

## CHANGES TO THE APPROVED SANITARY SERVICING STRATEGY FUND SYSTEM NETWORK

### Recommendation

That Utility Committee recommend to City Council:

That the following changes to the approved Sanitary Servicing Strategy Fund System Plan, as outlined in the June 23, 2025, Urban Planning and Economy report UPE03010, be approved:

- North Edmonton Sanitary Trunk (NEST) Catchment
  - Elimination of trunk segments N2, N3, N4, N5A/B, N6 and C6A
  - Adding the new Fraser trunk which bypasses the Clareview Sanitary Trunk (CST) North
- South Edmonton Sanitary Sewer (SESS) Catchment:
  - Elimination of trunk segments SA2, SA5, SA6, SA7, SA8 and SA9
  - Adding a bypass trunk along 99 Street and 42 Avenue which would connect to the existing Burnewood trunk
- West Edmonton Sanitary Sewer (WESS) Catchment
  - Elimination of trunk segments W3, W4, W5, W6, W7, W8, W9, W10 and W11

Requested Action		Council decision Required	
ConnectEdmonton's Guiding Principle		ConnectEdmonton Strategic Goals	
CONNECTED This unifies our work to achieve our strategic goals.		Urban Places	
City Plan Values	LIVE		
City Plan Big City Move(s)	A Rebuildable City	Relationship to Council's Strategic Priorities	15-Minute Districts / District Planning
Corporate Business Plan	Serving Edmontonians		
Council Policy, Program or Project	Sanitary Servicing Strategy Fund (SSSF) Program		

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Relationships	
Related Council Discussions	<ul style="list-style-type: none"><li>• January 30, 2023, Urban Planning and Economy report UPE01567, Changes to Approved Sanitary Servicing Strategy Fund Program.</li><li>• May 20, 2022, Financial and Corporate Services report FCS01211, EPCOR Water Services Inc. - Edmonton's Changing Water Use.</li><li>• January 22, 2024, EPCOR Water Services report EXT02260, EPCOR Wastewater Integrated Resource Plan.</li><li>• April 12, 2021, Urban Form and Corporate Strategic Development report, CR_6671rev, Sanitary Services Strategy Oversight Committee - Governance Options - Additional Collaboration.</li><li>• September 30, 2019, Urban Form and Corporate Strategic Development report, CR_6671, Sanitary Services Strategy Oversight Committee - Governance Options.</li></ul>

### Executive Summary

- The Sanitary Servicing Strategy Fund (SSSF) program was approved by Council in 1998 to support growth in new areas by providing remote offsite sanitary servicing. The concept was to store sanitary flows during wet weather in these large storage trunks to avoid overloading the downstream system and convey flows to wastewater treatment plants.
- The SSSF governance model, approved by Council on May 17, 2021 (CR\_6671rev), requires that material changes to the SSSF System Plan, including the addition or deletion of segments, must be approved by Council.
- EPCOR has determined that changes should be made to the SSSF System Plan to reflect reduced sanitary flows and reductions in inflow and infiltration and changing development patterns. These changes are expected to reduce capital costs and remove previous complex river and creek crossings and significantly reduce potential environmental impacts to sensitive areas. The changes also reduce the amount of construction required in existing residential neighbourhoods. Attachment 1 provides the rationale and details about the proposed changes.
- The proposed changes in the North Edmonton Sanitary Trunk (NEST) catchment area are:
  - Eliminating trunk segments N2-N4, N5A/B, N6 and C6A.
  - Adding the new Fraser trunk which parallels the Clareview Sanitary Trunk (CST) North.
- The proposed changes in the South Edmonton Sanitary Sewer (SESS) catchment area are:
  - Eliminating trunk segments SA2, SA5, SA6, SA7, SA8 and SA9 in southeast Edmonton.
  - Adding a trunk sewer to collect flows from south of 41 Avenue NW and connecting to the system further north near Ellerslie Road.
  - Adding a bypass trunk along 99 Street and 42 Avenue which would connect to the existing Burnewood trunk in southeast Edmonton.
- The proposed changes in the West Edmonton Sanitary Sewer (WESS) catchment area are:
  - Eliminating segments W3, W4, W5, W6, W7, W8, W9, W10 and W11.
  - Utilizing existing WESS infrastructure, including the 99 Avenue bypass trunk for storage.

### REPORT

This report seeks Council approval for proposed changes to the Sanitary Servicing Strategy Fund System Plan (the “System Plan”) as proposed by EPCOR.

#### Context

The Sanitary Servicing Strategy Fund (SSSF) was established in 1998 to provide a funding strategy for sanitary trunks that support growth in developing areas of Edmonton. This program has been funded mainly through development charges and utility contributions<sup>1</sup>. Development charges are collected at two stages: first from developers at the time of servicing agreement as a condition of subdivision and then from builders as a condition for a development or building permit. The funds are allocated for construction of the sanitary trunks identified in the SSSF System Plan. The System Plan was established concurrently with the SSSF program and has been updated periodically since then. The most recent City-led comprehensive update was in early 2017. Following the transfer of drainage assets to EPCOR later in 2017, EPCOR has continued to review the System Plan and has identified the need for additional updates to the routing, timing and sizing of sanitary trunks based on updated design assumptions, actual monitored flows, modernized construction techniques and the City of Edmonton and regional growth plans.

Administration works in partnership with EPCOR and representatives of the development industry to guide the implementation of the System Plan and manage the fund through the SSSF Oversight Committee. In 2021, Council approved<sup>2</sup> an updated SSSF governance model providing Council with greater oversight, transparency and public input on the decisions made by Administration and the SSSF Oversight Committee. The updated governance approach ensures material changes to the System Plan, including the addition or deletion of trunk segments, are presented to Utility Committee and City Council for approval.

A detailed analysis recently completed by EPCOR for the System Plan identified the opportunity for changes that offer reduced capital costs compared to the current plan.

#### Technical Considerations

In 2020, EPCOR created the One Water Planning team that brought together strategic planning resources from the water and drainage utilities. That team identified that changes in water consumption patterns, changing development patterns and a focus on reducing water inflow and infiltration will impact the historical planning assumptions for major trunk networks in both the water and sanitary systems.

EPCOR has Integrated Resource Plans (IRP) to review the City’s overall water, storm and sanitary servicing plans in support of the long-term operational, environmental and financial sustainability of the systems. A Wastewater Integrated Resource Plan was received by Utility Committee for

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<sup>1</sup> The City’s Drainage Services and EWS, as the past and current owners of the sanitary utility, have made contributions of \$2.6M annually between 1999 to 2006 and \$1.3M annually from 2007 to 2023, following which there have been no other utility contributions.

<sup>2</sup> May 17, 2021, Urban Form and Corporate Strategic Development report CR\_6671rev, Sanitary Services Strategy Oversight Committee Governance Options - Additional Collaboration

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information in January 2024<sup>3</sup>. The Wastewater Integrated Resource Plan provides a summary of strategies and planning principles for Edmonton's sanitary and storm systems, including the Gold Bar Wastewater Treatment Plant and Clover Bar Solids Management Facility.

As part of the ongoing IRP work, a system-wide flow assessment and analysis was completed of the actual sanitary flows in the city (as of 2023) and projected future sanitary flows (2062), EPCOR confirmed that the original design assumptions that determined the configuration and timing of portions of the SSSF growth supporting sanitary trunks are no longer valid.

The original design considerations assumed a sanitary generation rate of 350 L/capita/day in new areas. Improvements in inflow and infiltration reduction practices, sanitary technology, better construction methodology and overall reduced water consumption have resulted in a generation rate of less than 140 L/capita/day, with research indicating that water consumption will continue to be reduced. Modern approaches to managing inflow and infiltration to reduce peak flow rates also reduce the amount of sanitary storage required in the trunk system. To accommodate this, updates have been proposed to the SSSF System Plan, as outlined below with technical findings and maps detailing the changes presented in Attachment 1.

For the North Edmonton Sanitary Trunk (NEST) catchment area, changes include redirecting additional flows to the regional ARROW Wastewater Treatment Plant to offset increases in flows from south Edmonton and growth within the Edmonton core. As a result, there will be no material changes to the current planning assumptions at the Gold Bar Wastewater Treatment Plant. Redirecting the flows to a trunk parallel to the Clareview Trunks systems allows the elimination of segments N2, N3, N4, N5A, N5B, N6 and C6A. Construction of a new Fraser trunk will be required within the SSSF funding model.

For the South Edmonton Sanitary Sewer System (SESS) catchment area, changes due to lower flows allow the shifting of the east/west trunk requirements further north to the commercial zoned area, reducing overall length and construction complexity. The new configuration has also been confirmed to be sufficient to also convey flows from south of 41 Avenue SW to the SESS system. The existing SESS system has enough capacity to accommodate growth south of 41 Avenue SW. Redirecting these flows eliminates trunks SA2, SA5, SA6, SA7, SA8 and SA9. The new 99 Street Bypass trunk provides the new alignment to direct these flows towards east Edmonton.

For the West Edmonton Sanitary System (WESS) catchment area, EPCOR is proposing to eliminate the previously proposed W3-W11 trunk segments. Using the existing WESS system and the recently constructed 99 Avenue bypass tunnel will provide storage capacity of approximately 4,500 m<sup>3</sup> (compared to the original design which provided approximately 11,000 m<sup>3</sup> of storage). The updated analysis indicates that the reduced storage will be sufficient for current and projected flows.

### Budget/Financial Implications

The proposed changes to the System Plan will change the amount and timing of expenditures funded from the SSSF reserve fund. There is some uncertainty about the future costs of the identified SSSF infrastructure due to unknown cost escalations.

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<sup>3</sup> January 22, 2024, EPCOR Water Services report EXT02260, EPCOR Wastewater Integrated Resource Plan

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Based on EPCOR's analysis, the proposed changes offer potential cost savings as outlined in Table 1 (in 2025 dollars).

**Table 1: SSSF Infrastructure Original and Revised Costs**

SSSF Catchment Area	Updated EPCOR Cost Estimates for Original Infrastructure (2025 dollars)	Estimated Cost of Revised Infrastructure (2025 dollars)
NEST	\$256,000,000	\$39,000,000
WESS	\$186,000,000	\$0
SESS	\$283,000,000	\$115,000,000
<b>Total</b>	<b>\$725,000,000</b>	<b>\$154,000,000</b>

The proposed changes to the infrastructure reduce capital costs by about \$571 million (expressed in 2025 dollars).

The delay in infrastructure construction and the estimated reductions in cost associated with the proposed changes to the System Plan create an opportunity to use the current funds within the SSSF reserve to support growth in the near term. Administration is also exploring uses of the funds in the SSSF Reserve as part of the SSSF Transformation Project.<sup>4</sup>

### Community Insight

Engagement with the development industry on the proposed changes to the System Plan occurred through the SSSF Oversight Committee, including discussions and recommendations with respect to the proposed changes. Industry representatives have indicated support for the suggested changes. The SSSF Oversight Committee has recommended approval of the proposed changes to the SSSF System Plan.

Administration has shared information about the proposed changes to the SSSF System Plan with Edmontonians through the City's SSSF webpage.

### GBA+

GBA+ analysis was not required for this project. The SSSF program is designed to provide sanitary servicing to support growth in the city. Projects funded by the SSSF are informed by need. The SSSF program strives to provide equitable service to Edmontonians, ensuring that sanitary servicing is available to the growth areas when needed.

### Environment and Climate Review

No environmental or climate review was required. However, it is important to note that the proposed updates to the System Plan eliminate the need for complex river and creek crossings, reducing potential impacts to environmentally sensitive areas.

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<sup>4</sup> See November 4, 2024 Memo to Council: [Sanitary Servicing Strategy Fund \(SSSF\) Transformation Update - Guiding Principles and Next Steps](#), and May 3, 2023 Memo to Council: [Sanitary Servicing Strategy Fund Transformation Project](#)

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### Risk Assessment

Risk Category	Risk Description	Likelihood	Impact	Risk Score (with current mitigations)	Current Mitigations	Potential Future Mitigations
If recommendation is not approved						
Economic	Over-construction of sanitary infrastructure	5	4	20	EPCOR's proposed updates as outlined in this report will avoid over construction and spending of millions of dollars on sanitary infrastructure capital costs that are not required.	EPCOR to monitor sanitary flows and update plans as part of the implementation of their Integrated Resource Plans.

### Attachment

1. Changes to SSSF Planned Trunks