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2022 CAPITAL BUDGET BRIEFING NOTE

State of Good Repair (SOGR) Backlog

Issue/Background:

This briefing note presents the State of Good Repair (SOGR) Backlog for Tax and Rate Supported City Programs and Agencies, and the impact investments in the 2022–2031 Staff Recommended Capital Budget and Plan will have on the City's SOGR Backlog.

The City has an expansive asset inventory and its infrastructure is aging. The City's capital program is driven largely by the cost of maintaining these physical assets in a state of good repair. Managing the accumulated SOGR backlog is a key capital strategic objective and priority for the City in order to ensure that current assets are able to support the delivery of City services and meet service outcomes.

When capital funding for planned SOGR capital works is less than the annual SOGR need, the unfunded balance is added to the accumulated SOGR backlog. Conversely, should the capital funding in SOGR exceed the planned SOGR need, the excess is applied against the accumulated SOGR backlog, effectively reducing the balance.

In the absence of comparable benchmarks, the City has established its own state of good repair performance measure; "*backlog as a percentage of total asset value (replacement value)*" that is applied across its portfolio of assets. The benefits of gathering accurate asset data is that it:

- provides a true picture of what the accumulated SOGR backlog is;
- identifies areas of growing need and attention to the City's asset condition; and
- shows the impact of City SOGR planned funding on the City's accumulated SOGR backlog for the capital planning period.

This metric provides the City with year over year comparisons and trends that assist City Council in determining how best to apply scarce resources in making strategic investments to reduce the City's SOGR Backlog by Program/Agency and/or by asset type. By employing this practice, the City can measure its progress in achieving SOGR objectives and conversely, can determine where additional investments are required. Details of the SOGR Backlog trend and percentage of total asset value for each Program and Agency can be found in their respective Budget Notes.

In addition to the SOGR backlog metric, the City employs practices that require comprehensive asset value condition assessments by asset type; the use of decision support tools to rank and prioritize reinvestment needs and debt funding scenario

analysis, all of which form part of the City's regular capital planning process. These actions taken together improve asset lifecycle management, more accurately identify the SOGR needs in the City's portfolio, and reflect the City's strategic commitment to address the infrastructure deficit in a holistic fashion.

The City owns an inventory of physical assets valued at \$158.3 billion as shown in Table 1 below:

Table 1: City's Physical Infrastructure

Tax & Rate Supported Programs		Estimated Asset Value
Water & Wastewater Infrastructure	<ul style="list-style-type: none"> - 4 water filtration & 4 wastewater treatment plants - 11 reservoirs, 4 elevated water storage tanks - 7 storm storage and detention tanks - 105 pumping stations - 10,200 km for sanitary, combined and storm sewers - 6,100 km of distribution and transmission watermains 	\$83.3 Billion
Transportation Infrastructure	<ul style="list-style-type: none"> - 5,600 km of roads - 900 bridges/culverts and 6,960 sidewalks - 2,420 traffic signals and 580 pedestrian crossovers - 340 km of trails and 696 km of on-street bikeways 	\$27.4 Billion
Public Transit System	<ul style="list-style-type: none"> - 900 bridges/culverts and 6,960 sidewalks - 2,420 traffic signals and 580 pedestrian crossovers - 340 km of trails and 696 km of on-street bikeways 	\$20.1 Billion
Buildings, Facilities & Fleet	<ul style="list-style-type: none"> - 478 City-owned facilities covering more than 12.1 million sq. ft. - More than 5,500 vehicles, ferries and vessels 	\$10.8 Billion
TCHC	<ul style="list-style-type: none"> - 58,500 public housing units (full responsibility) 	\$11.0 Billion
Parkland & Other Land	<ul style="list-style-type: none"> - 8,106 hectares of parkland (= 13% of the land area of the City of Toronto) 	\$5.6 Billion
Estimated Asset Value		\$158.3 Billion

As City Programs and Agencies continue to mature its asset management best practices, SOGR backlog funding pressures tend to rise as better information is received about the condition of City infrastructure.

- This has been reflected in the 2022 beginning SOGR backlog balance that is estimated at \$8.953 billion, an increase of \$424 million compared to the \$8.529 billion SOGR backlog that was expected at the end of 2021 based on prior year estimates.

In addition, the Core Infrastructure Asset Management Plan was introduced and approved by Council in 2021 to integrate planning, finance, engineering and operations to realize value from assets, reduce risks and provide expected levels of service to the community in a socially, environmentally and economically sustainable manner.

Key Points:

Total City SOGR Backlog (Tax & Rate)

- The 2022–2031 Staff Recommended Capital Budget & Plan (Tax & Rate) allocates \$23.494 billion or 49.3% of total recommended funding to capital works which maintain City infrastructure in a state of good repair.
 - This represents an increase investment in SOGR funding of \$761.0 million from 2022 – 2030 compared to capital expenditures initially planned over that same period in last year's 10-Year Capital Plan.
 - These additional investments are being made in Toronto Water, Fleet Services, Shelter, Support & Housing Administration, Solid Waste Management, Corporate Real Estate Management (CREM), Exhibition Place and Parks, Forestry & Recreation.
- Despite this significant and increased investment in SOGR, the total accumulated SOGR backlog estimate is still expected to increase from \$8.953 billion at the end of 2021 to \$16.733 billion by the end of 2031 and respectively the backlog as a percentage of asset value will increase from 5.8% to 9.8%.
 - It should be noted that the Backlog as a percentage of asset value has been significantly lowered from last year's 13% to 9.8% by the end of 10th year. This is mainly driven by Toronto Water's adaption of a new methodology to account for the asset value based on recent appraisal reports instead of historical cost.
 - The Core Infrastructure Asset Management Plan has allowed Toronto Water to re-valuate the total asset value from \$28.8 billion to \$83.3 billion, and the up-to-date asset value provides a more accurate insight for Toronto Water's budget decision making.
- As summarized in table 2 below, the accumulated balance for Tax Supported Programs will increase by \$8.921 billion by 2031, which will be offset by \$1.141 billion decrease in the Rate Supported Programs, consequently, the overall accumulated backlog balance is expected to increase by \$7.780 billion over the 10 year period.
- Rate Supported Programs includes Toronto Water and Toronto Parking Authority both of which will have their SOGR backlog nearly eliminated in the 10 year period.

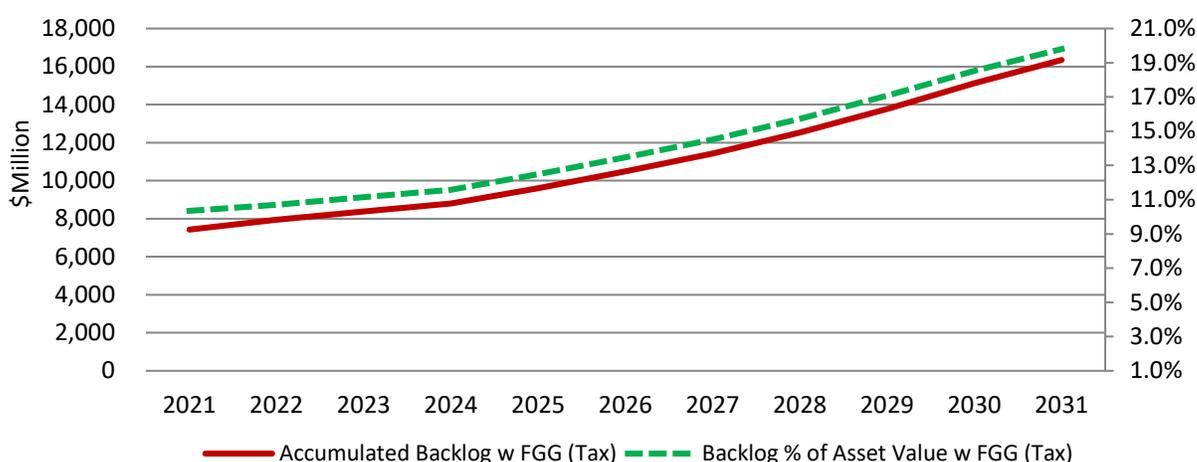
Table 2: SOGR Backlog by Program – Summary

SOGR Backlog (\$M)	2022 (beg. bal.)	2022 (1 Year)	2026 (5 Year)	2031 (10 Year)	2021-2031 Change
Tax Supported	7,426	7,943	10,488	16,346	8,921 ▲
Rate Supported	1,527	1,501	757	387	(1,141) ▼
Total SOGR Backlog	8,953	9,444	11,245	16,733	7,780 ▲
Total Asset Value	155,625	158,259	164,539	171,437	15,812
SOGR as % Asset Value	5.8%	6.0%	6.8%	9.8%	

Tax Supported Program

- The 2022–2031 Staff Recommended Tax Supported Capital Budget and Plan will invest \$15.913 billion or 50.46% of the total \$31.535 billion planned capital investments in SOGR projects to maintain assets in a state of good repair for the next 10 years.
- The accumulated SOGR backlog balance is estimated to increase from \$7.426 billion or 10.3% of total asset value at the end of 2021 to \$16.346 billion or 19.8% of total asset value by the end of 2031 as shown in Chart 1 in the following page:

Chart 1: 10 Year Capital SOGR Backlog – Tax Supported Programs



(\$M)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Total Asset Value (Tax)	71,762	74,248	75,128	76,013	76,911	77,847	78,752	79,674	80,619	81,577	82,549
Accumulated Backlog (Tax)	7,426	7,943	8,381	8,793	9,609	10,488	11,426	12,616	13,859	15,118	16,346
Backlog % of Asset Value (Tax)	10.3%	10.7%	11.2%	11.6%	12.5%	13.5%	14.5%	15.8%	17.2%	18.5%	19.8%

- Table 3 below details the main contributors to the City's accumulated SOGR backlog for Tax Supported Programs, noting six key program areas contributing to the expected SOGR backlog increase:
 - Namely, Toronto Transit Commission, Transportation Services, Corporate Real Estate Management (CREM), Parks, Forestry and Recreation, Exhibition Place and Technology Services;
 - These six programs make up \$4,990 billion or 67.20% of the \$7,426 billion accumulated SOGR backlog balance at the end of 2021 and \$14.372 billion or 87.9% of the \$16.346 billion backlog expected by 2031.

Table 3: SOGR Backlog by Program – Summary

SOGR Backlog (\$M)	2022 (beg. bal.)	2022 (1 Year)	2026 (5 Year)	2031 (10 Year)	2021-2031 Change
Toronto Transit Commission	21	215	2,573	6,657	6,636 ▲
Transportation Services	1,526	1,806	3,197	5,438	3,913 ▲
Corporate Real Estate Management	837	911	1,005	1,146	310 ▲
Parks, Forestry & Recreation	645	748	893	940	295 ▲
Exhibition Place	41	53	79	151	109 ▲
Technology Services	0	0	29	60	60 ▲
Other	2,436	2,340	1,824	1,914	(522) ▼
Total City Backlog (Tax excl. Gardiner)	5,506	6,072	9,600	16,307	10,801 ▲
F.G.Gardiner Expressway Rehabilitation	1,920	1,871	888	39	(1,881) ▼
Total SOGR Backlog (Tax)	7,426	7,943	10,488	16,346	8,921 ▲
Total Asset Value (Tax)	71,762	74,248	77,847	82,549	10,787
SOGR as % Asset Value	10.3%	10.7%	13.5%	19.8%	

- Of these six programs, Toronto Transit Commission will be the largest contributor to the City's SOGR Backlog increase, projected to rise by \$6.636 billion in the 10 year period.
 - While the SOGR Backlog will rise from \$21.1 million or 0.1% of asset value in 2022 to \$6.657 billion or 33.04% of asset value by the end of 2031, the SOGR Backlog would have been higher had it not been for the infusion of incremental funding through the City Building Fund for critical subway infrastructure state of good repair projects which nearly doubled the City's investment in base Transit infrastructure investments.
 - When excluding the backlog associated with unfunded fleet procurement and overhaul investments, the SOGR Backlog would be significantly reduced to \$2.547 billion or 12.6% of asset value by the end of 2031, noting that unfunded vehicle needs make up two-thirds of this backlog.
- While SOGR backlog is expected to increase for TTC and the other five programs noted above, dedicated SOGR investments are expected to reduce the accumulated SOGR backlog balance for certain programs, specifically:
 - Transportations Services as it relates to the F.G. Gardiner Expressway Rehabilitation (FGG) project;
 - Continued and increased investments towards Toronto Community Housing to address building repair requirements; and

- Other significant reductions are expected for other Programs/Agencies such as Children Services, Economic, Development and Culture, Senior Services and Long-Term Care, Shelter, Support & Housing Administration, TO Live, Toronto Police Services and Toronto Region Conservation Authority (TRCA).

Issues and Strategies

The City has implemented a series of capital investment strategies to help address the continued pressure from its accumulated SOGR backlog. This is evidenced by the near elimination of SOGR backlog in Toronto Water and FGG project, and other key areas such as TCHC, Toronto Parking Authority, TRCA, Children Services, Toronto Police Services and the considerable increase in SOGR funding for Transit made possible by the City Building Fund. However, the backlog in other key program areas continues to grow.

Factors contributing to the increase in accumulated SOGR backlog for the City includes:

- City is continuing to receive updated asset values and condition assessments from asset inspections that more precisely account for SOGR needs. Also, as the City continue to mature its asset management best practices and better information is received about the condition of the infrastructure, SOGR needs is expected to continue to rise;
- The readiness to process and capacity to spend analysis undertaken during the budget review process requiring project to adjust/recast planned cash flow estimates to better match actual spending to project activities. As such, the capital funding may be spread over a longer period;

The City will continue to advance capital infrastructure investments and explore sustainable long term financing strategies to address on-going SOGR needs and establish a balance between SOGR and growth/service improvement capital funding priorities, to maintain the City's current \$158 billion of assets in a state of good repair as well as improve and add assets to meet service demand and growth of the City.

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Attachments:

Appendix 1: Change in Accumulated SOGR Backlog 2022 to 2031 by Program

Appendix 1: Change in Accumulated SOGR Backlog 2022 to 2031 by Program

Program Description (\$Millions)	2022					2022 - 2031			
	Accum. Backlog Beginning Balance	SOGR Needs Added	SOGR Backlog Addressed	Backlog Incr./ (Decr.)	Accum. Backlog Ending Balance	SOGR Needs Added	SOGR Backlog Addressed	Backlog Incr./ (Decr.)	Accum. Backlog 2031 Balance
Community and Social Services (CSS)									
Children's Services	3.8	2.3	3.1	(0.8)	3.0	15.5	18.1	(2.6)	1.2 ▼
Economic Development and Culture	46.5	4.6	4.8	(0.3)	46.3	45.2	63.0	(17.9)	28.7 ▼
Parks, Forestry & Recreation	645.0	197.4	94.2	103.2	748.2	981.4	686.1	295.3	940.3 ▲
Seniors Services and Long-Term Care	6.9	11.1	7.8	3.2	10.1	80.4	82.8	(2.4)	4.5 ▼
Shelter, Support & Housing Administration	22.5	12.9	5.3	7.7	30.2	78.3	88.8	(10.5)	12.0 ▼
Toronto Housing Corporation	1,649.7	210.5	280.0	(69.5)	1,580.2	1,713.1	2,029.4	(316.3)	1,333.4 ▼
Sub-Total CSS	2,374.5	438.8	395.2	43.6	2,418.1	2,913.9	2,968.3	(54.4)	2,320.1 ▼
Infrastructure and Development Serv. (IDS)									
Transportation Services	3,445.4	460.0	228.4	231.6	3,677.0	5,736.1	3,704.0	2,032.0	5,477.5 ▲
Sub-Total IDS	3,445.4	460.0	228.4	231.6	3,677.0	5,736.1	3,704.0	2,032.0	5,477.5 ▲
Corporate Services									
Corporate Real Estate Management	836.8	176.8	102.6	74.2	911.0	914.0	604.3	309.6	1,146.5 ▲
Fleet Services	39.2	108.9	89.9	18.9	58.2	603.6	593.2	10.4	49.7 ▲
Technology Services	0.0	21.3	21.3	0.0	0.0	272.7	213.0	59.7	59.7 ▲
Sub-Total Corporate Services	876.1	306.9	213.8	93.1	969.1	1,790.3	1,410.5	379.8	1,255.9 ▲
Total City Operations	6,696.0	1,205.7	837.4	368.2	7,064.2	10,440.3	8,082.8	2,357.5	9,053.4 ▲
Agencies									
Exhibition Place	41.3	26.4	14.9	11.5	52.7	262.2	152.9	109.2	150.5 ▲
TO Live	110.2	0.0	10.4	(10.4)	99.9	0.0	60.1	(60.1)	50.1 ▼
Toronto & Region Conservation Authority	249.1	5.4	18.4	(13.0)	236.1	85.8	197.1	(111.3)	137.8 ▼
Toronto Police Service	37.9	1.6	4.4	(2.8)	35.1	28.6	44.0	(15.4)	22.5 ▼
Toronto Public Library	182.1	3.0	20.3	(17.3)	164.8	210.4	208.4	2.1	184.2 ▲
Toronto Zoo	87.9	6.4	18.7	(12.2)	75.7	118.6	116.1	2.4	90.4 ▲
Sub-Total Other City Programs	708.5	42.8	87.1	(44.2)	664.3	705.6	778.6	(73.0)	635.5 ▼
Toronto Transit Commission (TTC)									
Toronto Transit Commission	21.1	1,195.0	1,001.2	193.8	214.9	12,846.8	6,210.5	6,636.3	6,657.4 ▲
Sub-Total TTC	21.1	1,195.0	1,001.2	193.8	214.9	12,846.8	6,210.5	6,636.3	6,657.4 ▲
Total - Tax Supported Programs	7,425.6	2,443.5	1,925.7	517.8	7,943.4	23,992.6	15,071.9	8,920.8	16,346.3 ▲

Note:

- Funding to address the state of good repair backlog for City-owned facilities for Paramedic Services, Toronto Fire and Toronto Public Health is included in CREM's 10-Year Capital Plan as asset management capital funding was transferred to CREM in 2010.
- TRCA includes other SOGR backlog and funding
- Adjusted SOGR based on new methodology used by Toronto Water