Agenda – Council – July 17, 2025

Report – Standing Policy Committee on Water, Waste and Environment – June 27, 2025

Item No. 4 Combined Sewer Overflow (CSO) Masterplan, Financial Update Environment Act Licence No. 3042

STANDING COMMITTEE RECOMMENDATION:

On July 8, 2025, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Water, Waste and Environment and submitted the following to Council:

1. That the report be received as information.

Report – Standing Policy Committee on Water, Waste and Environment – June 27, 2025

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On July 8, 2025, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Water, Waste and Environment and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On June 27, 2025, the Standing Policy Committee on Water, Waste and Environment concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

David Grant submitted a communication in opposition to the matter.

COUNCIL DECISION:

On April 29, 2021, Council concurred in the Notice of Motion, as amended, and adopted the following:

1. That an increase of 50% to the Combined Sewer Overflow budget between 2023-2026, to expedite the Armstrong Combined Sewer Overflow district work, be referred to the 2022 Budget Review Process.

2. That the Winnipeg Public Service be directed to provided annual financial updates to Council in September, through the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment, on the CSO Master Plan, including any potential budget reductions due to projects coming in under budget.

3. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing

ADMINISTRATIVE REPORT

Title: Combined Sewer Overflow (CSO) Masterplan, Financial Update Environment Act Licence No. 3042

Critical Path: The Standing Policy Committee on Water, Waste and Environment – Executive Policy Committee - Council

AUTHORIZATION

Author	Department Head	CFO	CAO
C.D. Wiebe, P.Eng., CAMP, Manager of Engineering Services	T. W. Shanks, M. Eng., P. Eng. Director, Water and Waste	T. Graham	S. Armbruster, Interim CAO

EXECUTIVE SUMMARY

Winnipeg has combined sewers servicing about one third of the city. These sewers were designed to overflow during wet weather events to protect homes from basement flooding. If there is an overflow, untreated wastewater can enter into our local waterways.

The City's Combined Sewer Overflow (CSO) Master Plan provides Winnipeg with a path to reduce the number of overflows over the next few decades. The goal is to capture 85 percent of CSO volume for the 1992 Representative Year. The provincial deadline for achieving this goal (the control target) is 2045. In 2024, the City achieved 77 percent capture of CSO volume. This is an improvement from the 74 percent capture estimate for the 2013 baseline year.

In 2024, there were 1,332 CSO events with an estimated sewage discharge of 12,186 megaliters (ML). This represents an increase from 2023 in both the number of CSO events and CSO volume. The amount of CSO discharged is heavily correlated to weather. Because 2023 was a significantly drier year, the above average rainfall and river levels in 2024 resulted in the increased discharge.

Over the next six years, the City is planning to invest another $255 million. This amount includes the 2022 Council approved budget increase to an average of $45 million per year (an extra $15 million or 50 percent per year), from 2024-2027.

The City committed around $14 million in 2024. This has increased our cumulative commitment to approximately $123 million since 2019. Uncommitted funds are accumulated for bigger projects like the Rutland land drainage trunk sewer planned for 2025.

RECOMMENDATIONS

That this report be received as information.

REASON FOR THE REPORT

On April 29, 2021, Council adopted the motion on re-costing of the Combined Sewer Overflow (CSO) Master Plan:

2. That the Winnipeg Public Service be directed to provide annual financial updates to Council in September, through the Standing Policy Committee on Water and Wastewater, Riverbank Management and the Environment, on the CSO Master Plan, including any potential budget reductions due to projects coming in under budget.

IMPLICATIONS OF THE RECOMMENDATIONS

There are no implications to receiving this report as information.

HISTORY/DISCUSSION

Budget and History

The Combined Sewer Overflow (CSO) Master Plan's estimated capital cost of $1.15 billion (2019 dollars), is based on the required infrastructure to meet the 85 percent control target for the 1992 representative year. The attached 2024 CSO Annual Report (Appendix A) provides the full breakdown of capital costs and budget forecasts.

Since 2013, the City has invested over $210.5 million in infrastructure and system upgrades under the CSO program. The City budgets an average of $30 million per year to meet compliance with Environment Act Licence No. 3042. In the 2022 Capital Budget Update, Council approved additional funds of $15 million per year from 2024 through 2027.

In the past five years, the City committed less than the $30 million allocated annually. This was primarily due to favourable bid pricing, which resulted in increased value for the program.

Table 1, below, shows the annual amount committed to contracts from 2019 to 2024.The uncommitted funds are accumulated for large strategic projects that cost more than the average annual budget. For example, the estimated cost for the Rutland land drainage trunk sewer is $65.7 million. The 2025 Capital Budget added an additional $41.5 million in funding for a total of $137 million of available funds. Approximately $88 million is forecasted to be committed in 2025.

Table 1: Yearly Total Committed to Contracts

Year	Committed to Contracts (in millions)
2019	$23.3
2020	$28.7
2021	$17.5
2022	$12.5
2023	$26.8
2024	$14.4
2025	$88.0 (estimated)

Individual contracts that exceed the major capital project threshold, currently set at $25 million, will be reported on to the Standing Policy Committee on Finance and Economic Development. For 2025, this will include the Ferry Road and Riverbend Combined Sewer Relief Works: Rutland Trunk Sewer.

Progress to Date

Percent Capture Performance

The goal of the CSO Master Plan is to capture 85 percent of wet weather flows. In 2024, the percent capture increased from 76 to 77 percent. The improvements to date are the result of completed combined sewer separation works in the Jefferson East, Cockburn/Calrossie, and Ferry Road/Riverbend districts and completed storm relief sewer (SRS) dewatering projects, as well as ongoing hydraulic modeling and reporting refinements. The percent capture will continue to increase once the final stages of the current district separation construction projects are completed.

2024 CSO Results

There were 1,332 CSO events in 2024, with an estimated sewage discharge of 12,186 megaliters (ML). This equates to an average of 18 events per combined sewer outfall (compared to 5,438 ML and 975 events for the 1992 representative year and 5,368 ML and 1,039 events in 2023). The 2024 CSO events and discharge values are higher than the 12-year average values. This is attributed to the higher rainfall and later spring rise and fall of river levels during 2024 (see Appendix A, Section 4).

Future Works

Separation Works

The Water and Waste Department will continue construction work in the Jefferson East, Cockburn/Calrossie, and Ferry Road/Riverbend districts. Planning and design work is ongoing in the Cockburn East, Mission, and Roland and Armstrong districts.

Real Time Control

Real time control (RTC) will provide sewer system control on a real time basis. This can be used to optimize flows to treatment plants and reduce overflows. This also provides opportunities to enhance the public notification system. RTC opportunities are investigated in each district for local and regional efficiencies. No opportunities were identified in Armstrong but potential opportunities have been identified for Cockburn East. RTC opportunities will also be evaluated for Mission and Roland.

Green Infrastructure

The design of Green Infrastructure (GI) technologies to reduce CSO volumes are incorporated into district design work as required by Environment Act Licence No.3042 Clause 8. GI infrastructure projects completed to date include work in the North East Exchange District and aspects of the Cockburn Sewer Separation project.

Two GI solutions in Armstrong are moving to detailed design. These solutions aim to improve sewer system performance by slowing rainwater entering the sewer system. They will also boost the number of trees in the area and provide opportunities for an urban garden for community-led local food production. Two more GI solutions in Cockburn East are progressing to preliminary design. GI solutions for Mission and Roland will be evaluated as that project progresses.

FINANCIAL IMPACT

Financial Impact Statement **Date:** May 12, 2025

Project Name:

COMBINED SEWER OVERFLOW (CSO) MASTER PLAN
FINANCIAL UPDATE ENVIRONMENT ACT LICENCE NO. 3042

COMMENTS:

There is no Financial Impact associated with the recommendation of this report.

Lucy Szkwarek, FCPA, FCGA
Lucy Szkwarek, FCPA, FCGA
Manager of Finance and Administration

CONSULTATION

This Report has been prepared in consultation with:

N/A

OURWINNIPEG POLICY ALIGNMENT

This report aligns with the OurWinnipeg 2045, Policy 2.17 Regional Water Resource Management, by protecting local and regional watershed resources from the negative impacts of development, flooding, and pollution.

Objective: Protect and value ecosystems as essential components to quality of life through municipal activities and urban environment.

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

Consideration was given as to whether this report connects to the Winnipeg Climate Action Plan (CAP),and it was determined that the CAP is not applicable to this specific report.

WINNIPEG POVERTY REDUCTION STRATEGY ALIGNMENT

Consideration was given as to whether this report connects to the Winnipeg Poverty Reduction Strategy (PRS) and its Goals and Objectives, and it was determined that the PRS is not applicable to this specific report.

SUBMITTED BY

Department: Water and Waste Department
Division: Engineering Services
Prepared by: Patrick Coote, P. Eng., Mikhaela Solis, P. Eng., and Selina Leung, E.I.T
Date: May 12, 2025
File No.: S-734

ATTACHMENTS:

Appendix A: 2024 CSO Annual Report