

CAPITAL PROFILE REPORT

PROFILE NAME: **CREEK EROSION PROTECTION**
 PROFILE: **CM-31-9604**
 DEPARTMENT: **Financial Services & Utilities - Utilities**
 BRANCH: **Stormwater 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:

13,802

BUDGET REQUEST:

-2,600

TOTAL PROFILE BUDGET:

11,202

PROFILE DESCRIPTION

Implement appropriate creek erosion protection due to increased runoff from urban development. Local remediation and investigation of drainage problems caused by overland flows, ensure that the existing system is functioning as intended. This project seeks to implement appropriate creek erosion protection works due to increased runoff originated from urban development and address overland drainage problems throughout the city as they arise. This is a composite program to implement erosion protection works at a number of locations along the Whitemud/Blackmud Creeks, Mill Creek, Fulton Creek, Gold Bar Creek, Wedgewood Creek and Horsehills Creek.

PROFILE BACKGROUND

The Creek Erosion Protection Program has been established to solve overland drainage issues and implement creek erosion protection works throughout the City. The program will investigate, evaluate and carry out overland drainage remedial works and implement creek protection works due to increased runoff originating from urban development. It is proposed to implement creek erosion protection projects at a number of locations along the Whitemud/Blackmud Creeks, Mill Creek, Fulton Creek, Gold Bar Creek, Wedgewood Creek and Horsehills Creek. Any additional increased runoff volume will exacerbate the current conditions and can impact the uses of the natural areas abutting the creeks and also contribute to total loading of solids to the North Saskatchewan River.

PROFILE JUSTIFICATION

The proposed projects will reduce hazards due to erosion, prevent costly emergency repairs, reduce total loading to the North Saskatchewan River and serve to protect, enhance and improve the City's natural environment. Implementation of the erosion protection works will also fulfill the requirements of collecting Storm Permanent Area Contribution (PAC) from the development industry. Usually the City receives 35-40 complaints every year regarding flooding issues and unsafe conditions resulting from overland flows. Citizens' complaints of surface flooding and erosion caused by rainfall and snowmelt have to be investigated, prioritized and addressed. Flooding and erosion hazards to the public include direct flooding, traffic problems due to street inundation and route blockage, and potential structural damage.

STRATEGIC ALIGNMENT

The program is consistent with and complements the City's overall goal of environmental protection as articulated in The Way Ahead, The Way We Live, The Way We Green, The Way We Finance

ALTERNATIVES CONSIDERED

- 1) Do nothing
- 2) Review potential projects and implement according to highest priority (proposed).
- 3) Install flow monitors, but defer projects.

COST BENEFITS

This program will provide flood protection and correct unsafe conditions resulting from overland flows, thus providing a safer and cleaner environment. The program will fulfill the goals to protect, enhance, and improve the City's natural environment. Moreover, the program will ensure that an acceptable overland drainage is provided to citizens.

KEY RISKS & MITIGATING STRATEGY

The key risks of not proceeding are: increased sediment transport to the river, more frequent expensive emergency repairs, reduced structural integrity of roadways and property, recreational use of the creek valley system will be affected.

RESOURCES

Internal resources will be used to investigate and implement overland drainage projects. For creek erosion projects, external engineering consultants and contractors are required for design and construction.

CONCLUSIONS AND RECOMMENDATIONS

The Creek Erosion Protection program will investigate, evaluate and carry out overland drainage remedial work to address complaints from citizens and implement creek protection works due to increased runoff originating from urban development.

CAPITAL PROFILE REPORT

Profile Page 2

PROFILE NAME: **Creek Erosion Protection**

PROFILE NUMBER: **CM-31-9604**

BRANCH: **Stormwater 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	6,482	3,606	3,714	-	-	-	-	-	-	-	-	13,802
	2015 Cap Carry Forward	-	-	-	-	-	-	-	-	-	-	-	-
	2016 Cap Carry Forward	-1,416	1,416	-	-	-	-	-	-	-	-	-	-
	Current Approved Budget	5,065	5,022	3,714	-	-	-	-	-	-	-	-	13,802
	Approved Funding Sources												
	Developer Financing	-	3,184	1,126	-	-	-	-	-	-	-	-	4,309
	Drainage Retained Earnings	1,470	1,291	1,035	-	-	-	-	-	-	-	-	3,797
	Self-Liquid. Debent.-Land Drg	3,595	547	1,553	-	-	-	-	-	-	-	-	5,696
	Current Approved Funding Sources	5,065	5,022	3,714	-	-	-	-	-	-	-	-	13,802

BUDGET REQUEST	Budget Request	-	-2,260	-340	-	-	-	-	-	-	-	-	-2,600
	Revised Funding Sources (if approved)												
	Developer Financing	-	-2,209	-	-	-	-	-	-	-	-	-	-2,209
	Drainage Retained Earnings	-	-51	-40	-	-	-	-	-	-	-	-	-91
	Self-Liquid. Debent.-Land Drg	-	-	-300	-	-	-	-	-	-	-	-	-300
	Requested Funding Source	-	-2,260	-340	-	-	-	-	-	-	-	-	-2,600

REVISED BUDGET (IF APPROVED)	Revised Budget (if Approved)	5,065	2,762	3,374	-	-	-	-	-	-	-	-	11,202
	Requested Funding Source												
	Developer Financing	-	974	1,126	-	-	-	-	-	-	-	-	2,100
	Drainage Retained Earnings	1,470	1,241	995	-	-	-	-	-	-	-	-	3,707
	Self-Liquid. Debent.-Land Drg	3,595	547	1,253	-	-	-	-	-	-	-	-	5,396
	Requested Funding Source	5,065	2,762	3,374	-	-	-	-	-	-	-	-	11,202

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	2,535	1,418	1,990	-	-	-	-	-	-	-	-	5,944
	Design	439	251	259	-	-	-	-	-	-	-	-	949
	Land	2,091	1,093	1,126	-	-	-	-	-	-	-	-	4,309
	Total	5,065	2,762	3,374	-	-	-	-	-	-	-	-	11,202

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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-