

## Drainage Facilities and Network (Program 897)

<b>Executive Summary</b>	The Drainage Facilities and Network program consists of self-supported investments in projects and annual maintenance programs to ensure the ongoing delivery of stormwater services in existing communities; extend services to new communities; and improve service in flood prone areas.
<b>Program Components</b>	Examples of major investments include: - Community Drainage Improvement program - Providence Drainage project
<b>Other Contributing Services</b>	None

**Expected Key Benefits:**

<b>Economic Resilience</b>	Investment in stormwater infrastructure stimulates the economy by creating jobs in engineering, consulting, and construction.
<b>Social Resilience</b>	Investment in stormwater management improves drainage in communities and mitigates the risk of flooding.
<b>Climate Resilience</b>	Stormwater management limits the sediment going into the river, ensuring healthy rivers and riverbanks. This allows the quality of the rivers to be maintained for Calgarians and downstream users, as well as to preserve healthy fish and wildlife populations.

<b>Service</b>	Stormwater Management	<b>Department</b>	Infrastructure Services
<b>Budget ID</b>	TBD	<b>Activity #</b>	453429
<b>Investment Category</b>	Program	<b>Wards</b>	All Wards
<b>Primary Alignment to Council's Foundation</b>	Climate Resilience	<b>Primary Alignment to Capital Infrastructure Investment Drivers</b>	Support the delivery of City of Calgary services
<b>Primary Alignment to Shared Strategic Agenda</b>	Modernizing government	<b>Secondary Alignment to Shared Strategic Agenda</b>	

	<b>Total</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027+</b>
<b>Recommended Capital Funding (\$)</b>	\$182,543,000	\$39,455,000	\$47,696,000	\$47,696,000	\$47,696,000	
<b>Operating Impact of Capital (\$)</b>	\$5,407,000	\$299,000	\$1,520,000	\$1,741,000	\$1,847,000	
<b>Funding Status</b>	Recommended					
<b>Funding Source(s)</b>	Self-Supported Capital Reserves \$72,062 (thousand), Self-Supported Debt \$110,481 (thousand)					

<b>Economic Impacts of 2023-2026 Recommended Funding</b>	<b>Gross Output \$</b>		<b>Gross Domestic Product \$</b>	<b>Income \$</b>	<b>Employment (Person-Years)</b>
			\$385,208,336	\$148,951,415	\$88,213,543
<b>MUGS Classification</b>	<b>Maintenance</b>		<b>Upgrade</b>	<b>Growth</b>	<b>New Services</b>
		16%	20%	19%	45%
<b>Impact of this capital investment on GHG emissions</b>			No significant increase or decrease in GHG emissions		
<b>Magnitude of the increase or decrease in GHG emissions</b>			N/A		

## Wastewater Collection Network (Program 895)

<b>Executive Summary</b>	The Wastewater Collection program consists of self-supported investments required to maintain the delivery of wastewater service in existing communities; extend services to new communities; and address annual capital maintenance needs.
<b>Program Components</b>	Examples of major investments include: - Trans Canada Sanitary Trunk - Nose Creek Sanitary Trunk - Penbrooke Sanitary Trunk Upgrade
<b>Other Contributing Services</b>	None

### Expected Key Benefits:

<b>Economic Resilience</b>	Investments in wastewater treatment and collection stimulates the economy by creating jobs in engineering, consulting, and construction.
<b>Social Resilience</b>	Investment in wastewater treatment and collection provides ongoing reliable services to customers and minimizes service disruptions.
<b>Climate Resilience</b>	Reliable wastewater treatment provides the foundation to a healthy and green city; it ensures public health, reduced risk to property, and is essential to the health of rivers.

<b>Service</b>	Wastewater Collection & Treatment	<b>Department</b>	Infrastructure Services
<b>Budget ID</b>	TBD	<b>Activity #</b>	456129
<b>Investment Category</b>	Program	<b>Wards</b>	All Wards
<b>Primary Alignment to Council's Foundation</b>	Climate Resilience	<b>Primary Alignment to Capital Infrastructure Investment Drivers</b>	Support the delivery of City of Calgary services
<b>Primary Alignment to Shared Strategic Agenda</b>	Modernizing government	<b>Secondary Alignment to Shared Strategic Agenda</b>	

	Total	2023	2024	2025	2026	2027+
<b>Recommended Capital Funding (\$)</b>	\$297,771,000	\$108,291,000	\$63,160,000	\$63,160,000	\$63,160,000	
<b>Operating Impact of Capital (\$)</b>	\$18,405,000	\$8,505,000	\$3,621,000	\$3,082,000	\$3,197,000	
<b>Funding Status</b>	Recommended					
<b>Funding Source(s)</b>	Self-Supported Capital Reserve \$ 129,359 (thousand), Self-Supported Debt \$168,412 (thousand)					

Economic Impacts of 2023-2026 Recommended Funding	Gross Output \$	Gross Domestic Product \$	Income \$	Employment (Person-Years)
		\$628,366,311	\$242,975,144	\$143,897,245
MUGS Classification	Maintenance	Upgrade	Growth	New Services
	11%	0%	65%	24%
<b>Impact of this capital investment on GHG emissions</b>	No significant increase or decrease in GHG emissions			
<b>Magnitude of the increase or decrease in GHG emissions</b>	N/A			

## Wastewater Treatment Plant (Program 894)

<b>Executive Summary</b>	The Wastewater Treatment program consists of self-supported investments required for treatment capacity expansions to accommodate population growth, and investments to address capital maintenance needs to continue to meet regulatory requirements.
<b>Program Components</b>	Examples of major investments include: - Fish Creek Wastewater Treatment Plant Upgrade - Bonnybrook Wastewater Treatment Plant Expansion - Bonnybrook Centrate/Supernatant Treatment
<b>Other Contributing Services</b>	None

**Expected Key Benefits:**

<b>Economic Resilience</b>	Investments in wastewater treatment and collection stimulates the economy by creating jobs in engineering, consulting, and construction.
<b>Social Resilience</b>	Investment in wastewater treatment and collection provides ongoing reliable services to customers and minimizes service disruptions.
<b>Climate Resilience</b>	Reliable wastewater treatment provides the foundation to a healthy and green city; it ensures public health, reduced risk to property, and is essential to the health of rivers.

<b>Service</b>	Wastewater Collection & Treatment	<b>Department</b>	Infrastructure Services
<b>Budget ID</b>	TBD	<b>Activity #</b>	455739
<b>Investment Category</b>	Program	<b>Wards</b>	All Wards
<b>Primary Alignment to Council's Foundation</b>	Climate Resilience	<b>Primary Alignment to Capital Infrastructure Investment Drivers</b>	Support the delivery of City of Calgary services
<b>Primary Alignment to Shared Strategic Agenda</b>	Modernizing government	<b>Secondary Alignment to Shared Strategic Agenda</b>	

	Total	2023	2024	2025	2026	2027+
<b>Recommended Capital Funding (\$)</b>	\$378,680,000	\$43,987,000	\$91,525,000	\$97,728,000	\$145,440,000	
<b>Operating Impact of Capital (\$)</b>	\$20,833,000	\$3,455,000	\$5,247,000	\$4,770,000	\$7,361,000	
<b>Funding Status</b>	Recommended					
<b>Funding Source(s)</b>	Self-supported Capital Reserve \$154,078 (thousand), Self-supported Debt \$224,602 (thousand)					

Economic Impacts of 2023-2026 Recommended Funding	Gross Output \$	Gross Domestic Product \$	Income \$	Employment (Person-Years)
	\$799,103,186	\$308,995,260	\$182,996,359	2,058
MUGS Classification	Maintenance	Upgrade	Growth	New Services
	25%	45%	24%	6%
<b>Impact of this capital investment on GHG emissions</b>	Possible GHG reduction depending on design			
<b>Magnitude of the increase or decrease in GHG emissions</b>	N/A			

## Facilities, Equipment and Technology (Water) (Program 899)

<b>Executive Summary</b>	The Facilities, Equipment and Technology program consists of investments in technology and laboratory/field equipment required for the delivery of water, wastewater and stormwater services. These investments ensure that the Water Utility can meet regulatory compliance. This is done through extensive laboratory testing and technologies to manage and operate the assets necessary for delivering services to realize service efficiencies.
<b>Program Components</b>	Examples of major investments include: - Asset & Workflow Management software upgrade - Software/Hardware lifecycle and upgrades - Laboratory and Operational services equipment
<b>Other Contributing Services</b>	None

### Expected Key Benefits:

<b>Economic Resilience</b>	Investment in technology and equipment supports ongoing delivery of water, wastewater, and stormwater services, as well as realizing efficiencies in existing processes and procedures.
<b>Social Resilience</b>	Investment in technology and equipment allows for ongoing delivery of water, wastewater, and stormwater services, to improve overall customer experience and access to information.
<b>Climate Resilience</b>	Technology and equipment support the delivery of water, wastewater, and stormwater services to Calgarians and helps to maintain a healthy and green city. It ensures public health, protects the water source, and the health of the rivers.

<b>Service</b>	Water Treatment & Supply	<b>Department</b>	Infrastructure Services
<b>Budget ID</b>	TBD	<b>Activity #</b>	460989
<b>Investment Category</b>	Program	<b>Wards</b>	All Wards
<b>Primary Alignment to Council's Foundation</b>	Climate Resilience	<b>Primary Alignment to Capital Infrastructure Investment Drivers</b>	Support the delivery of City of Calgary services
<b>Primary Alignment to Shared Strategic Agenda</b>	Modernizing government	<b>Secondary Alignment to Shared Strategic Agenda</b>	

	Total	2023	2024	2025	2026	2027+
<b>Recommended Capital Funding (\$)</b>	\$37,200,000	\$12,900,000	\$8,100,000	\$8,100,000	\$8,100,000	
<b>Operating Impact of Capital (\$)</b>	\$6,665,000	\$887,000	\$1,823,000	\$1,632,000	\$2,323,000	
<b>Funding Status</b>	Recommended					
<b>Funding Source(s)</b>	Self-supported Capital Reserve \$37,200 (thousand)					

This request requires \$887 thousand base funding of operating costs starting in 2023, \$1,823 thousand base funding of operating costs starting in 2024, \$1,632 thousand base funding of operating costs starting in 2025, and \$2,323 thousand base funding of operating costs starting in 2026."

<b>Economic Impacts of 2023-2026 Recommended Funding</b>	<b>Gross Output \$</b>	<b>Gross Domestic Product \$</b>	<b>Income \$</b>	<b>Employment (Person-Years)</b>
	\$78,500,683	\$30,354,451	\$17,976,826	202
<b>MUGS Classification</b>	<b>Maintenance</b>	<b>Upgrade</b>	<b>Growth</b>	<b>New Services</b>
	21%	2%	5%	72%
<b>Impact of this capital investment on GHG emissions</b>		Possible GHG reduction depending on design		
<b>Magnitude of the increase or decrease in GHG emissions</b>		N/A		

## Water Distribution Network (Program 892)

<b>Executive Summary</b>	The Water Distribution Network program consists of self-supported investments to maintain the delivery of water service in existing communities; extend services to new Calgary communities; and address annual capital maintenance needs.
<b>Program Components</b>	Examples of major investments include: - North Calgary Water Servicing strategy - Water Meter replacement and strategy - Providence Starlight East Pump Station
<b>Other Contributing Services</b>	None

### Expected Key Benefits:

<b>Economic Resilience</b>	Investment in water treatment and distribution stimulates the economy by creating jobs in engineering, consulting, and construction.
<b>Social Resilience</b>	Investment in water treatment and distribution provides reliable high quality drinking water to customers and minimizes service disruptions.
<b>Climate Resilience</b>	Reliable water service provides the foundation to a healthy and green city. It ensures public health, allows for fire protection, and the health of the rivers.

<b>Service</b>	Water Treatment & Supply	<b>Department</b>	Infrastructure Services
<b>Budget ID</b>	TBD	<b>Activity #</b>	460940
<b>Investment Category</b>	Program	<b>Wards</b>	All Wards
<b>Primary Alignment to Council's Foundation</b>	Climate Resilience	<b>Primary Alignment to Capital Infrastructure Investment Drivers</b>	Support the delivery of City of Calgary services
<b>Primary Alignment to Shared Strategic Agenda</b>	Modernizing government	<b>Secondary Alignment to Shared Strategic Agenda</b>	

	Total	2023	2024	2025	2026	2027+
<b>Recommended Capital Funding (\$)</b>	\$285,627,000	\$32,081,000	\$65,662,000	\$93,942,000	\$93,942,000	
<b>Operating Impact of Capital (\$)</b>	\$14,801,000	\$1,638,000	\$2,894,000	\$4,237,000	\$6,032,000	
<b>Funding Status</b>	Recommended					
<b>Funding Source(s)</b>	Self-supported Capital Reserve \$163,468 (thousand), Self-supported Debt \$122,159 (thousand)					

Economic Impacts of 2023-2026 Recommended Funding	Gross Output \$	Gross Domestic Product \$	Income \$	Employment (Person-Years)
		\$602,739,637	\$233,065,884	\$138,028,681
MUGS Classification	Maintenance	Upgrade	Growth	New Services
	35%	4%	39%	22%
<b>Impact of this capital investment on GHG emissions</b>	Possible GHG reduction depending on design			
<b>Magnitude of the increase or decrease in GHG emissions</b>	N/A			

## Water Treatment Plant (Program 891)

<b>Executive Summary</b>	The Water Treatment Plant program consists of self-supported investments in annual maintenance programs; projects focused on upgrades to pump stations; and plant capacity optimization to continue to provide quality drinking water to existing and new customers.
<b>Program Components</b>	Examples of major investments include: - Glenmore Water Treatment Plant Electrical Master Plan - Fluoridation - Water Treatment Plant Optimization and Capacity Upgrade
<b>Other Contributing Services</b>	None

**Expected Key Benefits:**

<b>Economic Resilience</b>	Investment in water treatment and distribution stimulates the economy by creating jobs in engineering, consulting, and construction.
<b>Social Resilience</b>	Investment in water treatment and distribution provides reliable high quality drinking water to customers and minimizes service disruptions.
<b>Climate Resilience</b>	Reliable water service provides the foundation to a healthy and green city. It ensures public health, allows for fire protection, and the health of the rivers.

<b>Service</b>	Water Treatment & Supply	<b>Department</b>	Infrastructure Services
<b>Budget ID</b>	TBD	<b>Activity #</b>	459259
<b>Investment Category</b>	Program	<b>Wards</b>	All Wards
<b>Primary Alignment to Council's Foundation</b>	Climate Resilience	<b>Primary Alignment to Capital Infrastructure Investment Drivers</b>	Support the delivery of City of Calgary services
<b>Primary Alignment to Shared Strategic Agenda</b>	Modernizing government	<b>Secondary Alignment to Shared Strategic Agenda</b>	

	<b>Total</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027+</b>
<b>Recommended Capital Funding (\$)</b>	\$131,083,000	\$17,378,000	\$41,349,000	\$36,178,000	\$36,178,000	
<b>Operating Impact of Capital (\$)</b>	\$6,665,000	\$887,000	\$1,823,000	\$1,632,000	\$2,323,000	
<b>Funding Status</b>	Recommended					
<b>Funding Source(s)</b>	Self-supported Capital Reserve \$90,767 (thousand), Self-supported Debt \$40,316 (thousand)					

<b>Economic Impacts of 2023-2026 Recommended Funding</b>	<b>Gross Output \$</b>	<b>Gross Domestic Product \$</b>	<b>Income \$</b>	<b>Employment (Person-Years)</b>
	\$276,615,725	\$106,961,090	\$63,345,600	712
<b>MUGS Classification</b>	<b>Maintenance</b>	<b>Upgrade</b>	<b>Growth</b>	<b>New Services</b>
	39%	3%	15%	43%
<b>Impact of this capital investment on GHG emissions</b>	Possible GHG reduction depending on design			
<b>Magnitude of the increase or decrease in GHG emissions</b>	N/A			