Agenda – Executive Policy Committee – June 15, 2022

Report – Standing Policy Committee on Water and Waste, Riverbank Management and the Environment – June 7, 2022

Item No. 2 Annual Report on the Combined Sewer Overflow (CSO) Master Plan

STANDING COMMITTEE RECOMMENDATION:

On June 7, 2022, the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment concurred in the recommendation of the Winnipeg Public Service, as amended, and submitted the following to Council:

1. That the report be received as information.

2. That the Winnipeg Public Service be directed works towards a Combined Sewer Overflow Master Plan completion date of 2045, in accordance with the deadline mandated by the Province of Manitoba.

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

Agenda – Executive Policy Committee – June 15, 2022

Report – Standing Policy Committee on Water and Waste, Riverbank Management and the Environment – June 7, 2022

DECISION MAKING HISTORY:

STANDING COMMITTEE RECOMMENDATION:

On June 7, 2022, the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment concurred in the recommendation of the Winnipeg Public Service, with the following amendment:

- Add the following new Recommendations:

    "2. That the Winnipeg Public Service be directed works towards a Combined Sewer Overflow Master Plan completion date of 2045, in accordance with the deadline mandated by the Province of Manitoba.

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

and submitted the matter to the Executive Policy Committee and Council.

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 forgoing.

ADMINISTRATIVE REPORT

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

Critical Path: **Standing Policy Committee on Water and Waste, Riverbank Management and the Environment – Executive Policy Committee – Council**

AUTHORIZATION

Author	Department Head	CFO	CAO
L. McCusker, P. Eng., Acting Manager of Engineering Services	C. D. Wiebe, P. Eng. Acting Director, Water and Waste	N/A	M. Jack

EXECUTIVE SUMMARY

The City of Winnipeg Combined Sewer Overflow (CSO) Master Plan is a long-term plan to reduce overflows from the wastewater sewer system to local watercourses. The goal of the CSO Master Plan is to capture 85 percent of CSO volume by 2047. In 2021, the CSO program reported 75 percent capture of overflow volume, which maintains an improvement from the 74 percent capture 2013 base year.

From 2013 to 2021, the City has committed over $157 million in infrastructure investment and system upgrades to reduce CSOs, with an additional $240 million forecasted over the next six years. This forecast includes a Council proposed $15 million (50 percent) increase to the budget annually for 2024 to 2027 that was adopted in the 2022 Capital Budget. The increase is intended to expedite existing sewer separation works and planned work in the Armstrong combined sewer district.

Approximately $17.5 million was committed in 2021, increasing the CSO program cumulative committed capital spend since 2019 to approximately $69.5 million. Remaining funds from existing work are retained within the program for use on future year CSO contracts. Funds are also accumulated for larger contracts, such as a large land drainage trunk sewer contracts currently planned in 2023/2024.

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:

1. 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 as the report is to be received as information.

HISTORY/DISCUSSION

Budget and History

The CSO Master Plan schedule and budget, set in 2019 to meet the Provincial requested deadline of 2045, will require funding support from both the Provincial and Federal Governments by 2023 or earlier. Without the funding support, the CSO Master Plan will be based on City only funding and requires a longer implementation timeline.

The CSO Master Plan estimated capital cost of $1.15 billion in 2019 dollars (see Appendix A - CSO Annual Report, section 3.2) is based on the required infrastructure to meet the 85 percent control target. The attached CSO Annual Report (Appendix A) provides the full breakdown of capital cost and budget forecasts.

Since 2013, the City has invested over $157 million in infrastructure and system upgrades under the CSO program. The City plans to budget $30 million per year (with adjustments for inflation) to meet compliance with Environment Act Licence No. 3042. On April 29, 2021, Council recommended that the Budget Review Process approve additional funds for the program that would result in a $240 million budget forecast over the next six years (2023 to 2028).

Approximately $23.3 million was committed to contracts in 2019, $28.7 million in 2020, and $17.5 million in 2021. This is less than the $30 million annual budget primarily because of favorable pricing. The City is receiving competitive bid pricing on contracts which results in increased earned value that can appear as an underspend. However, the funds not committed will accumulate for large strategic projects in excess of the average annual budget. For example, the class 5 estimate for the proposed 2023/2024 Ferry Road Rutland Trunk is $60 million.

Any contract which exceeds the major capital project threshold will be reported to the Finance Committee with quarterly Financial Status Reports.

Progress to Date

The goal of the CSO Master Plan is to capture 85 percent of wet weather flows. In 2021, the percent capture remains at 75 percent. This number will increase when the final stages of current construction works are brought online. The improvements to date are the result of completed combined sewer separation works in the Ferry Road/Riverbend and Cockburn/Calrossie districts as well as ongoing modeling and reporting refinements.

Future Works

Separation Works

The Water and Waste Department will continue work in the Jefferson East, Cockburn/Calrossie, and Ferry Road/Riverbend districts. Preliminary design for work on Armstrong is in development with detailed design and contract administration planned for 2023/2024.

Real Time Control

Real time control will provide sewer system control on a real time basis that can be used to optimize flows to the treatment plants. This will also provide opportunities to enhance the public notification system. A feasibility and pilot study will be initiated for the West End Sewage Treatment Plant sewer catchment. The work is anticipated to begin in 2023.

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.

The GI pilot projects that have been undertaken to date include the North East Exchange District Engineering Study (e.g. strata tree cells) and aspects of the Cockburn Sewer Separation Project (e.g. naturalized storm water retention pond). Pre- and post-flow monitoring will continue to take place over time to determine the performance and suitability of GI in Winnipeg's cold climate and heavy clay soils to confirm its long-term benefits and application within the collections system. As part of the Armstrong preliminary design, GI opportunities within the study area will be identified and evaluated.

FINANCIAL IMPACT

Financial Impact Statement

Date: April 21, 2022

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

COMMENTS:
There are no Financial Impacts associated with the recommendations of this report.

Lucy Szkwarek, CPA, CGA
Lucy Szkwarek, CPA, CGA
Manager of Finance and Administration

CONSULTATION

This Report has been prepared in consultation with:

N/A

OURWINNIPEG POLICY ALIGNMENT

This report is in accordance with the OurWinnipeg policies through sustainable water and waste practices.

OurWinnipeg Reference: Environment

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

N/A

WINNIPEG POVERTY REDUCTION STRATEGY ALIGNMENT

N/A

SUBMITTED BY

Department: Water and Waste Department
Division: Engineering Services
Prepared by: Patrick Coote, P. Eng. and Florence Lee, P. Eng.
Date: May 5, 2022
File No.: S-734

ATTACHMENTS:

Appendix A: 2021 CSO Annual Report