

Minimum Control Measure Reporting						
GP Part 6.2	MCM Requirements	Measurable Goal	Description of how requirement was met	List attachments if applicable	Activities planned for next year	Proposed change in BMP or measurable goal?
<b>MM#1: Public Education and Outreach on Stormwater Impacts</b>						
1.c (1)	Website maintained with locally relevant stormwater information	409 site visits and 1,079 page views.	<a href="http://www.fcsvt.org">www.fcsvt.org</a>	Franklin County Stormwater RSEP Report.	Same.	No.
1.c (2)	Maintain a program to identify opportunities and provide technical assistance on Low Impact BMPs	324 Visits to technical assistance pages.	Total page views to the following pages: Workshops page: 89, Resources: 65, Issues: 62, Events: 55, Solutions: 53.	Above.	Same.	No.
1.c (3)	Participate in a regional stormwater education strategy or develop an MS4 specific program	Franklin County Stormwater is the City/Town RSEP, administered by NRPC.	The City pays \$5,000 annually to this effort. In addition to web visits reported above, the RSEP participates in produce of online videos and collaboration with organizations, like the Friends of Northern Lake Champlain. Ali in RSEP report attached. Including 10 brochures distributed, 141 social media posts, 21 News stories and 13 Front Porch Forum posts.	Above.	Same.	No.
	Other	Additional marketing and educational work.	346 4th graders participated in Lake Lessons over 5 days from 6 schools in St. Albans City and Town, Swanton, Highgate, Fairfield and Georgia. There were 5 stations with educational content as well as an opening and closing activity.	Above.	Similar	No.
<b>MM#2: Public Involvement and Participation</b>						
2.d	Participate in a regional stormwater public involvement and participation strategy or develop an MS4 specific program	Hosting and/or organization of workshops, projects and other events to engage the public.	Butt Litter Pick-up stats: 9 events, 170 participants, 34,483 butts collected. Outdoor Cleanup Stats: 33 volunteers, 3 truck beds of trash hauled away.	Above.	Same.	No.
	Other	Recruiting volunteers to support projects, promote events, and/or engage the public.	218 volunteers attended FCS-led or sponsored events. Partners: FNLC, ECO AmeriCorps, MRBA, FCNRCD, Franklin Grand Isle Tobacco Coalition, St. Albans Museum, LCBP, and VPIRG.	Above.	Similar	No.
<b>MM#3: Illicit Discharge Detection and Elimination</b>						
3.a (1)	Develop and maintain a GIS or AutoCAD map of the storm sewers in the regulated MS4 showing all outfalls	Implementation of new mapping system.	Worked with "Diamond Maps" to integrate our maps into a GIS system.	N/A.	Continue using and building out system.	No.
3.a (2)	Develop ordinance or policy prohibiting non-stormwater discharges and implement enforcement procedures	Achieved	Adopted as part of Stormwater Management and Operations on 05/14/18.	Previously submitted.	Complete.	No.
3.a (3)	Develop and implement a plan to detect and address non-stormwater discharges	Focus on one challenging outfall in 2023	Working ongoing to narrow down source of contamination in Outfall 14. See attached IDDE report.	IDDE report.	Develop IDDE follow-ups and workplan for 2024.	No.
3.a (4)	Inform public on the dangers of illegal discharges	Catch basins stenciled and IDDE information posted.	No catch basins stenciled in 2023. Signage posted at Outfall 14. IDDE updates posted to <a href="http://www.stalbansvt.com/idde">www.stalbansvt.com/idde</a>	N/A.	Stencil catch basins. Continue IDDE information.	No.
3.a (6)	Status of monitoring activities:				Develop IDDE follow-ups and workplan for 2024.	No.
	Outfalls Inspected:	1	See attached IDDE report.	IDDE report.		No.
	Number of dry-weather samples taken:	8	See attached IDDE report.	Above.	Above.	No.
	Feet of stormwater drainage pipe inspected:	Unreported	Some camera work for Outfall 14 but clearance challenges encountered.	Above.	Above.	No.
	Discharges Detected:	1	Working on issue at Outfall 14.	Above.	Above.	No.
	Discharges Corrected:	None.	Working to diagnose source ongoing.	Above.	Above.	No.
	Other					
<b>MM#4: Construction Site Stormwater Runoff Control</b>						
4.a (1)	Develop and implement procedures to ensure that construction activities undertaken by the MS4 are properly permitted	Achieved.	City projects follow EPSC guidelines and apply for State or local construction stormwater permits, depending on size of project.	N/A.	Same.	No.
	Number of permitted MS4 construction projects:	0		N/A.	Same.	No.
4.a (2)	Review existing policies to determine effectiveness, consistency with state standards; Amend for consistency with state standards	Achieved.	Review performed during drafting of local ordinances 2015-2018. No updates required in 2023.	N/A.	Same.	No.
4.a (3)	Develop and implement ordinance that regulates earth disturbance <1ac	Achieved.	Adopted as part of Stormwater Management and Operations on 05/14/18.	Previously submitted.	Complete.	No.
	Number of projects with <1ac of disturbance subject to MS4 requirements:	0		N/A.	Same.	No.
	Other					
<b>MM#5: Post Construction Stormwater Management for New Development and Redevelopment</b>						
5.d	Review existing policies to determine effectiveness, consistency with state standards, opportunities for LID, and opportunities for changes to street and parking requirements; Amend for consistency with state standards	Achieved.	Review performed during drafting of local ordinances 2015-2018. No updates required in 2023.	N/A.	Same.	No.
5.e	Develop and implement procedures to identify projects that disturb >1ac but do not require a state post-construction permit	Achieved.	Adopted as part of Stormwater Management and Operations on 05/14/18.	Previously submitted.	Complete.	No.
	Number of projects >1ac of disturbance <1ac of impervious:	0	There was none in 2023.	N/A.	Same.	No.

5.f	Adopt an ordinance or policy that requires projects that disturb >1ac to utilize a combination of structural, non-structural, and low impact BMPs and ensure long-term maintenance.	Achieved.	Adopted as part of Stormwater Management and Operations on 05/14/18.	Previously submitted.	Complete.	No.
5.g (1)	Develop and implement procedures for inspecting projects subject to the MS4's ordinance.	Achieved.	Adopted as part of Stormwater Management and Operations on 05/14/18.	Previously submitted.	Complete.	No.
	Number of STPs (without state permits) inspected by MS4:	0	There was none in 2023.	N/A.	Same.	No.
5.g (2)	Develop and implement procedures to ensure that development activities undertaken by the MS4 are properly permitted.	Achieved.	City projects follow guidelines and apply for State or local stormwater management permits, depending on size of project. Typically the only permits needed are State stormwater construction permits, which are obtained.	N/A.	Same.	No.
	Other					
<b>MM#6: Pollution Prevention and Good Housekeeping for Municipal Operations</b>						
6.b (2)	Conduct stormwater training for staff	1 trainings attended.	Three staff members attended the UVM Seagrant South Burlington Green Stormwater Infrastructure Site Visit Day: maintenance considerations and lessons learned sessions on June 8, 2023.	N/A.	Resume higher training frequency.	No.
6.b (3)	Implement controls for reducing or eliminating the discharge of pollutants from the MS4.	Achieved.	See below.	N/A.	Same.	No.
	STPs constructed, upgraded, & maintained	5 maintained.	List in BMP tracking table	BMP Tracking Table	Same.	No.
	STPs incorporated into the MS4	1 new in 2023. 3 Pre-existing.	List in BMP tracking table	BMP Tracking Table	Same.	No.
	Inspections performed on fleet vehicles, buildings, garages, parks, open spaces	Regular inspections.	Regular maintenance as needed, as per equipment manuals. Notably, the Johnston Sweeper and the Vac-Con Sewer/Stormwater maintenance truck were inspected and maintained over the winter.	N/A.	Same.	No.
	Catch basin cleaning	262 CBs inspected/cleaned and 130 yards of sediment collected.	Complete 'Non Structural Tab'	See Nonstructural tab.	Same.	No.
	Street Sweeping	1,713 miles swept & 264 yards of debris collected.	Complete 'Non Structural Tab'	See Nonstructural tab.	Same.	No.
	Leaf/organic waste removal program	None in 2023. However, did collect xmas trees and recycle them.	Complete 'Non Structural Tab'	N/A.	No plans for 2024 as of yet.	No.
6.b (4)	Develop and implement procedures for proper disposal of wastes	Achieved.	Submitted with 2019 Report. No updates in 2023.	Previously submitted.	Update as needed.	No.
6.c	Prohibit use of phosphorus containing fertilizers on facility operations unless warranted by a soil test; submit copy of test	Achieved.	This is a standard City policy. Also included in contracts, when appropriate.	N/A.	Update as needed.	No.
6.d	Participate in the Agency's Municipal Compliance Assistance Program (or other audit program) for municipal garages	None. Informed that MCAP no longer exists.	Informed by VT DEC staff that MCAP no longer exists. No replacement program was brought to our attention.	N/A.	Resume similar program, if made available.	No.
	Other					

<b>Additional MS4 Reporting Requirements</b>	
Annual Review of SWMP completed	Yes
Results of information collected and analyzed, if not included elsewhere	N/A
Notice that permittee is relying on another entity to satisfy some of its permit obligations	Northwest Regional Planning Commission: MCMs 1 and 2.
Estimated funds spent on stormwater management for the fiscal year*	\$288,300 (Stormwater Utility FY2023 budget)
Other information, if applicable	

<b>Impaired Waters Response Plan</b>	
Impaired Stream	Rugg Brook.
Impairment	Stormwater sediment.
Status of implementation	Pursuing implementation of FRP. Began multi-party coordination for SASH/Nason Street BMP.
Planned activities for upcoming year	Pursue multi-party coordination and funding for SASH/Nason Street BMP.
Other information, if applicable	

<b>Impaired Waters Response Plan</b>	
Impaired Stream	Stevens Brook.
Impairment	Stormwater sediment.
Status of implementation	Pursuing implementation of FRP. Continued design of 74 Lo. Welden St. BMP, and Lemnah Drive BMP.
Planned activities for upcoming year	Pursue funding and construction of 74 Lo. Welden St. BMP and Lemnah Drive BMP. Continue conversation with VT DEC about Hungerford land BMP.
Other information, if applicable	

## Non Structural BMP Reporting

Complete Table 1 or 2, depending on tracking method used by MS4

Table 1. Area tracking method			
Sub Area Name (Lake segment, route, etc.)	St. Albans Bay		
Area of streets swept (acres)	46.5		
P Load from Streets where sweeping occurs (kg/year)	20		
Sweeper Frequency	Weekly		
Sweeper Technology	Vacuum Assisted		
Year sweeping started	2008		
If weekly or monthly, number of months streets are swept	8		
Phosphorus Credit	4.27%		
Phosphorus Reduction from Street Sweeping (kg/year)	0.85333333		
<b>Catch Basin Cleaning</b>			
P Load from Streets where catch basin cleaning occurs (kg/year)			
Phosphorus Credit	2%	2%	2%
Phosphorus Reduction from Catch Basin Cleaning(kg/year)			

Table 2. Measurement of material tracking method	
Combined dry weight of material collected (kg)	
<b>OR</b> Cubic yards of material collected	130 yards from catch basins and 264 yards from street sweeping.
Number of sediment samples taken	One sample in April.
Lab where samples were processed	
Record the average TP result	
Was a particle size analysis done?	
Please attach results from the lab	

**\*\*There is currently no approved accounting methodology based on weight or volume of material collected. Should a method be developed, DEC anticipates information like that in Table 2 could be required.**

Table 3. Phosphorus Reduction Factor				
	2/year (spring and fall)	Monthly	Weekly	4X in the fall
Mechanical Broom	1%	3%	5%	17%
Vacuum Assisted	2%	4%	8%	17%
High Efficiency Regenerative Air-Vacuum	2%	8%	10%	17%

Flow Restoration Plan Implementation		
	Rugg Brook	Stevens Brook
Summary of actions taken to implement FRP components	Final design and permitting for SASH/Nason BMP	Continued design of 74 Lo. Welden St. BMP and completed final design of Lemnah Drive BMP.
What is the MS4's overall status in implementing the FRP?	Final design of one FRP.	Final Design of 2 FRPs.
Summary of BMP implentation planned for the next calendar year, if any.	Pursue multi-party coordination and funding for SASH/Nason Street BMP.	Pursue funding and construction of 74 Lo. Welden St. BMP and Lemnah Drive BMP. Continue conversation with VT DEC about Hungerford land BMP.
Assessment of ability to meet outstanding schedule items	No actionable evidence at this time that schedule cannot be met, but the true feasibility of all BMPs has not yet been tested against realities in the field, including landowner issues, VT DEC permitting conflicts, and final costs.	No actionable evidence at this time that schedule cannot be met, but the true feasibility of all BMPs has not yet been tested against realities in the field, including landowner issues, VT DEC permitting conflicts, and final costs.

Stream Flow Monitoring	
Does your municipality conduct stream flow monitoring?	No

Steam Corridor Protection	
Ordinance or regulation adopted to protect and regulate development in sw impaired water stream corridors	Stream Corridor Rules previously adopted are available at <a href="http://www.stalbansvt.com/stormwater">www.stalbansvt.com/stormwater</a>

Phosphorus Control Plan Development	
Road Erosion Inventory (REI)	Uploaded to 'Municipal Roads General Permit Implementation Table' in Dec. 2019
Are there any segments on the MRGP Implementation Table portal that are incomplete? If so, please describe how the data will be completed.	All segments were previously complete, but online tool is currently showing incomplete. We believe this is due to a data error, and our consultants will work with DEC to make sure all are returned to complete status.
Roads and Outlets planned for upgrade in calendar year 2024.	None.
Extent of street sweeping and catch basin cleaning	See 'Non-structural tab'
Extent of stormwater BMP implementation	See 'BMP Tracking Table'
What is the MS4's overall status in implementing the PCP?	Final design of three major BMPs, including the 74 Lo. Welden facility.
Assessment of the ability to meet outstanding schedule items	No actionable evidence at this time that schedule cannot be met, but the true feasibility of all BMPs has not yet been tested against realities in the field, including landowner issues, VT DEC permitting conflicts, and final costs.
List of '3 acre sites' that have been taken over by the MS4 in the past calendar year.	None.
Has the additional loading from privately owned land associated with the 3-acre sites been addressed in the phosphorus control plan? If not describe the MS4s plan to address the additional target.	The City's PCP anticipates the loading that will be associated with 3-acre site permits that are likely to be taken over by the City's MS4 permit in the future. That loading is incorporated in the P target strategy laid out in the PCP.

BMP Identification				Design, Construction and Maintenance										Basin Information				BMP Tracking Specifications										Phosphorus Calculations									
Project ID	Project Name	Lead/Owner	Responsible Party	Latitude (decimal)	Longitude (decimal)	Existing SW permits (number if applicable)	Watershed Project Number (if known)	Part of MS4 Programmed into MS4	Cost Estimate (optional)	BMP Status	Year Planned Construction	Date Completed	Date of last inspection	Maintenance needed?	Applicable MS4	LC TRMS, Lake	Eligible for Phosphorus Credit?	BMP Type	Impervious area (acres)	Permitted	Period Entry	Previous HGA A	Previous HGA B	Previous HGA C	Previous HGA D	Total Permitted area (acres)	Storage volume (MG)	Infiltration area (sq/ft)	* Load Before Treatment (lb/day/ft)	* Storage Depth (inches)	* Practice Efficiency	* P Reduction (lb/acre)	Manual P Reduction (lb/acre)	Is this an eligible to get Phosphorus credit?	Does the upgrade change the average area?	% Credit to MS4	* P Credit (lb/acre)
C001	Leach Creek Wastewater Plant	City of St. Albans	City of St. Albans	44.833333	-73.077778			Yes		Complete		6/1/2012		Unknown	Storms-Brook	St. Albans Bay Direct Drainage	St. Albans Bay	Yes	Infiltration Chambers	0.11	Total Permitted						0.11	488	15.52 sq/ft	0.20	0.72	85.19%	0.17	Yes		100%	0.17
C002	Leach Creek Dam Section	City of St. Albans	City of St. Albans	44.833333	-73.083333			Yes		Complete					Storms-Brook	St. Albans Bay Direct Drainage	St. Albans Bay	Yes	Detention/Diffusion	0.01	Total Permitted						0.14	1,600	15.52 sq/ft	0.06	2.00	85.00%	0.06	Yes		100%	0.06
C003	MS4/Watershed	City of St. Albans	City of St. Albans	44.833333	-73.077778			Yes		Final Design (100%)	2015				Range Creek	St. Albans Bay Direct Drainage	St. Albans Bay	Yes	Gravel Wetland	0.45	Total Permitted						0.56	53,672		0.20	1.27	83.17%	0.20	Yes		100%	0.20
S002	Leach Creek 2	City of St. Albans	City of St. Albans	44.833333	-73.083333			Yes		Final Design (100%)	2015				Storms-Brook	St. Albans Bay Direct Drainage	St. Albans Bay	Yes	Gravel Wetland	0.70	Total Permitted						0.70	33,267		7.89	1.20	83.18%	4.94	Yes		100%	4.94
S003	Lower Wadsworth Street	City of St. Albans	City of St. Albans	44.833333	-73.076667			Yes		Final Design (100%)	2015				Storms-Brook	St. Albans Bay Direct Drainage	St. Albans Bay	Yes	Gravel Filter (no underdrains)	0.06	Total Permitted						0.16	22,636		36.44	1.16	84.63%	46.40	Yes		100%	46.40
S004	Hungerford Lower Basin	Curran/Town Hungerford	City of St. Albans	44.820000	-73.080000			Yes		Planned					Storms-Brook	St. Albans Bay Direct Drainage	St. Albans Bay	Yes	Gravel Wetland	33.87	Total Permitted						60.12	222,036		48.97	1.19	84.49%	35.10	Yes		100%	35.10
S005	Barlow Creek Academy St. Albans	Staple Run United School District	City of St. Albans	44.838889	-73.070000	6413 9050	6413 9050	Yes		Final Design (100%)	2015				Storms-Brook	St. Albans Bay Direct Drainage	St. Albans Bay	Yes	Gravel Filter (no underdrains)	0.01	Total Permitted						0.01	276,036		76.44	1.16	84.63%	46.40	Yes		100%	46.40

BMP Identification								Maintenace	
				Latitude (decimal degrees)	Longitude (decimal degrees)	Previous SW permit number (if applicable)	Part of MS4/ Incorporated into MS4	Date of last inspection	Maintence needed?
INC01	Murray Drive Swales	City of St. Albans	City of St. Albans	44.809995	-73.098619	1-0477	Yes	April 2023	Yes
INC02	Guyette Cir/Bowles Ln Swales	City of St. Albans	City of St. Albans	44.807015	-73.096380	1-0691	Yes	April 2023	Yes
INC03	Lemnah Drive 1	City of St. Albans	City of St. Albans	44.806063	-73.089327	2-0147	Yes	April 2023	Yes
INC04	Warner Dr/Isham Ave	City of St. Albans	City of St. Albans	44.817612	-73.076212	5521-9010.R	No	June 2022	Yes
DIV01	Stevens-Rugg Diversion Canal	City and Town of St. Albans	City and Town of St. Albans	44.806259	-73.091888	5643-INDO.AR	No	June 2023	Yes



**Franklin County Stormwater Collaborative  
Regional Stormwater Education Program  
Summary of Activities January 1 – December 31, 2023**

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The information below summarizes many of the accomplishments in 2023 conducted by Northwest Regional Planning Commission and Friends of Northern Lake Champlain in fulfillment of the Regional Stormwater Educational Program (RSEP) for the City and Town of St. Albans. The RSEP is charged with satisfying the relevant requirements of the Minimum Control Measure (MCM) One, Public Education and Outreach, and MCM Two, Public Involvement and Participation of the Phase II NPDES Permit.

**Minimum Control Measure (MCM) 1: Public Education and Outreach**

The minimum requirements to be completed on MCM 1 regarding Public Education and Outreach are provided in Table 1 below.

**Table 1. MCM 1 – Public Education and Outreach activities and goals.**

<b>MCM #</b>	<b>Activity</b>	<b>Measurable Goal(s)</b>	<b>Status</b>
1-1	Development and operation of the Program's website or its equivalent	<ul style="list-style-type: none"> <li>- Perform annual updates</li> <li>- Development of new content</li> <li>- Number of site visits</li> <li>- Number of page views</li> </ul>	<ul style="list-style-type: none"> <li>✓ Updated website</li> <li>✓ Developed content</li> <li>✓ 409 total site visits</li> <li>✓ 1079 total page views</li> </ul>
1-2	Maintain a program to identify opportunities and provide technical assistance on Low Impact BMPs	<ul style="list-style-type: none"> <li>- Number of visits to pages with technical resources (Trainings/Workshops &amp; Guides)</li> <li>- Development of new content</li> </ul>	<ul style="list-style-type: none"> <li>✓ Total page views to the following pages: <ul style="list-style-type: none"> <li>- Workshops page: 89</li> <li>- Resources: 65</li> <li>- Issues: 62</li> <li>- Events: 55</li> <li>- Solutions: 53</li> </ul> </li> <li>✓ New content added: <ul style="list-style-type: none"> <li>- Photo Gallery of past events</li> <li>- FCS logo to website header</li> </ul> </li> </ul>
1-3A	Perform marketing and advertising of the Program in various media	<ul style="list-style-type: none"> <li>- Number of brochures distributed</li> <li>- Number of media posts and/or stories run</li> </ul>	<ul style="list-style-type: none"> <li>✓ 10 brochures</li> <li>✓ 141 social media posts</li> <li>✓ 13 Front Porch Forum posts</li> <li>✓ 21 News stories</li> </ul>
1-3B	Coordination with educators and organizations that can provide educational programming on curriculum resources and programming	<ul style="list-style-type: none"> <li>- Number of schools, teachers or students that participated</li> <li>- Number of educational materials/lessons distributed</li> </ul>	<ul style="list-style-type: none"> <li>✓ 346 4<sup>th</sup> graders participated in Lake Lessons over 5 days from 6 schools in St. Albans City and Town, Swanton,</li> </ul>

**Franklin County Stormwater Collaborative  
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			Highgate, Fairfield, and Georgia. ✓There were 5 stations with educational content as well as an opening and closing activity
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### Stormwater Website (www.fcsvt.org) - Task 1-1

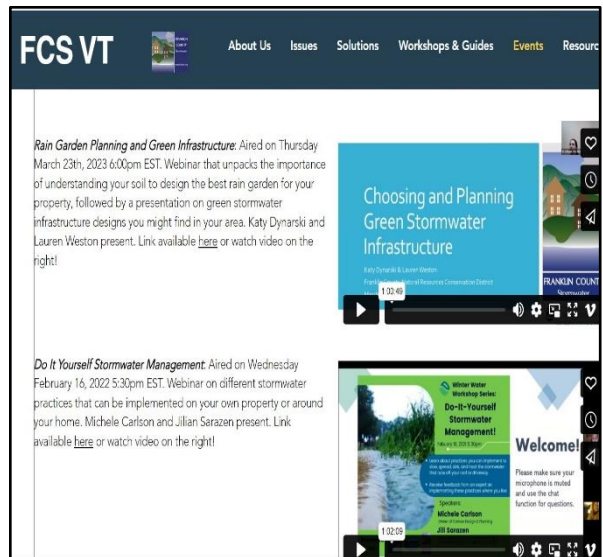
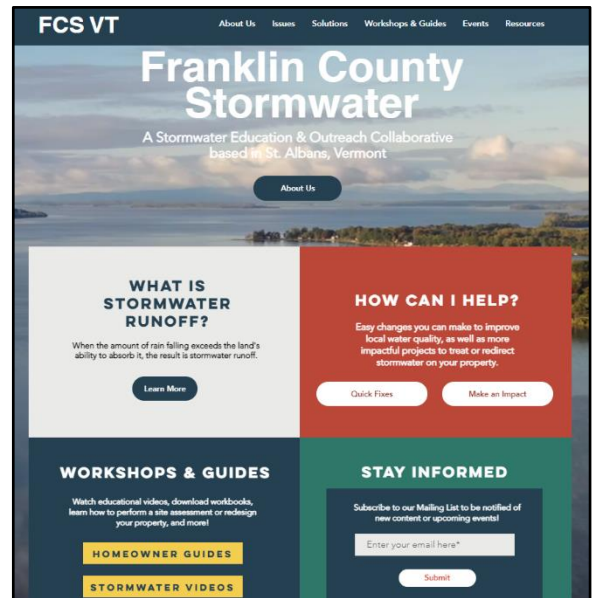
The website for Franklin County Stormwater (FCS) has slowed in development since its redesign in 2020. The website redesign in 2020 created a functional and easy to use website with little need for major updates. There are tabs on stormwater issues, solutions to these problems, workshops, events, and resources for community members looking to become involved in personal stormwater management. There is an option to sign up for a Franklin County Stormwater mailing list. Some technical and content updates were made to the website, as described below.

Notable updates to the website include:

- Ê The FCS logo was added to the website header.
- Ê The recorded webinar, ‘Rain Garden Planning and Green Infrastructure’ was added to the Past Events section.
- Ê Events were added to the Google Calendar that is shared with partner organizations.
- Ê A photo gallery was added to the Events page and photos of past events were uploaded.

Google Analytics provides information about the use of the website, below is a summary of statistics from January 1, 2023, to December 31, 2023, for web traffic within the United States only. As the website changed during the program year, statistics are reported per website here and combined in Table 1 above for MCM 1-1:

- Ê 244 visits from across the US and 68 of these visits originated in Vermont.
- Ê There were a total of 1079 page views from the US in 2023.



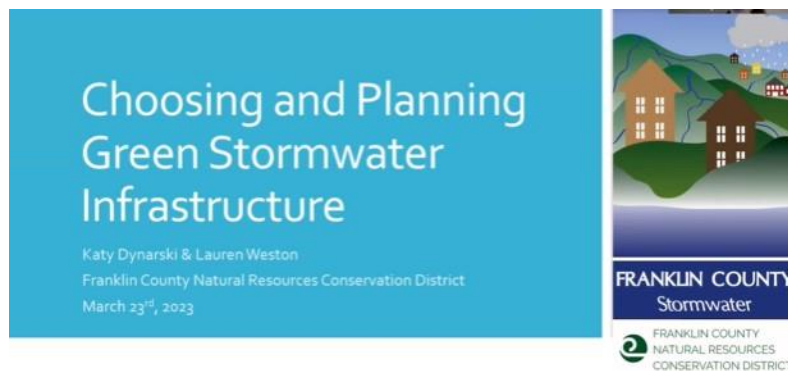
**Franklin County Stormwater Collaborative  
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- Ê 29.8% of VT visitors were new visitors to the website.
- Ê Visitors spent an average duration of 4:55 (min:sec) on the site.
- Ê Most of the page views were for the following pages in descending order: homepage, workshops & guides, about us, resources, issues, events, and solutions.

**Technical Resources – Task 1-2**

- Ê In March of 2023, the Franklin County Collaborative hosted a hybrid event, ‘Choosing and Planning Green Stormwater Infrastructure’ which was held at Saint Albans Town Hall and on Zoom and offered presentations on how to plan a rain garden and green stormwater infrastructure designs. Katharine Dynarski and Lauren Weston with the Franklin County Natural Resources Conservation District both presented. There were 33 registrants on Zoom and 13 people indicated they were attending on Facebook. The total attendance was 26, with 8 attending in person and 18 attending on Zoom.



- Ê A TikTok video was created to show how to build a rain barrel. The video was shared once on the FCS Facebook page and had 25 views and 2 engagements. It was also posted to the FCS website on the ‘disconnect impervious surfaces’ page, which was viewed 9 times.
- Ê The Franklin County NRCD was contracted to conduct stormwater property visits, completed in June 2023. They visited 6 properties and gave recommendations.

**Informational Brochures – Task 1-3A**

The Collaborative utilizes printed promotional brochures to provide basic information on stormwater pollution and direct the person to the website for more information. Brochures could be used at tabling events with partner organizations, for social media use, and electronic distribution.

- Ê Brochures were printed to advertise for the Lake Champlain themed storytelling event and approximately 10 were distributed at the Farmer’s Market at Taylor Park over the course of two market days.

**Franklin County Stormwater Collaborative**  
**Regional Stormwater Education Program**  
**Summary of Activities January 1 – December 31, 2023**

**Media and Marketing – Task 1-3A**

The Collaborative aimed to engage local news media in events with press releases as well as utilize the available resources for sharing information with the communities such as Front Porch Forum, Facebook, municipal websites, and partner organizations. The following have been ways the Collaborative has gotten the word out:

- Facebook Posts – These posts promote the FCS website, share upcoming NRPC and partner events, and advertise important stormwater educational information. In 2023, we posted to the Facebook page 141 times, had 909 post engagements, and had 22,291 post views. The Facebook page also had 201 followers by the end of 2023, an addition of 31 followers since 2022.



**2023 RSEP Facebook Breakdown:**

Month	Posts	Topic Category	Reach	Total Engagements*
January	13	Watering can raffle, Stormwater Education, and Event Promo	842	33
February	8	Stormwater BMPS, Event Promo	1,926	14
March	19	Event Promo, how to build a rain barrel video	2,227	58
April	27	BMPS, Event Promo	4,710	175
May	8	Events Promo	3,966	89
June	14	Story telling event promo	1,826	97
July	10	Story telling event promo, cigarette butt clean-up promo, Streamwise assessment promo	332	31
August	6	BMPS	112	4
September	1	Lake Lesson promo	133	21
October	14	Educational materials, BMPS	3,816	290
November	11	Partner announcements and events, BMPS	1620	63
December	10	Stormwater BMPS	781	34
<b>Total</b>	<b>141</b> <b>+122 from last year</b>		<b>22,291</b> <b>+2,044 from last year</b>	<b>909</b> <b>+635 from last year</b>
*Engagements: Combination of the number of people who click on a link in a post or like/comment/share the post.				

**Franklin County Stormwater Collaborative  
Regional Stormwater Education Program  
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- Ê Front Porch Forum – Thirteen publications/events were made to Front Porch Forum via Dea Devlin’s Planning Commission account to St. Albans, St. Albans City, and adjacent town forums. One posting was a raffle with a quiz with stormwater questions (which was also shared to Facebook). People who attempted the quiz were entered to win a free watering can. 57 people attempted the quiz and one local resident won.
- Ê NRPC provided announcements of events or other messaging with City/Town staff to share on the respective municipal media platform (website, Facebook, or Front Porch Forum).
- Ê NRPC shared messaging with water resource partners for posting on social media.
- Ê There were 21 articles in the St. Albans Messenger that reported on topics related to water quality and stormwater in the St. Albans area. The Messenger has a circulation of approximately 5,500 people.
  1. More news from St. Albans City Council: New businesses, facade improvements and more water infrastructure (October)
  2. Town of St. Albans continues stormwater talks; Selectboard pushes for pull back on budget (October)
  3. St. Albans Town moves forward with sidewalks, lines up future projects (September)
  4. Upcoming Lake Carmi feasibility study offers potential answers to blue-green algae outbreak (September)
  5. How to protect tree roots, according to a UVM Extension Master Gardener (September)
  6. Franklin Forty gravel bike ride set for Sept. 30, new event to raise funds for lake and trails (September)
  7. St. Albans Town puts stormwater fees on chopping block for next year's budget; Selectboard to consider alternative funding (August)
  8. Volunteers cleaned up fewer cigarette butts in 2023 in Franklin County...and that's a good thing! (August)
  9. St. Albans Town Selectboard to meet with Agency of Natural Resources tonight, public invited to attend (August)
  10. Who pays for stormwater? St. Albans Town pushes back against ‘unfunded mandate’ (August)
  11. Meet Bridget Butler, Friends of Northern Lake Champlain's new executive director (August)
  12. Franklin County watershed workshop provides stormwater runoff tips to locals (August)
  13. Historic flooding overtakes Vermont. Here's how Franklin County fared. (July)
  14. St. Albans Town receives \$17K from national lawsuit against Monsanto (June)
  15. Lake Champlain Basin Program leads discussion on Missisquoi Bay clean-up (June)





**Franklin County Stormwater Collaborative  
Regional Stormwater Education Program  
Summary of Activities January 1 – December 31, 2023**

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16. The Missisquoi River Basin Association is seeking two high school aged student interns this summer (May)
17. Backyard sustainability tips from Franklin County conservation groups (April)
18. Franklin County Natural Resources Conservation District hosts annual tree sale this spring (April)
19. Mill River Brewing will hold 4th Annual Charity Ice Fishing Derby for water quality (February)
20. Missisquoi River Basin Association announces 2023 art contest: 'Celebrating The Missisquoi Watershed' (January)
21. 'This is the grand bargain;' St. Albans municipalities sign historic agreement on police contract and water/sewer services (January)

**Educational Programing with Schools – Task 1-3B**



Lake Lessons is an educational program provided to 4<sup>th</sup> grade area students covering a range of topics that relate to Lake Champlain, such as water quality, runoff, watersheds, and Lake Champlain and St. Albans Bay heritage. With different partners hosting various learning stations, students move through each station, spending around 25 minutes at each one. Station subjects included a rainfall stimulator, a creative expression activity, an interactive watershed model, an exercise and game related to farm manure and cover crops, and a history lesson on the Lake. The Lake Lessons partners include St. Albans Museum, Friends of Northern Lake Champlain, Northwest Regional Planning Commission, Missisquoi River Basin Association, Franklin County Conservation District, Lake Champlain Basin Program, and the Agency of Agriculture. The Franklin County Collaborative has helped create lesson content and assist partners in running learning stations in past years but this year, it was responsible for leading the closing activity for students in addition to offering support in shuttling students between stations.

**Franklin County Stormwater Collaborative  
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Summary of Activities January 1 – December 31, 2023**

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This year, Lake Lessons happened over the course of five days in September in St. Albans Bay Park. There was a total of 346 4<sup>th</sup> graders in attendance this year.



**Minimum Control Measure (MCM) 2: Public Involvement and Participation**

The minimum requirements to be completed on MCM 2 regarding Public Involvement and Participation are provided in Table 2 below.



**Franklin County Stormwater Collaborative  
Regional Stormwater Education Program  
Summary of Activities January 1 – December 31, 2023**

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**Table 2. MCM 2 – Public Involvement and Participation activities and goals.**

MCM #	Activity	Measurable Goal(s)	Status
2-1	Hosting and/or organization of workshops, projects and other events to engage the public	<ul style="list-style-type: none"> <li>- Number of events offered</li> <li>- Number of participants and/or persons contacted by outreach events</li> <li>- Amount &amp; type of material collected*</li> </ul>	<u>Butt Litter Pick-up stats:</u> <ul style="list-style-type: none"> <li>✓ 9 events</li> <li>✓ 170 participants</li> <li>✓ 34,483 butts collected.</li> </ul> <u>Outdoor Cleanup Stats</u> <ul style="list-style-type: none"> <li>✓33 volunteers</li> <li>✓3 truck beds full of trash</li> </ul>
2-2	Recruiting volunteers to support projects, promote events, and/or engage the public	<ul style="list-style-type: none"> <li>- Number of participants engaged</li> </ul>	<ul style="list-style-type: none"> <li>✓218 volunteers attended FCS-led or sponsored events.</li> <li>✓ Partner: FNLC, ECO AmeriCorps, MRBA, FCNRCD, Franklin Grand Isle Tobacco Coalition, St. Albans Museum, LCBP, and VPIRG.</li> </ul>

\*Applicable for clean-up events

### Events to engage the public – Task 2-1

#### Outdoor Cleanups

The Franklin County Stormwater Collaborative organized two cleanup events at two locations during the summer of 2023, which included:

- Stevens Brook
- Mill River

The 12 volunteers at the Stevens Brook event covered ¼ of a mile of the stream, and pulled out several notable items, including a sewing machine, unicorn doll, a bike, a skateboard, and a scooter. The Mill River cleanup was a partnership with Mill River BBQ and Smokehouse, and the 21 participants covered ½ mile of the river, collecting 3 trucks beds worth of trash.





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Regional Stormwater Education Program  
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Butt Cleanups

In partnership with the Franklin Grand Isle Tobacco Coalition, Franklin County Stormwater helped organize and promote 9 cigarette butt litter cleanup events over the summer of 2023. Three of the events were held in St. Albans City and Town area, and other sites included Richford, Enosburg Falls, Georgia, Swanton, and Alburgh. These events logged 170 volunteers and worked to remove 34,483 cigarette butts from local areas.

Site	Areas Cleaned	# of Volunteers	Butts Collected
Georgia	Industrial Park Rd., Skunk Hollow, Park n Ride, dead end off exit 18	14	2,434
Swanton Library	Village Green, Merchant's Row, Post Office/Cody's, Library Parking Lot, Swanton School Apartments	22	1,380
Swanton Recreation	Rec Fields, Rec Fields Lower Lot, Rail Trail to Depot and Robin Hood, Abenaki Offices, Depot Parking Lot, and surrounding side walks	24	333
Enosburg Falls	Lincoln Park, surrounding sidewalks, parking lots everywhere, rail trail (bates area), maple park	12	3,181
Richford	Overlook Park, Riverside areas, Main St. Park, sidewalks, bike shed area	5	1,830
Alburgh	School and Village sidewalks	30	697
St. Albans Town	Industrial Park	20	8,441
St. Albans City	Downtown	20	14,884
St. Albans Town	Bay Park	23	1,303
<b>Total</b>		<b>170</b>	<b>34,483</b>

Outdoor Lake Champlain- Themed Story Telling Event

On July 19<sup>th</sup>, the Franklin County Stormwater Collective hosted an outdoor Lake Champlain themed storytelling event at St. Albans Town Bay Park. Five people shared their stories about Lake Champlain and 75 people attended. Several partners supported and tabled the event, including MRBA, Franklin County NRCD, Grand Isle NRCD, Lakewise Program, Saint Albans Museum, and Friends of Northern Lake Champlain. Other local organizations that participated were Mill River BBQ and Smokehouse, Smokey Newfield Project, Uncle John's Band, and Abenaki Circle of Courage. The event was recorded by Northwest Access Tv and can be found

**Franklin County Stormwater Collaborative  
Regional Stormwater Education Program  
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on their YouTube channel:

[https://www.youtube.com/watch?v=wBxq75G8L6o&ab\\_channel=NorthwestAccessTV](https://www.youtube.com/watch?v=wBxq75G8L6o&ab_channel=NorthwestAccessTV)



**Recruitment of Volunteers & Partners – Task 2-2**

NRPC communicated with several partners to successfully host events like the outdoor cleanups and the story telling event including: FNLC, ECO AmeriCorps, MRBA, FCNRCD, Franklin Grand Isle Tobacco Coalition, St. Albans Museum, LCBP, and VPIRG. Volunteers were recruited along the outreach channels of each organization using websites, email chains, social media posts, Front Porch Forum listings and newsletters. A minimum of 218 volunteers assisted with FCS-led and sponsored events.

## Outfall 14 IDDE Memorandum



To: Chip Sawyer, Director of Planning and Development  
Marty Manahan, Director of Public Works  
City of St. Albans

From: Watershed Consulting

Date: March 28, 2024

Re: ***City of St. Albans Illicit Discharge Detection and Elimination (IDDE) – 2023/2024 Advanced Investigation***

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This memorandum summarizes our progress to date on the City of St. Albans IDDE – 2023/2024 Advanced Investigation project at Outfall 14. This outfall was initially sampled in 2018 and was flagged for advanced investigation due to high E. Coli concentrations. Advanced Investigation continued in Fall of 2023 and included resampling of the outfall and additional sampling throughout the storm line. In December 2023, Smoke tests, dye tests, and camera work were performed to pinpoint the source of contamination. In February 2024, due to observation of raccoons in the storm line, a microbial source tracking sample was collected and analyzed for human fecal contamination.

### Overview

Outfall 14 is located along Steven's Brook near 92 Lincoln Ave in St. Albans City, VT. This outfall was evaluated on October 18<sup>th</sup>, 2023. Sample results revealed a high concentration of E. Coli at >2,419.6 MPN/ 100 mL. This outfall also had slightly elevated levels of anionic surfactants at 0.232 mg/L (threshold >0.20 mg/L) and a slightly elevated chlorine concentration of 0.08 mg/L (threshold >0.06 mg/L). To narrow down the source of contamination, especially concerning the elevated E. Coli concentration, advanced investigation was performed on this outfall at seven stormwater manholes located upstream of outfall 14.

#### **Outfall 14 – Manhole 1: located at intersection of Lincoln Ave and Ferris St – October 25<sup>th</sup>, 2023**

Flow from Manhole 1 was sampled and revealed an anionic surfactant concentration of 0.559 mg/L, well above the threshold of 0.2 mg/L. E. Coli results returned a concentration of >2,419.6 MPN/ 100 mL.

#### **Outfall 14 – Manhole 2: located at intersection of Lincoln Ave and Bishop St – October 25<sup>th</sup>, 2023**

Flow at Manhole 2 revealed slightly elevated anionic surfactants at 0.25 mg/L (threshold >0.2 mg/L). E. Coli results returned a concentration of 2,419.6 MPN/ 100 mL.

**Outfall 14 – Manhole 3: located at intersection of Bishop St and High St – October 25<sup>th</sup>, 2023**

Flow at Manhole 3 was sampled and revealed an elevated anionic surfactants concentration of 0.322 mg/L. E. Coli results returned an elevated concentration of 816.4 MPN/ 100 mL. This is below the sampling threshold, but warrants additional attention given the comparatively lower surrounding results.

**Outfall 14 – Manhole 4: located at intersection of Bishop St and Smith St – October 25<sup>th</sup>, 2023**

Flow at Manhole 4 was sampled and revealed an elevated anionic surfactants concentration of 0.307 mg/L. E. Coli results returned a concentration of 135.4 MPN/ 100 mL.

**Outfall 14 – Manhole 5: located at intersection of Bishop St and Smith St – October 25<sup>th</sup>, 2023**

Flow at Manhole 5 was sampled and revealed an elevated anionic surfactants concentration of 0.349 mg/L. E. Coli results returned a concentration of < 1.0 MPN/ 100 mL.

**Outfall 14 – Manhole 6: located at intersection of Lincoln Ave and Bank St – November 3<sup>rd</sup>, 2023** Flow at Manhole 6 was sampled and revealed an elevated anionic surfactants concentration of 0.361 mg/L. E. Coli results returned a concentration of 167.0 MPN/ 100 mL.

**Outfall 14 – Manhole 7: located at intersection of Lincoln Ave and Congress St – November 3<sup>rd</sup>, 2023**

Flow at Manhole 7 was sampled and revealed an anionic surfactants concentration of 1.142 mg/L, well above the threshold of 0.2 mg/L. E. Coli results returned a concentration of 980.4 MPN/ 100 mL.

Given the prevalence of elevated parameters throughout the stormline, particularly E. Coli, it was determined that additional measures were necessary to pinpoint the source(s) of contamination.



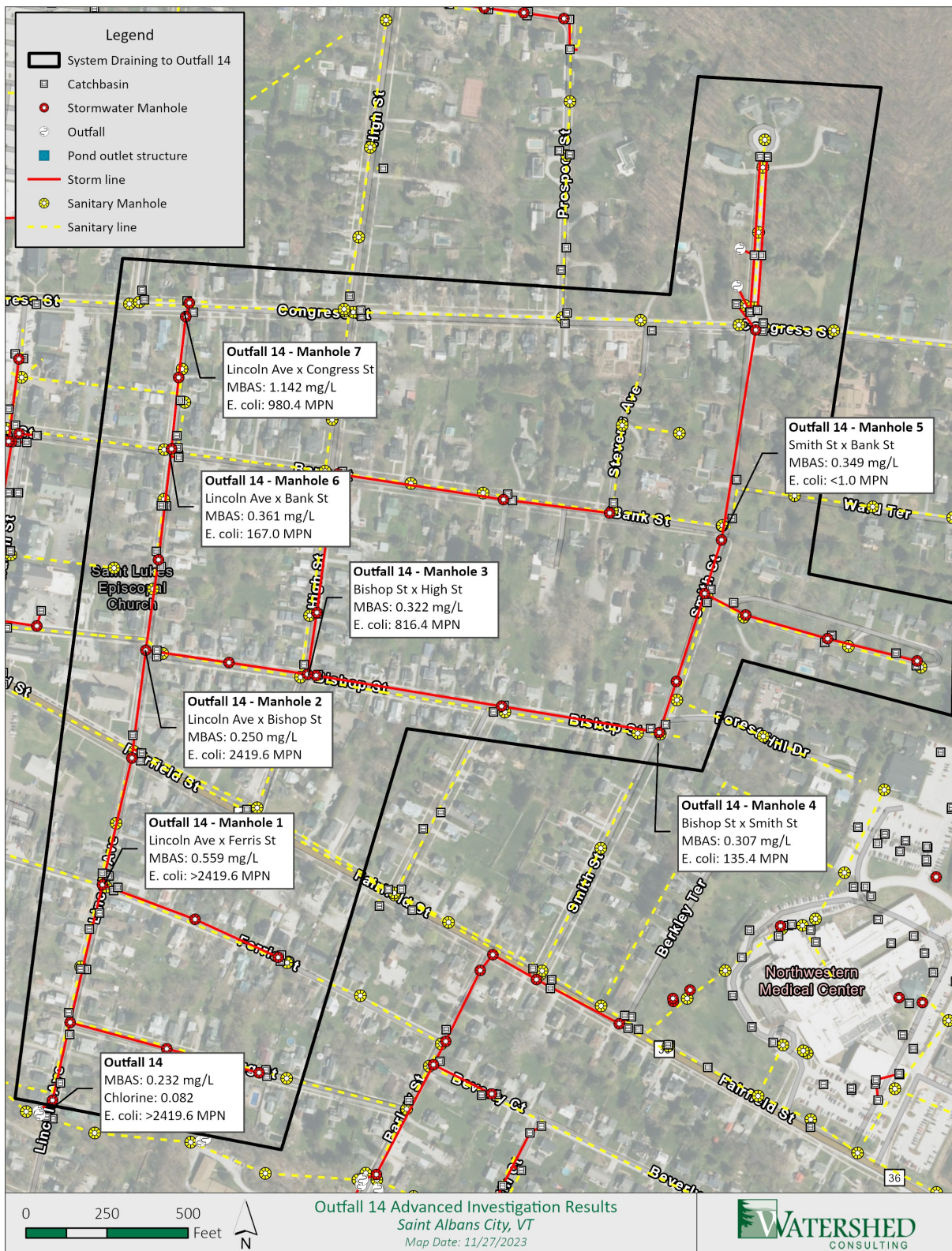


Figure 1: Outfall 14 Location with Stormwater Infrastructure and 2023 Sampling Data

## Advanced Investigation – Smoke, Dye, Camera

On December 28<sup>th</sup>, 2023, Watershed Consulting, along with BP Wastewater Services of VT, performed advanced investigation of outfall 14 in response to elevated E. Coli values found at the outfall and up the stormline. Smoke tests, dye tests, and cameras were used to investigate potential sources of contamination.

A smoke test was conducted at the stormwater manhole occurring at the intersection of Lincoln Ave and Rugg Street. This stormwater manhole (referred to as Manhole 8/MH8) is relatively deep and had substantial flow at the time of investigation. Smoke came out of all catchbasins upstream of the manhole on Lincoln Ave up to Bishop Street. The home at 72 Lincoln Ave had smoke coming from its sewer vent. The occupant of 72 Lincoln Ave allowed us to perform a dye test, and dye was flushed down the toilet. Dye was observed in the sewer line, and no dye was observed in the stormline from 72 Lincoln Ave, indicating that their sewer is not connected to the stormline. However, smoke was observed in the sewer manhole located on Lincoln Ave between Rugg Street and Ferris Street.

Another smoke test was performed in the sewer manhole on Lincoln Ave between Rugg Street and Ferris Street. Smoke was observed in a stormwater catchbasin directly in front of 70 Lincoln Ave. Smoke was also observed at this catchbasin when the stormline was smoked. Upon investigation, a 4" clay tile drain was found in the catchbasin, and a camera was inserted. The occupant at 70 Lincoln flushed their toilet, and, using a camera, it was confirmed that the tile drain is connected to the sewer line. Adjacent to the clay tile drain, there is a larger galvanized culvert that connects to the stormline which was confirmed by camera.

Camera work was attempted within the stormwater manhole at the intersection of Rugg Street and Lincoln Ave (MH8). Unfortunately, due to large rocks and debris, proper footage could not be obtained as the camera was unable to pass over these obstacles.

Additionally, in the stormwater manhole at the intersection of Lincoln Ave and Rugg Street, at least one raccoon was observed, indicating the possibility that the source of contamination may be raccoon fecal contamination.





Figure 2: Outfall 14 Advanced Investigation with BP Waste and Microbial Source Tracking

## Microbial Source Tracking

The observation of raccoons in the storm line indicated the potential for the raccoons to be the source of E. Coli contamination. To confirm the biological source of the E. Coli contamination, a microbial source tracking (MST) analysis was performed. A sample taken directly from outfall 14 was collected on February 6<sup>th</sup>, 2024, and shipped to Montclair State University to be analyzed for the presence of human DNA markers. The results detected human markers, which indicate the presence of human fecal contamination, ruling out the possibility of raccoon fecal contamination as the sole source of contamination.

## Recommendations

Further investigation is needed to confirm the source of contamination at outfall 14.

Recommended next steps include:

- Additional E. Coli sampling at key points along the storm line, especially upstream of manhole 8 closer to the intersection with Fairfield Street.
- Clean the storm line and vactor catch basins along Lincoln Ave.
- Conduct additional camera work after the storm line has been cleaned.
- Seal the sewer/storm line connection discovered at the catchbasin in front of 70 Lincoln Ave.
- Upon further E. coli sampling, consider additional MST sampling, dye testing and smoke testing at key locations in the storm and sewer system.

## Attachments

Attachment 1 – Microbial Source Tracking Analytical Report

Attachment 2 – Endyne Lab Reports: Field Sampling Results



**Montclair State University**

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**NJCWST**

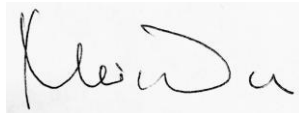
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**New Jersey Center for Water Science and Technology**

## **Analytical Report**

**For: Watershed Consulting Associates, LLC**

**Project: St. Albans - IDDE ADV Microbial Source Tracking**



**Meiyin Wu, Ph.D.**

**Director**

**Report Date: 02/20/2024**

**Certified Water Analysis Laboratory (NJDEP # 07105)**

**New Jersey Center for Water Science and Technology**

**Montclair State University**

**1 Normal Ave, Montclair, NJ 07043**

**Phone: (973) 655-3711**

**Email: [waterlab@montclair.edu](mailto:waterlab@montclair.edu)**

### Analytical Results

Analyte	Sample ID	Date Collected	Date Analyzed	Result	Qual	Unit
Human marker	OF14	2/6/2024	2/15/2024	123		copies/mL

### Notes- Human marker HF183

Reference: USEPA Method 1696

Qualifier K indicates “less than” the value of the results

Minimal Reporting limits (MRL): 10 marker gene copies/mL

## Chain of Custody – Field Form

[illegible]



Watershed Consulting Assoc.

PO Box 4413

100879

Burlington, VT 05406

Atten: Samplers Name

PROJECT: St. Albans IDDE (STA)

WORK ORDER: **2310-33330**

DATE RECEIVED: October 18, 2023

DATE REPORTED: October 19, 2023

SAMPLER: Clare Girrard

### Laboratory Report

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. All required method quality control elements including instrument calibration were performed in accordance with method requirements and determined to be acceptable unless otherwise noted.

The column labeled Lab/Tech in the accompanying report denotes the laboratory facility where the testing was performed and the technician who conducted the assay. A "W" designates the Williston, VT lab under NELAC certification ELAP 11263; "R" designates the Lebanon, NH facility under certification NH 2037 and "N" the Plattsburgh, NY lab under certification ELAP 11892. "Sub" indicates the testing was performed by a subcontracted laboratory. The accreditation status of the subcontracted lab is referenced in the corresponding NELAC and Qual fields. The Williston, VT facility is also ISO/IEC 17025:2017 accredited for Total Coliform and E coli by SM9223B.

The NELAC column also denotes the accreditation status of each laboratory for each reported parameter. "A" indicates the referenced laboratory is NELAC accredited for the parameter reported. "N" indicates the laboratory is not accredited. "U" indicates that NELAC does not offer accreditation for that parameter in that specific matrix. Test results denoted with an "A" meet all National Environmental Laboratory Accreditation Program requirements except where denoted by pertinent data qualifiers. Test results are representative of the samples as they were received at the laboratory.

Endyne, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose.

Reviewed by:

Harry B. Locker, Ph.D.  
Laboratory Director

[www.endynelabs.com](http://www.endynelabs.com)

160 James Brown Dr., Williston, VT 05495  
Ph 802-879-4333 Fax 802-879-7103

56 Etna Road, Lebanon, NH 03766  
Ph 603-678-4891 Fax 603-678-4893



**Laboratory Report**

DATE REPORTED: 10/19/2023

CLIENT: Watershed Consulting Assoc.

WORK ORDER: 2310-33330

PROJECT: St. Albans IDDE (STA)

DATE RECEIVED: 10/18/2023

001	Site: St. Albans 26.1-C				Date Sampled: 10/18/23		Time: 13:33	
<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>	
E. coli	127.4	MPN/100 mL	SM 9223B (-16)	10/18/23 16:48	W ECM	A		
002	Site: St. Albans 26.1-C-ADV				Date Sampled: 10/18/23		Time: 14:17	
<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>	
E. coli	2.0	MPN/100 mL	SM 9223B (-16)	10/18/23 16:48	W ECM	A		
003	Site: St. Albans 39.2-ADV				Date Sampled: 10/18/23		Time: 11:56	
<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>	
E. coli	34.1	MPN/100 mL	SM 9223B (-16)	10/18/23 16:48	W ECM	A		
004	Site: St. Albans 39.2				Date Sampled: 10/18/23		Time: 11:00	
<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>	
E. coli	12.1	MPN/100 mL	SM 9223B (-16)	10/18/23 16:48	W ECM	A		
005	Site: St. Albans 39.2-ADV				Date Sampled: 10/18/23		Time: 11:56	
<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>	
E. coli	37.3	MPN/100 mL	SM 9223B (-16)	10/18/23 16:48	W ECM	A		
006	Site: St. Albans 40-C				Date Sampled: 10/18/23		Time: 9:00	
<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>	
E. coli	< 1.0	MPN/100 mL	SM 9223B (-16)	10/18/23 16:48	W ECM	A		
007	Site: St. Albans 40-ADV				Date Sampled: 10/18/23		Time: 10:12	
<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>	
E. coli	< 1.0	MPN/100 mL	SM 9223B (-16)	10/18/23 16:48	W ECM	A		
008	Site: St. Albans 14				Date Sampled: 10/18/23		Time: 15:02	
<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>	
E. coli	> 2419.6	MPN/100 mL	SM 9223B (-16)	10/18/23 16:48	W ECM	A		

**ENDYNE Inc.**

www.endynelabs.com



Watershed Consulting Assoc.

PO Box 4413

100879

Burlington, VT 05406

Atten: Anna Sherman

PROJECT: St. Albans IDDE

WORK ORDER: **2310-34121**

DATE RECEIVED: October 25, 2023

DATE REPORTED: October 26, 2023

SAMPLER: Anna Sherman

### Laboratory Report

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. All required method quality control elements including instrument calibration were performed in accordance with method requirements and determined to be acceptable unless otherwise noted.

The column labeled Lab/Tech in the accompanying report denotes the laboratory facility where the testing was performed and the technician who conducted the assay. A "W" designates the Williston, VT lab under NELAC certification ELAP 11263; "R" designates the Lebanon, NH facility under certification NH 2037 and "N" the Plattsburgh, NY lab under certification ELAP 11892. "Sub" indicates the testing was performed by a subcontracted laboratory. The accreditation status of the subcontracted lab is referenced in the corresponding NELAC and Qual fields. The Williston, VT facility is also ISO/IEC 17025:2017 accredited for Total Coliform and E coli by SM9223B.

The NELAC column also denotes the accreditation status of each laboratory for each reported parameter. "A" indicates the referenced laboratory is NELAC accredited for the parameter reported. "N" indicates the laboratory is not accredited. "U" indicates that NELAC does not offer accreditation for that parameter in that specific matrix. Test results denoted with an "A" meet all National Environmental Laboratory Accreditation Program requirements except where denoted by pertinent data qualifiers. Test results are representative of the samples as they were received at the laboratory.

Endyne, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose.

Reviewed by:



Harry B. Locker, Ph.D.  
Laboratory Director

[www.endynelabs.com](http://www.endynelabs.com)

**Laboratory Report**

DATE REPORTED: 10/26/2023

CLIENT: Watershed Consulting Assoc.

WORK ORDER: **2310-34121**

PROJECT: St. Albans IDDE

DATE RECEIVED: 10/25/2023

001	Site: St. Albans 14-MH1			Date Sampled: 10/25/23		Time: 11:30	
<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>
E. coli	> 2419.6	MPN/100 mL	SM 9223B (-16)	10/25/23 17:00	W ECM	A	
002	Site: St. Albans 14-MH2			Date Sampled: 10/25/23		Time: 14:04	
<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>
E. coli	2419.6	MPN/100 mL	SM 9223B (-16)	10/25/23 17:00	W ECM	A	
003	Site: St. Albans 14-MH3			Date Sampled: 10/25/23		Time: 14:29	
<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>
E. coli	816.4	MPN/100 mL	SM 9223B (-16)	10/25/23 17:00	W ECM	A	
004	Site: St. Albans 14-MH4			Date Sampled: 10/25/23		Time: 14:30	
<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>
E. coli	135.4	MPN/100 mL	SM 9223B (-16)	10/25/23 17:00	W ECM	A	
005	Site: St. Albans 14-MH5			Date Sampled: 10/25/23		Time: 14:45	
<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>
E. coli	< 1.0	MPN/100 mL	SM 9223B (-16)	10/25/23 17:00	W ECM	A	

Watershed Consulting Assoc.

PO Box 4413

100879

Burlington, VT 05406

Atten: Samplers Name

PROJECT: St. Albans IDDE

WORK ORDER: **2311-34975**

DATE RECEIVED: November 03, 2023

DATE REPORTED: November 06, 2023

SAMPLER: Anna Sherman

### Laboratory Report

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. All required method quality control elements including instrument calibration were performed in accordance with method requirements and determined to be acceptable unless otherwise noted.

The column labeled Lab/Tech in the accompanying report denotes the laboratory facility where the testing was performed and the technician who conducted the assay. A "W" designates the Williston, VT lab under NELAC certification ELAP 11263; "R" designates the Lebanon, NH facility under certification NH 2037 and "N" the Plattsburgh, NY lab under certification ELAP 11892. "Sub" indicates the testing was performed by a subcontracted laboratory. The accreditation status of the subcontracted lab is referenced in the corresponding NELAC and Qual fields. The Williston, VT facility is also ISO/IEC 17025:2017 accredited for Total Coliform and E coli by SM9223B.

The NELAC column also denotes the accreditation status of each laboratory for each reported parameter. "A" indicates the referenced laboratory is NELAC accredited for the parameter reported. "N" indicates the laboratory is not accredited. "U" indicates that NELAC does not offer accreditation for that parameter in that specific matrix. Test results denoted with an "A" meet all National Environmental Laboratory Accreditation Program requirements except where denoted by pertinent data qualifiers. Test results are representative of the samples as they were received at the laboratory.

Endyne, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose.

Reviewed by:



Harry B. Locker, Ph.D.  
Laboratory Director

[www.endynelabs.com](http://www.endynelabs.com)



**Laboratory Report**

DATE REPORTED: 11/06/2023

CLIENT: Watershed Consulting Assoc.

WORK ORDER: **2311-34975**

PROJECT: St. Albans IDDE

DATE RECEIVED: 11/03/2023

001 Site: 14-MH6 Date Sampled: 11/3/23 Time: 9:53

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>
E. coli	167.0	MPN/100 mL	SM 9223B (-16)	11/3/23 16:22	W ECM	A	

002 Site: 14-MH7 Date Sampled: 11/3/23 Time: 9:26

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>
E. coli	980.4	MPN/100 mL	SM 9223B (-16)	11/3/23 16:22	W ECM	A	

Watershed Consulting Assoc.

PO Box 4413

100879

Burlington, VT 05406

Atten: Samplers Name

PROJECT: St. Albans IDDE

WORK ORDER: **2312-40130**

DATE RECEIVED: December 28, 2023

DATE REPORTED: December 29, 2023

SAMPLER: Clare Girard

### Laboratory Report

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. All required method quality control elements including instrument calibration were performed in accordance with method requirements and determined to be acceptable unless otherwise noted.

The column labeled Lab/Tech in the accompanying report denotes the laboratory facility where the testing was performed and the technician who conducted the assay. A "W" designates the Williston, VT lab under NELAC certification ELAP 11263; "R" designates the Lebanon, NH facility under certification NH 2037 and "N" the Plattsburgh, NY lab under certification ELAP 11892. "Sub" indicates the testing was performed by a subcontracted laboratory. The accreditation status of the subcontracted lab is referenced in the corresponding NELAC and Qual fields. The Williston, VT facility is also ISO/IEC 17025:2017 accredited for Total Coliform and E coli by SM9223B.

The NELAC column also denotes the accreditation status of each laboratory for each reported parameter. "A" indicates the referenced laboratory is NELAC accredited for the parameter reported. "N" indicates the laboratory is not accredited. "U" indicates that NELAC does not offer accreditation for that parameter in that specific matrix. Test results denoted with an "A" meet all National Environmental Laboratory Accreditation Program requirements except where denoted by pertinent data qualifiers. Test results are representative of the samples as they were received at the laboratory.

Endyne, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose.

Reviewed by:



Harry B. Locker, Ph.D.  
Laboratory Director

[www.endynelabs.com](http://www.endynelabs.com)

**Laboratory Report**

DATE REPORTED: 12/29/2023

CLIENT: Watershed Consulting Assoc.

WORK ORDER: **2312-40130**

PROJECT: St. Albans IDDE

DATE RECEIVED: 12/28/2023

001	Site: OF 14	Date Sampled: 12/28/23	Time: 12:58
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<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>
E. coli	> 2419.6	MPN/100ml	SM 9223B(16)	12/28/23 16:06	W CM	A	

002	Site: OF 14 - MH8 Lincoln x Rugg	Date Sampled: 12/28/23	Time: 13:11
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<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date/Time</u>	<u>Lab/Tech</u>	<u>NELAC</u>	<u>Qual.</u>
E. coli	613.1	MPN/100ml	SM 9223B(16)	12/28/23 16:06	W CM	A	