

Staff Report



To	General Committee
Subject	SWTP Low Lift Pumping Station Emergency Standby Generator
Date	April 16, 2025
Ward	10
From	S. Diemert, P. Eng., Director of Infrastructure
Executive Member Approval	B. Araniyasundaran, P. Eng., PMP, General Manager of Infrastructure and Growth Management
CAO Approval	M. Prowse, Chief Administrative Officer
Staff Report #	INF002-25

Recommendation(s):

1. That a new capital project be approved to design, supply, and install a standby power generator at the Surface Water Treatment Plant (SWTP) Low Lift Pumping Station (LLPS) with a budget of \$3,914,000 to be funded 100% from the Water Capital Reserve.
 2. That \$3,914,000 in Water Capital Reserve funded projects be returned as part of the 2026 Capital Budget.
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Executive Summary:

The purpose of this report is to seek funding and approval to design, supply, and install a permanent emergency standby power generator at the SWTP LLPS, located at 23 Camelot Square.

The current electrical power cable connecting the SWTP to the LLPS has deteriorated to the point where it causes recurring electrical faults. Water operations installed a temporary emergency generator at the LLPS. The generator was installed to ensure there is continuous drinking water for residents and businesses during emergency power outages.

Key Findings:

The SWTP has experienced recurring electrical ground fault issues with the 13.8kV cable that connects the SWTP emergency generator to the LLPS. This electrical cabling provided emergency standby power from the SWTP to the LLPS to ensure a continuous supply of drinking water.

Since 2023, testing on the 13.8kV line has revealed resistance issues in several locations, resulting in repairs to the cabling. On January 21st, 2025, a tripped breaker on the 13.8 kV was discovered. Subsequent troubleshooting determined the ground fault issues would continue to cause the breaker to trip.

On January 22nd, 2025, a temporary rental standby generator was installed at the LLPS to provide emergency power during any loss of utility power.

Financial Implications:

- The table below breaks down the proposed recommendation costs and funding source:

Funding	Phase	2025	2026	2027	2028	Total
Water Capital Reserve	Design	\$ 200,000	\$ 250,000			\$ 450,000
Water Capital Reserve	Construction		\$ 1,500,000	\$ 1,500,000	\$ 464,000	\$ 3,464,000
Total		\$ 200,000	\$ 1,750,000	\$ 1,500,000	\$ 464,000	\$ 3,914,000

- As can be seen in the table below, the Water Capital Reserve is anticipated to be overcommitted by \$3.8 million by the end of 2025 increasing to \$40.4 million by 2029:

Water Capital Reserve	2025	2026	2027	2028	2029
Beginning Balance	\$ 6,830,735	\$ (3,848,782)	\$ (10,778,714)	\$ (17,549,217)	\$ (35,046,610)
Draws: Carryforward & Previously Approved	\$ (23,081,307)	\$ (4,703,328)	\$ (2,687,938)	\$ (1,993,110)	-
Draws: New Request	\$ 1,924,843	\$ (4,423,536)	\$ 1,896,350	\$ (5,127,138)	\$ (3,785,342)
Draws: Forecast	-	\$ (8,730,860)	\$ (17,851,049)	\$ (22,481,262)	\$ (14,074,968)
Contributions: 2025 Business Plan	\$ 10,476,948	\$ 10,927,792	\$ 11,872,134	\$ 12,104,116	\$ 12,467,240
Un/(Over) Committed Reserve Balance	\$ (3,848,782)	\$ (10,778,714)	\$ (17,549,217)	\$ (35,046,610)	\$ (40,439,681)

- To ensure the financial sustainability of the Water Capital Reserve, staff will review the 2026 capital plan to look for projects that can be deferred or cancelled as part of the 2026 Capital Budget.

Alternatives:

The following alternative is available for consideration by General Committee:

Alternative #1 – General Committee could maintain the current situation. However, this alternative is not recommended as it would result in the City continuing to incur the \$16,271 monthly rental fee (\$195,132 annually), for the temporary generator.

Strategic Plan Alignment:

Affordable Place to Live		
Community Safety		
Thriving Community		
Infrastructure Investments	X	This project will update and improve infrastructure.
Responsible Governance	X	SWTP is incurring monthly rental fees for an emergency generator.

Additional Background Information and Analysis:

To ensure the LLPS remains operational, the SWTP is incurring monthly emergency generator rental fees of \$16,261.70 per month, which amounts to \$195,132 annually.

Consultation and Engagement:

No public consultation was required in relation to this staff report.

Environmental and Climate Change Impact Matters:

There are no environmental and/or climate change impact matters related to the recommendation.

Appendix:

Not applicable

Report Author:

W. Reid, Manager of Vertical Infrastructure Projects, Infrastructure Department

File #:

C11 - SWT

Pending #:

Not applicable