UTILITY RMR CAPITAL CHARTERS 2022



YEAR:	2023
CHARTER NUMBER:	STORM-001
CHARTER NAME:	Utility Master Plan
LEAD DEPARTMENT:	Utilities & Environment - Storm

TYPE:	Choose one:				
	The Utility Mater Plan Update is required to assess our existing storm infrastructure to determine required upgrades, repairs, or rehabilitations and establish future infrastructure needs as per the future development growth.				
ASSET CATEGORY:	Circlities Circlities Master Plan, Studies, & Other Roads & Other Engineered Structures Historical/Cultural	Parks & Trails Mobile & Other Equipment Land & Land Improvements			
SCOPE STATEMENT:	Update of the Utility Master Plan due to changes in environmental regulations, deterioration and renewal of infrastructure, and as per long-term future development. An update to the UMP will be completed in 2021 focusing on the development and renewal of the City, with the updated considerations of the new Flourish MDP. A complete reassessment is scheduled in 2024 considering the incorporated 2021 updates, as well as lands that have been considered in any annexations.				

PROJECT CHARTER The Utility Master Plan (UMP) is a critical part of the City of St. JUSTIFICATION: Albert strategic planning framework that focuses on the City's water, wastewater and storm systems. The intent of the UMP is to identify any required existing system improvements as well as to recommend a utility servicing strategy that supports the City's future growth. The UMP identifies the projects required for meeting service levels in the existing system and what is required to allow for growth. The UMP does not include projects required for life cycle replacement or condition assessment of the existing infrastructure (covered under Asset Management Strategy through existing condition assessment programs). For a holistic picture of what is required for the overall repair, maintenance and replacement (RMR) of utility infrastructure, the UMP needs to be looked at in conjunction with the RMR capital projects driven by the Asset Management practices (i.e. life cycle replacement and repair due to deterioration). The UMP will consider level of service programs,

redevelopment throughout the City, and optimization of the utility systems. The City of St. Albert is in process of working through an annexation process. The City's updated MDP and Carrot Creek master drainage plan will be in place at this point. The UMP reassessment for the City's Water, Wastewater and Storm systems will begin in 2023 for completion in 2024 and will provide infrastructure to support the future development growth. Project Risks • Risk of not performing includes outdated infrastructure servicing plan and not relative to the desired development of the City. Availability of Consultants to complete the UMP. • The rate of development over the years might have changed. Assumptions • Development will require the UMP to be updated in 2021 and then in 2023. Qualified consultants will be available for the work and will be able to complete the work. Lifecycle Costing The Utility Master Plan is updated every 5 years and is completely redone every 10 years. **STRATEGIC PLAN &** Council Priority: 4. Infrastructure Investment **CORPORATE BUSINESS** Activity: 4.4 Identify an inventory of existing facilities including an **PLAN ALIGNMENT:** assessment of condition and Administrative Priority: A.3. Mandated Service Requirements Activity: A.2.3 Succession Planning **STAKEHOLDER** Responsibility or Contribution Name & Role **IDENTIFICATION:** Utilities Primary Stakeholder Primary Engineering Secondary Stakeholder Services Secondary City of St Albert Consulted on all projects to determine if Risk & Insurance insurance is required. Department Secondary Other Internal Consult and inform as required Departments (Fire Services. Recreation & Parks, etc. Other external Consult and Inform as required. Stakeholders (residents, schools, businesses) TIMELINE: 2023 - Initiate 2024 Master Plan Renewal

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PROJECT	2022	2023	202 4₀₂₄ Ma	ster Alen	Ron		2027	2020	2020	2020	2024
COMPONENT Specify year(s)	2022	ZUZ3	202 2024 IVIa	.οι⊡ Ζυχ∋ Π	I CII	10 2020	2027	2028	2029	2030	2031
Land Determined	1		1	+	+		+		+		
Costs	ı İ		UMP will h	e updated	l in 2	2020-21	to reflect th	e long-terr	n future		
	<u> </u>						ngoing MD				
Concept Planning			grown suc	Logy do I	3100		Ingoing ML	. Clowdii			
Defenda Richald B	IFORMATI		nvestment \	Year 20	22	\$					
and Design		400,000				\$			400,000		
Site Servicing	ı				- T	•			400,000		
, ,	1		_	202	24	\$			-		
Strucure/Building Construction	ı İ			202	25	\$			_		
Construction	1	+		20	26	\$	-		_		
Landscaping	ı İ				− T	Ψ			-		
Construction		+	+	20	21	\$	+		+		
Management	1			202	28	\$			_		
Commissioning and				202	29	\$			_		
QA/QC						_					
Contingency	<u> </u>			20		\$			-		
	1			203	31	\$			_		
Public Participation Activities	1										
	1	-		T_	tal	•	+		400,000		
Equipment	ı İ			16		-					
					<u></u>	See Cap	ital Project	Worksheet	for details.		
OPERATION	AL IMPAC	TS: 400,000	-	-		○ Yes	⊙ No	-		-	-
J						100	NO INO				
			1 			If vas	refer to Op	erating Im	nacts		
Please note Public A	rt is budgeted s	separately on	the Ten-Year Ca	apital Plan.			sheet for de		paois		
			1			VVOIKS	meet for de	talls.			
Canaranto	\ OPER 1 =									_	
Cast saltragually and	OPERAT	ING	metauntar and -	storm) 2022	Rac-	d on an arr	raga conculto-	I cost of \$10F -	and approvimental.	6 600 of	k and 2022 -
CBUSINES'S C	ASE: Prog.	ianis (water, t	rasiewater, and t	awiii). ZVZ3	. Dase	on an ave	aaye consulan	r cost of \$ 100 \$	ана аррголивиену	U,SUU OI WOI	m dilu ZVZZ C

APPROVAL

	Neeraj Sinha/Micah Seon King	February 19, 2021
Author:		
	Project Charter Developer	Date
	Kate Polkovsky	March 10, 2021
Director:		
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

PROJECT COMPONENT Specify year(s)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Land Determined Costs										
Concept Planning										
Detailed Planning and Design		400,000								
Site Servicing										
Strucure/Building Construction										
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL		400,000	-	-	-	-	-	-	-	-

Please note Public Art is budgeted separately on the Ten-Year Capital Plan.

Comments:
2023: Based on an average consultant cost of \$185 and approximately 6,500 of work and 2022 corporate assumptions.



YEAR:	2022
CHARTER NUMBER:	STORM-002
CHARTER NAME:	Stormwater Infrastructure Rehabilitation
LEAD DEPARTMENT:	Utilities & Environment - Storm

TYPE:	Choose one:			
	This project supports the on-going assessment, rehabilitation and replacement of existing stormwater infrastructure.			
ASSET CATEGORY:	Civic Facilities Master Plan, Studies, & Other Roads & Other Engineered Structures Historical/ Cultural	Parks & Trails Mobile & Other Equipment Land & Land Improvements		
SCOPE STATEMENT:	This program is for the rehabilitation of the City's Stormwater infrastructure.			

PROJECT CHARTER This annual project involves 2 components: JUSTIFICATION: 1) Stormwater infrastructure condition assessment through Closed Circuit Television (CCTV), 2) Pipe rehabilitation using cured in place pipe (CIPP); existing storm infrastructure replacement using appropriate rehabilitation techniques. This program is intended to rehabilitate existing storm infrastructure based off the City's stormwater asset management plan and condition assessments. This project includes an on-going data collection program including CCTV and inspection data on storm infrastructure. Stormwater infrastructure to be redesigned or enhanced under this program is prioritized based on available inspection data and historical operation and maintenance information, risk to the City and risk to the public. Work to be conducted under this program includes rehabilitation of existing storm mains, catch basins, manholes, swales, culverts, oil and grit separators, AND storm ponds, Project Risks Availability of consultants and contractors for the project. Weather.

- Unknown issues exposed during construction or design phase.
- Unknown conditions of existing infrastructure until CCTV and condition assessments were initiated and planned for 2019-2024
- Prioritization and cost estimating subject to change pending condition assessments and further definition of asset management plan
- Unknown ground conditions

Assumption

- Project costs are within estimation.
- Weather will not cause delays in the construction phase.
- Qualified contractors will be available.

Impacts

- Cost overruns.
- Schedule delays
- Project being postponed.

Lifecycle Costing

Underground Utilities have an approximate life of 75 years.

STRATEGIC PLAN & CORPORATE BUSINESS PLAN ALIGNMENT:

The Stormwater Infrastructure Rehabilitation Program aligns with supporting Built Environment, specifically:

We plan and manage the growth of our city so future generations can inherit the same strong, vibrant community we've enjoyed.

Strategies include:

Ensure that municipal utilities and services are provided in an efficient, economic, coordinated, and timely manner relative to the desired development of the city.

Council Priority: 4. Infrastructure Investment

Activity: 4.4 Identify an inventory of existing facilities including an assessment of condition and

Administrative Priority: A.5. Service Enhancement Opportunities Activity:

STAKEHOLDER IDENTIFICATION:

Name & Role	Responsibility or Contribution
PMP professional	Project Management Services
Utilities	Owner of the infrastructure
Primary	Involved in project planning, prioritization and technical assistance
Other Internal	Consult and inform as required
Departments	
(Engineering,	
Recreation &	
Parks, PW,	
Corporate Comms,	
etc.)	

	City of St. Albert Risk & Insurance Department Secondary Residents in the surrounding area Secondary	Consulted on all projects insurance Information timelines		
	Office of the Environment. Secondary	Information and consultir	ng	
	Council	Approval		
TIMELINE:	Q3-Q4 prior year – inspections and identification of infrastructure for repair or replacement for the following year. Development of scope of work. Q1 – RFQ/RFP Q2-Q3 - Design Q3-Q4 – Construction			
FINANCIAL INFORMATION:	Investment Year 20	22 \$	2,075,000	
	Investment Year 20	23 \$	3,035,000	
	Investment Year 20	24 \$	2,200,000	
	Investment Year 20	25 \$	1,170,000	
	Investment Year 20	26 \$	745,000	
	Investment Year 20	27 \$	2,050,000	
	Investment Year 20	28 \$	330,000	
	Investment Year 20	29 \$	1,790,000	
	Investment Year 20	30 \$	2,000,000	
	Investment Year 20	31 \$	570,000	
		1		
	То	tal \$	15,965,000	
		See Capital Project Wo	rksheet for details.	
OPERATIONAL IMPACTS:		C Yes • No		
		If yes, refer to Operatin Worksheet for details.	g Impacts	
ASSOCIATED OPERATING BUSINESS CASE:		N/A		

APPROVAL		
Author:	Neeraj Sinha/Micah Seon King	February 23, 2021
	Project Charter Developer	Date
	Kate Polkovsky, M.Eng, P.Eng, PMP	March 4, 2021
Director:		
	Director	Date

DCAO/CPO:			
	Deputy Chief Administrative Officer/Chief People Officer	Date	

PROJECT COMPONENT Specify year(s)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Land Determined Costs										
Concept Planning	200,000				125,000	100,000		100,000	150,000	
Detailed Planning and Design	305,000	260,000	75,000	200,000	125,000	150,000	100,000	200,000	200,000	150,000
Site Servicing										
Strucure/Building Construction	1,350,000	2,124,000	1,620,000	760,000	350,000	1,360,000	175,000	1,180,000	1,400,000	350,000
Landscaping										
Construction Management Commissioning	100,000	120,000	100,000	80,000	50,000	100,000	20,000	80,000	100,000	20,000
Commissioning and QA/QC										
Contingency	120,000	531,000	405,000	130,000	95,000	340,000	35,000	230,000	150,000	50,000
Public Participation Activities										
Equipment										
TOTAL	2,075,000	3,035,000	2,200,000	1,170,000	745,000	2,050,000	330,000	1,790,000	2,000,000	570,000

Comments:

Cost based on the following breakdown:

Cost component	Cost expected to include and assumptions
Storm Water CCTV Program*	Large/medium diameter CCTV inspection contracted out; small diameter to be conducted with internal crews; complete inspections by 2026.
Cured-in-Place Pipe Program	Allocation of funds every other year, with design the previous year.
Storm Water Rehab (Non-trenchless) program	Existing bi-annual storm design funds and construction funds bi-annually for any large diameter (open cut or large CIPP) rehabilitations, with design the previous year.
Existing Ravine Rehabilitation	As per the Condition Assessment, prices adjusted for inflation, assuming 2% escalation per year.





YEAR:	2022
CHARTER NUMBER:	STORM-004
CHARTER NAME:	Stormwater Management Level of Service (LOS)
LEAD DEPARTMENT:	Utilities and Environment - Storm

TYPE:	Choose one: • RMR • GROWTH			
	Include one to two sentences description why project is RMR or Growth.			
ASSET CATEGORY:	Choose one: Civic Facilities Master Plan, Studies, & Other Roads & Other Engineered Structures Historical/ Cultural	Parks & Trails Mobile & Other Equipment Land & Land Improvements		
SCOPE STATEMENT:	This project addresses the need to upgrade storm infrastructure and drainage to improve level of service.			

PROJECT CHARTER JUSTIFICATION:

This program includes capital upgrades to improve level of service in the City's storm system. Large capital storm projects have been identified in the 2013 UMP update and include under sized pipes that do not meet our current Level of Service (LOS)

Current State - Many of the older neighborhoods in St. Albert have drainage issues and require new stormwater infrastructure improvements to prevent damage to private property.

Issue - The Utility Master Plan indicates a need for level of service improvements throughout the storm drainage system. This program will begin to address these LOS locations on a priority basis addressing additional capacity requirements. Projects such as Deer Ridge Surge Pond, Lacombe Park, Mission, Sturgeon and Grandin Subdivision Minor/Major System Upgrades are identified under this program.

There is also a public identified driven or localized storm/drainage issues component to this program where administration prioritizes locations which have been identified by either public or operations.

Opportunities - This project also includes an annual budget for flow monitoring. Storm flow monitoring constitutes one of the main data collection exercises carried out by municipalities to ensure proper data is being used for storm water modeling.

The 2008 and 2013 UMP Update recommended storm flow monitoring as one of the ongoing programs carried out by the City to ensure proper storm data is in place to capture the magnitude of storm events and quantify the storm runoff in the Storm system.

Six (6) Locations will be identified annually where storm flow monitoring will be highly beneficial during summer months (May - Sept months). This project aligns with Councils Goals and Priorities of Cultivate Sustainable Infrastructure and Services.

Risks

- Availability of qualified consultants and contractors for the project.
- Extreme variability of scope for drainage and storm issues.
 High probability of unknown issues exposed during construction or design phase.
- Residential Issues

Project prioritization may change over the years depending on optimization with other projects, development, demand, risk, and targeted level of service

STRATEGIC PLAN & CORPORATE BUSINESS PLAN ALIGNMENT:

The Stormwater Management Level of Service Program aligns with supporting Build Environment, specifically:

We build innovative, long lasting infrastructure that is efficient, minimizes the use of our natural resources and creates harmony between the natural and build environment.

Strategies include:

Maintain corporate and infrastructure assets in an efficient and sustainable manner that meets the present and future growth needs of the city and in accordance with approved guiding principles.

Council Priority: 6. Environmental Stewardship

Activity: 4.5 Adopt a total cost of ownership approach in assessing lifecycle of existing and new

Administrative Priority: A.5. Service Enhancement Opportunities

Activity: N / A

STAKEHOLDER IDENTIFICATION:

Name & Role	Responsibility or Contribution
PMP professional	Project Management
Utilities Primary	Involved in project planning,
	prioritization, and technical
	assistance
Other Internal	Consult and inform as required
Departments	
(Engineering,	
Recreation & Parks,	
PW, Corporate	
Comms, etc.)	

	T -	
	City of St. Albert Risk 8	
	Insurance Department	determine if insurance required.
	Secondary	
	Businesses, Residents	s, Inform and consult as required
	School Boards in the	
	surrounding area	
	Environment Branch	Information and consulting
	Secondary	
	Council	Approval
TIMELINE:		with multiple locations in various phases of
	1 5	Storm Flow Monitoring in summer months
	only.	
FINANCIAL INFORMATION:	Investment Year 2022	\$ 1,748,000
	Investment Year 2023	\$ 4,056,000
	Investment Year 2024	\$ 1,748,000
	Investment Year 2025	\$ 2,559,000
	Investment Year 2026	\$ 2,970,000
	Investment Year 2027	\$ 2,675,000
	Investment Year 2028	\$ 1,390,000
	Investment Year 2029	\$ 1,936,000
	Investment Year 2030	\$ 2,005,000
	Investment Year 2031	\$ 2,005,000
	Total	\$ 23,092,000
	S	See Capital Project Worksheet for details.
OPERATIONAL IMPACTS:		C Yes
		If yes, refer to Operating Impacts
		Worksheet for details.
ASSOCIATED OPERATING BUSINESS CASE:		N/A

APPROVAL		
Author:	Neeraj Sinha/Micah Seon-King	February 19, 2021
	Project Charter Developer	Date
	Kate Polkovsky, M.Eng, P.Eng, PMP	March 4, 2021
Director:		
	Director	Date
DCAO/CPO:		

Deputy Chief Administrative Officer/Chief People	Date	
Officer		

PROJECT COMPONENT Specify year(s)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Land Determined Costs										
Concept Planning	50,000	100,000	50,000	90,000	100,000	90,000	46,400	66,000	80,000	80,000
Detailed Planning and Design	200,000	400,000	200,000	205,000	225,000	205,000	105,000	150,000	155,000	155,000
Site Servicing										
Strucure/Building Construction	1,200,000	2,936,000	1,200,000	1,800,000	2,000,000	1,800,000	951,600	1,320,000	1,360,000	1,360,000
Landscaping										
Construction Management	70,000	180,000	70,000	130,000	145,000	130,000	55,000	70,000	70,000	70,000
Commissioning and QA/QC										
Contingency	228,000	440,000	228,000	334,000	500,000	450,000	232,000	330,000	340,000	340,000
Public Participation Activities										
Equipment										
TOTAL	1,748,000	4,056,000	1,748,000	2,559,000	2,970,000	2,675,000	1,390,000	1,936,000	2,005,000	2,005,000

Please note Public Art is budgeted separately on the Ten-Year Capital Plan.

Comments:

Costs based on 2019 project costs and the first 3 years of the program are reviewed in more detail annually. Applied the 2022 corporate assumptions to the estimates

Costs in 2022 include the Deer Ridge Diversion and Wet Ponds project identified in the UMP to provide additional capacity and overflow on the existing system (divert flows from Deer Ridge to a new Storm Water Management Facility). This capital project needs further conceptual planning as it currently doesn't have a site identified.

Cost based on the following breakdown:

Cost component	Cost expected to include and assumptions
Localized Storm Issues (public identified) & Minor Sag Locations	Annual program to address small storm problems in addition to annual budget recommended in the UMP to address minor sag issues
Large Capital Storm Upgrades	Storm LOS projects identified in 2013 UMP Update. Design and construction.
Older Neighbourhood Minor System Upgrades	Annual program which includes design and construction of areas in Sturgeon, Grandin, Mission and other older neighbourhoods requiring addition of minor system.
Storm Flow Monitoring Program	Annual program to have 5-6 locations over summer months, costs derived from 2020 project contract.



YEAR:	2022
CHARTER NUMBER:	STORM-007
CHARTER NAME:	Sedimentation and Erosion Control Plan
LEAD DEPARTMENT:	Utilities and Environment - Storm

TYPE:	Choose one: • RMR • GROWTH			
	This program supports improvements to our existing storm program to reduce sediment accumulation and erosion into the Sturgeon River.			
ASSET CATEGORY:	Choose one: Civic Facilities Master Plan, Studies, & Other Roads & Other Engineered Structures Historical/ Cultural	Parks & Trails Mobile & Other Equipment Land & Land Improvements		
SCOPE STATEMENT:	This program reduces the sediment accumulation into the Sturgeon River.			

PROJECT CHARTER Alberta Environment Guidelines for Stormwater water quality JUSTIFICATION: guidelines indicate 85% of sediment 75 microns or larger must be removed from storm water prior to release to a natural water body. Current State - This program was originally a 10-year plan from 2012 to 2021, to complete the study, design, and construction of sediment control measures for the storm water system to reduce the accumulation of sediments in the Sturgeon River. Issue - The 2014 Sedimentation and Erosion Control Program Update prioritized several outfalls to be outfitted with sedimentation control facilities based on sedimentation loading due to basin size and land use as well as magnitude of observed sediment deposit at Opportunities - This Update also assessed the condition of all storm outfalls into the Sturgeon River. It was advised that sedimentation control facilities be installed at outfalls requiring rehabilitation. Based on this recommendation, the program has been extended to address all the high priority outfalls, the program will then expand to remaining outfalls to provide further long term environmental stewardship and mitigate impacts to the watershed. Risks -

	1					
	 Plans based on current Alberta Environment Stormwater Water Quality Guidelines; these could become more restrictive at any time. Projects in the floodplain may require environmental approvals from Environment Canada, Department of Fisheries and Oceans, Alberta Environment, Public lands or Transport Canada, as well as First Nations Consultation and permits under the Alberta Historical Resources Act. Recent changes to some of these agencies may see increased permit processing timelines and costs. Land is available for the construction, i.e. grit interceptors, sedimentation ponds, erosion control measures, for each outfall or ravine. Weather is a concern with these types of projects and as such fall construction is ideal Sturgeon River water level Soil conditions Qualified contractors are available Affected infrastructure relocations and repairs 					
STRATEGIC PLAN &	Council Priority: 6. Envir	•				
CORPORATE BUSINESS PLAN ALIGNMENT:	,	nventory of existing facilities including an				
	Administrative Priority: A	A.3. Mandated Service Requirements				
	Activity: N / A					
STAKEHOLDER	Name & Role	Responsibility or Contribution				
STAKEHOLDER IDENTIFICATION:	Name & Role PMP professional	Responsibility or Contribution Project Management				
	Name & Role PMP professional Utilities	Responsibility or Contribution Project Management Utility Infrastructure Owner				
	PMP professional	Project Management				
	PMP professional Utilities Primary Infrastructure	Project Management Utility Infrastructure Owner Input on capacity requirements,				
	PMP professional Utilities Primary	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement				
	PMP professional Utilities Primary Infrastructure	Project Management Utility Infrastructure Owner Input on capacity requirements,				
	PMP professional Utilities Primary Infrastructure Branch - Primary	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement timelines that could affect design Information and consulting, assistance with environmental regulatory				
	PMP professional Utilities Primary Infrastructure Branch - Primary Environment Branch	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement timelines that could affect design Information and consulting, assistance with environmental regulatory requirements, public educational				
	PMP professional Utilities Primary Infrastructure Branch - Primary Environment Branch Primary	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement timelines that could affect design Information and consulting, assistance with environmental regulatory requirements, public educational aspects, attend open houses				
	PMP professional Utilities Primary Infrastructure Branch - Primary Environment Branch Primary City of St. Albert	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement timelines that could affect design Information and consulting, assistance with environmental regulatory requirements, public educational aspects, attend open houses Consulted on all projects to determine if				
	PMP professional Utilities Primary Infrastructure Branch - Primary Environment Branch Primary	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement timelines that could affect design Information and consulting, assistance with environmental regulatory requirements, public educational aspects, attend open houses Consulted on all projects to determine if insurance required				
	PMP professional Utilities Primary Infrastructure Branch - Primary Environment Branch Primary City of St. Albert Risk & Insurance Department Other Internal	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement timelines that could affect design Information and consulting, assistance with environmental regulatory requirements, public educational aspects, attend open houses Consulted on all projects to determine if				
	PMP professional Utilities Primary Infrastructure Branch - Primary Environment Branch Primary City of St. Albert Risk & Insurance Department Other Internal Departments	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement timelines that could affect design Information and consulting, assistance with environmental regulatory requirements, public educational aspects, attend open houses Consulted on all projects to determine if insurance required				
	PMP professional Utilities Primary Infrastructure Branch - Primary Environment Branch Primary City of St. Albert Risk & Insurance Department Other Internal	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement timelines that could affect design Information and consulting, assistance with environmental regulatory requirements, public educational aspects, attend open houses Consulted on all projects to determine if insurance required				
	PMP professional Utilities Primary Infrastructure Branch - Primary Environment Branch Primary City of St. Albert Risk & Insurance Department Other Internal Departments (Engineering, Recreation & Parks, PW, Corporate	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement timelines that could affect design Information and consulting, assistance with environmental regulatory requirements, public educational aspects, attend open houses Consulted on all projects to determine if insurance required				
	PMP professional Utilities Primary Infrastructure Branch - Primary Environment Branch Primary City of St. Albert Risk & Insurance Department Other Internal Departments (Engineering, Recreation & Parks, PW, Corporate Comms, etc.)	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement timelines that could affect design Information and consulting, assistance with environmental regulatory requirements, public educational aspects, attend open houses Consulted on all projects to determine if insurance required Consult and inform as required				
	PMP professional Utilities Primary Infrastructure Branch - Primary Environment Branch Primary City of St. Albert Risk & Insurance Department Other Internal Departments (Engineering, Recreation & Parks, PW, Corporate Comms, etc.) City Culture Dept -	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement timelines that could affect design Information and consulting, assistance with environmental regulatory requirements, public educational aspects, attend open houses Consulted on all projects to determine if insurance required Consult and inform as required Consulted for future Public Art				
	PMP professional Utilities Primary Infrastructure Branch - Primary Environment Branch Primary City of St. Albert Risk & Insurance Department Other Internal Departments (Engineering, Recreation & Parks, PW, Corporate Comms, etc.) City Culture Dept - secondary	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement timelines that could affect design Information and consulting, assistance with environmental regulatory requirements, public educational aspects, attend open houses Consulted on all projects to determine if insurance required Consult and inform as required Consulted for future Public Art opportunities				
	PMP professional Utilities Primary Infrastructure Branch - Primary Environment Branch Primary City of St. Albert Risk & Insurance Department Other Internal Departments (Engineering, Recreation & Parks, PW, Corporate Comms, etc.) City Culture Dept -	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement timelines that could affect design Information and consulting, assistance with environmental regulatory requirements, public educational aspects, attend open houses Consulted on all projects to determine if insurance required Consult and inform as required Consulted for future Public Art				
	PMP professional Utilities Primary Infrastructure Branch - Primary Environment Branch Primary City of St. Albert Risk & Insurance Department Other Internal Departments (Engineering, Recreation & Parks, PW, Corporate Comms, etc.) City Culture Dept - secondary External Stakeholders (residents, school	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement timelines that could affect design Information and consulting, assistance with environmental regulatory requirements, public educational aspects, attend open houses Consulted on all projects to determine if insurance required Consult and inform as required Consulted for future Public Art opportunities				
	PMP professional Utilities Primary Infrastructure Branch - Primary Environment Branch Primary City of St. Albert Risk & Insurance Department Other Internal Departments (Engineering, Recreation & Parks, PW, Corporate Comms, etc.) City Culture Dept - secondary External Stakeholders	Project Management Utility Infrastructure Owner Input on capacity requirements, maintenance schedules, replacement timelines that could affect design Information and consulting, assistance with environmental regulatory requirements, public educational aspects, attend open houses Consulted on all projects to determine if insurance required Consult and inform as required Consulted for future Public Art opportunities				

TIMELINE:	2021-2024– Design is scheduled one year prior to construction. Outfalls #5, #11D, #19, #N9, 7B, outlet #008, #9, #6B and #17A/17B have been added to the program based on high priority outfall repairs. 2025-2030 – Design and construction of smaller outfalls and lower priority outfalls impacting the watershed. Funds will also be utilized to ensure that any maintenance activities outside of regular operations is addressed to all high priority and rehabilitated outfalls.				
FINANCIAL INFORMATION:	Investment Year 2022 \$ 1,256,00 2,691,00 2024 \$ 600,00 2025 \$ 600,00 2026 \$ 1,256,00 2027 \$ 600,00 2028 \$ 1,256,00 2029 \$ 600,00 2029 \$ 600,00 2029 \$ 1,256,00				
		Total	\$ See Capital Project W	10,715,000 orksheet for details.	
OPERATIONAL IMPACTS: ASSOCIATED OPERATING BUSINESS CASE:			Yes No If yes, refer to Operat Worksheet for details.		

APPROVAL		
Author:	Neeraj Sinha/Micah Seon King	February 19, 2021/March 26, 2021
	Project Charter Developer	Date
	Kate Polkovsky	March 10, 2021
Director:		
	Director	Date

PROJECT COMPONENT	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Land Determined Costs										
Concept Planning										
Detailed Planning and Design	410,000	185,000			410,000		410,000		410,000	
Site Servicing										
Strucure/Building Construction	771,000	2,446,000	600,000	600,000	771,000	600,000	771,000	600,000	771,000	600,000
Landscaping										
Construction Management	75,000	60,000			75,000		75,000		75,000	
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	1,256,000	2,691,000	600,000	600,000	1,256,000	600,000	1,256,000	600,000	1,256,000	600,000

Please note Public Art is budgeted separately on the Ten-Year Capital Plan.

Comments:

Costs are based on the 2014 program update by Stantec and recent historical information from past outfall projects. Inflation of 2% is applied to each year based on 2014 cost estimates. Funding is from the utility model. Desig is to occur one year prior to construction.

OPERATING IMPACTS WORKSHEET

• One Time	An additional \$3,000/year per outfall is required for cleaning and maintenance of the
	Sedimentation Control Devices. Costs will begin after Final Acceptance, 2 years after
Ongoing	project completion.

OPERATING IMPACTS	2022	2023	2024	
List the Type of Operating Expense and Department impacted.				
Outfall 10 - Sedimentattion Control Device Cleaning/ Maintenance	3,000	3,000	3,000	
Outfall 4 - Sedimentattion Control Device Cleaning/ Maintenance	3,000	3,000	3,000	
Outfall 8 - Sedimentattion Control Device Cleaning/ Maintenance		3,000	3,000	
Outfall 8B - Sedimentattion Control Device Cleaning/ Maintenance		3,000	3,000	
Outfall 12 - Sedimentattion Control Device Cleaning/ Maintenance		3,000	3,000	
TOTAL	0.000	45 000	15,000	
TOTAL	6,000	15,000	10	



YEAR:	2022
CHARTER NUMBER:	WASWT-001
CHARTER NAME:	Wastewater Rehabilitation Program
LEAD DEPARTMENT:	Utilities & Environment - Wastewater

TYPE:	Choose one: RMR GROWTH This project supports on-going replacement, maintenance and rehabilitation of existing wastewater systems infrastructure.				
ASSET CATEGORY:	Choose one: Civic Facilities Master Plan, Studies, & Other Roads & Other Engineered Structures Historical/ Cultural Choose one: Parks & Trails Mobile & Other Equipment Land & Land Improvements				
SCOPE STATEMENT:	To optimize the capacity and timely rehabilitation of the City's wastewater collection system through proactive programs and initiatives.				

PROJECT CHARTER This project encompasses Inflow and Infiltration (I&I) reduction JUSTIFICATION: programs of wastewater mainline/manholes as well as wastewater lift stations through replacement/rehabilitation of wastewater assets nearing, at, or beyond the end of life cycle. Current State - This ongoing project enables the City to continue the proactive program and system upgrades with an outcome to identify and reduce I & I throughout the entire wastewater network (approx. 400km) and rehabilitation of approx. 30 wastewater lift stations. Issue - The project also provides the funding needed for the rehabilitation or replacement of wastewater appurtenances (i.e. piping, valves, pumps and access points) as determined through necessary operation and maintenance program activities, wastewater system studies, CCTV inspection programs that identify asset condition and prioritization and other supporting analytics. Opportunities – This RMR program supports the increased capacity for the wastewater flows, reduces the potential risks associated with peak flows, and wastewater surcharging. Risks - Inclement weather, contractor availability, seasonal staff availability, conflicting underground infrastructure, emergency breakdowns may require priorities to be shifted.

	Risks - Contractor availability and inclement weather, conflicting underground infrastructure				
STRATEGIC PLAN &	Council Priority: 4. Infrastructure Investment				
CORPORATE BUSINESS PLAN ALIGNMENT:		Activity: 4.4 Identify an inventory of existing facilities including an assessment of condition and			
	Administrative F	riority:	A.5. Servic	e Enhancement Opportunities	
	Activity:				
STAKEHOLDER IDENTIFICATION:	Utilities Manager – Primary Utilities Supervisor (Construction & Maintenance) Utilities Engineer Team Lead Finance – budget allocation and approval Capital Projects Office - Secondary Risk and Insurance- Secondary				
TIMELINE:	Q3-Q4 prior year — inspections and identification of infrastructure for repair or replacement for the following year. Development of scope of work.				
	Q1 – RFQ Q2-Q4 – Constr	uction			
FINANCIAL INFORMATION:	Investment Year	2022	\$	273,360	
		2023	\$	278,827	
		2024	\$	284,403	
		2025	\$	300,000	
		2026	\$	300,000	
		2027	\$	300,000	
		2028	\$	300,000	
		2029	\$	300,000	
		2030	\$	300,000	
		2031	\$	300,000	
		Total	\$	2,936,590	
			See Capita	al Project Worksheet for details.	
OPERATIONAL IMPACTS:				No No	
			If yes, re	efer to Operating Impacts eet for details.	
ASSOCIATED OPERATING BUSINESS CASE:					

APPROVAL

	Micah Seon King	February 19, 2021
Author:		
	Project Charter Developer	Date
	Kate Polkovsky	March 10, 2021
Director:		
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

PROJECT COMPONENT Specify year(s)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Land Determined Costs										
Concept Planning										
Detailed Planning and Design										
Site Servicing										
Strucure/Building Construction	273,360	278,827	284,403	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment		· · · · · · · · · · · · · · · · · · ·								
TOTAL	273,360	278,827	284,403	300,000	300,000	300,000	300,000	300,000	300,000	300,000

Please note Public Art is budgeted separately on the Ten-Year Capital Plan.

Comments:

Hydrants: Estimated \$20,000 per hydrant replaced.

Main line valves: Estimated \$10,000 per valve replaced. Cost estimates reflect 2022 corporate assumptions.



YEAR:	2022
CHARTER NUMBER:	WASWT-002
CHARTER NAME:	Wastewater Household Service Replacement
LEAD DEPARTMENT:	Utilities & Environment - Wastewater

TYPE:	Choose one: RMR C GROWTH				
	This project supports on-going replacement/rehabilitation of existing wastewater services that are defective.				
ASSET CATEGORY:	Choose one: Civic Facilities Master Plan, Studies, & Other Roads & Other Engineered Structures Historical/ Cultural	Parks & Trails Mobile & Other Equipment Land & Land Improvements			
SCOPE STATEMENT:	To support the timely and cost-effective replacement or rehabilitation of the City's portion of defective wastewater services to improve system reliability and achieve demonstrated cost savings for both the resident and the City.				

PROJECT CHARTER JUSTIFICATION:	The allocation of this budget essentially reduces the amount of sewer backups that have or could potentially occur as well as ongoing associated sewer service maintenance work that is conducted due to deficiencies.
	Current State - Approximately 19,000 residential sanitary services exist in the City with life cycles spanning 50 years. Program focuses on upgrading and replacement for the older sanitary sewer services.
	Issue - A range of wastewater service laterals within the City have varying types of structural deficiencies requiring frequent maintenance to prevent sewer backups and several circumstances, the deficiencies occur regardless of life cycle.
	Opportunities - Within the annual budget value of \$250,000 approximately 50 wastewater services (dependent upon the complexity of each service/construction method) can be replaced or rehabilitated accounting for the City's portion of the cost. the homeowner is responsible for their portion of the wastewater service replacement from connection at property line to their home if required. Overall, the cost savings to be realized are a result of reduced costs (i.e. expense for mobilization/demobilization of equipment, utility locates, and other applicable construction

	activities) between the City and the homeowner as opposed to both parties incurring these costs separately.			
	Risks - Inclement weather, contractor availability, seasonal staff availability, conflicting underground infrastructure.			
STRATEGIC PLAN &	Council Priority: 4. Infrastructure Investment			
CORPORATE BUSINESS PLAN ALIGNMENT:	Activity: 4.4 Identify an inventory of existing facilities including an assessment of condition and			
	Administrative Pri	ority: A	.5. Service Enhanc	ement Opportunities
	Activity:			
STAKEHOLDER IDENTIFICATION:	Utilities Manager – Primary Utilities Supervisor (Construction & Maintenance) - Primary Utilities Engineer - Primary Team Lead - Primary Finance – budget allocation and approval Capital Projects Office - Secondary Risk and Insurance- Secondary Residents, Businesses, Schools in the surrounding area - secondary			
TIMELINE:	Q3-Q4 prior year – inspections and identification of infrastructure for repair or replacement for the following year. Development of scope of work. Q1 – RFQ Q2-Q4 – Construction Testing and commissioning to take place immediately after replacement is completed. Concrete and landscape restoration occur in collaboration with PW Operations scheduling.			
FINANCIAL INFORMATION:	Investment Year	2022	\$	250,000
		2023	\$	250,000
		2024	\$	275,000
		2025	\$	275,000
		2026	\$	275,000
		2027	\$	275,000
		2028	\$	275,000
		2029	\$	275,000
		2030	\$	275,000
		2031	\$	275,000
		Total		2,700,000
			See Capital Projec	t Worksheet for details.
OPERATIONAL IMPACTS:			C Yes	

APPROVAL

	Neeraj Sinha/ Micah Seon King	February 19, 2021
Author:		
	Project Charter Developer	Date
	Kate Polkovsky	March 10, 2021
Director:		
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

PROJECT COMPONENT	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Specify year(s)										
Land Determined										
Costs										
Concept Planning										
Detailed Planning										
and Design										
Site Servicing										
Strucure/Building										
Construction	250,000	250,000	275,000	275,000	275,000	275,000	275,000	275,000	275,000	275,000
Landscaping										
Construction										
Management										
Commissioning										
and QA/QC										
Contingency										
Public										
Participation										
Activities										
Equipment										
TOTAL	250,000	250,000	275,000	275,000	275,000	275,000	275,000	275,000	275,000	275,000

Please note Public Art is budgeted separately on the Ten-Year Capital Plan.	
Comments:	



YEAR:	2022
CHARTER NUMBER:	WASWT-003
CHARTER NAME:	Wastewater Main Replacement
LEAD DEPARTMENT:	Utilities & Environment - Wastewater

TYPE:	Choose one: • RMR • GROWTH			
	This project supports the on-going assessment, rehabilitation and replacement of existing wastewater system infrastructure.			
ASSET CATEGORY:	Choose one: Civic Facilities Master Plan, Studies, & Other Roads & Other Engineered Structures Historical/ Cultural	Parks & Trails Mobile & Other Equipment Land & Land Improvements		
SCOPE STATEMENT:	Rehabilitation of wastewater infrastructure as determined through condition assessments and prioritization plans.			

PROJECT CHARTER JUSTIFICATION:

Repair of the wastewater main line pipes through various methods including the Cured in Place Pipe (CIPP Lining Program) and open cut methodologies. The pipe rehabilitation is prioritized based on data collected through yearly Closed-Circuit Television (CCTV) inspections and excessive operation and maintenance issues.

Current State - The focus over the last several winters has been to get the backlog of video assessment data reviewed and focus on further condition assessment and prioritization of projects. This is an ongoing program, meaning that as one sewer is rehabilitated, more needs will to be identified through condition assessment as sewer ages and deteriorate.

Issue - This program will also be used to address manhole rehabilitation for manholes on sewer mains that are in poor condition. We will also use this budget to perform a study regarding H2S levels, their effects on our current infrastructure, and potential solutions to decrease H2S gas and therefore extend infrastructure life.

Opportunities - This ongoing initiative enables the City to proactively address the rehabilitation of structurally deficient pipes in the wastewater collection system. The goal of this program is to repair pipes before they degrade to such a point that there is serious risk of catastrophic failure, after which the costs of repair

				vely impact the level of service	
	provided by this infrastructure until repair is completed.				
	Risks –				
	 Finding additional issues with existing pipes when uncovered or when pre-inspection video condition is worse than expected. The repairs are not completed prior to more expensive repairs or replacement being required. High flows in some trunks during peak daytime hours may require work to be done during the night in residential neighborhoods to reduce risk of basement back-ups. Some major wastewater mains are along major arterials requiring traffic impacts or night work. 				
STRATEGIC PLAN & CORPORATE BUSINESS PLAN ALIGNMENT:		ns belo	ow. Selec	or Administrative Priority, select et "N / A" if your charter does not	
	Council Priority: 4.	Infras	tructure I	nvestment	
	Activity: N / A				
	-	oritv: A	.5. Servic	e Enhancement Opportunities	
	Activity: N / A				
STAKEHOLDER				Domene ikilitu en	
IDENTIFICATION:	Name & Role			Responsibility or Contribution	
	PMP professiona	al		Project Management	
	Public Works – U	Jtilities		Information – technical	
	Primary Residents			assistance	
	Secondary			Information	
	City of St. Albert	Risk &		Consulted on all projects to	
	Insurance Depart			determine if insurance is required.	
	City Council			Approval	
TIMELINE:	Ongoing yearly pro	ogram,	with a la	rger project taking place every	
	third year.				
FINANCIAL INFORMATION:	Investment Year	2022	\$	702,000	
		2023	\$	1,275,000	
		2024	\$	702,000	
		2025	\$	702,000	
		2026	\$	1,275,000	
		2027 2028	\$ \$	702,000 702,000	
		2029	\$	1,275,000	
		2030	\$	702,000	
		2031	\$	702,000	
		Total		8,739,000	
			See Cap	ital Project Worksheet for details.	

OPERATIONAL IMPACTS:	C Yes
	If yes, refer to Operating Impacts Worksheet for details.
ASSOCIATED OPERATING BUSINESS CASE:	Provide the name of the associated operating business case.

APPROVAL		
Author:	Micah Seon King	March 26, 2021
	Project Charter Developer	Date
Director:	Kate Polkovsky	March 10, 2021
	Director	Date

PROJECT COMPONENT Specify year(s)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Land Determined Costs										
Concept Planning	27,500	47,500	27,500	27,500	47,500	27,500	27,500	47,500	27,500	27,500
Detailed Planning and Design	82,500	165,000	82,500	82,500	165,000	82,500	82,500	165,000	82,500	82,500
Site Servicing										
Strucure/Building Construction	592,000	1,062,500	592,000	592,000	1,062,500	592,000	592,000	1,062,500	592,000	592,000
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	702,000	1,275,000	702,000	702,000	1,275,000	702,000	702,000	1,275,000	702,000	702,000

Please note Public Art is budgeted separately on the Ten-Year Capital Plan.

Comments:

Costs have not been increased for inflation this year

Included \$702,000 every three years (2020, 2023, and 2026) for a large diameter rehabilitation as identified by the asset management program.



YEAR:	2022
CHARTER NUMBER:	WASWT-004
CHARTER NAME:	Wastewater Collection System Level of Service (LOS)
LEAD DEPARTMENT:	Utilities & Environment - Wastewater

TYPE:	Choose one: • RMR • GROWTH					
	This project supports our existing wastewater system by addressing level of service limitations and increasing the capacity of our existing system.					
ASSET CATEGORY:	Choose one: Civic Facilities Master Plan, Studies, & Other Roads & Other Engineered Structures Historical/ Cultural	Parks & Trails Mobile & Other Equipment Land & Land Improvements				
SCOPE STATEMENT:	Provide relief to areas affected by level of service limitations such as risk of basement flooding.					

PROJECT CHARTER JUSTIFICATION:

This charter is intended to address level of service needs (i.e. increasing capacity of selected mains) as identified in the 2014 Utility Master Plan Update. While WASWT-003 addresses need from a life cycle perspective (i.e. aging pipes), this charter is intended to provide relief to areas affected by level of service limitations such as surcharging of mains causing basement flooding.

Current State - The Utility Master Plan indicated a need for level of service (LOS) improvements throughout the wastewater collection system.

Issue - This program will begin to address these LOS locations on a priority basis addressing additional capacity requirements through redesign and enhancement of the existing infrastructure or potentially new infrastructure.

Opportunities - A portion of the annual funding is to support wastewater flow monitoring locations to field verify the model results and aid in prioritization of the identified wastewater LOS locations.

STRATEGIC PLAN & CORPORATE BUSINESS PLAN ALIGNMENT:	 Areas identified for additional capacity will not expose more work than estimated. Construction cost will be within approved budget. Contractors will be available to perform work. Weather has significant impact on wastewater flows which will impact unpredictability of by-pass pumping and construction costs as well as schedule. Soil conditions affecting construction method and schedule. Utility conflicts. Maintain existing level of service during construction and commissioning in all flow conditions. Council Priority: 4. Infrastructure Investment Activity: N / A Administrative Priority: A.5. Service Enhancement Opportunities 				
STAKEHOLDER IDENTIFICATION:	Name & Role PMP professional Utilities Primary Other Internal Departments (Engineering, Recreation & Parks, PW, Corporate Comms, etc.) City of St. Albert Risk & Insurance Department External Stakeholders (residents, businesses, schools, school boards, etc.)	Responsibility or Contribution Project Management Owner of the infrastructure Involved in project planning, prioritization and technical assistance Consult and inform as required Consulted on all projects to determine if insurance is required. Consult and inform as required			
TIMELINE:	Bi-annual program. In each of the following year: • 2023, 2025, 2027,2029 and 2031 - Design and engineering • 2022, 2024, 2026, 2028 and 2030 - Construction years				

FINANCIAL INFORMATION:	Investment Year	2022	\$	3,114,000
		2023	\$	469,200
		2024	\$	2,955,800
		2025	\$	478,584
		2026	\$	3,013,120
		2027	\$	488,200
		2028	\$	3,013,120
		2029	\$	488,200
		2030	\$	3,013,120
		2031		488,200
		Total	\$	17,521,544
			See Capital Project	Worksheet for details.
OPERATIONAL IMPACTS:			◯ Yes 🧿 No	
			If yes, refer to Ope Worksheet for deta	<u> </u>
ASSOCIATED OPERATING BUSINESS CASE:			N/A	

APPROVAL		
Author:	Neeraj Sinha/ Micah Seon-King	February 19, 2021
Autiloi.	Project Charter Developer	Date
	Kate Polkovsky	March 12, 2021
Director:		
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

PROJECT COMPONENT Specify year(s)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Land Determined Costs										
Concept Planning										
Detailed Planning and Design		469,200		478,584		488,200		488,200		488,200
Site Servicing										
Strucure/Building Construction	2,411,200		2,284,800		2,330,496		2,330,496		2,330,496	
Landscaping										
Construction Management	100,000		100,000		100,000		100,000		100,000	
Commissioning and QA/QC										
Contingency	602,800		571,000		582,624		582,624		582,624	
Public Participation Activities										
Equipment										
TOTAL	3,114,000	469,200	2,955,800	478,584	3,013,120	488,200	3,013,120	488,200	3,013,120	488,200

Please note Public Art is budgeted separately on the Ten-Year Capital Plan.

Comments:	
Updated cost estimated include 2022 corporate assumptions.	



YEAR:	2023
CHARTER NUMBER:	WASTW-010
CHARTER NAME:	Utility Master Plan
LEAD DEPARTMENT:	Utilities & Environment - Wastewater

TYPE:	Choose one: RMR GROWTH The Utility Mater Plan Update is required to assess our existing wastewater infrastructure to determine required upgrades, repairs,					
	or rehabilitations and establish future infrastructure needs as per the future development growth.					
ASSET CATEGORY:	Circle Covic Cov	Parks & Trails Mobile & Other Equipment Land & Land Improvements				
SCOPE STATEMENT:	Update of the Utility Master Plan due to changes in environmental regulations, deterioration and renewal of infrastructure, and as per long-term future development. An update to the UMP will be completed in 2021 focusing on the development and renewal of the City, with the updated considerations of the new Flourish MDP. A complete reassessment is scheduled in 2024 considering the incorporated 2021 updates, as well as lands that have been considered in any annexations.					

PROJECT CHARTER The Utility Master Plan (UMP) is a critical part of the City of St. JUSTIFICATION: Albert strategic planning framework that focuses on the City's water, wastewater and storm systems. The intent of the UMP is to identify any required existing system improvements as well as to recommend a utility servicing strategy that supports the City's future growth. The UMP identifies the projects required for meeting service levels in the existing system and what is required to allow for growth. The UMP does not include projects required for life cycle replacement or condition assessment of the existing infrastructure (covered under Asset Management Strategy through existing condition assessment programs). For a holistic picture of what is required for the overall repair, maintenance and replacement (RMR) of utility infrastructure, the UMP needs to be looked at in conjunction with the RMR capital projects driven by the Asset Management practices (i.e. life cycle replacement and repair due to deterioration). The UMP will consider level of service programs,

redevelopment throughout the City, and optimization of the utility systems. The City of St. Albert is in process of working through an annexation process. The City's updated MDP and Carrot Creek master drainage plan will be in place at this point. The UMP reassessment for the City's Water, Wastewater and Storm systems will begin in 2023 for completion in 2024 and will provide infrastructure to support the future development growth. Project Risks • Risk of not performing includes outdated infrastructure servicing plan and not relative to the desired development of the City. Availability of Consultants to complete the UMP. • The rate of development over the years might have changed. Assumptions • Development will require the UMP to be updated in 2021 and then in 2023. Qualified consultants will be available for the work and will be able to complete the work. Lifecycle Costing The Utility Master Plan is updated every 5 years and is completely redone every 10 years. **STRATEGIC PLAN &** Council Priority: 4. Infrastructure Investment **CORPORATE BUSINESS** Activity: 4.4 Identify an inventory of existing facilities including an **PLAN ALIGNMENT:** assessment of condition and Administrative Priority: A.3. Mandated Service Requirements Activity: A.2.3 Succession Planning **STAKEHOLDER** Responsibility or Contribution Name & Role **IDENTIFICATION:** Utilities Primary Stakeholder Primary Engineering Secondary Stakeholder Services Secondary City of St Albert Consulted on all projects to determine if Risk & Insurance insurance is required. Department Secondary Other Internal Consult and inform as required Departments (Fire Services. Recreation & Parks, etc. Other external Consult and Inform as required. Stakeholders (residents, schools, businesses) TIMELINE: 2023 - Initiate 2024 Master Plan Renewal

	2024 – Master Plan Renewal				
			2020-21 to reflect the d in the ongoing MD		
FINANCIAL INFORMATION:	Investment Year	2022	\$	-	
		2023	\$	400,000	
		2024	\$	-	
		2025	\$	-	
		2026	\$	-	
		2027	\$	-	
		2028	\$	-	
		2029	\$	-	
		2030	\$	-	
		2031	\$	-	
		T-4-1		400,000	
		Total		400,000	
	T		<u> </u>	Worksheet for details.	
OPERATIONAL IMPACTS:			↑ Yes • No		
			If yes, refer to Op	erating Impacts	
			Worksheet for de	• .	
ASSOCIATED OPERATING BUSINESS CASE:					
	•		•		

APPROVAL		
Author:	Neeraj Sinha/Maggie Wang/Micah Seon King	February 19, 2021
	Project Charter Developer	Date
	Kate Polkovsky	March 10, 2021
Director:		
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

PROJECT COMPONENT Specify year(s)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Land Determined Costs										
Concept Planning										
Detailed Planning and Design		400,000								
Site Servicing										
Strucure/Building Construction										
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL		400,000	-	-	-	-	-	-	-	-

Please note Public Art is budgeted separately on the Ten-Year Capital Plan.

Comments:
2023: Based on an average consultant cost of \$185 and approximately 6,500 of work and 2022 corporate assumptions.



YEAR:	2028
CHARTER NUMBER:	WASWT-020
CHARTER NAME:	Wastewater Lift Station Study
LEAD DEPARTMENT:	Utilities & Environment - Wastewater

TYPE:	Choose one: RMR C GROWTH					
	This project is responsible for assessing the condition of the infrastructure at all City of St. Albert Lift Stations.					
ASSET CATEGORY:	Choose one: Civic Facilities Master Plan, Studies, & Other Roads & Other Engineered Structures Historical/ Cultural	Parks & Trails Mobile & Other Equipment Land & Land Improvements				
SCOPE STATEMENT:	This project consists at an in-depth study of the condition of all the City Lift stations from a life cycle perspective (condition assessment).					

PROJECT CHARTER JUSTIFICATION:

A Life-Cycle Assessment study of the City's lift stations was completed in 2006 and 2019. The Assessment reviewed the existing infrastructure and prioritized upgrades and rehabilitation programs that are viable and cost- effective. These recommended upgrades range from minor repairs to address safety issues to a full reconstruction of some lift stations. Since the 2006 study, many of the capital upgrades were performed including the Riel Lift Station Reconstruction and the Gate Avenue Lift Station Reconstruction. The upgrade to Oakmont lift station will be completed in 2020.

Life Cycle Assessment Studies are a living document and need to be updated regularly. 10 years per study gives the City adequate time to implement the recommendations, update the capital programs, and ensure that the funds are used properly. Lift stations are subject to deterioration of both the building envelope and the pumping equipment operation in the station. These studies ensure that the condition of the lift station is known, so that the City can proactively plan the required investments to ensure continuing operation and safe condition of the building envelope.

As part of a continuing asset management strategy, a comprehensive assessment of the City's lift stations is recommended to be scheduled for 2028 to continue to update the capital and maintenance plan for all of the City's lift stations.

Project Risks Risk of not performing includes outdated condition assessment information which can result in increases operational issues and emergency (reactive) repairs versus optimizing the maintenance and replacement strategy for each lift station. Construction Costs do not escalate beyond funding levels. Qualified consultants will be available for the work. Completed within the time frame no significant delays. Assumptions Qualified consultants available to perform study within Consultant will be able to perform study in scheduled timeframe. Inflationary costs will be as expected or lower. Staffing available to manage including PW operations staff. **Impacts** Project may need to be postponed Final report may not be submitted in Q4 in time for following year's capital planning. Lifecycle Costing Building structures have a life of 35 years and mechanical and electrical have a 25 years life on average. Different components on the lift station can be reaching their life expectancy and this is what this study would determine. Also, components can be reaching their expected life faster based on their specific operating conditions. **STRATEGIC PLAN &** Council Priority: 4. Infrastructure Investment **CORPORATE BUSINESS** Activity: 4.4 Identify an inventory of existing facilities including an **PLAN ALIGNMENT:** assessment of condition and Administrative Priority: A.5. Service Enhancement Opportunities Activity: **STAKEHOLDER** Name & Role Responsibility or Contribution **IDENTIFICATION:** PMP professional Project Management Owner of the infrastructure Utilities Involved in project planning, prioritization Primary and technical assistance Other Internal Departments (Engineering, Consult and inform as required Recreation & Parks. PW, Corporate Comms, etc.) City of St. Albert Consulted on all projects to determine if Risk & Insurance insurance is required. Department External Stakeholders Consult and inform as required

(residents, schools, school boards, etc.)

TIMELINE:	Studies are to be	conduc	cted every 10 years.	
FINANCIAL INFORMATION:	Investment Year	2022	\$	-
		2023	\$	-
		2024	\$	-
		2025	\$	-
		2026	\$	-
		2027	\$	-
		2028	\$	335,500
		2029	\$	-
		2030	\$	-
		2031	\$	-
		Total		335,500
			See Capital Project Workshe	et for details.
OPERATIONAL IMPACTS:			○ Yes	
			If yes, refer to Operating Imp Worksheet for details.	oacts
ASSOCIATED OPERATING BUSINESS CASE:				

APPROVAL

	Neeraj Sinha/Maggie Wang/Micah Seon King	February 19, 2021
Author:		
	Project Charter Developer	Date
	Kate Polkovsky	March 10, 2021
Director:		
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

PROJECT COMPONENT Specify year(s)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Land Determined Costs										
Concept Planning										
Detailed Planning and Design										
Site Servicing										
Strucure/Building Construction	-	-	-	-	-	-	280,500	-	-	-
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency							55,000			
Public Participation Activities										
Equipment										
TOTAL	-	-	-	-	-	-	335,500	-	-	-

Please note Public Art is budgeted separately on the Ten-Year Capital Plan.

Comments:

Cost of 2018 liftstation study was \$274,700. Cost estimatge is based on contingency of 20% and esclationj of 2% as outlined in the 2022 corporate assumptions.



YEAR:	2023
CHARTER NUMBER:	WATER-002
CHARTER NAME:	Utility Master Plan
LEAD DEPARTMENT:	Utilities & Environment – Water

TYPE:	Choose one:		
	The Utility Mater Plan Update is required to assess our existing water infrastructure to determine required upgrades, repairs, or rehabilitations and establish future infrastructure needs as per the future development growth.		
ASSET CATEGORY:	Choose one: Civic Facilities Master Plan, Studies, & Other Roads & Other Engineered Structures Historical/ Cultural	Parks & Trails Mobile & Other Equipment Land & Land Improvements	
SCOPE STATEMENT:	Update of the Utility Master Plan due to changes in environmental regulations, deterioration and renewal of infrastructure, and as per long-term future development. An extensive update to the UMP will be completed in 2021 focusing on the development and renewal of the City, with the updated considerations of the Flourish MDP. A complete reassessment is scheduled in 2024 considering the incorporated 2021 updates, as well as lands that have been considered in any annexations.		

PROJECT CHARTER JUSTIFICATION:	The Utility Master Plan (UMP) is a critical part of the City of St. Albert strategic planning framework that focuses on the City's water, wastewater and storm systems. The intent of the UMP is to identify any required existing system improvements as well as to recommend a utility servicing strategy that supports the City's future growth. The UMP identifies the projects required for meeting service levels in the existing system and what is required to allow for growth.
	The UMP does not include projects required for life cycle replacement or condition assessment of the existing infrastructure (covered under Asset Management Strategy through existing condition assessment programs). For a holistic picture of what is required for the overall repair, maintenance and replacement (RMR) of utility infrastructure, the UMP needs to be looked at in conjunction with the RMR capital projects driven by the Asset Management practices (i.e. life cycle replacement and repair due to deterioration). The UMP will consider level of service programs,

redevelopment throughout the City, and optimization of the utility systems. The City of St. Albert is in process of working through an annexation process. The City's updated MDP and Carrot Creek master drainage plan will be in place at this point. The UMP reassessment for the City's Water, Wastewater and Storm systems will begin in 2023 for completion in 2024 and will provide infrastructure to support the future development growth. Project Risks • Risk of not performing includes outdated infrastructure servicing plan and not relative to the desired development of the City. · Availability of Consultants to complete the UMP. • The rate of development over the years might have changed. Assumptions • Development will require the UMP to be updated in 2021 and then in 2023. Qualified consultants will be available for the work and will be able to complete the work. Lifecycle Costing The Utility Master Plan is updated every 5 years and is completely redone every 10 years. **STRATEGIC PLAN &** Council Priority: 4. Infrastructure Investment **CORPORATE BUSINESS** Activity: 4.4 Identify an inventory of existing facilities including an **PLAN ALIGNMENT:** assessment of condition and Administrative Priority: A.3. Mandated Service Requirements Activity: A.2.3 Succession Planning **STAKEHOLDER** Responsibility or Contribution Name & Role **IDENTIFICATION:** Utilities Primary Stakeholder Primary Engineering Secondary Stakeholder Services Secondary City of St Albert Consulted on all projects to determine if Risk & Insurance insurance is required. Department Secondary Other Internal Consult and inform as required Departments (Fire Services. Recreation & Parks, etc. Other external Consult and Inform as required. Stakeholders (residents, schools, businesses) TIMELINE: 2023 - Initiate 2024 Master Plan Renewal

	2024 – Master Plan Renewal UMP will be updated in 2020 to reflect the long-term future growth strategy as noted in the ongoing MDP Growth Scenario.			
FINANCIAL INFORMATION:	Investment Year	2022 2023 2024 2025 2026 2027 2028 2029 2030 2031	\$	400,000
		Total	\$ See Capital Project Wor	400,000 ksheet for details.
OPERATIONAL IMPACTS:			C Yes No If yes, refer to Opera Worksheet for details	ting Impacts
ASSOCIATED OPERATING BUSINESS CASE:				

APPROVAL		
Author:	Neeraj Sinha /Micah Seon King	February 19, 2021
Author.		
	Project Charter Developer	Date
	Kate Polkovsky	March 10, 2021
Director:		
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

PROJECT COMPONENT Specify year(s)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Land Determined Costs										
Concept Planning										
Detailed Planning and Design		400,000								
Site Servicing										
Strucure/Building Construction										
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	-	400,000	-	-	-	-	-	-	-	-

Please note Public Art is budgeted separately on the Ten-Year Capital Plan.

Comments:	
2023: Based on an average consultant cost of \$185 and approximately 6,500 of work and 2022 corporate assumptions.	



YEAR:	2022
CHARTER NUMBER:	WATER-003
CHARTER NAME:	Water System Infrastructure Rehabilitation
LEAD DEPARTMENT:	Utilities & Environment - Water

TYPE:	Choose one: RMR GROWTH This project supports on-going replacement, maintenance and		
	rehabilitation of existing water system		
ASSET CATEGORY:	Choose one: Civic Facilities Master Plan, Studies, & Other Roads & Other Engineered Structures Historical/ Cultural	Parks & Trails Mobile & Other Equipment Land & Land Improvements	
SCOPE STATEMENT:	To support the safe, reliable, and secure supply of water through timely rehabilitation or replacement of system infrastructure through proactive programs and projects.		

PROJECT CHARTER JUSTIFICATION:

This project encompasses the rehabilitation programs, replacement/maintenance projects of water infrastructure including fire hydrants, main valves, pressure control/air release valves, cathodic protection systems, water main spot replacements, pumps, and other associated water system appurtenance.

Current State - The current inventory of the City's Water system infrastructure consists of approximately:

- 365 km Water Main
- 2200 Fire Hydrants
- 2550 Main Line Valves
- 32 Pressure Relief/Control Valves (PRV's)
- 3 Reservoir Pump Stations

Issue - This project is intended to mitigate the potential and risk of service disruption that can occur through unscheduled, emergent shut-downs as well as the mitigating the potential for damage to property both public and private or adverse environmental impacts that may result from failures of the water system infrastructure.

Opportunities - This project provides the funding needed for infrastructure that has deteriorated, nearing or beyond its' intended life span as determined through necessary operation and maintenance activities, water system studies, asset condition assessment and prioritization and other supporting analytics.

	Risks - Contractor availability and inclement weather, conflicting underground infrastructure				
STRATEGIC PLAN &	Council Priority: 4. Infrastructure Investment				
CORPORATE BUSINESS	Activity: N / A				
PLAN ALIGNMENT:	Administrative Priority: A.5. Service Enhancement Opportunities				
	Activity: N / A				
OTAKEHOL DED	Activity. IN / A				
STAKEHOLDER IDENTIFICATION:	Name & Role	Responsibility or Contribution			
DENTI IOATION.	PMP professional	Project Management			
	Utilities	Utility Infrastructure Owner			
	Primary				
	Infrastructure Branch	Input on capacity requirements,			
	- Primary	maintenance schedules, replacement			
	Environment Branch	timelines that could affect design Information and consulting, assistance			
	Primary	with environmental regulatory			
		requirements, public educational			
		aspects, attend open houses			
	City of St. Albert Risk	Consulted on all projects to determine if			
	& Insurance insurance required				
	Department				
	Other Internal Consult and inform as required				
	Departments				
	(Engineering, Recreation & Parks,				
	PW, Corporate				
	Comms, etc.)				
	City Culture Dept -	Consulted for future Public Art			
	secondary	opportunities			
	External	Consult and inform as required.			
	Stakeholders				
	(residents, school				
	boards, businesses,				
	etc)				
TIMELINE:	Q3-Q4 prior year – inspections and identification of infrastructure for repair or replacement for the following year. Development of scope of work.				
	Q1 – RFQ				
	Q2-Q4 – Construction				

		See Capita	Project Worksheet for details.
	Total	\$	6,133,381
	2031	\$	680,803
	2030	\$	680,803
	2029	\$	680,803
	2028	\$	680,803
	2027	\$	596,866
	2026	\$	585,162
	2025	\$	573,689
	2024	\$	562,440
	2023	\$	551,412
Investment Year	2022	\$	540,600

OPERATIONAL IMPACTS:	○ Yes
	If yes, refer to Operating Impacts Worksheet for details.
ASSOCIATED OPERATING BUSINESS CASE:	N/A

APPROVAL		
Author:	Neeraj Sinha/Maggie Wang/Micah Seon King	February 19, 2021
	Project Charter Developer	Date
	Kate Polkovsky	March 10, 2021
Director:		
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

PROJECT COMPONENT Specify year(s)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Land Determined Costs										
Concept Planning										
Detailed Planning and Design										
Site Servicing										
Strucure/Building Construction	540,600	551,412	562,440	573,689	585,162	596,866	680,803	680,803	680,803	680,803
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	540,600	551,412	562,440	573,689	585,162	596,866	680,803	680,803	680,803	680,803

Please note Public Art is budgeted separately on the Ten-Year Capital Plan.

Comments:

Hydrants: Estimated \$20,000 per hydrant replaced.

Main line valves: Estimated \$10,000 per valve replaced. Cost estimates to reflect 2022 corporate assumptions.



YEAR:	2022
CHARTER NUMBER:	WATER-004
CHARTER NAME:	Water Network Level of Service
LEAD DEPARTMENT:	Utilities & Environment - Water

TYPE:	Choose one: RMR C GROWTH					
	This project supports our existing water network by addressing level of service limitations and increasing capacity and fire flows in our existing water network.					
ASSET CATEGORY:	Choose one: Civic Facilities Master Plan, Studies, & Other Roads & Other Engineered Structures Historical/ Cultural Choose one: Parks & Trails Mobile & Other Equipment Land & Land Improvements					
SCOPE STATEMENT:	Construct new water mains or increase the size of existing water mains to enhance network performance. This program will address level of service (LOS) locations in the city on a priority basis addressing additional capacity, reliability, and redundancy within the water network. This will be achieved by building new water mains in strategic locations throughout the city, improving the network performance in strategic areas.					

PROJECT CHARTER JUSTIFICATION:	Current State - In 2017 an assessment was done to prioritize the locations identified in the 2014 UMP Update, incorporating field level fire flow testing to confirm requirements.
	Issue - In addition to the LOS improvements, operations has identified locations where due to aging infrastructure or soil conditions, the structural integrity of the line is questionable.
	Opportunities - The 2014 Utility Master Plan Update identifies locations where network looping and pipe upgrades are required to increase service level. This work is required to ensure continued and reliable service for our residents. New needs are also identified every year through fire flow and water quality testing. This charter is to be updated to reflect those needs, as well as recommendations based on Master plan updates, on an ongoing basis.
	Risks –

CTRATECIC DI ANI 9	 Not performing the recommended work will increase risk to surrounding properties and potential to lower fire protection below the City's established Level of Service. Construction near/in established areas will likely impact traffic on arterials/collector roads, residents and public. Soil conditions could specify construction method (trenchless, open cut) affecting budget, schedule and availability of qualified contractors. Maintenance of water supply during construction to residents or businesses by ensuring adequate fire protection for surrounding properties. Inclement weather (impact dependent on construction method) Unknown utility conflicts at high level planning stage, could impact both budget and schedule. 					
STRATEGIC PLAN &	Council Priority: 4. Infr	rastructure Investment				
CORPORATE BUSINESS PLAN ALIGNMENT:	Activity: N / A					
TEAN ALIGHMENT.	Administrative Priority	: A.5. Service Enhancement Opportunities				
	Activity: N / A					
	ACTIVITY. IN / A					
STAKEHOLDER	Name & Role	Responsibility or Contribution				
STAKEHOLDER IDENTIFICATION:	Name & Role PMP professional	Project Management				
	Name & Role PMP professional Utilities	Project Management Owner of the infrastructure				
	Name & Role PMP professional	Project Management Owner of the infrastructure Involved in project planning, prioritization				
	Name & Role PMP professional Utilities	Project Management Owner of the infrastructure				
	Name & Role PMP professional Utilities Primary Residents Secondary	Project Management Owner of the infrastructure Involved in project planning, prioritization and technical assistance Information				
	Name & Role PMP professional Utilities Primary Residents Secondary City of St Albert	Project Management Owner of the infrastructure Involved in project planning, prioritization and technical assistance Information Consulted on all projects to determine if				
	Name & Role PMP professional Utilities Primary Residents Secondary City of St Albert Risk & Insurance	Project Management Owner of the infrastructure Involved in project planning, prioritization and technical assistance Information				
	Name & Role PMP professional Utilities Primary Residents Secondary City of St Albert Risk & Insurance Department	Project Management Owner of the infrastructure Involved in project planning, prioritization and technical assistance Information Consulted on all projects to determine if insurance is required?				
	Name & Role PMP professional Utilities Primary Residents Secondary City of St Albert Risk & Insurance	Project Management Owner of the infrastructure Involved in project planning, prioritization and technical assistance Information Consulted on all projects to determine if				
	Name & Role PMP professional Utilities Primary Residents Secondary City of St Albert Risk & Insurance Department City council This is an ongoing proconstruction is taking passed on challenges in	Project Management Owner of the infrastructure Involved in project planning, prioritization and technical assistance Information Consulted on all projects to determine if insurance is required?				

FINANCIAL INFORMATION:	Investment Year	2022	\$	4,488,000
		2023	\$	6,915,600
		2024	\$	1,725,840
		2025	\$	1,825,800
		2026	\$	869,040
		2027	\$	1,892,100
		2028	\$	703,800
		2029	\$	1,836,000
		2030	\$	2,040,000
		2031	\$	2,040,000
		Total	\$	24,336,180
			See Capital Project V	Vorksheet for details.
OPERATIONAL IMPACTS:			C Yes	
			If yes, refer to Opera Worksheet for detai	• .
ASSOCIATED OPERATING BUSINESS CASE:			Provide the name or operating business	

APPROVAL		
	Micah Seon-King	March 26, 2021
Author:		
	Project Charter Developer	Date
	Kate Polkovsky	March 10, 2021
Director:		
	Director	Date

PROJECT COMPONENT Specify year(s)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Land Determined Costs										
Concept Planning										
Detailed Planning and Design	750,000		225,000		250,000		100,000			
Site Servicing										
Strucure/Building Construction	3,663,000	6,740,600	1,450,840	1,760,800	562,000	1,832,100	550,000	1,771,000	1,970,000	1,970,000
Landscaping										
Construction Management	75,000	175,000	50,000	65,000	57,040	60,000	53,800	65,000	70,000	70,000
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	4,488,000	6,915,600	1,725,840	1,825,800	869,040	1,892,100	703,800	1,836,000	2,040,000	2,040,000

Please note Public Art is budgeted separately on the Ten-Year Capital Plan.

Comments:

Cost estimates in 2015 dollars based on work required as indiciated in the 2014 UMP Update. 2017-2019 includes a 5% annual inflation. 2020-20331 is in 2019 dollars plus a 2% esclation fee.10% of the cost of each project has been allocted to the year before to begin design the year prior to construction.

Year	Project Type/Location			
2021	Design of St. Vital Ave. and Montcalm Cres., Line Rehabilitation			
2022	St. Vital Ave and Montcalm Cres. Construction, Giroux East Design			
2023	Giroux East Water Main Construction, Sturgeon Fill Line Design			
2024	Sturgeon Fill Line Upgrade Construction			
2025	Fallhaven Pl. Construction, Larson Ave. Design, Line Rehabilitation			
2026	Larson Avenue Construction			
2027	Local looping/Upgrade Project, Erin Ridge Phase 2 Design			
2028	Erin Ridge North Transmission Line Phase 2 Construction			
2029	Local looping/Upgrade Project			
2030	Local looping/Upgrade Project			
2031	Local looping/Upgrade Project			



YEAR:	2022
CHARTER NUMBER:	WATER-006
CHARTER NAME:	Pump Station and Reservoir Rehabilitation Program
LEAD DEPARTMENT:	Utilities and Environment - Water

TYPE:	Choose one: RMR C GROWTH					
	This project supports the ongoing rehabilitation of existing Pump Station and Reservoir infrastructure.					
ASSET CATEGORY:	Choose one: Civic Facilities Master Plan, Studies, & Other Roads & Other Engineered Structures Historical/ Cultural	Parks & Trails Mobile & Other Equipment Land & Land Improvements				
SCOPE STATEMENT:	Condition Assessment and Rehabilita Reservoir and Pumphouses.	ation Program for the City's				

PROJECT CHARTER JUSTIFICATION:

This is a comprehensive capital program that funds the condition assessments and lifecycle rehabilitation requirements for the City's three reservoirs and pump stations.

Current State -

Pump Station	Construction \Year	Most Recent Comprehensive Condition Assessment	Last Rehab
Sturgeon Heights Reservoir and Pump Station	1957 Add reservoirs in 1966,1972, and 1973	2007	2011
Oakmont Reservoir and Pump Station	1996	2014	None
Lacombe Park Reservoir and Pump Station	1980	None	2005 – complete rebuild

1

	Issue - Sturgeon Heights Reservoir and Pump Station: In 2010-2011 the pump station received a major rehabilitation which was expected to extend its life for approximately 10 years as indicated in the 2007 condition study. The study identifies that the pump station will need to be completely reconstructed to accommodate future water network needs and safe distribution of the City's water which aligns with Council's priority to cultivate sustainable infrastructure services by improving existing community assets and services. As the life expectancy of the Sturgeon Reservoir and Pump Station is approaching its end and with some signs of issues due to condition are visible, and due to a major capital investment required to keep this infrastructure serviceable, it is recommended that complete condition assessment be performed in 2017 as the most recent condition assessment is ten years old and considered outdated.						
	Emergent repairs in 2017 have identified the urgency of the rebuild of this reservoir. In order to better understand the costs of rebuild and present Council with the best possible cost estimates, a preliminary design and cost estimate is proposed in 2021 in time for the 2022 budget cycle. This work will roll into the full design in 2022 and construction in 2023.						
	Oakmont Reservoir and Pump Station: In 2014, a complete condition assessment of Oakmont Reservoir & Pump Station was conducted identifying all lifecycle and growth needs of the reservoir and pump station allowing administration to develop a comprehensive rehabilitation and upgrade strategy. The high priority recommended upgrades and future assessments are put forward as part of the 2017 charter. Funding was identified in 2017 for recommended upgrades and some upgrades were done in 2018-2019. The rest of the non-emergent rehabilitation will be completed in 2021-22.						
	Lacombe Park Reservoir and Pump Station: No current improvements identified. Opportunities - As part of a continuing asset management strategy and in line with Council's Priority to Cultivate Sustainable Infrastructure and Services by improving existing community assets and services, a comprehensive assessment of the City's reservoirs and pump stations is recommended to update the capital and maintenance plan for all the City's reservoirs and pump stations.						
STRATEGIC PLAN &	Council Priority: 4. Infrastructure Investment						
CORPORATE BUSINESS PLAN ALIGNMENT:	Activity: N / A						
	Administrative Priority: A.5. Service Enhancement Opportunities						
	Activity: N / A						
STAKEHOLDER							
IDENTIFICATION:	Name & Role Responsibility or Contribution						
	PMP Professional Project Management						

		Public Works	; -	Infras	tructure Owner and Responsible	
		Utilities		Depa	rtment	
		Primary				
		Other Interna		Cons	ult and Inform as required.	
		Stakeholders	(Fire			
		Services,				
		Recreation &				
		Parks, Buildir				
		Maintenance				
		Other Stakeh	nolders	Cons	ult and Inform as required.	
		(Residents,				
		businesses,				
		schools, etc)				
		Secondary				
		City of St Alb			ulted on all projects to determine if	
		Risk & Insura	ance	Insura	ance is required?	
		Department City council		Appro	wal	
		City council		Appro	oval	
TIMELINE:	2	022 -Sturgeon	Reserv	oir & P	ump Station Rebuild	
		Q1 Detail Desig	gn comp	leted		
		Q2 Tender				
	C	Q2 Construction	n			
			ь.		0.00	
		:023 - Sturgeor	n Keser	voir & F	Pump Station Rebuild	
		14 Construction	n Comn	lotion		
	T .	Q4 Construction			4 950 000	1
FINANCIAL INFORMATION:	T .	Q4 Construction estment Year	2022	\$	1,850,000	
FINANCIAL INFORMATION:	T .		2022 2023	\$ \$	1,850,000 27,100,000	
FINANCIAL INFORMATION:	T .		2022 2023 2024	\$ \$ \$		
FINANCIAL INFORMATION:	T .		2022 2023	\$ \$		
FINANCIAL INFORMATION:	T .		2022 2023 2024	\$ \$ \$		
FINANCIAL INFORMATION:	T .		2022 2023 2024 2025	\$ \$ \$ \$		
FINANCIAL INFORMATION:	T .		2022 2023 2024 2025 2026	\$ \$ \$ \$	27,100,000 - - -	
FINANCIAL INFORMATION:	T .		2022 2023 2024 2025 2026 2027	\$ \$ \$ \$ \$	27,100,000 - - -	
FINANCIAL INFORMATION:	T .		2022 2023 2024 2025 2026 2027 2028	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	27,100,000 - - -	
FINANCIAL INFORMATION:	T .		2022 2023 2024 2025 2026 2027 2028 2029 2030	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	27,100,000 - - -	
FINANCIAL INFORMATION:	T .		2022 2023 2024 2025 2026 2027 2028 2029	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	27,100,000 - - -	
FINANCIAL INFORMATION:	T .		2022 2023 2024 2025 2026 2027 2028 2029 2030 2031	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	27,100,000 - - - 250,000 - - - -	
FINANCIAL INFORMATION:	T .		2022 2023 2024 2025 2026 2027 2028 2029 2030 2031	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	27,100,000 - - - 250,000 - - - - -	
	T .		2022 2023 2024 2025 2026 2027 2028 2029 2030 2031	\$ \$ \$ \$ \$ \$ \$ \$ \$	27,100,000 - - - 250,000 - - - - - 29,200,000 pital Project Worksheet for details.	
FINANCIAL INFORMATION: OPERATIONAL IMPACTS:	T .		2022 2023 2024 2025 2026 2027 2028 2029 2030 2031	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	27,100,000 - - - 250,000 - - - - - 29,200,000 pital Project Worksheet for details.	
	T .		2022 2023 2024 2025 2026 2027 2028 2029 2030 2031	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	27,100,000 - - 250,000 - - - - - - 29,200,000 pital Project Worksheet for details.	
	T .		2022 2023 2024 2025 2026 2027 2028 2029 2030 2031	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	27,100,000 - - - 250,000 - - - - - 29,200,000 pital Project Worksheet for details.	
OPERATIONAL IMPACTS:	T .		2022 2023 2024 2025 2026 2027 2028 2029 2030 2031	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	27,100,000 250,000 250,000 29,200,000 pital Project Worksheet for details. Yes No s, refer to Operating Impacts	
OPERATIONAL IMPACTS: ASSOCIATED OPERATING	T .		2022 2023 2024 2025 2026 2027 2028 2029 2030 2031	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	27,100,000 250,000 250,000 29,200,000 pital Project Worksheet for details. Yes No s, refer to Operating Impacts	
OPERATIONAL IMPACTS:	T .		2022 2023 2024 2025 2026 2027 2028 2029 2030 2031	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	27,100,000 250,000 250,000 29,200,000 pital Project Worksheet for details. Yes No s, refer to Operating Impacts	

APPROVAL		
Author:	Maggie Wang/Micah Seon-King	Feb.22, 2021
	Project Charter Developer	Date
Director:	Kate Polkovsky	March 10, 2021
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

PROJECT COMPONENT Specify year(s)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Land Determined Costs										
Concept Planning						250,000				
Detailed Planning and Design	1,850,000									
Site Servicing										
Strucure/Building Construction		27,100,000								
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	1,850,000	27,100,000	-	-	-	250,000	-	-	-	-

Please note Public Art is budgeted separately on the Ten-Year Capital Plan.

Comments:

For 2022/2023 High level (+/- 50%) cost estimates based off 2007 Sturgeon Height Reservoir and Pump Station Study. High level design component for Sturgeon Reservoir Rebuild. To be re-evaluated in 2022 as part of the condition assessment, prices will be adjusted in the 2020 charter once the updated condition assessment has taken place. \$250,000 has been added for another condition assessment in 2027.



YEAR:	2023, 2026
CHARTER NUMBER:	SOLWA-001
CHARTER NAME:	Recycling Depot Upgrades
LEAD DEPARTMENT:	Utilities & Environment – Waste Branch

TYPE:	● RMR C GROWTH					
	This is for the ongoing maintenance of the existing Recycling Depot.					
ASSET CATEGORY:	Civic Facilities Master Plan, Studies, & Other Roads & Other Engineered Structures Historical/ Cultural	Parks & Trails Mobile & Other Equipment Land & Land Improvements				
SCOPE STATEMENT:	Upgrades and replacement of equipr existing Mike Mitchell Recycling Dep					

PROJECT CHARTER JUSTIFICATION:

Repair and replacement of existing infrastructure at the Mike Mitchell Recycling Depot (such as railing, platforms, storage for materials, etc.) will be required due to the end of their life cycle. Additionally, upgrades to the depot to are required to ensure staff and patron safety, maintain service delivery and to comply with environmental requirements.

Current State – The existing Recycling Depot was built in 2000 and is directly adjacent to the Jack Kraft Public Works facility at 7 Chevigny Street. The Depot is approximately 50 X 80 meters with an asphalt surface and is fenced and gated. There is external and internal signage which provides patrons with information on hours and site restrictions, traffic safety, waste and recycling instructions.

The area includes skid pads for 14 - 40 cubic yard metal bins with stairs and 10 platforms for patron access to bins. There is also a stand-alone bin for glass collection.

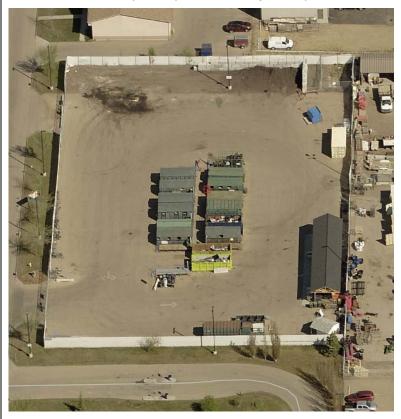
In 2011, additional areas for household hazardous waste and electronics collection were added. A fenced cardboard compactor and small shed for staff were also added. In 2015, the household hazardous waste area was improved with a covered structure and secondary containment to address environmental concerns.

The north area of the Recycling Depot also includes an area with concrete block walls for bulk compost giveaway and bike collection for donating to non-profit organizations.

Issue – There is a need to repair and/or replace infrastructure as part of regular lifecycle maintenance such as skid plates and fencing. Special attention must be paid to infrastructure that is needed to ensure staff and patron safety such as the compactor, platforms and stairs, lighting and signage. Improvements to infrastructure may also be required to manage environmental risks identified through regular EMS inspections and/or changes to environmental regulations or guidelines.

Opportunities – As opportunities for additional recycling or waste diversion streams become available, there may be the need to add or modify existing infrastructure. A covered structure, like the hazardous waste structure may be needed over the cardboard compactor or area for storing Styrofoam to ensure these items are clean and dry to be recycled. Additional measures can also be added for security, to reduce theft and property damage.

Risks – Special attention must be paid to infrastructure that is needed to ensure staff and patron safety such as the compactor, platforms and stairs, lighting and signage. Improvements to infrastructure may also be required to manage environmental risks identified through regular EMS inspections and/or changes to environmental regulations or guidelines. Should the level of service change or additional business ventures be contemplated through this site additional capital expenditures may be required.



Mike Mitchell Recycle Depot - 7 Chevigny Street

Activity: 6.4 Enhance waste minimization strategies with emphasis on reduce and reuse activities. Administrative Priority: N / A Activity: N / A Activity: N / A INTERNAL • Utilities & Environment – Supervisor, Waste and Diversion Programs and Director, Utilities & Environment for Project Management • Finance for budget allocation and approval • Public Works & Transit and Utilities & Environment - Awareness EXTERNAL • Residents and Businesses – Service delivery expectations Contractors – Provide services such as collections and processing of materials on site TIMELINE: Varies, depending on replacement and required upgrades. It is anticipated that in any given year the projects will be completed in the year identified. Investment Year 2022 \$ 2023 \$ 30,000 2024 \$ - 2025 \$ - 2026 \$ 32,500 2027 \$ - 2028 \$ - 2029 \$ -	STRATEGIC PLAN &	Council Priority: 6.	Enviro	onmental Stewardship			
Activity: N / A STAKEHOLDER IDENTIFICATION: INTERNAL Utilities & Environment - Supervisor, Waste and Diversion Programs and Director, Utilities & Environment for Project Management Finance for budget allocation and approval Public Works & Transit and Utilities & Environment - Awareness EXTERNAL Residents and Businesses - Service delivery expectations Contractors - Provide services such as collections and processing of materials on site Varies, depending on replacement and required upgrades. It is anticipated that in any given year the projects will be completed in the year identified. FINANCIAL INFORMATION: Investment Year 2022 \$ 2023 \$ 30,000 2024 \$ - 2025 \$ - 2026 \$ 32,500 2027 \$ - 2028 \$ - 2029 \$ - 2029 \$ - 2020 \$ - 2021 \$ - 2021 \$ - 2022 \$ - 2023 \$ - 2024 \$ - 2025 \$ - 2026 \$ - 2027 \$ - 2028 \$ - 2029 \$ - 2020 \$ - 2021 \$ - 2022 \$ - 2023 \$ - 2024 \$ - 2025 \$ - 2026 \$ - 2027 \$ - 2028 \$ - 2029 \$ - 2029 \$ - 2020 \$ - 2021 \$ - 2021 \$ - 2022 \$ - 2023 \$ - 2024 \$ - 2025 \$ - 2026 \$ - 2027 \$ - 2028 \$ - 2029 \$ - 2029 \$ - 2020 \$ - 2021 \$ - 2021 \$ - 2022 \$ - 2023 \$ - 2024 \$ - 2025 \$ - 2026 \$ - 2027 \$ - 2028 \$ - 2029 \$ - 2029 \$ - 2029 \$ - 2020 \$ - 2021 \$ - 2021 \$ - 2022 \$ - 2023 \$ - 2024 \$ - 2025 \$ - 2026 \$ - 2027 \$ - 2028 \$ - 2029 \$ - 2029 \$ - 2020 \$ - 2021 \$ - 2022 \$ - 2023 \$ - 2024 \$ - 2025 \$ - 2026 \$ - 2027 \$ - 2028 \$ - 2029 \$ - 2029 \$ - 2020 \$ - 2021 \$ - 2022 \$ - 2023 \$ - 2024 \$ - 2025 \$ - 2026 \$ - 2027 \$ - 2028 \$ - 2029 \$ - 2029 \$ - 2020 \$ - 2021 \$ - 2022 \$ - 2023 \$ - 2024 \$ - 2025 \$ - 2026 \$ - 2027 \$ - 2028 \$ - 2029 \$ - 2029 \$ - 2020 \$ - 2021 \$ - 2022 \$ - 2023 \$ - 2024 \$ - 2025 \$ - 2026 \$ - 2027 \$ - 2028 \$ - 2029 \$ - 2029 \$ - 2020 \$ - 2020 \$ - 2021 \$ - 2022 \$ - 2023 \$ - 2024 \$ - 2025 \$ - 2026 \$ - 2027 \$ - 2028 \$ - 2029 \$ - 2029 \$ - 2020	CORPORATE BUSINESS PLAN ALIGNMENT:						
INTERNAL • Utilities & Environment – Supervisor, Waste and Diversion Programs and Director, Utilities & Environment for Project Management • Finance for budget allocation and approval • Public Works & Transit and Utilities & Environment - Awareness EXTERNAL • Residents and Businesses – Service delivery expectations Contractors – Provide services such as collections and processing of materials on site TIMELINE: Varies, depending on replacement and required upgrades. It is anticipated that in any given year the projects will be completed in the year identified. FINANCIAL INFORMATION: Investment Year 2022 \$ \$ - 2025 \$ - 2026 \$ 32,500 2027 \$ - 2026 \$ 32,500 2027 \$ - 2028 \$ - 2029 \$ - 2030 \$ - 2030 \$ - 2031 \$		Administrative Priority: N / A					
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Total \$ 62,500 See Capital Project Worksheet for details. OPERATIONAL IMPACTS: Or Yes No If yes, refer to Operating Impacts Worksheet for details.							
See Capital Project Worksheet for details. OPERATIONAL IMPACTS: O Yes No If yes, refer to Operating Impacts Worksheet for details.				*			
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If yes, refer to Operating Impacts Worksheet for details.				See Capital Project Work	sheet for details.		
Worksheet for details. ASSOCIATED OPERATING N/Δ	OPERATIONAL IMPACTS:			C Yes O No			
$ N /\Delta$					Impacts		
				N/A			

APPROVAL		
	Olivia Kwok	March 8, 2021
Author:		

	Project Charter Developer	Date
Director:	Kate Polkovsky	March 10, 2021
	Director	Date

PROJECT COMPONENT Specify year(s)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Land Determined Costs										
Concept Planning										
Detailed Planning and Design										
Site Servicing										
Strucure/Building Construction					32,500					
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment		30,000								
TOTAL	-	30,000	-	-	32,500	-	-	-	-	-

Please note Public Art is budgeted separately on the Ten-Year Capital Plan.

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Reoccurs every 3 years. \$2500 added to each year to account for inflation. Recommending a detailed assessment of facility in 2025 when Recycle Depot is 25 years old.