Connecticut Department of
Energy & Environmental Protection
Bureau of Materials Management & Compliance Assurance
Water Permitting & Enforcement Division

MS4 Annual Report Transmittal Form

For the General Permit to Discharge Stormwater from Small Municipal Separate Storm Sewer Systems (MS4)

Print or type unless otherwise noted. Please submit this completed transmittal form, fee, and the MS4 Annual Report as indicated at the end of this form.

CPPU USE ONLY

App #:_____

Doc #:_____

Check #:_____

Program: Stormwater Permits

Part I: Annual Report General Information

1. Reporting Period (Calendar Year): **January 1, 2022-December 31, 2022**
2. Provide the registration number for the existing general permit registration: **GSM000029**

3. Registrant Type (check one):	Fees
☐ state institution/agency	$375.00 **[713]**
☐ federal institution/agency	$375.00 **[713]**
☒ municipality	$187.50 **[713]**

4. Municipality name or Municipality name where institution is located: **Town of Granby**

The annual report will not be processed without the fee. The fee shall be non-refundable and shall be paid by check or money order to the Department of Energy and Environmental Protection (DEEP) or by such other method as the commissioner may allow.

Part II: Registrant Information

1. Registrant (Name of Municipality or State or Federal Institution/Agency): Town of Granby

Mailing Address: 52 North Granby Road

City/Town: Granby State: CT Zip Code: 06035

Business Phone: 860-653-8960 ext.:

Contact Person: Kirk Severence Phone: 860-653-8960 ext.

*E-mail: kseverance@granby-ct.gov

*By providing this e-mail address you are agreeing to receive official correspondence from DEEP, at this electronic address, concerning the subject registration. Please remember to check your security settings to be sure you can receive e-mails from “ct.gov” addresses. Also, please notify DEEP if your e-mail address changes.

Part II: Registrant Information (continued)

2. Billing contact, if different than the registrant.

Name: **Atlas Technical Consultants, LLC**

Mailing Address: 290 Roberts Street

City/Town: East Hartford State: CT Zip Code: 06108

Business Phone: 860-282-9924 ext.:

Contact Person: Luke Whitehouse Phone: 860-608-8576 ext.

E-mail: luke.whitehouse@oneatlas.com

3. Primary contact for departmental correspondence and inquiries, if different than the registrant.

Name: **Atlas Technical Consultants, LLC**

Mailing Address: 290 Roberts Street

City/Town: East Hartford State: CT Zip Code: 06108

Business Phone: 860-282-9924 ext.:

Contact Person: Luke Whitehouse Phone: 860-608-8576 ext.

*E-mail: luke.whitehouse@oneatlas.com

*By providing this e-mail address you are agreeing to receive official correspondence from DEEP, at this electronic address, concerning the subject registration. Please remember to check your security settings to be sure you can receive e-mails from "ct.gov" addresses. Also, please notify DEEP if your e-mail address changes.

4. Engineer(s) or other consultant(s) employed or retained to assist in preparing the annual report.

☐ Check here if additional sheets are necessary, and label and attach them to this sheet.

Name: **Atlas Technical Consultants, LLC**

Mailing Address: 290 Roberts Street

City/Town: East Hartford State: CT Zip Code: 06108

Business Phone: 860-282-9924 ext.:

Contact Person: Luke Whitehouse Phone: 860-608-8576 ext.

E-mail: luke.whitehouse@oneatlas.com

Service Provided: **Annual Report Preparation**

5. ☐ Check here if there are adjacent towns or other entities with which implementation of the Stormwater Management Plan is coordinated for a portion of the subject MS4. If so, provide the names of such towns or entities: _____

Part III: Registrant Certification

The registrant *and* the individual(s) responsible for actually preparing the annual report must sign this part. [If the registrant is the preparer, please mark N/A in the spaces provided for the preparer.]

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief.

I certify that this annual report transmittal is on complete and accurate forms as prescribed by the commissioner without alteration of the text.

I certify that the following public notice requirements have been met.

☒ **Annual Report Availability:** At least forty-five (45) days prior to submission of each Annual Report to DEEP, pursuant to Section 4(d)(3) of the MS4 General Permit, each permittee shall make available for public review and comment a draft copy of the complete Annual Report. Comments on the Annual Report may be made to the permittee and are *not* submitted to DEEP. Reasonable efforts to inform the public of this document shall be undertaken by the permittee. Such draft copies shall be made available electronically on the permittee's website for public inspection and copying, consistent with the federal and state Freedom of Information Acts, and shall be made available, at a minimum, at one of the following locations: the permittee's main office or other designated municipal or institution office, a local library or other central publicly available location. Following submission of the Annual Report to DEEP, a copy of the final report shall be made available for public inspection during regular business hours.

I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute.

I also certify that the signature of the registrant, or a duly authorized representative, being submitted herewith complies with section 22a-430-3(b)(2)(B) of the Regulations of Connecticut State Agencies.

M L C	4-10-23
Signature of Chief Elected official or Principal Executive Officer	Date
Mark Fiorentino	**First Selectman**
Printed Name of Chief Elected official or Principal Executive Officer	Title (if applicable)
Kay Lehoux	**4/3/2023**
Signature of Preparer (if different than above)	Date
Kay Lehoux	**Environmental Compliance Manager**
Printed Name of Preparer	Title (if applicable)

Note: Please submit 1) this completed Transmittal Form and the Fee to:

CENTRAL PERMIT PROCESSING UNIT
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

2) **a copy of this completed Transmittal Form and the Annual Report electronically to the following email address: DEEP.StormwaterStaff@ct.gov.**

Refer to www.ct.gov/deep/municipalstormwater for information on Annual Report Templates or other additional information concerning the MS4 General Permit.

In the event that electronic submission is not available or possible, please contact the Stormwater Section at 860-424-3025.

2022 MS4 ANNUAL REPORT

Town of Granby, Connecticut

MS4 General Permit
Town of Granby 2022 Annual Report
Permit Number GSM 000029
January 1, 2022 – December 31, 2022

Primary MS4 Contact: Kirk Severance, Director of Public Works, kseverance@granby-ct.gov

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This report documents Granby's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2022 to December 31, 2022.

Part I: Summary of Minimum Control Measure Activities

1. Public Education and Outreach (Section 6 (a)(1) / page 19)

1.1 BMP Summary

BMP	Activities in current reporting period	Sources Used (if applicable)	Method of Distribution	Audience (and number of people reached)	Measurable Goal	Department / Person Responsible	Additional details
1-1 Implement public education and outreach	*The Town has linked several sources to Stormwater Management page, of which provides several fact sheets pertaining to animal waste and water quality, lawn care, septic system care, pest management and biological controls, and managing household chemicals.*	*Stormwater Management*	*Town Website*	*~1,000*	*Provide public access to stormwater literature.*	*Department of Public Works/ Kirk A. Severance, Director of Public Works*	
1-2 Address education/ outreach for pollutants of concern	*The Town has linked a source pertaining to animal waste and water quality, which provides literature on animal waste controls and proper disposal*	*Pet Waste and Water Quality*	*Town Website*	*~250*	*Educate and provide pet waste management to the public.*	*Department of Public Works/ Kirk A. Severance, Director of Public Works*	

	The Farmington River Watershed Association (FRWA) held several events for multiple Towns, including Granby. These events included "Meet the Macros", Functional Feeding Groups and River Continuum Concept", "Learn to be River Smart and Protect the Farmington River", and "River Clean-Up".		*Virtual, in-person*	*~500*		*FRWA*	
Example Additional BMP: *1-3 Hazardous Waste Collection*	*In partnership with Farmington, Canton, Simsbury, and Avon Hazardous Waste Collection days are provided per year.*	*Hazardous Waste Day Collections*	*Town Website*	*~2,000*	*Educate and provide hazardous waste collections.*	*Department of Public Works/ Kirk A. Severance, Director of Public Works*	

1.2 Describe any Public Education and Outreach activities planned for the next year, if applicable.

1. Continue Hazardous Waste Collection days with neighboring towns.
2. All of the above mentioned activities held by the Town of Granby (1-1, 1-2) are planned for 2023, with specific dates to be determined.

2. Public Involvement/Participation (Section 6(a)(2) / page 21)

2.1 BMP Summary

BMP	**Status** (Complete, Ongoing, In Progress, or Not started)	**Activities in current reporting period**	**Measurable Goal**	**Department / Person Responsible**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Location Posted**	**Additional details**
2-1 Final Stormwater Management Plan publicly available	*Completed*	*Public notice posted via Town website.*	*Provide notice and access to Annual Report*	*Department of Public Works/ Kirk A. Severance, Director of Public Works*	*Completed on April 12th, 2017*	*Stormwater Management Plan*	
2-2 Comply with public notice requirements for Annual Reports (annually by 2/15)	*Ongoing*	*Public notice posted via Town website.*	*Provide notice and access to Annual Report*	*Department of Public Works/ Kirk A. Severance, Director of Public Works*	*Ongoing- Annual*	*Annual Report*	
additional BMP: *2-3 Hazardous Waste Collection*	*Ongoing*	*In partnership with Farmington, Canton, Simsbury, and Avon for hazardous waste collection days.*	*Provide hazardous waste collections*	*Department of Public Works/ Kirk A. Severance, Director of Public Works*	*April 23rd, June 11th, October 15th*	*Hazardous Waste Day Collections*	

2.2 Describe any Public Involvement/Participation activities planned for the next year, if applicable.

The annual Hazardous Waste Collection, which is provided annually, will be completed in 2023.

3. Illicit Discharge Detection and Elimination (Section 6(*a*)(3) and Appendix B / page 22)

3.1 BMP Summary

BMP	**Status** (Complete, Ongoing, In Progress, or Not started)	**Activities in current reporting period**	**Measurable Goal**	**Department / Person Responsible**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Additional details**
3-1 Develop written IDDE program (Due 7/1/19)	*Completed*	*The Town has completed a written IDDE program.*	*Develop written plan of IDDE program*	*Department of Public Works/ Kirk A. Severance, Director of Public Works*	*Completed in November 2017.*	*The Department of Public Works is the central reporting agency for citizen illicit discharge complaint filings.*
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas (Due 7/1/20)	*Completed*	*The Town continues a QA/QC process of reviewing GIS systems and editing as necessary.*	*All outfalls mapped*	*Department of Public Works/ Kirk A. Severance, Director of Public Works/Atlas*	*Completed prior to July 2019*	*Mapping and data will be continually maintained as outfalls are tested, repaired, etc.*
3-3 Implement citizen reporting program (Ongoing)	*Completed*	*The general public may report suspected illict discharges through the Department of Public Works or online.*	*Provide a reporting mechanism and log*	*Board of Selectmen/ Town Manager*	*Completed November 2018*	*Citizen Reporting Program*
3-4 Establish legal authority to prohibit illicit discharges (Due 7/1/19)	*Completed*	*An Illicit Discharge Detection and Elimination Ordinance was enacted in 2016.*	*Adopt ordinance*	*Board of Selectmen/Town Manager*	*Completed November 2016*	*Illict Discharge Ordinance*
3-5 Develop record keeping system for IDDE tracking (Due 7/1/17)	*Ongoing*	*The Department of Public Works has developed a record keeping system. Utilizing Excel, illicit discharges are tracked.*	*Maintain IDDE list.*	*Department of Public Works/ Kirk A. Severance, Director of Public Works*	*Completed in November 2017- ongoing for throughout permit life.*	
3-6 Address IDDE in areas with pollutants of concern	*Ongoing*	*Wet weather screening was conducted at six (6) priority outfalls.* *Dry weather inspections were conducted at fifty-nine (59) outfalls throughout the Town.*	*Wet weather testing and additional investigation as necessary.*	*Department of Public Works/ Kirk A. Severance, Director of Public Works/Atlas*	*Ongoing-Started in 2020*	*Atlas assists the Town with sampling and inspections at outfalls to impaired waterbodies, as well as dry weather inspections at outfalls related to the Town MS4 infrastructure.*

		Catchment Rankings have been completed. SSOs are under investigations.				

3.2 Describe any IDDE activities planned for the next year, if applicable.

1. Continue wet weather sampling at priority outfalls to impaired waters
2. Continue dry weather inspections throughout the entire Town
3. Respond to any illicit discharge complaints

3.3 Provide a record of all citizen reports of suspected illicit discharges and other illicit discharges occurring during the reporting period and SSOs occurring July 2017 through end of reporting period using the following table. Illicit discharges are any unpermitted discharge to waters of the state that do not consist entirely of stormwater or uncontaminated groundwater except those discharges identified in Section 3(a)(2) of the MS4 general permit when such non-stormwater discharges are not significant contributors of pollution to a discharge from an identified MS4.

Location (Lat long/ street crossing /address and receiving water)	**Date and duration of occurrence**	**Discharge to MS4 or surface water**	**Estimated volume discharged**	**Known or suspected cause / Responsible party**	**Corrective measures planned and completed** (include dates)	**Sampling data** (if applicable)
286 West Granby Road	*4/9/2021*	*Approximatley 195 ft. from OF-152*	*Unknown*	*Underground spring*	*Atlas was called to investigate a potential illicit discharge in the Town. Upon arrival, water was found to be discharging from a driveway at a steady, bubbling rate, with heavy algae growth. Discharge lead down the driveway into an adjacent ditch. This runodd disch is in the vicinity of OF-152, which in turn discharges to the West Branch Salmon Brook. A sample of the discharge was submitted for the analysis of E.coli, T. coli, nitrite, nitrate, and phosphorus to assess potential illic discharge sources. A review of sampling data from the nearby MS4 outfall (OF-152) did not indicate illicit discharges were entering this catchment. Laboratory analytical results were indicative of groundwater, and it is suspected an an underground spring had worked its way to the the surface.*	***E. coli**-<10 MPN/100mL* ***T.Coli**- 10 MPN/100mL* ***Nitrite** - <0.010 mg/L* ***Nitrate**- 0.55 mg/L* ***Phosphorus**- 0.304 mg/L*
Canal Street	*Unknown*	*None.*	*Unknown*	*Property Owner*	*A property owner diverted discharge from a sump pump. The discharge was directed down the driveway and into the road. The Town Engineer and Director of Public Works met with the property owner, and discussed redirecting the discharge, as well as icing concerns on the road. The property owner was responsive, and redirected the discharge onto a grassy area on the property.*	***None.***

23 Glen Road	*12/15/2021*	*None.*	*Unknown*	*80 year old septic system- end of life*	*An evaluation by FVHD led to the replacement of the septic system due to old age and being at the end of its life. Installation of a new 1250 gallon septic tank and leaching field was completed and a permit to discharge was granted, recommending the daily discharge should not exceed 2/3 of the permitted flow.*	***None.***
2022						
21 Oakwood Drive	*3/21/2022*	*None.*	*Unknown*	*Unknown cause for replacement of septic system*	*Following site evaluation by FVHD, installation of a new septic system was recommended for unknown reasons. Approval and a permit was provided by FVHD for replacement with a new 1000 gallon septic tank and 495 sqft leachfield.*	***None.***
31 Harmony Hill Road	*4/11/2022*	*East Branch Salmon Brook*	*Unknown*	*Failed spectic system inspection*	*Site evaluation by FVHD resulted in a failed inspection of the septic system. Installation of a new 1000 gallon septic tank and 495 sqft leaching area was recommended. A proposal for septic system repair was submitted by a licensed installer.*	***None.***
73 Silkey Road	*6/15/2022*	*Mountain Brook/ Moosehorn Brook*	*Unknown*	*Unknown reason for septic system replacement*	*FVHD evaluated the site for installation of a new septic system for unknown reasons. A replacement plan was provided by the installer, which includes a two compartment 1000 gallon septic tank and a 495 sqft leaching field. FHVD approved the plan and provided a permit for replacement.*	***None.***
6 Glen Road	*9/21/2022*	*None.*	*Unknown*	*Leaking tank due to invasive roots*	*FVHD evaluated the septic system where the tank was leaking due to invasive roots. Recommendations for repair included installation of a new 1000 gallon septic tank and 495 sqft leaching area. Awaiting installation and permit to repair.*	***None.***
80 Canal Road	*2022*	*MS4 System*	*Unknown*	*A sump pump was reported as discharging to the road and into a nearby catch basin. Icing on the road was also prevalent following this discharge.*	*The Town investigated this report. Following investigation, the resident rerouted the sump pump.*	***None.***
The Town coordinated with the Farmington Valley Health District (FVHD) in early 2019 regarding addresses in the Town where septic system repairs were completed. According to the FVHD, approximately 50 septic repairs/replacements were conducted in 2020. Evaluation of these repairs are being conducted in coordination with Atlas to determine if certain sections of the Town have patterns of septic repairs and/or failures.						

3.4 Provide a summary of actions taken to address septic failures using the table below.

Method used to track illicit discharge reports	Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known	Dept. / Person responsible
Farmington Valley Health District (FVHD)	*23 Glen Road- 80 year old septic system*	*Old septic system was replaced following an evaluation by FVHD. New sewage disposal system was approved for a permit to discharge.*	*Wetlands in close proximity to the property with possibility of impact.*	*FVHD*
Farmington Valley Health District (FVHD)	*21 Oakwood Drive- Unknown*	*Septic system was evaluated and given a permit for replacement by FVHD. Reason not explained in the report.*	*Munnisunk Brook and wetland south of property with potential for impact.*	*FVHD*
Farmington Valley Health District (FVHD)	*31 Harmony Hill Road- Failed septic inspection*	*FVHD evaluated site and recommended the installation of a new septic system. A proposal for the septic system repair was submitted by a licensed installer.*	*Potential impact to East Branch Salmon Brook.*	*FVHD*
Farmington Valley Health District (FVHD)	*6 Glen Road- 1000 gallon septic tank leaking with roots invasive to the system.*	*Site evaluation conducted by FVHD. Recommended installation of a new septic system.*	*Wetlands in close proximity to the property with possibility of impact.*	*FVHD*
The Farmington Valley Health District (FVHD) received and maintains records of septic failures along with actions taken. All sanitary sewer connections and system extensions are managed by the Building Department. The Town will begin to formally coordinate with Building Department regarding records of septic failures. In coordination with Atlas, the Town is currently investigating any septic repairs and/or failures through the FVHD as well.				

3.5 Briefly describe the method and effectiveness of said method used to track illicit discharge reports.

Residents of the Town can report illicit discharges directly to the Department of Public Works, or via https://www.granby-ct.gov/sites/g/files/vyhlif3171/f/uploads/idde_complaint_form.pdf . The Department of Public Works staff then performs investigations. Digital records on the Town server are used for tracking illicit discharges in excel format.

3.6 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	185
Estimated or actual number of interconnections	Under investigation
100%	100%
Interconnection mapping complete	Under investigation

System-wide mapping complete (detailed MS4 infrastructure)	95% *(ongoing updates throughout permit lifetime.)*
Outfall assessment and priority ranking	(90%)*Outfalls to impaired waterbodies have been inspected and sampled. Eight (8) outfalls have been chosen as priority outfalls. Priority rankings have also been mapped, and may change throughout the lifetime of the permit based on future data.*
Dry weather screening of all High and Low priority outfalls complete	62% *All dry weather screening at outfalls in high priority outfalls and discharging to impaired waterbodies have been investigated. Outfalls throughout the entirety of the Town are continued to be investigated. 59 outfalls throughout the Town were dry weather screened in 2022.*
Catchment investigations complete	90% *All catchments (utilizing basins for assessment purposes), have been ranked and prioritized. Due to the lengthy time needed to investigate all septic repairs and/or failures, the Refer to* ***Attachment IV*** *for the completed Catchment Investigations)*
Estimated percentage of MS4 catchment area investigated	50% (est.)

3.7 Briefly describe the IDDE training for employees involved in carrying out IDDE tasks including what type of training is provided and how often it is given (minimum once per year).

Best Management Practice training is provided to all DPW staff for new procedures, as determined by the Director of Public Works. Annual training for all Department of Public Works and applicable staff was provided by Atlas in mid-March 2022.

4. Construction Site Runoff Control (Section 6(a)(4) / page 25)

4.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit (Due 7/1/20)	*Ongoing throughout permit lifetime.*	*There have been no updates in land-use regulations or other legal authority as it pertains to the MS4 permit in the Town of Granby in 2022.*	*Revise land-use regulations.*	*Community Development Department/Abigail Kenyon/ AICP and Land Use Commission Members*	*Completed in 2018-continues annually*	
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval (Ongoing)	*Completed*	*Kevin W. Clark, P.E., L.S., Town Engineer prepares land use review letters for most applications to the Inland Wetlands Commission, Planning Commission and Zoning Commission.*	*Utilize interdepartmental coordination in site plan review and approval as it pertains to the MS4 permit.*	*Land Use Commission Members*	*Completed in 2017-continues annually*	
4-3 Review site plans for stormwater quality concerns (Ongoing)	*Completed*	*Kevin W. Clark, P.E., L.S., Town Engineer encourages the use of LID and Stormwater BMPs practices as contained in the 2004 Connecticut Stormwater Quality Manual.*	*Issue review comments, and review revised plans for MS4 compliance.*	*Town Engineer/Kevin W. Clark, P.E., L.S.*	*Completed in 2017-continues annually*	
4-4 Conduct site inspections (Ongoing)	*Ongoing*	*The Town conducts construction site inspections for the proper implementation and maintenance of soil erosion and sediment control measures.*	*Document inspections and actions.*	*Community Development Department Director/Abigail Kenyon, AICP/Town Engineer/Kevin. W. Clark, P.E., L.S.*	*Completed in 2017-continues annually*	
4-5 Implement procedure to allow public comment on site development (Ongoing)	*Ongoing*	*The land use application process allows for public comment on land use applications. Applications are submitted to the Inland Wetlands Agency, Planning Commission, Zoning Commission during the Public*	*Provide an opportunity for public comment/involvement.*	*Community Development Department Director/ Abigail Kenyon, AICP and Land Use Commission Members*	*Completed in 2017-continues annually*	

		Hearing Process, when applicable.				
4-6 Implement procedure to notify developers about DEEP construction stormwater permit (Ongoing)	*Ongoing*	*During engineering reviews, letters are typically prepared as part of the land use application process. These letters are used to make developers aware of the need to register for the Construction Stormwater General Permit.*	*Include comments to applications.*	*Community Development Department Director/Abigail Kenyon, AICP and Town Engineer/Kevin W. Clark, P.E., L.S.*	*Completed in 2017-continues annually.*	

4.2 Describe any Construction Site Runoff Control activities planned for the next year, if applicable.

1. The Town will continue to utilize zoning regulations and inspections as a means to ensure BMPs are utilizing be site developers.

2. Several construction site runoff-control activities are planned for 2023, and are as follows:

- *Station 280 is currently under construction (280 Salmon Brook Street—235 unit apartment development). The Town has checked the E&S measures, and will continue to monitor during development in 2023.*
- *76 West Granby Road—residential subdivision, under construction. The Town has checked the E&S measures and will continue to monitor as homes are constructed.*
- *508 Salmon Brook Street—10K SF car storage building was approved. It is expected site work will start in 2023. The Town will check E&S measures and monitor during development.*
- *2/3 Murthas Way—75 unit single family and duplex development is wrapping up. The Town will confirm site is stabilized, and will then release E&S bond. Anticipate completion in spring 2023.*
- *18 Mill Pond Drive—nursery/landscape business being constructed. E&S measures checked, will continue to monitor in 2023.*
- *Various single family homes being constructed, have E&S bonds in place and will monitor in 2023 (3 Tow Path, 57 Cider Mill Heights, 34 Wells Road).*

5. Post-construction Stormwater Management (Section 6(*a*)(5) / page 27)

5.1 BMP Summary

BMP	**Status** (Complete, Ongoing, In Progress, or Not started)	**Activities in current reporting period**	**Measurable Goal**	**Department / Person Responsible**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Additional details**
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning (Due 7/1/22)	*In Progress*	*Current Town Building and Planning & Zoning regulations generally meet LID/runoff reduction requirements for development and redevelopment projects.*	*Adopt BMPs for any activity, operation, or facility which may cause or contribute to the pollution or contamination of stormwater, the storm drain system, or waters of the U.S.*	*Community Development Department Director/ Abigail Kenyon, AICP and Land Use Commission Members*	*In progress- Started in 2019*	
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects (Due 7/1/22)	*In Progress*	*Current Town Building and Planning & Zoning regulations generally meet LID/runoff reduction requirements for development and redevelopment projects. As such, enforcement for such activities would be followed as any other Town coding violation would be.*	*Enforce regulations and guidelines of LID and runoff reductions.*	*Community Development Department Director/Abigail Kenyon, AICP, Town Engineer/Kevin W. Clark, P.E., L.S. and Land Use Commission Members*	*In progress- Started in July 2019*	
5-3 Identify retention and detention ponds in priority areas (Due 7/1/20)	*Completed*	*A GIS layer of retention ponds was added to an ArcGIS layer for the Town.*	*Compile a list and complete mapping of Town-owned detention basins.*	*Department of Public Works/ Atlas, Town Engineer/Kevin W. Clark, P.E., L.S.*	*Completed*	

5-4 Implement long-term maintenance plan for stormwater basins and treatment structures (Ongoing)	*Completed*	*A Long-Term Operation and Maintenance Plan was developed for the Town. This plan includes regular inspections and the documentation of all Town-owned retention basins on an as-needd basis, with a minimum full inspection once every five (5) years.*	*Annually inspect and maintatin facilities.*	*Department of Public Works/ Kirk A. Severance, Director and Town Engineer/Kevin W. Clark, P.E., L.S.*	*Completed*	
5-5 DCIA mapping (Due 7/1/20)	*Completed*	*The DCIA was calculated for the Town with assistance from Nathan L. Jacobson & Associates. Atlas has mapped the DCIA areas through ArcGIS.*	*Provide an understanding of the Town's overall DCIA to the MS4 infrastructure.*	*Nathan L. Jacobson & Associates/Atlas*	*Completed*	
5-6 Address post-construction issues in areas with pollutants of concern	*In Progress*	*In post-construction areas, if erosion or high accumulation of sedimentation are found during the annual inspections conducted under the long-term maintenance plan, the Town of Granby will prioritize these areas for DCIA retrofit projects.*	*Address post-construction areas where erosion or high accumulation of sedimentation are found during annual inspections.*	*Community Development Department Director/Abigail Kenyon, AICP and Town Engineer, Kevin W. Clark, P.E., L.S.*	*In Progress-Started in 2021*	

5.2 Describe any Post-Construction Stormwater Management activities planned for the next year, if applicable.

The Town will continue to monitor, clean, and repair settling/silting basins, catch basins, outfalls, swales, etc.

5.3 Post-Construction Stormwater Management reporting metrics

For details on this requirement, visit https://nemo.uconn.edu/ms4/tasks/post-construction.htm. Scroll down to the DCIA section.

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	*21. 19 acres*
DCIA disconnected (redevelopment plus retrofits)	*acres this year (TBD) / acres total (TBD)*
Retrofit projects completed	*Under Development*
DCIA disconnected	*% this year (TBD) / % total since 2012 (TBD)*

Estimated cost of retrofits	*$TBD*
Detention or retention ponds identified	*4 /4*

5.4 Briefly describe the method to be used to determine baseline DCIA.

The DCIA Mapping was conducted in substantial accordance with the methodologies presented in the October 25, 2017 UConn CLEAR Webinar entitled CT MS4 Mapping Details, Clarifications and Tools, the October 19, 2018 UConn CLEAR Workshop entitled CT MS4 Mapping Workshop as well as information contained in the EPA reference entitled Estimating Change in Impervious Area (IA) and Directly Connected Impervious Area (DCIA) for Massachusetts Small MS4 Permit utilizing Sutherland equations.

The DCIA computations were prepared utilizing Connecticut Environmental Conditions Online MS4 base mapping prepared by UConn CLEAR.

Impaired waters were determined from the report entitled 2018 Integrated Water Quality Report, dated August 01, 2019, prepared by the State of Connecticut Department of Energy and Environmental protection.

The method to determine the 2012 baseline DCIA was to first compile the CT DEEP drainage basin characteristics in a Microsoft Excel spreadsheet. Information on the Connecticut Environmental Conditions Online MS4 Mapping was used to determine the impervious area breakdown as Buildings, Roads and Other. For CT DEEP drainage basins that fell in two or more municipalities the advanced mapping tab of Connecticut Environmental Conditions Online was used to delineate and determine the applicable town CT DEEP basin area. It was assumed that the entire drainage basin characteristics were directly proportional to the applicable town CT DEEP drainage basin area.

In that ConnDOT has a MS4 Stormwater Program which applies to state owned roads and facilities which the town has no control over, it was decided that the impervious state road area would be determined and deducted from the total impervious road area for each CT DEEP drainage basin as the impervious road areas associated with state highways and facilities constitutes a considerable portion of the total town impervious road area.

The ConnDOT state highway, parking lot and facility impervious road areas were then determined for each CT DEEP drainage basin. The ConnDOT state highway, parking lot and facility impervious road areas were then deducted from the total town impervious road area to determine a town owned impervious road area for each CT DEEP drainage basin. Subsequent to the above deduction, the total impervious area in acres and percentage was then recomputed for each CT DEEP drainage basin.

The DCIA formula for each of four development types was then utilized to compute the DCIA. The impervious area in acres was assigned to each of the four Sutherland equations which were modified for the northeastern United State. The Sutherland equation to be utilized was determined using the following methodology:

For impervious percentage less than 6%:
100% of the impervious area was assigned to the slight connectivity Sutherland Equation where DCIA% = 0.01*(IA%)2.0

For an impervious area between 6% and 12 %:
50% of the area was assigned to the partial connectivity Sutherland Equation where DCIA% = 0.04*(IA%)1.7
and
50% was assigned to the average connectivity Sutherland Equation where DCIA% = 0.10*(IA%)1.5

For an impervious area between 12% and 18 %:
50% of the area was assigned to the average connectivity Sutherland Equation where DCIA% = 0.10*(IA%)1.5
and
50% was assigned to the high connectivity Sutherland Equation where DCIA% = 0.40*(IA%)1.2

For an impervious area of greater than 18 %:

100% of the area was assigned to the high connectivity Sutherland Equation where DCIA% = 0.40*(IA%)1.2

The DCIA for each CT DEEP drainage basin was then summed to determine the entire town DCIA. Subsequent to completion of 2012 Baseline DCIA computations, UConn CLEAR Mapping available on Connecticut Environmental Conditions Online (CT ECO) was revised to separate road impervious area into State Road Impervious Area (Acres) and Town Road Impervious Area (Acres).

The original 2012 Baseline DCIA computations were revised utilizing the UConn CLEAR State Road Impervious Area (Acres) and Town Road Impervious Area (Acres).

6. Pollution Prevention/Good Housekeeping (Section 6(*a*)(6) / page 31)

6.1 BMP Summary

BMP	**Status** (Complete, Ongoing, In Progress, or Not started)	**Activities in current reporting period**	**Measurable Goal**	**Department / Person Responsible**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Additional details**
6-1 Develop/implement formal employee training program (Ongoing)	*Ongoing*	*Annual training related to the MS4 permit was conducted in mid-March 2022 by Atlas to the Town's Department of Public Works and other applicable staff.*	*Eliminate non-stormwater discharges into the storm sewers*	*Department of Public Works/Atlas*	*Ongoing-Completed Annually*	
6-2 Implement MS4 property and operations maintenance (Ongoing)	*Ongoing*	*The Public Works maintains outdoor maintenance at the Town's parks, school grounds, and all other Town-owned land. Additionally, the Public Works manages roads, including maintenance, resurfacing, drainage repairs, signage, winter plowing, street sweeping, etc.*	*Eliminates/minimizes spills and/or pollutant releases to the environment and navigable waterways.*	*Department of Public Works/ Kirk A. Severance, Director*	*Ongoing throughout permit life.*	
6-3 Implement coordination with interconnected MS4s	*Ongoing*	*Coordination of the MS4 interconnection mapping began in 2019. CTDOT interconnections are currently under investigation by the CTDOT, and will be added to the Town's GIS system once this information is available. Interconnections of surrounding Towns are pending investigation.*	*Update the GIS system with interconnected locations.*	*Department of Public Works/ Kirk A. Severance, Director/Atlas*	*Ongoing-Started in 2019*	
6-4 Develop/implement program to control other sources of pollutants to the MS4	*Completed*	*A spill response team has been developed in coordination between the Town and Atlas.*	*Reduce other possible pollutants to the MS4.*	*Department of Public Works/ Kirk A. Severance, Director/Atlas*	*Ongoing throughout permit life.*	*A plan of action for emergency spills has been created, and is as follows: The Town will immediately notify Atlas of a spill. Atlas will provide spill response and guidance, including but not limited to coordinating the elimination of any spill flow to navigable*

						waterways, spill cleanup, reporting, etc.
6-5 Evaluate additional measures for discharges to impaired waters*	*Ongoing*	*Wet weather sampling events have been conducted, and priority outfalls were identified throughout the Town. Dry weather inspections are continuing for the entirety of the Town. As catchments are investigated, the Town will coordinate with Atlas on future measures pertaining to the reduction of bacteria discharge to impaired waters.*	*Pending further investgations, create a program or plan of action to reduce bacterial discharge to impaired waters.*	*Department of Public Works/ Kirk A. Severance, Director/Atlas*	*Ongoing-Started in 2018*	*Based on wet and dry weather testing, the Town will implement additional measures including but not limited to a retrofit program or source management to correct the problem at municipally-owned or operated facilities, as well as IDDEs, where applicable.*
6-6 Track projects that disconnect DCIA (Ongoing)	*Ongoing*	*A Stormwater Retrofit Program has been drafted, and will be utilized as a method of tracking future DCIA disconnects.*	*Track DCIA disconnects.*	*Department of Public Works/ Kirk A. Severance, Director/Atlas*	*Ongoing-Started in 2021*	*The Town will utilize the Impervious Cover Tracking Sheet created by NEMO. This will allow the Town to track Project information, new developments, redevelopment, retrofits, changes in impervious cover, and cumulative totals.*
6-7 Implement infrastructure repair/rehab program (Due 7/1/21)	*Ongoing*	*Inspections and maintenance are continually implemented throughout the Town's MS4 infrastructure.*	*Reduce/ eliminate causes or contributions of pollution or contamination of stormwater, the storm drain system, or waters of the U.S.*	*Department of Public Works/ Kirk A. Severance, Director*	*Ongoing-Started in 2021*	
6-8 Develop/implement plan to identify/prioritize retrofit projects (Due 7/1/20)	*Ongoing*	*A Stormwater Retrofit Program has been drafted. Prioritized areas and/or sites were identified based off of DCIA calculations, impaired waterbodies, current stormwater infrastructure, and the MEP of the Town.*	*Develop retrofit projects*	*Department of Public Works/ Kirk A. Severance, Director*	*Ongoing-Started in 2021*	

6-9 Implement retrofit projects to disconnect 2% of DCIA (Due 7/1/22)	*Ongoing*	*As Retrofit Projects are identified, the Town will utilize the Impervious Cover Tracking Sheet to track and work towards disconnecting 2% of DCIA, or the MEP of the Town.*	*Track and reduce DCIA impacts.*	*Department of Public Works/ Kirk A. Severance, Director*	*Ongoing-Started in 2021*	
6-10 Develop/implement street sweeping program (Ongoing)	*Ongoing*	*The Town currently implements a road sweeping program to address known areas of high sediment accumulation.*	*Track swept lane miles.*	*Department of Public Works/ Kirk A. Severance, Director*	*Ongoing throughout permit life*	
6-11 Develop/implement catch basin cleaning program (Ongoing)	*Ongoing*	*The Town currently cleans catch-basins in areas where known conditions warrant sediment removal.*	*Track material usage, and update plan as needed.*	*Department of Public Works/ Kirk A. Severance, Director*	*Ongoing throughout permit life.*	
6-12 Develop/implement snow management practices (Due 7/1/18)	*Ongoing*	*The Town utilizes alternative road de-icing mixtures. These mixtures are modified on a yearly basis based on costs and emerging technologies.*	*Track material usage, and update plan as needed.*	*Department of Public Works/ Kirk A. Severance, Director*	*Ongoing throughout permit life.*	

6.2 Describe any Pollution Prevention/Good Housekeeping activities planned for the next year, if applicable.

1. Continue snow management and road sweeping activities

2. Begin implementation of the Stormwater Retrofit Program

3.Update Catch Basin Cleaning Program and schedule basin cleanings for 2023

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	*Yes / March 18th, 2022*
Street sweeping	
Curb miles swept	*120 miles*
Volume (or mass) of material collected	*380 tons*
Catch basin cleaning	
Total catch basins in priority areas (value will be less than or equal to total catch basins town or institution-wide)	*1,227*
Total catch basins town- (or institution-) wide	*1,343*
Catch basins inspected	*91*
Catch basins cleaned	*0*

Volume (or mass) of material removed from all catch basins	*3 tons*
Volume removed from catch basins to impaired waters (if known)	*N/A*
Snow management	
Type(s) of deicing material used	*Treated Salt*
Total amount of each deicing material applied	*1,200 tons*
Type(s) of deicing equipment used	*1. One (1) 10-Wheeler Plow/Spreader* *2. Seven (7) 6-Wheeler Plows/Spreaders* *3. One (1) Mason Plow/Spreader* **Application rate is 200 lbs per lane mile*
Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane)	*188 lane-miles*
Snow disposal location	*Site specific-no Town snow yard*
Staff training provided on application methods & equipment	*Yes/Uconn Green Snow Pro, March 1, 2022*
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	*Not applicable*
Reduction in turf area (since start of permit)	*Not applicable*
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	*$TBD*

6.4 Catch basin cleaning program

Provide any updates or modifications to your catch basin cleaning program.

There are 1,343 catch basins in the Town of Granby.

2017 - Approximately 480 catch basins were cleaned in 2017 by a subcontracted catch basin cleaning company. The catch basin cleanings are screened and recycled at the former town landfill site in conformance with CT DEEP regulatory guidance.

2018 - No catch basins were vactored. The sump depth (sump bottom to lowest pipe invert out) and accumulated sediment/debris depth was measured for more than 700 catch basins

2019 - No catch basins were vactored. The sump depth (sump bottom to lowest pipe invert out) and accumulated sediment/debris depth was measured for more than 500 catch basins. Catch basins to be cleaned in early 2020 where applicable.

2020 - Approximately 844 catch basins were cleaned in spring of 2020 by a subcontracted catch basin cleaning company (including some dry wells). The catch basin cleanings are screened and recycled at the former Town landfill site, in conformance with CT DEEP regulatory guidance.

2021: Approximatley 555 catch basins were cleaned in the spring of 2021 by a subcontracted catch basin cleaning company. The catch basin cleanings are screened and recycled at the former Town landfill site, in conformance with CTDEEP regulatory guidance.

2022: No catch basins were vactored. The sump depth (sump bottom to lowest pipe invert out) and accumulated sediment/debris depth was measured for 91 catch basins. Catch basins will be cleaned in early 2023 where applicable.

6.5 Retrofit program

Briefly describe the Retrofit Program identification and prioritization process, the projects selected for implementation, the rationale for the selection of those projects and the total DCIA to be disconnected upon completion of each project. (Due 7/1/20)

The Stormwater Retrofit Program was drafted by the Town and Atlas in 2021. The Program was designed to provide guidance on implementing LID, runoff reduction measures, or other means to disconnect or improve stormwater quality. To meet the 2% MEP disconnection goal, DCIA calculations, Urbanized areas, Impaired Waterbodies, and Catchment Rankings were utilized in identifying and prioritizing areas and/or projects to be selected for retrofits.

DCIA by Catchment was identified utilizing the the following formulas:

High Connectivity
DCIA%=0.4*(IA %)^1.2
Directly Connected Area= (DCIA)(IC Acres)
Average Connectivity
DCIA%=0.1*(IA%)^1.5
Directly Connected Area= (DCIA)(IC Acres)

Partial Connectivity
DCIA%=0.04*(IA%)^1.7
Directly Connected Area= (DCIA)(IC Acres)

Slight Connectivity
DCIA%=0.01*(IA%)^2.0
Directly Connected Area= (DCIA)(IC Acres)

The Average Connectivity calculation was utilized in assessing the Town's DCIA connectivity, based on the majority of land utilizing defined as agricultural and/or rural, minor residential communities, and minor-to-moderate commercial or indudustrialized areas. Based on the Average Connectivity calculations for each catchmet, no catchments were identified with a connectivity of 11% or greater.

Catchments were then prioritized utilizing the total urbanized area per catchment. Atlas was provided with a shapefile of the 2010 Urbanized Areas for the Town from the 2010 Census or Urban Classificiations, which was improted into ArcGIS for calculation purposes. Utilizing the Overlay-Intersect Tool, Atlas was able to extract the total Urbanized Area acreage per catchment, and then calculate the Urbanized area percentage per catchment utilizing the following formula: Based on these calculations, 28 catchments were identified with Urbanized Areas

*Urbanized Area (Ac.)/Basin Total Acreage*100*

28 catchments containing impaired waterbodies were identified for the Town.

Catchment Priority Rankings were conducted for all Sub-Basins in the Town. Multiple factors were taken into consideration when scoring each catchment, including but not limited to DCIA calculations, previous screening results, age of development/structures, density of generating sites, nearby sewer repairs, urbanized areas, and impaired waterbodies. 52 catchments were identified as Problem or High Priority.

Specific criteria was utilizing in defining priority areas for the implementation of non-municipal retrofit projects. The criteria utilized in defining priority areas of non-municipal retrofit projects included High or Problem catchment priority rankings, catchments containing an impaired waterbody, and catchments identified with an urbanized area. Utilizing ArcGIS, Atlas extracted catchments where two (2) or more of the aforementioned criteria were found. Community outreach or project redevelopment is encouraged in these defined catchments.

Municipal-owned retrofit projects were identified for several schools, and other municipal-owned sites such as the Fire Department, Town Hall, etc. These locations were selected based on location and plausibility of future disconnects. Refer to the attached Stormwater Retrofit Program for further information on these projects.

The draft Stormwater Retrofit Program is attached in the 2021 Annual Report.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection annually in future years. (Due 7/1/22)

The Stormwater Retrofit Program, included in Attachment V of the 2021 Annual Report**,** is designed to comply with *Section (6) (B) (ii)* of the CTDEEP 2017-2022 MS4 Permit. The Town of Granby will work towards disconnecting existing DCIA. The initial focus of the Stormwater Retrofit Program will first be applied to Town-owned properties, parks, and other facilities, followed by a focus of non-municipal facilities, parks, communities, or other redevelopments. Progress towards the DCIA disconnects will be tracked and continuously updated, with a goal to disconnect one percent (1%) of DCIA or to the MEP each year following the fifth year of the MS4 permit.

Part II: Impaired waters investigation and monitoring

1. Impaired waters investigation and monitoring program

For details on this requirement, visit https://nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the yellow column of the Monitoring comparison chart and the Impaired waters monitoring flowchart.

1.1 Indicate which stormwater pollutant(s) of concern occur(s) in your municipality or institution. This data is available on the MS4 map viewer: http://s.uconn.edu/ctms4map.

Nitrogen/ Phosphorus ☐ Bacteria ☒ Mercury ☐ Other Pollutant of Concern ☐

1.2 Describe program status

Discuss 1) the status of monitoring work completed, 2) a summary of the results and any notable findings, and 3) any changes to the Stormwater Management Plan based on monitoring results.
2018 - Wet weather samples were collected from nine (9) outfalls (13, 14, 15, 73, 74, 102, 103, 104 and 105) on September 10, 2018. Wet Weather Sampling: Wet weather samples were collected from sixteen (16) outfalls (13, 14, 15, 44, 73, 74, 86, 102, 103, 104, 105, 109, 152, 153, 154 and 155) on December 28, 2018. Nine (9) of the samples were resampled during the September 10, 2018 sampling event. One (1) wet weather sample was also obtained from Salmon Brook proximal to outfalls 103 and 104 on December 28, 2018. *2020 - Wet weather samples were collected from fifteen (15) outfalls (13, 14, 15, 44, 73, 74, 86, 102, 103, 104, 103/104 Stream, 109, 152, 153 and 155) on March 19, 2020. On September 10, 2020, wet weather samples were collected from eight (8) outfalls (14, 15, 73, 74, 102, 103, 104 and 105).* *2021-Wet weather samples were collected from eight (8) priority outfalls in September 2021.* *2022-Wet weather samples were collected from eight (8) priority outfalls in August and September of 2022. Bacteria analytical data was comparable or higher than the previous year. Refer to **Attachment I** for wet weather sampling data. Further catchment investigation is underway, including SVFs, SSOs, and septic repairs/failures in the vicinity of these outfalls. Refer to **Attachment IV** to review the Town Catchment Assessment and Priority Ranking.* *Sampling was conducted at four (4) separate locations by the Farmington River Watershed Association (FRWA). Chlorine was sampled for and detected at three (3) of these locations. Total coliforms and E.Coli was tested at two (2) locations. Total coliforms was reported above 500 MPN/100mL at both locations. E. Coli was reported above 235 MPN/100ML at one (1) samplilng location. Refer to **Attachment III** for analytical data collected by the FRWA.* *The Town of Granby, with the assistance of Atlas, has completed all dry weather inspections and wet weather sampling at outfalls to impaired waterbodies. Dry weather screening of 47 outfalls throughout the Town were completed in 2022. These screenings documented the condition of the outfalls, erosion control, material, subtype, and diameter of the toutfalls. The condition and erosion control of these outfalls and/or surrounding areas were reanked with the following descriptors; Excellent, Good, Fair, and Poor. Outfalls found with poor to fair conditions and/erosion controls were recommended for repair or implementation of additional erosion controls. Refer to **Attachment II** for the documented dry weather screenings. Changes to the Stormwater Management Plan are not recommended at this time.*

2. Screening data for outfalls to impaired waterbodies (Section 6(i)(1) / page 41)

2.1 Screening data

Complete the table below to report data for any wet weather sampling completed for MS4 outfalls that discharge directly to a stormwater impaired waterbody during the reporting period. For details on this requirement, visit www.nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the yellow column of the Monitoring comparison chart and the Impaired waters monitoring flowchart.

Each Annual Report will add on to the previous year's data showing a cumulative list of sampling data. **You may also attach an excel spreadsheet with the same data rather than copying it into this table**. If you do attach a spreadsheet, please write "See Attachment" below.

Outfall ID	Latitude / Longitude	Sample date	Parameter (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	Results	Name of Laboratory (if used)	Follow-up required? *
OF-13	*41.95783989/ -72.78437469*	*09/10/18*	*Bacteria*	*E. Coli 20 Total >24,200*	*Phoenix Environmental*	*Yes*
OF-14	*41.95707475/ -72.78068224*	*09/10/18*	*Bacteria*	*E. Coli >24,200 Total >24,200*	*Phoenix Environmental*	*Yes*
OF-15	*41.95555698/ -72.77987999*	*09/10/18*	*Bacteria*	*E. Coli 269 Total >24,200*	*Phoenix Environmental*	*Yes*
OF-73	*41.99012475/ -72.82173222*	*09/10/18*	*Bacteria*	*E. Coli 6,870 Total >24,200*	*Phoenix Environmental*	*Yes*
OF-74	*41.98422475/ -72.82008222*	*09/10/18*	*Bacteria*	*E. Coli 13,000 Total >24,200*	*Phoenix Environmental*	*Yes*
OF-102	*41.98150808/ -72.80684889*	*09/10/18*	*Bacteria*	*E. Coli 9,210 Total >24,200*	*Phoenix Environmental*	*Yes*
OF-103	*41.97025533/ -72.80552466*	*09/10/18*	*Bacteria*	*E. Coli 12,000 Total >24,200*	*Phoenix Environmental*	*Yes*
OF-104	*41.9703202/ -72.80493613*	*09/10/18*	*Bacteria*	*E. Coli 4,880 Total >24,200*	*Phoenix Environmental*	*Yes*
OF-105	*41.97032138/ -72.80427953*	*09/10/18*	*Bacteria*	*E. Coli 9,210 Total >24,200*	*Phoenix Environmental*	*Yes*
OF-13	*41.95783989/ -72.78437469*	*12/28/18*	*Bacteria*	*E. Coli 4,110 Total 7,270*	*Phoenix Environmental*	*Yes*
OF-14	*41.95707475/ -72.78068224*	*12/28/18*	*Bacteria*	*E. Coli >24,200 Total >24,200*	*Phoenix Environmental*	*Yes*
OF-15	*41.95555698/ -72.77987999*	*12/28/18*	*Bacteria*	*E. Coli <10 Total 8,660*	*Phoenix Environmental*	*Yes*
OF-44	*41.95012476/ -72.83546555*	*12/28/18*	*Bacteria*	*E. Coli 10 Total 2,910*	*Phoenix Environmental*	*Yes*
OF-73	*41.99012475/ -72.82173222*	*12/28/18*	*Bacteria*	*E. Coli 256 Total 9,210*	*Phoenix Environmental*	*Yes*
OF-74	*41.98422475/ -72.82008222*	*12/28/18*	*Bacteria*	*E. Coli <10 Total 17,300*	*Phoenix Environmental*	*Yes*
OF-86	*41.94182471/ -72.83427937*	*12/28/18*	*Bacteria*	*E. Coli <10 Total 1,620*	*Phoenix Environmental*	*Yes*
OF-102	*41.98150808/ -72.80684889*	*12/28/18*	*Bacteria*	*E. Coli 41 Total 1,790*	*Phoenix Environmental*	*Yes*
OF-103	*41.97025533/ -72.80552466*	*12/28/18*	*Bacteria*	*E. Coli 120 Total 5,480*	*Phoenix Environmental*	*Yes*

OF-104	*41.9703202/ -72.80493613*	*12/28/18*	*Bacteria*	*E. Coli 10 Total 14,100*	*Phoenix Environmental*	*Yes*
OF-105	*41.97032138/ -72.80427953*	*12/28/18*	*Bacteria*	*E. Coli <10 Total >2,610*	*Phoenix Environmental*	*Yes*
OF-109	*41.97384142/ -72.87186554*	*12/28/18*	*Bacteria*	*E. Coli 433 Total 17,300*	*Phoenix Environmental*	*Yes*
OF-152	*41.95585809/ -72.84359888*	*12/28/18*	*Bacteria*	*E. Coli <10 Total 1,840*	*Phoenix Environmental*	*Yes*
OF-153	*41.95514142/ -72.84341555*	*12/28/18*	*Bacteria*	*E. Coli <10 Total 8,160*	*Phoenix Environmental*	*Yes*
OF-154	*41.95330809/ -72.84114888*	*12/28/18*	*Bacteria*	*E. Coli 20 Total 305*	*Phoenix Environmental*	*No*
OF-155	*41.94902476/ -72.83758222*	*12/28/18*	*Bacteria*	*E. Coli 20 Total 11,200*	*Phoenix Environmental*	*Yes*
OF-103/104	*41.97025533/ -72.80552466*	*12/28/18*	*Bacteria*	*E. Coli 216 Total 4,350*	*Phoenix Environmental*	*Yes*
2020						
Stream		*3/19/20*	*Bacteria*	*E. Coli 201 Total 2,490*	*Phoenix Environmental*	*Yes*
OF-103/104	*41.97025533/ -72.80552466*	*3/19/20*	*Bacteria*	*E. Coli 31 Total 1,920*	*Phoenix Environmental*	*Yes*
Stream		*3/19/20*	*Bacteria*	*E. Coli 563 Total 17,300*	*Phoenix Environmental*	*Yes*
OF-102	*41.98150808/ -72.80684889*	*3/19/20*	*Bacteria*	*E. Coli <10 Total 8,660*	*Phoenix Environmental*	*Yes*
OF-103	*41.97025533/ -72.80552466*	*3/19/20*	*Bacteria*	*E. Coli 798 Total 19,900*	*Phoenix Environmental*	*Yes*
OF-104	*41.9703202/ -72.80493613*	*3/19/20*	*Bacteria*	*E. Coli 20 Total 12,000*	*Phoenix Environmental*	*Yes*
OF-14	*41.95707475/ -72.78068224*	*3/19/20*	*Bacteria*	*E. Coli 10 Total 3,650*	*Phoenix Environmental*	*Yes*
OF-153	*41.95514142/ -72.84341555*	*3/19/20*	*Bacteria*	*E. Coli 10 Total 13,000*	*Phoenix Environmental*	*Yes*
OF-15	*41.95555698/ -72.77987999*	*3/19/20*	*Bacteria*	*E. Coli 233 Total 14,100*	*Phoenix Environmental*	*Yes*
OF-13	*41.95783989/ -72.78437469*	*3/19/20*	*Bacteria*	*E. Coli 20 Total 3,650*	*Phoenix Environmental*	*Yes*
OF-86	*41.94182471/ -72.83427937*	*3/19/20*	*Bacteria*	*E. Coli <10 Total 6,490*	*Phoenix Environmental*	*Yes*
OF-74	*41.98422475/ -72.82008222*	*3/19/20*	*Bacteria*	*E. Coli 20 Total 8,660*	*Phoenix Environmental*	*Yes*
OF-73	*41.99012475/ -72.82173222*	*3/19/20*	*Bacteria*	*E. Coli 20 Total 4,880*	*Phoenix Environmental*	*Yes*
OF-109	*41.97384142/ -72.87186554*	*3/19/20*	*Bacteria*	*E. Coli 2,480 Total 4,110*	*Phoenix Environmental*	*Yes*
OF-155	*41.94902476/ -72.83758222*	*3/19/20*	*Bacteria*	*E. Coli 249 Total 2,600*	*Phoenix Environmental*	*Yes*
OF-152	*41.95585809/ -72.84359888*	*9/10/20*	*Bacteria*	*E. Coli 5790 Total >24,200*	*Phoenix Environmental*	*Yes*
OF-44	*41.95012476/ -72.83546555*	*9/10/20*	*Bacteria*	*E. Coli 110 Total 7,270*	*Phoenix Environmental*	*Yes*
OF-14	*41.95707475/ - 72.78068224*	*9/10/20*	*Bacteria*	*E. Coli 173 Total >24,200*	*Phoenix Environmental*	*Yes*
OF-15	*41.95555698/ -72.77987999*	*9/10/20*	*Bacteria*	*E. Coli 389 Total >24,200*	*Phoenix Environmental*	*Yes*

OF-73	*41.99012475/ - 72.82173222*	*9/10/20*	*Bacteria*	*E. Coli 860 Total >24,200*	*Phoenix Environmental*	*Yes*
OF-74	*41.98422475/ -72.82008222*	*9/10/20*	*Bacteria*	*E. Coli 122 Total >24,200*	*Phoenix Environmental*	*Yes*
OF-102	*41.98150808/ -72.80684889*	*9/10/20*	*Bacteria*	*E. Coli 30 Total >24,200*	*Phoenix Environmental*	*Yes*
OF-103	*41.97025533/ -72.80552466*	*9/10/20*	*Bacteria*	*E. Coli 74 Total >24200*	*Phoenix Environmental*	*Yes*
OF-104	*41.9703202/ -72.80493613*	*09/10/20*	*Bacteria*	*E. Coli 20 Total >24,200*	*Phoenix Environmental*	*Yes*
2021						
OF-14	*41.95707475/ -72.78068224*	*9/1/2021*	*Bacteria*	*E. Coli- 813 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
OF-15	*41.95555698/ -72.77987999*	*9/1/2021*	*Bacteria*	*E. Coli- 1,430 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
OF-73	*41.99012475/ -72.82173222*	*9/1/2021*	*Bacteria*	*E. Coli- 24,200 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
OF-74	*41.98422475/ -72.82008222*	*9/1/2021*	*Bacteria*	*E. Coli- 1,400 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
OF-102	*41.98150808/ -72.80684889*	*9/1/2021*	*Bacteria*	*E. Coli- 1,790 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
OF-103	*41.97025533/ -72.80552466*	*9/1/2021*	*Bacteria*	*E. Coli- 3,450 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
OF-104	*41.9703202/ -72.80493613*	*9/1/2021*	*Bacteria*	*E. Coli- 2,380 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
OF-105	*41.97032138/ -72.80427953*	*9/1/2021*	*Bacteria*	*E. Coli- 7,700 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
2022						
OF-14	*41.95707475/ -72.78068224*	*9/22/2022*	*Bacteria*	***E. Coli-** >24,200 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
OF-15	*41.95555698/ -72.77987999*	*8/22/2022*	*Bacteria*	***E. Coli-** 17,300 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
OF-73	*41.99012475/ -72.82173222*	*9/22/2022*	*Bacteria*	***E. Coli-** >24,200 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
OF-74	*41.98422475/ -72.82008222*	*8/22/2022*	*Bacteria*	***E. Coli-** 712 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
OF-102	*41.98150808/ -72.80684889*	*8/22/2022*	*Bacteria*	***E. Coli-** >24,200 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
OF-103	*41.97025533/ -72.80552466*	*9/22/2022*	*Bacteria*	***E. Coli-** 6,130 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
OF-104	*41.9703202/ -72.80493613*	*8/22/2022*	*Bacteria*	***E. Coli-** >24,200 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
OF-105	*41.97032138/ -72.80427953*	*8/22/2022*	*Bacteria*	***E. Coli-** 9,210 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)*	*Phoenix Environmental*	*Yes*
SB-WBC	*41.945072/ -72.79615*	*6/21/2022*	*Bacteria*	***E. Coli-** 64.4 (MPN/100 mls) **T.Coli-** >2419.6 (MPN/100 mls)*	*Unknown-FRWA*	*Yes*
		7/12/2022		***E. Coli-** 58.3 (MPN/100 mls) **T.Coli-** >2419.6 (MPN/100 mls)*		
		7/26/2022		***E. Coli-** 90.9 (MPN/100 mls) **T.Coli-** >2419.6 (MPN/100 mls)*		
		8/9/2022		***E. Coli-** 161.9 (MPN/100 mls) **T.Coli-** >2419.6 (MPN/100 mls)*		
		8/23/2022		***E. Coli-** 76.3 (MPN/100 mls) **T.Coli-** >2419.6 (MPN/100 mls)*		
		9/8/2022		***E. Coli-** 143.9 (MPN/100 mls) **T.Coli- >**2419.6 (MPN/100 mls)*		

SB-EB1	*41.945676/ -72.779364*	*6/28/2022*	*Bacteria*	***E. Coli**- 410.6 (MPN/100 mls)* ***T.Coli**- >2419.6 (MPN/100 mls)*	*Unknown-FRWA*	*Yes*
		7/19/2022		***E. Coli**- 547.5 (MPN/100 mls)* ***T.Coli**- >2419.6 (MPN/100 mls)*		
		8/2/2022		***E. Coli**- 517.2 (MPN/100 mls)* ***T.Coli**- >2419.6 (MPN/100 mls)*		
		8/16/2022		***E. Coli**- 172.5 (MPN/100 mls)* ***T.Coli**- >2419.6 (MPN/100 mls)*		
		8/30/2022		***E. Coli**- 344.8 (MPN/100 mls)* ***T.Coli**- >2419.6 (MPN/100 mls)*		
		9/17/2022		***E. Coli**- 261.3 (MPN/100 mls)* ***T.Coli**- >2419.6 (MPN/100 mls)*		
SB-2	*41.93632/ -72.77418*	*3/21/2022*	*Chloride, Turbidity*	***Chloride**- Not sampled* ***Turbidity**- 100.5 NTU*	*Unknown-FRWA*	*Yes*
		5/31/2022		***Chloride**- 38 mV* ***Turbidity**- 93 NTU*		
		6/21/2022		***Chloride**- 22 mV* ***Turbidity**- 98.5 NTU*		
		7/27/2022		***Chloride**- 56 mV* ***Turbidity**- 109.6 NTU*		
		8/17/2022		***Chloride**- 56 mV* ***Turbidity**- 109.6 NTU*		
		11/14/2022		***Chloride**- 183.4 mV* ***Turbidity**- 1.18 NTU*		
EBSB-540	*41.9547/ -72.77935*	*6/21/2022*	*Chloride, Turbidity*	***Chloride**- 36 mV* ***Turbidity**- 94.2 NTU*	*Unknown-FRWA*	*Yes*
		7/27/2022		***Chloride**- 61 mV* ***Turbidity**- 93.9 NTU*		
		8/17/2022		***Chloride**- 69 mV* ***Turbidity**- 100.9 NTU*		
		11/14/2022		***Chloride**- 184.2 mV* ***Turbidity**- 0.65 NTU*		
SB-WB3	*41.945072/ -72.79615*	*6/21/2022*	*Chloride, Turbidity*	***Chloride**- 34 mV* ***Turbidity**- 94.7 NTU*	*Unknown-FRWA*	*Yes*
		7/27/2022		***Chloride**- 44 mV* ***Turbidity**- 93.4 NTU*		
		8/17/2022		***Chloride**- 40 mV* ***Turbidity**- 92 NTU*		
		11/14/2022		***Chloride**- 157.1 mV* ***Turbidity**- 2.24 NTU*		

Follow-up investigation required (last column) if the following pollutant thresholds are exceeded:

Pollutant of concern	**Pollutant threshold**
Nitrogen	Total N > 2.5 mg/l
Phosphorus	Total P > 0.3 mg/l
Bacteria (fresh waterbody)	• E. coli > 235 col/100ml for swimming areas or 410 col/100ml for all others • Total Coliform > 500 col/100ml
Bacteria (salt waterbody)	• Fecal Coliform > 31 col/100ml for Class SA and > 260 col/100ml for Class SB • Enterococci > 104 col/100ml for swimming areas or 500 col/100 for all others
Other pollutants of concern	Sample turbidity is 5 NTU > in-stream sample

3. Follow-up investigations (Section 6(i)(1)(D) / page 43)

Provide the following information for outfalls exceeding the pollutant threshold.

Outfall ID	Status of drainage area investigation	Control measure to address impairment
All above listed outfalls	*Investigations are being conducted on the surrounding drainage area, with a focus on surrounding runoff from agricultural land, septic repairs, and septic failures.*	*Potential measures that may be used in addressing bacterial impairments include aquatic vegetative buffers, control runoff measures implemented. Discussions are underway within the Town on how to address potential septic failures or repairs at privately-owned properties.*

4. Prioritized outfall monitoring (Section 6(i)(1)(D) / page 43)

Once outfall sampling has been completed for at least 50% of outfalls to impaired waters, identify 6 of the highest contributors of any pollutants of concern. Begin monitoring these outfalls on an annual basis by July 1, 2021. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

Outfall	Latitude / Longitude	Sample Date	Parameter(s)	Results	Name of Laboratory (if used)
OF-14	41.95707475/ -72.78068224	09/10/20	Bacteria	E. Coli – 5790 Total Coliforms - >24200	Phoenix Environmental Laboratories, Inc.
OF-15	41.95555698/ -72.77987999	09/10/20	Bacteria	E. Coli – 110 Total Coliforms – 7270	Phoenix Environmental Laboratories, Inc.
OF-73	41.99012475/ -72.82173222	09/10/20	Bacteria	E. Coli – 173 Total Coliforms - >24200	Phoenix Environmental Laboratories, Inc.
OF-74	41.98422475/ -72.82008222	09/10/20	Bacteria	E. Coli – 389 Total Coliforms - >24200	Phoenix Environmental Laboratories, Inc.
OF-102	41.98150808/ -72.80684889	09/10/20	Bacteria	E. Coli – 860 Total Coliforms - >24200	Phoenix Environmental Laboratories, Inc.
OF-103	41.97025533/ -72.80552466	09/10/20	Bacteria	E. Coli – 122 Total Coliforms - >24200	Phoenix Environmental Laboratories, Inc.
OF-104	41.9703202/ -72.80493613	09/10/20	Bacteria	E. Coli – 30 Total Coliforms - >24200	Phoenix Environmental Laboratories, Inc.
OF-105	41.97032138/ -72.80427953	09/10/20	Bacteria	E. Coli – 74 Total Coliforms - >24200	Phoenix Environmental Laboratories, Inc.
2021					
OF-14	41.95707475/ -72.78068224	9/1/2021	Bacteria	E. Coli- 813 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.
OF-15	41.95555698/ -72.77987999	9/1/2021	Bacteria	E. Coli- 1,430 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.
OF-73	41.99012475/ -72.82173222	9/1/2021	Bacteria	E. Coli- 24,200 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.
OF-74	41.98422475/ -72.82008222	9/1/2021	Bacteria	E. Coli- 1,400 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.
OF-102	41.98150808/ -72.80684889	9/1/2021	Bacteria	E. Coli- 1,790 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.
OF-103	41.97025533/ -72.80552466	9/1/2021	Bacteria	E. Coli- 3,450 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.
OF-104	41.9703202/ -72.80493613	9/1/2021	Bacteria	E. Coli- 2,380 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.
OF-105	41.97032138/ -72.80427953	9/1/2021	Bacteria	E. Coli- 7,700 (MPN/100 mls) T.Coli- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.
2022					

OF-14	41.95707475/ -72.78068224	9/22/2022	Bacteria	**E. Coli-** >24,200 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.
OF-15	41.95555698/ -72.77987999	8/22/2022	Bacteria	**E. Coli-** 17,300 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.
OF-73	41.99012475/ -72.82173222	9/22/2022	Bacteria	**E. Coli-** >24,200 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.
OF-74	41.98422475/ -72.82008222	8/22/2022	Bacteria	**E. Coli-** 712 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.
OF-102	41.98150808/ -72.80684889	8/22/2022	Bacteria	**E. Coli-** >24,200 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.
OF-103	41.97025533/ -72.80552466	9/22/2022	Bacteria	**E. Coli-** 6,130 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.
OF-104	41.9703202/ -72.80493613	8/22/2022	Bacteria	**E. Coli-** >24,200 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.
OF-105	41.97032138/ -72.80427953	8/22/2022	Bacteria	**E. Coli-** 9,210 (MPN/100 mls) **T.Coli**- >24,200 (MPN/100 mls)	Phoenix Environmental Laboratories, Inc.

Part III: Additional IDDE Program Data

1. Assessment and Priority Ranking of Catchments data (Appendix B (A)(7)(c) / page 5)

Provide a list of all catchments with ranking results (DEEP basins may be used instead of manual catchment delineations).

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank
4001-00-1*	Low Priority	4
4300-44-1-L1	Problem	8
4309-00-1	Low Priority	3
4309-01-1	High Priority	10
4309-02-1	Low Priority	3
4319-00-2-R1	High Priority	16
4319-00-2-R2	High Priority	14
4319-00-3-R1	Problem	7
4319-00-3-R2	Problem	8
4319-00-3-R3	Low Priority	5
4319-00-3-R4	Problem	8
4319-00-3-R5	High Priority	19
4319-00-3-R6	High Priority	12
4319-02-1	Problem	8
4319-03-2-R1	Low Priority	2
4319-03-2-R2	Problem	9
4319-04-1	Problem	9
4319-05-1	Problem	8
4319-06-1	Low Priority	4
4319-07-1	Problem	8
4319-08-1	Problem	8
4319-09-1	Problem	7
4319-10-2-L1	Problem	9
4319-10-2-L2	Low Priority	2
4319-10-2-R1	Low Priority	2
4319-11-1	Low Priority	3
4320-00-1	Low Priority	3
4320-00-2-R1	Low Priority	5
4320-00-2-R2	Problem	6
4320-00-2-R3	Problem	5
4320-00-2-R4	Problem	4
4320-00-3-L1	Problem	8
4320-00-3-R1	Problem	7
4320-00-3-R2	Problem	9
4320-00-3-R3	High Priority	8

4320-00-3-R4	Problem	8
4320-00-3-R5	High Priority	16
4320-00-3-R6	Problem	9
4320-00-4-R1	High Priority	16
4320-00-4-R2	Problem	8
4320-00-4-R3	Problem	6
4320-00-4-R4	Low Priority	3
4320-01-1	Problem	7
4320-02-1	Problem	8
4320-03-1	High Priority	11
4320-04-1	Problem	7
4320-05-2-R1	Low Priority	3
4320-05-2-R2	High Priority	10
4320-07-1	Low Priority	3
4320-08-1	Problem	6
4320-09-1	High Priority	11
4320-10-1	High Priority	12
4320-10-2-R1	Low Priority	5
4320-11-1	Problem	7
4320-12-1	High Priority	12
4320-12-2-R1	Low Priority	2
4320-13-1	Problem	9
4320-13-1-L1	High Priority	13
4320-14-1	High Priority	13
4320-15-2-R1	High Priority	10
4320-15-3-R1	High Priority	12
4320-16-1	Problem	10
4320-17-1	High Priority	12
4320-17-2-R1	Problem	6
4320-17-3-R1	Low Priority	3
4320-21-1	Problem	4
4320-21-1-L1	Problem	8
4320-22-1	Problem	9
4320-26-1-L1	Problem	9

2. Outfall and Interconnection Screening and Sampling data (Appendix B (A)(7)(d) / page 7)

2.1 Dry weather screening and sampling data from outfalls and interconnections

For details on this requirement, visit https://nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the blue column of the Monitoring comparison chart and the IDDE baseline monitoring flowchart.
Provide sample data for outfalls where flow is observed. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

Outfall / Interconnection ID	Latitude / Longitude	Screening / sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or enterococcus	Surfactants	Water Temp	Pollutant of concern	If required, follow-up actions taken
System Vulnerability Factors are currently under investigation, and will be added to the next annual report. Refer to Section 1: Catchment Investigation Data, 3.1 System Vulnerability Factor Summary for more information.											

2.2 Wet weather sample and inspection data

For details on this requirement, visit https://nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the green column of the Monitoring comparison chart and the IDDE catchment investigation flowchart.

Provide sample data for outfalls and key junction manholes of any catchment area with at least one System Vulnerability Factor. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

Outfall / Interconnection ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or Enterococcus	Surfactants	Water Temp	Pollutant of concern
OF-102	41.98150808/ -72.80684889	8/22/2022	--	--	111.4 (uS/cm)	--	>24.200 MPN/100mL	--	23.1	Bacteria
*System Vulnerability Factors are currently under investigation, and will be added to the next annual report. Refer to **Section 1: Catchment Investigation Data, 3.1 System Vulnerability Factor Summary** for more information.*										

1. **Catchment Investigation data** (Appendix B (A)(7)(e) / page 9)

For details on this requirement, visit www.nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the green column of the Monitoring comparison chart and the IDDE catchment investigation flowchart.

3.1 System Vulnerability Factor Summary

For those catchments being investigated for illicit discharges (i.e. categorized as high priority, low priority, or problem) document the presence or absence of System Vulnerability Factors (SVF). If present, report which SVF's were identified. An example is provided below.

Outfall ID	Receiving Water	System Vulnerability Factors
OF-6	Farmington River	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-36	Salmon Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-47	East Branch Salmon Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-50	Bradley Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-65	Salmon Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-66	Kendall Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-70	Farmington River	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-90	Salmon Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-96	Salmon Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-102	East Branch Salmon Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-122	Salmon Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-134	Bradley Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-135	Bradley Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-138	Bradley Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-61	Kendall Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-171	Bradley Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-173	Farmington River	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-178	Bradley Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-179	Bradley Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-180	Bradley Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-185	West Branch Salmon Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
OF-188	Salmon Brook	This outfall was found within 500 ft. of a residential septic failure, and as such, is considered to contribute SVF #12.
The Town of Granby's sanitary sewer is currently managed by the Town of Simsbury's Water Pollution Control Authority (WPCA). The storm sewer and sanitary sewer have historically been separate, and remain so in the present day. Therefore, SVFs 4, 5, 6, 7, 8, and 9 are not		

applicable to the Town. Other SVFs are currently under investigation, and will be updated in the next annual report. These investigations include coordination between the Town of Simsbury WPCF, Granby Health Department, as well as the Farmington Valley Health District.

Where SVFs are:

1. History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages.
2. Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs.
3. Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints.
4. Common or twin-invert manholes serving storm and sanitary sewer alignments.
5. Common trench construction serving both storm and sanitary sewer alignments.
6. Crossings of storm and sanitary sewer alignments.
7. Sanitary sewer alignments known or suspected to have been constructed with an underdrain system;
8. Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations.
9. Areas formerly served by combined sewer systems.
10. Any sanitary sewer and storm drain infrastructure greater than 40 years old in medium and densely developed areas.
11. Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance).
12. History of multiple local health department or sanitarian actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance).

3.2 Key junction manhole dry weather screening and sampling data

You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Key Junction Manhole ID	Latitude / Longitude	Screening / Sample date	Visual/ olfactory evidence of illicit discharge	Ammonia	Chlorine	Surfactants
The identification of key junction manholes that may narrow the location of suspected illict discharges or SSOs to an isolated pipe segment between two manholes, or key junction manholes that may be located or show evidence of illicit discharges or SSOs that may not be evident at the outfall underall circumstances, or to confirm or identify potential system vulnerability factors is underway. Once identified, these key junction manholes will be inspected during dry weather events for evidence of illict discharges or SSOs.						

3.3 Wet weather investigation outfall sampling data

You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Outfall ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Surfactants
Following the identification of key junction manholes during dry weather inspections, follow-up wet weather sampling will be completed where inspections indicate the presence of one or more SVF, SSO, or illict discharge.					

3.4 Data for each illicit discharge source confirmed through the catchment investigation procedure

Discharge location	Source location	Discharge description	Method of discovery	Date of discovery	Date of elimination	Mitigation or enforcement action	Estimated volume of flow removed
286 W. Granby Rd (OF-152)	*Underground spring*	*Atlas was called to investigate a potential illicit discharge in the Town. Upon arrival, water was found to be discharging from a driveway at a steady, bubbling rate, with heavy algae growth. Discharge lead down the driveway into an adjacent ditch. This runodd disch is in the vicinity of OF-152, which in turn discharges to the West Branch Salmon Brook. A sample of the discharge was submitted for the analysis of E.coli, T. coli, nitrite, nitrate, and phosphorus to assess potential illic discharge sources. A review of sampling data from the nearby MS4 outfall (OF-152) did not indicate illicit discharges were entering this catchment. Laboratory analytical results were indicative of groundwater, and it is suspected an an underground spring had worked its way to the the surface.*	*Citizen report*	*4/7/2021*	*N/A*	*None.*	*N/A*
80 Canal Road	*Residential sump pump*	*A sump pump discharging to the road and running into a nearby catchbasin, which in turn lead to icy road conditions, was reported.*	*Citizen report*	*2022*	*2022*	*Following investigation, the Town required the resident to relocate the sump pump discharge, which was compied with.*	*Unknown.*

Part IV: Certification

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."

Chief Elected Official or Principal Executive Officer	Document Prepared by
Print name: Mark Fiorentino, First Selectman	Print name: Kay Lehoux, Atlas Environmental Compliance Manager
Signature / Date: MF 4-10-23	Signature / Date: 4/5/2023
Email: MFiorentino@grandy-ct.gov	Email: kay.lehoux@oneatlas.com

FIGURES

0 4,069 8,138 12,207
Feet

N

Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

Legend

- Outfall
- Catch Basin
- Stormwater Manhole
- Impaired Waterbody
- Surface Water
- State Road
- Town-Owned Property
- Town Line
- Parcel

Town of Granby

2022 Annual Report
MS4 System

ATLAS
290 Roberts Street, Suite 301
East Hartford, CT 006108

0 4,069 8,138 12,207
Feet

N

Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

Legend

- Outfall to Impaired Waters
- Outfall
- Catch Basin
- Stormwater Manhole
- Impaired Waterbody
- Surface Water
- State Road
- Town-Owned Property
- Town Line
- Parcel

Town of Granby
2022 Annual Report
Outfalls to Impaired Waters

ATLAS
290 Roberts Street, Suite 301
East Hartford, CT 006108

0 4,069 8,138 12,207 Feet

N

OF-73
OF-74
OF-102
OF-104
OF-105
OF-103
OF-14
OF-15

Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

Legend

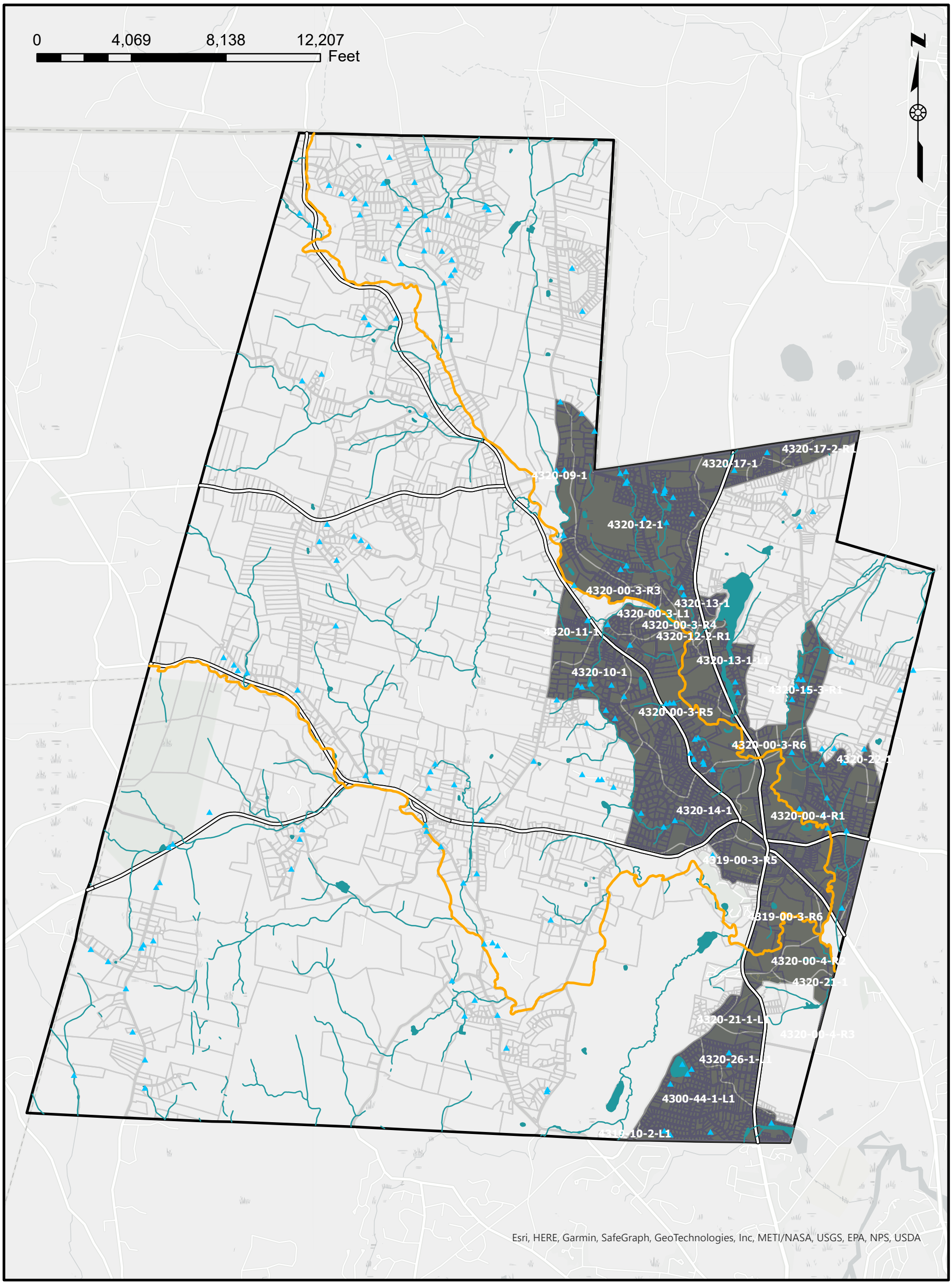
- Priority Outfall
- Outfall
- Catch Basin
- Stormwater Manhole
- Impaired Waterbody
- Surface Water
- State Road
- Town Line
- Parcel

Town of Granby

2022 Annual Report

Priority Outfalls

ATLAS
290 Roberts Street, Suite 301
East Hartford, CT 006108



Legend

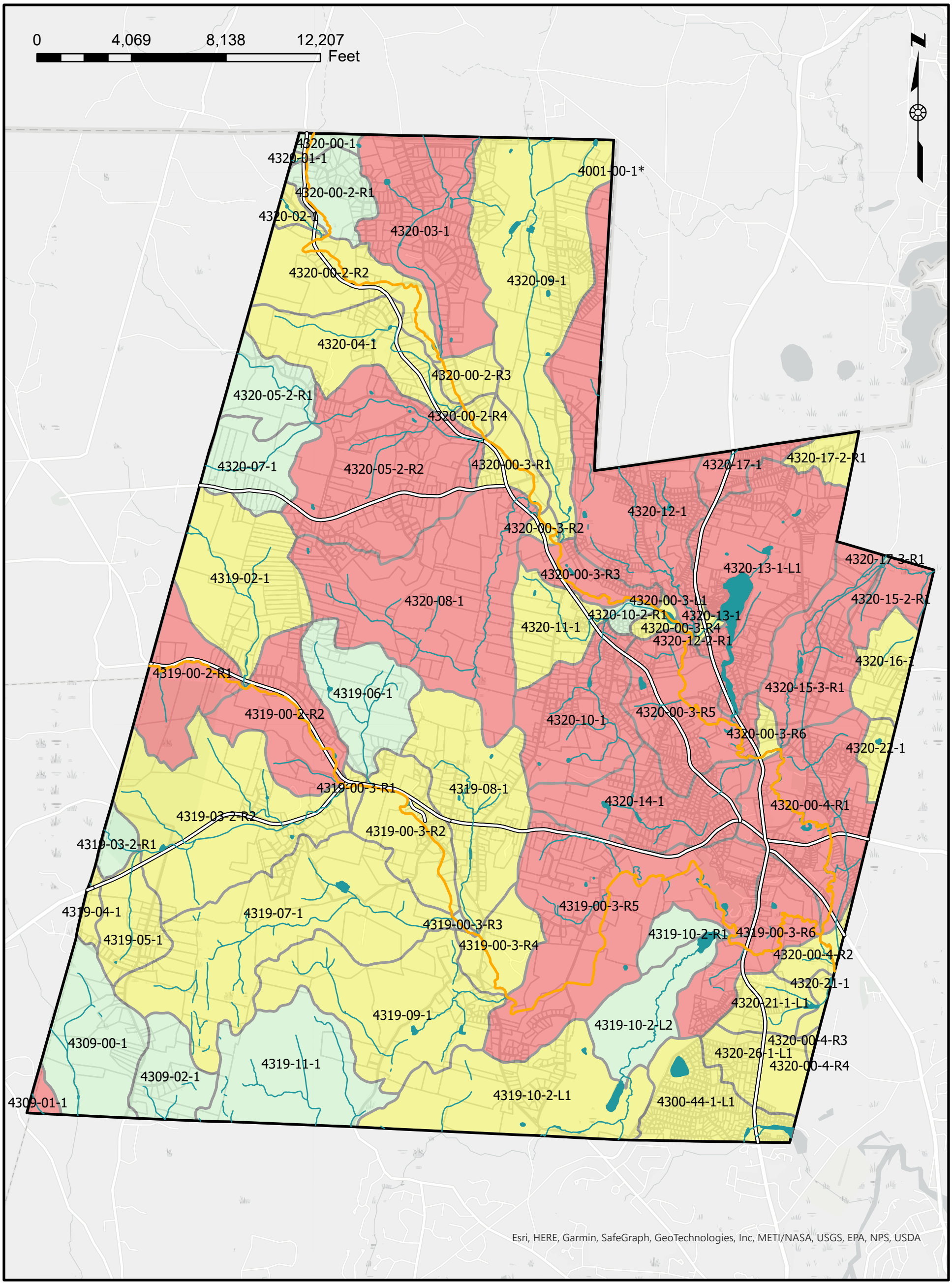
- Outfall
- Impaired Waterbody
- Surface Water
- State Road
- Town Line
- Parcel

Town of Granby

2022 Annual Report

Urbanized Area by Catchment

ATLAS
290 Roberts Street, Suite 301
East Hartford, CT 006108



Legend

- Impaired Waterbody
- Surface Water
- State Road
- Town Line
- Parcel

Priority Ranking

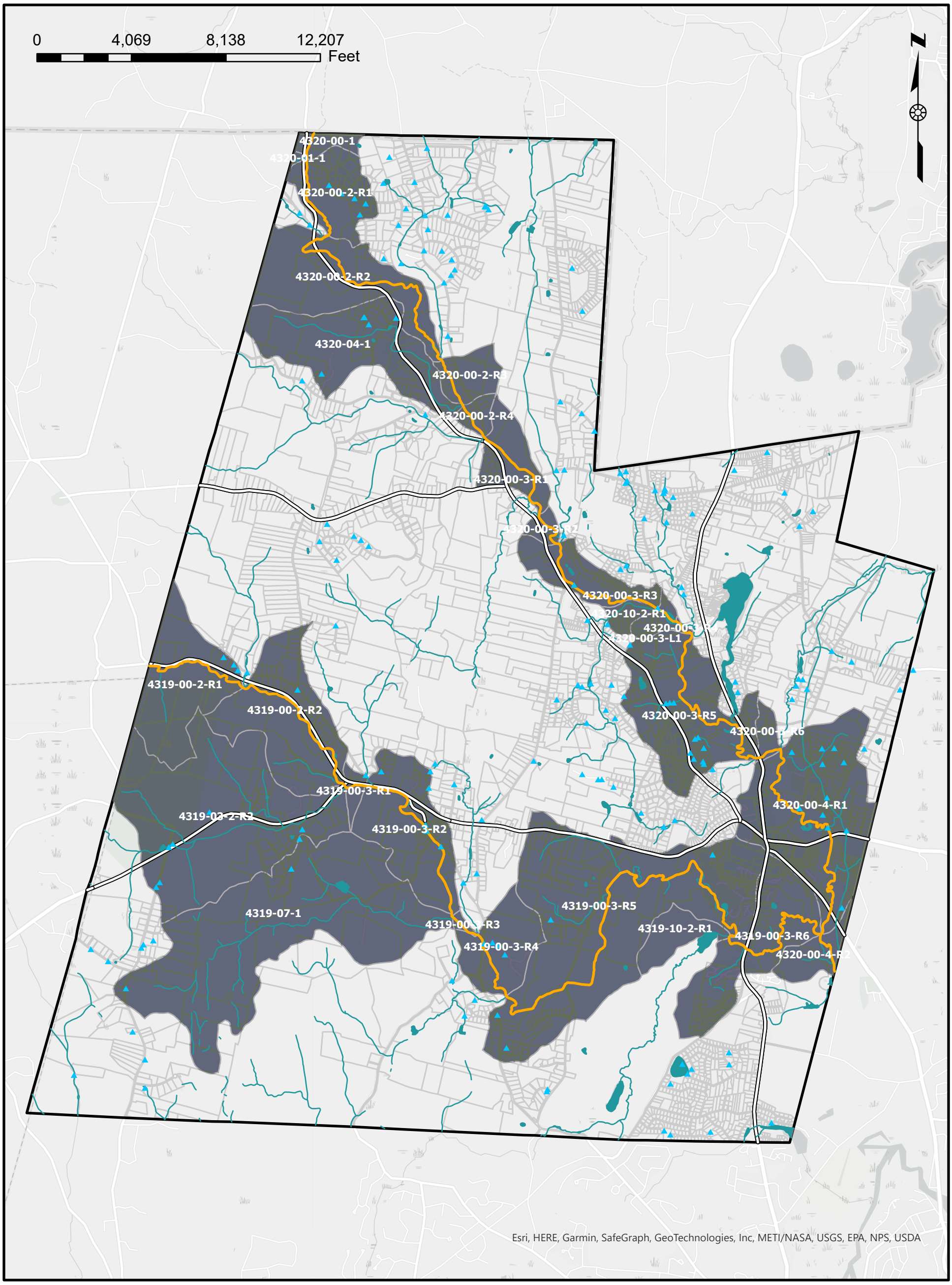
- High Priority
- Problem
- Low Priority

Town of Granby

2022 Annual Report

Catchment Priority Ranking

ATLAS
290 Roberts Street, Suite 301
East Hartford, CT 006108



Legend

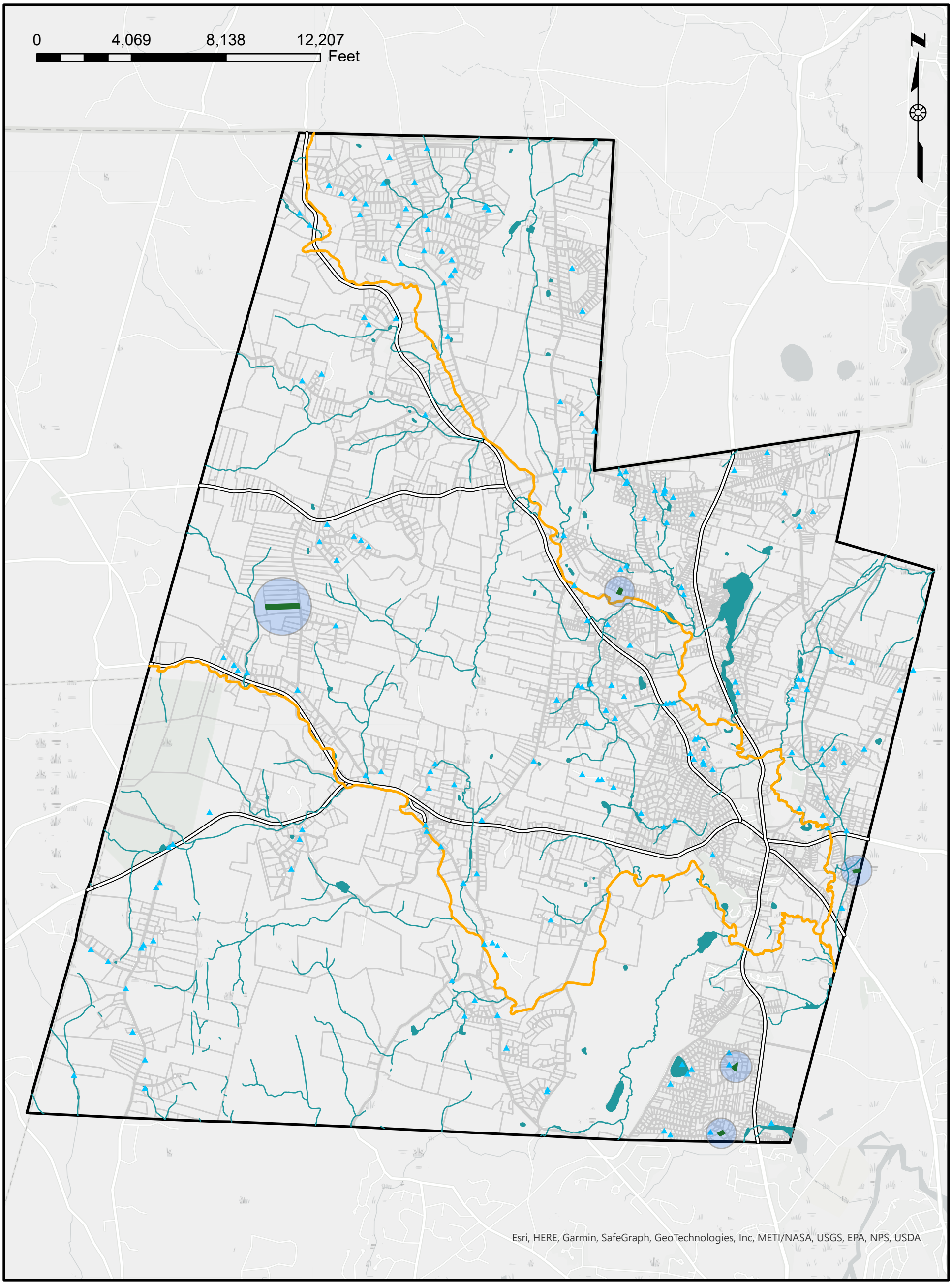
- Outfall
- Impaired Waterbody
- Surface Water
- State Road
- Town Line
- Parcel

Town of Granby

2022 Annual Report

Impaired Waters by Catchment

ATLAS
290 Roberts Street, Suite 301
East Hartford, CT 006108



Legend

- Outfall
- Impaired Waterbody
- Surface Water
- State Road
- 2022 Septic Failure
- Town Line
- Parcel

Town of Granby

2022 Annual Report

2022 Septic Failures

ATLAS
290 Roberts Street, Suite 301
East Hartford, CT 006108

0 4,069 8,138 12,207
Feet

N

EBSB-5430

West Branch
Salmon Brook

SB-WB3

East Branch
Salmon Brook

SB-2

Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

Legend

- Bacteria Sampling Location
- Chloride Sampling Location
- Impaired Waterbody
- Surface Water
- State Road
- Town Line
- Parcel

Town of Granby

2022 Annual Report
FRWA Sampling

ATLAS
290 Roberts Street, Suite 301
East Hartford, CT 006108

0 4,069 8,138 12,207 Feet

N

4320-01-1

4320-00-2-R2

4320-04-1

4320-00-2-R3

4320-00-2-R4

4320-00-3-R1

4320-00-3-R2

4320-00-3-R3

4320-10-2-R1

4320-00-3-L1

4319-00-2-R1

4319-00-2-R2

4320-00-3-R5

4320-00-3-R6

4319-00-3-R1

4319-03-2-R3

4319-00-3-R2

4320-00-4-R1

4319-07-1

4319-00-3-R5

4319-00-3-R3

4319-00-3-R6

4319-00-3-R4

4320-00-4-R2

4319-10-2-L1

Legend

- Impaired Waterbody
- Surface Water
- State Road
- Town Line
- Parcel

Town of Granby

2022 Annual Report

Prioritized Retrofitting by Catchment

ATLAS
290 Roberts Street, Suite 301
East Hartford, CT 006108

ATTACHMENT I

Town of Granby

2022 Wet Weather Sampling

Outfall ID	Inspection Date	Condition	Discharge Description	General Parameters							Bacterial	
				Temperature (°C)[3]	pH (SU)[3]	Dissolved Oxygen (mg/L)	SPC (uS/cm)	ORP (mV)	Turbidity (NTU)	Odor	Escherichia Coli	Total Coliforms
											MPN/100mL	
OF-14	9/22/2022	Good	Brown, silty	21.2	6.68	5.22	110.2	102.4	20.2	No	**>24,200**	**>24,200**
OF-15	8/22/2022	Good	Brown tint	20.8	7.38	7.77	160.9	126.9	14.07	No	**17,300**	**>24,200**
OF-73	9/22/2022	Good	Clear	22.0	7.62	6.22	135.9	122.8	2.02	No	**>24,200**	**>24,200**
OF-74	8/22/2022	Good	Clear, slight yellow tint	20.7	6.72	7.07	128.0	120.9	16.72	No	**712**	**>24,200**
OF-102	8/22/2022	Good	Foam, yellow tint	23.1	6.86	6.10	111.4	119.3	23.1	No	**>24,200**	**>24,200**
OF-103	9/22/2022	Good	Light brown, little silt, little foam	21.7	6.99	6.03	115.6	118.4	10.8	No	**6,130**	**>24,200**
OF-104	8/22/2022	Good	Clear	20.1	7.26	7.62	433.0	105.2	17.81	No	**>24,200**	**>24,200**
OF-105	8/22/2022	Fair	Clear	21.8	7.43	5.72	240.3	112.9	19.11	No	**9,210**	**>24,200**

Notes:
* All highlighted bacterial concentrations are required for follow-up investigations.
*Highlighting is based on the following criteria;
1. E. Coli >235/100mL for Swimming Areas, and >410 col/100mL for all others.
2. Total Coliform > 500 col/100mL
3. Fecal Coliform >31 col/100 mL for Class SA and >260 col/100mL for Class SB
4. Enterococci >104 col/100mL for Swimming Areas and >500 col/100mL for all others.

PHOENIX
Environmental Laboratories, Inc.

Tuesday, September 27, 2022

Attn: Luke Whitehouse
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Project ID: **TOWN OF GRANBY MS4 SW SAMPLING**
SDG ID: **GCM38244**
Sample ID#s: CM38244 - CM38246

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

September 27, 2022

SDG I.D.: GCM38244

Project ID: TOWN OF GRANBY MS4 SW SAMPLING

Client Id	Lab Id	Matrix
OF-14	CM38244	STORM WATER
OF-73	CM38245	STORM WATER
OF-103	CM38246	STORM WATER

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 27, 2022

FOR: Attn: Luke Whitehouse
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:		09/22/22	9:35
Location Code:	ATC-EHDAS	Received by:	CP	09/22/22	10:58
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCM38244
Phoenix ID: CM38244

Project ID: TOWN OF GRANBY MS4 SW SAMPLING
Client ID: OF-14

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	>24200	10	MPN/100 mls	10	09/22/22 15:10	LJ/GS	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	09/22/22 15:10	LJ/GS	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
September 27, 2022
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 27, 2022

FOR: Attn: Luke Whitehouse
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:		09/22/22	10:05
Location Code:	ATC-EHDAS	Received by:	CP	09/22/22	10:58
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCM38244
Phoenix ID: CM38245

Project ID: TOWN OF GRANBY MS4 SW SAMPLING
Client ID: OF-73

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	>24200	10	MPN/100 mls	10	09/22/22 15:10	LJ/GS	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	09/22/22 15:10	LJ/GS	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
September 27, 2022
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 27, 2022

FOR: Attn: Luke Whitehouse
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:		09/22/22	9:55
Location Code:	ATC-EHDAS	Received by:	CP	09/22/22	10:58
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCM38244
Phoenix ID: CM38246

Project ID: TOWN OF GRANBY MS4 SW SAMPLING
Client ID: OF-103

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	6130	10	MPN/100 mls	10	09/22/22 15:10	LJ/GS	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	09/22/22 15:10	LJ/GS	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
September 27, 2022
Reviewed and Released by: Rashmi Makol, Project Manager

Tuesday, September 27, 2022

Sample Criteria Exceedances Report

GCM38244 - ATC-EHDAS

Criteria: CT: GWP, RC, SWP

State: CT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

September 27, 2022 SDG I.D.: GCM38244

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

Cooler: Yes [X] No [ ]
Coolant: IPK [X] ICE [ ] No [ ]

CHAIN OF CUSTODY RECORD

Temp 17.3C Pg of

PHOENIX *Environmental Laboratories, Inc.*

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Data Delivery/Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: luke.whitehouse@oneatlas.com

Customer: Atlas Technical Consultants
Address: 290 Roberts Street
East Hartford, CT 06108

Project: Town of Granby MS4 SW Sampling
Report to: Luke Whitehouse
Invoice to: Atlas
QUOTE #

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 9/22/22

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	E. Coli	T. Coli	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [1] methanol [2] H2O	GL Soil container (8) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [X] HCl	GL Amber 1000ml [X] As is [X] H2SO4	PL As is [1] 250ml [ ] 500ml [1] 1000ml	PL H2SO4 [ ] 250ml [X] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
38244	OF-14	SW	9/22/22	935	X	X											2	
	~~OF-15~~	SW			X	X											2	
38245	OF-73	SW	9/22/22	1005	X	X											2	
	~~OF-74~~	SW			X	X											2	
	~~OF-102~~	SW			X	X											2	
38246	OF-103	SW	9/22/22	955	X	X											2	
	~~OF-104~~	SW			X	X											2	
	~~OF-105~~	SW			X	X											2	

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	9/22/22	1058

Comments, Special Requirements or Regulations:

CT DAS Rates

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[■] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[■] RCP Cert
[■] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[■] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

State where samples were collected: CT

Data Format
[ ] Excel
[■] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[■] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

PHOENIX
Environmental Laboratories, Inc.

Thursday, August 25, 2022

Attn: Luke Whitehouse
ATC DBA Atlas
290 Roberts St., Suite 301
East Hartford, CT 06108

Project ID: TOWN OF GRANBY MS4 SW
SDG ID: GCM11581
Sample ID#s: CM11581 - CM11585

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

August 25, 2022

SDG I.D.: GCM11581

Project ID: TOWN OF GRANBY MS4 SW

Client Id	Lab Id	Matrix
OF-15	CM11581	STORM WATER
OF-74	CM11582	STORM WATER
OF-102	CM11583	STORM WATER
OF-104	CM11584	STORM WATER
OF-105	CM11585	STORM WATER

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 25, 2022

FOR: Attn: Luke Whitehouse
ATC DBA Atlas
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:	DW	08/22/22	15:55
Location Code:	ATC-EH	Received by:	B	08/22/22	17:49
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCM11581
Phoenix ID: CM11581

Project ID: TOWN OF GRANBY MS4 SW
Client ID: OF-15

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	17300	10	MPN/100 mls	10	08/22/22 18:40	LJ/LJ	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	08/22/22 18:40	LJ/LJ	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
August 25, 2022
Reviewed and Released by: Sarah Bell, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 25, 2022

FOR: Attn: Luke Whitehouse
ATC DBA Atlas
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:	DW	08/22/22	16:30
Location Code:	ATC-EH	Received by:	B	08/22/22	17:49
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCM11581
Phoenix ID: CM11582

Project ID: TOWN OF GRANBY MS4 SW
Client ID: OF-74

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	712	10	MPN/100 mls	10	08/22/22 18:40	LJ/LJ	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	08/22/22 18:40	LJ/LJ	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
August 25, 2022
Reviewed and Released by: Sarah Bell, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 25, 2022

FOR: Attn: Luke Whitehouse
ATC DBA Atlas
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:	DW	08/22/22	16:15
Location Code:	ATC-EH	Received by:	B	08/22/22	17:49
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCM11581
Phoenix ID: CM11583

Project ID: TOWN OF GRANBY MS4 SW
Client ID: OF-102

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	>24200	10	MPN/100 mls	10	08/22/22 18:40	LJ/LJ	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	08/22/22 18:40	LJ/LJ	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
August 25, 2022
Reviewed and Released by: Sarah Bell, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 25, 2022

FOR: Attn: Luke Whitehouse
ATC DBA Atlas
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:	DW	08/22/22	14:25
Location Code:	ATC-EH	Received by:	B	08/22/22	17:49
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCM11581
Phoenix ID: CM11584

Project ID: TOWN OF GRANBY MS4 SW
Client ID: OF-104

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	>24200	10	MPN/100 mls	10	08/22/22 18:40	LJ/LJ	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	08/22/22 18:40	LJ/LJ	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
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Phyllis Shiller, Laboratory Director
August 25, 2022
Reviewed and Released by: Sarah Bell, Project Manager

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 25, 2022

FOR: Attn: Luke Whitehouse
ATC DBA Atlas
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:	DW	08/22/22	14:10
Location Code:	ATC-EH	Received by:	B	08/22/22	17:49
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCM11581
Phoenix ID: CM11585

Project ID: TOWN OF GRANBY MS4 SW
Client ID: OF-105

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	9210	10	MPN/100 mls	10	08/22/22 18:40	LJ/LJ	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	08/22/22 18:40	LJ/LJ	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
August 25, 2022
Reviewed and Released by: Sarah Bell, Project Manager

Thursday, August 25, 2022

Criteria: CT: GWP, RC, SWP

State: CT

Sample Criteria Exceedances Report

GCM11581 - ATC-EH

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** ATC DBA Atlas

Project Location: TOWN OF GRANBY MS4 SW ***Project Number:***

Laboratory Sample ID(s): CM11581-CM11585 ***Sampling Date(s):*** 8/22/2022

List RCP Methods Used (e.g., 8260, 8270, et cetera) None

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☐ Yes ☑ No ☐ NA
4	**Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?**	☑ Yes ☐ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☐ Yes ☑ No ☑ Yes ☐ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☐ Yes ☑ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Rashmi Makol **Position:** Project Manager

Printed Name: Rashmi Makol **Date:** Thursday, August 25, 2022

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

August 25, 2022

SDG I.D.: GCM11581

SDG Comments

No RCP analyses are included with this report. The RCP narrative is provided at the request of the client.

Temperature above 6C:
The samples were received in a cooler with ice packs. The samples were delivered to the Laboratory within a short period of time after sample collection. Therefore no significant bias is suspected.

Temperature Narration

The samples were received at 20.0C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]

CHAIN OF CUSTODY RECORD

Temp 20.0 °C Pg of

PHOENIX
Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email Makrina Nolan: makrina@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-1102

Data Delivery/Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: luke.whitehouse@oneatlas.com

Customer: Atlas Technical Consultants
Address: 290 Roberts Street
East Hartford, CT 06108

Project: Town of Granby MS4 SW
Report to: Luke Whitehouse
Invoice to: Atlas
QUOTE #

Project P.O:

This section MUST be completed with Bottle Quantities.

Sampler's Signature: Daniel Whitcomb Date: 8/22/22

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid **X** = _____(Other)

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	E.Coli	T.Coli	MS/MSD*	GL Amber 8 oz. [ ] H3PO4 [ ] NAHSO4	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( ) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCL	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
11581	OF-15	SW	8/22	1555	X	X													2	
11582	OF-74	SW	8/22	1630	X	X													2	
11583	OF-102	SW	8/22	1615	X	X													2	
11584	OF-104	SW	8/22	1425	X	X													2	
11585	OF-105	SW	8/22	1410	X	X													2	

Relinquished by:	Accepted by:	Date:	Time:
Daniel Whitcomb		8/22	1730
			17:49

Comments, Special Requirements or Regulations:

*MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.

Turnaround Time:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[ ] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] (Residential) Direct Exposure
[ ] (Comm/Industrial) Direct Exposure
[ ] GA Leachability
[ ] GB Leachability
[ ] GA-GW Objectives
[ ] GB-GW Objectives

CT
[ ] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1 [ ] MWRA eSMART
[ ] GW-2 [ ] S-1 10% CALC
[ ] GW-3
[ ] S-1 GW-1 [ ] S-1 GW-2 [ ] S-1 GW-3
[ ] S-2 GW-1 [ ] S-2 GW-2 [ ] S-2 GW-3
[ ] S-3 GW-1 [ ] S-3 GW-2 [ ] S-3 GW-3
[ ] SW Protection

State where samples were collected: _____

Data Format
[ ] Excel
[ ] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[ ] Phcenix Std Report
[ ] Other
* SURCHARGE APPLIES

PEL-126 REV. 03/22

ATTACHMENT II

Town of Granby

Dry Weather Inspections

MS4 Permit

2022

Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Maintenance Or Erosion Control Needed?	Iillicit Discharge?	Illicit Discharge Flow Type	Illicit Discharge Description	Longitude	Latitude
OF-62	11/15/2022	Concrete	other	24	Excellent	Good	Concrete culvert in riprap swale going through residential yards. Adjacent to farm. Recieves sheetflow, which in turn channelizes off of roadway. Gravel driveway adjacent to culvert.	No	No	--	--	-72.81804989	41.96786743
OF-106	11/15/2022	Concrete	endwall	18	Good	Poor	Concrete discharge pipe leading to wooded swale, culverted by asphalt paved road. Adjacent to plastic flared end pipe buried in leaf litter. Minimal riprap, mostly covered in leaf litter.	Maintenance-leaf litter removal.	No	--	--	-72.81427716	41.97254337
OF-164	11/15/2022	Plastic	flared end	12	Fair	Fair	Plastic flared end within riprap swale. In residential wooded area, discharges to pond.	No	No	--	--	-72.81563095	41.96130001
OF-165	11/15/2022	Plastic	flared end	12	Fair	Poor	Plastic flared end. Minimum riprap at head of outfall-discharges to pond. Significant erosion of riprap going towards pond in residential area.	Erosion Control	No	--	--	-72.81619769	41.96122503
OF-105	11/15/2022	Concrete	other	12	Poor	Poor	Discharges to gravel filled swale. No riprap and buried in leaf litter.	Erosion Control and maintenance-leaf litter removal.	No	--	--	-72.80431333	41.97032401
OF-3	11/15/2022	Concrete	flared end	12	Good	Excellent	Concrete flared end , discharges immediately into man-made pond in residential area. Well mulched-may see erosion of mulch during a significant storm event.	Erosion Control	No	--	--	-72.80099125	41.96612451
OF-4	11/15/2022	Concrete	flared end	18	Good	Excellent	Concrete pipe discharging water from man-made pond to wooded swale/stream. Riprap at exit point of pipe to approximately 15 feet away. Residential driveway culverts outfall.	No	No	--	--	-72.80021999	41.96617254
OF-170	11/15/2022	Concrete	endwall	12	Fair	Poor	Discharges into wooded stream area in residential area. Slight oil sheen observed in water next to culvert. No erosion control	Erosion Control	No	--	--	-72.81123772	41.97708174
OF-133	11/15/2022	Concrete	flared end	18	Good	Good	Concrete pipe discharging to stream in woods behind residential neighborhood. Riprap from discharge point to approximately 20 feet downstream. Potential leaf litter and debris blockage downstream.	Maintenance-leaf litter removal.	No	--	--	-72.82388633	41.9447367
OF-13	11/15/2022	Concrete	endwall	36	Good	Excellent	Discharge infiltrates into ground. Concrete retaining wall on right side of outfall. No riprap.	No	No	--	--	-72.78435835	41.95782595
OF-14	11/15/2022	Corrugated Metal	other	36	Poor	Poor	Discharges to intermittent stream with heavy sediment. Large hole in piping end due to rust. Poor erosion control. Residential area.	Erosion Control and maintenance-check integrity of piping	No	--	--	-72.77966232	41.95592513
OF-15	11/15/2022	Concrete	endwall	18	Good	Good	Culvert by road receiving channelized sheetflow in residential area. Riprap on both sides of pipe.	No	No	--	--	-72.77954832	41.95535187
OF-95	11/15/2022	Concrete	endwall	24	Good	Poor	Discharge to intermittent stream. Located in residential area. No erosion control	Erosion Control	No	--	--	-72.776936	41.95512677
OF-136	11/15/2022	Concrete	flared end	18	Fair	Fair	Discharges to wooded area-significant gully from discharge. Riprap from outfall to 10ft out. Residential area.	Erosion Control	No	--	--	-72.77735994	41.96328304
OF-47	11/15/2022	Concrete	flared end	18	Good	Fair	Discharge into wooded area. Some riprap at head of culvert, none on sides. Significant sediment loading. Residential area.	Erosion Control and maintenance-sediment loading from connected infrastructure.	No	--	--	-72.78072288	41.96314512
OF-46	11/15/2022	Unknown	Unknown	Unknown	Poor	Poor	Outfall covered by organic debris. Discharges to wooded area with significant ponding. No erosion control.	Erosion control and maintenance-organic debris removal.	No	--	--	-72.780766	41.96490466

Town of Granby

Dry Weather Inspections

MS4 Permit

2022

Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Maintenance Or Erosion Control Needed?	Iillicit Discharge?	Illicit Discharge Flow Type	Illicit Discharge Description	Longitude	Latitude
OF-123	11/15/2022	Corrugated Metal	flared end	30	Poor	Good	Riprap at head of outfall, discharges to a ravine in wooded residential area. Minor hole inside piping caused by rust.	Maintenance-inspect full integrity of piping.	No	--	--	-72.78567843	41.96448354
OF-90	11/15/2022	Plastic	flared end	36	Good	Good	Plastic pipe discharges to detention pond in wooded area. Riprap around detention basin-overflow appears to exit into adjacent area.	No	No	--	--	-72.77932968	41.97634964
OF-9	11/15/2022	Concrete	flared end	12	Fair	Poor	Filled with leaves and debris. Discharges into residential yard. Located at end of road. No erosion control.	Erosion Control and Maintenance-removal of leaves and debris.	No	--	--	-72.78385	41.97308333
OF-182	11/15/2022	Concrete	flared end	36	Good	Excellent	Concrete pipe with metal flared end discharging to riprap swale and into river nearby. Located in wooded area to the rear of a residential property.	No	No	--	--	-72.7849	41.97233333
OF-10	11/15/2022	Concrete	other	144	Excellent	Good	Outfall flows through footbridge in residential area, leads to stream with moderate flow.	No	No	--	--	-72.78451469	41.97314951
OF-181	11/15/2022	Concrete	flared end	12	Fair	Poor	Filled with leaves and debris. No erosion control. Discharges into woods in residential area.	No	No	--	--	-72.78318341	41.97194999
OF-109	11/21/2022	Other	other	72	Good	Good	Stream flowing beneath culvert on Moosehorn Road. Riprap on stream bank beneath culvert. Residential area. Clear water with no sheen.	No	No	--	--	-72.87186667	41.97385
OF-111	11/21/2022	Unknown	Unknown	Unknown	Unknown	Unknown	Outfall located in residential property	Will need access granted.	No	--	--	-72.87396667	41.97476667
OF-110	11/21/2022	Unknown	Unknown	Unknown	Unknown	Unknown	Outfall located in residential yard	Will need access granted.	No	--	--	-72.87335	41.97411667
OF-112	11/21/2022	Unknown	Unknown	Unknown	Unknown	Unknown	Outfall located in residential yard	Will need access granted.	No	--	--	-72.8756	41.97565
OF-27	11/21/2022	Other	other	60	Excellent	Excellent	Drainage swale in wooded area parallel to road. Residential neighborhood. Excellent riprap on both sides of swale. Water is clear and iced over at time of inspection.	No	No	--	--	-72.85923333	41.99141667
OF-28	11/21/2022	Plastic	flared end	12	Excellent	Excellent	Plastic outfall in wooded area of residential home; riprap on either side of drainage location and on top of outfall; drainage location shows signs of sediment loading.	Maintenance-potential sediment loading from connecting infrastrurcture. Further investigation needed.	No	--	--	-72.85498333	41.99
OF-29	11/21/2022	Unknown	Unknown	Unknown	Unknown	Unknown	Out all located in residential yard	Will need access granted.	No	--	--	-72.85386667	41.98951667
OF-30	11/21/2022	Unknown	Unknown	Unknown	Poor	Good	Outfall covered in leaves and debris; unknown outfall type; appears to flow into area with adequate riprap on either side and above; located between two residential homes in wooded area.	Maintenance-leaf and debris removal.	No	--	--	-72.85265	41.9888
OF-38	11/21/2022	Plastic	flared end	12	Good	Fair	Plastic outfall in wooded area at end of road; no riprap; discharge flows over moss and wooded features; boulders at base of discharge area; discharge area indicates sediment loading.	Maintenance-potential sediment loading from connecting infrastrurcture. Further investigation needed.	No	--	--	-72.85771667	41.98716667
OF-37	11/21/2022	Plastic	flared end	12	Excellent	Excellent	Plastic outfall in wooded area between two residential homes; stones at base of outfall and surrounded drainage area	No	No	--	--	-72.86043333	41.98936667
OF-2	11/21/2022	Unknown	Unknown	Unknown	Unknown	Unknown	Outfall located in residential yard.	Will need access granted.	No	--	--	-72.86013333	42.00916667
OF-99	11/21/2022	Plastic	flared end	12	Poor	Poor	Outfall located parallel to road and discharges into drainage swale; outfall and swale indicate sediment loading; residential area with apple orchard adjacent property	Maintenance-potential sediment loading from connecting infrastrurcture. Further investigation needed.	No	--	--	-72.86321667	42.00836667

Town of Granby

Dry Weather Inspections

MS4 Permit

2022

Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Maintenance Or Erosion Control Needed?	Iillicit Discharge?	Illicit Discharge Flow Type	Illicit Discharge Description	Longitude	Latitude
OF-69	11/21/2022	Corrugated Meta	other	12	Fair	Good	Outfall located in wooded area of residential neighborhood; riprap visible on either side of outfall, top of outfall, and at base of drainage channel; outfall filled with sandy material	Maintenance-sediment removal	No	--	--	-72.85266667	42.01501667
OF-68	11/21/2022	Concrete	flared end	18	Poor	Fair	Outfall located in wooded area of residential neighborhood; riprap visible at mouth of outfall pipe and in discharge area; heavy leaf litter filling outfall .	Maintenance-leaf litter removal.	No	--	--	-72.8532855	42.01586773
OF-67	11/21/2022	Concrete	flared end	18	Fair	Fair	Outfall on other side of road and connected to outfall 68; discharges into wooded swale: riprap on either side of swale and above outfall; heavy leaf litter	Maintenance-leaf litter removal.	No	--	--	-72.85346667	42.01585
OF-100	11/21/2022	Concrete	other	18	Poor	Poor	Outfall pipe discharging to an intermittent stream in wooded area adjacent to road; residential area; brick sized riprap on either side of stream; wood debris covering outfall	Maintenance-debris removal	No	--	--	-72.84835	42.01578333
OF-119	11/21/2022	Concrete	flared end	12	Fair	Fair	Outfall pipe discharges to small drainage swale with riprap on all sides; located in wooded area of residential neighborhood; heavy leaf litter in outfall pipe	Maintenance-leaf litter removal.	No	--	--	-72.859	42.03148333
OF-120	11/21/2022	Unknown	Unknown	Unknown	Unknown	Unknown	Outfall located in residential yard	Will need access granted.	No	--	--	-72.85701667	42.0305
OF-121	11/21/2022	Unknown	Unknown	Unknown	Unknown	Unknown	Outfall located in residential yard	Will need access granted.	No	--	--	-72.85495	42.02991667
OF-129	11/21/2022	Unknown	Unknown	Unknown	Unknown	Unknown	Outfall located in residential yard	Will need access granted.	No	--	--	-72.8541	42.028
OF-122	11/21/2022	Concrete	flared end	12	Poor	Poor	Outfall located in residential area and discharges to a wooded swale; no visible riprap; outfall pipe and swale covered with leaf and wood litter	Erosion Control and maintenance-leaf litter and wood removal	No	--	--	-72.85318333	42.0293
OF-132	11/21/2022	Concrete	flared end	18	Excellent	Good	Outfall pipe located in wooded area of residential neighborhood; discharges to drainage swale leading into woods; brick sized riprap located on all sides and bottom of swale.	No	No	--	--	-72.84796667	42.02676667
OF-131	11/21/2022	Unknown	Unknown	Unknown	Unknown	Unknown	Outfall located in residential yard	Will need access granted.	No	--	--	-72.84678333	42.02873333
OF-41	11/21/2022	Concrete	flared end	12	Good	Fair	Outfall pipe adjacent to road and discharged into small swale; located in residential area; no riprap, medium sized boulders naturally around base of swale; signfiicant leaf litter	Maintenance-leaf litter removal.	No	--	--	-72.84543333	42.03185
OF-151	11/21/2022	Concrete	headwall	36	Good	Good	Intermittent stream and small pond adjacent to road and at base of ravine; medium stones and small boulders along edges of stream; headwall at entrance of culverted stream	No	No			-72.84346667	42.03586667
OF-53	11/21/2022	Unknown	Unknown	Unknown	Unknown	Unknown	Outfall located in residential yard	Will need access granted.	No	--	--	-72.84942726	42.03480688
OF-147	11/21/2022	Unknown	Unknown	Unknown	Unknown	Unknown	Outfall located in residential yard	Will need access granted.	No	--	--	-72.84018333	42.02796667
OF-145	11/21/2022	Corrugated Metal	flared end	60	Good	Good	Outfall pipe in residential area adjacent to road; discharges into perennial pond; medium sized boulders at mouth of outfall and entrance to pond.	No	No	--	--	-72.84376667	42.02793333
OF-159	11/21/2022	Unknown	Unknown	Unknown	Unknown	Unknown	Outfall in residential yard	Will need access granted.	No	--	--	-72.84108333	42.02371667
OF-158	11/21/2022	Concrete	flared end	36	Excellent	Fair	Outfall located in woods of residential neighborhood; discharges to flat wooded area with organic material	No	No	--	--	-72.83953333	42.02268333
OF-157	11/21/2022	Concrete	flared end	60	Excellent	Excellent	Outfall located in wooded area of residential neighborhood; outfall pipe discharges to swale with brick sized riprap on all sides.	No	No	--	--	-72.83905	42.0215

Town of Granby

Dry Weather Inspections

MS4 Permit

2022

Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Maintenance Or Erosion Control Needed?	Iillicit Discharge?	Illicit Discharge Flow Type	Illicit Discharge Description	Longitude	Latitude
OF-156	11/21/2022	Concrete	flared end	18	Good	Good	Outfall in wooded area of residential neighborhood; parallel to OF-157; discharges to swale with riprap on all sides; brick sized riprap on top of outfall pipe.	No	No	--	--	-72.83963333	42.02086667
OF-144	11/21/2022	Unknown	Unknown	Unknown	Poor	Poor	Outfall located in overgrown wooded swale at corner of Stonehenge Way and Silver Street; outfall pipe covered in brush and leaf litter and not visible; no visible erosion control.	Erosion Control and Maintenance-removal of leaves and brush.	No	--	--	-72.84073333	42.01996667
OF-176	11/21/2022	Unknown	Unknown	Unknown	Unknown	Unknown	Outfall located in wooded area behind home.	Will need access granted.	No	--	--	-72.84753333	42.02225
OF-98	11/21/2022	Plastic	other	12	Good	Good	Outfall pipe in wooded area adjacent to road in residential neighborhood; discharges to swale with brick sized riprap along swale and on top of pipe; ephemeral stream beyond rip rap.	No	No	--	--	-72.8437	42.00436667
OF-141	11/21/2022	Concrete	other	12	Fair	Fair	Outfall pipe from under road to empty field; surrounded by brush; discharges to small gravel swale.	Erosion control and maintenance-brush clearing	No	--	--	-72.86388333	41.97181667
OF-72	11/21/2022	Unknown	Unknown	Unknown	Unknown	Unknown	Outfall located in residential yard	Will need access granted.	No	--	--	-72.7800106	41.95912647

ATTACHMENT III

Farmington River Watershed Association
(FRWA)
Town Of Granby:
2022 Chloride Sampling

ID	Sampling Date	Latitude	Longitude	Proximity to Location	Location Description	General Parameters						
						Chloride (ppm)	Conductivity (uS/cm)	Specific Conductivity (uS/cm)	Salinity (psu)	Total Dissolved Solids (mg/L)	Turbidty (NTU)	Chlorine (mV)
SB-2	1/14/2022	41.93632	-72.77418	at	Granbrook Park	ND	--	--	--	--	--	--
	1/18/2022					32	--	--	--	--	--	--
	3/21/2022					ND	99.5	143.9	0.07	10052.3	100.5	--
	5/31/2022					ND	151.8	167.4	0.08	6587.2	98.3	38
	6/21/2022					29	152.3	184.9	0.09	6568.1	98.5	22
	7/27/2022					36	173.3	194.6	0.09	5769.7	109.6	56
	8/17/2022					29	198.4	223.9	0.11	5039.6	109.6	56
	11/14/2022					25	123.4	173	0.08	112	1.18	183.4
EBSB-5430	6/21/2022	41.9547	-72.77935	at	Bryan's Landing Canal St	29	176.5	213.4	0.1	5664.8	94.2	36
	7/27/2022					29	200.4	226.4	0.11	4989.3	93.9	61
	8/17/2022					36	232	265	0.13	4309.6	100.9	69
	11/14/2022					25	117.5	174.4	0.08	113	0.65	184.2
SB-WB3	6/21/2022	41.945072	-72.79615	at	Salmon Brook Park	ND	102.3	127	0.06	9771.4	94.7	34
	7/27/2022					ND	112.9	131.3	0.06	8861.3	93.4	44
	8/17/2022					ND	112.7	138.6	0.07	8875.5	92	40
	11/14/2022					25	337.1	461.6	0.22	300	2.24	157.1

Notes:

* All highlighted bacterial concentrations are required for follow-up investigations at associated outfall.
*Highlighting is based on the following criteria;
1. ND: Not Detected
2. Ammonia: >0.5 mg/L
3. Surfactants (MBAS): > 0.25 mg/L
4. Chlorine: detectable level
5. Conductivity: >1,500 uS
6. Salinity: ≥ 0.5 ppt
7. Turbidity: >5 NTU

Farmington River Watershed Association
(FRWA)
Town of Granby:
2022 Bacteria Sampling

ID	Sampling Date	Latitude	Longitude	Proximity to Location	DEEP Station	Landmark/Facility Name	Bacterial	
							Escheriachia Coli	Total Coliforms
							MPN/100mL	
SB-WB3	6/21/2022	41.945072	-72.79615	at	15170	Salmon Brook Park	64.4	>2419.6
	7/12/2022						58.3	>2419.6
	7/26/2022						90.9	>2419.6
	8/9/2022						161.6	>2419.6
	8/23/2022						76.3	>2419.6
	9/8/2022						143.9	>2419.6
SB-EB1	6/28/2022	41.945676	-72.779364	us	16233	Rte. 189 Bridge	410.6	>2419.6
	7/19/2022						547.5	>2419.6
	8/2/2022						517.2	>2419.6
	8/16/2022						172.5	>2419.6
	8/30/2022						344.8	>2419.6
	9/17/2022						261.3	2419.6

Notes:
* All highlighted bacterial concentrations are required for follow-up investigations at associated outfall.
*Highlighting is based on the following criteria;
1. E. Coli >235/100mL for Swimming Areas, and >410 col/100mL for all others.
2. Total Coliform > 500 col/100mL
3. Fecal Coliform >31 col/100 mL for Class SA and >260 col/100mL for Class SB
4. Enterococci >104 col/100mL for Swimming Areas and >500 col/100mL for all others.
*ds-downstream, us-upstream, at-At

Town of Granby

Catchment Assessment and Priority Ranking Matrix

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Information Source		Catchment inspections and sample results	GIS Maps	Municipal Staff	Impaired Waters List	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Municipal Staff, GIS Maps	Land Use, Municipal Staff	GIS and Storm System Maps	Other	Municipal Staff, GIS Maps	CLEAR	Nathan L. Jacobson & Associates	CLEAR	Other		
Scoring Criteria		Yes = 3 (Problem Catchment)	Yes = 3	Frequent = 3	Poor = 3	High = 3	High = 3	Yes = 3	Yes = 3	Yes = 3	Description	Yes=2	Yes =1	Yes =1	Yes =1	High = 3		
		No = 0	No = 0	Occasional = 2	Fair = 2	Medium = 2	Medium = 2	No = 0	No = 0	No = 0		No=0	No = 0	No = 0	No = 0	Medium =1-2		
				None = 0	Good = 0	Low = 1	Low = 1									Low = 0		
4001-00-1*	Great Brook	0	0	0	0	1	2	0		0	Wooded; goes into MA	0	0	0	0	1	4	Low Priority
4300-44-1-L1	Farmington River	0	0	0	0	3	1	0		0	Mostly residential with some agricultrual	2	1	0	0	1	8	Problem
4309-00-1	Cherry Brook	0	0	0	0	1	1	0		0	Wooded with some agricultural land	0	0	0	0	1	3	Low Priority
4309-01-1	Cherry Brook	0	0	0	0	2	2	0		3	Wooded with residential along highway	0	1	0	0	2	10	High Priority
4309-02-1	Cherry Brook	0	0	0	0	1	1	0		0	Mostly wooded with some residential	0	1	0	0	0	3	Low Priority
4319-00-2-R1	West Branch Salmon Brook	0	3	0	2	2	2	0		3	Mostly wooded with recreational areas along stream and some residential	0	1	0	1	2	16	High Priority
4319-00-2-R2	West Branch Salmon Brook	0	0	0	2	2	2	0		3	Wooded W of stream; Residential E of stream	2	1	0	1	1	14	High Priority
4319-00-3-R1	West Branch Salmon Brook	0	0	0	2	1	2	0		0	Wooded with State Hwy 20 bisecting catchment	0	0	0	1	1	7	Problem
4319-00-3-R2	West Branch Salmon Brook	0	0	0	2	1	2	0		0	Mostly wooded with light agricultural land East of the stream	0	1	0	1	1	8	Problem
4319-00-3-R3	West Branch Salmon Brook	0	0	0	2	1	1	0		0	Wooded	0	0	0	1	0	5	Low Priority
4319-00-3-R4	West Branch Salmon Brook	0	0	0	2	2	2	0		0	Agricultural and Wooded	0	0	0	1	1	8	Problem
4319-00-3-R5	West Branch Salmon Brook	3	3	0	2	1	2	0		3	Wooded with some residential/commercial; park	2	1	0	1	1	19	High Priority
4319-00-3-R6	West Branch Salmon Brook	0	0	0	2	2	2	0		3	Wooded/residential with some agricultural land	0	1	0	1	1	12	High Priority

Town of Granby

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Scoring Criteria		Yes = 3 (Problem Catchment)	Yes = 3	Frequent = 3	Poor = 3	High = 3	High = 3	Yes = 3	Yes = 3	Yes = 3	Description	Yes=2	Yes =1	Yes =1	Yes =1	High = 3		
		No = 0	No = 0	Occasional = 2	Fair = 2	Medium = 2	Medium = 2	No = 0	No = 0	No = 0		No=0	No = 0	No = 0	No = 0	Medium =1-2		
				None = 0	Good = 0	Low = 1	Low = 1									Low = 0		
4319-02-1	Moosehorn Brook	0	0	0	0	1	1	0		3	Mostly wooded with minimal residential	2	0	0	0	1	8	Problem
4319-03-2-R1	West Branch Salmon Brook	0	0	0	0	1	1	0		0	Wooded; Stream meanders Westward; floodplain	0	0	0	0	0	2	Low Priority
4319-03-2-R2	West Branch Salmon Brook	0	0	0	0	1	2	0		3	Mostly wooded with minimal residential areas	2	0	0	0	1	9	Problem
4319-04-1	West Branch Salmon Brook	0	0	0	0	2	2	0		3	Mostly wooded with minimal residential/agricultural areas	0	1	0	0	1	9	Problem
4319-05-1	West Branch Salmon Brook	0	0	0	0	1	1	0		3	Wooded with dense residential area E of stream	0	1	0	0	2	8	Problem
4319-06-1	Higley Brook	0	0	0	0	1	1	0		0	Wooded with minimal cleared land for residential	2	0	0	0	0	4	Low Priority
4319-07-1	Beach Brook	0	0	0	0	1	2	0		3	Mostly wooded with minor residential areas towards lower end of stream	0	1	0	0	1	8	Problem
4319-08-1	Kendall Brook	0	0	0	0	1	1	0		3	A mixture of wooded, agricultural, and residential parcels	2	0	0	0	1	8	Problem
4319-09-1	West Branch Salmon Brook	0	0	0	0	1	2	0		3	Mostly wooded; little residential	0	0	0	0	1	7	Problem
4319-10-2-L1	West Branch Salmon Brook	0	0	0	0	1	2	0		3	Mostly wooded; little agricultural/residential	2	0	0	0	1	9	Problem
4319-10-2-L2	West Branch Salmon Brook; Trout Pond	0	0	0	0	1	1	0		0	Wooded	0	0	0	0	0	2	Low Priority
4319-10-2-R1	West Branch Salmon Brook	0	0	0	0	1	1	0		0	Wooded	0	0	0	0	0	2	Low Priority
4319-11-1	West Branch Salmon Brook	0	0	0	0	1	2	0		0	Wooded	0	0	0	0	0	3	Low Priority
4320-00-1	Unnamed Stream	0	0	0	0	1	1	0		0	Wooded with minimal residential; large mansion with cleared land in Southeast catchment	0	0	0	0	1	3	Low Priority

Town of Granby

Catchment Assessment and Priority Ranking Matrix

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		No = 0	No = 0	Occasional = 2	Fair = 2	Medium = 2	Medium = 2	No = 0	No = 0	No = 0		No=0	No = 0	No = 0	No = 0	Medium =1-2		
				None = 0	Good = 0	Low = 1	Low = 1									Low = 0		
4320-00-2-R1	Unnamed Stream	0	0	0	0	1	1	0		0	Wooded with small residential development	2	0	0	0	1	5	Low Priority
4320-00-2-R2	Fox Brook	0	0	0	0	1	1	0		3	Mostly wooded with some agricultural land along Hwy 89	0	0	0	0	1	6	Problem
4320-00-2-R3	East Branch Salmon Brook	0	0	0	0	1	2	0		0	Mostly agricultural with some wooded	0	0	0	0	2	5	Problem
4320-00-2-R4	East Branch Salmon Brook	0	0	0	0	1	2	0		0	Mostly wooded with minimal residential	0	0	0	0	1	4	Problem
4320-00-3-L1	Dismal Brook	0	0	0	0	1	2	0		0	Commercial/Agricultural	2	1	0	0	2	8	Problem
4320-00-3-R1	East Branch Salmon Brook	0	0	0	0	1	2	0		3	Wooded with residential sites in the SE catchment and one plot of agricutural land	0	0	0	0	1	7	Problem
4320-00-3-R2	West Branch Salmon Brook	0	0	0	2	1	2	0		0	Wooded with agricultural and residential land East of stream	0	1	0	1	2	9	Problem
4320-00-3-R3	Mountain Brook	0	0	0	0	1	2	0		0	Agricultural	2	1	0	0	2	8	High Priority
4320-00-3-R4	West Branch Salmon Brook	0	0	0	2	1	2	0		0	Mostly residential/agricultural	0	0	0	1	2	8	Problem
4320-00-3-R5	West Branch Salmon Brook	0	0	0	2	2	2	0		3	Mostly residential/commercial	2	1	0	1	3	16	High Priority
4320-00-3-R6	West Branch Salmon Brook	0	0	0	2	1	2	0		0	Residential with some agricultural land	0	1	0	1	2	9	Problem
4320-00-4-R1	East Branch Salmon Brook	3	0	0	0	2	2	0		3	Tariffville Park, residential and moderate commercial areas	2	1	0	0	3	16	High Priority
4320-00-4-R2	Salmon Brook	0	0	0	0	1	2	0		3	Mostly Agricultural with some residential and wooded	0	1	0	0	1	8	Problem
4320-00-4-R3	Salmon Brook	0	0	0	0	2	2	0		0	Mostly Agricultural	0	1	0	0	1	6	Problem
4320-00-4-R4	Salmon Brook	0	0	0	0	1	1	0		0	Largely Agricultural	0	0	0	0	1	3	Low Priority
4320-01-1	Belden Brook	0	0	0	0	1	1	0		3	Mostly wooded; Peck Orchard in Northwest of catchment	0	1	0	0	1	7	Problem
4320-02-1	Fox Brook	0	0	0	0	1	2	0		3	Moslty Wooded with some residential/commercial	0	1	0	0	1	8	Problem
4320-03-1	Salmon Brook, unnamed stream	0	0	0	0	1	2	0		3	Mostly residential/wooded with intermittnet cleared land	2	1	0	0	2	11	High Priority

Town of Granby

Catchment Assessment and Priority Ranking Matrix

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Scoring Criteria		Yes = 3 (Problem Catchment)	Yes = 3	Frequent = 3	Poor = 3	High = 3	High = 3	Yes = 3	Yes = 3	Yes = 3	Description	Yes=2	Yes =1	Yes =1	Yes =1	High = 3		
		No = 0	No = 0	Occasional = 2	Fair = 2	Medium = 2	Medium = 2	No = 0	No = 0	No = 0		No=0	No = 0	No = 0	No = 0	Medium =1-2		
				None = 0	Good = 0	Low = 1	Low = 1									Low = 0		
4320-04-1	East Branch Salmon Brook	0	0	0	0	1	2	0		3	Mostly wooded with some agricultural and residential land	0	0	0	0	1	7	Problem
4320-05-2-R1	Belden Brook	0	0	0	0	1	1	0		0	Mostly wooded with a small orchard in Northeastern region of catchment	0	0	0	0	1	3	Low Priority
4320-05-2-R2	Belden Brook	0	0	0	0	1	2	0		3	Wooded with some residential	2	1	0	0	1	10	High Priority
4320-07-1	Ring Brook	0	0	0	0	1	1	0		0	Mostly wooded with one road of residential	0	0	0	0	1	3	Low Priority
4320-08-1	Mountain Brook	0	0	0	0	1	2	0		0	Mostly wooded with light residential areas and a natual diversity area in Northeast corner of catchment.	2	0	0	0	1	6	Problem
4320-09-1	Dismal Brook; unnamed ponds	3	0	0	0	1	2	0		3	Mostly wooded with light residential areas and cleared land		1	0	0	1	11	High Priority
4320-10-1	West Branch Salmon Brook	0	0	0	0	2	2	0		3	Mostly Residential	2	1	0	0	2	12	High Priority
4320-10-2-R1	West Branch Salmon Brook	0	0	0	0	1	1	0		0	Wooded	2	0	0	1	0	5	Low Priority
4320-11-1	Salmon Brook	0	0	0	0	2	2	0		0	Agricultural	2	0	0	0	1	7	Problem
4320-12-1	Bradley Brook	0	0	0	0	2	2	0		3	Mostly residential with some cleared land and wooded areas; Intermediate School	2	1	0	0	2	12	High Priority
4320-12-2-R1	Salmon Brook	0	0	0	0	1	1	0		0	Wooded	0	0	0	0	0	2	Low Priority
4320-13-1	Salmon Brook	0	3	0	0	1	1	0		3	Wooded with some residential; recreational lake in NE catchment	0	0	0	0	1	9	Problem
4320-13-1-L1	Manitook Lake; Unnamed Stream	0	3	0	0	2	2	0		0	Commercial (Masonry/Concrete quarry); recreational (Lake)	2	1	0	0	3	13	High Priority
4320-14-1	Kendall Brook	0	0	0	0	2	2	0		3	Residential with some commercial including a school.	2	1	0	0	3	13	High Priority
4320-15-2-R1	Hungary Brook	0	0	0	0	2	2	0		3	Mosly residential with one large farm and some cleared land	0	1	0	0	2	10	High Priority
4320-15-3-R1	Salmon Brook	0	0	0	0	2	2	0		3	Residential with some cleared land	2	1	0	0	2	12	High Priority

Town of Granby

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Scoring Criteria		Yes = 3 (Problem Catchment) No = 0	Yes = 3 No = 0	Frequent = 3 Occasional = 2 None = 0	Poor = 3 Fair = 2 Good = 0	High = 3 Medium = 2 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	Yes = 3 No = 0	Description	Yes=2 No=0	Yes =1 No = 0	Yes =1 No = 0	Yes =1 No = 0	High = 3 Medium =1-2 Low = 0		
4320-16-1	Beaverdam Marsh, Great Marsh, unnamed stream, Newgate Pond	0	0	0	0	1	2	0		3	Mostly wooded with light residetntial areas along Copper Hill Rd.	2	1	0	0	1	10	Problem
4320-17-1	Unnamed Stream	0	0	0	0	2	2	0		3	Mostly residential with some cleared land and minimal agricultural land	2	1	0	0	2	12	High Priority
4320-17-2-R1	Unnamed Stream	0	0	0	0	1	1	0		3	Wooded with some rural residential areas	0	0	0	0	1	6	Problem
4320-17-3-R1	Salmon Brook	0	0	0	0	1	1	0		0	Wooded with some agriculture	0	0	0	0	1	3	Low Priority
4320-21-1	Salmon Brook	0	0	0	0	1	2	0		0	Agricultural with some wooded	0	0	0	0	1	4	Problem
4320-21-1-L1	Salmon Brook; Sumatra Pond	0	0	0	0	2	2	0		0	Commercial and Agricultural	0	1	0	0	3	8	Problem
4320-22-1	Unnamed Stream	0	0	0	0	1	2	0		3	Mostly Agricultural with some wooded and minimal residential	0	1	0	0	2	9	Problem
4320-26-1-L1	Salmon Brook	0	0	0	0	2	2	0		0	Agricultural and Residential	2	1	0	0	2	9	Problem

Scoring Criteria:

[1] Previous screening results indicate likely sewer input if any of the following are true:
- Olfactory or visual evidence of sewage,
- Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and bacteria levels greater than the water quality criteria applicable to the receiving water, or
- Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and detectable levels of chlorine

[2] Catchments that discharge to or in the vicinity of any of the following areas: public beaches, recreational areas, drinking water supplies, or shellfish beds

[3] Receiving water quality based on latest version of State of Connecticut Integrated Water Quality Report.
- Poor = Waters with approved TMDLs (Category 4a Waters) where illicit discharges have the potential to contain the pollutant identified as the cause of the impairment
- Fair = Water quality limited waterbodies that receive a discharge from the MS4 (Category 5 Waters)
- Good = No water quality impairments

[4] Generating sites are institutional, municipal, commercial, or industrial sites with a potential to contribute to illicit discharges (e.g., car dealers, car washes, gas stations, garden centers, industrial manufacturing, etc.)

[5] Age of development and infrastructure:
- High = Industrial areas greater than 40 years old and areas where the sanitary sewer system is more than 40 years old
- Medium = Developments 20-40 years old
- Low = Developments less than 20 years old

[6] Areas once served by combined sewers and but have been separated, or areas once served by septic systems but have been converted to sanitary sewers.

[7] Aging septic systems are septic systems 30 years or older in residential areas.

[8] Any river or stream that is culverted for distance greater than a simple roadway crossing.