reporting period. Include any BMP modifications made by the MS4 if not already discussed above:

COVID-19 Impacts

Optional: If any of the above year 3 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

Impacts from COVID-19 are listed above in their corresponding sections.

Activities Planned for Next Reporting Period

Please confirm that your SWMP has been, or will be, updated to comply with all applicable permit requirements including but not limited to the year 4 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree ☒

- Develop a report assessing current street design and parking lot guidelines and other local requirements within the municipality that affect the creation of impervious cover
- Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist
- Identify a minimum of 5 permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious areas

Annual Requirements

- Annual report submitted and available to the public
- Annual opportunity for public participation in review and implementation of SWMP
- Keep records relating to the permit available for 5 years and make available to the public
- Properly store and dispose of catch basin cleanings and street sweepings so they do not discharge to receiving waters
- Annual training to employees involved in IDDE program
- Update inventory of all known locations where SSOs have discharged to the MS4
- Continue public education and outreach program
- Update outfall and interconnection inventory and priority ranking and include data collected in connection with the dry weather screening and other relevant inspections conducted
- Implement IDDE program
- Review site plans of construction sites as part of the construction stormwater runoff control program
- Conduct site inspection of construction sites as necessary
- Inspect and maintain stormwater treatment structures
- Log catch basins cleaned or inspected
- Sweep all curbed streets at least annually
- Continue investigations of catchments associated with Problem Outfalls
- Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities

- Review inventory of all permittee owned facilities in the categories of parks and open space, buildings and facilities, and vehicles and equipment; update if necessary
- Review O&M programs for all permittee owned facilities; update if necessary
- Implement all maintenance procedures for permittee owned facilities in accordance with O&M programs
- Implement program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- Enclose all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt
- Review as-built drawings for new and redevelopment to ensure compliance with post construction bylaws, regulations, or regulatory mechanism consistent with permit requirements
- Inspect all permittee owned treatment structures (excluding catch basins)

Provide any additional details on activities planned for permit year 4 below:

1. Green Infrastructure Report
2. Street and Parking Lot Report
3. Continue to develop the Phosphorus Control Plan using the CRWA template.
4. Education targeted towards Businesses, Developers, and Industries.
5. Septic system maintenance information distributed to septic owners. (Efforts began in September 2021).
6. Pet waste information distributed at time of license issuance or renewal. (Feature enabled in August 2021 and will also show at time of license renewal.)
7. BMP maintenance assessment, cost analysis, and maintenance action plan for town owned structures.
8. Outreach about phosphorus and nutrients in the Charles River.
9. Combine multiple educational initiatives including stormwater management, water conservation, green infrastructure and climate change.
10. Update outfall/interconnection priority ranking based on the information collected during the dry weather inspections.
11. Update O&M procedures for permittee owned facilities.
12. Follow-up IDDE inspections and stormwater sampling.
13. Finalize the MS4CD Permit.

Part V: Certification of Small MS4 Annual Report 2021

40 CFR 144.32(d) Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Title:

Signature: Date:

[Signatory may be a duly authorized representative]

Part V: Certification of Small MS4 Annual Report 2021

40 CFR 144.32(d) Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Michael E. Boynton Title: Town Manage

Signature: Date: 9.22.21

[Signatory may be a duly authorized representative]

Attachment 1
BMP Tracking Report

State	MASSACHUSETTS
Town	MEDWAY
Permit Type	MS4
Permit Number	MAR041132
Major Watershed	CHARLES
TP Load Reduction Target	N/A
TN Load Reduction Target	N/A
TSS Load Reduction Target	N/A

Table 1. Project Summary Credit for MEDWAY, MASSACHUSETTS

Project Type	Removed Phosphorus Load (lb/yr)	Removed Nitrogen Load (lb/yr)	Removed Sediment Load (lb/yr)
Structural	93.14	848.3	50148.78
Non-Structural	0	0	0
Land Use Conversion	0	0	0
Total	93.14	848.3	50148.78

Table 2. Structural Project Summary for MEDWAY, MASSACHUSETTS

Project ID	BMP Type	BMP Storage Capacity (ft^3)/ Filter Depth (in.)	Phosphorus BMP Efficiency (%)	Nitrogen BMP Efficiency (%)	Sediment BMP Efficiency (%)	Removed Phosphorus Load (lb/yr)	Removed Nitrogen Load (lb/yr)	Removed Sediment Load (lb/yr)	Impervious Area Treated (ac)	Runoff Depth (in.)
BMP-10-1	EXTENDED DRY DETENTION POND	20232	10.96	11.21	43.92	1.26	11.97	1440.16	7	0.72
BMP-12-2	EXTENDED DRY DETENTION POND	1363	6.5	3.61	32.76	0.18	0.93	252.98	1.5	0.21
BMP-13-1	BIORETENTION	93	1.79	1.15	5.64	0.06	0.35	52.8	2	0.01
BMP-15-1	EXTENDED DRY DETENTION POND	1371	6.91	4.17	34.17	0.16	0.9	221.53	1.3	0.24
BMP-15-2	EXTENDED DRY DETENTION POND	974	3.58	1.69	20.5	0	0	0	2.25	0.12
BMP-16-1	EXTENDED DRY DETENTION POND	298	0.25	0.12	1.48	0.04	0.18	69.21	10	0.01
BMP-18-1	BIORETENTION	3700	23.39	14.97	65.33	2.33	14.11	1849.75	5.5	0.16
BMP-19-1	BIORETENTION	1422	36.5	22.71	90.09	0.66	3.89	463.78	1	0.34

BMP-19-2	BIORETENTION	348	8.95	5.75	28.12	0.24	1.48	217.15	1.5	0.06
BMP-19-3	EXTENDED DRY DETENTION POND	625	2.3	1.07	13.77	0.09	0.41	159.54	2.25	0.08
BMP-19-4	EXTENDED DRY DETENTION POND	733	4.04	1.92	22.5	0.11	0.49	173.75	1.5	0.13
BMP-19-5	EXTENDED DRY DETENTION POND	584	3.02	1.41	18.07	0.09	0.39	148.85	1.6	0.1
BMP-20-1	INFILTRATION BASIN	489	2.17	3.12	3.54	1.1	11.42	402.62	25.5	0.01
BMP-20-2	INFILTRATION BASIN	65	0.29	0.41	0.47	0.15	1.52	53.52	25.5	0
BMP-20-3	INFILTRATION BASIN	65	0.29	0.41	0.47	0.15	1.52	53.52	25.5	0
BMP-20-4	BIORETENTION	1000	3.86	2.48	12.12	0.63	3.78	567.75	10	0.03
BMP-21-1	EXTENDED DRY DETENTION POND	82	1.36	0.63	8.13	0.01	0.05	18.14	0.5	0.05
BMP-21-2	INFILTRATION BASIN	65	0.29	0.41	0.47	0.15	1.52	53.52	25.5	0
BMP-21-3	INFILTRATION BASIN	65	0.29	0.41	0.47	0.15	1.52	53.52	25.5	0

BMP-21-4	EXTENDED DRY DETENTION POND	2594	6.86	4.1	34	0.28	1.57	398.18	2.5	0.29
BMP-22-1	EXTENDED DRY DETENTION POND	242	2	0.93	12	0.04	0.16	61.77	1	0.07
BMP-22-2	EXTENDED DRY DETENTION POND	5597	13.08	19.11	47.17	0.23	2.63	334.55	1	1.22
BMP-22-3	INFILTRATION BASIN	3000	67.93	82.66	94.75	4.42	40.94	1417.71	3	0.23
BMP-23-2	EXTENDED DRY DETENTION POND	2172	7.72	5.3	37.01	0.21	1.41	297.15	1.61	0.32
BMP-27-1	EXTENDED DRY DETENTION POND	14204	6.37	3.43	32.3	1.72	7.06	3618.49	16.5	0.24
BMP-27-2	EXTENDED DRY DETENTION POND	41025	14	23.13	49	0.23	3.53	229.51	1	10.76
BMP-29-3	EXTENDED DRY DETENTION POND	3272	1.06	0.5	6.36	0.54	2.21	709.3	25.5	0.04
BMP-3-1	EXTENDED DRY DETENTION POND	8019	13.98	23.06	48.97	0.23	3.52	229.35	1	1.75

BMP-3-2	EXTENDED DRY DETENTION POND	1166	2.35	1.1	14.1	0.16	0.69	270.81	4.1	0.08
BMP-32-1	EXTENDED DRY DETENTION POND	2560	3.39	1.6	19.67	0.33	1.43	548.38	6.25	0.11
BMP-33-1	EXTENDED DRY DETENTION POND	7500	9.26	8.91	40.52	0.55	4.51	514.2	3.3	0.63
BMP-33-2	EXTENDED DRY DETENTION POND	563	0.47	0.22	2.79	0.09	0.35	113.58	10	0.02
BMP-33-3	EXTENDED DRY DETENTION POND	4115	3.4	1.6	19.74	0.65	2.6	802.96	10	0.11
BMP-33-4	EXTENDED DRY DETENTION POND	2912	2.41	1.12	14.44	0.46	1.83	587.45	10	0.08
BMP-36-1	EXTENDED DRY DETENTION POND	15000	13.08	19.1	47.16	0.54	7.29	552.27	2.5	1.39
BMP-39-1	INFILTRATION TRENCH	1572	28.12	61.96	45.46	6.81	61.65	1575.8	4.1	0.11
BMP-40-1	EXTENDED DRY DETENTION POND	8021	11.6	12.17	45.21	0.5	4.48	417.2	2.4	0.86

BMP-40-2	BIORETENTION	802	25.05	16.03	69.09	0.5	3.02	391.26	1.1	0.18
BMP-40-3	EXTENDED DRY DETENTION POND	10661	12.35	14.85	46.35	0.64	6.72	525.17	2.5	0.94
BMP-4-1	EXTENDED DRY DETENTION POND	664	3.66	1.73	20.85	0.09	0.4	146.51	1.5	0.12
BMP-41-1	BIORETENTION	10695	30.68	19.31	79.41	5.83	31.36	3230.6	10	0.29
BMP-41-2	BIORETENTION	57774	63	40	100	7.18	38.98	2440.98	6	2.11
BMP-4-2	EXTENDED DRY DETENTION POND	1398	6.57	3.7	32.99	0.16	0.85	231.76	1.5	0.26
BMP-42-2	INFILTRATION TRENCH	143	1.42	3.2	2.31	0.16	2.79	113.82	7.5	0.01
BMP-44-1	EXTENDED DRY DETENTION POND	11250	12.47	15.59	46.47	0.49	5.71	522.42	2.4	1.12
BMP-45-1	EXTENDED DRY DETENTION POND	2486	6.17	3.15	31.61	0.32	1.52	466.37	3.15	0.22
BMP-45-2	INFILTRATION BASIN	2088	69.2	83.57	94.88	2.27	25.51	888.78	2	0.29
BMP-46-1	INFILTRATION TRENCH	66	3.78	8.53	6.15	0.09	1.8	32.55	1.3	0.01

BMP-46-2	INFILTRATION BASIN	1030	61.92	78.37	94.18	1.53	16.55	498.11	1.3	0.22
BMP-46-3	INFILTRATION BASIN	454	65.26	80.76	94.5	0.54	6.16	221.32	0.5	0.25
BMP-46-4	EXTENDED DRY DETENTION POND	14640	13.02	18.8	47.03	0.53	7.17	550.71	2.5	1.37
BMP-47-1	EXTENDED DRY DETENTION POND	1546	5.11	2.46	27.15	0.21	0.77	460.78	2.5	0.17
BMP-47-2	EXTENDED DRY DETENTION POND	349	1.92	0.9	11.54	0.05	0.21	81.06	1.5	0.06
BMP-47-3	EXTENDED DRY DETENTION POND	622	4.11	1.96	22.82	0.08	0.37	133.61	1.25	0.14
BMP-47-4	INFILTRATION BASIN	4534	96.2	99	100	0.91	8.04	203.42	0.5	1.95
BMP-47-5	INFILTRATION BASIN	10844	96.2	99	100	0.91	8.04	203.42	0.5	5.43
BMP-47-6	INFILTRATION BASIN	600	73.71	86.79	95.31	0.77	6.62	223.2	0.5	0.33
BMP-47-7	INFILTRATION BASIN	248	47.96	65.6	76.89	0.5	5	180.08	0.5	0.14

BMP-47-8	INFILTRATION BASIN	248	47.96	65.6	76.89	0.5	5	180.08	0.5	0.14
BMP-47-9	INFILTRATION BASIN	105	23.72	34.13	38.76	0.25	2.6	90.77	0.5	0.06
BMP-48-1	EXTENDED DRY DETENTION POND	72	0.37	0.17	2.23	0.01	0.04	16.72	1.6	0.01
BMP-48-2	EXTENDED DRY DETENTION POND	18550	14	23.13	49	0.37	4.62	532.3	1.6	2.65
BMP-48-3	INFILTRATION BASIN	4000	91.77	96.89	99.44	2.41	23.66	745.25	1.6	0.63
BMP-48-4	INFILTRATION BASIN	2406	81.64	92.29	96.21	2.14	18.44	1045.19	1.6	0.41
BMP-48-5	EXTENDED DRY DETENTION POND	274	1.42	0.66	8.49	0.04	0.16	63.64	1.6	0.05
BMP-48-6	INFILTRATION BASIN	320	24.1	34.67	39.38	0.81	8.91	304.05	1.5	0.06
BMP-49-1	EXTENDED DRY DETENTION POND	1502	6.07	3.01	31.24	0.22	0.86	453.21	2	0.18
BMP-50-1	BIORETENTION	418	1.07	0.69	3.38	0.29	1.59	194.83	15	0.01

BMP-50-2	EXTENDED DRY DETENTION POND	250	0.14	0.06	0.83	0.04	0.15	47.67	15	0
BMP-54-3	INFILTRATION BASIN	2100	69.37	83.69	94.89	2.64	27.18	772.1	2	0.29
BMP-55-1	EXTENDED DRY DETENTION POND	92	0.11	0.05	0.66	0.01	0.05	20.35	6.9	0
BMP-55-2	BIORETENTION	262	27.44	17.42	73.46	0.13	0.75	98.32	0.3	0.24
BMP-56-2	EXTENDED DRY DETENTION POND	571	2.1	0.98	12.58	0.08	0.34	132.62	2.25	0.07
BMP-56-3	EXTENDED DRY DETENTION POND	33216	14	23.13	49	0.57	8.82	573.78	2.5	3.12
BMP-56-4	EXTENDED DRY DETENTION POND	34045	14	23.13	49	0.57	8.82	573.78	2.5	3.21
BMP-56-5	INFILTRATION BASIN	1305	76.75	88.96	95.6	1.39	13.66	367.59	1	0.36
BMP-56-6	ENHANCED BIORETENTION	181	9.47	15.96	21.94	0.17	2.45	84.36	1	0.05
BMP-57-2	EXTENDED DRY DETENTION POND	1010	8.78	7.93	39.56	0.07	0.61	92.66	0.5	0.52

BMP-57-3	INFILTRATION BASIN	1048	96.44	99.62	100	0.45	4.29	133.83	0.3	0.89
BMP-57-4	INFILTRATION BASIN	1048	92.44	97.22	99.61	0.57	5.59	177.74	0.4	0.68
BMP-57-5	INFILTRATION BASIN	1048	94.37	98.25	100	0.51	4.94	156.13	0.35	0.77
BMP-57-6	INFILTRATION BASIN	374	60.64	77.45	94.06	0.47	5.57	209.8	0.5	0.21
BMP-59-1	BIORETENTION	400	15	9.64	46.28	0.25	1.49	218.92	1.01	0.11
BMP-59-2	BIORETENTION	458	16.74	10.74	50.23	0.28	1.66	237.63	1.01	0.12
BMP-59-3	BIORETENTION	512	18.36	11.78	53.91	0.3	1.81	255.05	1.01	0.14
BMP-59-4	BIORETENTION	400	15	9.64	46.28	0.25	1.49	218.92	1.01	0.11
BMP-59-5	BIORETENTION	802	5.52	3.55	17.36	0.56	3.05	373.81	5.6	0.04
BMP-60-2	INFILTRATION BASIN	68	15.36	22.1	25.1	0.12	1.59	55.99	0.5	0.04
BMP-60-4	INFILTRATION BASIN	65	14.68	21.13	23.99	0.17	1.52	53.52	0.5	0.04
BMP-61-1	INFILTRATION BASIN	23	3.71	5.34	6.06	0.04	0.54	18.94	0.7	0.01
BMP-62-3	INFILTRATION BASIN	208	7.83	11.27	12.8	0.49	5.16	179.82	3	0.02
BMP-62-2	EXTENDED DRY DETENTION POND	1200	2.48	1.16	14.88	0.21	0.71	278.71	4	0.08

BMP-62-4	INFILTRATION BASIN	208	7.83	11.27	12.8	0.49	5.16	179.82	3	0.02
BMP-62-1	EXTENDED DRY DETENTION POND	534	0.45	0.21	2.73	0.09	0.31	124.03	9.7	0.02
BMP-62-5	INFILTRATION BASIN	417	15.7	22.59	25.66	0.98	10.34	360.51	3	0.04
BMP-62-6	INFILTRATION BASIN	417	15.7	22.59	25.66	0.98	10.34	360.51	3	0.04
BMP-62-7	INFILTRATION BASIN	208	7.83	11.27	12.8	0.49	5.16	179.82	3	0.02
BMP-63-1	EXTENDED DRY DETENTION POND	337	0.23	0.11	1.36	0.05	0.2	64.26	12.25	0.01
BMP-63-2	EXTENDED DRY DETENTION POND	1408	0.95	0.44	5.7	0.21	0.83	268.47	12.25	0.03
BMP-64-1	EXTENDED DRY DETENTION POND	1380	7.8	5.42	37.31	0.12	0.78	166.42	1	0.38
BMP-65-1	EXTENDED DRY DETENTION POND	3072	2.54	1.19	15.23	0.42	1.81	713.5	10	0.08
BMP-70-1	BIORETENTION	86	0.85	0.55	2.67	0.06	0.29	73.94	3.9	0.01

BMP-73-1	EXTENDED DRY DETENTION POND	2074	1.4	0.65	8.4	0.31	1.23	395.46	12.25	0.05
BMP-73-2	INFILTRATION BASIN	4910	47.7	65.35	76.52	8.63	100.31	2942.45	10	0.14
BMP-73-3	INFILTRATION BASIN	4910	47.7	65.35	76.52	8.63	100.31	2942.45	10	0.14
BMP-73-4	INFILTRATION BASIN	2455	27.73	39.9	45.31	5.02	61.25	1742.41	10	0.07

Table 3. Non-Structural Project Summary for MEDWAY, MASSACHUSETTS

There are no non-structural BMPs.

Table 4. Land Use Conversion Project Summary for MEDWAY, MASSACHUSETTS

There are no land use conversion projects.

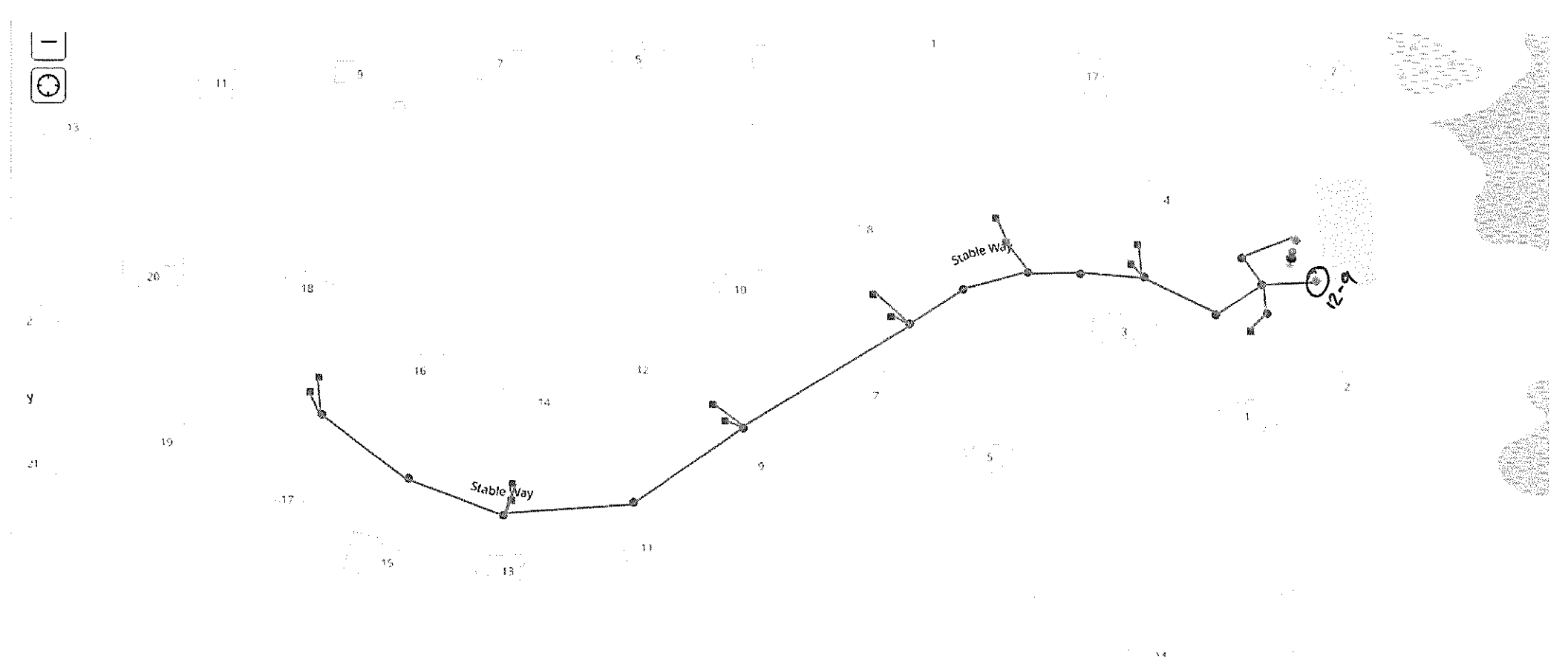
Attachment 2
Outfall Inspection Report

| Date | User | Asset Tag | Asset Description | Temperature (F) | Rainfall (in): Last 24 Hours | Rainfall (in): Last 48 hours | Land Use in Drainage Area (check all that apply) | Outfall De | Type | Material | Outfall sh | Count | Diameter | Submerge | Submerge | FLOW | Flow Prese | Flow Desc | Flow Dires | Physical In | Odor? | Odor Seve | Odor Desc | Odor Desc | Color? | Color Seve | Color Desc | Color Desc | Turbidity? | Turbidity : | Floatables | Floatables | Floatables | Floatables | Physical Ir | Outfall Da | Outfall Da | Outfall Da | Deposit St | Deposit/Si | Deposit/Si | Abnormal | Abnormal | Abnormal | Poor Pool | Poor Pool | Poor Pool | Pipe Bentl | Pipe Bentl | Pipe Bentl | Potential I | Potential I | Any Non-i | Outfall Ph | Comment | Stormwat | Water Ter | pH | Conductiv | Salinity (p | Detergent | Chlorine (| Ammonia | E. Coli (MI | Phosphorus (mg/L) |
|---|---|---

2021-01-20 1:15:17 PM	NOLAN LYNCH	OF-27-2	Outfall - OF-27-2	32	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	No	No	No														No												Unlikely										
2021-01-20 1:15:45 PM	NOLAN LYNCH	OF-28-4	Outfall - OF-28-4	32	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Fully	Fully	Yes	Trickle		Yes		Yes	1 - Faint C	Orange							No												Unlikely		44.6	6.3	349	.2	.75	0	.25	<10	<.02
2021-01-19 1:00:38 PM	NOLAN LYNCH	OF-47-11	Outfall - OF-47-11	38	0	0	Commercial	Closed Pip	HDPE	Circular	2 Single	12	No	No	No														No												Unlikely										
2021-01-19 1:00:44 PM	NOLAN LYNCH	OF-48-18	Outfall - OF-48-18	38	0	0	Commercial	Closed Pip	HDPE	Circular	2 Single	12	No	No	No														No												Unlikely										
2021-01-19 1:00:11 PM	NOLAN LYNCH	OF-48-17	Outfall - OF-48-17	38	0	0	Commercial	Closed Pip	HDPE	Circular	2 Single	12	Partially	No	No														No												Unlikely										
2021-01-20 1:00:30 PM	NOLAN LYNCH	OF-47-7	Outfall - OF-47-7	38	0	0	Suburban Residential	Closed Pip	Steel	Circular	2 Single	12	No	Fully	No														No												Unlikely										
2021-01-19 1:00:18 PM	NOLAN LYNCH	OF-47-6	Outfall - OF-47-6	38	0	0	Suburban Residential	Closed Pip	Other	Circular	2 Single	6	Partially	No	No														No												Unlikely										
2021-01-19 1:15:47 PM	NOLAN LYNCH	OF-47-5	Outfall - OF-47-5	38	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	Partially	No														No												Unlikely										
2021-01-19 1:00:49 PM	NOLAN LYNCH	OF-47-2	Outfall - OF-47-2	38	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	16	No	No	No														No												Unlikely										
2021-01-19 1:00:59 PM	NOLAN LYNCH	OF-47-1	Outfall - OF-47-1	38	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No														Yes	Yes	Other			Yes	Excessive	brush from homeowners blocking pipe					Unlikely										
2021-01-19 1:00:30 PM	NOLAN LYNCH	OF-47-8	Outfall - OF-47-8	38	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	Partially	No														No												Unlikely										
2021-01-19 12:45:17 PM	NOLAN LYNCH	OF-46-4	Outfall - OF-46-4	38	0	0	Suburban Residential	Closed Pip	RCP	Other	2 Single	4	No	No	No														No												Unlikely										
2021-01-19 1:10:45 PM	NOLAN LYNCH	OF-3-5	Outfall - OF-3-5	36	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No														No												Unlikely										
2021-01-19 1:21:58 PM	NOLAN LYNCH	OF-2-1	Outfall - OF-2-1	42	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No														No												Unlikely										
2021-01-19 1:39:32 PM	NOLAN LYNCH	OF-39-3	Outfall - OF-39-3	42	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No														No												Unlikely										
2021-01-19 1:42:58 PM	NOLAN LYNCH	OF-39-4	Outfall - OF-39-4	42	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	No	No	No														No												Unlikely										
2021-01-19 1:50:42 PM	NOLAN LYNCH	OF-39-16	Outfall - OF-39-16	42	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	15	No	No	No														No												Unlikely										
2021-01-19 2:02:08 PM	NOLAN LYNCH	OF-46-2	Outfall - OF-46-2	42	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	16	No	Partially	No														No												Unlikely										
2021-01-19 2:11:38 PM	NOLAN LYNCH	OF-56-5	Outfall - OF-56-5	42	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	16	Partially	Partially	No														No												Unlikely										
2021-01-19 2:30:45 PM	NOLAN LYNCH	OF-56-1	Outfall - OF-56-1	42	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	Partially	No	No														No												Unlikely										
2021-01-19 8:38:22 AM	NOLAN LYNCH	OF-57-6	Outfall - OF-57-6	31	0	0	Suburban Residential	Closed Pip	Steel	Circular	2 Single	12	No	No	No														No												Unlikely										
2021-01-19 9:35:37 AM	NOLAN LYNCH	OF-2-3	Outfall - OF-2-3	36	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	Partially	No														No												Unlikely										
2021-01-19 9:44:39 AM	NOLAN LYNCH	OF-2-2	Outfall - OF-2-2	36	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	16	No	No	No														No												Unlikely										
2021-01-19 9:50:55 AM	NOLAN LYNCH	OF-2-4	Outfall - OF-2-4	36	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	16	Partially	No	No														No												Unlikely										
2021-01-19 9:59:28 AM	NOLAN LYNCH	OF-7-2	Outfall - OF-7-2	36	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	Fully	No	No														No												Unlikely										
2021-01-19 10:12:29 AM	NOLAN LYNCH	OF-7-3	Outfall - OF-7-3	36	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No														No												Unlikely										
2021-01-19 10:39:30 AM	NOLAN LYNCH	OF-13-4	Outfall - OF-13-4	36	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No														No												Unlikely										
2021-01-19 10:45:34 AM	NOLAN LYNCH	OF-20-1	Outfall - OF-20-1	36	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	No	No	No														No												Unlikely										
2021-01-19 11:04:57 AM	NOLAN LYNCH	OF-14-3	Outfall - OF-14-3	36	0	0	Suburban Residential	Closed Pip	PVC	Circular	2 Single	10	No	Partially	No														No												Unlikely										
2021-01-15 1:05:32 PM	NOLAN LYNCH	OF-39-11	Outfall - OF-39-11	43	0.09	0.09	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	18	Fully	No	No														Yes					Yes	Inhibited						Unlikely										
2021-01-15 1:08:51 PM	NOLAN LYNCH	OF-39-12	Outfall - OF-39-12	43	0.09	0.09	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	Partially	No	No														Yes					Yes	Inhibited						Unlikely										
2021-01-15 1:13:15 PM	NOLAN LYNCH	OF-39-13	Outfall - OF-39-13	45	0.09	0.09	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	18	No	No	No														Yes					Yes	Inhibited	overgrown retention					Unlikely										
2021-01-15 1:28:13 PM	NOLAN LYNCH	OF-39-14	Outfall - OF-39-14	45	0.09	0.09	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	Partially	No														Yes					Yes	Inhibited						Unlikely										
2021-01-15 1:39:26 PM	NOLAN LYNCH	OF-39-10	Outfall - OF-39-10	45	0.09	0.09	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	Partially	No														Yes					Yes	Inhibited		Yes	Other			Unlikely										
2021-01-15 1:50:52 PM	NOLAN LYNCH	OF-39-9	Outfall - OF-39-9	45	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	Partially	No	No														Yes					Yes	Inhibited	water path needs to be drudged					Unlikely										
2021-01-15 2:00:51 PM	NOLAN LYNCH	OF-39-8	Outfall - OF-39-8	45	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	No														No												Unlikely										
2021-01-21 10:00:22 AM	NOLAN LYNCH	OF-6-10	Outfall - OF-6-10	27	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	Partially	No	No														No												Unlikely										
2021-01-21 10:19:57 AM	NOLAN LYNCH	OF-6-8	Outfall - OF-6-8	27	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	Partially	Partially	No														No												Unlikely										
2021-01-21 10:43:46 AM	NOLAN LYNCH	OF-44-1	Outfall - OF-44-1	28	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	Fully	No	No														No												Unlikely										
2021-01-21 11:00:08 AM	NOLAN LYNCH	OF-45-8	Outfall - OF-45-8	28	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	No	No														No												Unlikely										
2021-01-21 1:45:41 PM	NOLAN LYNCH	OF-40-3	Outfall - OF-40-3	33	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	Partially	No														No												Unlikely										
2021-01-21 2:02:36 PM	NOLAN LYNCH	OF-40-6	Outfall - OF-40-6	33	0	0	Commercial	Closed Pip	HDPE	Circular	2 Single	12	Fully	No	No														No												Unlikely										
2021-01-21 2:10:13 PM	NOLAN LYNCH	OF-40-7	Outfall - OF-40-7	33	0	0	Commercial	Closed Pip	HDPE	Circular	2 Single	12	Partially	No	No														No												Unlikely										
2021-01-21 2:12:52 PM	NOLAN LYNCH	OF-40-5	Outfall - OF-40-5	33	0	0	Commercial	Closed Pip	HDPE	Circular	2 Single	12	Fully	No	No														No												Unlikely										
2021-01-21 2:18:08 PM	NOLAN LYNCH	OF-40-4	Outfall - OF-40-4	33	0	0	Commercial	Closed Pip	HDPE	Circular	2 Single	24	Partially	No	No														No												Unlikely										
2021-01-21 2:30:24 PM	NOLAN LYNCH	OF-31-4	Outfall - OF-31-4	33	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	Partially	No														No												Unlikely										
2021-03-08 11:00:15 AM	DPW Admin	OF-33-4	Outfall - OF-33-4	35	0	0	Commercial	Closed Pip	RCP	Circular	2 Single	16	Fully	No	No														No												Unlikely	9 CB									
2021-03-08 11:00:54 AM	DPW Admin	OF-33-1	Outfall - OF-33-1	35	0	0	Industrial	Closed Pip	RCP	Circular	2 Single	12	Partially	No	No														No												Unlikely	12CB+ Retention Inlet									
2021-03-08 10:57:01 AM	DPW Admin	OF-33-2	Outfall - OF-33-2	35	0	0	Industrial	Closed Pip	RCP	Circular	2 Single	24	No	Partially	No														No												Unlikely										
2021-03-08 10:10:27 AM	DPW Admin	OF-66-1	Outfall - OF-66-1	33	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	10	No	No	No														No												Unlikely	1 inlet									
2021-03-08 10:42:26 AM	DPW Admin	OF-54-1	Outfall - OF-54-1	33	0	0	Industrial	Closed Pip	RCP	Elliptical	2 Single	24	No	No	No														No												Unlikely	3CB + Roof drains									
2021-03-08 2:11:16 PM	DPW Admin	OF-12-5	Outfall - OF-12-5	44	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	No														No												Unlikely	2 CB									
2021-03-08 2:20:39 PM	DPW Admin	OF-12-1	Outfall - OF-12-1	43	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	15	No	No	No														No												Unlikely	Inlet from Retention									
2021-03-09 11:45:43 AM	DPW Admin	OF-7-1	Outfall - OF-7-1	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	Partially	Partially	No														Yes								Yes	Floatables	Trash Dumping		Unlikely	10 Cb + 3 Inlets									
2021-03-09 12:00:00 PM	DPW Admin	OF-3-1	Outfall - OF-3-1	45	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	36	Partially	Partially	No														No												Unlikely	12 CB									
2021-03-09 11:35:07 AM	DPW Admin	OF-3-4	Outfall - OF-3-4	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	36	No	No	No														Yes	Yes	Other										Unlikely	16 CB									
2021-03-09 8:46:50 AM	DPW Admin	OF-47-4	Outfall - OF-47-4	46	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Fully	No	No														No												Unlikely	2 CB									
2021-03-09 1:15:30 PM	DPW Admin	OF-10-1	Outfall - OF-10-1	50	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	No	No														No												Unlikely	10CB-1 INLET									
2021-03-09 2:05:34 PM	DPW Admin	OF-22-18	Outfall - OF-22-18	50	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	Partially	No	No														No												Unlikely	9 CB									
2021-03-09 1:00:54 PM	DPW Admin	OF-9-3	Outfall - OF-9-3	45	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	Fully	No														No												Unlikely	2 CB									
2021-03-09 1:00:00 PM	DPW Admin	OF-9-4	Outfall - OF-9-4	50	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No														No												Unlikely	2 CB									
2021-03-09 1:15:45 PM	DPW Admin	OF-4-4	Outfall - OF-4-4	50	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	16	Partially	Partially	No														No												Unlikely	1 CB									
2021-03-09 1:35:04 PM	DPW Admin	OF-67-4	Outfall - OF-67-4	63	0	0	Suburban Residential	Closed Pip	Steel	Circular	1 Double	6	No	No	No														No												Unlikely										
2021-03-09 2:40:49 PM	DPW Admin	OF-67-5	Outfall - OF-67-5	63	0	0	Suburban Residential	Closed Pip	Steel	Circular	2 Single	12	No	No	No														No												Unlikely	surface Water									
2021-03-16 10:00:54 AM	DPW Admin	OF-33-6	Outfall - OF-33-6	25	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	24	No	No	No																										Unlikely	11 CB									
2021-03-16 10:00:06 AM	DPW Admin	OF-32-4	Outfall - OF-32-4	30	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	18	No	No	No																										Unlikely	2 CB									
2021-03-16 9:30:01 PM	DPW Admin	OF-39-7	Outfall - OF-39-7	25	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	18	No	No	No														No												Unlikely										
2021-03-16 9:15:17 AM	DPW Admin	OF-21-2	Outfall - OF-21-2	25	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	Partially	No	No														No												Unlikely	27 CB + 2 Inlets									
2021-03-16 8:45:43 AM	DPW Admin	OF-9-2	Outfall - OF-9-2	25	0	0	Suburban Residential	Closed Pip	Steel	Circular	2 Single	12	No	Partially	No														No												Unlikely	1 Drop Inlet									
2021-03-16 9:30:18 AM	DPW Admin	OF-40-1	Outfall - OF-40-1	22	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	No	No														No												Unlikely	4 CB									
2021-03-17 9:00:32 AM	DPW Admin	OF-49-13	Outfall - OF-49-13	40	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	18	Partially	No	No														No												Unlikely	3 CB									
2021-03-17 9:00:32 AM	DPW Admin	OF-59-6	Outfall - OF-59-6	39	0	0	Open Space/Wooded|Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	36	Partially	No	No														No												Unlikely	Deep in woods 12 CB									
2021-03-17 10:30:17 AM	DPW Admin	OF-30-7	Outfall - OF-30-7	39	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No														No												Unlikely	1 CB									
2021-03-17 11:00:00 AM	DPW Admin	OF-42-6	Outfall - OF-42-6	39	0	0	Other	Closed Pip	PVC	Circular	2 Single	12	No	Partially	No														No												Unlikely	1 CB									
2021-03-22 9:40:52 AM	DPW Admin	OF-16-2	Outfall - OF-16-2	45	0	0	Suburban Residential	Closed Pip	Steel	Circular	2 Single	12	Partially	Partially	Yes	Trickle		No											No												Unlikely	8 CB	40.1	7.09	300	.10	.25	0	0	310	.04
2021-03-22 9:56:56 AM	DPW Admin	OF-10-5	Outfall - OF-10-5	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	Yes	Moderate		Yes							Yes	2 - Some;	Suds		No												Unlikely	5 CB	43.88	6.60	335	.10	.25	0	0	10	0
2021-03-22 10:12:26 AM	DPW Admin	OF-10-4	Outfall - OF-10-4	42	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	No	No	Yes	Moderate		Yes		Yes	1 - Faint C	Green							No												Unlikely	14 CB	43	7.49	845	.40	.25	0	0	<10	0
2021-03-22 10:45:40 AM	DPW Admin	OF-10-2	Outfall - OF-10-2	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	Partially	No	Yes	Moderate		No											No												Unlikely	8 CB+ Inlet	41	6.8	539	.2	.25	0	0	5	.02
2021-03-22 9:22:35 AM	DPW Admin	OF-23-4	Outfall - OF-23-4	40	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	No	Yes	Substantial		No											No												Unlikely	4 CB + 1 Inlet	43	6.5	619	.30	.25	0	0	<10	0
2021-03-22 9:04:27 AM	DPW Admin	OF-23-6	Outfall - OF-23-6	42	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	No	Yes	Substantia	East	No											No												Unlikely	2 CB	43	6.56	734	.30	.25	0	0	<10	0
2021-03-25 11:45:15 AM	DPW Admin	OF-32-1	Outfall - OF-32-1	38	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	No	No	Yes	Moderate		No											No												Unlikely	16 CB	39	7.84	652	.30	.25	0	0	<10	.04
2021-03-22 8:49:29 AM	DPW Admin	OF-32-2	Outfall - OF-32-2	40	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	Partially	No	Yes	Moderate	East	No											No												Unlikely	30 CB + 1 Inlet	47	6.58	678	.30	0	0	0	10	0
2021-03-22 11:00:50 AM	DPW Admin	OF-4-5	Outfall - OF-4-5	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	No	No	Yes	Moderate		No											No												Unlikely	7 CB + 2 Inlets	42	6.24	376	.20	0	0	0	<10	0
2021-03-22 10:28:49 AM	DPW Admin	OF-9-7	Outfall - OF-9-7	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	No	Yes	Trickle		No											No												Unlikely	2 CB + 1 Inlet	42	5.86	134.7	0	.25	0	0	<10	.03
2021-03-26 7:35:48 AM	NOLAN LYNCH	OF-42-2	Outfall - OF-42-2	55	0	0	Suburban Residential	Closed Pip	Steel	Circular	2 Single	12	No	No	No																										Unlikely										
2021-03-25 9:00:36 AM	NOLAN LYNCH	OF-60-1	Outfall - OF-60-1	50	0	0	Suburban Residential	Closed Pip	Steel	Circular	2 Single	12	No	No	No																										Unlikely										
2021-03-30 3:00:14 PM	NOLAN LYNCH	OF-58-4	Outfall - OF-58-4	58	0	0	Suburban Residential	Closed Pip	Steel	Circular	2 Single	12	No	No	No														No												Unlikely										
2021-04-06 8:30:46 AM	DPW Admin	OF-37-2	Outfall - OF-37-2	40	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	Partially	No														Yes					Yes	Excessive	Excessive Vegatation around outfall area hard to get too.					Unlikely	1 CB									
2021-04-06 8:30:48 AM	DPW Admin	OF-37-4	Outfall - OF-37-4	40	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	Fully	No	No														No												Unlikely	4 CB									
2021-04-06 8:45:38 AM	DPW Admin	OF-28-7	Outfall - OF-28-7	42	0	0	Suburban Residential	Closed Pip	Other	Circular	2 Single	15	Partially	No	No														Yes					Yes	Inhibited	Hard to get to outfall					Unlikely	6 CB									
2021-04-06 9:15:59 AM	DPW Admin	OF-28-5	Outfall - OF-28-5	42	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	Partially	No	No														No												Unlikely	6 CB									
2021-04-06 9:50:09 AM	DPW Admin	OF-27-1	Outfall - OF-27-1	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	36	Partially	No	No														No												Unlikely	30 CB + 1 Inlet									
2021-04-06 8:30:12 AM	NOLAN LYNCH	OF-37-3	Outfall - OF-37-3	38	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	Partially	No	Yes	Moderate		No											Yes					Yes	Excessive						Unlikely	7 CB	49	6.9	598	.30	.75	0	.25	<10	.03
2021-04-06 9:30:16 AM	NOLAN LYNCH	OF-28-1	Outfall - OF-28-1	42	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	Partially	No	Yes	Moderate		No											No												Unlikely	19 CB	49.8	6.31	561	.2	2.0	0	0	<10	.32
2021-04-06 9:40:16 AM	NOLAN LYNCH	OF-27-5	Outfall - OF-27-5	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	No	No	Yes	Trickle		No											No												Unlikely	10 CB	51	6.24	530	.30	0	0	0	<10	0
2021-04-06 10:00:18 AM	NOLAN LYNCH	OF-18-1	Outfall - OF-18-1	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	Partially	No	Yes	Moderate		No											No												Unlikely	4 CB	53	6.35	942	.5	.25	0	0	<10	.02
2021-04-06 10:15:36 AM	NOLAN LYNCH	OF-19-2	Outfall - OF-19-2	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	Partially	No	Yes	Trickle		No											No												Unlikely	6 CB	52	6.23	386	.20	0	0	0	<10	.03
2021-04-06 10:30:16 AM	NOLAN LYNCH	OF-19-3	Outfall - OF-19-3	50	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	No	No	Yes	Moderate		No											No												Unlikely	14 CB	52	6.72	401	.20	.25	0	0	<10	.01
2021-04-06 10:45:12 AM	NOLAN LYNCH	OF-18-4	Outfall - OF-18-4	50	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	36	No	No	Yes	Moderate		No											No												Unlikely	17 CB	57	6.41	704	.30	.25	0	0	10	0
2021-04-06 11:10:41 AM	NOLAN LYNCH	OF-12-12	Outfall - OF-12-12	56	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	No	No	Yes	Moderate		No											No												Unlikely	13 CB	56	5.9	698	.40	.25	0	0	170	0
2021-04-06 11:10:14 AM	NOLAN LYNCH	OF-12-9	Outfall - OF-12-9	50	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	Yes	Moderate		No											No												Unlikely	13 CB	58	5.97	787	.4	.25	0	0	1630	0
2021-04-06 11:20:59 AM	NOLAN LYNCH	OF-12-7	Outfall - OF-12-7	55	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	18	No	No	Yes	Moderate		No											No												Unlikely	13 CB	58	6.1	703	.30	.25	0	0	<10	0
2021-04-06 11:33:49 AM	NOLAN LYNCH	OF-12-10	Outfall - OF-12-10	55	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	No	No	Yes	Moderate		No											No												Unlikely	8 CB	57.8	5.88	869	.40	.25	0	0	<10	.08
2021-04-06 11:45:58 AM	NOLAN LYNCH	OF-6-7	Outfall - OF-6-7	55	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	15	No	No	Yes	Moderate		No											No												Unlikely	7 CB + 1 Inlet	52	6.09	1170	.50	.25	0	0	1130	.11
2021-04-06 11:45:26 AM	NOLAN LYNCH	OF-6-4	Outfall - OF-6-4	55	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	No	No	Yes	Trickle		Yes							Yes	2 - Some;	Petroleum (oil sheen		Yes								Yes	Oil Sheen	HEAVY		Unlikely	5 CB	59	6.12	544	.30	.25	0	0	35	1.36
2021-04-06 1:00:18 PM	NOLAN LYNCH	OF-50-1	Outfall - OF-50-1	60	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	Yes	Trickle		No											No												Unlikely	19 CB + 1 Retention	55	6.60	1300	.60	.25	0	0	<10	.04
2021-04-06 1:40:01 PM	NOLAN LYNCH	OF-16-5	Outfall - OF-16-5	55	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	No	No	Yes	Trickle		No											No												Unlikely	15 CB + HIllview?	51	676	802	.30	.25	0	0	280	.02
2021-04-14 11:15:52 AM	NOLAN LYNCH	OF-64-1	Outfall - OF-64-1	55	0	0.02	Commercial	Closed Pip	HDPE	Circular	2 Single	12	No	No	No														No												Unlikely	4 CB									
2021-04-13 11:00:04 AM	NOLAN LYNCH	OF-69-1	Outfall - OF-69-1	53	0.02	0.02	Suburban Residential	Closed Pip	HDPE	Circular	2 Single	12	No	No	No														No												Unlikely	1 CB									
2021-04-13 10:30:25 AM	NOLAN LYNCH	OF-68-2	Outfall - OF-68-2	53	0.02	0.02	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No														No												Unlikely	12 CB									
2021-04-13 9:35:30 AM	NOLAN LYNCH	OF-61-1	Outfall - OF-61-1	53	0.02	0.02	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	No	No	No														No												Unlikely	16 CB									
2021-04-13 9:30:12 AM	NOLAN LYNCH	OF-72-2	Outfall - OF-72-2	54	0.02	0.02	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	No	No	No														No												Unlikely	16 CB + 1 inlet									
2021-04-13 9:00:33 AM	NOLAN LYNCH	OF-40-8	Outfall - OF-40-8	48	0.01	0.01	Suburban Residential	Closed Pip	CMP	Circular	2 Single	24	Fully	No	No														No												Unlikely	31 CB + 3 inlets									
2021-04-12 11:33:06 AM	NOLAN LYNCH	OF-13-7	Outfall - OF-13-7	52	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No														Yes	Yes	Corrosion	Resident concerned fix eroding outfall									Unlikely	1 Inlet + 2 drop inlet									
2021-04-12 12:00:13 PM	NOLAN LYNCH	OF-12-8	Outfall - OF-12-8	52	0.01	0.01	Suburban Residential	Closed Pip	RCP	Circular	2 Single	15	Partially	No	No														No												Unlikely	10 CB+ 1 Inlet									
2021-04-12 11:30:17 PM	NOLAN LYNCH	OF-21-3	Outfall - OF-21-3	52	0.01	0.01	Suburban Residential	Closed Pip	CMP	Circular	2 Single	12	Partially	Partially	No														No												Unlikely	2 CB									
2021-04-08 1:00:00 PM	NOLAN LYNCH	OF-50-2	Outfall - OF-50-2	60	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No														No												Unlikely	4 CB									
2021-04-08 11:41:51 AM	NOLAN LYNCH	OF-67-7	Outfall - OF-67-7	65	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	15	No	No	No														Yes					Yes	Inhibited	Brush fror	Yes	Floatables	Residents Trash		Unlikely	2 CB									
2021-04-08 8:40:43 PM	NOLAN LYNCH	OF-64-7	Outfall - OF-64-7	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	No	No														No												Unlikely	2 cb									
2021-04-12 8:30:03 AM	NOLAN LYNCH	OF-31-3	Outfall - OF-31-3	48	0	0	Suburban Residential	Closed Pip	CMP	Circular	2 Single	12	No	Partially	No														No												Unlikely	1 CB									
2021-04-08 8:00:51 AM	NOLAN LYNCH	OF-45-6	Outfall - OF-45-6	42	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Fully	Partially	No														Yes								Yes	Floatables	Trash		Unlikely	2 CB + 1 Inlet									
2021-04-08 8:35:25 AM	NOLAN LYNCH	OF-64-4	Outfall - OF-64-4	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	15	Partially	No	No														No												Unlikely	2 CB									
2021-04-12 10:30:53 AM	NOLAN LYNCH	OF-3-2	Outfall - OF-3-2	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Fully	No	No														No												Unlikely	3 CB									
2021-04-12 10:15:05 AM	NOLAN LYNCH	OF-3-13	Outfall - OF-3-13	48	0.01	0.01	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	Partially	Partially	No														No												Unlikely	2 Inlets + 2CB									
2021-04-08 12:00:58 PM	STEPHANIE CARLISLE	OF-58-15	Outfall - OF-58-15	65	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	15	No	No	Yes	Substantial		No											No												Unlikely	origin of outfall CB-2	60	6.62	870	0.4	0.25	0	0	<10	0.02
2021-04-08 11:45:22 PM	STEPHANIE CARLISLE	OF-67-8	Outfall - OF-67-8	60	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	No	No	Yes	Moderate		No											No												Unlikely	CB 5 + 1 INLET	65.3	6.05	893	0.4	0.25	0	0	<10	0
2021-04-08 8:45:10 AM	STEPHANIE CARLISLE	OF-64-8	Outfall - OF-64-8	42	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	Partially	No	Yes	Trickle		Yes	No	No				No	Yes	1 - Few/Sl	Petroleum (oil sheen		No												Unlikely		55	5.57	1862	0.9	0.25	0	0	<10	0.11
2021-04-12 11:00:10 AM	STEPHANIE CARLISLE	OF-21-7	Outfall - OF-21-7	52	0.01	0.01	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	No	No	Yes	Trickle		No											No												Unlikely		49	5.69	842	0.4	0.25	0	0	<10	0
2021-04-12 11:15:04 AM	STEPHANIE CARLISLE	OF-21-4	Outfall - OF-21-4	52	0.01	0.01	Suburban Residential	Closed Pip	CMP	Circular	2 Single	24	No	No	Yes	Moderate		No											No												Unlikely		52.4	6.19	598	0.3	0.25	0	0	<10	0
2021-04-08 9:00:32 AM	STEPHANIE CARLISLE	OF-64-12	Outfall - OF-64-12	48	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	Yes	Trickle		No											No												Unlikely		58	6.33	751	0.3	0.25	0	0	<10	0
2021-04-08 9:45:43 AM	STEPHANIE CARLISLE	OF-55-1	Outfall - OF-55-1	55	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	No	No	Yes	Trickle		No											No												Unlikely		57	5.92	466	0.2	0.25	0	0	<10	0
2021-04-08 9:30:07 AM	STEPHANIE CARLISLE	OF-65-2	Outfall - OF-65-2	50	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	Yes	Trickle		No											Yes	No			No	No			Yes	Floatables	TRASH- Bu	No	Unlikely		58	5.64	1136	0.85	0.25	0	0	<10	0
2021-04-08 9:15:42 AM	STEPHANIE CARLISLE	OF-65-3	Outfall - OF-65-3	50	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	Yes	Trickle		No											No												Unlikely		60	5.79	1750	0.9	0.25	0	0	<10	0
2021-04-08 11:20:29 AM	STEPHANIE CARLISLE	OF-67-9	Outfall - OF-67-9	55	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	No	No	Yes	Moderate		No											No												Unlikely		62	5.64	725	0.2	0.25	0	0	<10	0
2021-04-08 8:15:54 AM	STEPHANIE CARLISLE	OF-44-6	Outfall - OF-44-6	45	0	0	Suburban Residential	Closed Pip	CMP	Circular	2 Single	12	No	No	Yes	Moderate		Yes	No	No				No	Yes	1 - Few/Sl	Suds		Yes	No			No	No			Yes	Suds		No	Unlikely		52	6.31	957	0.5	0.25	0	0	<10	0
2021-04-08 8:00:20 AM	STEPHANIE CARLISLE	OF-46-3	Outfall - OF-46-3	42	0	0	Suburban Residential	Closed Pip	HDPE	Circular	2 Single	12	No	No	Yes	Trickle		No											No												Unlikely		52.1	6.8	557	0.2	0.25	0	0	<10	0
2021-04-12 10:35:46 AM	STEPHANIE CARLISLE	OF-3-7	Outfall - OF-3-7	45	0.01	0.01	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	Yes	Moderate		No											No												Unlikely		50	6.62	151.2	0	0	0	0	15	0
2021-04-12 10:48:53 AM	STEPHANIE CARLISLE	OF-13-1	Outfall - OF-13-1	52	0.01	0.01	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	Partially	Yes	Trickle		No											No												Unlikely		50	5.83	641	0.3	0.5	0	0	10	0.29
2021-04-12 10:00:52 AM	STEPHANIE CARLISLE	OF-9-5	Outfall - OF-9-5	49	0.01	0.01	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	24	No	No	Yes	Moderate		No											No												Unlikely		50.8	6.49	694	0.3	0.25	0	0	<10	0
2021-04-12 1:00:45 PM	STEPHANIE CARLISLE	OF-16-8	Outfall - OF-16-8	48	0.01	0.01	Suburban Residential	Closed Pip	RCP	Circular	2 Single	15	No	No	Yes	Moderate		No											No												Unlikely		53	6.15	438	0.2	1	0	0	20	0.02
2021-04-12 9:30:38 AM	STEPHANIE CARLISLE	OF-23-5	Outfall - OF-23-5	48	0.01	0.01	Suburban Residential	Closed Pip	RCP	Circular	2 Single	15	No	No	Yes	Trickle		No											No												Unlikely		51	6.02	495	0.2	0.25	0	0	<10	0
2021-04-12 9:30:46 AM	STEPHANIE CARLISLE	OF-22-15	Outfall - OF-22-15	47	0.01	0.01	Suburban Residential	Closed Pip	RCP	Circular	2 Single	15	No	No	Yes	Moderate		No											No												Unlikely		49	5.88	576	0.3	0.25	0	0	<10	0
2021-04-12 9:00:03 AM	STEPHANIE CARLISLE	OF-31-1	Outfall - OF-31-1	47	0.01	0.01	Institutional |Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	No	No	Yes	Moderate		No											No												Unlikely		51	6.45	569	0.3	0.25	0	0	<10	0
2021-04-12 12:10:58 PM	STEPHANIE CARLISLE	OF-48-15	Outfall - OF-48-15	54	0.01	0.01	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	Yes	Trickle		No											No												Unlikely		54	5.52	1947	0.9	0.25	0	0	<10	0
2021-04-12 1:00:23 PM	STEPHANIE CARLISLE	OF-30-2	Outfall - OF-30-2	48	0.01	0.01	Suburban Residential	Closed Pip	CMP	Circular	2 Single	24	No	No	Yes	Trickle		No											No												Unlikely	SUMP PUMP IN BRO	60	6.48	783	0.4	0.25	0	0	<10	0.03
2021-04-12 12:30:44 PM	STEPHANIE CARLISLE	OF-48-10	Outfall - OF-48-10	52	0.01	0.01	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	Yes	Trickle		No											No												Unlikely		54	6.19	440	0.2	0.25	0	0	<10	0.6
2021-04-13 12:05:07 PM	STEPHANIE CARLISLE	OF-6-9	Outfall - OF-6-9	54	0.02	0.02	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	Yes	Trickle		No											No												Unlikely		57	6.89	602	0.3	0.25	0	0	<10	0.09
2021-04-13 9:18:09 AM	STEPHANIE CARLISLE	OF-32-3	Outfall - OF-32-3	54	0.02	0.02	Suburban Residential	Closed Pip	HDPE	Circular	2 Single	24	No	No	Yes	Moderate		No											No												Unlikely		53	6.03	688	0.3	0.25	0	0	<10	0.12
2021-04-13 10:10:02 AM	STEPHANIE CARLISLE	OF-59-4	Outfall - OF-59-4	52	0.02	0.02	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	No	No	Yes	Moderate		No											No												Unlikely		53	6.58	1251	0.6	0.5	0	0	<5	0.03
2021-04-13 10:45:37 AM	STEPHANIE CARLISLE	OF-69-2	Outfall - OF-69-2	50	0.02	0.02	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	Yes	Trickle		No											No												Unlikely		52	6.47	522	.20	0.25	0	0	<10	0.02
2021-04-08 1:45:42 PM	STEPHANIE CARLISLE	OF-59-11	Outfall - OF-59-11	60	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	18	No	No	Yes	Trickle		No											Yes	No			No	Yes	Inhibited	CREATED	No			No	Unlikely		57.7	5.96	850	0.4	0.25	0	0	<10	0.04
2021-04-08 1:30:44 PM	STEPHANIE CARLISLE	OF-49-9	Outfall - OF-49-9	60	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Fully	Partially	Yes	Trickle		No											No												Unlikely		57.6	5.78	367	0.3	0.25	0	0	<10	0.01
2021-04-08 1:15:40 PM	STEPHANIE CARLISLE	OF-59-1	Outfall - OF-59-1	60	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	18	No	No	Yes	Trickle		Yes	No	Yes	2 - Clearly	Orange	COLOR IS	No	Yes		Petroleum	natural oil	Yes	No			No	No			Yes	Oil Sheen	OIL SHEEN	No	Potential (presence of two or more indicators)		55	6.44	824	0.4	0.25	0	0	20	0.05
2021-04-08 1:00:30 PM	STEPHANIE CARLISLE	OF-50-3	Outfall - OF-50-3	63	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	No	No	Yes	Moderate		No											No												Unlikely		63	6.28	1997	0.9	0	0	0	>3000	0.21
2021-04-13 12:00:50 PM	STEPHANIE CARLISLE	OF-6-2	Outfall - OF-6-2	55	0.02	0.02	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	Yes	Trickle		No											No												Unlikely		60	6.8	810	0.4	0.25	0	0	<10	0.45
2021-01-12 8:18:50 AM	STEPHANIE CARLISLE	OF-64-2	Outfall - OF-64-2	28	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No														No												Unlikely										
2021-01-11 9:00:03 AM	STEPHANIE CARLISLE	OF-64-10-DUP	Outfall - OF-64-10	36	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No														No												Unlikely										
2021-01-13 1:26:53 PM	STEPHANIE CARLISLE	OF-42-5	Outfall - OF-42-5	39	0	0	Suburban Residential	Closed Pip	PVC	Elliptical	2 Single	12	No	No	No														No												Unlikely										
2021-04-12 12:00:24 PM	STEPHANIE CARLISLE	OF-67-6	Outfall - OF-67-6	52	0.01	0.01	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	24	Partially	No	Yes	Trickle		No											No												Unlikely		53	6.34	912	0.4	0.25	0	0	<10	0.01
2021-04-29 2:50:17 PM	NOLAN LYNCH	OF-22-16	Outfall - OF-22-16	55	0	0	Suburban Residential	Closed Pip	PVC	Circular	2 Single	6	No	No	No														No												Unlikely										
2021-04-29 2:54:23 PM	NOLAN LYNCH	OF-58-17	Outfall - OF-58-17	55	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No														No												Unlikely	1 cb									
2021-04-12 10:17:06 AM	STEPHANIE CARLISLE	OF-3-15	Outfall - OF-3-15	46	0.01	0.01	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	Yes	Trickle		No											No												Unlikely		50	6.52	300	0.2	0.25	0	0	<10	0
2021-04-13 11:15:55 AM	STEPHANIE CARLISLE	OF-12-16	Outfall - OF-12-16	54	0.02	0.02	Suburban Residential	Closed Pip	HDPE	Circular	2 Single	18	No	No	Yes	Moderate		No											No												Unlikely	investigators: Nolan	54.4	6.41	425	0.2	0.25	0	0	<10	0.13
2021-04-12 8:45:38 AM	STEPHANIE CARLISLE	OF-31-13	Outfall - OF-31-13	46	0.01	0.01	Suburban Residential	Closed Pip	PVC	Circular	2 Single	6	No	No	Yes	Trickle		No											No												Unlikely	investigators: Nolan	51	6.93	1738	0.8	0.25	0	0.25	<10	0.06
2021-04-12 12:45:08 PM	STEPHANIE CARLISLE	OF-39-18	Outfall - OF-39-18	52	0.01	0.01	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	18	No	No	Yes	Moderate		No											No												Unlikely	investigators: Nolan	54	6.25	1090	0.5	0.25	0	0	<10	0.1
2021-04-13 8:30:26 AM	STEPHANIE CARLISLE	OF-40-13	Outfall - OF-40-13	50	0.01	0.01	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	No	No	Yes	Moderate		No											No												Unlikely	investigators: Nolan	52	6.35	631	0.3	0	0	0	10	0.02
2021-04-08 1:15:37 PM	STEPHANIE CARLISLE	OF-49-15	Outfall - OF-49-15	65	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	Yes	Trickle		No											No												Unlikely	Investigators: Nolan,	60	6.3	621	0.3	0.25	0	0	40	0

2021-04-08 10:10:10 AM	STEPHANIE CARLISLE	OF-56-7	Outfall - OF-56-7	55	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	24	No	No	Yes	Trickle	No	No										Unlikely		Investigators: Nolan,	55.5	6.27	244	1.2	0.25	0	0	<10	0
2021-04-08 11:45:03 AM	STEPHANIE CARLISLE	OF-57-11	Outfall - OF-57-11	55	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	Partially	Yes	Trickle	No	No										Unlikely		Investigators: Nolan,	57	5.7	474	0.2	0.25	0	0	50	0
2021-04-08 10:00:20 AM	STEPHANIE CARLISLE	OF-66-7	Outfall - OF-66-7	50	0	0	Industrial	Closed Pip	RCP	Circular	2 Single	15	No	No	Yes	Substantial	No	No										Unlikely		Investigators: Nolan,	56.6	5.25	560	0.3	0.25	0	0	5	0
2021-04-12 1:45:15 PM	STEPHANIE CARLISLE	OF-71-5	Outfall - OF-71-5	52	0.01	0.01	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	Yes	Trickle	No	Yes	Yes	Corrosion	broken/separated pipe							Unlikely		Investigators: Nolan,	54	6.62	478	0.2	0.25	0	0	<10	0.02
2021-04-14 1:45:33 PM	STEPHANIE CARLISLE	OF-1-1	Outfall - OF-1-1	65	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan, Garrett.									
2020-12-14 10:47:42 AM	STEPHANIE CARLISLE	OF-4-9	Outfall - OF-4-9	37	0.09	0.35	Suburban Residential	Closed Pip	RCP	Circular	2 Single	16	No	No	No			No										Unlikely		Investigators: Nolan, Zach.									
2021-04-06 1:54:19 PM	STEPHANIE CARLISLE	OF-9-8	Outfall - OF-9-8	68	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	16	Partially	No	Yes	Substantial	No	No										Unlikely		Investigators: Nolan,	57	5.5	186	0	0.25	0	0	<10	0.03
2020-12-30 10:54:42 AM	STEPHANIE CARLISLE	OF-12-13	Outfall - OF-12-13	28	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	16	No	No	No			No										Unlikely	extremely overgrown	investigators: Nolan, Zach.									
2020-12-30 10:58:42 AM	STEPHANIE CARLISLE	OF-12-14	Outfall - OF-12-14	28	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	16	No	No	No			No										Unlikely	extremely overgrown	Investigators: Nolan and Zach.									
2021-03-09 2:15:51 PM	STEPHANIE CARLISLE	OF-15-2	Outfall - OF-15-2	50	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-09 2:15:33 PM	STEPHANIE CARLISLE	OF-15-3	Outfall - OF-15-3	50	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	12	Fully	Fully	No			No										Unlikely		investigators: Nolan and Garrett									
2021-01-12 10:58:58 AM	STEPHANIE CARLISLE	OF-16-9	Outfall - OF-16-9	36	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No			No										Unlikely		investigators: nolan.									
2020-12-16 11:48:34 AM	STEPHANIE CARLISLE	OF-19-14	Outfall - OF-19-14	22	0	0.09	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan and Zach									
2021-04-06 10:45:10 AM	STEPHANIE CARLISLE	OF-19-15	Outfall - OF-19-15	50	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single		Partially	Partially	No			No										Unlikely		Investigators: Nolan, Garrett, Zach									
2021-03-09 10:15:07 AM	STEPHANIE CARLISLE	OF-20-2	Outfall - OF-20-2	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-09 10:15:37 AM	STEPHANIE CARLISLE	OF-20-3	Outfall - OF-20-3	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-09 10:30:06 AM	STEPHANIE CARLISLE	OF-20-4	Outfall - OF-20-4	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-09 10:30:48 AM	STEPHANIE CARLISLE	OF-20-5	Outfall - OF-20-5	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-09 10:40:22 PM	STEPHANIE CARLISLE	OF-20-6	Outfall - OF-20-6	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-09 11:59:00 PM	STEPHANIE CARLISLE	OF-20-7	Outfall - OF-20-7	45	0	0	Suburban Residential	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-09 10:48:07 AM	STEPHANIE CARLISLE	OF-20-8	Outfall - OF-20-8	45	0	0	Suburban Residential	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-09 10:45:24 AM	STEPHANIE CARLISLE	OF-20-8	Outfall - OF-20-8	45	0	0	Suburban Residential	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-04-12 11:05:06 AM	STEPHANIE CARLISLE	OF-21-12	Outfall - OF-21-12	52	0.01	0.01	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-04-12 9:10:48 AM	STEPHANIE CARLISLE	OF-22-19	Outfall - OF-22-19	47	0.01	0.01	Commercial	Closed Pip	RCP	Circular	2 Single	12	Partially	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-04-12 12:12:18 PM	STEPHANIE CARLISLE	OF-22-20	Outfall - OF-22-20	30	0	0	Suburban Residential	Closed Pip	PVC	Circular	1 Double	3	No	Partially	No			No										Unlikely		Investigator: Nolan									
2021-03-09 2:00:46 PM	STEPHANIE CARLISLE	OF-23-7	Outfall - OF-23-7	50	0	0	Suburban Residential	Closed Pip	PVC	Circular	2 Single	8	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-17 9:35:56 AM	STEPHANIE CARLISLE	OF-23-8	Outfall - OF-23-8	39	0	0	Suburban Residential	Closed Pip	RCP	Circular		12	No	No	No			No										Unlikely		Investigators: Zach and Garrett.									
2021-03-23 12:00:41 PM	STEPHANIE CARLISLE	OF-24-2	Outfall - OF-24-2	55	0	0	Commercial	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan, Zach, Garrett									
2021-04-06 9:23:05 AM	STEPHANIE CARLISLE	OF-27-1	Outfall - OF-27-1	43	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	36	Partially	No	No			No										Unlikely		Investigators: Nolan, Zach, Garrett									
2021-04-06 9:15:46 AM	STEPHANIE CARLISLE	OF-28-5	Outfall - OF-28-5	42	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	Partially	No	No			No										Unlikely		Investigators: Nolan, Zach, Garrett									
2021-04-06 8:45:00 AM	STEPHANIE CARLISLE	OF-28-7	Outfall - OF-28-7	42	0	0	Suburban Residential	Closed Pip	Other	Circular	2 Single	15	Partially	No	No			Yes					Yes	Inhibited				Unlikely		Investigators: Nolan, Zach, Garrett									
2021-04-06 11:30:30 AM	STEPHANIE CARLISLE	OF-28-9	Outfall - OF-28-9	50	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	16	No	No	No			No										Unlikely		Investigators: Nolan, Zach, Garrett									
2021-04-06 8:45:24 AM	STEPHANIE CARLISLE	OF-28-11	Outfall - OF-28-11	40	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	36	Partially	No	No			Yes								Yes	Oil Sheen	Unlikely		Investigators: Nolan, Zach, Garrett									
2021-03-09 10:48:53 AM	STEPHANIE CARLISLE	OF-28-12	Outfall - OF-28-12	54	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	18	No	No	No			No										Unlikely		Investigators: Zach and Dave M.									
2021-03-09 10:44:26 AM	STEPHANIE CARLISLE	OF-28-13	Outfall - OF-28-13	52	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach and Dave M.									
2021-03-08 12:45:13 PM	STEPHANIE CARLISLE	OF-29-1	Outfall - OF-29-1	35	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	16	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-09 12:45:52 PM	STEPHANIE CARLISLE	OF-29-2	Outfall - OF-29-2	35	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	16	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 12:15:32 PM	STEPHANIE CARLISLE	OF-29-3	Outfall - OF-29-3	35	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	16	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 12:00:16 PM	STEPHANIE CARLISLE	OF-29-4	Outfall - OF-29-4	35	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	16	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-01-20 9:05:49 AM	STEPHANIE CARLISLE	OF-30-9	Outfall - OF-30-9	33	0	0	Suburban Residential	Closed Pip	HDPE	Circular	2 Single	16	No	No	No			Yes					Yes	Excessive				Unlikely		excess debris									
2021-03-09 11:30:47 AM	STEPHANIE CARLISLE	OF-31-11	Outfall - OF-31-11	60	0	0	Suburban Residential	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach and Dave Malmberg									
2021-04-12 8:45:05 AM	STEPHANIE CARLISLE	OF-31-12	Outfall - OF-31-12	46	0.01	0.01	Institutional	Closed Pip	RCP	Circular	2 Single	18	No	No	No			Yes					Yes	Inhibited				Unlikely		Investigators: Nolan and Garrett									
2021-03-08 10:50:36 AM	STEPHANIE CARLISLE	OF-32-6	Outfall - OF-32-6	35	0	0	Industrial	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 10:50:07 AM	STEPHANIE CARLISLE	OF-32-5	Outfall - OF-32-5	35	0	0	Industrial	Closed Pip	RCP	Circular	2 Single	24	Fully	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 11:00:11 AM	STEPHANIE CARLISLE	OF-32-7	Outfall - OF-32-7	35	0	0	Industrial	Closed Pip	HDPE	Circular	1 Double	12	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 11:00:52 AM	STEPHANIE CARLISLE	OF-32-8	Outfall - OF-32-8	35	0	0	Industrial	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 11:00:09 AM	STEPHANIE CARLISLE	OF-32-9	Outfall - OF-32-9	35	0	0	Industrial	Closed Pip	HDPE	Circular	2 Single	12	Partially	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 11:00:49 AM	STEPHANIE CARLISLE	OF-32-10	Outfall - OF-32-10	35	0	0	Industrial	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-11 9:50:41 AM	STEPHANIE CARLISLE	OF-32-11	Outfall - OF-32-11	50	0	0	Suburban Residential	Closed Pip	RCP	Elliptical		12	No	No	No													Unlikely		Investigators: Nolan, Garrett., Zach, Dave.									
2021-03-11 9:09:37 AM	STEPHANIE CARLISLE	OF-35-7	Outfall - OF-35-7	47	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	Fully	No			No										Unlikely		Investigators: Nolan, Garrett, Zach.									
2021-04-06 8:30:23 AM	STEPHANIE CARLISLE	OF-37-2	Outfall - OF-37-2	40	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	Partially	No			No										Unlikely		Investigators: Nolan, Garrett, Zach.									
2021-04-06 8:30:08 AM	STEPHANIE CARLISLE	OF-37-4	Outfall - OF-37-4	38	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	Fully	No	No			No										Unlikely		Investigators: Nolan, Garrett, Zach.									
2021-03-09 10:55:52 AM	STEPHANIE CARLISLE	OF-37-17	Outfall - OF-37-17	53	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	No			No										Unlikely		Investigators: Dave and Zach.									
2021-03-09 10:59:55 AM	STEPHANIE CARLISLE	OF-37-18	Outfall - OF-37-18	53	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	15	No	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-03-09 11:00:10 AM	STEPHANIE CARLISLE	OF-37-19	Outfall - OF-37-19	53	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	15	No	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-03-08 1:00:44 PM	STEPHANIE CARLISLE	OF-37-20	Outfall - OF-37-20	35	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	16	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 1:00:27 PM	STEPHANIE CARLISLE	OF-37-21	Outfall - OF-37-21	35	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	16	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 12:15:31 PM	STEPHANIE CARLISLE	OF-37-22	Outfall - OF-37-22	35	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	16	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 1:00:33 PM	STEPHANIE CARLISLE	OF-37-23	Outfall - OF-37-23	35	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	16	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 12:45:25 PM	STEPHANIE CARLISLE	OF-38-1	Outfall - OF-38-1	35	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	36	Partially	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 12:00:32 PM	STEPHANIE CARLISLE	OF-38-2	Outfall - OF-38-2	35	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	3	Partially	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 12:00:01 PM	STEPHANIE CARLISLE	OF-38-3	Outfall - OF-38-3	38	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	24	Partially	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 12:00:55 PM	STEPHANIE CARLISLE	OF-38-4	Outfall - OF-38-4	35	0	0	Institutional	Closed Pip	PVC	Circular	2 Single	6	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 11:30:13 AM	STEPHANIE CARLISLE	OF-38-5	Outfall - OF-38-5	35	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	12	No	Fully	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 12:00:03 PM	STEPHANIE CARLISLE	OF-38-6	Outfall - OF-38-6	35	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	16	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 11:15:53 AM	STEPHANIE CARLISLE	OF-38-7	Outfall - OF-38-7	35	0	0	Institutional	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-16 9:30:44 AM	STEPHANIE CARLISLE	OF-39-7	Outfall - OF-39-7	25	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	18	No	No	No			No										Unlikely		Investigators: Zach and Garrett.									
2021-01-15 2:11:57 PM	STEPHANIE CARLISLE	OF-39-17	Outfall - OF-39-17	45	0.09	0.09	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan.									
2021-03-16 10:30:56 AM	STEPHANIE CARLISLE	OF-40-9	Outfall - OF-40-9	30	0	0	Commercial	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach and Garrett.									
2021-03-16 10:30:53 AM	STEPHANIE CARLISLE	OF-40-10	Outfall - OF-40-10	30	0	0	Commercial	Closed Pip	HDPE	Circular	2 Single	12	Partially	Partially	No			No										Unlikely		Investigators: Zach and Garrett.									
2021-03-16 10:35:53 AM	STEPHANIE CARLISLE	OF-40-11	Outfall - OF-40-11	30	0	0	Commercial	Closed Pip	HDPE	Circular	2 Single	12	Partially	Partially	No			No										Unlikely		Investigators: Zach and Garrett.									
2021-04-13 8:30:53 AM	STEPHANIE CARLISLE	OF-40-12	Outfall - OF-40-12	48	0.01	0.01	Open Space/Wooded	Closed Pip	RCP	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-04-13 9:11:33 AM	STEPHANIE CARLISLE	OF-41-1	Outfall - OF-41-1	54	0.01	0.01	Commercial	Closed Pip	HDPE	Circular	2 Single	18	Fully	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-16 10:00:43 AM	STEPHANIE CARLISLE	OF-41-2	Outfall - OF-41-2	30	0	0	Commercial	Closed Pip	HDPE	Circular	2 Single	24	No	No	No			No										Unlikely	trash	Investigators: Zach and Garrett.									
2021-03-16 10:00:16 AM	STEPHANIE CARLISLE	OF-41-3	Outfall - OF-41-3	30	0	0	Commercial	Closed Pip	HDPE	Circular	2 Single	24	Partially	No	No			No										Unlikely		Investigators: Zach and Garrett.									
2021-03-22 7:20:45 AM	STEPHANIE CARLISLE	OF-41-4	Outfall - OF-41-4	30	0	0	Suburban Residential	Closed Pip	HDPE	Circular	2 Single	18	No	No	No			No										Unlikely		Investigators: Nolan									
2021-01-13 1:00:58 PM	STEPHANIE CARLISLE	OF-42-7	Outfall - OF-42-7	39	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan.									
2021-01-13 1:23:53 PM	STEPHANIE CARLISLE	OF-42-9	Outfall - OF-42-9	39	0	0	Suburban Residential	Closed Pip	PVC	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan.									
2021-03-17 11:00:34 AM	STEPHANIE CARLISLE	OF-42-10	Outfall - OF-42-10	40	0	0	Suburban Residential	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach and Garrett.									
2021-04-08 8:20:22 AM	STEPHANIE CARLISLE	OF-44-8	Outfall - OF-44-8	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	Partially	No	No			No										Unlikely		Investigators: Nolan, Zach, Garrett.									
2021-03-08 12:55:27 PM	STEPHANIE CARLISLE	OF-44-9	Outfall - OF-44-9	39	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach, Dave.									
2021-03-08 1:11:35 PM	STEPHANIE CARLISLE	OF-45-10	Outfall - OF-45-10	39	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Fully	Fully	No			No										Unlikely		Investigators: Zach and Dave.									
2021-03-09 8:09:22 AM	STEPHANIE CARLISLE	OF-45-9	Outfall - OF-45-9	43	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-03-09 9:16:49 AM	STEPHANIE CARLISLE	OF-46-7	Outfall - OF-46-7	46	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	15	No	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-03-09 9:11:49 AM	STEPHANIE CARLISLE	OF-46-8	Outfall - OF-46-8	46	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-03-10 9:00:36 AM	STEPHANIE CARLISLE	OF-46-9	Outfall - OF-46-9	46	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	15	No	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-03-11 10:30:49 AM	STEPHANIE CARLISLE	OF-46-10	Outfall - OF-46-10	47	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	Partially	No			No										Unlikely		Investigators: Zach, Dave, Nolan, Garrett.									
2021-03-17 10:30:18 AM	STEPHANIE CARLISLE	OF-46-11	Outfall - OF-46-11	36	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	16	Fully	No	No			No										Unlikely		Investigators: Nolan.									
2021-03-25 9:00:23 AM	STEPHANIE CARLISLE	OF-46-12	Outfall - OF-46-12	60	0	0	Suburban Residential	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan.									
2021-03-11 10:00:13 AM	STEPHANIE CARLISLE	OF-47-9	Outfall - OF-47-9	50	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach, Dave, Nolan, Garrett.									
2021-03-08 8:20:26 AM	STEPHANIE CARLISLE	OF-48-6	Outfall - OF-48-6	24	0	0	Suburban Residential	Closed Pip	Steel	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-03-08 8:24:17 AM	STEPHANIE CARLISLE	OF-48-8	Outfall - OF-48-8	24	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-03-08 8:08:36 AM	STEPHANIE CARLISLE	OF-48-9	Outfall - OF-48-9	24	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-03-25 2:00:16 PM	STEPHANIE CARLISLE	OF-50-4	Outfall - OF-50-4	50	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	No	No	No			No										Unlikely		Investigators: Nolan.									
2021-01-13 12:48:50 PM	STEPHANIE CARLISLE	OF-51-1	Outfall - OF-51-1	39	0	0	Suburban Residential	Closed Pip	CMP	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan.									
2021-01-13 11:31:37 AM	STEPHANIE CARLISLE	OF-51-2	Outfall - OF-51-2	37	0	0	Suburban Residential	Closed Pip	CMP	Circular	2 Single	12	No	Partially	No			No										Unlikely		Investigators: Nolan.									
2021-04-14 1:30:23 PM	STEPHANIE CARLISLE	OF-51-3	Outfall - OF-51-3	64	0	0	Commercial	Closed Pip	HDPE	Circular	2 Single	12	Partially	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-11 11:15:10 AM	STEPHANIE CARLISLE	OF-54-8	Outfall - OF-54-8	50	0	0	Commercial|Industrial	Closed Pip	RCP	Circular	2 Single	24	Fully	Fully	No			No										Unlikely		Investigators: Nolan, Garrett, Zach, Dave.									
2021-01-12 8:42:55 AM	STEPHANIE CARLISLE	OF-55-11	Outfall - OF-55-11	28	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan.									
2021-03-08 11:05:48 PM	STEPHANIE CARLISLE	OF-55-12	Outfall - OF-55-12	34	0	0	Suburban Residential	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-04-14 11:45:31 AM	STEPHANIE CARLISLE	OF-55-13	Outfall - OF-55-13	55	0	0.02	Suburban Residential	Closed Pip	PVC	Circular	2 Single	6	No	No	No			No										Unlikely		Investigators: Nolan and Garrett									
2021-03-08 11:17:50 PM	STEPHANIE CARLISLE	OF-55-14	Outfall - OF-55-14	34	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-03-17 1:30:00 PM	STEPHANIE CARLISLE	OF-55-15	Outfall - OF-55-15	45	0	0	Commercial	Closed Pip	RCP	Circular	2 Single	12	Partially	Partially	No			No										Unlikely		Investigators: Garrett and Zach.									
2021-03-16 7:45:17 AM	STEPHANIE CARLISLE	OF-55-16	Outfall - OF-55-16	17	0	0	Suburban Residential	Closed Pip	Steel	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-01-21 11:18:33 AM	STEPHANIE CARLISLE	OF-57-7	Outfall - OF-57-7	29	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-17 1:15:44 PM	STEPHANIE CARLISLE	OF-57-8	Outfall - OF-57-8	45	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	No			Yes					Yes	Excessive				Unlikely		TrashInvestigators: Zach and Garrett									
2021-03-17 1:00:32 PM	STEPHANIE CARLISLE	OF-57-9	Outfall - OF-57-9	45	0	0	Suburban Residential	Closed Pip	HDPE	Circular	2 Single	12	No	No	No			No										Unlikely		Investigators: Garrett, Zach									
2021-03-16 2:01:54 PM	STEPHANIE CARLISLE	OF-57-10	Outfall - OF-57-10	40	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	Fully	No			Yes					Yes	Excessive	yard debris			Unlikely		Investigators: Garrett, Zach, Nolan.									
2021-04-08 11:00:45 AM	STEPHANIE CARLISLE	OF-57-12	Outfall - OF-57-12	55	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Fully	No	No			No										Unlikely		Investigators: Garrett, Zach, Nolan.									
2021-03-16 7:47:29 PM	STEPHANIE CARLISLE	OF-58-20	Outfall - OF-58-20	17	0	0	Suburban Residential	Closed Pip	Steel	Circular	2 Single	12	Partially	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-03-16 12:45:39 PM	STEPHANIE CARLISLE	OF-59-12	Outfall - OF-59-12	39	0	0	Institutional	Closed Pip	Steel	Circular	2 Single	12	No	Fully	No			No										Unlikely		Investigators: Garrett, Zach, Nolan.									
2021-03-17 10:30:36 AM	STEPHANIE CARLISLE	OF-60-4	Outfall - OF-60-4	39	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	Partially	No			No										Unlikely		Investigators: Zach and Garrett.									
2021-04-12 8:07:17 AM	STEPHANIE CARLISLE	OF-60-5	Outfall - OF-60-5	46	0.01	0.01	Suburban Residential	Closed Pip	RCP	Circular	2 Single	15	Fully	Fully	No			Yes	No			No	No			Yes	Colors|Oil Sheen|Suds	Potential (presence of two or m		Investigators: Garrett and Zach.									
2021-03-17 10:10:33 AM	STEPHANIE CARLISLE	OF-60-6	Outfall - OF-60-6	36	0	0	Suburban Residential	Closed Pip	Steel	Circular	2 Single	12	No	No	No			No										Unlikely		Investigator: Nolan.									
2021-01-13 10:58:48 AM	STEPHANIE CARLISLE	OF-61-4	Outfall - OF-61-4	37	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	24	No	Partially	No			No										Unlikely		Investigator: Nolan.									
2021-01-13 11:16:14 AM	STEPHANIE CARLISLE	OF-61-5	Outfall - OF-61-5	37	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	No	No	No			No										Unlikely		Investigator: Nolan.									
2021-04-12 1:35:19 PM	STEPHANIE CARLISLE	OF-61-6	Outfall - OF-61-6	52	0.01	0.01	Commercial|Suburban Residential	Closed Pip	RCP	Circular	2 Single	12	Partially	No	No			No										Unlikely		Investigators: Garrett and Nolan.									
2021-03-17 11:00:52 AM	STEPHANIE CARLISLE	OF-62-3	Outfall - OF-62-3	40	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	18	No	No	No			No										Unlikely		Investigators: Zach and Garrett.									
2021-03-17 11:00:30 AM	STEPHANIE CARLISLE	OF-62-4	Outfall - OF-62-4	40	0	0	Suburban Residential|Urban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach and Garrett.									
2021-03-18 10:00:23 AM	STEPHANIE CARLISLE	OF-62-5	Outfall - OF-62-5	45	0	0	Suburban Residential	Closed Pip	PVC	Circular	2 Single	18	No	No	No			No										Unlikely		Investigators: Zach, Garrett, Nolan.									
2021-03-08 8:50:52 AM	STEPHANIE CARLISLE	OF-63-3	Outfall - OF-63-3	28	0	0	Industrial	Closed Pip	RCP	Elliptical	2 Single	18	No	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-03-08 9:05:45 AM	STEPHANIE CARLISLE	OF-63-4	Outfall - OF-63-4	28	0	0	Industrial	Closed Pip	RCP	Elliptical	2 Single	12	Partially	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-03-08 10:28:42 AM	STEPHANIE CARLISLE	OF-64-13	Outfall - OF-64-13	34	0	0	Industrial	Closed Pip	HDPE	Circular	2 Single	24	No	No	No													Unlikely		Investigators: Zach and Dave.									
2021-03-18 2:00:25 PM	STEPHANIE CARLISLE	OF-64-14	Outfall - OF-64-14	45	0	0	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	No	No	No			No										Unlikely		Investigators: Zach, Garrett, Nolan									
2021-04-14 11:15:40 AM	STEPHANIE CARLISLE	OF-64-15	Outfall - OF-64-15	55	0	0.02	Commercial	Closed Pip	HDPE	Circular	2 Single	24	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-04-14 11:15:39 AM	STEPHANIE CARLISLE	OF-64-16	Outfall - OF-64-16	55	0	0.02	Commercial	Closed Pip	PVC	Circular	2 Single	10	No	No	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-03-08 10:00:21 AM	STEPHANIE CARLISLE	OF-66-6	Outfall - OF-66-6	33	0	0	Suburban Residential	Closed Pip	PVC	Circular	2 Single	8	No	Partially	No			No										Unlikely		Investigators: Zach and Dave.									
2021-01-20 1:17:19 PM	STEPHANIE CARLISLE	OF-66-8	Outfall - OF-66-8	38	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	Partially	No			No										Unlikely		Investigators: Nolan.									
2021-03-22 11:15:14 AM	STEPHANIE CARLISLE	OF-70-5	Outfall - OF-70-5	45	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	Partially	No			No										Unlikely		Investigators: Zach and Garrett.									
2021-03-22 11:20:48 AM	STEPHANIE CARLISLE	OF-70-6	Outfall - OF-70-6	45	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach and Garrett.									
2021-03-22 11:15:25 AM	STEPHANIE CARLISLE	OF-70-7	Outfall - OF-70-7	45	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	No			No										Unlikely		Investigators: Zach and Garrett.									
2021-04-13 4:45:05 PM	STEPHANIE CARLISLE	OF-70-8	Outfall - OF-70-8	53	0.02	0.02	Suburban Residential	Closed Pip	RCP	Circular	2 Single	18	No	Fully	No			No										Unlikely		Investigators: Nolan and Garrett.									
2021-01-14 8:54:45 AM	STEPHANIE CARLISLE	OF-70-9	Outfall - OF-70-9	35	0	0	Suburban Residential	Closed Pip	RCP	Elliptical	2 Single	12	No	No	No			No										Unlikely		Investigators: Nolan.									
2021-03-08 9:20:13 AM	STEPHANIE CARLISLE	OF-73-1	Outfall - OF-73-1	28	0	0	Industrial	Closed Pip	RCP	Elliptical	2 Single	24	Partially	No	No			No										Unlikely		Investigators: Zach and Dave.									
2021-03-09 9:00:30 AM	STEPHANIE CARLISLE	OF-28-10	Outfall - OF-28-10	47	0	0	Suburban Residential	Closed Pip	PVC	Circular	2 Single	6	No	No	No			No										Unlikely		Investigators: Zack and Dave									

Attachment 3
Catchment Investigations


Stable Way
Stable Way
12-9

Stable Way 12-9

Talked to Curtis 4/20/2021

- No infiltration on Stable sewer line
- 5 Stable new sewer tap
- All other properties factory when sewer was installed

Talked with Julie 4/20/2021

- Bill all addresses 18,17,16,15,14,13,12,11,10,9,8,7,5,4,3,2,1 Stable Way for sewer

No files under Board of Health for any past or present septic in this area of question

Talked with Curtis 4/22/2021→follow up drain line cameraing when time permits

Broken Tree Road
Broken Tree Road
Broken Tree Road
34
31
27
33
23
19
17
20
15
13
18
16
14
11
9
3
13
11
9

20 Broken Tree- 4 Bedroom

- Passed Title 5 2018
- Laundry included
- Septic tank, D bx, soil absorption system (leaching trenches 4 40’)
- Last pumped 2 years previously
- Built 12-8-1998
- Pumped 2004,2006,2020

18 Broken Tree- 4 Bedroom

- Passed Title 5 2007
- Garbage disposal and laundry connected
- Septic tank, D box, soil absorption system (leaching trenches 2 66’)
- Built 2-11-1998
- Pumped 2007,2012,2013,2017,2019

17 Broken Tree

- Proposed septic system plan
- Septic tank (10.4’ x 5.6’), D box, 3 lines 36” x 40’,
- NO RECORD OF PUMP OUTS

16 Broken Tree- 4 Bedroom

- Passed Title 5 2012
- Laundry connected and sump pump
- System last pumped 2011
- Septic tank (1500 gallon), D box, soil absorption system (leaching trenches 3 40’)
- Installed 1998
- D box in fair condition- signs of deterioration
- Installed 1997
- Pumped 2001,2005,2005,2014,2019

15 Broken Tree- 4 Bedroom

- Passed Title 5 2012
- Septic tank (1500 gallon), D box, soil absorption system (leaching trenches 3 40’)
- Laundry connected
- Asbuilt 8/28/1998
- Suggested to be pumped every 1-2 years
- Interior of D box refaced with hydraulic cement
- Pumped 2001,2006,2012,2017

14 Broken Tree

- Land survey only
- Pumped 2004

13 Broken Tree

- Proposed sewage disposal system only
- Pumped 2005,2007,2012,2015,2017,2020

11 Broken Tree

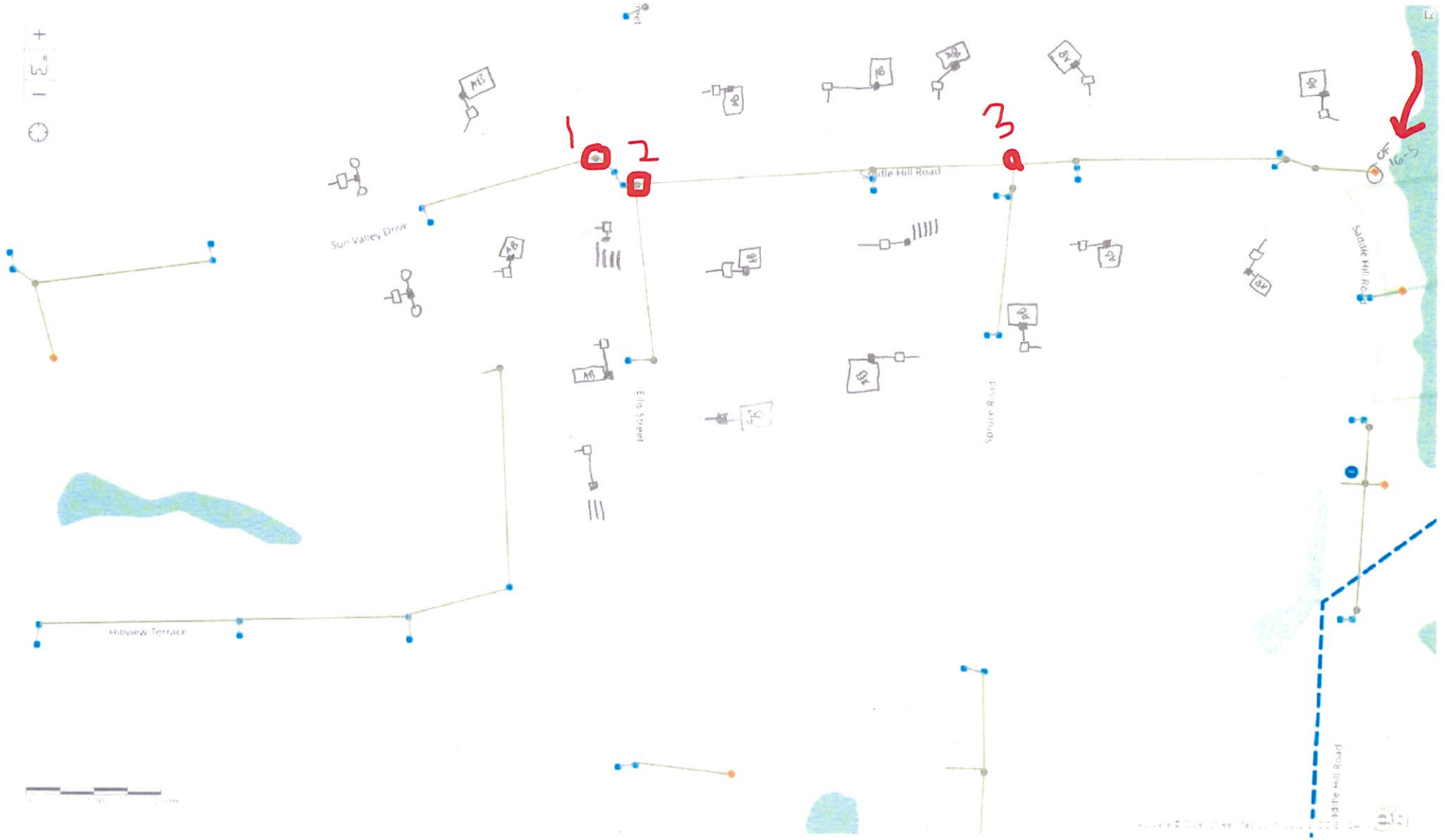
- Proposed sewage disposal system only
- Pumped 2004

9 Broken Tree

- Proposed sewage disposal system only
- Pumped 2018,2017,2007x2,2005x2,2002

3 Hickory Dr

- Proposed sewage disposal system only
- Pumped 2002,2005,2012,2018,2021



Septic tank
Rock
Absorption Bed
Seepage Pit

16-5

13 Saddle Hill

- Septic tank (1500 gallon), D Box (5 outlets), absorption bed (18x40)
    - Installed 1976
- COC-2018
    - New tank, D Box, SAS
- Pump out
    - 1997,2002,2004,2013,2018

18 Saddle Hill

- Septic tank (1500), D Box (5 outlets), absorption bed (40x18)
    - Installed 1978
- Laundry connected
- Conditionally pass Title V→2016
    - D Box is leaking and walls are falling apart
    - Recommend yearly service and install filter on outlet to prevent carry over getting out D Box→2016
    - D Box- level is low due to leakage (box has extensive deterioration and needs to be replaced)
- Pump out
    - 2000,2003,2005,2007,2018

20 Saddle Hill

- Septic tank (1000 gallon), D Box (5 outlets), absorption bed (30x24)
    - Installed 1974
    - Laundry connected
- Conditionally passes→2018
    - D Box extensive deterioration, must be replaced
        - Replace 4 outlet D Box, install riser on D Box
    - Recommend pumping annually
- 1995?,1998,2001,2002,2003,2004,2005,2006,2013,2015,2018

21 Saddle Hill

- Septic tank (1000 gallon), D Box (5 outlets), leaching trenches (5)→18x45
    - Installed 1973
- System redo 2020
    - Septic tank (1500 gallon), D Box (5 outlets), SAS (5 leaching trenches)
    - Abandonment of old septic tank
- Pump out
    - 2014

22 Saddle Hill

- Septic tank (1000 gallon), D Box (5 outlets), absorption bed (33x24)
    - Installed 1974
- Pump out

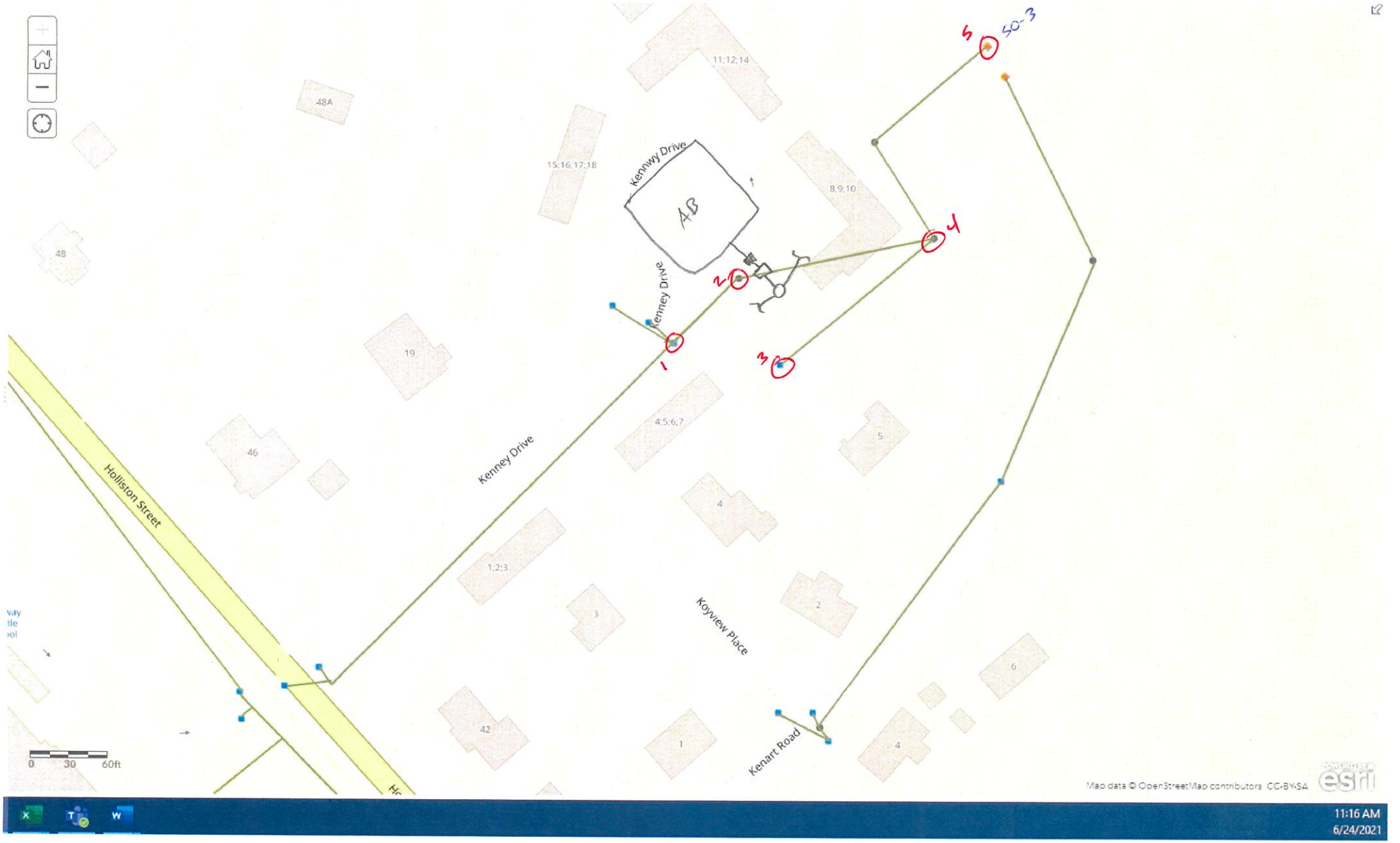
- New system installed 2016
- Pump out
    - 1997,2005,2011,2014,2016,2020

27 Ellis

- Septic tank, D-Box, Soil absorption system (leaching trenches 3x56')
- Installed 1978
- Failed Title 5 2012
    - Backup of sewage into system because of overload or clogged field
    - D-Box above outlet due to same as above
    - Last pumped 1987
- New system install 2012
    - Septic tank(1500 gallon), D Box, leaching field (30x25)
- Pump out
    - 2012,2015,2020

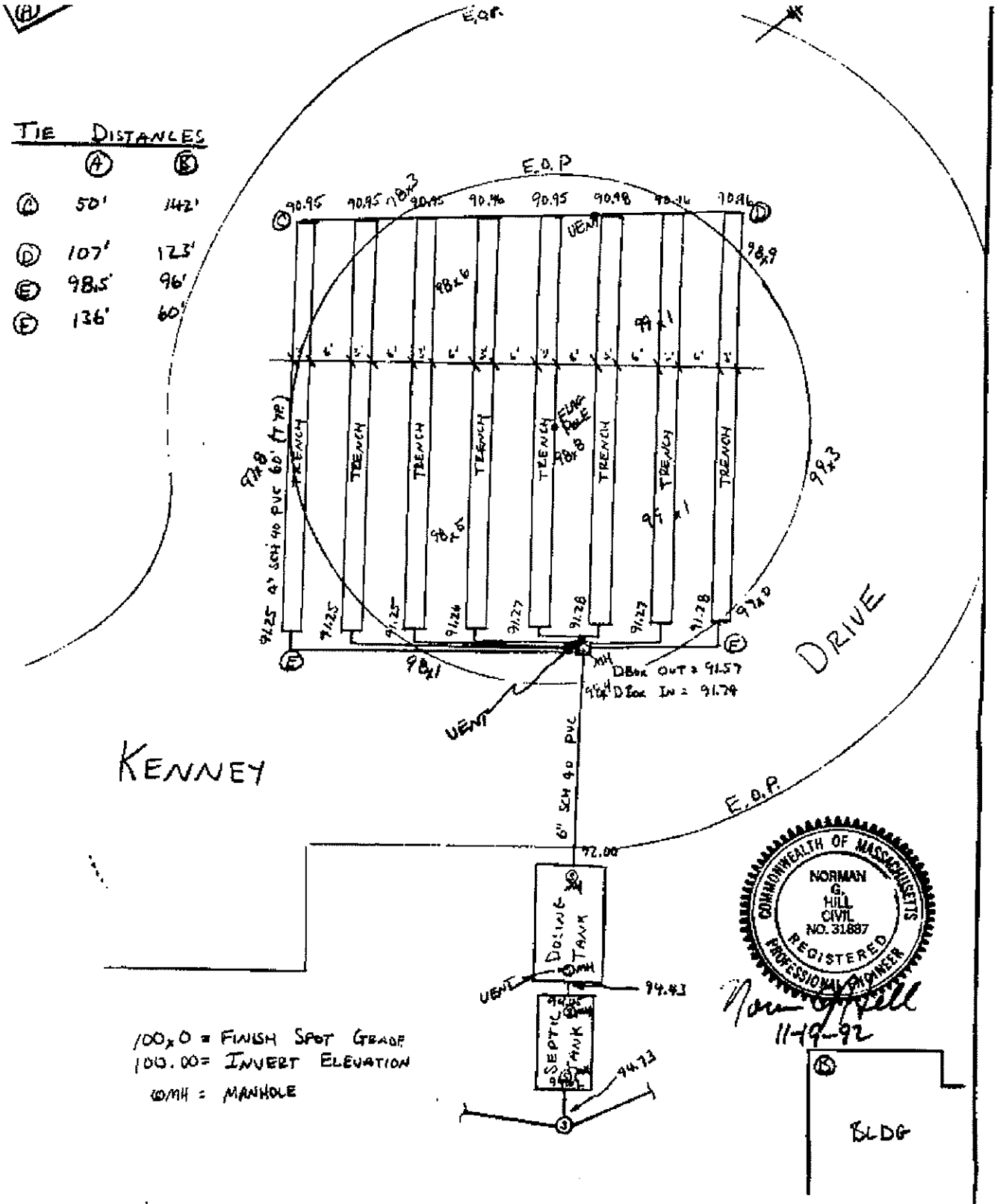
28 Ellis

- Septic tank, D Box, leaching trenches (3x50')



Septic As Built 1992

Pump Out 2020



COMMONWEALTH OF MASSACHUSETTS
NORMAN G. HILL
CIVIL
NO. 31897
REGISTERED PROFESSIONAL ENGINEER

11-9-92

PLAN DATED: 12/3/91 PLAN REVISED: Rev #5 SCALE: 1" = 20' DATE: 10/27/92

I CERTIFY THAT THE SEPTIC SYSTEM INSTALLED AT THE ABOVE LOCATION HAS BEEN CONSTRUCTED IN ACCORDANCE WITH TITLE V OF THE STATE SANITARY CODE AND THE BOARD OF HEALTH RULES AND REGULATIONS OF THE TOWN OF MEDWAY AND THE PLANS APPROVED BY THE BOARD OF HEALTH.

COMMONWEALTH OF MASSACHUSETTS
NORMAN G. HILL
CIVIL

SEPTIC SYSTEM AS-BUILT
LOCATED AT

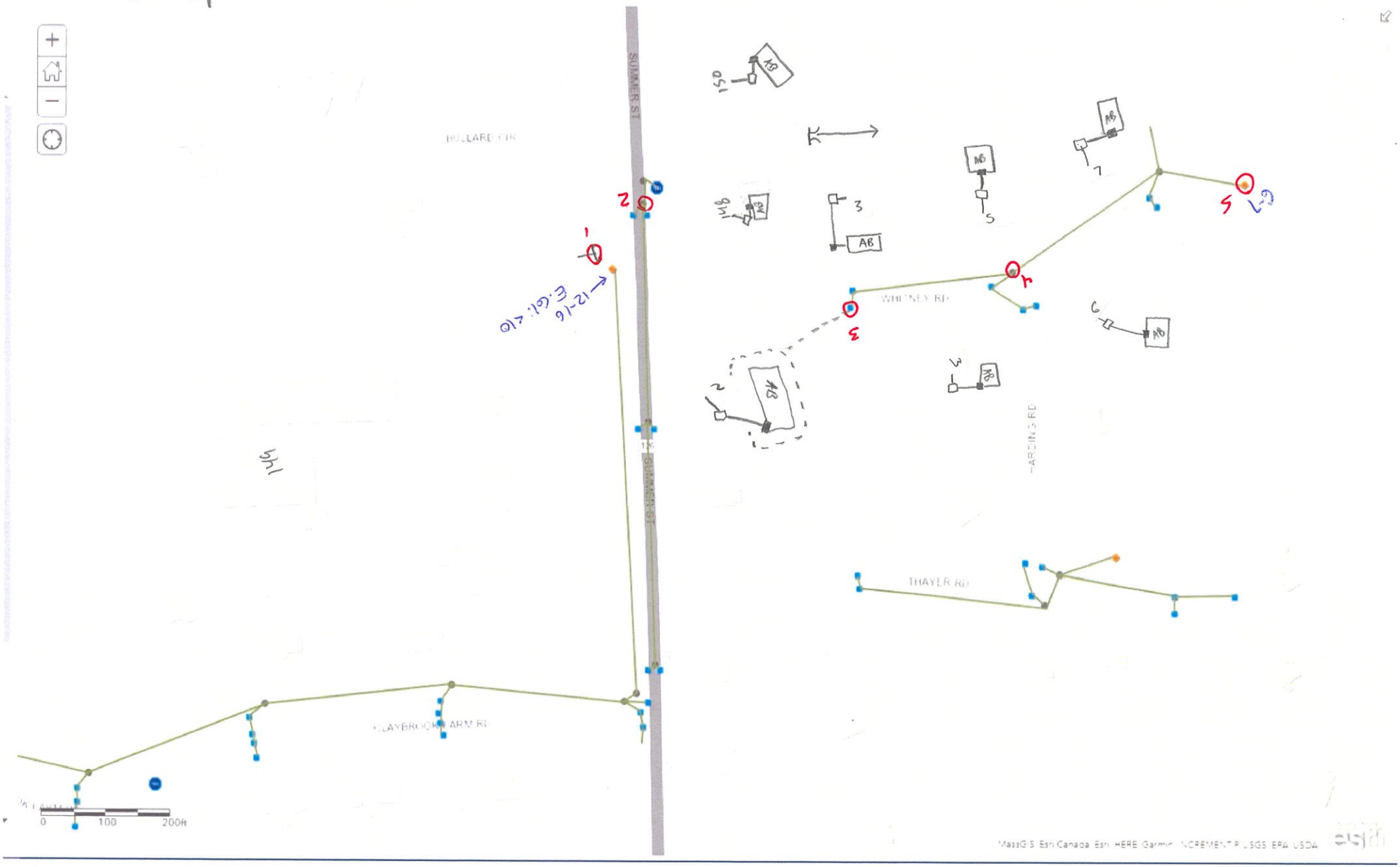
KENNEY DRIVE

MEDWAY, MA

PREPARED FOR

MEDWAY HOUSING AUTHORITY

□ - Septic Tank
■ - D Box
AB - Absorption Bed



L-9

Outfall 6-7

- 3 Harding Rd
  - Installed 1978
  - Septic tank (1000 gallon), D-Box, leaching field (18x34)
  - Passed inspection 1994
  - Conditionally passes title 5-2001
    - D-Box is caving in and rotten
  - Pump out
    - 6/1/2001,6/7/2001,2017,2018
- 148 Summer St
  - Built in 1979
  - Pass Title 5 2016
  - Failed title 5 2019→overloaded or clogged SAS,D-Box heavy solid carry over, high liquid level with water return
  - Repair to system 2019
    - 1500 galloon septic tank,1000 gallon pump tank, D-Box, absorption bed(2 rows of 10)
  - New Septic as built-2019
- 149 Summer St
  - Pump out
    - 2013,2014,2015,2016,2017,2020
- 150 Summer
  - Suggested failure of Septic-2000
    - Breakout of effluent to surface of ground
    - Old SAS to be removed and replaced
  - 2019 Repair System- C.O.C
  - As Built 2020
    - New system install
    - (1500 gallon) septic tank, D-Box, leaching field (4x10)
- 2 Whitney
  - System repair plans 1989
    - Old D-Box and leaching bed to be abandoned
  - Pump out
    - 2018- Noted Heavy Solids
- 4 Whitney
  - Pump out
    - 1996x2, 1998
- 5 Whitney
  - Sewage disposal plan 1979
    - Septic tank (1000 gallon), D-Box, Absorption bed (18x34)
  - As bult pan 1981
  - Pump out

        - 1996,1998x2
- 6 Whitney
    - Sewage disposal plan 1979
        - Septic tank(1000), D-Box, Absorption bed (18x34)
    - As built plan 1981
    - Pump Out
        - 1999,2001,2003,2005,2018,2020
- 7 Whitney
    - As built plan 2004
        - Septic tank, D-Box, Leaching field

Attachment 4
IDDE Investigations

Illicit Discharge Detection and Elimination Report from Dry Weather Sampling Results Year 3

Outfall ID	Status
6-7	Open
12-9	Closed
12-12	Closed
16-2	Open
16-5	Open
16-8	Open
50-3	Open

Outfall 6-7 on Whitney Road

Sampled on April 6, 2021 and results show E.coli at 1130 cfu. First, DPW looked to see if the area has sewer or septic. This area has septic. Potential contributors were identified on Whitney Road, Harding Street, Claybrook Farm Road, Summer Street, and Rising Star Horse farm on Summer Street. On April 13, 2021, sampled Outfall 12-16 to rule out Claybrook Farm Road area as a potential contributor. Sample results were <10 cfu. DPW looked through septic plans for 3, Harding Road, 148 Summer Street, 149 Summer Street, 150 Summer Street, 2 Whitney Road, 4 Whitney Road, 5 Whitney Road, 6 Whitney Road, and 7 Whitney Road.

Plan to investigate next likely contributors: 2 Whitney Road last pump out record from 2018 with a note of heavy solids. 4 Whitney Road last pump out record from 1998. 5 Whitney Road last pump out in 1998 twice. 7 Whitney Road no record of pump outs. Investigate the Rising Star Horse Farm as a potential contributor.

- Send IDDE letter to the contributing areas.
- Send Septic System maintenance brochure
- Retest Outfall 6-7, and test at two manholes on Whitney Road.
- 5 Whitney may have a subdrain around the septic system that is directly connected to the catch basin
- Inspect catch basins looking for sediment, pet waste bags, etc.
- Test at Culvert 6-2 across Summer Street

On 7/27/2021 retested at the outfall. Results showed E.coli 130 cfu. Tested at CB1 (subdrain) results showed E.coli 15 cfu. Tested at the Farm outlet results were E.coli 420 cfu. Tested at MH1 results were E.coli 290 cfu. I think one of the manholes was dry so we couldn't sample there. Nothing was evident in the catch basins like pet waste etc. We think it is likely coming from the horse farm.

On 9/13/2021 mailed potential illicit discharge contributor letter and heard back from resident on 9/17/2021. She has her horse manure taken away every other week and doesn't know what else she can do to keep the area clean. She met with Board of Health agent in the past and was told that her farm was one of the cleanest the agent has ever seen. DPW will continue to investigate this area.

Outfall 12-9 on Stable Way

Sampled on April 6, 2021 and results show E.coli at 1630 cfu. Looked for sewer or septic and there is sewer in the area. Recent sewer line camera investigation showed no signs of cross connections between the sewer and storm drain lines. Also, there were no signs of cracks in the sewer line, no signs of infiltration. New development built in 2002. The results from the outfall catchment area delineation tool show that the area up to 22 Stable Way contributes stormwater to this outfall. *outfall 12-12 has small drainage area according to the tool but it tested for e.coli at 170 cfu.

- Send IDDE letters to 1 – 22 Stable Way
- Retest Outfall 12-9 and at the 6 manholes

- Check catch basins for debris (sediments, pet waste bags)
- Camera the storm drain line with the Water Dept

On 7/27/2021 Nolan retested the outfall. E.coli results were 10 cfu. Tested at the next manhole with flow and results were <10cfu. Source undetermined.

Outfall 12-12 on Stable Way

Sampled on April 6, 2021 and results show E.coli at 170 cfu. This is within the limits as long as the average of 5 samples are less than 125 cfu. The adjacent Outfall-12-9 exceeds the limit.

- Retest Outfall
- Investigate the two contributing catch basins
- Camera the storm drain line

On 7/27/2021 Nolan retested the outfall. E.coli results were 10 cfu. Tested at the next manhole with flow and results were <10cfu. Source undetermined.

Outfall 16-2 on Broken Tree Road

Sampled on March 22, 2021: E.coli 310 cfu
Resampled on April 6, 2021: E.coli 60 cfu
Sampled upstream manholes on April 6, 2021
MH1: E.coli 140 cfu
MH2: E.coli 10 cfu

- Based on sampling results from April 6, the issue is likely near 9 Broken Tree Road.
- Potentially selling the house 9 Broken Tree. They'll need a Title 5. Look for plans from BOH.
- Retest outfall

Resident is selling house and failed the Title V. We will retest once the septic system is replaced and determine if that was the cause.

Outfall 16-5 on Saddle Hill Road

Sampled on April 6,2021 and results show E.coli at 280 cfu. Contributing area is on septic. Hill View Terrance, Sun Valley Drive, Ellis Street, Spruce Road, and Saddle Hill Road. According to the delineations, there are 23 acres that drain to this outfall.

- Camera the drain line between Hill View Terrace & Sun Valley Road across to Saddle Hill and confirm connection
- Send IDDE letters to residents in contributing area
- Send septic system maintenance brochure
- Retest outfall and key junction manholes
- May need septic plans and pumps for 24,25, 26 Ellis Street
- May need septic plans and pumps for: 4,6,7,8,9,10,12 Sun Valley Drive
- May need septic plans and pumps for: 17,19,21 Spruce Road

On 7/27/2021 retested outfall and results showed 30 cfu. Upstream at MH1 was 20 cfu, MH2 was 130 cfu (at the corner of Ellis Street), and MH3 was 260 cfu. Letters need to be sent to the above addresses. May need more sampling.

9/13/2021 mailed potential illicit discharge detected letter to residents and included the septic system maintenance brochure. Several residents called the DPW to learn more and we have been educating people about the stormwater standards and sampling as well as ways they can help mitigate their impacts (i.e. make sure the septic system is properly maintained, pet waste is picked up and disposed of properly). We also took this time to ask people to use phosphate free

fertilizers and/or test their soils before applying fertilizers because the excess nutrients cause the blue-green algae blooms like the ones we've been seeing in our local lakes and ponds.

Outfall 16-8 on Saddle Hill Road

Sampled on April 12, 2021 and results showed detergents at 1.0 mg/L. Area has septic. Drainage area 6 acres including 18, 20, 22 Spruce Road and 13, 11 Saddle Hill Road.

- Retest

Outfall 50-3 on Kenney Drive

Sampled on April 8, 2021 and results showed >3000 cfu. Contributing area is Kenney Drive and 2 catch basins on Holliston Street. Area was converted from septic to sewer in ~2015. The old tank was abandoned and left unpumped. Salinity is high (0.9ppt), conductivity is high (1,997µS/cm) temperature was warmer than other outfalls by comparison (63F)

- Send IDDE letter to Housing Authority
- Retest outfall and key junction manholes

On 7/27/2021 retested outfall and results show 80 cfu. CB1 was 150 cfu (parking lot) CB2 was 70 cfu (grass) and MH1 was 20 cfu. Source still undetermined.

Date	Asset Tag	Water Temperature (F)	pH	Conductivity (ps/cm)	Salinity (ppt)	Detergent (mg/L)	Chlorine (mg/L)	Ammonia (mg/L)	E. Coli (MPN/100mL)	Phosphorus (mg/L)	Notes
2021-04-06 11:10:41 AM	OF-12-12	56	5.9	698	.40	.25	0	0	170	0	pH, E.coli
2021-04-06 11:10:14 AM	OF-12-9	58	5.97	787	.4	.25	0	0	1630	0	pH, E.coli
2021-04-12 10:48:53 AM	OF-13-1	50	5.83	641	0.3	0.5	0	0	10	0.29	pH, detergent
2021-03-22 9:40:52 AM	OF-16-2	40.1	7.09	300	.10	.25	0	0	310	.04	E.coli
2021-04-06 1:40:01 PM	OF-16-5	51	676	802	.30	.25	0	0	280	.02	E.coli
2021-04-12 1:00:45 PM	OF-16-8	53	6.15	438	0.2	1	0	0	20	0.02	detergent
2021-01-20 11:30:50 AM	OF-26-4	41.36	6.78	522	.2	1	0	.25	52	.02	detergent
2021-01-20 11:35:55 AM	OF-26-5	43.52	6.93	763	.30	.50	0	0	<10	<.02	detergent
2021-04-06 9:30:16 AM	OF-28-1	49.8	6.31	561	.2	2.0	0	0	<10	.32	detergent
2021-01-20 1:15:45 PM	OF-28-4	44.6	6.3	349	.2	.75	0	.25	<10	<.02	detergent
2021-01-20 9:00:34 AM	OF-34-3	36.86	8.03	364	.1	.75	0	0	<10	<.02	detergent
2021-01-20 9:19:31 AM	OF-36-5	38.48	6.22	60.3	0	.50	0	0	<10	0.03	detergent
2021-04-06 8:30:12 AM	OF-37-3	49	6.9	598	.30	.75	0	.25	<10	.03	detergent
2021-01-20 9:30:41 AM	OF-45-2	39.2	6.72	137.5	0	.75	0	0	<10	.18	detergent
2021-01-20 9:45:50 AM	OF-45-7	43.34	6.32	789	.4	1.5	0	0	<10	.04	detergent
2021-04-08 1:00:30 PM	OF-50-3	63	6.28	1997	0.9	0	0	0	>3000	0.21	salinity, E.coli
2021-04-13 10:10:02 AM	OF-59-4	53	6.58	1251	0.6	0.5	0	0	<5	0.03	salinity, detergent
2021-04-06 11:45:58 AM	OF-6-7	52	6.09	1170	.50	.25	0	0	1130	.11	E.coli