

Year 4 Annual Report

Massachusetts Small MS4 General Permit

Reporting Period: July 1, 2021-June 30, 2022

****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, 2021 and June 30, 2022 unless otherwise requested.

Part I: Contact Information

Name of Municipality or Organization: City of Fitchburg

EPA NPDES Permit Number: MAR041189

Primary MS4 Program Manager Contact Information

Name: Nicholas Erickson, PE Title: Commissioner of Public Works

Street Address Line 1: Fitchburg DPW

Street Address Line 2: 301 Broad Street

City: Fitchburg State: MA Zip Code: 01420

Email: nerickson@fitchburgma.gov Phone Number: (978) 829-1905

Stormwater Management Program (SWMP) Information

SWMP Location (web address): <https://www.fitchburgma.gov/463/Stormwater-Management-Program>

Date SWMP was Last Updated:

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 4 Requirements

- Developed a report assessing current street design and parking lot guidelines and other local
- ☒ requirements within the municipality that affect the creation of impervious cover, made it available as part of the SWMP, and:

- ☐ No updates were recommended
☒ Updates were recommended. The anticipated date or date of completion for updates is/was:

Between 2 and 10 years based on the recommendation, funding, and resources the City has available.

- Developed a report assessing local regulations to determine the feasibility of making green
- ☒ infrastructure practices allowable when appropriate site conditions exist, made it available as part of the SWMP, and:

- ☐ No updates were recommended
☒ Updates were recommended. The anticipated date or date of completion for updates is/was:

Between 2 and 10 years based on the recommendation, funding, and resources the City has available.

- ☒ Identified a minimum of 5 permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious cover

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

All outfalls and interconnections have been inspected during dry weather. There were a number of structures that were previously mapped as outfalls that upon field inspection do not appear to be MS4 outfalls. The City is continuing to confirm the types of structures.

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:

The SSO inventory can also be found on the City's Stormwater Webpage.

- ☒ Updated system map due in year 2 as necessary
- ☐ Provided training to employees involved in IDDE program within the reporting period
- ☒ Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters
- ☒ All curbed roadways were swept at least once within the reporting period
- ☒ 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 or provide any additional details, please use the box below:

The City completed an inventory of permittee owned treatment structures during this reporting period. Inspections on these treatment structures were conducted in August/September 2022.

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:

The Pet Waste Pamphlet and Fact Sheet for Septic System Owners are posted on the City's Stormwater website. The City recorded 173 webpage visits for this reporting period.

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)

Phosphorus Source Identification Report

- ☒ Completed the Phosphorus Source Identification Report
 - ☒ The Phosphorus Source Identification Report is attached to the email submission
 - ☐ The Phosphorus Source Identification Report can be found at the following website:

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:

Structural BMPs have been identified and mapped. Due to COVID-19, funding for stormwater permit compliance was delayed and phosphorus calculations have begun during Year 4 and are anticipated to be completed in Year 5.

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

Lawn and Garden Care Fact Sheet and Tips for Creating a Healthy Yard Fact Sheet are posted on the City's Stormwater Webpage. The Webpage this reporting period received 173 views.

Due to COVID-19 and City staffing shortages, public education messages were distributed by website only.

The City completed the following during Year 4 for drainage infrastructure repairs, improvements, and maintenance:

- Rebuilt 45 catch basins
- Repaired 13 sink holes due to broken or damaged Drain pipes
- Cleaned 30 miles of drainage swales
- Performed preventive maintenance by cleaning culvert inverts prior to heavy rain events
- Installed 400 linear feet of Drain pipe at the Forest Hill Cemetery.

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:

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:**

*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: Fowl Water Survey

Message Description and Distribution Method:

CMRSWC and Think Blue Massachusetts held the “Fowl Water” advertisement helps viewers visualize stormwater pollution from motor oil, pet waste, and trash become stormwater pollution.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Impressions on social media. The City of Fitchburg recorded the following impressions/interactions: 22,732 Facebook/Instagram English Impressions, 2,503 Facebook/Instagram Spanish Impressions, 29,700 Youtube English Impressions, and 3,215 Youtube Spanish Impressions.

Message Date(s):

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:

Due to COVID-19 and City staffing shortages, public education messages were distributed by website and electronic methods only.

MCM2: Public Participation

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

Consistent with the City's approved NOI, the SWMP was posted to the City web page with the public encouraged to submit comments to DPW Engineering.

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:**

The City conducted its fifth consecutive year of its Rain Barrel Purchase Program. The City's DPW Engineering Division, DPW Wastewater Division, and Conservation Commission partnered with the "Great American Rain Barrel Company to facilitate a City-subsidized rain barrel purchase program. The City ran the rain barrel program again this year in June 2022. This program continues to be a key development and networking tool to help grow 'green infrastructure' in the City into other forms that will serve to help attenuate and infiltrate stormwater runoff on private properties.

Central MA Regional Stormwater Coalition (CMRSWC): Fitchburg is an active member, with its Civil Engineer sitting on the Steering Committee.

The stormwater budget was discussed at City council meetings during this reporting period, and also the need for a sustainable funding source instead of an annual budget appropriation or free cash appropriation.

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:

Number of SSOs removed:

MS4 System Mapping

Optional: Provide additional status information regarding your map:

Mapping is updated in an ongoing fashion as IDDE inspections are completed.

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:

Please see attachment for the table containing data from screenings of outfalls and interconnections conducted in Year 4 period. Outfall re-visits were completed based on updated connectivity and locations.

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

Number of outfalls screened:

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

Percent of outfalls screened:

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

City completed 100% of dry weather inspections of the MS4 outfalls and interconnections in prior to submittal of Year 3 Annual Report.

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:

Please see attachment for table of catchment area investigation data collected during the reporting period.

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

Number of catchment investigations completed this reporting period:

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

Percent of total catchments investigated:

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

During the reporting period, the City worked with its stormwater consultant Arcadis to continue catchment area investigations. Progress has been made with investigations and supporting documentation can be found in the attached catchment areas.

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: 0

Number of illicit discharges removed: 0

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: 13

Total number of illicit discharges removed: 13

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

Summary of illicit discharges can be found on the City's Stormwater Webpage. Two suspect illicit connections added to the inventory.

Employee Training

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

No IDDE and Good Housekeeping/Pollution Prevention Training was conducted during this reporting period. The City anticipates using the recorded virtual training from June 2021 for future trainings and updating accordingly based on new EPA/DEP and industry practices and standards.

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: 46

Number of inspections completed: 28

Number of enforcement actions taken: 3

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

Ordinance or Regulatory Mechanism

Date update was completed (due in year 3): 5/7/2019

As-built Drawings

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

Number of as-built drawings received: 27

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

Retrofit Properties Inventory

Below, list the permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas (at least 5):

- Goodrich Academy
- Longsjo Middle School
- Babe DiConza Memorial Park
- Goodrich Playground
- Howarth Park

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: 3,500

Number of catch basins cleaned: 3,500

Total volume or mass of material removed from all catch basins: 17,000 tons

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

Total number of catch basins:

If applicable:

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

If a catch basin sump is found to be more than 50% full during two consecutive routine inspections/cleanings, the Superintendent of Streets is notified and he or she will re-prioritize the subject area to receive more frequent cleanings.

Street Sweeping

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

☒ Number of miles cleaned:

☐ Volume of material removed: [Select Units]

☐ Weight of material removed: tons

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:

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

No corrective actions taken. Due to COVID-19 and staffing shortages at the DPW, SWPPP quarterly and annual inspections were not completed this permit year.

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 4 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:

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 5 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree ☒

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)
 - Identify additional permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious areas so that the permittee maintains a minimum of 5 sites in their inventory, until such a time when the permittee has less than 5 sites remaining

Provide any additional details on activities planned for permit year 5 below:

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:

Stephen L. DiMatteo

Title:

Mayor

Signature:

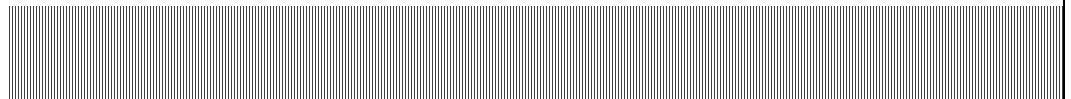


Date:

9/20/2022

[Signatory may be a duly authorized representative]

Appendix A – Outfall Re-ranking



City of Fitchburg, Massachusetts

NPDES MS4 Compliance - Year 4 Annual Report

Illicit Discharge Detection and Elimination (IDDE) Program

Appendix A - Outfall and Interconnection Re-ranking Updates

Outfall ID	Outfall Re-ranking	Inspection Date	Re-Inspection Date	Weather	Temperature (°F)	Last Rain Event (Hours)	Rain Accumulation (in)	Closest Address / Location	Receiving Water	Contributing Land Use	Outfall Shape	Outfall Material	Outfall Dimensions (in)	Flow	Color	Odor	Floatables	Deposits/Sludge	Clarity	Standing Water	Location of Standing Water	pH	Sample Temperature (°F)	Salinity (ppt)	Spec. Cond. (mS/cm)	Ammonia (ppm)	Surfactants (ppm)	Total Coliform (ppm)	Lab Results - E. Coli (Col/100mL)
C101	Low Priority	July 10, 2019		Sunny	88	96	1.37	833 Rindge Road	Falulah Brook	Residential	Circular/Pipe	Reinforced Conc	12	None-Dry		None	None	None		No									
C102	Low Priority	July 30, 2020		Sunny	73	144	0.2	Behind 939 Rindge Road	Falulah Brook	Residential	Circular/Pipe	Reinforced Concrete Pipe	12	None-Dry		None	None	None											
C103	Low Priority	July 30, 2020		Sunny	73	144	0.2	In woods behind pump building on Rindge Road	Falulah Brook			Ductile Iron		None-Dry		None	None	None											
C104	Low Priority	July 30, 2020		Sunny	73	144	0.2	40ft upstream of C103																					
C105	Low Priority	June 24, 2021		Sunny	75	24	0.13	Behind Water Storage Tanks on Ringe Road																					
C106	Low Priority	June 24, 2021		Sunny	75	24	0.13	Behind Water Storage Tanks on Ringe Road																					
C107	Low Priority	August 11, 2020		Sunny	90	24	0.03	15ft from catch basin on east side of Rindge Rd between 1107 and 11633 Rindge Rd		Residential	Circular/Pipe	Reinforced Concrete Pipe	12	Running	Colorless	None	Algae	None	Clear	No		6.89	72.2	0	109.5	0.00	0.05	0	46
C108	Low Priority	July 30, 2020		Sunny	73	144	0.2	South side of Stoneybrook Rd next to 3 36" R.C. culverts		Residential	Circular/Pipe	Reinforced Concrete Pipe (fluted)	16	None-Dry		None	Leaves	Dirt/Sediment Buildup											
C109	Low Priority	July 30, 2020		Sunny	73	144	0.2	Behind pump station between 101 and 103 Stoneybrook Rd		Residential	Circular/Pipe	Reinforced Concrete Pipe (fluted)	30	None-Dry		None	none	Dirt/Sediment Buildup											
C110	Low Priority	July 30, 2020		Sunny	73	144	0.2	In woods between 171 and 183 Stoneybrook Rd		Residential	Circular/Pipe	Reinforced Concrete Pipe	30	None-Dry		None	None	None											
C111	Low Priority	July 30, 2020		Sunny	73	144	0.2	Intersection of Nijal Ct and Rindge Rd SE corner in side slope		Residential	Circular/Pipe	HDPE	24	None-Dry		None	None	None											
C112	Low Priority	July 30, 2020		Sunny	73	144	0.2	Detention Pond at Nijal Ct		Residential	Circular/Pipe	HDPE	16	None-Dry		None	None	None											
C113	Low Priority	August 11, 2020		Sunny	90	24	0.03	Detention Pond at Nijal Ct		Residential	Circular/Pipe	HDPE	16	None-Wet	Colorless	None	None	None	Clear	Yes	Inside and Outside Outfall	6.36	80.3	0.3	602	0.10	0.2	0.05	3
C201	Low Priority	August 6, 2019		Sunny	75	72	Trace	NW Corner of detention pond behind 513 Richardson Rd	Unnamed Trib to Greene's Pond	Residential	Circular/Pipe	High-Density Polyethylene	12	None-Wet		None	None	None		Yes	Inside and Outside Outfall								
C202	Low Priority	August 6, 2019		Sunny	75	72	Trace	NE Corner of detention pond behind 513 Richardson Rd	Unnamed Trib to Greene's Pond	Residential	Circular/Pipe	HDPE	24	None-Wet		None	None			Yes	Inside Outfall								
C203	Low Priority	August 6, 2019	November 6, 2020	Sunny	80	72	Trace	Detention pond behind 513 Richardson Rd in SW corner	Unnamed Trib to Greene's Pond	Residential	Circular/Pipe	HDPE	12	None-Wet		None	None	Red/Orange Sediment Algae											
C204	Low Priority	August 6, 2019		Sunny	80	72	Trace	Scott Rd; Sima Park	Unnamed Trib to Falulah Brook	Residential	Circular/Pipe	Reinforced Conc	12	None-Dry		None			No										
C205	Low Priority	July 10, 2019		Sunny	88	96	1.37	In woods behind 709 and 697 Rindge Rd	Falulah Brook	Residential	Circular/Pipe	Reinforced Conc	24	None-Wet		None	None	None		Yes	Inside Outfall								
C206	Low Priority	August 12, 2019		Sunny	85	48	Trace	Greens Pond	Greene's Pond/ Falulah Brook MA81-63	Open Space	Circular/Pipe	Reinforced Conc	24	None-Dry		None	None	None	Clear	Yes	Inside and Outside Outfall								
C208	Low Priority	July 9, 2019	September 25, 2020	Sunny	80	72	1.37	Greens Pond Bridge, Ashbystate Rd, NW side	Falulah Brook	Residential	Circular/Pipe	Reinforced Conc	12						No										
C209	Low Priority	August 9, 2019		Sunny	80	24	0.38	Greens Pond Bridge, Ashbystate Rd, NE side	Falulah Brook	Residential	Circular/Pipe	Corr. Metal	12	None-Dry		None	None	Rust		No									
C210	Low Priority	July 2, 2019		Sunny	71	48	0.16	Fisher Rd Bridge SW side, easily visible	Falulah Brook	Open Space	Circular/Pipe	PVC	12	None-Dry		None	None	None		No									
C211	Low Priority	August 11, 2020		Sunny	90	24	0.03	Inside culvert near intersection of Richardson Rd and Richardson Dr, inside Manhole	Falulah Brook MA81-63	Residential	Circular/Pipe	VC	12	None-Dry		None	Leaves	None											
C212	Low Priority	June 9, 2020		Partly Cloudy	66	24	Trace	Inside culvert near intersection of Richardson Rd and Richardson Dr, upstream of Manhole	Falulah Brook MA81-63		Circular/Pipe	VC	12	None-Wet		None	None	None	No										
C213	High Priority	November 6, 2020						Fisher Road at Pearl Hill Road Intersection	Unnamed Trib to Falulah Brook MA81-63	Residential	Circular/Pipe	VC	12	Running	Clear	None	none	None	Clear	No		7.38	59.5	0	0.1656	0.05	0.3	0.15	0
C214	Low Priority	June 9, 2020		Partly Cloudy	66	24	Trace	Behind 205 and 221 Will Thompson Way	Unnamed Trib to Falulah Brook MA81-63		Circular/Pipe	RCP	24	None-Wet		None	None	None		Yes	Inside and Outside Outfall								
C216	Low Priority	June 9, 2020		Cloudy	66	24	Trace	Corner of John Fitch and Will Thompson Way	Unnamed Trib to Falulah Brook MA81-63	Residential	Circular/Pipe	PVC	6	None-Dry		None	None	None											
C217	High Priority	August 6, 2019		Sunny	80	72	Trace	John Fitch Highway, 100ft East of Intersection with Will Thompson Way	Unnamed Trib to Falulah Brook MA81-63	Residential	Circular/Pipe	Reinforced Conc	12	None-Dry	White	None	None	None	Milky	Yes	Outside Outfall	7.53	65.66	0.3	0.6664	0.00	0.25	0.05	
C218	High Priority	August 6, 2019	July 21, 2020	Sunny	80	72	Trace	John Fitch Highway NE side of bridge between Will Thompson way and Pearl Hill Rd	Falulah Brook	Residential	Circular/Pipe	Reinforced Concrete Pipe	12	None-Wet		None	None	None		No									
C219	Low Priority	July 8, 2019		Sunny	75	48	1.37	North Side underneath Pearl Hill Rd Bridge	Falulah Brook	Fitchburg State	Circular/Pipe	Clay	24	Running	Colorless	None	None	Corrosion	Clear	No		7.69	65.3	0.2	0.4591	0.00	0.2	0	80
C220	High Priority	July 8, 2019		Sunny	75	48	1.37	South side underneath Pearl Hill Rd Bridge	Falulah Brook	Fitchburg State	Circular/Pipe	Reinforced Conc	24	Running	Colorless	None	None	Rust	Clear	No		7.41	65.12	0.3	0.6664	0.20	0.2	0	12,000
C222	Low Priority	August 7, 2019		Partly Cloudy	70	96	Trace	On hillside in fron of Burbank Hospital, near top of hill	Falulah Brook MA81-63	Commercial	Circular/Pipe	Reinforced Concrete Pipe	18	None-Dry		None				No									
C223	Low Priority	August 6, 2019		Sunny	80	72	Trace	John Fitch Highway SE of La Bella Pizza on SE corner of Bridge	Falulah Brook MA81-63	Commercial	Circular/Pipe	Reinforced Concrete Pipe	48	Trickle	Colorless	None	None	None	Clear	No		7.84	65.12	0.3	0.6664	0.05	0.25	0	20
C224	Low Priority	August 6, 2019		Sunny	80	72	Trace	John Fitch @ Civic center	Falulah Brook MA81-63	Residential	Circular/Pipe	Polyvinyl Chloride	6	None-Dry		None	None	None		No									
C225	Low Priority	August 6, 2019		Sunny	80	72	Trace	John Fitch@civic center	Falulah Brook MA81-63	Commercial	Circular/Pipe	Polyvinyl Chloride	15	None-Dry		None	None	None		No									
C227	Low Priority	August 6, 2019		Partly Cloudy	80	72	Trace	Coolidge @ oakwood	Falulah Brook	Coolidge Park	Circular/Pipe	High-Density Polyethylene	12	None-Dry		None	None	None		No									
C228	Low Priority	August 6, 2019		Partly Cloudy	80	72	Trace	Coolidge @ oakwood	Falulah Brook	Coolidge Park	Circular/Pipe	High-Density Polyethylene	12	None-Dry		None	None	None		No									
C229	Low Priority	August 7, 2019	August 25, 2020	Partly Cloudy	70	96	Trace	Intersection of Blossom St. and Mt.Vernon St.	Falulah Brook MA81-63	Residential	Circular/Pipe	High-Density Polyethylene	12	None-Wet		None	None	None		No									
C230	Low Priority	August 6, 2019		Sunny	80	72	Trace	Lower rindge rd	Falulah Brook	Open Space	Circular/Pipe	Reinforced Conc	12	None-Dry		None	None	None		No									
C231	Low Priority	August 6, 2019		Sunny	80	72	Trace	Lower rindge rd	Falulah Brook	Open Space	Circular/Pipe	Corrugated Metal Pipe	12	None-Dry		None	None	None		No									
C232	Low Priority	August 6, 2019		Sunny	82	72	Trace	Lower Rindge Rd	Falulah Brook	Open Space	Circular/Pipe	Corrugated Metal Pipe	15	None-Dry		None	None	None		No									
C233	Low Priority	August 6, 2019		Partly Cloudy	80	72	Trace	Lower rindge rd, McKay	Falulah Brook	Open Space	Circular/Pipe	High-Density Polyethylene	12	None-Dry		None	None	None		No									
C234	Low Priority	June 9, 2020		Partly Cloudy	66	24	Trace	Marden St, near intersection with Townsend St (Near Eastwood Club)	Falulah Brook MA81-63		Circular/Pipe	VC	12	None-Dry		None	None	None		No									
C235	Low Priority	June 9, 2020		Partly Cloudy	66	24	Trace	Marden St, near intersection with Townsend St (Near Eastwood Club)	Falulah Brook MA81-63		Circular/Pipe	VC	12	None-Dry		None	None	None		No									
C236	High Priority	June 10, 2020		Sunny	64	72	0.1	Marden St, near intersection with Townsend St (Near Eastwood Club)	Falulah Brook MA81-63	Residential	Circular/Pipe	RCP	12	Running	Colorless	None	None	None	Clear	No		8.08	61.3	0.2	0.466	0.05	0.1	0	39,780
C237	Low Priority	July 8, 2020		Cloudy	72	72	0.35	In Detention Pond Behind 12 Macintosh Lane North End	Unnamed Trib to Townsend Road Pond		Circular/Pipe	RCP	6	None-Dry		None	None	Dirt/Sediment Buildup											
C239	Low Priority	July 8, 2020	November 4, 2020	Cloudy	72	72	0.35	In Detention Pond Behind 12 Macintosh Lane South End	Unnamed Trib to Townsend Road Pond	Residential	Circular/Pipe	RCP	14	None-Dry		None	None	None											
C240	Low Priority	July 8, 2020		Cloudy	72	72	0.35	Behind 3 Macintosh Lane	Unnamed Trib to Townsend Road Pond	Residential	Circular/Pipe	HDPE	6	None-Dry		None													
C241	Low Priority	July 8, 2020	November 4, 2020	Cloudy	72	72	0.35	In Detention Pond Behind 122 Macintosh Lane South End	Unnamed Trib to Townsend Road Pond	Residential	Circular/Pipe	RCP (fluted)	22-24	None-Wet		None	None	None											
C243	Excluded	July 21, 2020		Sunny	89	72	0.15	Under Driveway of 19 New West Townsend Rd	Unnamed Trib to Townsend Road Pond	Residential	Circular/Pipe	Reinforced Concrete Pipe	16	None-Dry															
C244	Low Priority	August 6, 2019		Sunny	70	72	Trace	Arn how farm road	Unnamed Trib to Saima Pond	Residential	Circular/Pipe	High-Density Polyethylene	12	None-Dry		None	None	None		No									
C301	Low Priority	January 19, 2021						Under River st Bridge at Intersection with Main St (by KC's Pub) North Side	North Nashua River MA81-02			Stone	24 x 36	None-Dry		None	none	None											
C302	Low Priority	January 19, 2021						Under River st Bridge at Intersection with Main St (by KC's Pub) North Side	North Nashua River MA81-02		Circular/Pipe	DI	18	None-Dry		None	none	None											
C303	Low Priority	July 30, 2019	August 3, 2021	Sunny	61	48	0.04	Under River st Bridge at Intersection with Main St (by KC's Pub) South Side	North Nashua River MA81-02	Commercial	Circular/Pipe	CT - Clay Tile	18	Running	Colorless	None	None	Sediment	Clear	No		7.79	67	0.4	0.761	0.00	0.15	0	5
C304	Low Priority							KC' Pub, Upstream of C303 North Side of River	North Nashua River MA81-02	Commercial	Circular/Pipe	VC	12																
C305	Low Priority	June 9, 2020		Partly Cloudy	66	24	Trace	East Side of Detention Pond at end of Valley View Court	Unnamed Trib to North Nashua River MA81-02		Circular/Pipe	PVC	12	None-Dry		None	None	None		No									
C306	Low Priority	June 10, 2020		Sunny	64	72	0.1	East Side of Detention Pond at end of Valley View Court (Next to C305)	Unnamed Trib to North Nashua River MA81-02	Residential	Circular/Pipe	Reinforced Concrete Pipe	30	Running	Colorless	None	None	None	Clear	No		7.16	60	0	0.123	0.05	0.15	0	1
C309	Low Priority	July 30, 2019		Sunny	85	24	0.01	Gateway Park	North Nashua River MA81-02	Open Space	Circular/Pipe	Clay	12	None-Dry		None	None	None		No									
C310	Low Priority	August 9, 2019		Sunny	80	24	0.38	Insterssection of West St and Sheldon St Downstream	North Nashua River MA81-02	Residential	Circular/Pipe	Clay	12	None-Dry		None	None	None		No									
C3101	Low Priority	June 10, 2020		Sunny	64	72	0.1	Across from 520 Fairmount St (Assumed)	North Nashua River MA81-01	Residential	Circular/Pipe	VC	12	Running	Colorless	None	None	None	Clear	No		6.67	57.1	0.2	0.493	0.10	0.15	0	10.89
C3102	Low Priority	June 10, 2020		Sunny	64	72	0.1	Behind 68 Biliotta Way in North Detention Pond	North Nashua River MA81-01		Circular/Pipe	HDPE	22	Trickle	Colorless														

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Appendix A - Outfall and Interconnection Re-ranking Updates

Outfall ID	Outfall Re-ranking	Inspection Date	Re-Inspection Date	Weather	Temperature (°F)	Last Rain Event (Hours)	Rain Accumulation (in)	Closest Address / Location	Receiving Water	Contributing Land Use	Outfall Shape	Outfall Material	Outfall Dimensions (in)	Flow	Color	Odor	Floatables	Deposits/Sludge	Clarity	Standing Water	Location of Standing Water	pH	Sample Temperature (°F)	Salinity (ppt)	Spec. Cond. (mS/cm)	Ammonia (ppm)	Surfactants (ppm)	Total Coliform (ppm)	Lab Results - E. Coli (Col/100ml)		
C3103	Low Priority	August 9, 2019		Sunny	75			Behind 76 Bilotta Way in South Detention Pond	North Nashua River MA81-01	Residential	Circular/Pipe	High-Density Polyethylene	20	None-Dry		None			No												
C3105	Low Priority	July 7, 2020		Sunny	70	48	0.35	In the wood west of Appleton Circle on hillside	North Nashua River MA81-01	Residential	Circular/Pipe	High-Density Polyethylene	18	None-Dry		None															
C3106	Low Priority	August 15, 2019		Sunny	75	24	Trace	Behind 109 Depot St	Unnamed Trib to North Nashua River MA81-01	Residential	Circular/Pipe	Reinforced Concrete Pipe	30	Trickle	Colorless	None	None	Corrosion	Clear	No		7	62.24	0.3	0.863	0.00	0.2	0	23		
C3109	Low Priority	July 9, 2019		Sunny	80	72	1.37	Next to 242 Rollstone Rd	Sand Brook	Residential	Circular/Pipe	Reinforced Conc	24	Trickle	Colorless	None	None	None	Clear	No		7.39	65.48	0.1	0.2427	0.05	0.1	0	98		
C311	Low Priority	July 30, 2019		Sunny	80	24	0.01	Next to 242 Rollstone Rd	Sand Brook	Residential	Circular/Pipe	Reinforced Conc	24	None-Dry		None	None	Sediment		No											
C3111	Low Priority	July 16, 2019		Sunny	77	96	0.81	Intersection of Rollstone Rd and Electric Avenue	Sand Brook	Commercial	Circular/Pipe	Reinforced Conc	8	None-Dry		None	None	None		No											
C3112	Low Priority	July 16, 2019		Sunny	77	96	0.81	Intersection of Rollstone Rd and Electric Avenue	Sand Brook	Commercial	Circular/Pipe	Clay	15	None-Dry		None	None	None		No											
C3113	Low Priority	July 17, 2019		Cloudy	79	120	0.81	Across from 100 Franklin St (next to utility corridor)	Sand Brook	Commercial	Circular/Pipe	Reinforced Conc	30	Running	Colorless	None	None	Sediment	Clear	No		7.34	66.02	0.3	0.6664	0.05	0.15	0	0		
C3114	Low Priority	July 17, 2019		Cloudy	79	120	0.81	Across from 100 Franklin St (next to utility corridor)	Sand Brook	Commercial	Circular/Pipe	Reinforced Conc	30	Running	Colorless	None	None	Sediment	Clear	No		7.37	65.3	0.2	0.4591	0.00	0.1	0	0		
C3115	High Priority	July 17, 2019		Partly Cloudy	79	120	0.81	South End in of Parkhill Park, within stone Channel	Sand Brook	Residential	Circular/Pipe	Reinforced Conc	24	Trickle	Colorless	None	Algae and Scum	Orange	Clear	No		6.79	65.3	0.4	0.8682	0.55	0.25	0	0		
C3116	Low Priority	July 17, 2019		Sunny	79	120	0.81	South End in of Parkhill Park, at the upstream end of stone channel	Sand Brook	Residential	Box Culvert	Reinforced Conc	24 x 36	Running	Colorless	None	Red Algae	Red	Clear	Yes	Outside Outfall	6.76	64.22	0.3	0.6664	0.00	0.25	0	0		
C3118	Low Priority	August 7, 2019		Mostly Sunny		96	Trace	In the woods behind 55 Causeway St	Sand Brook	Residential	Circular/Pipe	PVC	18	None-Dry		None			No												
C312	Low Priority	August 14, 2019		Partly Cloudy	75			Underneath Sheldon St Bridge	North Nashua River MA81-02	Residential	Circular/Pipe	Cast Iron Pipe	18	None-Dry		None			No												
C3120	Low Priority	July 26, 2019		Sunny	75	48	Trace	North Side of Parkhill Park (Downstream of C3119)	Sand Brook	Residential	Circular/Pipe	Corr. Metal	18	Running	Colorless	None	None	None	Clear	No		7.86	66.2	0.1	0.2427	0.40	0.25	0	39		
C3122	Low Priority	June 17, 2020		Partly Cloudy	68	120	0.26	Behind the Shed of 73 Amiot St	Sand Brook	Residential	Circular/Pipe	HDPE	12	Trickle	Colorless	None	None	None	Clear	No		6.28	60	0	0.182	0.05	0	0	125		
C3127	Low Priority	June 16, 2020	June 24, 2021	Sunny	75	24	0.13	Quarry Lane Detention Pond 2 (Farthest from the Street)	Sand Brook	Residential	Circular/Pipe	HDPE	24	None-Wet		None															
C3128	Low Priority	June 16, 2020	June 24, 2021	Sunny	75	24	0.13	In the yard of 96 Wall St	Sand Brook	Residential	Circular/Pipe	CMP	12	None-Wet		None															
C3129	Low Priority	August 21, 2020		Sunny	86	24	0.03	Behind 249 Kimball St (covered in Dense Bamboo)	North Nashua River MA81-02		Circular/Pipe	VC	15	None-Dry		None	None	None													
C313	Low Priority	August 14, 2019		Partly Cloudy	75			Underneath Sheldon St Bridge	North Nashua River MA81-02	Residential	Circular/Pipe	Reinforced Concrete Pipe	12	None-Dry		None			No												
C3132	Low Priority	June 10, 2020		Sunny	70	72	0.1	In yard of 132 Beech St	North Nashua River MA81-02	Residential	Circular/Pipe	CMP	8	Running	Colorless	None	None	None	Clear	No		6.8	65.8	0.2	0.355	0.10	0.1	0	18		
C314	Low Priority	July 30, 2019		Sunny	90	24	0.01	In Nashua River near abandoned Pedestrian bridge behind 1428 Main St	North Nashua River MA81-02	Residential	Circular/Pipe	Clay	12	None-Dry		None	None	None		No											
C315	Low Priority	July 30, 2019	June 24, 2021	Sunny	75	24	0.13	In Nashua River near abandoned Pedestrian bridge behind 1428 Main St	North Nashua River MA81-02	Residential	Circular/Pipe	Cast Iron	12	Dry		None	None	None		Yes	Inside and Outside Outfall										
C316	Low Priority	July 30, 2019	June 24, 2021	Sunny	75	24	0.13	In Nashua River near abandoned Pedestrian bridge behind 1428 Main St	North Nashua River MA81-02	Commercial	Circular/Pipe	Cast Iron	12	Dry					Yes	Inside and Outside Outfall											
C317	Low Priority	July 30, 2019		Sunny	85	24	0.01	Yarn Works	North Nashua River MA81-02	Residential	Circular/Pipe	HDPE	18	None-Dry		None	None	None		No											
C318	Low Priority	July 30, 2019		Sunny	89	24	0.01	Parking Lot of 1428 Main St	North Nashua River MA81-02	Commercial	Circular/Pipe	HDPE	15	None-Dry		None	None	None		No											
C319	Low Priority	July 30, 2019		Sunny	90	24	0.01	Wallace @ River	North Nashua River MA81-02	Commercial	Circular/Pipe	Clay	8	None-Dry		None	None	Sediment		No											
C320	Low Priority	July 30, 2019		Sunny	85	24	0.01	Wallace @ River	North Nashua River MA81-02	Commercial	Circular/Pipe	Clay	12	None-Dry		None	None	None		No											
C321	Low Priority	July 30, 2019		Sunny	87	24	0.01	River St Bridge @ Wallace Rd, West Side Downstream	North Nashua River MA81-02	Commercial	Circular/Pipe	CT - Clay Tile	12	None-Dry		None	None	None		No											
C322	Low Priority	July 30, 2019		Sunny	87	24	0.01	River St Bridge @ Wallace Rd, West Side Downstream	North Nashua River MA81-02	Commercial	Circular/Pipe	CT - Clay Tile	12	None-Dry		None	None	None		No											
C323	Low Priority	July 30, 2019		Sunny	85	24	0.01	River St Bridge @ Wallace Rd, West Side Underneath	North Nashua River MA81-02	Commercial	Circular/Pipe	PVC	12	None-Dry		None	None	None		No											
C324	Low Priority	July 31, 2019		Sunny	83	48	0.01	Under Kimball St Bridge (between rotary and Cleghorn St) East side	North Nashua River MA81-02	Residential	Circular/Pipe	Cast Iron	12	None-Dry		None	None	None		No											
C325	Low Priority	August 21, 2020		Sunny	86	24	0.03	Kimball St bridge abutment	North Nashua River MA81-02	Commercial	Circular/Pipe	Reinforced Conc	24	Running		None	None	None		No		7.37	73.4	0	0.1179	0.05	0.15	0.5	0		
C326	Low Priority	July 31, 2019		Sunny	85	48	0.01	Cleghorn St	North Nashua River MA81-02	Residential	Circular/Pipe	HDPE	12	None-Dry		None				No											
C327	Low Priority	July 31, 2019		Sunny	85	48	0.01	Cleghorn St	North Nashua River MA81-02	Residential	Circular/Pipe	Corr. Metal	18	None-Dry		None				No											
C328	Low Priority	August 9, 2019		Sunny	80	24	0.38	Cleghorn St	North Nashua River MA81-02	Residential	Circular/Pipe	Corr. Metal	18	None-Dry		None				No											
C329	Low Priority	July 30, 2019		Sunny	85	24	0.01	Underneath Daniels St Bridge	North Nashua River MA81-02	Commercial	Circular/Pipe	Clay	12	None-Dry		None	None	None		No											
C330	High Priority	July 31, 2019		Sunny	80	48	0.01	Underneath Daniels St Bridge	North Nashua River MA81-02	Commercial	Box Culvert	Reinforced Conc	36 x 36	Gushing	Colorless	None	None	None	Clear	No		7.82	68.18	0.4	0.8682	0.00	0.15	0	4,100		
C331	Low Priority	July 31, 2019		Sunny	83	48	0.01	Behind East side of 408 River St	North Nashua River MA81-02	Commercial	Box Culvert	Stone	12 x 24	Running	Colorless	None	Algae	Orange	Clear	No		6.31	61.7	0.2	0.4591	0.03	0.1	0	54		
C332	Low Priority	November 6, 2020		Cloudy	66	96	0.1	Underneath Oak Hill Rd Rd Bridge North Side	North Nashua River MA81-02	Commercial	Circular/Pipe	VC	8	Trickle	Clear	None	None	None	Clear	No		6.31	61	0.3	603	0.00	0.2	0	0		
C333	High Priority	July 31, 2019	January 25, 2021	Partly Cloudy	80	48	0.01	Underneath Oak Hill Rd Bridge South Side (River St. @ Oak Hill Rd)	North Nashua River MA81-02	Commercial	Circular/Pipe	Reinforced Conc	48	Trickle	Clear	None	None	None	Clear	No		7.09	37.2	0.2	546	0.00	0.8	0	103442		
C334	Low Priority	July 31, 2019		Partly Cloudy	80	48	0.01	Underneath Oak Hill Rd Bridge South Side (River St. @ Oak Hill Rd)	North Nashua River MA81-02	Commercial	Circular/Pipe	Reinforced Conc	48	None-Dry		None	None	None		No											
C336	Low Priority	July 31, 2019		Sunny	85	48	0.01	Between 25 and 41 Almount St	North Nashua River MA81-02	Residential	Circular/Pipe	Clay	12	None-Dry		None	None	None		No											
C338	Low Priority	July 7, 2020		Sunny	70	48	0.35	Across from 91 Wallace Rd North West of Detention Pond	North Nashua River MA81-02	Residential	Circular/Pipe	CMP	12	Running	Colorless	None	None	None	Clear	No		7.33	68.3	0.2	0.399	0.10	0.15	0	23		
C341	Low Priority	June 11, 2020	January 25, 2021	Cloudy	66	96	0.1	Straight down towards river from hole in the wall, Near Murphys Auto	North Nashua River MA81-02		Circular/Pipe	Stone	24 x 24	Running	Colorless	None	None	None	Clear	No		6.62	39.5	0.3	671	0.00	0.2	0	1		
C342	Low Priority							Upstream of brook that enters Nashua next to Railroad bridge at Southern intersection of Wallace and River	North Nashua River MA81-02		Circular/Pipe	RCP	12																		
C343	High Priority	August 5, 2019		Sunny	75	48	Trace	Across from 601 River St North bank of Nashua River	North Nashua River MA81-02	Commercial	Box Culvert	Stone	24 x 36	Running	Colorless	None	None	None	Clear	No		7.53	64.76	0.2	0.4591	0.00	0.05	0	380		
C345	Low Priority	August 26, 2020	November 4, 2020	Sunny	76	48	0.04	South bank of Nashua River across from East side of 644 River St (Far behind 389 Fairmount St)	North Nashua River MA81-02		Circular/Pipe	RCP	12	None-Wet		None	None	None		Yes	Inside Outfall										
C347	Low Priority	August 2, 2019		Sunny	70	48	1.25	castle st	North Nashua River MA81-02	Residential	fluted	High-Density Polyethylene	12	None-Dry		None	None	None		No											
C348	Low Priority	August 5, 2019		Partly Cloudy	70	48	Trace	castle st	North Nashua River MA81-02	Residential	fluted	High-Density Polyethylene	12	None-Dry		None	None	None		No											
C349	Low Priority	July 8, 2020						Detention Pond Behind 208 Bishop Rd	North Nashua River MA81-01		Circular/Pipe	Stone	36 x 36	None-Dry		None	None	None													
C350	High Priority	August 2, 2019		Sunny	70	48	1.25	198 bishop	North Nashua River MA81-02	Residential	fluted	High-Density Polyethylene	18	Trickle	Colorless	None	None	None	Clear	Yes	Inside and Outside Outfall	8.22	70.52	0.4	0.8682	0.50	0.25	0	210		
C351	Low Priority	August 12, 2019		Sunny	75	48	Trace	Detion Pond in center of Bishop Rd	North Nashua River MA81-02	Residential	fluted	High-Density Polyethylene	18	None-Wet		None	None	Sediment		Yes	Inside and Outside Outfall										
C352	Low Priority	August 2, 2019		Sunny	75	48	1.25	Detion Pond in center of Bishop Rd	North Nashua River MA81-02	Residential	Circular/Pipe	High-Density Polyethylene	18	None-Wet		None			Yes	Inside and Outside Outfall											
C353	Low Priority	November 4, 2020						Across from 753 River St	North Nashua River MA81-01		Circular/Pipe	DI	12	None-Dry		None	None	None													
C354	Low Priority	August 2, 2019		Sunny	75	48	1.25	Across from 753 River St	North Nashua River MA81-01	Residential	Circular/Pipe	Reinforced Concrete Pipe	48	None-Dry		None	None	None		No											
C355	Low Priority	July 31, 2019		Sunny	85	48	0.01	Intersection of Fairmount St and Liberty Cir (North)	North Nashua River MA81-02	Residential	Circular/Pipe	Reinforced Conc	18	None-Wet		None															

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Appendix A - Outfall and Interconnection Re-ranking Updates

	Outfall ID	Outfall Re-ranking	Inspection Date	Re-Inspection Date	Weather	Temperature (°F)	Last Rain Event (Hours)	Rain Accumulation (in)	Closest Address / Location	Receiving Water	Contributing Land Use	Outfall Shape	Outfall Material	Outfall Dimensions (in)	Flow	Color	Odor	Floatables	Deposits/Sludge	Clarity	Standing Water	Location of Standing Water	pH	Sample Temperature (°F)	Salinity (ppt)	Spec. Cond. (mS/cm)	Ammonia (ppm)	Surfactants (ppm)	Total Chlorine (ppm)	Lab Results - E. Coli (Col/100mL)
C358	Low Priority	August 2, 2019							Below SW corner of Munksoj building in wall next to river	Wymans Brook		Circular/Pipe	RCP	36																
C359	Low Priority	August 2, 2019		Sunny	80	48	1.25		Depot st bridge	North Nashua River MA81-01	Residential	Circular/Pipe	Clay Tile	12	None-Dry		None				No									
C360	Low Priority	August 2, 2019		Sunny	75	48	1.25		Depot St Bridge North Side	North Nashua River MA81-01	Open Space	Circular/Pipe	Polyvinyl Chloride	12	None-Dry		None				No									
C361	Low Priority	July 7, 2020	November 6, 2020	Sunny	70	48	0.35		Westminster St Bridge over Phillips Brook	Phillips Brook	Commercial	Circular/Pipe	RCP	12	Running	Colorless	None	None	None	Clear	No		6.28	60.1	0.2	0.662	0.00	0.2	0	0
C362	Low Priority	July 7, 2020	June 24, 2021	Sunny	75	24	0.13		Westminster St Bridge over Phillips Brook	Phillips Brook	Commercial	Circular/Pipe	RCP	24	Dry															
C363	Low Priority	July 7, 2020		Sunny	70	48	0.35		Westminster St Bridge over Phillips Brook	Phillips Brook	Commercial	Circular/Pipe	RCP	12	None-Dry		None													
C365	Low Priority	November 5, 2020							Nextr to 62 Stickney Road	Unnamed Trib to Phillips Brook	Residential	Circular/Pipe			Trickle	Clear	None	None	None	Clear	No		7.23	52.3	0.3	723	0.00	0.3	0	15
C367	Low Priority	November 5, 2020							Next to 535 Ashburnham Street	Unnamed Trib to Phillips Brook	Residential	Circular/Pipe			Trickle	Clear	None	None	None	Clear	No		6.41	52.1	0.2	527	0.10	0.2	0	16
C368	Low Priority	August 2, 2019		Sunny	80	48	1.25		365 Ashburnham st	Unnamed Trib to Phillips Brook	Residential	Circular/Pipe	Reinforced Concrete Pipe	18	None-Dry		None	None	Sediment		No									
C369	Low Priority	August 5, 2019		Sunny	80	48	Trace		Nesr mctaggarts pond	Phillips Brook	Residential	Circular/Pipe	Reinforced Concrete Pipe	18	Running	Colorless	None	None	None	Clear	No		7.98	66.74	0.1	0.2427	0.00	0.2	0	140
C371	Low Priority	August 13, 2019		Partly Cloudy	75	72	Trace		Along Westminster Hill Rd between Sanborn St and Baltic Lane (Best observed from Canyon)	Phillips Brook	Residential	Circular/Pipe	Clay Tile	8	None-Dry		None				No									
C372	Low Priority	August 13, 2019		Partly Cloudy	75	72	Trace		Along Westminster Hill Rd between Sanborn St and Baltic Lane (Best observed from Canyon)	Phillips Brook	Residential	Circular/Pipe	Corrugated Metal Pipe	15	None-Dry		None				No									
C373	Low Priority	August 5, 2019		Sunny	75	48	Trace		224 ashburnham st	Unnamed Trib to Phillips Brook	Residential	Circular/Pipe	High-Density Polyethylene	8	None-Dry		None	None	None		No									
C374	Low Priority	August 7, 2019		Partly Cloudy	70	96	Trace		Sanborn St	Phillips Brook	Residential	Circular/Pipe	Clay Tile	12	None-Dry		None				No									
C375	Low Priority	July 7, 2020		Sunny	70	48	0.35		Behind 179 Westminster St	North Nashua River MA81-01	Commercial	Circular/Pipe	VC	18	None-Dry		None													
C376	Low Priority	August 5, 2019	June 24, 2021	Sunny	75	24	0.13		In the wood between 46 and 45 Hartland Ave (past the end of the street)	North Nashua River MA81-01	Residential	Circular/Pipe	Polyvinyl Chloride	12																
C377	High Priority	August 5, 2019		Sunny	75	48	Trace		In the wood between 46 and 45 Hartland Ave (past the end of the street)	North Nashua River MA81-01	Residential	fluted	High-Density Polyethylene	12	Trickle	Colorless	None	None	None	Clear	No		6.26	57.2	0.1	0.2427	0.00	0.25	0.05	0
C378	Low Priority	August 5, 2019							In detention pond at intersection of Kaysha and Hemlock					None-Dry		None	None	None												
C379	High Priority	August 15, 2019		Sunny	75	24	Trace		Across from 490 Westminster St	North Nashua River MA81-01	Residential	Circular/Pipe	Cast Iron Pipe	8	Trickle	y/Orange/Rust color	Musty	Rust	Rust and Corrosion	Suspended Solids	Yes	Outside Outfall	6.32	66.92	0	0.278	NA	0.1	0.1	7
C380	Low Priority	August 13, 2019		Partly Cloudy	75	72	Trace		Across from 490 Westminster St	North Nashua River MA81-01	Residential	Circular/Pipe	Reinforced Concrete Pipe	30	None-Dry		None				No									
C381	Low Priority	June 9, 2020		Partly Cloudy	66	24	Trace		Across from 490 Westminster St	North Nashua River MA81-01	Commercial	Box Culvert	Stone	24 x 36	None-Wet		None	None	None											
C383	Low Priority	August 5, 2019		Sunny	75	48	Trace		Across from 1 Overland	Unnamed Trib to North Nashua River MA81-01	Residential	Circular/Pipe	Polyvinyl Chloride	6	None-Dry		None	None	None	No										
C384	Low Priority	June 10, 2020		Partly Cloudy	64	72	0.1		Behind 114 Cascade St	Unnamed Trib to North Nashua River MA81-01		Circular/Pipe	HDPE	12	None-Dry		None	None	None	No										
C385	Low Priority	June 17, 2020	August 3, 2021	Sunny	64	48	0.04		Intersection of Westminster St and Industrial Rd	Snows Millpond	Commercial	Circular/Pipe	Cast Iron	12	None-Wet	Colorless	None	None	None	Clear	Yes	Inside and Outside Outfall	6.96	68.5	0.2	0.471	0.00	0.2	0	180
C386	Low Priority	June 17, 2020	August 3, 2021	Sunny	64	48	0.04		Intersection of Westminster St and Industrial Rd	Snows Millpond	Commercial	Circular/Pipe	Cast Iron	12	None-Wet	Colorless	None	None	None	Clear	Yes	Inside and Outside Outfall	6.96	68.5	0.2	0.471	0.00	0.2	0	180
C387	Low Priority	June 17, 2020	August 3, 2021	Sunny	64	48	0.04		Intersection of Westminster St and Industrial Rd	Snows Millpond	Commercial	Circular/Pipe	Cast Iron	12	None-Wet	Colorless	None	None	None	Clear	Yes	Inside and Outside Outfall	6.96	68.5	0.2	0.471	0.00	0.2	0	180
C388	Low Priority	July 17, 2019		Cloudy	79	120	0.81		In the woods behind Arbor Way	Unamed Trib to North Nashua River MA81-01	Industrial	Circular/Pipe	Corr. Metal	48	None-Dry		None	None	Sediment	No										
C389	Low Priority	July 17, 2019		Partly Cloudy	79	120	0.81		End of Stevens Rd	Unamed Trib to North Nashua River MA81-01	Industrial	Circular/Pipe	Corr. Metal	15	None-Dry		None	None	Sediment	No										
C390	Low Priority	July 17, 2019		Partly Cloudy	79	120	0.81		End of Stevens Rd	Unamed Trib to North Nashua River MA81-01	Industrial	Fluted	Reinforced Conc	15	None-Dry		None	None	None	No										
C391	Low Priority	August 21, 2020		Sunny	86	24	0.03		NE Corner of SW detention pond at Victoria Lane and Rogers Rd	BMP/Sawmill Pond	Residential	Fluted	Reinforced Conc	24	None-Dry		None	None	Sediment	Yes	Inside and Outside Outfall									
C392	Low Priority	August 5, 2019		Sunny	75	48	Trace		At the end of Swail SW of the SW detention Pond	BMP/Sawmill Pond	Industrial	Circular/Pipe	Polyvinyl Chloride	6	None-Dry		None	None	None	No										
C394	Low Priority	August 21, 2020		Sunny	86	24	0.03		East side of North Detention Pond at intersection of Victoria Lane and Rogers Rd	BMP/Sawmill Pond		Circular/Pipe	PVC	6	Trickle	Faint Yellow	None	None	None	Clear	No		7.28	73.6	0.2	0.4	0.10	0.05	0.5	11
C395	Excluded	June 17, 2020	October 22, 2020	Partly Cloudy	68	120	0.26		North Side of North Detention Pond at intersection of Victoria Lane and Rogers Rd	BMP/Sawmill Pond		Circular/Pipe		12																
C396	Low Priority	July 17, 2019		Cloudy	79	120	0.81		North side od detention pond at Victoria Lane @ Game On Way	BMP/Sawmill Pond	Residential	Circular/Pipe	Reinforced Conc	12	None-Dry		None	None	Sediment	No										
C399	Excluded	June 11, 2020		Cloudy	66	96	0.1		Behind 18 Chesnut St	North Nashua River MA81-02	Residential		Stone		Running		None	None	None											
C401	Low Priority	July 8, 2019		Sunny	75	48	1.37		Upstream of coolodge park Bridge (West Bank)	Falulah Brook	Coolidge Park	Circular/Pipe	Reinforced Conc	30	Running	Colorless	None	Algae	None	Clear	No		7.07	61.7	0.3	0.6664	0.00	0.15	0	5,100
C402	Low Priority	July 2, 2019		Sunny	71	48	0.16		Upstream of coolodge park Bridge (West Bank)	Falulah Brook	Coolidge Park	Circular/Pipe	HDPE	12	None-Dry		None	None	None	No										
C403	Low Priority	August 6, 2019		Partly Cloudy	80	72	Trace		Coolidge	Falulah Brook	Residential	Circular/Pipe	Reinforced Concrete Pipe	18	None-Dry		None	None	None	No										
C404	Problem	July 8, 2019		Sunny	75	48	1.37		Downstream of Coolidge Park Bridge (West Bank)	Falulah Brook	Open Space	Circular/Pipe	Reinforced Conc	36	Running	Colorless	None	Algae	None	Clear	No		7.24	60.26	0.1	0.2427	2.10	0.25	0	58,000
C405	Low Priority	August 6, 2019		Partly Cloudy	80	72	Trace		Downstream of Coolidge Park Bridge (West Bank) behind 197 Townsend St																					

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Appendix A - Outfall and Interconnection Re-ranking Updates

	Outfall ID	Outfall Re-ranking	Inspection Date	Re-Inspection Date	Weather	Temperature (°F)	Last Rain Event (Hours)	Rain Accumulation (in)	Closest Address / Location	Receiving Water	Contributing Land Use	Outfall Shape	Outfall Material	Outfall Dimensions (in)	Flow	Color	Odor	Floatables	Deposits/Sludge	Clarity	Standing Water	Location of Standing Water	pH	Sample Temperature (°F)	Salinity (ppt)	Spec. Cond. (mS/cm)	Ammonia (ppm)	Surfactants (ppm)	Total Chlorine (ppm)	Lab Results - E. Coli (Col/100mL)
	C424	Low Priority	July 8, 2019		Sunny	75	48	1.37	In brook behind 334 John Fitch Highway (McDonalds)	Baker Brook	Commercial	Circular/Pipe	Clay	6	None-Dry		None	None	None		No									
	C425	Excluded	July 8, 2019		Sunny	75	48	1.37	In brook behind 334 John Fitch Highway (McDonalds)	Baker Brook	Open Space	Circular/Pipe	Other	24	Running	Colorless	None	None	None	Clear	No									
	C426	Low Priority	July 8, 2019		Sunny	75	48	1.37	In brook behind 334 John Fitch Highway (McDonalds)	Baker Brook	Commercial	Circular/Pipe	Clay	6	None-Dry		None	None	None		No									
	C427	High Priority	July 8, 2019		Sunny	75	48	1.37	334 John Fitch	Baker Brook	Commercial	Circular/Pipe	Other	30	Running	Colorless	None	None	Rust	Clear	No		7.28	65.3	0.3	0.6664	0.40	0.2	0	3,000
	C428	Low Priority	July 9, 2019		Partly Cloudy	80	72	1.37	In brook behind Jonh Fitch Highway Across from St Bernand Athletic Fields	Baker Brook	Residential	Circular/Pipe	Reinforced Conc	12	None-Dry		None	None	None		Yes	Outside Outfall								
	C429	Low Priority	June 17, 2020		Partly Cloudy	68	120	0.26	In brook behind Jonh Fitch Highway Across from St Bernand Athletic Fields	Baker Brook		Circular/Pipe	RCP	12	None-Dry		None	None	None		No									
	C430	Low Priority	July 9, 2019		Partly Cloudy	80	72	1.37	In brook next to 130 John Fitch Highway (Carstar)	Baker Brook	Commercial	Circular/Pipe	Reinforced Conc	12	None-Dry		None	None	None		No									
	C431	Low Priority							In Swale at end of Ray Ave and 100 John Fitch Highway						None-Wet	Clear	None			Yes	Inside Outfall									
	C432	Excluded	July 10, 2019		Sunny	88	96	1.37	Behind 68 Airport Rd, in swail hidden by dense Bamboo	North Nashua River MA81-02	Commercial	Circular/Pipe	Corr. Metal	48	Trickle		None	None	None		No									
	C433	Excluded	July 10, 2019		Sunny	88	96	1.37	Behind 68 Airport Rd, in swail hidden by dense Bamboo	North Nashua River MA81-02	Commercial	Circular/Pipe	HDPE	12	Trickle	Colorless	None	None	None	Clear	No									
	C434	Low Priority	June 11, 2020		Cloudy	66	96	0.1	On Nashua River bank behind 135 Intervale Rd	North Nashua River MA81-02		Circular/Pipe	RCP	48																
	C435	Low Priority	June 9, 2020		Partly Cloudy	66	24	Trace	Behind 88 Benson St	Unnamed Trib to North Nashua River MA81-02		Circular/Pipe	CMP	48	None-Wet		None	None	None											
	C436	Low Priority	June 9, 2020		Partly Cloudy	66	24	Trace	Behind 88 Benson St	Unnamed Trib to North Nashua River MA81-02		Circular/Pipe	HDPE	12	None-Dry		None	None	None											
	C438	High Priority	July 10, 2019		Sunny	88	96	1.37	In woods across from Canton St, South Side of 44	North Nashua River MA81-02	Open Space	Box Culvert	Reinforced Conc	42 x 30	Running	Colorless	None	None	Rust	Clear	No		7.56	67.82	0.2	0.4591	0.10	0.2	0	4,500
	C439	Low Priority	June 16, 2020		Sunny	77	96	0.26	Behind 480 Water St, downstream of railroad bridge	North Nashua River MA81-02	Commercial	Circular/Pipe	RCP	60																
	C440	Low Priority	July 8, 2020		Cloudy	72	72	0.35	Downstream of C438, on downstream face of Dam / Arden Mills Way	North Nashua River MA81-02		Box Culvert	RCP	36 x 36																
	C441	Low Priority	July 25, 2019		Parity Cloudy	79	24	Trace	In woods SE of Intersection of Water St and John T Centirno Memorial Dr	North Nashua River MA81-02	Residential	Circular/Pipe	Reinforced Conc	18	None-Dry		None	None	None		No									
	C442	High Priority	July 25, 2019		Parity Cloudy	79	24	Trace	In woods SE of Intersection of Water St and John T Centirno Memorial Dr	North Nashua River MA81-02	Residential	Circular/Pipe	Reinforced Conc	18	Running	Colorless	None	None	None	Clear	No		7.66	68	0.2	0.4591	0.15	0.35	0	58,000
	C443	Low Priority	June 11, 2020	November 6, 2020	Cloudy	66	96	0.1	In Nashua River Upstream of C444, Downstream of Rail Road Bridge	North Nashua River MA81-02	Commercial	Circular/Pipe	RCP	72	None-Dry		None	None	None											
	C444	Problem	June 11, 2020	November 6, 2020	Cloudy	66	96	0.1	In Nashua River Upstream of C444, Downstream of Rail Road Bridge	North Nashua River MA81-02	Commercial	Circular/Pipe			Running	Colorless	None	none	None	Clear	No		7.24	62.1	0.3	0.723	2.15	0.4	0	8,088
	C445	Low Priority	July 30, 2019		Sunny	83	24	0.01	In Nashua River near corner of First St and Railroad St	North Nashua River MA81-02	Residential	Circular/Pipe	Clay	8	None-Dry		None				No									
	C446	Low Priority	July 30, 2019		Sunny	85	24	0.01	Under Water St Bridge at Central Plaza South Side	North Nashua River MA81-02	Residential	Circular/Pipe	Clay	24	None-Dry		Sewage	None	None		No									
	C447	Low Priority	July 30, 2019	August 3, 2021	Sunny	72	48	0.04	Under Water St Bridge at Central Plaza North Side	North Nashua River MA81-02	Commercial	Circular/Pipe	Clay	24	Trickle	Colorless	None	None	None	Clear	No		6.91	71.8	1.7	3.29	0.00	0.6	0	84
	C448	Low Priority	July 30, 2019		Sunny	83	24	0.01	North Side of Walnut St	North Nashua River MA81-02	Residential	Circular/Pipe	Clay	12	None-Dry		None	None	None		No									
	C449	Low Priority							CHANGE LOCATION	North Nashua River MA81-02		Circular/Pipe	RCP	6		None														
	C450	Low Priority	July 30, 2019		Sunny	83	24	0.01	North Side of Walnut St	North Nashua River MA81-02	Residential	Circular/Pipe	Clay	8	None-Dry		None	None	Sediment		No									
	C451	Low Priority	July 30, 2019		Sunny	83	24	0.01	North Side of Walnut St	North Nashua River MA81-02	Residential	Circular/Pipe	Clay	6	None-Dry		None	None	None		No									
	C452	Low Priority	July 30, 2019		Sunny	83	24	0.01	North Side of Walnut St	North Nashua River MA81-02	Residential	Circular/Pipe	Cast Iron	8	None-Dry		None				No									
	C453	Low Priority	June 16, 2020		Sunny	77	96	0.26	NW side of Water Street Bridge Behind tall grass	North Nashua River MA81-02	Commercial	Circular/Pipe	DI	18																
	C454	Low Priority	July 26, 2019	August 3, 2021	Sunny	73	48	0.04	5th Street Bridge (parked across from 5th Street Diner, 134 Harvard St)	North Nashua River MA81-02	Commercial	Circular/Pipe	HDPE	8	None-Wet					Yes	Bottom of DMH 6513									
	C455	Low Priority	July 26, 2019	August 3, 2021	Sunny	73	48	0.04	Just Downstream of Laurel St Bridge, West Bank (Laurel St at South St)	North Nashua River MA81-02	Residential	Circular/Pipe	Reinforced Conc	66	Gushing	Colorless	None	None	None	Clear	No		7.56	68.6	0.5	984	0.00	0.15	0	690
	C456	Excluded	June 16, 2020		Sunny	77	96	0.26	Riverfront Park off Boulder Dr, Downstream of Bridge Adjacent to C457	North Nashua River MA81-02		Circular/Pipe	HDPE	18																
	C457	High Priority	July 26, 2019		Sunny	83	48	Trace	Riverfront Park off Boulder Dr, Downstream of Bridge East Bank Hidden by Bamboo	North Nashua River MA81-02	Commercial	Circular/Pipe	HDPE	18	Trickle	Colorless	None	None	None	Clear		7.49	71.96	0.2	0.4591	0.05	0.25	0	8,700	
	C458	Low Priority							Riverfront Park off Boulder Dr, within bridge abutment on upstream West side	North Nashua River MA81-02		Circular/Pipe	VC	6		None														
	C459	Excluded							Riverfront Park off Boulder Dr, within bridge abutment on upstream West side	North Nashua River MA81-02	Commercial	Circular/Pipe	VC	8																
	C460	Low Priority	July 8, 2020		Cloudy	72	72	0.35	Riverfront Park off Boulder Dr. Couple hundred ft East of steel / wood bridge	North Nashua River MA81-02	Commercial	Circular/Pipe	RCP	48	None-Wet		None													
	C462	Low Priority	August 15, 2019		Sunny	70	24	Trace	Near Intersection of Romano Ave and South St, Across the Street from C461	Unnamed Trib to North Nashua River MA81-02	Residential	Circular/Pipe	Reinforced Concrete Pipe	30	None-Dry		None	None	None											
	C464	Low Priority	August 15, 2019		Sunny	79	24	Trace	Near Intersection of Electric Ave and South St, NE Side	Unnamed Trib to North Nashua River MA81-02	Residential	Circular/Pipe	RCP	36	None-Wet					Yes	Inside and Outside Outfall									
	C465	Low Priority	July 17, 2019		Sunny	79	120	0.81	Near Intersection of Electric Ave and South St, NE Side	Unnamed Trib to North Nashua River MA81-02	Residential	Circular/Pipe	Cast iron	6	None-Dry		None	None	None		No									
	C468	Low Priority	June 16, 2020		Partly Cloudy	66	96	0.26	Between 106 and 132 Canton Street	Unnamed Trib to North Nashua River MA81-02		Circular/Pipe	VC	12	None-Dry		None	None	None		No									
	C469	Low Priority	July 17, 2019		Sunny	79	120	0.81	Mt Elam Rd Entrance to Cogshall Park	Unnamed Pond off Laurel Ave.	Residential	Circular/Pipe	PVC	18	None-Dry		None	None	None		No									
	C470	Low Priority	July 7, 2020		Sunny	70	48	0.35	Across from 4																					

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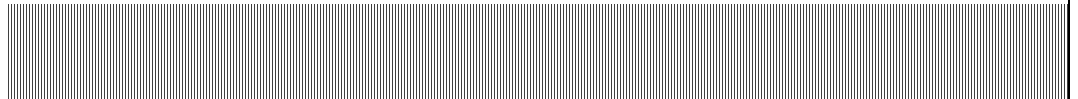
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Appendix A - Outfall and Interconnection Re-ranking Updates

	Outfall ID	Outfall Re-ranking	Inspection Date	Re-Inspection Date	Weather	Temperature (°F)	Last Rain Event (Hours)	Rain Accumulation (in)	Closest Address / Location	Receiving Water	Contributing Land Use	Outfall Shape	Outfall Material	Outfall Dimensions (in)	Flow	Color	Odor	Floatables	Deposits/Slimes	Clarity	Standing Water	Location of Standing Water	pH	Sample Temperature (°F)	Salinity (ppt)	Spec. Cond. (mS/cm)	Ammonia (ppm)	Surfactants (ppm)	Total Chlorine (ppm)	Lab Results - E. Coli (col/100ml)
	C481	Low Priority	July 26, 2019		Mostly Sunny	83	48	Trace	Underneath Old Rollstone Street Bridge South Side (DPW Bridge)	North Nashua River MA81-02	Commercial	Circular/Pipe	HDPE	30	Running	Colorless	None	None	None	Clear	No		7	61.88	0.2	0.4591	0.00	0.2	0	8
	C482	Low Priority	July 26, 2019		Mostly Sunny	83	48	Trace	Underneath New Rollstone Street Bridge South Side	North Nashua River MA81-02	Commercial	Circular/Pipe	Cast iron	12	None-Dry		None	None	None		No									
	C484	Low Priority	July 30, 2019		Sunny	83	24	0.01	Circle St Bridge	North Nashua River MA81-02	Industrial	Circular/Pipe	Clay	10	None-Dry		None			No										
	C485	Low Priority	July 30, 2019		Sunny	85	24	0.01	Circle St Bridge	North Nashua River MA81-02	Industrial	Circular/Pipe	Clay	18	None-Dry		None			No										
	C486	Low Priority	July 30, 2019		Sunny	85	24	0.01	Circle St Bridge	North Nashua River MA81-02	Industrial	Circular/Pipe	Clay	4	None-Dry		None			No										
	C487	Low Priority	July 30, 2019		Sunny	85	24	0.01	Circle St Bridge	North Nashua River MA81-02	Industrial	Circular/Pipe	HDPE	12	None-Dry		None			No										
	C503	Low Priority	July 15, 2019		Sunny	75	72	0.81	Bray Ave South Detention Pond	Sawmill Pond	Residential	Circular/Pipe	PVC	18	Trickle	Colorless	None	Algae	Algae	Clear	No		7.41	70.34	0.2	0.4591	0.10	0.2	0	88
	C505	Low Priority	July 15, 2019		Sunny	78	72	0.81	Just Outside Bray Ave South Detention Pond (Outfall for CS04 Inlet)	Sawmill Pond	Residential	Circular/Pipe	PVC	18	None-Dry		None	None	None		No									
	C508	Low Priority	August 21, 2020		Sunny	86	24	0.03	Bray Ave South Detention Pond	Sawmill Pond	Residential	Circular/Pipe	HDPE	15	None-Dry		None	None	None		No									
	C510	Low Priority	July 15, 2019		Sunny	75	72	0.81	Just Outside Bray Ave North Detention Pond (Outfall to CS09 Inlet)	Sawmill Pond	Residential	Circular/Pipe	HDPE	15	None-Dry		None	None	None		No									
	C511	Low Priority	July 15, 2019		Sunny	77	72	0.81	Across from 375 Princeton Rd, Can-Am Machinery Parking lot	Flag Brook	Residential	Circular/Pipe	Cast iron	15	Trickle	Colorless	None	None	None	Clear	No		7.92	68.18	0.1	0.2427	0.00	0.25	0	0
	C512	Low Priority	June 16, 2020		Partly Cloudy	66	96	0.26	Between 180 and 160 Authority Dr	Wymans Brook		Circular/Pipe	RCP	36	None-Dry		None	None	None		No									
	C513	Low Priority	July 16, 2019		Sunny	77	96	0.81	Across from 407 Princeton Rd/ Can-Am Machinery	Flag Brook	Commercial	Circular/Pipe	Corr. Metal	36	Running	Colorless	None	None	Rust	Clear	No		8.35	61.52	0.6	1.2603	0.00	0.25	0	0
	C514	Low Priority	July 16, 2019		Sunny	72	96	0.81	Across from 407 Princeton Rd	Flag Brook	Residential	Circular/Pipe	Reinforced Conc	12	None-Dry		None			No										
	C515	Low Priority	July 15, 2019		Sunny	77	72	0.81	SW side of Fifth Mass Turnpike Bridge (Buried under thorn bush)	Flag Brook	Residential	Circular/Pipe	Reinforced Conc	12	None-Dry		None	None	None		No									
	C516	Low Priority	June 16, 2020	June 24, 2021	Sunny	75	24	0.13	Between 180 and 160 Authority Dr	Wymans Brook	Commercial	Circular/Pipe	RCP	30	None-Wet	Orange				Yes	Inside and Outside Outfall									
	C517	Low Priority	August 7, 2019		Partly Cloudy	70	96	Trace	Detention pond behind 257 Tibbett Circle	Unnamed Trib to Monoosnoc Brook	Residential	Circular/Pipe	High-Density Polyethylene	15	None-Dry		None			No										
	C518	Low Priority	July 15, 2019		Sunny	77	72	0.81	Intersection of Authority Dr and Development Rd in woods	Wymans Brook	Industrial	Fluted	Reinforced Conc	30	None-Dry		None	None	Red Corrosion Stains		No									
	C519	Excluded	June 16, 2020		Sunny	77	96	0.26	in woods at the end of Authority Dr	Wymans Brook		Circular/Pipe	RCP	18	Trickling		None	Algae	None											
	C520	Low Priority	July 15, 2019		Sunny	74	72	0.81	In woods at the end of Authority Dr	Wymans Brook	Industrial	Fluted	Reinforced Conc	15	None-Dry		None			No										
	C522	Excluded	June 16, 2020		Sunny	77	96	0.26	in woods at the end of Authority Dr	Wymans Brook					Trickling		None	None	None											
	C525	Low Priority	July 16, 2019		Sunny	77	96	0.81	East End of Pepper St	Shea Brook	Residential	Circular/Pipe	Reinforced Conc	24	Trickle	Colorless	None	None	Rust	Clear	Yes	Outside Outfall	7.32	66.02	0.2	0.4591	0.05	0.2	0	0
	C526	Low Priority	July 16, 2019		Sunny	79	96	0.81	Behind 160 Pepper Rd (Upstream of C525)	Shea Brook	Residential	Circular/Pipe	HDPE	36	None-Wet		None			Yes	Inside and Outside Outfall									
	C527	Low Priority	July 16, 2019		Sunny	79	96	0.81	Behind 160 Pepper Rd (Upstream of C525)	Shea Brook	Residential	Circular/Pipe	HDPE	36	Trickle	Colorless	None	None	Sediment	Clear	Yes	Inside and Outside Outfall	5.85	66.02	0.2	0.4591	0.05	0.1	0	0
	C528	Low Priority	July 17, 2019		Sunny	84	120	0.81	Detention pond East end of Sarah Lane (Next to 69 Sarah Lane)	Shea Brook	Residential	Circular/Pipe	Reinforced Conc	18	None-Dry		None		Sediment		No									
	C529	Low Priority	July 8, 2019			75	48	1.37	62 Anita Drive	Sand Brook	Residential	Circular/Pipe	PVC - Polyvinyl Chloride	12	None-Wet		None			Yes	Inside and Outside Outfall									
	C530	Low Priority	July 9, 2019		Sunny	80	72	1.37	Next to 62 Anita Dr	Sand Brook	Residential	Circular/Pipe	PVC	12	None-Dry		None	None	Sediment		No									
	C531	Low Priority	July 9, 2019		Sunny	80	72	1.37	Between 105 and 121 Tibbett Circle	Unnamed Trib to Monoosnoc Brook	Residential	Circular/Pipe	PVC	15	None-Dry		None	None	None		No									
	C532	Low Priority	July 9, 2019		Sunny	80	72	1.37	Between 105 and 121 Tibbett Circle	Unnamed Trib to Monoosnoc Brook	Residential	Circular/Pipe	PVC	6	None-Dry		None	None	None		No									
	C533	Low Priority	July 9, 2019		Sunny	80			Off Watt's Way @ Eleanor St In Detention Pond	Sand Brook	Residential	Circular/Pipe	PVC	24	None-Dry		None			No										
	C534	Low Priority	July 9, 2019		Partly Cloudy	70	72	1.37	Detention pond behind 257 Tibbett Circle	Unnamed Trib to Monoosnoc Brook	Residential	Circular/Pipe	High-Density Polyethylene	15	Trickle	Colorless	None	Algae	Green Algae	Clear	No		6.62	57.74	0.1	0.2427	0.00	0.1	0	20
	C535	Low Priority	June 17, 2020		Partly Cloudy	68	120	0.26	Off Watt's Way @ Eleanor St In Detention Pond	Unnamed Trib to Monoosnoc Brook	Residential	Circular/Pipe	HDPE	15			None													
	C536	Low Priority	July 9, 2019		Sunny	80	72	1.37	Off Watt's Way @ Eleanor St In Detention Pond	Sand Brook	Residential	Circular/Pipe	PVC	10	None-Dry		None	None	None		No									
	C537	Low Priority	July 9, 2019		Sunny	80	72	1.37	Detention Pond Across from 15 Carrie Ann Lane	Sand Brook	Residential	Fluted	Reinforced Conc	18	None-Dry		None	None	Sediment		No									
	C538	Low Priority	July 9, 2019		Sunny	80	72	1.37	Detention Pond Across from 15 Carrie Ann Lane	Sand Brook	Residential	Fluted	Reinforced Conc	18	None-Dry		None	None	None		No									
	C539	Low Priority	June 17, 2020		Partly Cloudy	68	120	0.26	Detention pond behind 112 Goodfellow Dr	Unnamed Trib to Monoosnoc Brook	Residential	Circular/Pipe	HDPE	18	None-Wet		None													
	C540	Low Priority	June 17, 2020		Partly Cloudy	68	120	0.26	Detention pond behind 112 Goodfellow Dr	Unnamed Trib to Monoosnoc Brook	Residential	Circular/Pipe	HDPE	24			None													
	C543	Low Priority							Just Outside Detention Pond Behind 32 Goodfellow Dr	North Nashua River MA81-02	Residential	Circular/Pipe	HDPE	24	None-Wet	Colorless	None	None	None	Clear	Yes	Inside Outfall	6.93	62.6	0.1	0.321	0.05	0.15	0	12.8
	C601	Low Priority	July 8, 2020		Cloudy	72	72	0.35	Stony Creek/ Next to 234 Wanoosnoc Rd	Unnamed Trib to North Nashua River MA81-02	Residential	Circular/Pipe	HDPE	8	None-Dry		None	None	None		No									
	C602	Low Priority	July 10, 2019		Sunny	88	96	1.37	Stony Creek/ Next to 234 Wanoosnoc Rd	Unnamed Trib to North Nashua River MA81-02	Residential	Circular/Pipe	Clay	12	None-Dry		None	None	Sediment		No									
	C603	Low Priority	July 10, 2019		Sunny	88	96	1.37	Next to 30 Glen Ave	Monoosnoc Brook	Residential	Circular/Pipe	Reinforced Conc	12	None-Dry		None	None	None		No									
	C606	Low Priority	July 10, 2019		Sunny	88	96	1.37	Next to 18 Olin Drive	Unamed Tribute to Monoosnoc Brook	Commercial	Circular/Pipe	Clay	12	None-Dry		None				No									
	C607	Low Priority	July 10, 2019	August 3, 2021	Sunny	73	48	0.04	Next to 18 Olin Ave	Unamed Tribute to Monoosnoc Brook	Commercial	Circular/Pipe	Reinforced Conc	24	None-Wet		None			Yes	Standing water in all 3 upstream structures									
	C610	Low Priority	August 15, 2019		Sunny	75	24	Trace	Intersection of Carriageway Dr and Chalmers St	Unnamed Trib to North Nashua River MA81-02	Residential	Circular/Pipe	Reinforced Concrete Pipe	36	Running	Colorless	None	None	None	Clear	No		7.39	62.6	0.7	1.408	0.05	0.6	0	46
	C612	Low Priority	July 25, 2019		Sunny	76	24	Trace	Behind 1426 Water St	Unnamed Trib to North Nashua River MA81-02	Commercial	Box Culvert	Reinforced Conc	36 x 36	Trickle	Colorless	None	None	None	Clear	No		7.91	68.54	0.3	0.6664	0.00	0.15	0	56
	C613	Low Priority	July 8, 2020	August 3, 2021	Sunny	75	48	0.04	Airport Blvd at Crawford St	Falulah Brook	Commercial	Circular/Pipe	Reinforced Conc	16	None-Dry						No									

Appendix B – Outfall Screening

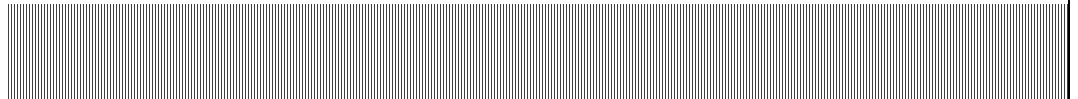


City of Fitchburg, Massachusetts
NPDES MS4 Compliance - Year 4 Annual Report
Illicit Discharge Detection and Elimination (IDDE) Program
Appendix B - Dry Weather Outfall Re-inspections

Outfall ID	Outfall Re-ranking	Inspection Date	Re-inspection Date	Weather	Temperature (°F)	Last Rain Event (Hours)	Rain Accumulation (in)	Closest Address / Location	Receiving Water	Contributing Land Use	Outfall Shape	Outfall Material	Outfall Dimensions (in)	Flow	Color	Odor	Floatables	Deposits/Sludge	Clarity	Standing Water	Location of Standing Water	pH	Sample Temperature (°F)	Salinity (ppt)	Spec Cond (mS/cm)	Ammonia (ppm)	Surfactants (ppm)	Total Chlorine (ppm)	Lab Results - E. Coli (col/100ml)
C303	Low Priority	July 30, 2019	August 3, 2021	Sunny	61	48	0.04	Under River St Bridge at Intersection with Main St (by KC's Pub) South Side	North Nashua River MA81-02	Commercial	Circular/Pipe	CT - Clay Tile	18	Running	Colorless	None	None	Sediment	Clear	No		7.79	67	0.4	0.761	0.00	0.15	0	5
C385	Low Priority	June 17, 2020	August 3, 2021	Sunny	64	48	0.04	Intersection of Westminster St and Industrial Rd	Snows Millpond	Commercial	Circular/Pipe	Cast Iron	12	None-Wet	Colorless	None	None	None	Clear	Yes	Inside and Outside Outfall	6.96	68.5	0.2	0.471	0.00	0.2	0	180
C386	Low Priority	June 17, 2020	August 3, 2021	Sunny	64	48	0.04	Intersection of Westminster St and Industrial Rd	Snows Millpond	Commercial	Circular/Pipe	Cast Iron	12	None-Wet	Colorless	None	None	None	Clear	Yes	Inside and Outside Outfall	6.96	68.5	0.2	0.471	0.00	0.2	0	180
C387	Low Priority	June 17, 2020	August 3, 2021	Sunny	64	48	0.04	Intersection of Westminster St and Industrial Rd	Snows Millpond	Commercial	Circular/Pipe	Cast Iron	12	None-Wet	Colorless	None	None	None	Clear	Yes	Inside and Outside Outfall	6.96	68.5	0.2	0.471	0.00	0.2	0	180
C411	Low Priority	July 2, 2019	August 3, 2021	Partly Cloudy	71	48	0.16	Downstream of Lunenburg St Bridge West Side	Falulah Brook MA81-63	Residential	Fluted	PVC	12	None-Wet					Yes	Inside and Outside Outfall									
C447	Low Priority	July 30, 2019	August 3, 2021	Sunny	72	48	0.04	Under Water St Bridge at Central Plaza North Side	North Nashua River MA81-02	Commercial	Circular/Pipe	Clay	24	Trickle	Colorless	None	None	None	Clear	No		6.91	71.8	1.7	3.29	0.00	0.6	0	84
C454	Low Priority	July 26, 2019	August 3, 2021	Sunny	73	48	0.04	5th Street Bridge (parked across from 5th Street Diner, 134 Harvard St)	North Nashua River MA81-02	Commercial	Circular/Pipe	HDPE	8	None-Wet					Yes	Bottom of DMH 6513									
C455	Low Priority	July 26, 2019	August 3, 2021	Sunny	73	48	0.04	Just Downstream of Laurel St Bridge, West Bank (Laurel St at South St)	North Nashua River MA81-02	Residential	Circular/Pipe	Reinforced Conc	66	Gushing	Colorless	None	None	None	Clear	No		7.56	68.6	0.5	984	0.00	0.15	0	690
C475	Low Priority	August 5, 2019	August 3, 2021	Sunny	73	48	0.04	At the end of Kimball St Sewer Easemmnt (Between Intersections with Putnam and Franklin); Fitchburg Cable Access TV	North Nashua River MA81-02	Commercial	Circular/Pipe	Corrugated Metal Pipe	18	Running	Colorless	None	None	None	Clear	No		6.95	64.6	0.3	0.685	0.05	0.15	0	25
C607	Low Priority	July 10, 2019	August 3, 2021	Sunny	73	48	0.04	Next to 18 Olin Ave	Unnamed Tribute to Monoosnoc Brook	Commercial	Circular/Pipe	Reinforced Conc	24	None-Wet		None			Yes	Standing water in all 3 upstream structures									
C613	Low Priority	July 8, 2020	August 3, 2021	Sunny	75	48	0.04	Airport Blvd at Crawford St	Falulah Brook	Commercial	Circular/Pipe	Reinforced Conc	16	None-Dry					No										

City of Fitchburg, Massachusetts
Massachusetts MS4 General Permit
Year 4 Annual Report
Reporting Period: July 1, 2021 – June 30, 2022

Appendix C – IDDE Catchment Investigations

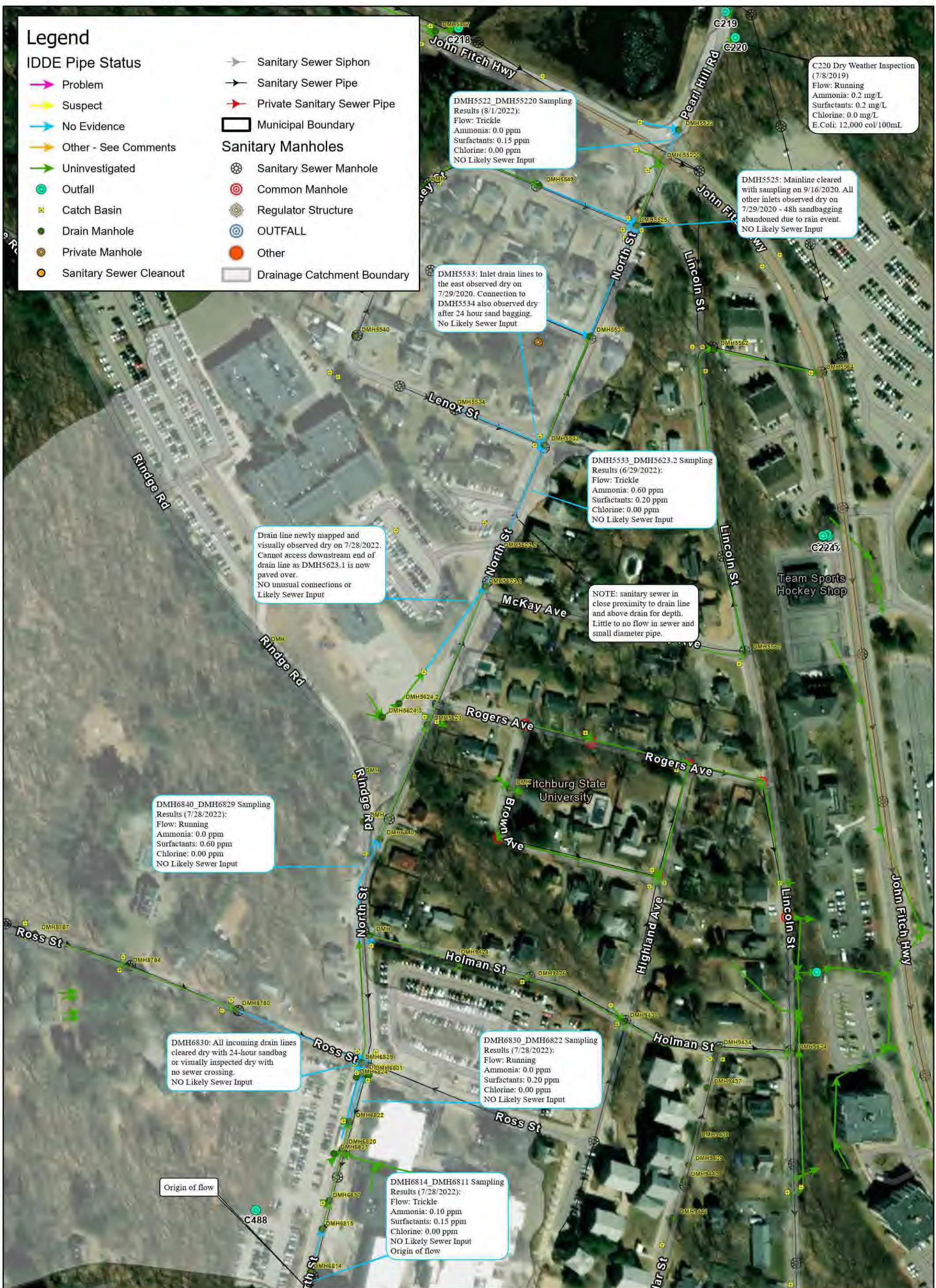


Legend

IDDE Pipe Status

- Problem
- Suspect
- No Evidence
- Other - See Comments
- Uninvestigated
- Outfall
- Catch Basin
- Drain Manhole
- Private Manhole
- Sanitary Sewer Cleanout

- Sanitary Sewer Siphon
- Sanitary Sewer Pipe
- Private Sanitary Sewer Pipe
- Municipal Boundary
- Sanitary Sewer Manhole
- Common Manhole
- Regulator Structure
- OUTFALL
- Other
- Drainage Catchment Boundary



City of Fitchburg, Massachusetts
Illicit Discharge Detection &
Elimination Program
Catchment Area C220

North arrow and scale bar (0 to 240 feet).
ARCADIS logo.

Catchment Area	Access Point Structure ID	Street / Location	Connecting Structure ID	Pipe Link	Inspection Date	Diameter (in)	Material	Flow Conditions	Investigation Type	Ammonia (ppm)	Surfactants (ppm)	Chlorine (ppm)	Temperature (°F)	pH	Salinity (ppt)	Specific Conductivity (µS)	E. coli (col/100ml)	Status	Comments
C220	DMH5525	NORTH STREET	DMH5531	DMH5533-DMH5525	9/16/20	24	VCP	Flow - Trickle	Sampled Flow	0.00	0.20	0.00	67.3	7.38	0.00	150.6		No Evidence	
C220	DMH5525	NORTH STREET	DMH5525.1	DMH5525-DMH5525.1	7/29/20	24	VCP	Flow - Trickle	General Observation									Other - See Comments	Outgoing pipe
C220	DMH5525	NORTH STREET	CB5523	CB5523-DMH5525	9/17/20	12	RCP	Dry	48h Sandbag - Wet, not enough to sample									No Evidence	Rain during sandbag placement
C220	DMH5525	NORTH STREET	UNK	UNK-DMH5525	7/29/20	6	VCP	Dry	General Observation									No Evidence	Rain during sandbag placement
C220	DMH5525	NORTH STREET	CB5529	CB5529-DMH5525	7/29/20	6	VCP	Dry	General Observation									No Evidence	
C220	DMH5525	NORTH STREET	CB5528	CB5528-DMH5525	7/29/20	12	RCP	Dry	General Observation									No Evidence	
C220	DMH5525	NORTH STREET	UNK	UNK-DMH5525	7/29/20	6	VCP	Dry	General Observation									No Evidence	
C220	DMH5525	NORTH STREET	DMH5549	DMH5549-DMH5525	7/29/20	12	RCP	Dry	48h Sandbag - Dry									No Evidence	24 Hour Sandbag, evidence of wet pipe but bag was not wet
C220	DMH5525	NORTH STREET	CB5527	CB5527-DMH5525	7/29/20	12	RCP	Dry	General Observation									No Evidence	
C220	DMH5533	NORTH STREET	DMH5623.1	DMH5623.1-DMH5533	7/29/20	24	VCP	Flow - Running	Sampled Flow	0.50	0.90	0.00	77.8	6.71	0.80	1,771.0		No Evidence	
C220	DMH5533	NORTH STREET	DMH5531	DMH5533-DMH5531	7/29/20	24	VCP	Flow - Running	General Observation									Other - See Comments	Outgoing pipe
C220	DMH5533	NORTH STREET	CB5533.2	CB5533.2-DMH5533	7/29/20	6	PVC	Dry	General Observation									No Evidence	Observed Dry, pipe does not cross sanitary system
C220	DMH5533	NORTH STREET	DMH5534	DMH5534-DMH5533	8/13/20	12	VCP	Dry	48h Sandbag - Dry									No Evidence	24 hour sandbag
C220	DMH5533	NORTH STREET	CB5533.1	CB5533.1-DMH5533	7/29/20	6	PVC	Dry	General Observation									No Evidence	Observed Dry, pipe does not cross sanitary system
C220	DMH6829	NORTH STREET	DMH683	DMH683-DMH6829	7/29/20	16	HDPE	Flow - Running	Sampled Flow	0.05	0.15	0.00	81.6	6.76	0.10	298.0		No Evidence	
C220	DMH6829	NORTH STREET	DMH684	DMH6829-DMH684	7/29/20	18	RCP	Flow - Running	General Observation									Other - See Comments	Outgoing pipe
C220	DMH6829	NORTH STREET	CB6828	CB6828-DMH6829	7/29/20	6	PVC	Dry	General Observation									No Evidence	Observed dry, could not get sandbag in pipe
C220	DMH6829	NORTH STREET	CB6825	CB6825-DMH6829	7/29/20	6	VCP	Dry	General Observation									No Evidence	Observed Dry, pipe does not cross sanitary system
C220	DMH6829	NORTH STREET	CB6826	CB6826-DMH6829	7/29/20	6	VCP	Dry	General Observation									No Evidence	Observed Dry, pipe does not cross sanitary system
C220	DMH6829	NORTH STREET	DMH6829.1	DMH6829.1-DMH6829	8/13/20	12	VCP	Dry	48h Sandbag - Dry									No Evidence	24 hour sandbag
C220	DMH6829	NORTH STREET	CB6827	CB6827-DMH6829	7/29/20	6	VCP	Dry	General Observation									No Evidence	Observed Dry, pipe does not cross sanitary system
C220	DMH5531	North@Garfield	DMH5525	DMH5531-DMH5525	9/16/20	24	VCP	Dry	General Observation									No Evidence	
C220	DMH5531	NORTH@GARFIELD	UNK	UNK-DMH5531	9/16/20	6	VCP	Dry	General Observation									No Evidence	
C220	DMH5531	North@Garfield	DMH5533	DMH5533-DMH5531	9/16/20	24	VCP	Dry	General Observation									No Evidence	
C220	DMH5531	North@Garfield	UNK	UNK-DMH5531	9/16/20	6	VCP	Dry	General Observation									No Evidence	
C220	DMH5531	North@Garfield	UNK	UNK-DMH5531	9/16/20	12	VCP	Dry	24 Hour Sandbag									No Evidence	
C220	DMH5531	North@Garfield	UNK	UNK-DMH5531	9/16/20	6	VCP	Dry	General Observation									No Evidence	
C220	DMH5531	North@Garfield	UNK	UNK-DMH5531	9/16/20	12	VCP	Dry	General Observation									No Evidence	
C220	DMH5623	North at Rogers	CB5625	CB5625-DMH5623	11/19/20	Unk	VCP	Dry	General Observation									No Evidence	
C220	DMH5623	North at Rogers	CB5624	CB5624-DMH5623	11/19/20	Unk	VCP	Dry	General Observation									No Evidence	
C220	DMH5623.1	North St. @ McKay Ave.	Unknown	Unknown-DMH5623.1	10/22/21	18	RCP	Flow - Running	Sampled Flow	2.5	0.2	0	64.1	6.88	0.6	1222		No Evidence	
C220	DMH5533	North St. @ Lenox St.	DMH5623.1	DMH5623.1-DMH5533	10/22/21	24	RCP	Flow - Running	Sampled Flow	0.6	0.2	0	63.7	7.33	0.4	785		No Evidence	
C220	DMH5533	LENOX STREET @ NORTH STREET	DMH5623.2	DMH5623.2-DMH5533	10/22/21	24	RCP	Flow - Running	Sampled Flow	0.60	0.20	0.00	63.7	7.33	0.40	785.0	No	No Evidence	C220; Water slighty yellow in color and brown iron deposits observed.
C220	DMH Holman @ North	HOLMAN STREET @ NORTH STREET	CB6835	B6835-DMH Holman @ North	6/30/22	12	VC	Dry	General Observation								No	No Evidence	C220; Top of its system with no flow; cleared dry via visual inspection.
C220	DMH Holman @ North	HOLMAN STREET @ NORTH STREET	DMH Holman @ North	DMH Holman @ North-DMH94	6/29/22	12	VC	Dry	General Observation									No Evidence	C220; Cleared via visual inspection dry and no sanitary sewer crossing.
C220	DMH7058	ST ANDREW STREET @ NORFOLK STREET	DMH7063	DMH7063-DMH7058	6/29/22	42	RCP	Dry	General Observation									No Evidence	C220
C220	DMH7058	ST ANDREW STREET @ NORFOLK STREET	UNK	UNK-DMH7058	6/29/22	12	VC	Dry	General Observation									No Evidence	C220
C220	DMH7058	ST ANDREW STREET @ NORFOLK STREET	UNK	UNK-DMH7058	6/29/22	39	RCP	Dry	General Observation									No Evidence	C220
C220	DMH7058	ST ANDREW STREET @ NORFOLK STREET	Common Manhole	CommonManhole-DMH7058	6/29/22	12	VC	Dry	General Observation									No Evidence	C220
C220	DMH7058	ST ANDREW STREET @ NORFOLK STREET	CB7060	CB7060-DMH7058	6/29/22	12	VC	Dry	General Observation									No Evidence	C220
C220	DMH7058	ST ANDREW STREET @ NORFOLK STREET	DMH7052	DMH7058-DMH7052	6/29/22	42	RCP	Flow - Trickling	General Observation									Other - See Comments	C220; Did not sample because mapping updates were needed first to determine where flow was coming from; several structures mapped drain/sanitary but were not what they were marked as, so did not sample so we could get better understanding of area first.
C220	DMH5623.2	NORTH STREET	DMH5623.1	DMH5623.1-DMH5623.2	6/29/22	24	RCP	Flow - Trickling	Sampled Flow	0.60	0.20	0.00	76.7	7.09	0.40	756.0	No	No Evidence	C220; Trickle Flow coming downstream. Added in DMH on 6/29 as not done previously; bolted shut DMH, dry CB, and MH with standing water in parking lot direction of where sandbag flow coming from
C220	DMH5623.2	NORTH STREET	UNK	UNK-DMH5623.2	6/29/22	12	RCP	Flow - Trickling	24h Sandbag - Sampled Flow	0.20	0.30	0.00	64.7	7.08	0.00	115.0		No Evidence	C220; 24h Sandbag placed captured enough flow to sample from unknown source. Cleared connection via negative test kits. Trickling flow after sandbag removed and sample was slightly yellow in color, but clear.
C220	DMH6840	NORTH STREET @ RINDGE ROAD	DMH6829	DMH6829-DMH6840	6/29/22	18	RCP	Flow - Running	General Observation								No	Other - See Comments	C220; Mainline flowing; sampled downstream at key junctions. Mapped connection to CB8639 does not appear to exist as there are no visible connections in DMH. Brown iron deposits observed.



City of Fitchburg, Massachusetts
NPDES MS4 Compliance
Illicit Discharge Detection and Elimination (IDDE) Program
Catchment Area C236 Pipe Inspection Database
Catchment Status: COMPLETED - No Illicit Detected

Catchment Area	Access Point StructureID	Street / Location	Connecting Structure ID	Pipe Link	Inspection Date	Diameter (in)	Material	Flow Conditions	Investigation Type	Ammonia (ppm)	Surfactants (ppm)	Chlorine (ppm)	Temperature (°F)	pH	Salinity (ppt)	Specific Conductivity (µS)	E. coli (Col/100ml)	IDDE Status	Comments
C236	DMH8734	MARDEN ST	DMH8775	DMH8775-DMH8734	11/19/20		VCP	Dry	24H Sandbag									No Evidence	Dry
C236	DMH8743	MARDEN ST	DMH8752	DMH8752-DMH8743	7/29/20	15	RCP	Flow - Running	Sampled Flow	0.00	0.25	0.10	78.1	7.43	0.20	505.0		No Evidence	
C236	DMH8743	MARDEN ST	CB8742	CB8742-DMH8743	7/29/20	10	VCP	Dry	General Observation									Uninvestigated	Observed Dry, pipe does not cross sanitary system
C236	DMH8743	MARDEN ST	CB8751	CB8751-DMH8743	7/29/20	10	VCP	Dry	48h Sandbag - Dry									No Evidence	
C236	DMH8743	MARDEN ST	CB8750	CB8750-DMH8743	7/29/20	10	VCP	Dry	48h Sandbag - Dry									No Evidence	
C236	DMH8743	MARDEN ST	DMH8770	DMH8770-DMH8743	7/29/20	12	VCP	Dry	48h Sandbag - Dry									No Evidence	
C236	DMH8743	MARDEN ST	CB8749	CB8749-DMH8743	7/29/20	10	VCP	Dry	General Observation									Uninvestigated	Observed Dry, pipe does not cross sanitary system
C236	DMH8743	MARDEN ST	DMH8746	DMH8743-DMH8746	7/29/20	15	VCP	Flow - Running	General Observation									Other - See Comments	Outlet pipe
C236	DMH8754	EDLEE ST	DMH8758	DMH8758-DMH8754	7/29/20	15	VCP	Flow - Running	Sampled Flow	0.00	0.20	0.00	69.4	7.40	0.20	551.0		No Evidence	
C236	DMH8754	EDLEE ST	CB8756	CB8756-DMH8754	7/29/20	10	VCP	Dry	General Observation									No Evidence	Observed Dry, pipe does not cross sanitary system
C236	DMH8754	EDLEE ST	UNK	UNK-DMH8754	7/29/20	6	CI	Wet - No Flow	General Observation									Uninvestigated	Pipe origin unknown, too small to bag, not enough flow to sample
C236	DMH8754	EDLEE ST	CB8757	CB8757-DMH8754	7/29/20	10	VCP	Dry	48h Sandbag - Displaced									Other - See Comments	
C236	DMH8754	EDLEE ST	DMH8752	DMH8754-DMH8752	7/29/20	15	VCP	Flow - Running	General Observation									Other - See Comments	Outlet pipe
C236	DMH8764	EDLEE ST	JCT	JCT-DMH8764	7/29/20	15	VCP	Flow - Running	Sampled Flow	0.10	0.20	0.00	62.8	7.74	0.20	553.0		No Evidence	
C236	DMH8764	EDLEE ST	DMH8758	DMH8764-DMH8758	7/29/20	15	VCP	Flow - Running	General Observation									Other - See Comments	Outlet pipe
C236	DMH8775	MARDEN ST	CB8769	CB8769-DMH8775	7/29/20	10	VCP	Dry	General Observation									No Evidence	Observed Dry, pipe does not cross sanitary system
C236	DMH8775	MARDEN ST	DMH8768	DMH8768-DMH8775	7/29/20	12	VCP	Dry	48h Sandbag - Displaced									Other - See Comments	Sandbag Displaced, attempt to rebag for 48-hours
C236	DMH8775	MARDEN ST	CB8770	CB8770-DMH8775	7/29/20	10	VCP	Dry	48h Sandbag - Dry									No Evidence	
C236	DMH8775	MARDEN ST	CB8772	CB8772-DMH8775	7/29/20	10	VCP	Dry	48h Sandbag - Dry									No Evidence	
C236	DMH8775	MARDEN ST	CB8771	CB8771-DMH8775	7/29/20	10	VCP	Dry	48h Sandbag - Dry									No Evidence	
C236	DMH8775	MARDEN ST	DMH8743	DMH8775-DMH8743	7/29/20	12	VCP	Dry	General Observation									Other - See Comments	Outlet pipe
C236	DMH9373	CHARLTON ST	DMH9376	DMH9376-DMH9373	7/29/20	12	VCP	Dry	48h Sandbag - Dry									No Evidence	
C236	DMH9373	CHARLTON ST	CB9371	CB9371-DMH9373	7/29/20	10	VCP	Dry	48h Sandbag - Displaced									Other - See Comments	Sandbag Displaced, attempt to rebag for 48-hours
C236	DMH9373	CHARLTON ST	JCT	JCT-DMH9373	7/29/20	12	VCP	Dry	48h Sandbag - Dry									No Evidence	
C236	DMH9373	CHARLTON ST	CB9374	CB9374-DMH9373	7/29/20	10	VCP	Dry	General Observation									No Evidence	Observed Dry, pipe does not cross sanitary system
C236	DMH9373	CHARLTON ST	JCT	DMH9373-JCT	7/29/20	15	VCP	Dry	General Observation									Other - See Comments	Outlet pipe
C236	DMH8743	EDLEE STREET @ MARDEN STREET	DMH8752	DMH8752-DMH8743	6/21/22	15	RCP	Flow - Trickling	Sampled Flow	0.05	2	0	70.4	7.11	0.2	521	4347	No Evidence	C236; Trickling flow still coming from Pipe 4305. Surfactants very high again with test kits (2.0).
C236	DMH8743	EDLEE STREET @ MARDEN STREET	CB8742	CB8742-DMH8743	6/21/22	12	VC	Dry	General Observation									No Evidence	C236; No flow from pipe or overland flow observed. Visually inspected dry.
C236	DMH8743	EDLEE STREET @ MARDEN STREET	CB8751	CB8751-DMH8743	6/21/22	12	VC	Dry	General Observation									No Evidence	C236; No flow from pipe or overland flow observed. Visually inspected dry.
C236	DMH8743	EDLEE STREET @ MARDEN STREET	CB8750	CB8750-DMH8743	6/21/22	12	VC	Dry	General Observation									No Evidence	C236; No flow from pipe or overland flow observed. Visually inspected dry.
C236	DMH8743	EDLEE STREET @ MARDEN STREET	DMH8775	DMH8775-DMH8743	6/21/22	12	VC	Dry	General Observation									No Evidence	C236; No flow from pipe or overland flow observed. Visually inspected dry.
C236	DMH8743	EDLEE STREET @ MARDEN STREET	CB8749	CB8749-DMH8743	6/21/22	12	VC	Dry	General Observation									No Evidence	C236; No flow from pipe or overland flow observed. Visually inspected dry.
C236	DMH8743	EDLEE STREET @ MARDEN STREET	DMH8746	DMH8743-DMH8746	6/21/22	15	RCP	Flow - Trickling	General Observation									No Evidence	C236; No flow from pipe or overland flow observed. Visually inspected dry.
C236	DMH8752	EDLEE STREET	DMH8743	DMH8752-DMH8743	6/21/22	15	RCP	Flow - Trickling	Sampled Flow	0.05	2	0	65.7	6.96	0.3	554	4347	No Evidence	C236; Small Deposit a bank on side of manhole, Puddling inside,
C236	DMH8752	EDLEE STREET	DMH8754	DMH8754-DMH8752	6/21/22	15	RCP	Flow - Trickling	Sampled Flow	0.05	2	0	65.7	6.96	0.3	554	533	No Evidence	C236; Some red rust-looking deposits in DMH; bacteria results hit for E. Coli
C236	Common MH 103EdleeSt	103 EDLEE STREET	DMH8764	DMH8764-CommonManhole	6/15/22	15	RCP	None - Wet	General Observation									No Evidence	C236; No unusual pipe connections or evidence of illicit

Catchment	Inspection Date	Sampling Structure ID	Street / Location	Connecting Structure ID	Pipe Link	Diameter (in)	Material	Flow Conditions	Investigation Type	Ammonia (ppm)	Surfactants (ppm)	Total Chlorine (ppm)	Temperature (°F)	pH	Salinity (ppt)	Specific Conductivity (uS)	E.Coli (Col/100ml)	IDDE Status	Inspection Comments
C333	6/15/2022	DMH7079.2	HOPE STREET @ THERESA STREET	DMH7079.1	DMH7079.2-DMH7079.1	18	VC	Dry	General Observation									No Evidence	C333
C333	6/15/2022	DMH3243	THERESA STREET	DMH3251	DMH3243-DMH3251	15	RCP	Dry	General Observation									No Evidence	C333
C333	6/15/2022	DMH3244	THERESA STREET @ DARLENE DRIVE	CB3252	CB3252-DMH3244	8	VC	Dry	General Observation									No Evidence	C33; Catch basin connection dry, no sewer crossing, no sand bag placed
C333	6/15/2022	DMH3244	THERESA STREET @ DARLENE DRIVE	DMH3243	DMH3243-DMH3244	15	RCP	Dry	No Evidence									No Evidence	C333
C333	6/15/2022	DMH3244	THERESA STREET @ DARLENE DRIVE	DMH3253	DMH3244-DMH3253	15	RCP	Dry	General Observation									No Evidence	C333
C333	6/15/2022	DMH 3244	THERESA STREET @ DARLENE DRIVE	DMH3246	DMH3246-DMH3244	12	VC	Trickle	Sampled Flow	0	0.2	0	67.2	6	0.1	270		No Evidence	C333; Sample cleared, potential sump pump connection mapped along Darlene Dr
C333	6/15/2022	DMH 3243	THERESA STREET	DMHUNK	DMHUNK-DMH3243	15	RCP	Dry	24h Sandbag - Dry									No Evidence	C333; Sandbag placed on 6/15.
C333	6/15/2022	DMH7079	THERESA STREET @ FRANKLIN ROAD	CB7080	CB7080-DMH7079	8	UNK	Dry	General Observation									No Evidence	C333
C333	6/15/2022	DMH7079	THERESA STREET @ FRANKLIN ROAD	CB7081	CB7081-DMH7079	8	UNK	Dry	24h Sandbag - Dry									No Evidence	C333; Sandbag placed on 6/15. Sandbag retrieved on 6/16 - dry.
C333	6/15/2022	DMH7079	THERESA STREET @ FRANKLIN ROAD	DMH7079.1	DMH7079.1-DMH7079	18	VC	Flow - Trickling	Sampled Flow	1.5	0.5	0	69	7.04	0.3	601		Suspect	C333; High Ammonia, Common Manholes in the Area will inspect Upstream; brownish staining observed in structure.
C333	6/15/2022	DMH7079	THERESA STREET @ FRANKLIN ROAD	CB7082	CB7082-DMH7079	18	VC	None - Wet	General Observation									No Evidence	C333; Standing Water in Access Manhole, Drain-line visually inspected dry CB7082.
C333	6/15/2022	DMH7079.1	THERESA STREET	DMH7079.2	DMH7079.2-DMH7079.1	18	VC	Flow - Trickling	Sampled Flow	2	0.2	0	68.7	7.2	0.3	584		Suspect	C333; Possible (Suds,Soap,Oil), Ammonia is higher and Surfactants Lower than Downstream (DMH7079).
C333	6/15/2022	DMH7079.2	HOPE STREET @ THERESA STREET	UNK	UNK-DMH7079.2	18	VC	Flow - Trickling	Sampled Flow	0.9	0.2	0	65.3	7.08	0.4	790		Suspect	C333; Lower ammonia levels, some suspended solids; cloudyish observed sample.
C333	6/16/2022	DMH 3264.2	RONALD STREET @ THERESA STREET	DMH3253	DMH3253-DMH3264.2	15	RCP	Flow - Trickling	Sampled Flow	0.15	0.2	0.15	65.4	7.57	0.1	262		Other; See Comments	C333; Hit for chlorine and low ammonia; slight musty odor from cloudy sample (suspended sediment observed in sample).
C333	6/21/2022	DMH7022.1	THERESA STREET @ LEGROS STREET	UNK	UNK-DMH7022.1	12	VC	Dry	General Observation									No Evidence	C333
C333	6/21/2022	DMH7265	OAK HILL ROAD @ FRANKLIN ROAD	UNK	DMH7265-UNK	20	VC	Dry	24h Sandbag - Dry									No Evidence	C333; 1 24-hour sandbag placed in none-wet mainline and retrieved dry; follow-up investigation on 6/29 mainline completely dry (all incoming CB lines inspected dry both investigations).
C333	6/21/2022	DMH7265	OAK HILL ROAD @ FRANKLIN ROAD	DMH7265.1	DMH7265.1-DMH7625	15	VC	None - Wet	24h Sandbag - Dry									No Evidence	C333; (6/21) One sandbag placed incoming from Oak Hill Rd, (6/22) Sandbag retrieved with no flow behind it.
C333	6/21/2022	DMH7265	OAK HILL ROAD @ FRANKLIN ROAD	CB7264	CB7264-DMH7265	8	VC	Dry	General Observation									No Evidence	C333; CB7264 observed dry and no flow into DMH7265.
C333	6/21/2022	DMH7265	OAK HILL ROAD @ FRANKLIN ROAD	CB4246	CB4246-DMH7265	12	VC	Dry	General Observation									No Evidence	C333; CB4246 observed dry and no flow into DMH7265.
C333	6/21/2022	DMH7022.1	THERESA STREET @ LEGROS STREET	CB7023	CB7023-DMH7022.1	UNK	UNK	Dry	General Observation									No Evidence	C333; Piping is plugged to DMH7022.1 and potentially connected to DMH7022.
C333	6/21/2022	DMH7022.1	THERESA STREET @ LEGROS STREET	CB7026	CB7026-DMH7022.1	UNK	UNK	Dry	General Observation									No Evidence	C333
C333	6/21/2022	DMH7022.1	THERESA STREET @ LEGROS STREET	CB7025	CB7025-DMH7022.1	UNK	UNK	Dry	General Observation									No Evidence	C333
C333	6/21/2022	DMH 7022.1	THERESA STREET @ LEGROS STREET	DMH7022	DMH7022-DMH7022.1	UNK	UNK	Flow - Trickling	Sampled Flow	0.15	0.2	0.15	70.5	7.25	0.4	768		Other - See Comments	C333; Standing Water at Connecting DMH7022, Water inflow had yellowish/cloudy tint so ammonia and chlorine samples could be increased.
C333	6/21/2022	DMH4236	MARYLAND DRIVE @ OAK HILL ROAD	CB4237	CB4237-DMH4236	UNK	UNK	Dry	General Observation									No Evidence	C333
C333	6/21/2022	DMH4236	MARYLAND DRIVE @ OAK HILL ROAD	DMH4234	DMH4236-DMH4234	UNK	UNK	None - Wet	24h Sandbag - Dry									No Evidence	C333; (6/21) Sandbag placed on the downstream part of the pipe, (6/22) Sandbag retrieved with no flow behind it.
C333	6/30/2022	Common Manhole	EXETER STREET @ OAK HILL ROAD	CB4226	CB4226-CommonManhole	UNK	UNK	None - Dry	General Observation									No Evidence	C333
C333	6/30/2022	Common Manhole	EXETER STREET @ OAK HILL ROAD	CB7186	CB7186-CommonManhole	UNK	UNK	None - Dry	General Observation									No Evidence	C333
C333	6/30/2022	DMH7022.2	THERESA STREET	DMH7022.3	DMH7022.1-DMH7022.3	12	VC	None - Dry	24h Sandbag - Dry									No Evidence	C333
C333	6/30/2022	Common Manhole	HURD STREET @ OAK HILL ROAD	CB4225.1	CB4225.1-CommonManhole	UNK	UNK	Dry	Sampled Flow	0	0.15	0.3	70.5	7.53	0.1	194		Other - See Comments	C333; CB4225.1 is connected to this common manhole; running hose fed into CB appears to be from residential property? Hose flow was sampled in common manhole.
C333	6/30/2022	DMH7022.2	THERESA STREET	DMH7022.1	DMH7022.1-DMH7022.2	12	VC	None - Wet	General Observation									No Evidence	C333; Added separate DMH, no flow observed in pipe none-wet conditions; but no flow; need to follow-up on upstream flows before clearing.
C333	6/30/2022	DMH7022.3	THERESA STREET	DMH7022.2	DMH7022.2-DMH7022.3	12	VC	None - Wet	General Observation									No Evidence	C333; Added separate DMH, no flow observed in pipe none-wet conditions; CB7030 appears to connect via PVC pipe but no flow; no unusual pipe connections or evidence of illicit.
C333	6/30/2022	DMH7022.4	THERESA STREET	CommonManhole @ Theresa /St Andrew	DMH7022.4-CommonManhole	12	VC	None - Wet	General Observation									No Evidence	C333; Plugged former common manhole. no nearby CBS or connections. Mainline is none-wet.
C333	6/30/2022	DMH7022.3	THERESA STREET	DMH7022.4	DMH7022.3-DMH7022.4	12	VC	Dry	General Observation									No Evidence	C333; Plugged former common manhole no longer in use.
C333	6/30/2022	DMH7022.4	THERESA STREET	DMH7022.3	DMH7022.3-DMH7022.4	12	VC	None - Wet	General Observation									No Evidence	C333; Mapping update 6/30. Separated storm and sanitary. None-wet observed and noted as upstream trickling flow was sampled.
C333	6/30/2022	DMH7022.4	THERESA STREET	DMH7022.3	DMH7022.3-DMH7022.4	12	VC	Dry	General Observation									No Evidence	C333; Mapping update 6/30. Separated storm and sanitary. None-wet observed and noted as upstream trickling flow was sampled.
C333	6/30/2022	DMH7019.1	SHEA STREET @ LEGROS STREET	UNK	DMH7019.1-UNK	UNK	UNK	Dry	General Observation									No Evidence	C333; Investigated to confirm no connection Theresa Rd line; dry-no flow cleared but not part of C333 being investigated
C333	6/30/2022	DMH7019	HOPE STREET @ LEGROS STREET	UNK	UNK-DMH7019	UNK	UNK	Flow - Trickling	General Observation									No Evidence	C333; Very slow flow coming in, unsure of where this flow comes from as mapping stops and confirmed that other end of Legros does not connect. 2 incoming CB connections are dry.
C333	6/30/2022	Common Manhole	EXETER STREET @ OAK HILL ROAD	DMH7188	DMH7188-CommonManhole	12	VC	Flow - Running	Sampled Flow	0	0.1	0	74.3	7.2	0.1	300		No Evidence	C333; Sampled Exeter St Line (main line had flow; no flow from connecting CB); sample results did not indicate major issue, potentially groundwater



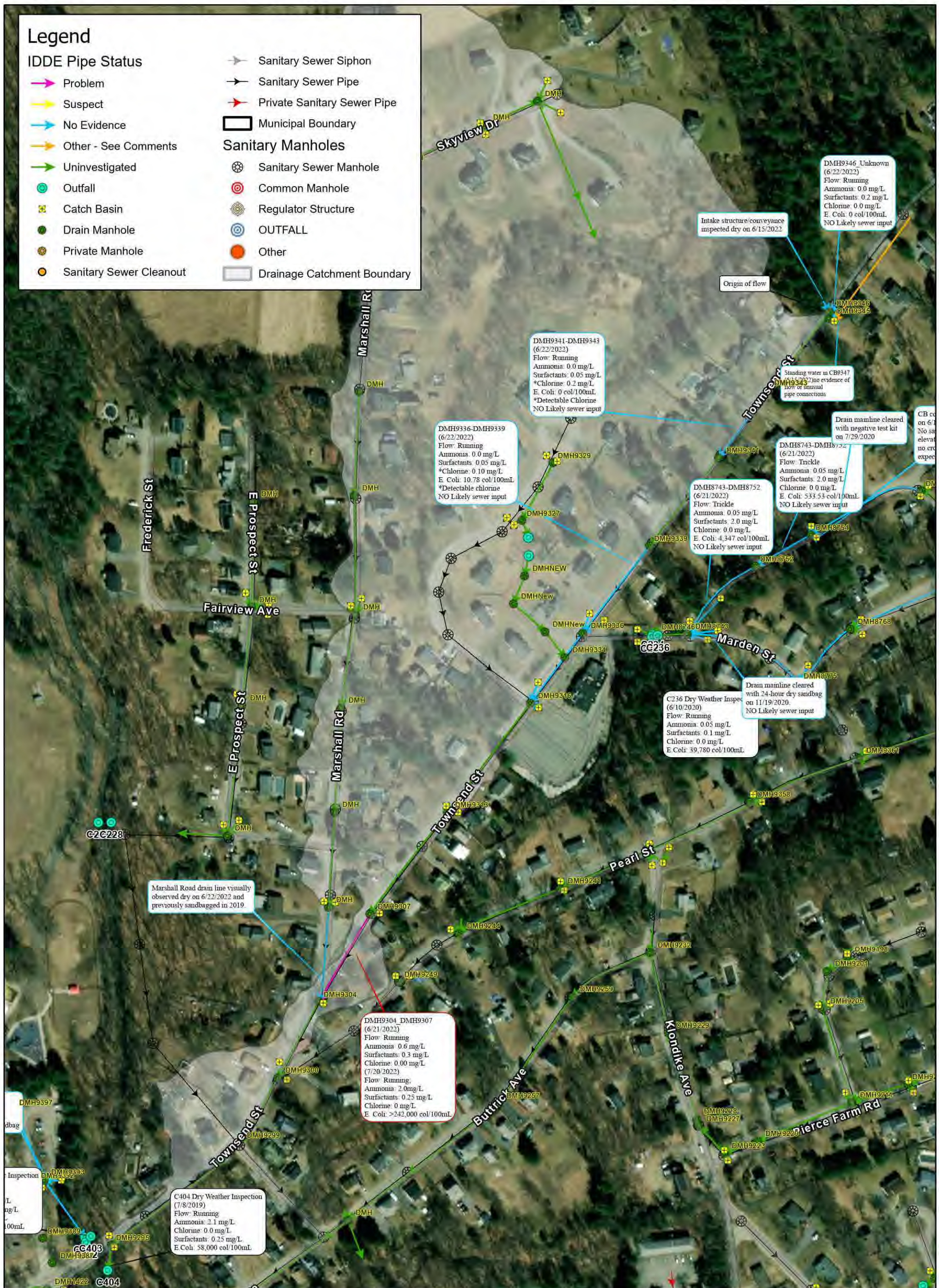
Catchment Area	Inspection Date	Sampling Structure ID	Connecting Structure	Street / Location	Weather	Last Rainfall (hours)	Last Rainfall Amount (in)	Air Temp (F)	Odors	Floatables	Staining or Deposits	Flow	Sand Bag Placed	Sandbag Flow Captured	Sampled	Water Color	Water Clarity	Water Temp. (F)	pH	Salinity (ppt)	Conductivity (uS)	Ammonia (ppm)	Surfactants (ppm)	Total Chlorine (ppm)	Bacteria Sample Taken	Bacteria (col/100ml)	Inspection Comments	IDDE Status
C343	8/25/2021 17:28	DMH2430	CB2431	Wallace Road	Sunny	32	0.58	72	None	None	None	Trickle	No		Yes	Colorless	Clear	67.2	6.36	0.2	495	0	0.15	0	No		Test kit cleared line. CB also visually inspected. No evidence of illicit or unusual pipe connections.	Cleared
C343	8/25/2021 17:32	DMH2430	CB2429	Wallace Road	Sunny	32	0.58	72	None	None	None	None - Wet	Yes	No	No												48 hour sandbag placed. Returned on 8/27 and wet bag/pipe. Visually inspected CB structure. No evidence of illicit or unusual pipe connections.	Cleared
C343	8/25/2021 17:35	DMH559	DMH561	Wallace Road	Sunny	32	0.58	72	None	None	None	Trickle	No		Yes	Colorless	Clear	76	7.47	0.2	485	0	0.15	0	No		Test kit cleared. No evidence of illicit connections or unusual pipe connections.	Cleared
C343	8/25/2021 17:38	DMH559	CB558	Wallace Road	Sunny	32	0.58	72	None	None	None	None - Dry	No		NA												Pipe dry. No sewer crossing so no sandbag was placed.	Cleared
C343	8/25/2021 17:40	DMH559	DMH560	Wallace Road	Sunny	32	0.58	72	None	None	None	Gushing	No		Yes	Colorless	Clear	72.8	7.43	0.1	209	0	0.15	0	Yes	64	Human bacteroides sample taken, none detected.	Cleared

- ➡ Problem
- ➡ Suspect
- ➡ No Evidence
- ➡ Other - See Comments
- ➡ Uninvestigated
- 🤔 Outfall
- 🗑️ Catch Basin
- 🌳 Drain Manhole
- 🏠 Private Manhole
- 🚰 Sanitary Sewer Cleanout

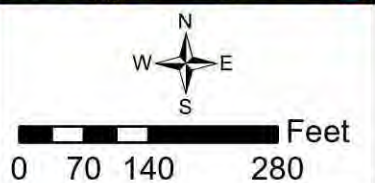
-  Sanitary Sewer Siphon
-  Sanitary Sewer Pipe
-  Private Sanitary Sewer Pipe
-  Municipal Boundary

Sanitary Manholes

-  Sanitary Sewer Manhole
-  Common Manhole
-  Regulator Structure
-  OUTFALL
-  Other
-  Drainage Catchment Boundary



City of Fitchburg, Massachusetts
Illicit Discharge Detection &
Elimination Program
Catchment Area C404



Catchment Area	Access Point Structure ID	Inspection Date	Last Rainfall (hrs)	Last Rainfall Amount (in)	Street / Location	Connecting Structure ID	Pipe Link	Diameter (in)	Material	Flow Conditions	Investigation Type	Ammonia (ppm)	Surfactants (ppm)	Total Chlorine (ppm)	Temperature (°F)	pH	Salinity (ppt)	Specific Conductivity (uS)	E. Coli (col/100ml)	IDDE Status	Inspection Comments
C404	DMH9345	6/15/2022	48	0.3	TOWNSEND STREET	DMH9346	DMH9346-DMH9345	30	RCP	Dry	General Observation									No Evidence	C404; DMH observed dry; no indicator of illicit discharge;
C404	DMH9346	6/15/2022	48	0.3	TOWNSEND STREET	UNK	UNK-DMH9346	30	RCP	Flow - Trickling	Sampled Flow	0	0.2	0	62.2	6.65	0.1	255	0	No Evidence	C404; With bacteria results being 0 and test kits corroborating those results, likely groundwater
C404	DMH9316	6/15/2022	48	0.3	TOWNSEND STREET @ ETHIER STREET	CB9318	CB9318-DMH9316	12	RCP	Dry	General Observation									No Evidence	C404; CB9318 observed dry and no flow into DMH9316
C404	DMH9316	6/15/2022	48	0.3	TOWNSEND STREET @ ETHIER STREET	CB9317	CB9317-DMH9316	12	VC	Dry	General Observation									No Evidence	C404; CB9317 observed dry and no flow into DMH9316
C404	DMH9341	6/15/2022	48	0.03	TOWNSEND STREET	DMH9343	DMH9343-DMH9341	18	RCP	Flow - Running	Sampled Flow	0	0.1	0.25	68.8	7.21	0	170		No Evidence	C404; detectable chlorine. both catch basins are dry
C404	DMH9346	6/15/2022	48	0.03	TOWNSEND STREET	DMH9345	DMH9346-DMH9345	30	RCP	Dry	General Observation									No Evidence	C404; Intake/conveyance line dry. No sand bag placed visually inspected dry
C404	DMH9336	6/21/2022	35	0.23	TOWNSEND STREET @ MARDEN STREET	CB9337	CB9337-DMH9336	12	RCP	Dry	General Observation									No Evidence	C404; CB cleared dry via visual inspection; no flow into DMH9336.
C404	DMH9336	6/21/2022	35	0.23	TOWNSEND STREET @ MARDEN STREET	CB9338	CB9338-DMH9336	12	RCP	Dry	General Observation									No Evidence	C404; CB cleared via visual inspection; no flow into DMH9336
C404	DMH9304	6/21/2022	35	0.23	TOWNSEND STREET @ MARSHALL ROAD	DMH9307	DMH9307-DMH9304	30	RCP	Flow - Running	Sampled Flow	0.6	0.3	0	63.6	7.33	0.1	237		Suspect	C404
C404	DMH9304	6/21/2022	35	0.23	TOWNSEND STREET @ MARSHALL ROAD	DMH Marshall Rd	DMH Marshall Rd-DMH9304	12	VC	Dry	General Observation									No Evidence	C404; Observed dry. Previously sandbagged and dry in 2019
C404	DMH9346	6/22/2022	60	0.23	TOWNSEND STREET	DMH9343	DMH9346-DMH9343	18	RCP	Flow - Trickling	Sampled Flow	0	0.15	0	59	6.83	0.1	209		No Evidence	C404
C404	DMH9341	6/22/2022	60	0.23	TOWNSEND STREET	DMH9343	DMH9343-DMH9341	18	RCP	Flow - Running	Sampled Flow	0	0.05	0.2	61.5	7.38	0	141.9	0	No Evidence	C404; Running Water (faster than 9346 and 9343; bacteria results came back as 0, reducing likelihood of illicit source (likely groundwater)
C404	DMH9336	6/22/2022	60	0.23	TOWNSEND STREET @ MARDEN STREET	DMH9339	DMH9339-DMH9336	24	RCP	Flow - Running	Sampled Flow	0	0.05	0.1	61	7.2	0.1	206	10.78	No Evidence	C404, Both Catch Basins are Dry

DMH9143:
Standing water in drain manhole, could not dye test to confirm connectivity. Sanitary sewer manhole adjacent to DMH and possible overflow connection going to sanitary sewer.

DMH9070:
Inlet catch basin lines inspected dry. Sewage smell in drain manhole and sanitary sewer joint running through drain manhole.

181 Albert Place (8/14/2020 & 10/20/2021)
Sewer service discharging into DMH9141. Need to review combined sewer separation work in this location.

DMH9068_DMH9141 Sampling Results (8/14/2020)
Ammonia: 10.0 ppm
Surfactants: 1.00 ppm
Chlorine: 0.00 ppm
Potential Source: sewer connection at 181 Albert Place

(10/20/2021)
Ammonia: 7.0 ppm
Surfactants: 0.70 ppm
Chlorine: 0.00 ppm

Sanitary Sewer (10/20/2021)
Sanitary sewer structures connectivity on Upham St. confirmed (not shown on map). Small diameter pipes.

DMH9051_DMH9055 Sampling Results (8/14/2020)
Ammonia: 0.70 ppm
Surfactants: 0.30 ppm
Chlorine: 0.00 ppm
Potential Source: upstream sewer connection at 181 Albert Place

C427 Dry Weather Inspection Results(7/8/2019)
E. Coli: 3,000 col/100ml
Ammonia: 0.40 ppm
Surfactants: 0.20 ppm
Chlorine: 0.00 ppm

Legend

Outfall

Catch Basin

Drain Manhole

IDDE Pipe Status

Problem

Suspect

No Evidence

Other - See Comments

Uninvestigated

Catchment Boundary



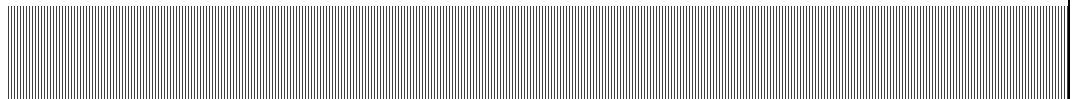
Catchment Area	Access Point StructureID	Street / Location	Inlet Direction	Connecting Structure ID	Pipe Link	Inspection Date	Invert Elevation (ft)	Diameter (in)	Material	Flow Conditions	Investigation Type	Ammonia (ppm)	Surfactants (ppm)	Chlorine (ppm)	Temperature (°F)	pH	Salinity (ppt)	Specific Conductivity (uS)	E. coli (Col/100ml)	Status	Comments
C427	DMH9051	UPHAM STREET	Inlet	DMH9055	DMH9055-DMH9051	8/14/20	5.60	24	RCP	Flow - Trickle	Sampled Flow	0.70	0.30	0.00	79.8	7.28	0.10	4.3		Suspect	Ammonia & surfactants detected, most likely only from upstream sewer connection at 181 Albert Pl.
C427	DMH9051	UPHAM STREET	Inlet	CB9052	CB9052-DMH9051	8/14/20	5.10	18	RCP	Dry	48h Sandbag - Dry									Cleared	Dry pipe
C427	DMH9051	UPHAM STREET	Outlet	DMH1515	DMH9051-DMH1515	8/14/20	5.70	24	RCP	Flow - Trickle	General Observation									NA	
C427	DMH9068	JACKSON AVE	Inlet	DMH9141	DMH9141-DMH9068	8/14/20	10.40	18	RCP	Flow - Trickle	Sampled Flow	10.00	1.00	0.00	73.8	7.20	0.40	964.0		Problem	Dye tested DMH9141 where sewer service discharges to manhole, could not track dye to this pipe segment
C427	DMH9068	JACKSON AVE	Inlet	DMH9070	DMH9070-DMH9068	8/14/20	10.50	24	RCP	Wet - No Flow										Suspect	No sandbag placed due to standing water; upstream DMH also had standing water and sewage odors
C427	DMH9068	JACKSON AVE	Inlet	CB9138	CB9138-DMH9068	8/14/20	4.90	8	VCP	Dry	48h Sandbag - Dry									Cleared	
C427	DMH9068	JACKSON AVE	Inlet	DMH9136	DMH9136-DMH9068	8/14/20	6.50	12	RCP	Dry	48h Sandbag - Dry									Cleared	
C427	DMH9068	JACKSON AVE	Inlet	UNK	UNK-DMH9068	8/14/20	4.70	8	VCP	Dry	48h Sandbag - Dry									Cleared	
C427	DMH9068	JACKSON AVE	Outlet	DMH9065	DMH9068-DMH9065	8/14/20	10.80	24	RCP	Flow - Trickle	General Observation									NA	Outlet
C427	DMH9070	72 JACKSON AVE	Inlet	CB9072	CB9072-DMH9070	8/14/20	5.40	10	VCP	Dry	General Observation									Cleared	Dry CB connection, smell of sewage in DMH, sewer pipe joint running through DMH
C427	DMH9070	72 JACKSON AVE	Inlet	CB9073	CB9073-DMH9070	8/14/20	5.50	10	VCP	Dry	General Observation									Cleared	Dry CB connection, smell of sewage in DMH, sewer pipe joint running through DMH
C427	DMH9070	72 JACKSON AVE	Inlet	CB9074	CB9074-DMH9070	8/14/20	5.50	10	VCP	Dry	General Observation									Cleared	Dry CB connection, smell of sewage in DMH, sewer pipe joint running through DMH, capped pipe at bottom of manhole between inlet 3/4
C427	DMH9070	72 JACKSON AVE	Inlet	UNK	UNK-DMH9070	8/14/20	7.70	10	VCP	Dry	General Observation									Cleared	Dry connection, smell of sewage in DMH, sewer pipe joint running through DMH
C427	DMH9070	72 JACKSON AVE	Outlet	DMH9068	DMH9070-DMH9068	8/14/20	8.50	24	RCP	Wet - No Flow	General Observation									Suspect	8" of standing water, sewage smell
C427	DMH9141	181 ALBERT PLACE	Inlet	UNK	UNK-DMH9141	8/14/20	6.00	8	VCP	Dry	General Observation									Cleared	Pipe dry, cannot place sandbag due to location of inlet
C427	DMH9141	181 ALBERT PLACE	Inlet	CB9140	CB9140-DMH9141	8/14/20	3.60	6	HDPE	Dry	General Observation									Cleared	Pipe dry, cannot place sandbag due to location of inlet
C427	DMH9141	181 ALBERT PLACE	Inlet	UNK	UNK-DMH9141	8/14/20	5.60	8	VCP	Dry	General Observation									Cleared	Pipe dry, cannot place sandbag due to sediment in inlet
C427	DMH9141	181 ALBERT PLACE	Inlet	DMH9143	DMH9143-DMH9141	8/14/20	8.30	15	RCP	Wet - No Flow	General Observation									Suspect	Standing water
C427	DMH9141	181 ALBERT PLACE	Inlet	SEWER SERVICE	SEWER SERVICE-DMH9141	8/14/20	7.00	6	VCP	Flow	General Observation									Problem	Sewer service connecting to #181
C427	DMH9141	181 ALBERT PLACE	Inlet	CB9139	CB9139-DMH9141	8/14/20	3.60	6	HDPE	Dry	General Observation									Cleared	Pipe dry, cannot place sandbag due to location of inlet
C427	DMH9141	181 ALBERT PLACE	Outlet	DMH9068	DMH9141-DMH9068	8/14/20	8.40	18	RCP	Wet - No Flow	General Observation									Problem	Standing water
C427	DMH9143	ALBERT PLACE	Inlet	UNK	UNK-DMH9143	8/14/20	4.50	8	VCP	Dry	48h Sandbag - Dry									Cleared	Dry pipe
C427	DMH9143	ALBERT PLACE	Inlet	UNK	UNK-DMH9143	8/14/20	7.80	15	HDPE	Wet - No Flow	General Observation									Other - See Comments	Standing water
C427	DMH9143	ALBERT PLACE	Inlet	UNK	UNK-DMH9143	8/14/20	7.60	12	VCP	Dry	General Observation									Cleared	Pipe dry, cannot place sandbag due to location of inlet
C427	DMH9143	ALBERT PLACE	Inlet	UNK	UNK-DMH9143	8/14/20	4.20	8	RCP	Dry	General Observation									Cleared	Pipe dry, cannot place sandbag due to sediment in inlet
C427	DMH9143	ALBERT PLACE	Inlet	UNK	UNK-DMH9143	8/14/20	5.40	8	PVC	Dry	48h Sandbag - Dry									Cleared	
C427	DMH9143	ALBERT PLACE	Inlet	DMH9141	DMH9141-DMH9143	8/14/20	7.90	15	RCP	Wet - No Flow	General Observation									Other - See Comments	Standing water, could not dye test to confirm connectivity, SMH next to DMH also no flow and could not dye test; DMH has possible overflow connection going to SMH
C427	DMH9068	ALBERT PLACE	Inlet	DMH9141	DMH9141-DMH9068	10/20/21		24	RCP	Running	General Observation	7	0.7	0	69.7	6.8	1.6	3150	NA	Suspect	Cannot confirm connectivity to DMH9141
C427	DMH9141	ALBERT PLACE	Inlet	DMH9143	DMH9143-DMH9141	10/20/21		24	RCP	Running	General Observation	7	0.7	0	69.3	6.65	0.8	1524	NA	Suspect	Service connection from #181. Appears to be combined MH still



Catchment Area	Access Point StructureID	Street / Location	Inlet Direction	Connecting Structure ID	Inspection Date	Flow Conditions	Investigation Type	Ammonia (ppm)	Surfactants (ppm)	Chlorine (ppm)	Temp (F)	pH	Salinity (ppb)	Specific Conductivity (uS)	E. coli (col/100ml)	Status	Comments
C438	DMH6159.2	CANTON ST at VALLEY ST	Inlet	6159.3	8/13/20	Flow - Running	Sampled Flow	0.10	0.30	0.15	79.9	6.78	0.10	294.0		Priority	
C438	DMH6159.5	ST PAUL @ BELMONT	Inlet	DMH6159.6	8/13/20	Flow	Sampled Flow	0.00	0.00	0.85	77.2	7.11	0.00	155.7		Suspect	
C438	DMH6159.6	NORVAL @BELMONT	Inlet	DMH828	9/16/20	Flow - Running	Sampled Flow	0.00	0.15	0.50	68.4	7.63	0.00	172.5	NA	Suspect	
C438	DMH828	ST PETER @ BELMONT	Inlet	UNK	9/16/20	Flow - Running	Sampled Flow	0.00	0.15	0.50	69.3	7.41	0.00	164.30	NA	Suspect	
C438	DMH6159.2	CANTON ST at VALLEY ST	Inlet	CB6175	8/13/20	Dry	48h Sandbag - Dry									No Evidence	
C438	DMH6159.2	CANTON ST at VALLEY ST	Inlet	DMH6175.1	8/13/20	Dry	48h Sandbag - Dry									No Evidence	
C438	DMH6159.2	CANTON ST at VALLEY ST	Inlet	CB6179	8/13/20	Dry	48h Sandbag - Dry									No Evidence	
C438	DMH6159.2	CANTON ST at VALLEY ST	Inlet	CB6179.1	8/13/20	Dry	General Observation									No Evidence	
C438	DMH6159.2	CANTON ST at VALLEY ST	Inlet	UNK	8/13/20	Dry	General Observation									No Evidence	
C438	DMH6159.2	CANTON ST at VALLEY ST	Inlet	UNK	8/13/20	Dry	General Observation									No Evidence	
C438	DMH6159.2	CANTON ST at VALLEY ST	Outlet	DMH6159.1	8/13/20	Flow - Running	General Observation									No Evidence	
C438	DMH	246 CANTON ST				Flow - Running	General Observation									Uninvestigated	Common Manhole
C438	DMH6159.5	ST PAUL @ BELMONT	Inlet	CB8266	8/13/20	Dry	General Observation									No Evidence	
C438	DMH6159.5	ST PAUL @ BELMONT	Inlet	DMHUNK	8/13/20	Dry	General Observation									No Evidence	
C438	DMH6159.5	ST PAUL @ BELMONT	Inlet	CB8269	8/13/20	Dry	48h Sandbag - Dry									No Evidence	
C438	DMH6159.5	ST PAUL @ BELMONT	Inlet	CB8268	8/13/20	Dry	General Observation									No Evidence	
C438	DMH6159.6	NORVAL @ BELMONT	Outlet	DMH6159.5	9/16/20	Flow - Running	General Observation									Uninvestigated	
C438	DMH6159.6	NORVAL @ BELMONT	Inlet	DMHUNK	9/16/20	Dry	48h Sandbag - Dry									Cleared	24 HR SANDBAG
C438	DMH6159.6	NORVAL @ BELMONT	Inlet	CB8271	9/16/20	Dry	General Observation									Could Not Investigate	CNA
C438	DMH828	ST PETER @ BELMONT	Inlet	CB8282	9/16/20	Dry	48h Sandbag - Dry									No Evidence	24 HR SANDBAG
C438	DMH828	ST PETER @ BELMONT	Inlet	CB8281	9/16/20	Dry	General Observation									Could Not Investigate	CNA
C438	DMH6159.6	NORVAL @ BELMONT	Inlet	CB8272	9/16/20	Dry	General Observation									No Evidence	
C438	DMH2130	CANTON ST at VALLEY ST	Inlet	CB6179	8/25/21	None - Dry	General Observation									No Evidence	Previously DMH6159.2. No sand bag placed. Pipe previously cleared. Inspected dry again.
C438	DMH2130	CANTON ST at VALLEY ST	Inlet	Unknown	8/25/21	None - Dry	General Observation									No Evidence	Line previously cleared. Inspected dry again.
C438	DMH2130	CANTON ST at VALLEY ST	Inlet	Unknown	8/25/21	None - Dry	General Observation									No Evidence	Line previously cleared with sandbagging and investigation. Inspected dry again.
C438	DMH2130	CANTON ST at VALLEY ST	Inlet	Unknown	8/25/21	None - Dry	General Observation									No Evidence	Line previously cleared with sandbag and investigation. Inspected dry again.
C438	DMH2130	CANTON ST at VALLEY ST	Inlet	DMH2255	8/25/21	Running	Sampled Flow	0.00	0.2	0	68.6	7.41	0.3	669	NA	No Evidence	No evidence of illicit. Test kid cleared.
C438	DMH2130	CANTON ST at VALLEY ST	Inlet	Unknown	8/25/21	None - Dry	General Observation									No Evidence	Previously sandbagged and investigated. Inspected dry again.
C438	DMH2130	CANTON ST at VALLEY ST	Inlet	DMH2005	8/25/21	Trickle	Sampled Flow	0.00	0.15	0.1	75.7	7.48	0.4	867	NA	No Evidence	Low test for chlorine.
C438	DMH2006	CANTON ST @ ROMANO AVE	Inlet	DMH2253	8/25/21	None - Dry	48h Sandbag - Dry									No Evidence	Will return on 8/27 for sandbag.
C438	DMH2252	NORMANDY ROAD	Inlet	CB8257	8/25/21	None - Dry	48h Sandbag - Dry									No Evidence	Sand bag placed. Dried mud in manhole. Looks to be at one point a combined manhole. Return on 8/27 for sandbag. CB Inlet pipe dry but cannot place sandbag. CNL second CB or other inlet from the East. Line inspected dry on 8/27 with sandbag.
C438	DMH2004	LEYTE ROAD	Inlet	Unknown	8/25/21	None - Wet	General Observation									No Evidence	Standing water in manhole. May be due to sag in manhole. No evidence of illicit.
C438	DMH2004	LEYTE ROAD	Inlet	CB6872	8/25/21	None - Dry	General Observation									No Evidence	Inspected dry and cleared. Cannot place sandbag due to proximity of other inlet pipes.
C438	DMH2004	LEYTE ROAD	Inlet	Unknown	8/25/21	None - Dry	48h Sandbag - Dry									No Evidence	Need to re-map pipe to other side of manhole. Sandbag placed. Return for sandbag on 8/27. Sandbag and pipe dry on 8/27.
C438	DMH2127	MEADOWBROOK LANE	Inlet	Unknown	8/25/21	None - Wet	48h Sandbag - Dry									No Evidence	Pipe segment previously unmapped. Sand bag placed. Return on 8/27 for sandbag.
C438	DMH2006	CANTON ST @ ROMANO AVE	Inlet	CB8257	8/25/21	None - Dry	48h Sandbag - Dry									No Evidence	48h sandbag retrieved on 8/27 dry no evidence of flow or illicit
C438	DMH2130	CANTON ST at VALLEY ST	Inlet	CB6175	8/25/21	None - Dry	General Observation									No Evidence	Line previously inspected dry and sandbagged. Inspected dry for second time.
C438	DMH2252	NORMANDY ROAD	Inlet	Unknown	8/25/21	None - Dry	General Observation									No Evidence	CNL inlet line to DMH2252.
C438	DMH2252	NORMANDY ROAD	Inlet	CB6866	8/25/21	None - Dry	General Observation									No Evidence	Cannot place sand bag due to angle of pipe. CB6866 visual inspected and no evidence of illicit or unusual pipe connections.
C438	DMH2252	NORMANDY ROAD	Inlet	CB6868	8/25/21	None - Dry	General Observation									No Evidence	CNL inlet in DMH2252. CB6868 visually inspected dry. No evidence of illicit connections or unusual piping.
C438	DMH2130	VALLEY STREET	Inlet	CB6179	8/25/2021	Dry	General Observation									No Evidence	C438; No sand bag placed. Pipe previously cleared. Inspected dry again.
C438	DMH2130	VALLEY STREET	Inlet	CB_Line3278	8/25/2021	Dry	General Observation									No Evidence	C438; Line previously cleared. Inspected dry again.
C438	DMH2130	VALLEY STREET	Inlet	UNK	8/25/2021	Dry	General Observation									No Evidence	C438; Line previously cleared with sandbagging and investigation. Inspected dry again.
C438	DMH2130	VALLEY STREET	Inlet	UNK	8/25/2021	Dry	General Observation									No Evidence	C438; Line previously cleared with sandbag and investigation. Inspected dry again.
C438	DMH2130	VALLEY STREET	Inlet	DMH2255	8/25/2021	Flow - Running	Sampled Flow	0.00	0.20	0.00	68.6	7.41	0.30	669.0		No Evidence	C438; No evidence of illicit. Test kid cleared.
C438	DMH2130	VALLEY STREET	Inlet	UNK	8/25/2021	Dry	General Observation									No Evidence	C438; Previously sandbagged and investigated. Inspected dry again.
C438	DMH2130	VALLEY STREET	Inlet	DMH2005	8/25/2021	Flow - Trickle	Sampled Flow	0.00	0.15	0.10	75.7	7.48	0.40	867.0		No Evidence	C438; Low test for chlorine.
C438	DMH2006	CANTON STREET @ ROMANO AVE	Inlet	CB8257	8/25/2021	Dry	Sandbag - 48h									No Evidence	C438; Will return on 8/27 for sandbag. Dry mud deposits observed.
C438	DMH2252	NORMANDY ROAD	Inlet	DMH2253	8/25/2021	Dry	Sandbag - 48h									No Evidence	C438; Sand bag placed. Dried mud in manhole. Looks to be at one point a combined manhole. Return on 8/27 for sandbag. CB Inlet pipe dry but cannot place sandbag. CNL second CB or other inlet from the East. Line inspected dry on 8/27 with sandbag.
C438	DMH2004	LEYTE ROAD	Inlet	UNK	8/25/2021	None - Wet	General Observation									No Evidence	C438; Standing water in manhole. May be due to sag in manhole. No evidence of illicit. Brown and cloudy water observed. Scum deposits observed.
C438	DMH2004	LEYTE ROAD	Inlet	CB6872	8/25/2021	Dry	General Observation									No Evidence	C438; Inspected dry and cleared. Cannot place sandbag due to proximity of other inlet pipes.
C438	DMH2004	LEYTE ROAD	Inlet	UNK	8/25/2021	Dry	Sandbag - 48h									No Evidence	C438; Need to re-map pipe to other side of manhole. Sandbag placed. Return for sandbag on 8/27. Sandbag and pipe dry on 8/27.
C438	DMH2127	MEADOWBROOK LANE	Inlet	UNK	8/25/2021	None - Wet	Sandbag - 48h									No Evidence	C438; Pipe segment previously unmapped. Sand bag placed. Return on 8/27 for sandbag. Brown deposits observed.
C438	DMH2006	CANTON STREET @ ROMANO AVE	Inlet	CB8257	8/27/2021	Dry	Sandbag - 48h									No Evidence	C438; 48h sandbag retrieved on 8/27 dry no evidence of flow or illicit. Dried mud deposits observed.
C438	DMH2130	VALLEY STREET	Inlet	CB6175	8/25/2021	Dry	General Observation									No Evidence	C438; Line previously inspected dry and sandbagged. Inspected dry for second time.
C438	DMH2252	NORMANDY ROAD	Inlet	UNK	8/25/2021	CNL inlet	General Observation									No Evidence	C438; CNL inlet line to DMH2252.
C438	DMH2252	NORMANDY ROAD	Inlet	CB6866	8/25/2021	Dry	General Observation									No Evidence	C438; Cannot place sand bag due to angle of pipe. CB6866 visual inspected and no evidence of illicit or unusual pipe connections.
C438	DMH2252	NORMANDY ROAD	Inlet	CB6868	8/25/2021	Dry	General Observation									No Evidence	C438, Added in DMH and CB on 6/29 as not previously labeled. Roughly 1/2 inch of standing water
C438	DMH2249.1	VALLEY STREET	Inlet	DMH2249	6/29/2022	Flow - Trickle	General Observation									No Evidence	C438, Used to be labeled as common manhole, but is now separated. New DMH added on 6/29
C438	DMH2130	VALLEY STREET	Inlet	DMH2255	6/29/2022	Flow - Trickle	Sampled Flow	0.05	0.25	0.00	70.9	7.58	0.30	680.0	1,119.9	No Evidence	C438, Incoming Trickle Flow from Main Line 3289
C438	DMH2251	VALLEY STREET	Inlet	DMH2249.2	6/29/2022	None - Standing Water	General Observation									No Evidence	C438, Standing Water Observed but No Flow
C438	DMH2249	END OF VALLEY STREET	Inlet	ommon on Canton	6/29/2022	Dry	General Observation									No Evidence	C438, Common manhole drain line dry. Previously sandbagged.
C438	DMH2249	END OF VALLEY STREET	Inlet	UNK	6/29/2022	Flow - Running	Sampled Flow	0.00	0.25	0.00	64.2	7.23	0.30	681.0	62.0	No Evidence	C438, Sample drain flow from Valley St line and regulator not activated in common manhole. Origin of flow
C438	DMH2130	VALLEY STREET	Inlet	CB6175	8/25/2021	Dry	General Observation									No Evidence	C438; Line previously inspected dry and sandbagged. Inspected dry for second time.
C438	DMH2130	VALLEY STREET	Inlet	DMH2005	8/25/2021	Flow - Trickle	Sampled Flow	0.00	0.15	0.00	75.7	7.48	0.40	867.0		No Evidence	C438; Low test for chlorine.
C438	DMH2130	VALLEY STREET	Inlet	UNK	8/25/2021	Dry	General Observation									No Evidence	C438; Previously sandbagged and investigated. Inspected dry again.
C438	DMH2130	VALLEY STREET	Inlet	DMH2255	8/25/2021	Flow - Running	Sampled Flow	0.00	0.20	0.00	68.6	7.41	0.30	669.0		No Evidence	C438; No evidence of illicit. Test kid cleared.
C438	DMH2130	VALLEY STREET	Inlet	UNK	8/25/2021	Dry	General Observation									No Evidence	C438; Line previously cleared with sandbag and investigation. Inspected dry again.
C438	DMH2130	VALLEY STREET	Inlet	UNK	8/25/2021	Dry	General Observation									No Evidence	C438; Line previously cleared with sandbagging and investigation. Inspected dry again.
C438	DMH2130	VALLEY STREET	Inlet	UNK	8/25/2021	Dry	General Observation									No Evidence	C438; Line previously cleared. Inspected dry again.
C438	DMH2130	VALLEY STREET	Inlet	CB_Line3276	8/25/2021	Dry	General Observation									No Evidence	C438; No sand bag placed. Pipe previously cleared. Inspected dry again.

Catchment Area	Access Point StructureID	Street / Location	Inlet Direction	Connecting Structure ID	Inspection Date	Flow Conditions	Investigation Type	Ammonia (ppm)	Surfactants (ppm)	Chlorine (ppm)	Temp (°F)	pH	Salinity (ppt)	Specific Conductivity (uS)	E. coli (Col/100ml)	Status	Comments
C438	DMH2004	LEYTE ROAD	Inlet	UNK	8/25/2021	Dry	Sandbag - 48h									No Evidence	C438; Need to re-map pipe to other side of manhole. Sandbag placed. Return for sandbag on 8/27. Sandbag and pipe dry on 8/27.
C438	DMH2004	LEYTE ROAD	Inlet	CB6872	8/25/2021	Dry	General Observation									No Evidence	C438; Inspected dry and cleared. Cannot place sandbag due to proximity of other inlet pipes.
C438	DMH2004	LEYTE ROAD	Inlet	Common on Leyte Rt	8/25/2021	None - Wet	General Observation									No Evidence	C438; Standing water in manhole. May be due to sag in manhole. No evidence of illicit. Brown and cloudy water observed.
C438	DMH2252	NORMANDY ROAD	Inlet	UNK	8/25/2021	Dry	General Observation									No Evidence	C438; Cannot place sand bag due to angle of pipe. CB6866 visual inspected and no evidence of illicit or unusual pipe connections.
C438	DMH2252	NORMANDY ROAD	Inlet		8/25/2021	CNL inlet	General Observation									No Evidence	C438; CNL inlet line to DMH2252.
C438	DMH2006	CANTON STREET @ ROMANO AVE	Inlet	CB8257	8/27/2021	Dry	Sandbag - 48h									Other - See Comments	C438; 48h sandbag retrieved on 8/27 dry no evidence of flow or illicit. Dried mud deposits observed.
C438	DMH2006	CANTON STREET @ ROMANO AVE	Inlet	CB8257	8/25/2021	Dry	Sandbag - 48h									No Evidence	C438; Will return on 8/27 for sandbag. Dried mud deposits observed.
C438	DMH2006	CANTON STREET @ ROMANO AVE	Outlet	ommon on Canton S	8/25/2021											No Evidence	C438
C438	DMH2251	VALLEY STREET	Outlet	Common on Valley S	6/29/2022	None - Standing Water	General Observation									No Evidence	C438
C438	DMH2252	NORMANDY ROAD	Inlet	DMH2253	8/25/2021	Dry	Sandbag - 48h									No Evidence	C438; Sand bag placed. Dried mud in manhole. Looks to be at one point a combined manhole. Return on 8/27 for sandbag. CB Inlet pipe dry but cannot place sandbag. CNL second CB or other inlet from the East. Line inspected dry on 8/27 with sandbag.
C438	DMH2127	MEADOWBROOK LANE	UNK	DMH2127	8/25/2021	Dry	Sandbag - 48h									No Evidence	C438; CNL inlet in DMH2252. CB6868 visually inspected dry. No evidence of illicit connections or unusual piping.
C438	DMH2127	MEADOWBROOK LANE	Inlet	CB3642	8/25/2021	None - Wet	Sandbag - 48h									No Evidence	C438; Brown deposits observed in manhole. Pipe segment previously unmapped. Sand bag placed. Return on 8/27 for sandbag; not enough flow to sample.

Appendix D – Illicit Connections Inventory



City of Fitchburg, Massachusetts
Illicit Connections Summary

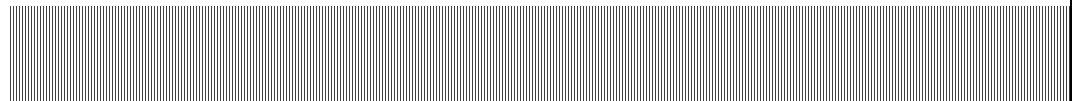
Illicit Connections Worksheet - Cumulative
Reporting Period: July 1, 2021 through June 30, 2022

Owner	Connection Address	Description	Actions to Remove	Date Discovered	Date Removed	Compliance Period
Private	359 Summer Street	Lateral to Drain	Redirected to SS	2012	2014	July 1st 2014 - December 30th 2014
City	Merriam Parkway	Sanitary Pipe to Punch Brook		2012		
Private	16 York Ave	Lateral to Drain		2012		
Private	37 Fairbanks Street	Lateral to Drain		2012		
Private	181 Upham Street	Lateral to Drain		2012		
Private	13 Almount Terrace	Disconnected a drain lateral from house during water main replacement project. See Pic on Bill O's U drive. Unknown flow.	Disconnected drain lateral during water main replacement project	9/14/2012		
City	Jeffrey Street Project	Substantial completion September 2012		9/14/2012	2012	July 1st 2012 - December 30th 2012
City	Causeway Street SMH		Not known what the issue	9/14/2012		
City	Beech Street	Extraneous Flow Removal Project - Planned for Spring 2013	Combined Sewer Separation	9/14/2012	2017	July 1st 2017 - December 30th 2017
City	Elm Street	CB tied in blind to sanitary sewer	Disconnected a CB lateral from Sanitary Line - Ray and Bob performed Repair.	9/14/2012	2013	July 1st 2013 - December 30th 2013
Private	175 Walton Street	Drain on Private property. Lundlow added DMH to pick it up. Dave Bartlett calculated 1,314,000 gallons per year		9/21/2012		July 1st 2012 - December 30th 2012

City of Fitchburg, Massachusetts
Illicit Connections Summary

Owner	Connection Address	Description	Actions to Remove	Date Discovered	Date Removed	Compliance Period
Private	146 Charles Street	Ludlow installed a DMH in front of house. City paid for drain lateral up to property with backflow preventer. Ben Hill promised to redo internal piping.		9/21/2012		July 1st 2012 - December 30th 2012
Private	31 Townsend Street	Lateral to Drain	Redirected to SS	2013	2014	July 1st 2014 - December 30th 2014
Private	245 Summer Street	Lateral to Drain	Redirected to SS	2013	2014	July 1st 2014 - December 30th 2014
Private	45 Shattuck Street	Lateral to Drain	Redirected to SS	10/1/2017	8/21/2018	July 1st 2018 - December 30th 2018
City	Hartford Street	CB tied in at end of Hartford Street.	New line installed in gutter to catch basin downstream at corner	2019	2019	July 1st 2019 - December 30th 2019
Private	129 Theresa Street	Lateral to Drain	Redirected to SS	5/1/2020	7/30/2020	July 1st 2020 - December 30th 2020
Private	128 St. Joseph Ave	Lateral to Drain		6/1/2020		July 1st 2020 - December 30th 2020
Private	403 Pratt Road	Lateral to Drain		6/1/2020		July 1st 2020 - December 30th 2020
Private/City	Albert Place	Potential Sanitary Sewer Lateral discharge to Drain; location contains existing combined drain and sanitary sewer system manholes	Suspect illicit connection, conducting ongoing investigations to identify source	8/14/2020		July 1st 2020 - December 30th 2020
Private	200 Daniels Street	Flat roof drain to sanitary		8/20/2020		July 1st 2020 - December 30th 2020
Private/City	Everett Street, Fairbanks Street	Potential Sanitary Sewer Lateral discharge to Drain; location contains existing combined drain and sanitary sewer system manholes	Suspect illicit connection, conducting ongoing investigations to identify source	8/1/2022		July 1st 2022 - December 30th 2022

Appendix E – Sanitary Sewer Overflow Events



Cumulative Sanitary Sewer Overflow (SSO) Inventory
2013 - 2022

Year	Location	Location of Discharge	Did SSO Enter Surface Water or MS4	Date Discovered	Time Discovered	Date Stopped	Time Stopped	Estimated Volume (gal)	Description of event with known or suspected causes	Mitigation and Corrective measures
2022	164 Elm Street	Backup into property basement	No release to surface water	8/9/2022	3:35 PM	8/9/2022	2:00 PM - 3:35 PM	1222	Rain Event caused surcharge of combine sanitary sewer system	Cleaning Service cleaned up impacted area. Area to be seperated with ongoing CSO separation project
	23 Columbia Avenue	Sanitary sewer manhole to ground surface	No release to surface water	8/9/2022	9:00 AM	8/9/2022	9:00 AM	20	Sewer system backup due to grease and rags	Main Line was jetted and cleared of grease and rags
	207 Summer Street	Backup into property basement	No release to surface water	7/27/2022	12:15 PM	7/27/2022	12:35 PM	80	Sewer system backup due to debris	Main Line was jetted and cleared of debris
	115 Swan Avenue	Backup into property basement	No release to surface water	7/8/2022	11:00 AM	7/8/2022	11:00 AM	15	Sewer system backup due to roots.	Main Line was jetted and cleared of roots
	370 Summer Street	Backup into property basement	No release to surface water	4/28/2022	5:00 PM	4/28/2022	6:00 PM	100	Sewer system backup due to roots.	Main Line was jetted and cleared of roots
	135 Intervale Road	Sanitary sewer manhole to catch basin to receiving water	North Nashua River	3/6/2022	6:00 PM	3/7/2022	2:00 PM	60,000	Contractor work for site development, construction debris entered Sewer Manhole causing blockage	On-call contactor by-passed main, jetted main and clearer blockage.
2021	605 Franklin Road	Sanitary sewer manhole to ground surface	No release to surface water	7/22/2021	1:00 PM	7/22/2021	1:30 PM	150	Sewer system backup due to roots	Main line was jetted and cleared of roots
	Railroad Street at First Street	Sanitary sewer manhole to recieveing water	North Nashua River	7/19/2021	8:30 AM	7/17/2021	6:00 PM	--	Discovered dislodge cover	Replaced dislodge cover and tightened the tabs to prevent another incident, New cover with bolt on frame was installed at location.
	569 Main Street	Backup into property basement	No release to surface water	7/19/2021	10:30 AM	7/17/2021	8:00 PM	5,000	Sewer system backup due to rain event and insufficient capacity of system	Cleaning Service cleaned up impacted area
	317 Kimbal Street	Catch basin to catch basin to receiving water	North Nashua River	6/26/2021	6:14 PM	6/26/2021	9:00 PM	5,000	Sewer system backup due to roots	Catch basin and main line was jetted and cleared of roots
	8 George Street	Backup into property basement	No release to surface water	3/1/2021	1:11 PM	3/1/2021	2:05 PM	150	Sewer system backup due obstruction	Main line was jetted and cleared of obstruction
	147 Water Street	Sanitary sewer manhole to catch basin to receiving water	North Nashua River	2/18/2021	11:00 AM	2/11/2021	2:00 PM	4,500	Sewer system backup due to pipe collapse	Main Line was jetted and main line was CCTV, Point repair conducted to replace collapsed pipe.
	34 Ash Street	Sanitary sewer manhole to ground surface	No release to surface water	2/11/2021	8:00 AM	2/11/2021	10:30 AM	15	Sewer system backup due to roots	Manhole and main line was jetted and cleared of roots
	9 Harrison Avenue	Backup into property basement	No release to surface water	2/3/2021	2:00 PM	2/3/2021	3:00 PM	3	Sewer system backup due to roots and rags	Main Line was jetted and cleared of roots and rags
2020	43 Patton Street	Backup into property basement	No release to surface water	6/8/2020	10:00 AM	6/8/2020	10:30 AM	25	Pipe collapse/hole in pipe where the Water Department installed a fire hydrant several years ago.	Jetted line and removed blockage. Repaired pipe on 6/23/20.
	28 Phillips Ave.	Backup into property basement	No release to surface water	5/15/2020	11:00 AM	5/15/2020	12:00 PM	20	Sewer system backup due to rags and accumulated grease.	Jetted line and removed blockage. Rags were removed from the pipe.
	31 Gillis Court	Backup into property basement	No release to surface water	4/14/2020	1:15 PM	4/14/2020	2:00 PM	150	Sewer system blockage due to rags and poorly pitched sanitary sewer lateral connection.	Jetted line and removed blockage. Rags were removed from the pipe along with black grease.
	228 Plymouth Street	Sanitary sewer manhole to catch basin to receiving water	North Nashua River	3/11/2020	3:10 PM	3/11/2020	3:30 PM	30	Sewer system blockage due to rags.	Jetted line and removed blockage. Rags were removed from the pipe along with black water indicating blockage has been forming for quite some time.
	133 Bel Air Drive	Backup into property basement	No release to surface water	3/2/2020	1:00 PM	3/2/2020	2:00 PM	3	Sewer system blockage due to debris in a poorly pitched sanitary sewer lateral connection.	Jetted line three times and removed blockage, grease, and rags. Added manhole to the problem area checklist.
2019	136 Upham Street	Sanitary sewer manhole to ground surface	No release to surface water	12/12/2019	8:41 AM	12/12/2019	9:00 AM	20	Sewer system blockage due to rags hung up on debris from a paving project.	Sucked down liquid in manhole, jetted line, and cleaned entire line 1,000 feet to trunk sewer. Conducted two follow up inspections following the incident to ensure no issues.
	1164 John Fitch Highway	Putts Pond	No release to surface water	11/14/2019	10:00 AM	11/14/2019	10:30 AM	10,000	Sewer system blockage due to rags and roots in manhole.	Sucked down liquid in manhole, jetted line, and cleared out roots. Added heavy amount of root killer.
	168 Lunenburg Street	Sanitary sewer manhole to ground surface	No release to surface water	10/15/2019	11:00 AM	10/15/2019	11:30 AM	5	Sewer system blockage due to rags and roots in manhole.	Sucked down liquid in manhole, jetted line, and cleared out roots. Root killer will be added until the manhole is replaced next construction season.
	133 Water Street	Catch basin (MS4) to receiving water	North Nashua River	7/12/2019	1:30 PM	7/12/2019	2:15 PM	60-80	Sewer system blockage due to a brick and pieces of mortar, in addition to rocks and debris in pipe likely from a break upstream.	Jetted line and cleared blockage.
	Hasset Street at Albee Street	Catch basin (MS4) to receiving water	North Nashua River	6/24/2019	10:00 AM	6/24/2019	10:30 AM	60	Sewer system blockage due to a brick, likely from a lining project upstream a few years prior.	Jetted line and cleared blockage.
	1000 John Fitch Highway	Ground surface	No release to surface water	4/13/2019	11:10 AM	4/13/2019	12:00 PM	2,500	Sewer system blockage due to asphalt chunks from upstream manhole that appeared to have been dislodged, likely by plows during the winter.	Jetted line and cleared blockage.
	88 Miami Street	Backup into property basement	No release to surface water	4/10/2019	7:20 AM	4/10/2019	9:30 AM	5	Sewer system blockage due to piece of brick and rock with mortar attached to it and rags.	Jetted line and cleared blockage.
	33 Darlene Drive	Backup into property basement	No release to surface water	4/8/2019	9:40 AM	4/8/2019	10:00 AM	4	Sewer system blockage due to flat pitch, sags, rags, and solids.	Line was jetted and cleaned out. City then followed up with a CCTV inspection and noted flat pitch and sags.
	881 Main Street	Direct to receiving water	North Nashua River	3/18/2019	8:44 AM	3/18/2019	8:44 AM	502,320	Rain event, blockage in overflow regulator CSO-032 due to road sand and debris.	Jetted and cleared sand and debris from regulator manhole CSO-032
	Water Street at Nashua River	Direct to receiving water	North Nashua River	3/18/2019	7:00 AM	3/18/2019	7:20 AM	470,000	Rain event, blockage in overflow regulator CSO-039 due to road sand and debris.	Jetted and cleared sand and debris from regulator manhole CSO-039
	71 Rodiman Avenue	Backup into property basement	No release to surface water	3/16/2019	5:15 PM	3/16/2019	5:15 PM	1	Sewer system blockage due to flat pitch.	Line was jetted and cleaned out. City then followed up with a CCTV inspection and noted no defects in pipe, just flat pitch. Homeowner said it has been years but in the past he would back up often.
	56 Elm Street	Backup into property basement	No release to surface water	3/4/2019	12:30 PM	3/4/2019	1:00 PM	40	Sewer system blockage due to rocks, asphalt, and other debris.	Downstream manhole was cleaned of rocks and brick debris, and branch sewer was jetted that was surcharging to relieve blockage.
	12 Jerry Street	Backup into property basement	No release to surface water	2/17/2019	9:00 AM	2/17/2019	10:00 AM	315	Sewer system blockage due to grease.	Jetted line and cleared blockage, area on list of problem areas.
	491 Pearl Street	Backup into property basement	No release to surface water	1/28/2019	11:10 AM	1/28/2019	12:00 PM	5	Sewer system blockage due to grease.	Jetted line and cleared blockage.
	400 Rollstone Road	Direct to receiving water	Sand Brook	1/18/2019	10:30 AM	1/18/2019	10:30 AM	100,000	Sewer system blockage due to brick falling into system from upstream manhole chimney.	Cleaned out junction manhole, removed one brick and other debris.
	715 Westminster Street	Catch basin (MS4) to receiving water	North Nashua River	1/7/2019	12:45 PM	1/7/2019	4:00 PM	25,000	Sewer system blockage caused by rags.	Jetted line and pulled out 3-foot long by 1-foot tall blockage of rags.
	192 Marshall Road	Ground surface	No release to surface water	12/3/2018	10:00 AM	12/3/2018	10:15 AM	40	Sewer system blockage caused by bricks dropped into sewer by contractor who had recently paved road.	Jetted line and pulled out two bricks.
2018	101 Fitchburg Road, Westminster	Ground surface	No release to surface water	9/19/2018	6:30 PM	9/19/2018	7:30 PM	3,000	Pipe collapse; MassDOT put guardrail through PVC force main during road reconstruction a few years prior.	Shut off pumps at pump station, fixed pipe.
	569 Main Street	Backup into property basement	No release to surface water	6/20/2018	4:00 PM	6/18/2018	8:00 PM	1,500	Rain event, insufficient capacity in system	Checked manholes and main lines for debris, all clear.
	212 Marshall Street	Backup into property basement	No release to surface water	6/20/2018	4:00 PM	6/18/2018	8:00 PM	800	Rain event, insufficient capacity in system	Checked manholes and main lines for debris, all clear.
	410 Cathy Street	Backup into property basement	No release to surface water	2/5/2018	5:00 PM	2/5/2018	5:00 PM	10	Sewer system blockage, pipe in poor condition.	Cleared blockage, added area to problem area check list.
2017	33 Shelly Avenue	Backup into property basement	No release to surface water	10/30/2017	7:30 AM	10/30/2017	7:30 AM	10	Rain event, insufficient capacity in system. Homeowners use of flapper valve lead to water in basement.	Back-flow preventer was installed and working properly.
	1 Oak Hill Road	Backup into property basement	No release to surface water	10/30/2017	8:00 AM	10/30/2017	8:00 AM	2,000	Rain event, insufficient capacity in system	Mainline flow was good. Additional combined sewer separation upstream may help alleviate surcharging.
	8 Crescent Heights	Backup into property basement	No release to surface water	10/3/2017	12:00 PM	10/3/2017	12:00 PM	15	Sewer system blockage	Excavation was conducted, line was cleaned, jetted, inspected, and repaired.
	10 Jerry Street	Ground surface	No release to surface water	4/20/2017	2:30 PM	4/20/2017	3:30 PM	500	Sewer system blockage	Blockage was freed after debris removal, puddling sewerage was sucked up with vactor truck.
	22 Prospect Street	Catch basin (MS4) to receiving water	North Nashua River	4/12/2017	5:00 PM	4/13/2017	8:00 AM	5,000	Pipe collapse	Bypass setup morning after SSO was discovered, collapsed pipe was repaired.
	22 Davis Street	Ground surface	No release to surface water	4/11/2017	3:30 PM	4/12/2017	8:00 AM	2,000	Root intrusion	Jetting of line was unsuccessful. Line was cleared the following morning after roots were cut free.
	396 Fifth Mass Turnpike	Ground surface; Direct to receiving water	Flagg Brook	2/28/2017	11:00 AM	2/28/2017	2:30 PM	21,000	Pipe collapse	Bypass was setup and stayed in place until following morning when the repair was made to the cast iron siphon.
	569 Main Street	Ground surface	No release to surface water	1/26/2017	10:00 AM	1/26/2017	10:30 AM	200	Sewer system blockage due to rocks, asphalt, and other debris	Line was jetted and debris was cleared and disposed of, line was completely cleared to main trunk sewer.
	72 Jackson Avenue	Ground surface	No release to surface water	1/8/2017	2:30 AM	1/8/2017	3:30 AM	300	Sewer system blockage due to rocks, asphalt, and other debris	Line was jetted and debris was vacuumed up and disposed of properly.
	11 Hardy Passway	Ground surface	No release to surface water	1/7/2017	11:30 AM	1/7/2017	1:30 PM	500	Sewer system blockage due to rocks, asphalt, and other debris	Line was jetted and debris was vacuumed up and disposed of properly. Line added to priority cleaning list.
	1153 John Fitch Highway	Catch basin (MS4) to receiving water	Falulah Brook	12/25/2016	10:30 PM	12/26/2016	9:00 AM	4,000	Sewer system blockage	Downstream manhole was jetted and blockage was relived. Roots were cut from main line.
	31 Olin Drive	Backup into property basement	No release to surface water	12/16/2016	3:00 PM	12/16/2016	3:30 PM	30	Sewer system blockage caused by a root ball downstream of the home at a defective wye service connection.	Blockage was relived via water jetting. Roots could not be cut out due to deflected clay pipe joints. Manhole installed Spring 2017 at lateral connection at the summit of the line.
	545 Westminster Street	Direct to receiving water	North Nashua River	11/14/2016	1:00 PM	11/14/2016	2:00 PM	5,400,000	Initially notified of algae growth on 10/26/2016. After multiple investigations a sewer system blockage was found at the intersection of Route 2A and Route 31.	Rag ball blockage was relived via jetting, restoring normal operations. Pipe repaired in following weeks.
	153 Fairmount	Backup into property basement	No release to surface water	11/4/2016	1:00 PM	10/21/2016	8:00 PM	300	Rain event	Surcharging subsided with rain event.
	14 Wallace Avenue	Backup into property basement	No release to surface water	11/2/2016	3:30 PM	10/21/2016	8:00 PM	1,870	Rain event, insufficient capacity in system	Surcharging subsided with rain event.
	400 Summer Street	Backup into property basement	No release to surface water	10/27/2016	1:30 PM	10/21/2016	8:00 PM	3,800	Rain event, insufficient capacity in system	Surcharging subsided with rain event. City will install backflow preventer in owner's service lateral.
	187 Fairmount Street	Backup into property basement	No release to surface water	10/26/2016	2:00 PM	10/21/2016	8:00 PM	N/A	Rain event, sewer system blockage	Surcharging subsided with rain event. City will install backflow preventer in owner's service lateral at owner's requests.
	40 Ray Avenue	Backup into property basement	No release to surface water	10/24/2016	4:30 PM	10/24/2016	4:30 PM	300	Rain event, insufficient capacity in system	Unmaintained backflow preventer didn't work properly causing water to backup into basement.
	70 Benson Street	Catch basin (MS4) to receiving water	Unnamed intermittent stream	10/24/2016	10:45 AM	10/24/2016	12:50 PM	162,000	Rain event, sewer system blockage of bricks and debris wedged into pipe caused water to come out of manhole cover. Manhole had been overflowing since 10/22/16 at 7 AM. Majority of sewage was released into a very large flat rip-rapped area and infiltrated into ground.	Blockage was cleared by water jetting.
	33 Shelly Avenue	Backup into property basement	No release to surface water	10/24/2016	9:30 AM	10/21/2016	7:00 PM	3,000	Rain event, insufficient capacity in system	City installed backflow preventer in this location sometime in following weeks to prevent future SSO's.
	29 Goodwin Street	Ground surface	No release to surface water	9/29/2016	11:00 AM	9/29/2016	1:00 PM	20	Sewer system blockage due to size transition in pipe (10 inch diameter to 6 inch). Sewage ran down street 10 feet and infiltrated into grass.	Blockage was cleared with jetter, debris was removed, and roots were cut out of pipe.
	132 Green Street	Backup into property basement	No release to surface water	9/27/2016	5:00 PM	9/27/2016	5:30 PM	10	Sewer system blockage, root intrusion. Resident claims lateral was clear but sewage was still entering basement. Sewer collections team jetted mainline and pulled back debris. Baby wipe build up appears to have cause blockage.	Blockage was cleared with jetter. Considerations for putting extra manhole to provide access to both ends of main line were made.
	Water Street at Walnut (CSO-039)	Direct to receiving water	North Nashua River	6/21/2016	1:00 PM	6/21/2016	2:00 PM	577,000	After a rain event the SSO was discovered during routine checks and was caused by sand/grit and rags blocking the base flow outlet pipe of the CSO regulator.	The blockage was cleared and the structure was cleaned with a jetter/vacuum truck. All catch basin sumps upstream were cleaned.
	1 Delisle Street (Park Hill Park)	Ground surface	No release to surface water	3/1/2016	2:00 PM	3/1/2016	3:00 PM	150	Sewer system blockage; 6 to 12 inch sized rip-rap stones were found in sewer manhole causing blockage. Sewage from SSO percolated into ground around surcharged manhole.	The rip-rap was removed via a catch basin clamshell cleaner truck, vactor truck, and manual labor. Sewer main up and downstream of the block was cleaned and inspected with camera. City will install a locking frame on manhole to prevent unauthorized access and debris.
2015	10 Jerry Street	Ground surface	No release to surface water	2/11/2016	10:00 AM	2/11/2016	11:00 AM	1,000	Sewer system blockage due to bricks, rocks, and a tire-chock block.	Blockage relieved by jetting main line and cleaning out SMH. Crew vactored up sewage that had pooled on road, remaining sewage percolated into ground.
	65 Fredette Street	Ground surface; Backup into basement	No release to surface water	2/10/2016	10:30 PM	2/10/2016	11:30 PM	2,000	Sewer system blockage due to bricks. Homeowner pumped sewage into backyard where it percolated into ground.	Main line was jetted. 25 bricks were removed from sewer. Repairs were made to falling manhole where the bricks originated.
	130 South Street	Catch basin (MS4) to receiving water	North Nashua River	12/15/2015	Unknown	12/15/2015	Unknown	Unknown	Resident discharging gray water from basement via pipe protruding from foundation wall.	Notified Board of Health for enforcement action, worked with homeowner to correct.
	444 Franklin Street	Backup into property basement	No release to surface water	11/10/2015	6:45 AM	11/10/2015	6:45 AM	Unknown	Sewer system blockage in main line due to protruding tap.	Line was jetted and blockage was cleared.

Year	Location	Location of Discharge	Did SSO Enter Surface Water or MS4	Date Discovered	Time Discovered	Date Stopped	Time Stopped	Estimated Volume (gal)	Description of event with known or suspected causes	Mitigation and Corrective measures
2015	300' West of 50 Stoneybrook Road	Catch basin (MS4) to receiving water	Unnamed brook	10/14/2015	10:00	10/15/2015	2:00 PM	2,000	Leaking steel sewer force main. The line was jetted which led to short relief period. Leak continued so the pump station was shut down.	Replaced 8 feet of sewer force main. Condition assessment was conducted on the sewer force main to determine if any other repairs or replacements needed to be made.
	149 High Street	Backup into property basement	No release to surface water	10/5/2015	Unknown	10/5/2015	Unknown	Unknown	Sewer system blockage and pipe collapse.	Rooter team snaked line but only up to 80 ft. where they could not go any further. Suspected pipe had been crushed or broken. Excavation of area and repair of pipe was done.
	40 Ray Avenue	Backup into property basement	No release to surface water	9/30/2015	Unknown	9/30/2015	Unknown	Unknown	Rain event caused sewer surcharging.	Surcharging subsided with rain event.
	35 Proctor Avenue	Backup into property basement	No release to surface water	9/30/2015	10:45 AM	9/30/2015	11:45 AM	16,000	Rain event; Heavy inflow to sewer system due to torrential rains surcharged sewer in street. Blockage caused by debris in sewer main that originated from newly installed sewer.	Surcharging subsided with rain event. Investigation of storm drains to see if a blockage was the reason for transfer from storm sewer to sanitary sewer.
	667 Westminster Street	CB and 1000' of pipe (MS4) to receiving water	North Nashua River	6/20/2015	9:00 AM	6/24/2015	9:00 AM	205,000	Multiple sewer system collapses in same area over 4 day period. 8-inch VC pipe constructed on ledge was shaken apart by vibratory compactor during paving project 2 weeks prior. Sewage was released onto ground surface and into catch basin.	Located collapse with camera truck and called in on-call services contractor. Multiple collapses in area over 4 day period required multiple temporary fixes leading to permanent fix.
2014	54 Fredette Street	Backup into property basement	No release to surface water	2/10/2015	10:00 AM	2/10/2015	3:00 PM	200	Sewer system blockage of 8 inch VC pipe.	Vac truck cleared blockage, pipe was cleaned. Attempt to CCTV was made however protruding lateral in way. Plans for lateral to be cut out after weather improved were made.
	55 Fredette Street	Backup into property basement	No release to surface water	2/10/2015	10:00 AM	2/10/2015	3:00 PM	50	Sewer system blockage of 8 inch VC pipe.	Vac truck cleared blockage, pipe was cleaned. Attempt to CCTV was made however protruding lateral in way. Plans for lateral to be cut out after weather improved were made.
	John Fitch Highway at Woodbury Ave	Ground; Catch basin (MS4) to detention basin	No release to surface water	11/19/2014	10:15 PM	11/19/2014	10:40 PM	2,000	Caused by a failed bypass pumping system. The bypass system was being transferred from pump 1 to pump 2 and with the valve not being closed properly and the pump being brought online not primed properly the SSO occurred.	An employee of the company that had installed the pump figured out the problem and closed the valve. The site of the SSO was cleaned.
	285 Main Street	Backup into property basement	No release to surface water	7/27/2014	Unknown	7/27/2014	Unknown	2,000	Sewer system blockage. Contractor didn't get proper information from engineering firm during project leading to blockage in sewer lateral.	City assisted the contractor in clearing the blockage. Rooterman vacuumed the SSO into their vactor truck and decanted into a sewer manhole on Day St.
	95 Goodrich Street	Backup into basement; Ground surface	No release to surface water	7/7/2014	5:00 PM	7/7/2014	5:00 PM	200	Rain event, insufficient capacity. 1.1 inches of rain in 20 minutes too much capacity for system under construction. Homeowner bailed the sewage onto the back lawn where it infiltrated the ground.	Contractor made temporary modifications to system to utilize more capacity in storm drain.
	96 St Bernard St	Backup into basement; Ground surface	No release to surface water	7/7/2014	5:00 PM	7/7/2014	5:00 PM	1,000	Rain event, insufficient capacity. 1.1 inches of rain in 20 minutes too much capacity for system under construction. Homeowner bailed the sewage onto the back lawn where it infiltrated the ground.	Contractor made temporary modifications to system to utilize more capacity in storm drain.
	254/256 Boutelle Street	Backup into basement; Ground surface	No release to surface water	7/7/2014	5:00 PM	7/7/2014	5:00 PM	400	Rain event, insufficient capacity. 1.1 inches of rain in 20 minutes too much capacity for system under construction. Homeowner bailed the sewage onto the back lawn where it infiltrated the ground.	Contractor made temporary modifications to system to utilize more capacity in storm drain.
	264 Boutelle Street	Backup into basement; Ground surface	No release to surface water	7/7/2014	5:00 PM	7/7/2014	5:00 PM	200	Rain event, insufficient capacity. 1.1 inches of rain in 20 minutes too much capacity for system under construction. Homeowner bailed the sewage onto the back lawn where it infiltrated the ground.	Contractor made temporary modifications to system to utilize more capacity in storm drain.
	276 Boutelle Street	Backup into basement; Ground surface	No release to surface water	7/7/2014	5:00 PM	7/7/2014	5:00 PM	500	Rain event, insufficient capacity. 1.1 inches of rain in 20 minutes too much capacity for system under construction. Homeowner bailed the sewage onto the back lawn where it infiltrated the ground.	Contractor made temporary modifications to system to utilize more capacity in storm drain.
	300 Boutelle Street	Backup into basement; Ground surface	No release to surface water	7/7/2014	5:00 PM	7/7/2014	5:00 PM	200	Rain event, insufficient capacity. 1.1 inches of rain in 20 minutes too much capacity for system under construction. Homeowner bailed the sewage onto the back lawn where it infiltrated the ground.	Contractor made temporary modifications to system to utilize more capacity in storm drain.
	4 Maverick Street	Backup into property first floor and basement	No release to surface water	6/26/2014	3:00 AM	6/26/2014	3:00 AM	200	Rain event, insufficient capacity, sewer system blockage. Temporary connection due to construction was insufficient for combined sewer. Sewage emptied into first floor and drained into basement.	Contractor made a permanent connection to existing combined sewer.
	Boutelle Street at St Bernard Street	Ground surface	No release to surface water	5/17/2014	5:45 AM	5/17/2014	5:45 AM	1,000,000	Rain event. Revoli Construction installed a temporary connection that was undersized and restricted flow causing SSO to exit manhole and run down the street before infiltrating the ground. Sewage also entered a few basements of surrounding properties.	Surcharging subsided with rain event. City met to discuss measures to be taken. Included better plans for temporary connections to be provided by Revoli Construction.
	65 Fredette Street	Ground; CB and 5,230' (MS4) to receiving water	Nashua River	2/12/2014	5:00 PM	2/12/2014	5:00 PM	5,000	Sewer system blockage of 8 inch VC pipe in street lead to backup in property basement which was pumped into driveway and eventually entered a catch basin which brought it to the Oak Hill Road bridge outfall.	Vac truck cleared blockage. Collections crew cleaned pipe and checked it the following day.
	75 Walnut Street	Direct to receiving water	North Nashua River	1/11/2014	Unknown	1/29/2014	Unknown	1,800	Sewer system collapse; Large block of ice knocked manhole off its base in river. Private lateral assumed to come loose concurrently.	Blue Diamond Construction hired to fix manhole. Lateral reconnected on 1/29/2014
	66 Thorndike Street	Backup into basement; Ground surface	No release to surface water	12/16/2013	10:30 AM	12/16/2013	10:30 AM	500	Sewer system blockage in street due to 8 inch VC pipe collapse. Plumber bailed 500 gallons into backyard where it percolated into ground underneath snow.	Vac truck cleared blockage. Excavation planned to repair pipe in following days.
	Regulator 036 at 98 Laurel Street	CB and 1000' of pipe (MS4) to receiving water	Nashua River	9/22/2013	5:15 AM	9/22/2013	5:15 AM	50,000	Rain event; insufficient capacity. During combined sewer separation regulator was closed too soon; not enough capacity in downstream pipe. Sewer manhole cover popped off, crew arrived after event was over.	Short term fix included opening regulator and installing meter. Long term fix included more catch basin separation.
	905 Merriam Ave, Pizzeria Uno, Twin City Plaza	Ground surface; wetland area	Wetland area	6/11/2013	7:45 AM	6/11/2013	11:30 AM	81,000	Sewer system blockage of 12 inch discharge pipe due to rocks, grease, and rags.	Two 3 inch trash pumps setup to stop SSO. 6 inch pump installed to bypass problem manhole. Surcharging in system relieved. Problem manhole is isolated and blockage is cleared.
	58 St Andrew Street	Backup into property basement	No release to surface water	5/22/2013	7:00 AM	5/22/2013	7:00 AM	200	Rain event; Sewer system blockage due to grease and a root intrusion.	Blockage cleared with jetter and roots were cut out. Line CCTV'd following incident.
	Pole 55, Oak Hill Road	Ground surface	No release to surface water	4/29/2013	9:15 AM	4/29/2013	9:15 AM	125	Sewer system blockage due to grease from Oak Hill Country Club. SSO flowed for 75 ft. along side of road eventually percolating into ground at low point.	Blockage was cleared. City scheduled to visit pipe to clean, jet and CCTV in the following months. Notified OHCC to be diligent about semi-annual pump outs.