

CAPITAL PROFILE REPORT

PROFILE NAME: **ORGANICS PROCESSING FACILITIES (OPF)**
 PROFILE NUMBER: **19-81-2049**
 DEPARTMENT: **Integrated Infrastructure Services**
 LEAD BRANCH: **Infrastructure Planning and Design**
 PROGRAM NAME:
 PARTNER: **Waste Services**
 BUDGET CYCLE: **2019-2022**

FUNDED

PROFILE STAGE:	Approved
PROFILE TYPE:	Standalone
LEAD MANAGER:	Pascale Ladouceur
PARTNER MANAGER:	Michael Labrecque
ESTIMATED START:	October, 2019
ESTIMATED COMPLETION:	June, 2025

Service Category: **Utilities**

Major Initiative:

GROWTH

RENEWAL
100

PREVIOUSLY APPROVED:	4,777
BUDGET REQUEST:	-
TOTAL PROFILE BUDGET:	4,777

PROFILE DESCRIPTION

This Stand-alone Capital Profile supports the development of the P3 business case for the Organics Processing Facilities Project under the Waste Services IIS Infrastructure capital budget. Included in this profile are activities required to advance the development of the P3 business case, specifically funds required to award the Owner's Engineer and Financial Advisor contracts.

The Organics Processing Facilities Project is a long-term solution to address organics processing capacity at the Edmonton Waste Management Centre. The OPF Project is a key solution of the 25-year Waste Strategy, which focuses on long-term capacity and processing capabilities at the EWMC. Starting in mid-2020, the rollout of the Source Separated Organics Program will increase the amount of organic materials that will need to be processed at the site.

This capital profile aims to achieve the following outcomes:
 Develop the business case to justify the selection of entering into a Public Private Partnership procurement.

Long-term goals include:

- To resolve the current lack of processing facility due to the closure of the Edmonton Composting Facility.
- To provide capacity for organic waste processing based on projected long-term numbers.
- To consider the feasibility of partnering with regional municipalities.
- To produce renewable natural gas as a by-product of the process if anaerobic digestion process is selected.

This project will adhere to both the PDDM process as well as City Policy C555 to ensure that sufficient justification is prepared in advance of the acceptance of the P3 business case and approval to procure a P3 partner. As this stand-alone profile only currently includes Planning and Design costs, Project Delivery costs will be added to this profile through a formal budget adjustment process upon Council approval of the business case.

PROFILE BACKGROUND

The City of Edmonton provides waste collection for almost 400,000 residential households and some non-residential customers. The waste is processed and disposed of at the Edmonton Waste Management Centre, a 233-hectare site located in northeast Edmonton.

In 2017 structural issues were identified with the Edmonton Composting Facility (ECF) Aeration Hall. These findings led to the facility's partial winter closure in 2017 and 2018 to ensure safe operation. In spring 2019, the decision was made to close the facility permanently due to the structural deterioration of the roof. The Anaerobic Digestion Facility (ADF), which was recently completed, was only anticipated to complement the processing capacity at the ECF, and as such, there is a large capacity deficit for processing organic material.

The new OPF, if anaerobic digestion technology is selected, will provide a replacement facility for the ECF with Renewable Natural Gas (RNG) as a byproduct, and will include the operations and maintenance of the existing ADF and Cure Sites. This project is intended to be operated over a 25 to 30-year period by a Private Partner under the P3 procurement method.

PROFILE JUSTIFICATION

The new OPF will provide a replacement organics processing facility for the ECF. The OPF will utilize anaerobic digestion with Renewable Natural Gas (RNG) as a byproduct, or other mature technologies on the market. The project will include the operations and maintenance of the existing ADF and Cure Sites, and is intended to be operated over a 25 to 30-year period by a Private Partner under the P3 procurement method.

The contract awards for the Owner's Engineer and Financial Advisor to facilitate development and advancement of the P3 business case are contingent upon approval of this stand-alone profile.

STRATEGIC ALIGNMENT

Projects following the PDDM approach for Waste Services align with the following City of Edmonton strategic goals:
Healthy City/Urban Places/Regional Prosperity/Climate Resilience

Further, the strategy will be driven by the City's 90 percent waste diversion goal through beneficial processing, aided by source separation of residential waste. This will contribute to the City's 10-year strategic goals to preserve and sustain Edmonton's environment and ensure Edmonton's financial sustainability.

ALTERNATIVES CONSIDERED

The alternative of repairing the aeration hall and roof structures was investigated and rejected due to significant risk and cost to the City. The alternative of continuing with composting also does not provide the same level of environmental and economic benefits. The alternative of the City designing, building and operating a new facility will be the base case for the P3 value for money comparison.

COST BENEFITS

Waste Services & IIS will ensure the procurement is the most beneficial prior to entering into a long-term commitment.

Other benefits (longer term)

Mitigate costs of sending organics to landfill or trucking to other processing facilities

Addresses long-term processing need of increased organics volume due to population growth

Improved quality & sale value of output

Longer term balances payments of Capital

RNG byproduct as a revenue source

KEY RISKS & MITIGATING STRATEGY

1. RISK: Risk that government approval on a program and/or project level are not received in a timely manner, ultimately resulting in the delay of the issue of tenders.

MITIGATION / COMMENT: City approval of Initial Alternative in February 2019. Low risk as project is priority for Council, low probability of not obtaining approval for business case in April 2020. Owner's Engineer contract can be changed to Design Engineer.

2. RISK: Risk of a longer planning and procurement period for P3 resulting in a higher total program cost (impacted by policy and strategy).

MITIGATION / COMMENT: The current schedule is reasonable at 21 months. There are two approvals prior to contract award for CMAR.

CMAR has more procurements but P3 procurement is more complex.

RESOURCES

The project will be led by the Commercial Manager and Project Lead. A small City project team with members from Waste Services and IIS will provide input. The project will also be supported by Owner's Engineer and Financial Adviser (throughout the Design and Build Phase).

CONCLUSIONS AND RECOMMENDATIONS

Conclusion: The costs for verifying the business case are expected to be larger for the development of the P3 project. Once the procurement has been awarded there is less administration of the P3.

It is recommended that the project be funded for the development of the business case and concept design activities.

CHANGES TO APPROVED PROFILE

2020 Spring SCBA: 20-12: The \$8.3 million capital budget adjustment is required to initiate and fund development of the Organics Processing Facilities Project by transferring approved funding from composite profile CM-81-2045 to standalone profile 19-81-2049. The development includes activities required to advance the project up to contract award, such as project development, request for qualification, request for proposal and other procurement activities required prior to contract award.

2021 Utility Fall SCBA (#21-32, 3.3-2): The 19-81-2049 Organics Processing Facilities profile was approved for cancellation by City Council on August 16, 2021. The actuals incurred of \$4.78 million will be written-off. The full budget of \$13.76 million will be released.

CAPITAL PROFILE REPORT

PROFILE NAME: **Organics Processing Facilities (OPF)**
 PROFILE NUMBER: **19-81-2049**
 BRANCH: **Infrastructure Planning and Design**

FUNDED
 PROFILE TYPE: **Standalone**

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	-	-	-	-	-	-	-	-	-	-	-	
	2019 Cap Council	5,440	-	-	-	-	-	-	-	-	-	5,440	
	2019 Cap Carry Forward	-	-	-	-	-	-	-	-	-	-	-	
	2020 Cap Council	8,320	-	-	-	-	-	-	-	-	-	8,320	
	2020 Cap Carry Forward	-	-	-	-	-	-	-	-	-	-	-	
	2021 Cap Council	-13,760	-	-	-	-	-	-	-	-	-	-13,760	
	2021 Cap Carry Forward	-	-	-	-	-	-	-	-	-	-	-	
	2022 Cap Administrative	4,777	-	-	-	-	-	-	-	-	-	-	4,777
	Current Approved Budget	4,777	-	-	-	-	-	-	-	-	-	-	4,777
Approved Funding Sources													
Waste Mgt Retained Earnings	4,777	-	-	-	-	-	-	-	-	-	-	4,777	
Current Approved Funding Sources	4,777	-	-	-	-	-	-	-	-	-	-	4,777	

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

REVISED BUDGET (IF APPROVED)	Prior Years	2023	2024	2025	2026	2027	2028	2029	2030	2031	Beyond 2031	Total
Revised Budget (if Approved)	4,777	-	-	-	-	-	-	-	-	-	-	4,777
Requested Funding Source												
Waste Mgt Retained Earnings	4,777	-	-	-	-	-	-	-	-	-	-	4,777
Requested Funding Source	4,777	-	-	-	-	-	-	-	-	-	-	4,777

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	-663	-	-	-	-	-	-	-	-	-	-	-663
	Design	5,440	-	-	-	-	-	-	-	-	-	-	5,440
	Total	4,777	-	-	-	-	-	-	-	-	-	-	4,777

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