

# CAPITAL PROFILE REPORT

PROFILE NAME:	<b>INTEGRATED PROCESSING AND TRANSFER FACILITY EXPANSION</b>	<b>FUNDED</b>
PROFILE NUMBER:	<b>16-33-2017</b>	<b>PROFILE STAGE: Approved</b>
DEPARTMENT:	<b>Utilities</b>	<b>PROFILE TYPE: Standalone</b>
LEAD BRANCH:	<b>Waste Services</b>	LEAD MANAGER: <b>Leo Girard</b>
PROGRAM NAME:		PARTNER MANAGER:
PARTNER:	<b>Waste Management Services</b>	ESTIMATED START: <b>January, 2015</b>
BUDGET CYCLE:	<b>2015-2018</b>	ESTIMATED COMPLETION: <b>December, 2018</b>

<b>Service Category:</b>	<b>Utilities</b>	<b>Major Initiative:</b>
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<b>GROWTH</b>	<b>RENEWAL</b>	<b>PREVIOUSLY APPROVED:</b>	<b>1,848</b>
<b>50</b>	<b>50</b>	<b>BUDGET REQUEST:</b>	<b>-</b>
		<b>TOTAL PROFILE BUDGET:</b>	<b>1,848</b>

## PROFILE DESCRIPTION

The Intergrated Processing & Transfer Facility (IPTF) consists of 3 processes. Tip floor & Transfer Station, Pre-processing & Refuse Derived Fuel (RDF). Pre-processing's current capacity is 250,000 tonnes/yr. Projected capacity to meet commitments once Biofuels & Anaerobic Digestion facilities are at full capacity is 280,000 tonnes/yr. The RDF equipment was designed with 2 shredder lines & space to add 2 more as needed. Capacity is projected to be 110,000 dry tonnes/yr, close to commitments of 100,000 dry tonnes/yr. This leaves little room for performance shortfalls or downtime. In addition, 1 pre-shredder supplies the 2 process lines. Lack of redundancy for this key piece increases risk of supply shortfalls. This project will review efficiency & performance of existing equip, develop designs & specifications for new processes and/or equipment as needed and install & commission new equipment.

## PROFILE BACKGROUND

The IPTF accepts all collected residential & commercial waste which is brought to the Waste Management Centre (EVMC). Waste is processed to extract organics & recyclables and to produce RDF. Remainder is transported to landfill. This project is to expand processing capacity to ensure increasing volumes can be processed. Problem/Opportunity: The IPTF Pre-processing component is under capacity @ peak times already. Opportunity to further optimize the RDF component to increase margin for error & enable Biofuels to accept more, further advances City's goals for waste diversion. Part of RDF processing circuit is single train & failure of one large piece of equip would idle the complete circuit. There are occasions when waste is diverted to landfill due to equip failures, unscheduled maintenance & other issues. Current Situation: To achieve target of 90% diversion for residential waste, IPTF capacity needs to increase to meet feedstock demands of Biofuels & Anaerobic Digestion Facilities.

## PROFILE JUSTIFICATION

As residential waste volumes increase & more commercial waste contracts awarded, preparation for processing increased waste volumes are required. It is projected that by 2017, the IPTF will not be able to process all incoming waste during high volume periods. Failure to handle all incoming waste means that some portion will be diverted directly to landfill, resulting in no diversion of organics recyclables, or remaining material to Refuse Derived Fuel for the Biofuels facility. To achieve and maintain targeted 90% residential waste diversion & provide room for longer term growth in both residential and commercial diversion programs, this project will take advantage of growth in processing capacity at the downstream organics and Waste to Biofuels facilities by providing the requisite feedstock preparation capacity. At the same time, a review of latest technology and processes will ensure the most effective and efficient process design is developed for the additional material.

## STRATEGIC ALIGNMENT

The project supports the business plan goals of maximizing residential waste diversion from landfill, increasing diversion of ICI waste, and improving efficiency and effectiveness of operations.

## ALTERNATIVES CONSIDERED

The only alternative to this project is to operate the IPTF on a two-shift basis. This would allow for more processing time, but with longer storage periods for material on the tip floor (deliveries are only during day shift).

## COST BENEFITS

This project will result in higher operating and capital costs, with the only savings being reduced costs to haul and landfill waste material.

## KEY RISKS & MITIGATING STRATEGY

Main risks are associated with new technologies that may be used. These risks will be mitigated by extensive review and observations of the technology use in other jurisdictions.

## RESOURCES

The project will be led by a Waste Management Services Project Engineer, with input from the G.S. and Supervisor of IPTF Operations, the contracted Facility Maintenance Contractor, and consultants as necessary.

## CONCLUSIONS AND RECOMMENDATIONS

It is recommended that existing studies be completed and a design concept be finalized before final approval is requested for this project.

## CHANGES TO APPROVED PROFILE

2017 Fall (#17-40) 2.2-24: Savings from 13-33-2020, 16-33-2017, CM-33-2005 and CM-33-2019 totaling \$20,275,500 will be released. These savings will be used to cover additional budget requirement for the Landfill Capping and Revegetation, Planning & Design and Groundwater Diversion initiatives. As a result, the re-costing of the Landfill Capping and the new profiles for the Planning & Design and Groundwater Diversion will not require additional overall Waste Utility budget funding.

# CAPITAL PROFILE REPORT

PROFILE NAME: **Integrated Processing and Transfer Facility Expansion**

**FUNDED**

PROFILE NUMBER: **16-33-2017**

PROFILE TYPE: **Standalone**

BRANCH: **Waste Services**

## CAPITAL BUDGET AND FUNDING SOURCES (000's)

	Prior Years	2023	2024	2025	2026	2027	2028	2029	2030	2031	Beyond 2031	Total	
APPROVED BUDGET	Approved Budget												
	Original Budget Approved	22,321	-	-	-	-	-	-	-	-	-	22,321	
	2015 Cap Carry Forward	-	-	-	-	-	-	-	-	-	-	-	
	2016 Cap Carry Forward	-	-	-	-	-	-	-	-	-	-	-	
	2017 Cap Council	-12,983	-	-	-	-	-	-	-	-	-	-12,983	
	2017 Cap Carry Forward	1	-	-	-	-	-	-	-	-	-	1	
	2018 Cap Carry Forward	-	-	-	-	-	-	-	-	-	-	-	
	2018 Cap Release to Corp Pool	-7,470	-	-	-	-	-	-	-	-	-	-	-7,470
	2019 Cap Release to Corp Pool	-20	-	-	-	-	-	-	-	-	-	-	-20
	Current Approved Budget	1,848	-	-	-	-	-	-	-	-	-	-	1,848
APPROVED FUNDING SOURCES	Approved Funding Sources												
	Self-Liquidating Debentures	1,847	-	-	-	-	-	-	-	-	-	1,847	
	Waste Mgt Retained Earnings	1	-	-	-	-	-	-	-	-	-	1	
	Current Approved Funding Sources	1,848	-	-	-	-	-	-	-	-	-	1,848	

BUDGET REQUEST	2023	2024	2025	2026	2027	2028	2029	2030	2031	Beyond 2031	Total
Budget Request	-	-	-	-	-	-	-	-	-	-	-

REVISED BUDGET (IF APPROVED)	2023	2024	2025	2026	2027	2028	2029	2030	2031	Beyond 2031	Total
Revised Budget (if Approved)	1,848	-	-	-	-	-	-	-	-	-	1,848
Requested Funding Source											
Self-Liquidating Debentures	1,847	-	-	-	-	-	-	-	-	-	1,847
Waste Mgt Retained Earnings	1	-	-	-	-	-	-	-	-	-	1
Requested Funding Source	1,848	-	-	-	-	-	-	-	-	-	1,848

## CAPITAL BUDGET BY ACTIVITY TYPE (000's)

REVISED BUDGET (IF APPROVED)	Activity Type	Prior Years	2023	2024	2025	2026	2027	2028	2029	2030	2031	Beyond 2031	Total
	Construction	1,848	-	-	-	-	-	-	-	-	-	-	1,848
	Total	1,848	-	-	-	-	-	-	-	-	-	-	1,848

## 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-