

City of Rochester – August 2022 Progress Update - MAAM

Planned Structural BMPs – The following list includes projects that are already planned in CIP, design phase, etc.

Year	Project	Description	Estimated Load Reduction Potential (lbs TN/yr)	Costs	2022 Progress Update	2023 Anticipated Progress
2021-23	Colonial Pines Sewer Extension - Phase 3	Phase 3 of a neighborhood sewer extension project with drainage infrastructure improvements	TBD	\$5,500,000	Construction of drainage infrastructure improvements is 80% complete.	Construction is anticipated to be completed by end of 2022.
2021-23	Strafford Square Roundabout	New roundabout installation project with drainage infrastructure improvements including new BMPs	3.59	\$6,000,000	First of two construction contracts is complete; second is anticipated to be awarded in Sep 2022.	Construction is anticipated to be on-going into 2023.
2022-23	Woodman Area Infrastructure Improvements	Neighborhood Complete Streets project with drainage infrastructure improvements including improved outfalls and new BMPs	6.01	\$7,000,000	Construction contract was awarded 4/23/2022. Construction has commenced.	Construction is anticipated to be on-going into 2023.
By 2025	Union Street Municipal Parking Lot	Parking lot reconstruction with drainage infrastructure improvements including new BMPs	7.14	TBD	Conceptual design is being reviewed. Final design is anticipated to begin in fall 2022.	Final design is anticipated to be completed in 2023.
By 2025	Wakefield Street Reconstruction	Complete Streets project with drainage infrastructure improvements including new BMPs	16.54	TBD	Design consultant has been selected by the City. Design has commenced.	Design to continue through 2023.

Non-structural BMPs – The following list includes existing ongoing and future planned efforts:

Anticipated Year of initial implementation (ongoing work)	Project	Description	Estimated Load Reduction Potential (lbs TN/yr)	Costs	2022 Progress Update	2023 Anticipated Progress
Ongoing	Street Sweeping	Sweep curbed streets monthly (Apr-Nov); sweep Downtown weekly (Apr-Nov)	250	TBD	Swept approximately 3,000 lane miles and removed 455 CY of sediment so far in 2022.	Continued high frequency of street sweeping.
Ongoing	Leaf Litter Management	Collect leaf litter monthly (Apr-May, Oct-Nov); collect bagged organic waste for 2 wks in spring and fall	690	TBD	Collected bagged leaf litter twice in May and plan for twice in November.	Continued frequency of leaf litter collection.
Ongoing	Leaf Litter Management	Provide location for residents to drop off leaf and yard waste year-round	TBD	TBD	Residential disposal of yard waste provided at WM.	Continue to provide yard waste disposal at WM.
Ongoing	Catch Basin Cleaning	Ensure CB sumps are no more than 50% full at any time	290	TBD	Cleaned 359 CBs so far in 2022; annual goal is 900 CBs.	Continue to target a goal of 25% of all CBs cleaned yearly.
Ongoing	Fertilizer Program	Exclusively use slow release fertilizer on municipal property; advocate for and work with State RE: nitrogen fertilizer restrictions	TBD	TBD	Continued stated fertilizer practices on municipal property.	Continue fertilizer practices and advocate with the State.

Other Efforts – The following list includes innovative efforts

Anticipated Year	Project	Description	Estimated Load Reduction Potential (lbs TN/yr)	Costs	2022 Progress Update	2023 Anticipated Progress
Ongoing	Existing Municipal Structural BMPs	More than 70 existing municipal structural stormwater BMPs have been catalogued in the City’s Asset Management Program.	1,080	TBD	BMPs inspected and begun to track for improved maintenance.	Entry of BMPs into PTAP is anticipated in fall 2022. Improved maintenance schedule.
2021-23	Colonial Pines Sewer Extension – Phase 3	Extension of public sewer collection system to connect homes on septic systems (Phase 3 – 71 properties)	364	\$5,500,000	Construction of sewer infrastructure is 75% complete; house connections have begun.	Construction is anticipated to be completed by end of 2022.
By 2022	Nitrogen Source Identification Report	Identify catchment areas with potentially high nitrogen loading and BMP potential, including primarily municipal properties.	TBD	TBD	Draft report was finalized in June 2022.	Review potential catchments with high loading and BMP potential.
Ongoing	Public Education/ Outreach	Distribute targeted messaging regarding grass clippings/ fertilizer (Apr-May), pet waste (Jun-Jul), and leaf litter (Aug-Oct)	TBD	TBD	Grass clippings/ fertilizer, pet waste, and leaf litter messages delivered.	Continue messaging to target audiences during seasonally appropriate time periods.
Ongoing	Public Education/ Outreach	Distribute targeted messaging regarding septic system maintenance and LID development	TBD	TBD	Septic system and LID messages delivered.	Continue messaging to target audiences.

Other Efforts (continued from previous page) – The following list includes innovative efforts

Ongoing	Private Development/ Redevelopment	Enforce City’s updated Chapter 218 Stormwater Ordinance requiring treatment	100-300 ¹	TBD	June 7, 2022 Stormwater Ordinance revision requires pollutant accounting information by developers.	Continued enforcement of Stormwater Ordinance/use of PTAP for pollutant tracking.
2021	Staffing/Resources	City funded a third Assistant City Engineer position to focus on stormwater related projects and Ordinance enforcement	TBD	TBD	An applicant has signed an offer of employment for the third Assistant City Engineer position.	Anticipated increase in capacity to focus on stormwater.
Ongoing	Septic System Programs	Advocate for and work with State RE: advanced septic system treatment for nitrogen and enforcement of connection to public sewer law within 100’	TBD	TBD	NHDES met with certain communities	Continue to advocate for amendments to the septic system requirements.
2022-2023	Water Pollution and Flooding Reduction Study	Through a public workgroup and broader public outreach the City will consider a dedicated stormwater funding source.	TBD	TBD	A workgroup has been established that will begin to meet in fall 2022.	Continued workgroup meetings through 2023.

¹ The City’s estimates for load reductions of 100 to 300 lbs. N/year were estimated to occur as a result of structural BMP retrofits through redevelopment on commercial properties as required by revised City stormwater ordinance. These estimates were based on an assumption that 10 to 50 acres of impervious area are redeveloped and retrofitted with BMPs, which depends upon actual development activity.

Pilot Projects – The following list includes pilot projects:

Anticipated Year	Project	Description	Estimated Load Reduction Potential (lbs TN/yr)	Costs	2022 Progress Update	2023 Anticipated Progress
2021	Pilot Septage Receiving Facility Upgrade	Receive septage at the Headworks Facility and observe process response	TBD	\$15,000	Pilot evaluation concluded that receiving septage at the headworks facility did not significantly impact secondary or tertiary WWTF processes.	Anticipated construction of the Septage Receiving Facility Upgrade by 12/31/23.

Initiatives at WWTFs – The following list includes efforts aimed at reducing TN output from WWTFs during the eelgrass growing season. Such efforts may include optimization of plants, projects aimed at reducing inflow/infiltration, facility upgrades, or similar measures.

Anticipated Year	Project	Description	Estimated Load Reduction Potential (lbs TN/yr)	Costs	2022 Progress Update	2023 Anticipated Progress
2023	Septage Receiving Facility Upgrade	Construct new septage receiving facility at a location more favorable for nitrogen treatment at the WWTF	TBD	\$800,000+	Completed pilot evaluation and received federal funding for construction of the Septage Receiving Facility Upgrade.	Anticipated design, bid and construction by December 31, 2023.
2022	Carbon Storage and Feed Building	Complete construction of a new building to facilitate storage and metered injection of a carbon source into the SND process	TBD	\$3,300,000+	Construction of the carbon storage and feed building project is 90% complete.	City anticipates completion of the carbon storage and feed building project by October 31, 2022.

Initiatives at WWTFs (continued from previous page) – The following list includes efforts aimed at reducing TN output from WWTFs during the eelgrass growing season. Such efforts may include optimization of plants, projects aimed at reducing inflow/infiltration, facility upgrades, or similar measures.

2022	Aeration Automation Project	Complete construction of automation equipment for operation of aeration; optimize for nitrogen removal with Septage Receiving and Carbon Feed	TBD	\$400,000	Installation of equipment and programming to optimize aeration automation is nearing completion.	City anticipates completion of this project by October 31, 2022.
2021-24	Sewer System Master Plan	Evaluate sewer collection system for sources of Inflow/ Infiltration	TBD	TBD	Scope of work submitted to EPA and NHDES in fall 2021. Ongoing efforts for data collection and monitoring including smoke testing during Summer 2022.	City anticipates continuing the master planning effort over the next couple of years, culminating in a final Master Plan.
2024	Nitrogen Reduction Report	Evaluate progress to date regarding nitrogen reduction and indicate any further action needed to ensure compliance with effluent limit	TBD	TBD	Ongoing efforts described above.	Ongoing efforts described above.

Co-Benefits of Nonpoint Source Reductions – Though beyond the scope of the submission called for in Part 3-1.c. of the General Permit, the MAAM communities feel it is important to plan and account for the removal of other pollutants or stressors of eelgrass coincident to the TN source reductions listed above. This dovetails with the monitoring efforts undertaken by MAAM and its partners, which is expected to include study of potential eelgrass stressors.

Anticipated Year	Project	Description	Estimated Reduction of TSS (lbs/yr)	Estimated Reduction of Phosphorus (lbs/yr)
2021-23	Colonial Pines Sewer Extension - Phase 3	Phase 3 of a neighborhood sewer extension project with drainage infrastructure improvements	TBD	TBD
2021-23	Strafford Square Roundabout	New roundabout installation project with drainage infrastructure improvements including new BMPs	TBD	TBD
2022-23	Woodman Area Infrastructure Improvements	Neighborhood Complete Streets project with drainage infrastructure improvements including improved outfalls and new BMPs	TBD	TBD
By 2025	Union Street Municipal Parking Lot	Parking lot reconstruction with drainage infrastructure improvements including new BMPs	TBD	TBD
By 2025	Wakefield Street Reconstruction	Complete Streets project with drainage infrastructure improvements including new BMPs	TBD	TBD
Ongoing	Street Sweeping	Sweep curbed streets monthly (Apr-Nov); sweep Downtown weekly (Apr-Nov)	TBD	TBD
Ongoing	Leaf Litter Management	Collect leaf litter monthly (Apr-May, Oct-Nov); collect bagged organic waste for 2 wks in spring and fall	TBD	TBD
Ongoing	Catch Basin Cleaning	Ensure CB sumps are no more than 50% full at any time	TBD	TBD
Ongoing, June 2021	Private Development/ Redevelopment	Enforce City's updated Chapter 218 Stormwater Ordinance requiring treatment	TBD	TBD