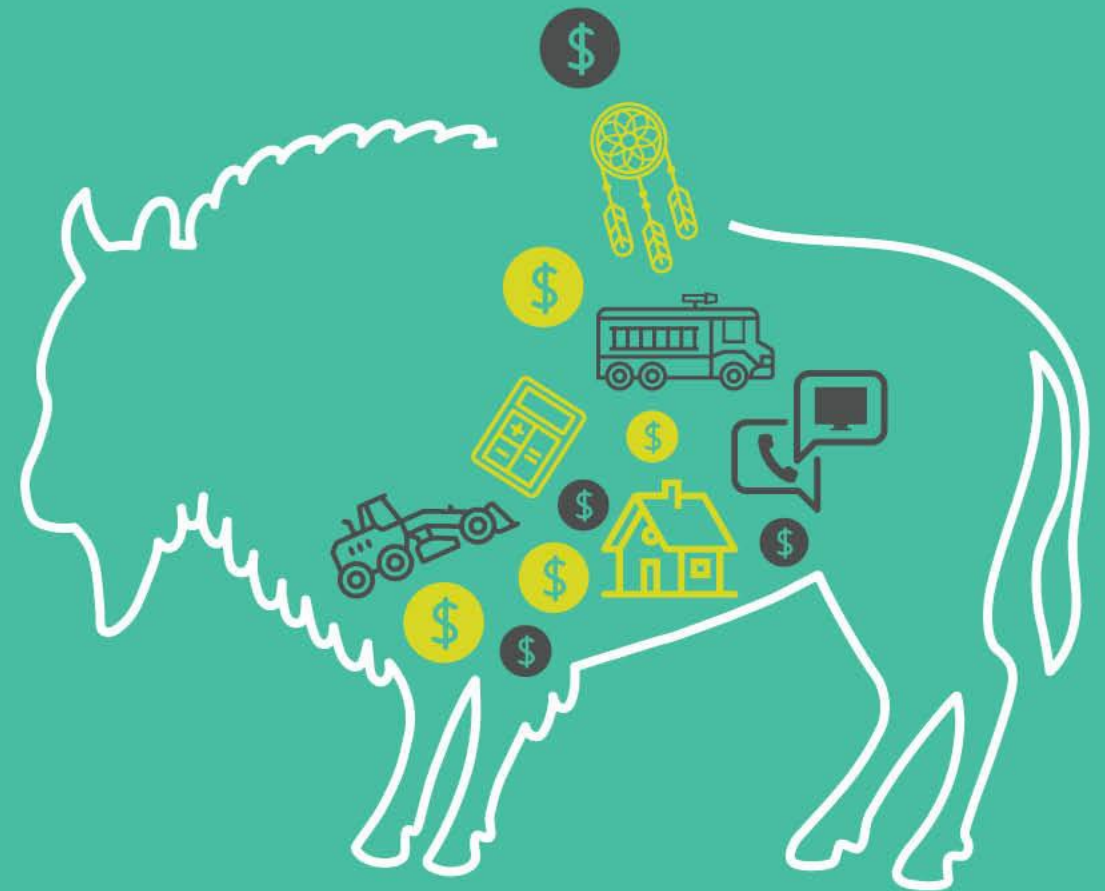


2021 Proposed Capital Budget

Department
Environmental Services

Presenter
Antoine Rempp, Director

Date
December 1 - 4, 2020



2021 Capital Budget Summary-Resourced (Funded)

Major Category	2020 & Prior Budget	2021 Proposed Budget	2022-2026 Plan	Total Budget
Public Facilities	\$105,211,939	\$24,815,000	\$237,824,000	\$367,850,939
Recreation and Culture	-	-	-	-
Transportation	-	-	-	-
TOTAL	\$105,211,939	\$ 24,815,000	\$237,824,000	\$367,850,939

2021 Capital Project

Project Name:	Fort Chipewyan Lift Station Upgrades - Construction			
Reference No:	016	Sponsoring Department: Environmental Services		
Description:	Following an assessment, it was recommended to re-build the lift stations in Fort Chipewyan. There are three lift stations in the hamlet, each numbered 1, 2, and 3. Priority was established for replacement in the following order of lift station 2, 3, and then 1.			
Major Outcomes:	To improve sanitary sewer disposal system in the community.			
Multi Year Project				
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years	
\$ 12,000,000	\$9,000,000	\$ 14,000,000	\$ 35,000,000	

2021 Capital Project Features



Fort Chipewyan Lift Station
Upgrades - Construction

2021 Capital Project

Project Name:	King Street Booster Station Rehabilitation – Construction			
Reference No:	024	Sponsoring Department: Environmental Services		
Description:	The King Street Booster Station is nearly at the end of its 50-year life. A consulting engineering firm reviewed the current status of all aspects of the King Street Booster Station and the outcome of the detailed engineering review determined the need for the replacement and repair of the process and control equipment.			
Major Outcomes:	Maintain Service Delivery Standards.			
Multi Year Project				
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years	
\$ 1,300,000	\$1,000,000	\$ 1,500,000	\$ 3,800,000	

2021 Capital Project Features



King Street Booster Station
Rehabilitation – Construction

2021 Capital Project

Project Name:	Abasand Heights Pumphouse - Construction			
Reference No:	025	Sponsoring Department: Environmental Services		
Description:	The Pumphouse and Reservoir were at the end of their lifecycle and needed to be upgraded in order to maintain proper fire flows in one section of Abasand. This includes replacing the current generator, piping, mechanical processes and building mechanical systems. This project started in Q2 of 2020 and should be completed by Q3 of 2021.			
Major Outcomes:	To maintain fire flow and pressure for the South side of Abasand.			
Multi Year Project				
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years	
\$4,000,000	\$1,600,000	\$0	\$5,600,000	

2021 Capital Project Features



Abasand Heights Pump House -
Construction

2021 Capital Project

Project Name:	Anzac Lagoon Expansion – Design & Construction			
Reference No:	026	Sponsoring Department: Environmental Services		
Description:	The Anzac Wastewater Treatment Plant (WWTP) was oversized for the community's needs, while the existing lagoon was too small to perform properly. A report determined that expanding the existing lagoon would be a much more appropriate choice for wastewater treatment in Anzac than mechanical treatment.			
Major Outcomes:	Support Rural Water and Sewer servicing in Anzac and enable the RMWB to perform in accordance with environmental regulations.			
Multi Year Project				
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years	
\$ 500,000	\$ 3,000,000	\$ 2,500,000	\$ 6,000,000	

2021 Capital Project Features



Anzac Lagoon Expansion –
Design & Construction

2021 Capital Project

Project Name:	Compost Facility Stockpile Repairs			
Reference No:	208	Sponsoring Department: Environmental Services		
Description:	Due to the constant moving of the compost piles as part of the curing process, surface gouging has led to the removal of the surface layer exposing the filter cloth and creating areas of standing water. These areas need to be resurfaced to ensure that surface water drainage is maintained.			
Major Outcomes:	Prevent damage to the surface layer and reduce maintenance costs.			
Multi Year Project				
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years	
\$ 345,000	\$ 1,200,000	\$ 0	\$ 1,545,000	

2021 Capital Project Features



Compost Facility
Stockpile Repairs

2021 Capital Project

Project Name:	Conklin Sewage Lagoon - Construction			
Reference No:	105	Sponsoring Department: Environmental Services		
Description:	This project is to expand the existing Conklin lagoon to meet the expected increase in demand of residential and commercial areas of Conklin, resulting from the completion of the piped water and sewer system. It will also accommodate flows from the water treatment plant.			
Major Outcomes:	Support Rural Water and Sewer servicing in Conklin and enable the RMWB to perform in accordance with environmental regulations.			
Multi Year Project				
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years	
\$ 0	\$ 200,000	\$ 13,700,000	\$ 13,900,000	

2021 Capital Project Features



Conklin Sewage Lagoon -
Construction

2021 Capital Project

Project Name:	Fort Chipewyan Water & Sanitary Sewer - Construction			
Reference No:	108	Sponsoring Department: Environmental Services		
Description:	This project consists of the rehabilitation of the existing water and sewer mains in Fort Chipewyan. Several areas of the hamlet were identified for upgrades in the Fort Chipewyan Infrastructure needs assessment.			
Major Outcomes:	To rehabilitate the water and sewer mains for the hamlet.			
Multi Year Project				
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years	
\$ 0	\$ 100,000	\$ 15,900,000	\$ 16,000,000	

2021 Capital Project Features

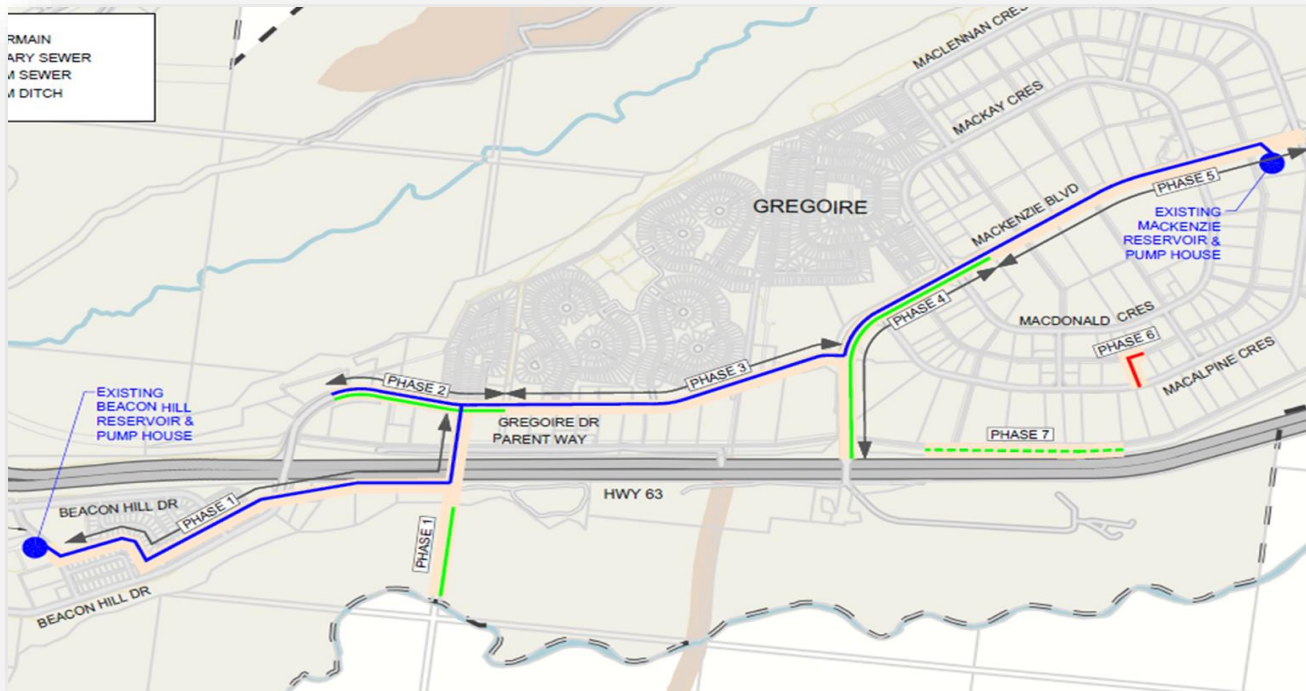
Fort Chipewyan
Water & Sanitary Sewer -
Construction



2021 Capital Project

Project Name:	Storm/Sewer/Water Upgrades in Mackenzie/Beacon Hill – Construction		
Reference No:	008	Sponsoring Department: Environmental Services	
Description:	The project includes the upgrade to the water, sanitary and storm systems in the Mackenzie neighbourhood. It also includes the improvement of the water supply line from Beacon Hill Reservoir to Mackenzie Reservoir.		
Major Outcomes:	Improving existing infrastructure and ensuring redundancy between those two areas.		
Multi Year Project			
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years
\$ 9,000,000	\$ 1,000,000	\$ 40,000,000	\$ 50,000,000

2021 Capital Project Features



Storm/Sewer/Water Upgrades
in Mackenzie/Beacon Hill –
Construction

2021 Capital Project

Project Name:	Fort McKay Water Supply Infrastructure Rehabilitation - Design			
Reference No:	110	Sponsoring Department: Environmental Services		
Description:	The proposed new infrastructure will have an enhanced supply capacity sized to meet the projected 25-year community growth needs. Through a modern intake and pipeline system that will include fish screening to meet current Department of Fisheries and Oceans (DFO) standards.			
Major Outcomes:	To rehabilitate the water infrastructure for the hamlet.			
Multi Year Project				
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years	
\$ 0	\$ 500,000	\$ 1,500,000	\$ 2,000,000	

2021 Capital Project Features



Fort McKay Water Supply
Infrastructure Rehabilitation
- Design

2021 Capital Project

Project Name:	Fort McMurray WWTP Process Improvements Program			
Reference No:	112	Sponsoring Department: Environmental Services		
Description:	The Fort McMurray Wastewater Treatment Plant process improvements program is required to address critical equipment in the facility. The upgrades and replacements are required to improve safety, efficiency, lifecycle costs, maintainability and reliability to improve safety and maintain regulatory compliance. This project includes design and construction.			
Major Outcomes:	To ensure continued operation of the facility to meet Alberta Environment operational approval requirements.			
Multi Year Project				
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years	
\$ 0	\$ 100,000	\$ 8,550,000	\$ 8,650,000	

2021 Capital Project Features



Fort McMurray WWTP
Process Improvements
Program

2021 Capital Project

Project Name:	Janvier WTP Overall Upgrade - Design			
Reference No:	219	Sponsoring Department: Environmental Services		
Description:	The Janvier Water Treatment Plant is a critical asset for the community of Janvier and Chipewyan Prairie First Nation. The current plant was built 25 years ago and needs several modifications.			
Major Outcomes:	To maintain a critical asset and maintain level of service.			
Multi Year Project				
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years	
\$ 0	\$ 100,000	\$ 1,100,000	\$ 1,200,000	

2021 Capital Project Features



Janvier Water Treatment
Overall Plant Upgrade -
Design

2021 Capital Project

Project Name:	Timberlea Reservoir & Pumphouse – Design & Construction			
Reference No:	236	Sponsoring Department: Environmental Services		
Description:	The Pumphouse and Reservoir are nearing the end of their lifecycle and need to be upgraded. This project would be to design and construct upgrades to the Pumphouse and Reservoir that will continue to meet the current needs of the community, with capacity for future growth.			
Major Outcomes:	Enable the RMWB to continue to meet the current needs of the community with capacity for future growth.			
Multi Year Project				
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years	
\$ 0	\$ 500,000	\$ 6,500,000	\$ 7,000,000	

2021 Capital Project Features



Timberlea Reservoir & Pump house
– Design & Construction

2021 Capital Project

Project Name:	Waterline Extension From Parsons Creek to Millennium - Construction			
Reference No:	241	Sponsoring Department: Environmental Service		
Description:	<p>This project is for the construction of a 400mm waterline extension from Parsons Creek to Millennium Drive.</p> <p>The proposed watermain will provide redundancy and backup to the existing water network in Timberlea, which is solely supplied by the Timberlea reservoir.</p>			
Major Outcomes:	To provide redundancy and backup to the existing water network in Timberlea.			
Multi Year Project				
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years	
\$ 0	\$ 1,725,000	\$ 1,750,000	\$ 3,475,000	

2021 Capital Project Features



Waterline Extension from Parsons Creek Reservoir to Millennium Drive - Construction

2021 Capital Project

Project Name:	Waterline Extension From Parson’s Creek to Taiganova - Construction			
Reference No:	242	Sponsoring Department: Environmental Services		
Description:	<p>This project is for the Construction phase of a 400mm waterline extension from Parsons Creek to Taiganova.</p> <p>The proposed watermain will provide redundancy and backup to the existing water network in Taiganova.</p>			
Major Outcomes:	To provide redundancy and backup to the existing water network in Taiganova.			
Multi Year Project				
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years	
\$ 0	\$ 1,750,000	\$ 2,500,000	\$ 4,250,000	

2021 Capital Project Features



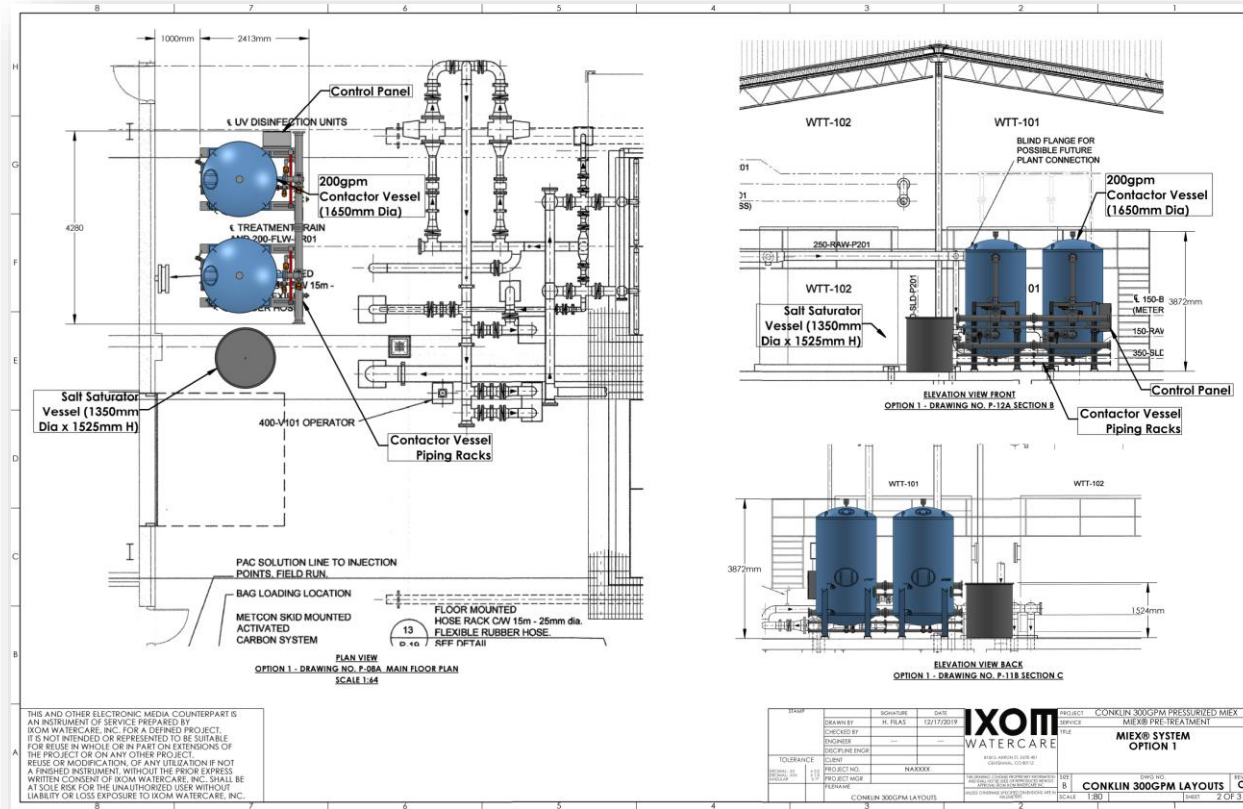
Waterline Extension from
Parsons Creek Reservoir to
Taiganova - Construction

2021 Capital Project

Project Name:	Conklin WTP MIEX and Piping Upgrade – Construction			
Reference No:	211	Sponsoring Department: Environmental Services		
Description:	A magnetic ion exchange (MIEX) study concluded that adding MIEX technology to the treatment process will improve treatment and continue to reduce disinfection by-products (DBP). The proposed project will be to install a MIEX system in Conklin, along with completing an upgrade on the process piping to provide more redundancy.			
Major Outcomes:	To install a MIEX system in Conklin in order to continue to meet regulatory requirements for potable water quality.			
Single Year Project				
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years	
\$ 0	\$ 1,690,000	\$ 0	\$ 1,690,000	

2021 Capital Project Features

Conklin Water Treatment Plant MIE X and Piping Upgrade – Construction

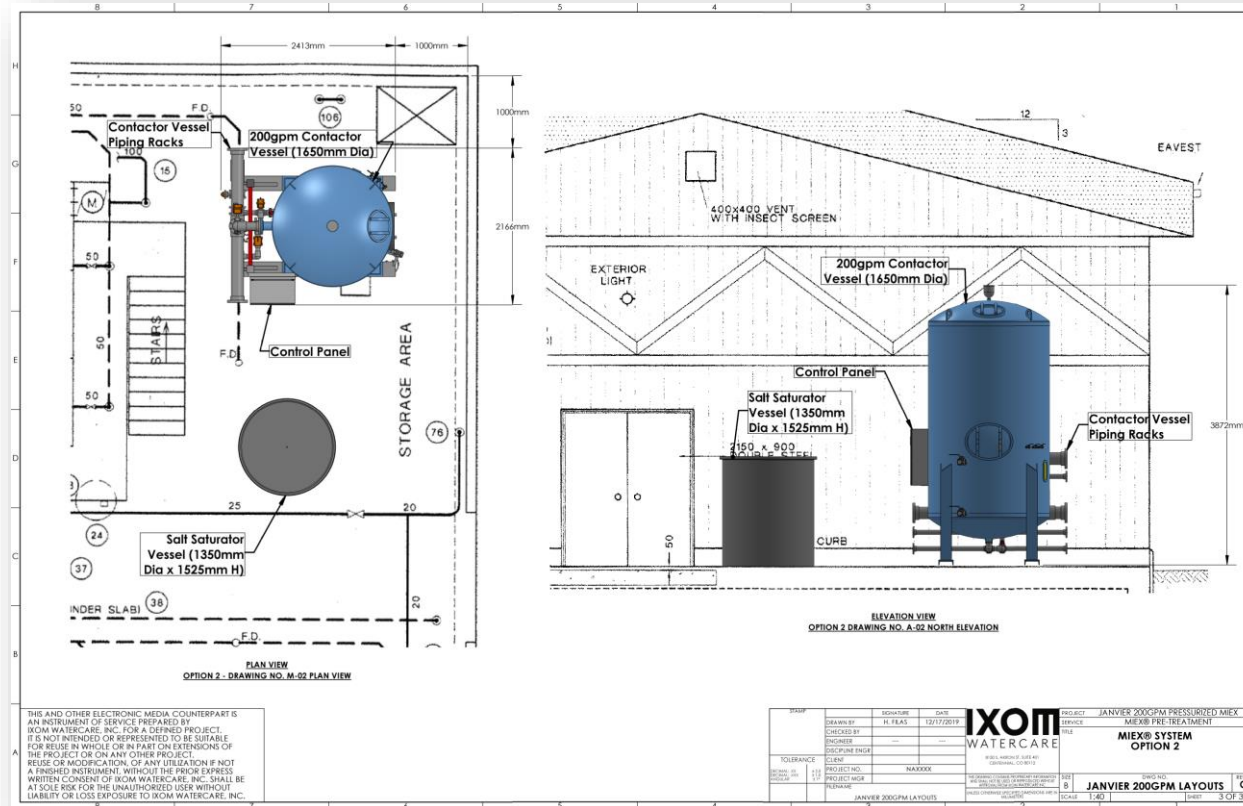


2021 Capital Project

Project Name:	Janvier WTP Disinfection by Product - Construction			
Reference No:	218	Sponsoring Department: Environmental Services		
Description:	A magnetic ion exchange (MIEX) study concluded that adding MIEX technology to the treatment process will improve treatment and continue to reduce disinfection by-products (DBP). The proposed project will be to install a MIEX system in Janvier.			
Major Outcomes:	To install a MIEX system in Janvier in order to continue to meet regulatory requirements for potable water quality.			
Single Year Project				
2020 & Prior Budget	2021 Budget Request	2022-2026 Plan	Total Budget All Years	
\$ 0	\$ 950,000	\$ 0	\$ 950,000	

2021 Capital Project Features

Janvier Water Treatment Plant MIEX - Construction



2021 Capital Project

Project Name:	Southeast Pumphouse 3 rd Pump Installation			
Reference No:	230	Sponsoring Department: Environmental Services		
Description:	The Southeast Pumphouse (SEPH) supplies potable water to Saprae Creek Estates, L. Robert Industrial Park, Fort McMurray First Nation and Anzac. With the RWSS program, it will also supply water to Gregoire Lake Estates. In order to increase reliability of the system, the 3rd pump and associated electrical equipment is to be installed.			
Major Outcomes:	Ensure that pumping capacity is available for increased demand in rural communities.			
Single Year Project				
2020 & Prior Budget		2021 Budget Request	2022-2026 Plan	Total Budget All Years
\$ 0		\$ 400,000	\$ 0	\$ 400,000

2021 Capital Project Features



Southeast Pumphouse
3rd Pump Installation

Questions?