

CAPITAL PROFILE REPORT

PROFILE NAME: SEWER SYSTEM UPGRADING
PROFILE: CM-23-9703
DEPARTMENT: Financial Services & Utilities - Utilities
BRANCH: Sanitary Utility
PROGRAM:
LEAD BRANCH:
BUDGET CYCLE: 2015-2018

FUNDED

PROFILE STAGE: Post Budget Approval
PROFILE TYPE: Composite
PROFILE MANAGER: Chris Ward
LEAD BRANCH MANAGER:
ESTIMATED START: January, 2015
ESTIMATED COMPLETION: December, 2018

Service Category: Utilities**Major Initiative:****GROWTH****RENEWAL**

100

PREVIOUSLY APPROVED:

4,513

BUDGET REQUEST:

-2,500

TOTAL PROFILE BUDGET:

2,013

PROFILE DESCRIPTION

This program will increase the capacity of the City's sewer systems and minimize capacity constraints. It aims to improve the level of service by reducing the impacts of large rainfall events, minimizing the risk of sewer backup and surface flooding in all the 255 mature neighbourhoods built prior to 1989. Project works include the design and construction of hydraulic upgrades in 2 - 4 neighbourhoods every year. The Sewer Upgrading Strategy comprises both proactive and reactive projects to address sewer capacity deficiencies. Proactive upgrades under the Sewer Upgrading Strategy may be implemented along with the Drainage Neighbourhood Renewal Program (DNRP) or the Flood Prevention Program which could reduce costs associated with excavation, repaving, mobilization/demobilization, etc. However, reactive upgrades will be implemented in neighborhoods that experience significant basement flooding following a severe rainfall event.

PROFILE BACKGROUND

The Sewer Upgrading Strategy is needed to address pipe capacity issues by upgrading the pipes from their current size to a larger size to increase the sanitary, storm and combined sewer level of service. The strategy aims to improve drainage sewer systems in all 255 neighbourhoods that were built prior to 1989, which were designed with no minor system. Flooding report data indicate on average 350 basement flooding incidents occur per year in pre-1989 neighborhoods. So far, 107 of these neighbourhoods have been assessed and 138 remaining neighbourhoods will need to be evaluated in the upcoming years.

The Sewer Upgrading Strategy will be complimentary to local upgrades the City undertakes in response to extreme flood events under the Flood Prevention Program, and may work in coordination with Drainage Neighbourhood Renewal. It will focus toward addressing sewer and drainage system deficiencies before flooding occurs, reducing the impacts of large rainfall events when they occur.

PROFILE JUSTIFICATION

Upgrading the capacity of existing facilities can help to ensure that an acceptable level of service is provided to drainage customers. Upgrades will reduce the occurrences of basement and street flooding which cause property damage and can be very costly and disturbing to residents. Upgrades will also improve the water quality to North Saskatchewan River. Stormwater quality has been identified as a significant source of some of the contaminants to the North Saskatchewan River. Control of these contaminants is a partial fulfillment of obligations to Alberta Environment.

STRATEGIC ALIGNMENT

The Sewer Upgrading Strategy aligns with "The Way We Live" as it reduces basement and surface flooding due to sewer capacity deficiencies. It will increase the level of service and reduce impact on environment and public health.

ALTERNATIVES CONSIDERED

An alternative is to do nothing. This will cause public dissatisfaction due to basement flooding, street flooding and property damage.

COST BENEFITS

The Strategy will have a positive impact on the operating budget due to the reduction in flooding occurrences. There will also be a reduction of maintenance activities for a period of time for the new sewer. The estimated average cost to upgrade each neighborhood is approximately \$5.3 million.

KEY RISKS & MITIGATING STRATEGY

The implementation of this strategy will increase sewer level of service and will reduce the risk of injury or damage to persons and property due to basement flooding, street flooding, or roadway subsidence.

RESOURCES

No new internal resources will be required by this program. However the Sewer Upgrading Strategy projects will require external resources for both the design and construction phases.

CONCLUSIONS AND RECOMMENDATIONS

The Sewer Upgrading Strategy is needed to address sewer capacity issues causing basement or surface flooding. In neighbourhoods built prior to 1989, sewer level of service is considered below current standards and therefore requires sewer upgrades.

CHANGES TO APPROVED PROFILE

2016 Spring SCBA (CA#20): (2.2.7)

Defer to the next budget cycle (2019-2022) due to the need to re-evaluate neighbourhood implementation plan to coordinate better with other planned construction/priorities. Small improvements have been identified in various neighbourhoods and will be completed in 2016-2018.

2016 Fall SCBA (CA#40): (2.6) Transfer From CM-31-9703 Sewer System Upgrading to CM-23-9703 Sewer System Upgrading; in order to combine Storm to Sanitary to become one Business Area.

CAPITAL PROFILE REPORT

Profile Page 3

PROFILE NAME: **Sewer System Upgrading**

PROFILE NUMBER: **CM-23-9703**

BRANCH: **Sanitary Utility**

FUNDED

PROFILE TYPE: **Composite**

CAPITAL BUDGET AND FUNDING SOURCES (000's)

		Prior Years	2017	2018	2019	2020	2021	2022	2023	2024	2025	Beyond 2025	Total
APPROVED BUDGET	Approved Budget												
	Original Budget Approved	1,455	6,010	6,190	-	-	-	-	-	-	-	-	13,655
	2015 Cap Carry Forward	-	-	-	-	-	-	-	-	-	-	-	-
	2016 Cap Council	-603	-4,207	-4,333	-	-	-	-	-	-	-	-	-9,142
	2016 Cap Carry Forward	-735	735	-	-	-	-	-	-	-	-	-	-
	Current Approved Budget	118	2,538	1,858	-	-	-	-	-	-	-	-	4,513
	Approved Funding Sources												
	Drainage Retained Earnings	10	1,052	743	-	-	-	-	-	-	-	-	1,805
	Self-Liquid. Debent.-Sanitary	107	1,486	1,115	-	-	-	-	-	-	-	-	2,707
	Current Approved Funding Sources	118	2,538	1,858	-	-	-	-	-	-	-	-	4,513

BUDGET REQUEST	Budget Request	-	-1,250	-1,250	-	-	-	-	-	-	-	-	-2,500
	Revised Funding Sources (if approved)												
	Drainage Retained Earnings	-	-500	-500	-	-	-	-	-	-	-	-	-1,000
	Self-Liquid. Debent.-Sanitary	-	-750	-750	-	-	-	-	-	-	-	-	-1,500
	Requested Funding Source	-	-1,250	-1,250	-	-	-	-	-	-	-	-	-2,500

REVISED BUDGET (IF APPROVED)	Revised Budget (if Approved)	118	1,288	608	-	-	-	-	-	-	-	-	2,013
	Requested Funding Source												
	Drainage Retained Earnings	10	552	243	-	-	-	-	-	-	-	-	805
	Self-Liquid. Debent.-Sanitary	107	736	365	-	-	-	-	-	-	-	-	1,207
	Requested Funding Source	118	1,288	608	-	-	-	-	-	-	-	-	2,013

CAPITAL BUDGET BY ACTIVITY TYPE (000's)

	Activity Type	Prior Years	2017	2018	2019	2020	2021	2022	2023	2024	2025	Beyond 2025	Total
REVISED BUDGET (IF APPROVED)	Construction	-735	735	-	-	-	-	-	-	-	-	-	-
	Design	852	553	608	-	-	-	-	-	-	-	-	2,013
	Total	118	1,288	608	-	-	-	-	-	-	-	-	2,013

OPERATING IMPACT OF CAPITAL

Type of Impact:

Branch:	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE
Total Operating Impact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-