

Minimum Control Measure Reporting						
GP Part	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?
MM#1: Public Education and Outreach on Stormwater Impacts						
1.c (1)	Website maintained with locally relevant stormwater information	Number of updates made; number of visits to the website	Updated website to include four subpages focusing on 1) reducing and eliminating runoff 2)working collaboratively 3) Restoration and Control Plans 4) Resources Added info about Adopt-a-drain program	https://www.essexjunction.org/departments/stormwater	Add SW Ordinance and SW Utility page	
1.c (2)	Maintain a program to identify opportunities and provide technical assistance on Low Impact BMPs		Land Development Code was adopted in June 2023 after a comprehensive review and changes made by CCRPC, staff and City Planning Commission		Develop SW Ordinance	
1.c (3)	Participate in a regional stormwater education strategy or develop an MS4 specific program	Participate in and provide financial support for operation of the regional Rethink Runoff campaign consisting generally of periodic advertising throughout each year supplemented by a survey of residents every 5 years to track reported behavior with regards to residential stormwater BMPs via an annual report provided by the Chittenden County RPC's subcontractor. The permittee will document annual number of site visits to www.rethinkrunoff.org as well as well as other metrics.	http://rethinkrunoff.org/ Pay annual dues set based on program needs, range from \$6,000-\$7,500 per community plus staff time to chair committee and attend meetings est. \$2,000	MCM#1_2023_AnnualReport_RethinkRunoff		
Other	Create educational brochure about pet waste and water quality	Number of brochures handed out	Updated brochure created and put in display rack at main Municipal office. Posted on City website a PR titled "Dog Waste and Composting: A reminder for a Healthier City", using info posted on Rethink Runoff to address animal waste concerns from residents this summer.			
Other	Provide biodegradable pet waste bags to the community	Number of bags purchased or distributed	Purchased 12000 pet waste for community dispensers along walking paths. Basket with Rethink Runoff branded biodegradable pet waste bags and dispensers, sign with scoop the poop reminder and pet waste brochure at municipal office and library continuously kept stocked. Bags handed out with annual dog licensing for City residents at municipal office.		Continue same practices.	
Other	Install pet waste dispensers	Number of pet waste dispensers	2 along bike path in City		Continue same practices.	
Other	Install signs with the message "pick up after your pet"	Number of signs	No new signs were posted in 2023. Approximately 12 posted around municipality.		Inventory # of signs and GPS locations	
Other	Provide educational talks about the importance of water quality including virtual or physical tours of the Wastewater Treatment Facility	Number of classroom visits, virtual tours, or tours given; number of students	13 WWTF tours given which highlight the difference between SW and WW reaching 105 people. 3 Stormwater only talks given reaching 20 people.		Include link on website to request a tour	
Other	Review of Land use codes to ensure consistency with LID practices as they apply to community and compliance goals	Percentage of land use codes reviewed	The planning commission in partnership with CCRPC spent 2021 & 2022 proposing updates for the LDC by reviewing section by section. Stormwater section was updated to focus on LID and infiltration practices including P tracking. The changes were adopted in 2023.		Develop SW Ordinance	
Other	Review of site plans to ensure incorporation of LID and BMPs in compliance with local regulations	Number of site plans reviewed				
Other	Incorporate LID into municipal projects	Number of projects retrofitted	7 0.00			
MM#2: Public Involvement and Participation						
2.d	Participate in a regional stormwater public involvement and participation strategy or develop an MS4 specific program	Participate in a regional stormwater public involvement and participation strategy or develop an MS4 specific program	http://rethinkrunoff.org/the-stream-team/ Participate and pay for in Adopt-a-drain initiative	MCM#2_2023_AnnualReport_RethinkRunoffStreamTeam		
Other	Participate in Vermont Green-up Day or organize stream clean-up day	Report tons of trash and other materials collected	Participated in Green-up day collecting 0.4 tons of trash and 6 tires. We also picked up 850 Christmas trees in January.			
MM#3: Illicit Discharge Detection and Elimination						
3.a (1)	Develop and maintain a GIS or AutoCAD map of the storm sewers in the regulated MS4 showing all outfalls	Number of outfalls field verified; number of map updates made	Two summer interns were hired whose main task was to inspect all outfalls and permitted catch basins plus some non-permitted. They used Field Collector which is a ArcGIS app and logging any changes needed to map. These were then reviewed updated by CCRPC who is providing the City GIS support.			
3.a (2)	Develop ordinance or policy prohibiting non-stormwater discharges and implement enforcement procedures	Status report of proposed changes and approved changes to local regulation	See chapter 7 pg. 208 of pdf or page 190 of the LDC	https://www.essexjunction.org/fileadmin/files/Ordinances_Codes/Land_Development_Code/LDC_Complete_20230705.pdf		
3.a (3)	Develop and implement a plan to detect and address non-stormwater discharges	Number of discoveries or complaints; Number resolve; Number of water quality test conducted or samples collected	Number of discovers: 1 Number of Resolved: 1 Public Works truck spilt diesel along curb as it tipped over in the bed of the paving pick-up and driver did not notice right away. It was reported by a resident. Public works put speedy dry on the spill and put oil pigs in surrounding catch basins. The used the street sweeper to clean up the speedy dry.			

3.a (4)	Inform public on the dangers of illegal discharges	Number of door tags placed; number of IDDE brochures handed out; number of public notices	Number of door tags placed: 0 Number of IDDE brochures handed out: 1 Number of public notices: 0			
3.a (6)	Status of monitoring activities:					
	Outfalls Inspected:		150 outfalls-Pictures taken, notes of any maintenance needed in database			
	Number of dry-weather samples taken:			0		40 outfalls will be sampled
	Feet of stormwater drainage pipe inspected:		Closed Circuit TV stormwater lines as part of a grant received. Approximately 200 pipes			Conducting round 3 of tv of lines and applied for 4th round
	Discharges Detected:			0		
	Discharges Corrected:			0		
Other	Review of Stormwater Ordinance and Land Development Code to effectively prohibit illicit discharge	Status report of proposed changes and approved changes to local regulation	LDC already has an illicit discharge section and was updated as part of the 2023 edition			Develop SW Ordinance
MM#4: Construction Site Stormwater Runoff Control						
4.a (1)	Develop and implement procedures to ensure that construction activities undertaken by the MS4 are properly permitted	Status report of proposed changes & approved changes to local regulation	Follow internal procedures including what is outline in the LDC, grant funding procedures to bring projects from 100% design to installation			
	Number of permitted MS4 construction projects:		2 1)Brickyard Culvert replacement 2) Crescent Connector			
4.a (2)	Review existing policies to determine effectiveness, consistency with state standards; Amend for consistency with state standards	Status report of proposed changes & approved changes to local regulation	Reviewed, made changes and incorporated into LDC 2023			Develop SW Ordinance
4.a (3)	Develop and implement ordinance that regulates earth disturbance <1ac	Status report of proposed changes & approved changes to local regulation	Reviewed, made changes and incorporated into LDC 2023			Develop SW Ordinance
	Number of projects with <1ac of disturbance subject to MS4 requirements:			0		
Other	Inspect construction sites for compliance with stormwater construction permits	Number of construction site inspections	Approx. 80/project (daily) during the construction of the Brickyard Culvert replacement project and Crescent Connector. The inspections were conducted full time by Hamlin Engineers who served as construction site inspectors for the project but staff checked in on the site during the construction.			Crescent Connector
Other	Provide erosion control brochures to zoning permit applicants	Number of brochures handed out	30 Low Risk handbooks/Erosion control brochures			Have summer interns update brochure
MM#5: Post Construction Stormwater Management for New Development and Redevelopment						
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	Status report of proposed changes & approved changes to local regulation	Reviewed, made changes and incorporated into LDC 2023			Develop SW Ordinance
5.e	Develop and implement procedures to identify projects that disturb >1ac but do not require a state post-construction permit		Reviewed, made changes and incorporated into LDC 2023			Develop SW Ordinance
	Number of projects >1ac of disturbance <1ac of impervious:			0		
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		Reviewed, made changes and incorporated into LDC 2023			Develop SW Ordinance
5.g (1)	Develop and implement procedures for inspecting projects subject to the MS4's ordinance	Number of post-construction site inspections conducted	Trained summer interns to conduct periodic inspections especially after heavy rain event- 7 inspections			
	Number of STPs (without state permits) inspected by MS4:			3		
5.g (2)	Develop and implement procedures to ensure that development activities undertaken by the MS4 are properly permitted		Follow internal procedures including what is outline in the LDC, grant funding procedures to bring projects from 100% design to installation			
MM#6: Pollution Prevention and Good Housekeeping for Municipal Operations						
6.b (2)	Conduct stormwater training for staff		Listened to webinars related to wetland permitting, salt use reduction, MS4 Subcommittee and CWAC presentations			
6.b (3)	Implement controls for reducing or eliminating the discharge of pollutants from the MS4					
	STPs constructed, upgraded, & maintained		List in BMP tracking table			
	STPs incorporated into the MS4		List in BMP tracking table			
	Inspections performed on fleet vehicles, buildings, garages, parks, open spaces		Continuous part of operations at our Public Works garage			
	Catch basin cleaning		Complete 'Non Structural Tab'			
	Street Sweeping		Complete 'Non Structural Tab'			
Leaf/organic waste removal program		Complete 'Non Structural Tab'				

6.b (4)	Develop and implement procedures for proper disposal of wastes	Participation in proper disposal of hazardous waste in compliance with CSWD requirements; provide documentation of compliance; tons of waste disposed	PW picked up 850 Christmas trees. Made appointments at CSWD to bring special waste like electronics, waste oil, oily rags, waste glycol. Usually make 1-2 runs per year. Also recycle metal and wood at local disposal facilities.			
6.c	Prohibit use of phosphorus containing fertilizers on facility operations unless warranted by a soil test; submit copy of test		No fertilizer was used on municipal owned properties			
6.d	Participate in the Agency's Municipal Compliance Assistance Program (or other audit program) for municipal garages	Provide documentation of compliance	As reported in 2019 Annual report received an email from Ed Antczak an Environmental Program Manager with DEC this program is no longer in existence. "The MCAP Program, overseen by the Environmental Assistance Office, ended several years ago. The last database entry for an on-site visit was 2013. "			
Other	inspect MS4 permitted infrastructure	Number of STP inspections; Number of STPs maintained	# CB inspected: 600 # OF inspected: 200 #STP inspected: 7 #cubic yard material removed from STP: 3.5 #CB cleaned: 76 #cubic yards material removed from CBs: 69 List of OF need ditching established. Securing easements or access to complete work.			
Other	Installation of STPs	Number of STPs installed	0			
Other	Installation of retrofitted STPs	Number of STPs retrofitted	0			
Other	Inventory and Installation of "No Dumping, Drains to Waterways" markers or painted stencils on catch basins	Number of "No Dumping, Drains to Waterways" markers installed; Number of basins stenciled	Inventory of where markers are located			
Other	Continue the Joint Stormwater Coordination Committee	Number of times met or informed the committee of stormwater progress via email or mailings	0- This committee is discontinued with the separation of the two communities			Remove in 2023
Other	Develop budget for stormwater permit compliance including BMP implementation	Annual stormwater operating budget by fiscal year	Fiscal Year 2024 \$167,434, this is the first year in which the City SW budget was fully part of the general fund and not split with the Town of Essex due to full separation of the two communities		A SW utility will be launched in late 2024	

Additional MS4 Reporting Requirements	
Annual Review of SWMP completed	Yes as part of the reapplication due March 26, 2024
Results of information collected and analyzed, if not included elsewhere	No Water Quality Sampling was performed in 2023
Notice that permittee is relying on another entity to satisfy some of its permit obligations	Pluck/WNRCD/CCRPC for MM1/MM2
Estimated funds spent on stormwater management for the fiscal year*	\$167,434
Other information, if applicable	

Impaired Waters Response Plan	
Impaired Stream	
Impairment	i.e. Chloride
Status of implementation	
Planned activities for upcoming year	
Other information, if applicable	

* Optional response.

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.)	Mallet's Bay	Main Lake	
Area of streets swept (acres)	67.36	135.87	
P Load from Streets where sweeping occurs (kg/year)	45.6	108.97	
Sweeper Frequency	Monthly	Monthly	Monthly
Sweeper Technology	Vacuum Assisted	Vacuum Assisted	
Year sweeping started	2008	2008	
If weekly or monthly, number of months streets are swept	8	8	
Phosphorus Credit	2.13%	2.13%	
Phosphorus Reduction from Street Sweeping (kg/year)	0.9728	2.324693333	
Catch Basin Cleaning			
P Load from Streets where catch basin cleaning occurs (kg/year)			
Phosphorus Credit	2%	2%	2%
Phosphorus Reduction from Catch Basin Cleaning(kg/year)			

2023 Data

CB Material removed (cubic yards)	69
# of basins cleaned	76
# Vortech units cleaned	3
Street Sweeping	
# lane miles swept	102
Amount material removed (cubic yards)	732.5

Table 2. Measurement of material tracking method	
Combined dry weight of material collected (kg) OR Cubic yards of material collected	
Number of sediment samples taken	
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

	Indian Brook	Sunderland Brook
Summary of actions taken to implement FRP components	All projects needed to meet the targets for Indian Brook in the City have been completed as of 2020. The Town of Essex still has one outstanding project-LDS Church which is to be constructed in 2024.	No actions were taken on the FRP for Sunderland Brook as the STPs currently in place demonstrate the City and Town is exceeding the high flow target. See State approved FRP for more info.
What is the MS4's overall status in implementing the FRP?	City owned project-100%, Town has 1 remaining project. Overall 95%	100%
Summary of BMP implementation for the next calendar year, if any.	0	0
Assessment of ability to meet outstanding schedule items	None	None

Stream Flow Monitoring

Does your municipality conduct stream flow monitoring?	Yes. We hired Stone Environmental to continue stream flow monitoring of Indian Brook after the State contract expired.
--	--

Steam Corridor Protection

Ordinance or regulation adopted to protect and regulate development in sw impaired water stream corridors	https://www.essexjunction.org/fileadmin/files/Ordinances_Codes/Land_Development_Code/LDC_Complete_20230705.pdf
---	---

Phosphorus Control Plan Development (PCP)	
Road Erosion Inventory (REI)	CCRPC uploaded to portal on City of Essex Jct behalf
Are there any segments on the MRGP Implementation Table portal that are incomplete? If so, please describe how the data will be completed.	There is some conflicting data that CCRPC needs to update on City behalf in Implementation Table regarding project completion timelines and erosion removed, emailed 3/27/2024
Roads and Outlets planned for upgrade in calendar year 2023.	EJCT034 with associated road segment 1337.1 located on Athens Dr was completed in 2023.
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?	We completed the Acorn cul-de-sac retrofit in 2022. We installed groundwater monitoring wells in a potential PCP project area. Using the MS4 formula grant to develop a large underground infiltration project at Hiawatha School property just outside the City ROW
Assessment of the ability to meet outstanding schedule items	Mallet's Bay structural and non structural practices implemented is showing exceed target by large margin of safety. More work to do in Main lake but have some potential projects at concept level
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.	No because we are not partnering with any private 3-acre sites at this time.