UTILITY
RMR
CAPITAL
CHARTERS
2021

CITY BUSINESS PLAN + BUDGET

CAPITAL PROJECT CHARTER

YEAR:	2021
CHARTER NUMBER:	STORM-002
CHARTER NAME:	Stormwater Infrastructure Rehabilitation
LEAD DEPARTMENT:	Utilities - Storm

TYPE:	Choose one: ☒ RMR ☐ GROWTH	
	This project supports the on-going assessment, rehabilitation and replacement of existing stormwater 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:	This program is for the rehabilitation of the City's Stormwater infrastructure.	

PROJECT CHARTER JUSTIFICATION:	This annual project involves 2 components: 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.

<table>
<tr><td></td><td>• 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
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.</td></tr>
<tr><td>STRATEGIC PLAN & CORPORATE BUSINESS PLAN ALIGNMENT:</td><td>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.</td></tr>
<tr><td>STAKEHOLDER IDENTIFICATION:</td><td><table>
<tr><th>Name & Role</th><th>Responsibility or Contribution</th></tr>
<tr><td>PMP professional</td><td>Project Management Services</td></tr>
<tr><td>Utilities
Primary</td><td>Owner of the infrastructure
Involved in project planning, prioritization and technical assistance</td></tr>
<tr><td>City of St. Albert Risk & Insurance Department
Secondary</td><td>Consulted on all projects to determine if insurance</td></tr>
<tr><td>Residents in the surrounding area
Secondary</td><td>Information timelines</td></tr>
<tr><td>Office of the Environment.
Secondary</td><td>Information and consulting</td></tr>
<tr><td>Council</td><td>Approval</td></tr>
</table></td></tr>
<tr><td>TIMELINE:</td><td>Ongoing rehabilitation of stormwater infrastructure based on priorities provided by inspections.</td></tr>
</table>

FINANCIAL INFORMATION:	**Investment Year**	**2021**	$ 3,105,000
	Investment Year	**2022**	$ 2,075,000
	Investment Year	**2023**	$ 3,035,000
	Investment Year	**2024**	$ 2,200,000
	Investment Year	**2025**	$ 1,170,000
	Investment Year	**2026**	$ 745,000
	Investment Year	**2027**	$ 1,970,000
	Investment Year	**2028**	$ 295,000
	Investment Year	**2029**	$ 1,750,000
	Investment Year	**2030**	$ 2,000,000
		Total	**$ 18,345,000**
			See Capital Project Worksheet for details.

OPERATIONAL IMPACTS:		☐ Yes ☒ No If yes, refer to Operating Impacts Worksheet for details.
ASSOCIATED OPERATING BUSINESS CASE:		N/A

APPROVAL

Author:	Victor Adewumi Project Charter Developer	March 10, 2020 Date
Director:	Kate Polkovsky Director	March 12, 2020 Date
DCAO/CPO:	 Deputy Chief Administrative Officer/Chief People Officer	 Date

CAPITAL PROJECT WORKSHEET

PROJECT COMPONENT Specify year(s)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Land Determined Costs										
Concept Planning		250,000				250,000			150,000	150,000
Detailed Planning and Design	410,000	405,000	360,000	75,000	200,000	125,000	250,000	100,000	200,000	200,000
Site Servicing										
Strucure/Building Construction	2,675,000	1,400,000	2,655,000	2,105,000	950,000	350,000	1,700,000	175,000	1,380,000	1,630,000
Landscaping										
Construction Management	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	**3,105,000**	**2,075,000**	**3,035,000**	**2,200,000**	**1,170,000**	**745,000**	**1,970,000**	**295,000**	**1,750,000**	**2,000,000**

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 2024.
Cured-in-Place Pipe Program	Allocate $750,000 every other year, with design the previous year.
Storm Water Rehab (Non-trenchless) program	Existing bi-annual storm design budget and $1,000,000 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 3% inflation per year.

CITY BUSINESS PLAN + BUDGET

CAPITAL PROJECT CHARTER

YEAR:	2021
CHARTER NUMBER:	STORM-004
CHARTER NAME:	Stormwater Management Level of Service (LOS)
LEAD DEPARTMENT:	Utilities - 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 complaint driven or localized storm/drainage issues component to this program where administration prioritizes locations which have been identified by either public complaint or operations. Opportunities - This project also includes an annual budget of $60,000 to provide flow monitoring. Storm flow monitoring

<table>
<tr><td></td><td>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 consultants and contractors for the project.
• Weather
• 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</td></tr>
<tr><td>STRATEGIC PLAN & CORPORATE BUSINESS PLAN ALIGNMENT:</td><td>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</td></tr>
<tr><td>STAKEHOLDER IDENTIFICATION:</td><td><table>
<tr><th>Name & Role</th><th>Responsibility or Contribution</th></tr>
<tr><td>PMP professional</td><td>Project Management</td></tr>
<tr><td>Utilities Primary</td><td>Involved in project planning, prioritization and technical assistance</td></tr>
<tr><td>City of St. Albert Risk & Insurance Department Secondary</td><td>Consulted on all projects to determine if insurance required.</td></tr>
<tr><td>Office of the Environment Secondary</td><td>Information and consulting</td></tr>
</table></td></tr>
</table>

	Council	Approval	
TIMELINE:	Ongoing yearly program with multiple locations in various phases of design and construction. Storm Flow Monitoring in summer months only.		
FINANCIAL INFORMATION:	**Investment Year 2021**	$	9,540,000
	Investment Year 2022	$	1,375,000
	Investment Year 2023	$	4,340,000
	Investment Year 2024	$	2,095,000
	Investment Year 2025	$	2,665,000
	Investment Year 2026	$	2,695,000
	Investment Year 2027	$	2,665,000
	Investment Year 2028	$	1,390,000
	Investment Year 2029	$	1,950,000
	Investment Year 2030	$	2,000,000
	Total	**$**	**30,715,000**
		See Capital Project Worksheet for details.	
OPERATIONAL IMPACTS:		☐ Yes ☒ No If yes, refer to Operating Impacts Worksheet for details.	
ASSOCIATED OPERATING BUSINESS CASE:		N/A	

APPROVAL

Author:	Victor Adewumi	March 10, 2020
	Project Charter Developer	Date
Director:	Kate Polkovsky	March 12, 2020
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

CAPITAL PROJECT WORKSHEET

PROJECT COMPONENT Specify year(s)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Land Determined Costs										
Concept Planning	280,000	40,000	130,000	60,000	80,000	95,000	80,000	80,000	80,000	80,000
Detailed Planning and Design	1,140,000	160,000	520,000	250,000	315,000	350,000	315,000	130,000	200,000	200,000
Site Servicing										
Strucure/Building Construction	8,100,000	1,155,000	3,670,000	1,765,000	2,250,000	2,500,000	2,250,000	1,160,000	1,650,000	1,700,000
Landscaping										
Construction Management	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	**9,540,000**	**1,375,000**	**4,340,000**	**2,095,000**	**2,665,000**	**2,965,000**	**2,665,000**	**1,390,000**	**1,950,000**	**2,000,000**

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

Comments:
Costs based on 2019 estimates and the first 3 years of the program are reviewed in more detail annually.

Costs in 2021 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 (Complaint Driven) & Minor Sag Locations	Annual program to address small complaint driven 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.

YEAR:	2021
CHARTER NUMBER:	STORM-007
CHARTER NAME:	Sedimentation and Erosion Control Plan
LEAD DEPARTMENT:	Utilities - Storm

TYPE:	☑ RMR ☐ GROWTH	
	This program supports improvements to our existing storm program to reduce sediment accumulation and erosion into the Sturgeon River.	
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 reduces the sediment accumulation into the Sturgeon River.	

PROJECT CHARTER JUSTIFICATION:	Alberta Environment Guidelines for Stormwater water quality 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 outfall. 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, to 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. 2. 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. 3. Land is available for the construction of most feasible solution, i.e. grit interceptors, sedimentation ponds, erosion control measures, for each outfall or ravine. 4. Weather is a concern with these types of projects and as such fall construction is ideal 5. Soil conditions 6. Qualified contractors are available 7. Affected infrastructure relocations and repairs
STRATEGIC PLAN & CORPORATE BUSINESS PLAN ALIGNMENT:	The Sedimentation and Erosion Control Program aligns with supporting Natural Environment, specifically: We stand united to preserve, protect and enjoy our Sturgeon River valley, natural areas and ravines and their contribution to biodiversity. Strategies include: Improve the water quality of the Sturgeon River through protection of the floodplain and riparian wetland natural areas, improved storm water management techniques and community education. Council Priority: 6. Environmental Stewardship Activity: N / A Administrative Priority: A.3. Mandated Service Requirements Activity: N / A
STAKEHOLDER IDENTIFICATION:	

Name & Role	Responsibility or Contribution
PMP professional	Project Management
Utilities Primary	Utility Infrastructure Owner
Infrastructure Branch - Primary	Input on capacity requirements, maintenance schedules, replacement timelines that could affect design
Office of Community Sustainability - Primary	Information and consulting, assistance with environmental regulatory requirements, public educational aspects, attend open houses

	City of St. Albert Risk & Insurance Department: Consulted on all projects to determine if insurance required City Culture Dept - secondary: Consulted for future Public Art opportunities
TIMELINE:	2012 – 2018 – Outfalls completed to date include #3, #6, #7, #9, #4 and #11. 2019 – Outfall is #8 and #10 ongoing, will be designed and completed in 2020 2019 –2020 - #8b and #12 is designed and will be constructed in 2020-2021. 2021-2024– Design is scheduled one year prior to construction. Outfalls #5, #11D, #19 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 rehabbed outfalls.

FINANCIAL INFORMATION:	**Investment Year**		
		2021	$ 1,616,000
		2022	$ 1,165,000
		2023	$ 2,398,000
		2024	$ 500,000
		2025	$ 500,000
		2026	$ 1,165,000
		2027	$ 500,000
		2028	$ 1,165,000
		2029	$ 500,000
		2030	$ 1,165,000
		Total	**$ 10,674,000**
			See Capital Project Worksheet for details.

OPERATIONAL IMPACTS:		☒ Yes ☐ No If yes, refer to Operating Impacts Worksheet for details.
ASSOCIATED OPERATING BUSINESS CASE:		N/A

APPROVAL			
Author:	Victor Adewumi	March 10, 2020	
	Project Charter Developer	Date	
Director:	Kate Polkovsky	March 12, 2020	
	Director	Date	
DCAO/CPO:			
	Deputy Chief Administrative Officer/Chief People Officer	Date	

Land Determined Costs										
Concept Planning										
Detailed Planning and Design	134,000	410,000	85,000			410,000		410,000		410,000
Site Servicing										
Strucure/Building Construction	1,482,000	755,000	2,313,000	500,000	500,000	755,000	500,000	755,000	500,000	755,000
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	**1,616,000**	**1,165,000**	**2,398,000**	**500,000**	**500,000**	**1,165,000**	**500,000**	**1,165,000**	**500,000**	**1,165,000**

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

Comments:
Costs are based on 2014 program update by Stantec and recent historical information from past outfall projects.
Inflation of 3% is applied to each year based on 2014 cost estimates. Funding is to be from the utility model. Design to occur 1 years prior to construction.

Design and Construction Schedule by Outfall is currently:

Outfall #	Design Year	Construction Year
10	2018	2019
8	2018	2019
8B/12	2019	2020
5	2020	2021
11D	2021	2022
19	2022	2023
17A/17B	2023	2024

OPERATING IMPACTS WORKSHEET

☐ One Time ☒ Ongoing	An additional $5,000/year per outfall is required for cleaning and maintenance of the Sedimentation Control Devices. Costs will begin after Final Acceptance, 2 years afte project completion.

OPERATING IMPACTS	2021	2022	2023
Outfall 10 – Sedimentation Control Device Cleaning/Maintenance	$5,000	$5,000	$5,000
Outfall 4 - Sedimentation Control Device Cleaning/Maintenance	$5,000	$5,000	$5,000
Outfall 8 – Sedimentation Control Device Cleaning/Maintenance	$5,000	$5,000	$5,000
TOTAL	**15,000**	**15,000**	**15,000**

CITY BUSINESS PLAN + BUDGET

CAPITAL PROJECT CHARTER

YEAR:	2021
CHARTER NUMBER:	WASWT-001
CHARTER NAME:	Wastewater Rehabilitation Program
LEAD DEPARTMENT:	Utilities - Wastewater

TYPE:	☉ RMR ☐ GROWTH	
	This project supports on-going replacement, maintenance and rehabilitation of existing wastewater systems 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:	To optimize the capacity and timely rehabilitation of the City's wastewater collection system through proactive programs and initiatives.	

PROJECT CHARTER JUSTIFICATION:	This project encompasses Inflow and Infiltration reduction programs, the replacement/rehabilitation of wastewater assets nearing, at, or beyond the end of life cycle and CCTV inspection programs. Current State - This project enables the City to continue the proactive programs and system upgrades with an outcome to reduce water infiltration into the wastewater collection system. As a result, this supports the increased capacity for the wastewater flows, reduces the potential risks associated with peak flows, and wastewater surcharging. 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 - The 2020 Inflow and Infiltration program is required to populate the City's utility model. If this project did not move forward, the data required for wastewater modeling would not exist which would affect the accuracy of the model. Risks - Inclement weather, contractor availability, seasonal staff availability, conflicting underground infrastructure, emergency breakdowns may require priorities to be shifted.

STRATEGIC PLAN & CORPORATE BUSINESS PLAN ALIGNMENT:	Built Environment – We build our community towards the future to sustain balanced development, with a reverent eye to the past, honoring our unique settlement history and distinct identity. 3.4 Ensure that municipal utilities and services are provided in an efficient, economic, coordinated and timely manner relative to the desired development of the city. 4.0 We build innovative, long lasting infrastructure that is efficient, minimizes the use of our natural resources and creates harmony between the natural and built environment. 4.1 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: 4. Infrastructure Investment Activity: 4.4 Identify an inventory of existing facilities including an assessment of condition and Administrative Priority: N / A Activity: N / A		
STAKEHOLDER IDENTIFICATION:	Utilities Manager – Primary Finance – budget allocation and approval Capital Projects Office - Secondary Risk and Insurance- Secondary		
TIMELINE:	Most of the work is seasonal in nature and can only be completed during the spring and summer. Seasonal field staff commence their work in May to assess flow data loggers for wastewater modeling input. Testing and commissioning of replaced infrastructure occurs immediately after replacement is completed.		
FINANCIAL INFORMATION:	**Investment Year**	**2021**	$ 268,000
		2022	$ 268,000
		2023	$ 268,000
		2024	$ 268,000
		2025	$ 268,000
		2026	$ 268,000
		2027	$ 268,000
		2028	$ 268,000
		2029	$ 268,000
		2030	$ 268,000
		Total	**$ 2,680,000**
			See Capital Project Worksheet for details.
OPERATIONAL IMPACTS:			☐ Yes ☒ No If yes, refer to Operating Impacts Worksheet for details.

ASSOCIATED OPERATING BUSINESS CASE:		N/A

APPROVAL

Author:	Victor Adewumi	March 10, 2020
	Project Charter Developer	Date
Director:	Kate Polkovsky	March 10, 2020
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

CAPITAL PROJECT WORKSHEET

PROJECT COMPONENT Specify year(s)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Land Determined Costs										
Concept Planning										
Detailed Planning and Design										
Site Servicing										
Strucure/Building Construction	268,000	268,000	268,000	268,000	268,000	268,000	268,000	268,000	268,000	268,000
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	**268,000**	**268,000**	**268,000**	**268,000**	**268,000**	**268,000**	**268,000**	**268,000**	**268,000**	**268,000**

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

Comments:

CITY BUSINESS PLAN + BUDGET

CAPITAL PROJECT CHARTER

YEAR:	2021
CHARTER NUMBER:	WASWT-002
CHARTER NAME:	Wastewater Household Service Replacement
LEAD DEPARTMENT:	Utilities - Wastewater

TYPE:	☒ RMR ☐ GROWTH	
	This project supports on-going replacement/rehabilitation of existing wastewater services that are defective.	
ASSET CATEGORY:	☐ 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 yet remaining (new) to those requiring immediate replacement. 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 sharing 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 solely. Risks - Inclement weather, contractor availability, seasonal staff availability, conflicting underground infrastructure. Residents unwilling to rehab private portion of the service.
STRATEGIC PLAN & CORPORATE BUSINESS PLAN ALIGNMENT:	Built Environment – We build our community towards the future to sustain balanced development, with a reverent eye to the past, honoring our unique settlement history and distinct identity. 3.4 Ensure that municipal utilities and services are provided in an efficient, economic, coordinated and timely manner relative to the desired development of the city. 4.0 We build innovative, long lasting infrastructure that is efficient, minimizes the use of our natural resources and creates harmony between the natural and built environment. 4.1 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: 4. Infrastructure Investment Activity: N / A Administrative Priority: A.3. Mandated Service Requirements Activity: N / A
STAKEHOLDER IDENTIFICATION:	Utilities Manager – Primary Finance – budget allocation and approval Capital Projects Office - Secondary Risk and Insurance- Secondary
TIMELINE:	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**	
	2021	250,000
	2022	250,000
	2023	250,000
	2024	250,000
	2025	250,000
	2026	250,000
	2027	250,000
	2028	250,000
	2029	250,000
	2030	250,000
	Total	**$ 2,500,000**
		See Capital Project Worksheet for details.

OPERATIONAL IMPACTS:		☐ Yes ☒ No If yes, refer to Operating Impacts Worksheet for details.
ASSOCIATED OPERATING BUSINESS CASE:		N/A

APPROVAL

Author:	Victor Adewumi	March 10, 2020
	Project Charter Developer	Date
Director:	Kate Polkovsky	March 12, 2020
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

CAPITAL PROJECT WORKSHEET

PROJECT COMPONENT Specify year(s)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Land Determined Costs										
Concept Planning										
Detailed Planning and Design										
Site Servicing										
Strucure/Building Construction	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**

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

Comments:

CITY BUSINESS PLAN + BUDGET

CAPITAL PROJECT CHARTER

YEAR:	2021
CHARTER NUMBER:	WASWT-003
CHARTER NAME:	Wastewater Main Replacement
LEAD DEPARTMENT:	Utilities - Wastewater

TYPE:	☉ RMR ☐ GROWTH	
	This project supports the on-going assessment, rehabilitation and replacement of existing wastewater system 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:	Rehabilitation of wastewater infrastructure as determined through asset management 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 Closed Circuit Television (CCTV) 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 now can focus on further assessment and prioritization of projects. This is an ongoing program, meaning that as sewer is rehabilitated, more needs are going 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

<table>
<tr><td></td><td>increases significantly and negatively impact the level of service provided by this infrastructure until repair is completed.

Risks –

1. Finding additional issues with existing pipes when uncovered or when pre-inspection video condition is worse than expected.
2. The repairs are not completed prior to more expensive repairs or replacement being required.
3. 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.
4. Some major wastewater mains are along major arterials requiring traffic impacts or night work.</td></tr>
<tr><td>STRATEGIC PLAN & CORPORATE BUSINESS PLAN ALIGNMENT:</td><td>The Wastewater Main Replacement 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: N / A

Administrative Priority: N / A

Activity: N / A</td></tr>
<tr><td>STAKEHOLDER IDENTIFICATION:</td><td><table><tr><th>Name & Role</th><th>Responsibility or Contribution</th></tr><tr><td>PMP professional</td><td>Project Management</td></tr><tr><td>Public Works – Utilities
Primary</td><td>Information – technical assistance</td></tr><tr><td>Residents
Secondary</td><td>Information</td></tr><tr><td>City of St. Albert Risk & Insurance Department</td><td>Consulted on all projects to determine if insurance is required.</td></tr><tr><td>City Council</td><td>Approval</td></tr></table></td></tr>
<tr><td>TIMELINE:</td><td>Ongoing yearly program, with a larger project taking place every third year.</td></tr>
</table>

FINANCIAL INFORMATION:	Investment Year		
		2021	$ 688,000
		2022	$ 688,000
		2023	$ 1,250,000
		2024	$ 688,000
		2025	$ 688,000
		2026	$ 1,250,000
		2027	$ 688,000
		2028	$ 688,000
		2029	$ 1,250,000
		2030	$ 688,000
		Total	**$ 8,566,000**
			See Capital Project Worksheet for details.
OPERATIONAL IMPACTS:			☐ Yes ☒ No If yes, refer to Operating Impacts Worksheet for details.
ASSOCIATED OPERATING BUSINESS CASE:			N/A

APPROVAL

Author:	Victor Adewumi	March 10, 2020
	Project Charter Developer	Date
Director:	Kate Polkovsky	March 12, 2020
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

CAPITAL PROJECT WORKSHEET

PROJECT COMPONENT Specify year(s)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Land Determined Costs										
Concept Planning	20,500	20,500	37,500	20,500	20,500	37,500	20,500	20,500	37,500	20,500
Detailed Planning and Design	82,500	82,500	150,000	82,500	82,500	150,000	82,500	82,500	150,000	82,500
Site Servicing										
Strucure/Building Construction	585,000	585,000	1,062,500	585,000	585,000	1,062,500	585,000	585,000	1,062,500	585,000
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	**688,000**	**688,000**	**1,250,000**	**688,000**	**688,000**	**1,250,000**	**688,000**	**688,000**	**1,250,000**	**688,000**

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

Comments:
Costs have not been increased for inflation this year
Included $560,000 every three years (2020, 2023, and 2026) for a large diameter rehabilitation as identified by the asset management program.

CITY BUSINESS PLAN + BUDGET

CAPITAL PROJECT CHARTER

YEAR:	2021
CHARTER NUMBER:	WASWT-004
CHARTER NAME:	Wastewater Collection System Level of Service (LOS)
LEAD DEPARTMENT:	Utilities - Wastewater

TYPE:	☒ 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:	☐ 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 needs 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.

	Risks – • 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.
STRATEGIC PLAN & CORPORATE BUSINESS PLAN ALIGNMENT:	Council Priority: 4. Infrastructure Investment Activity: N / A Administrative Priority: A.5. Service Enhancement Opportunities Activity: N / A
STAKEHOLDER IDENTIFICATION:	

Name & Role	**Responsibility or Contribution**
PMP professional	Project Management
Utilities Primary	Owner of the infrastructure Involved in project planning, prioritization and technical assistance
City of St. Albert Risk & Insurance Department	Consulted on all projects to determine if insurance is required.
Council & Residents in area Secondary	Information and timelines

TIMELINE:	Bi-annual program. In each of the following year: 2021, 2023, 2025, 2027 and 2029 - Design and engineering will be completed. 2022, 2024, 2026, 2028 and 2030 - Construction will be started and completed.

FINANCIAL INFORMATION:

Investment Year		
2021	$	490,000
2022	$	3,054,000
2023	$	460,000
2024	$	2,840,000
2025	$	460,000
2026	$	2,840,000
2027	$	460,000
2028	$	2,840,000
2029	$	460,000
2030	$	2,840,000
Total	**$**	**16,744,000**

See Capital Project Worksheet for details.

OPERATIONAL IMPACTS:		☐ Yes ☒ No If yes, refer to Operating Impacts Worksheet for details.
ASSOCIATED OPERATING BUSINESS CASE:		N/A

APPROVAL

Author:	Neeraj Sinha	March 10, 2020
	Project Charter Developer	Date
Director:	Kate Polkovsky	March 12, 2020
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

CAPITAL PROJECT WORKSHEET

PROJECT COMPONENT Specify year(s)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Land Determined Costs										
Concept Planning										
Detailed Planning and Design	450,000		420,000		420,000		420,000		420,000	
Site Servicing										
Strucure/Building Construction		3,014,000		2,800,000		2,800,000		2,800,000		2,800,000
Landscaping										
Construction Management	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	**490,000**	**3,054,000**	**460,000**	**2,840,000**	**460,000**	**2,840,000**	**460,000**	**2,840,000**	**460,000**	**2,840,000**

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

Comments:

CITY BUSINESS PLAN
+ BUDGET

CAPITAL PROJECT CHARTER

YEAR:	2021
CHARTER NUMBER:	WASWT-020
CHARTER NAME:	Wastewater Lift Station Study
LEAD DEPARTMENT:	Utilities - Wastewater

TYPE:	☒ RMR ☐ GROWTH	
	This project supports on-going replacement, maintenance and rehabilitation of existing wastewater systems 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 project consists at an in-depth study of the condition of all ofthe 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 2019. The Assessment reviewed the existing infrastructure and prioritized upgrades and rehabilitation programs that are viable and cost- effective. The previous study, completed in 2006, indicated a need to upgrade the facilities. 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. Life Cycle Assessment Studies are a living document and need to be updated regularly. A 10 year timeframe within a study update or reassessment provides 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.

	Risks • Risk of not performing includes out-dated 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 budget. • 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. . **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 & CORPORATE BUSINESS PLAN ALIGNMENT:	Council Priority: 4. Infrastructure Investment Activity: 4.2 Update Capital Plan on project prioritization, criteria, and weightings Administrative Priority: A.3. Mandated Service Requirements Activity: A.4.1 Corporate Budget
STAKEHOLDER IDENTIFICATION:	Utilities - Primary Council - Approval Finance -Budget Allocation Capital Projects Office - Secondary Risk and Insurance– Secondary Residents - Secondary
TIMELINE:	Studies are to be conducted every 10 years.

FINANCIAL INFORMATION:	Investment Year		
		2020	$0
		2021	$0
		2022	$0
		2023	$0
		2024	$0
		2025	$0
		2026	$0
		2027	$0
		2028	$200,000
		2029	$0
		Total	$ 200,000
			See Capital Project Worksheet for details.

OPERATIONAL IMPACTS:		☐ Yes ☒ No If yes, refer to Operating Impacts Worksheet for details.
ASSOCIATED OPERATING BUSINESS CASE:		N/A

APPROVAL

Author:	Neeraj Sinha	Mar. 11, 2020
	Project Charter Developer	Date
Director:	Kate Polkovsky	March 15, 2020
	Director	Date
CAO:		
	Chief Administrative Officer	Date

CAPITAL PROJECT WORKSHEET

PROJECT COMPONENT	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Land Determined Costs										
Concept Planning									$60,000	
Detailed Planning and Design									$140,000	
Site Servicing										
Strucure/Building Construction										
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL									$200,000	

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

Comments:

CITY BUSINESS PLAN + BUDGET

CAPITAL PROJECT CHARTER

YEAR:	2021
CHARTER NUMBER:	WATER-003
CHARTER NAME:	Water System Infrastructure Rehabilitation
LEAD DEPARTMENT:	Utilities - Water

TYPE:	☒ RMR ☐ GROWTH	
	This project supports on-going replacement, maintenance and rehabilitation of existing water systems 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:	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 & CORPORATE BUSINESS PLAN ALIGNMENT:	Built Environment – We build our community towards the future to sustain balanced development, with a reverent eye to the past, honouring our unique settlement history and distinct identity. 3.4 Ensure that municipal utilities and services are provided in an efficient, economic, coordinated and timely manner relative to the desired development of the city. 4.0 We build innovative, long lasting infrastructure that is efficient, minimizes the use of our natural resources and creates harmony between the natural and built environment. 4.1 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: 4. Infrastructure Investment Activity: N / A Administrative Priority: A.5. Service Enhancement Opportunities Activity: N / A		
STAKEHOLDER IDENTIFICATION:	Utilities Manager – Primary Finance – budget allocation and approval Capital Projects Office - Secondary Risk and Insurance- Secondary		
TIMELINE:	Q1 – RFQ Q2-Q4 – Construction		
FINANCIAL INFORMATION:	**Investment Year**	**2021**	$ 530,000
		2022	$ 530,000
		2023	$ 550,000
		2024	$ 550,000
		2025	$ 550,000
		2026	$ 550,000
		2027	$ 550,000
		2028	$ 550,000
		2029	$ 550,000
		2030	$ 550,000
		Total	**$ 5,460,000**
			See Capital Project Worksheet for details.
OPERATIONAL IMPACTS:			☐ Yes ☒ No If yes, refer to Operating Impacts Worksheet for details.
ASSOCIATED OPERATING BUSINESS CASE:			N/A

APPROVAL

Author:	Victor Adewumi	March 10, 2020
	Project Charter Developer	Date
Director:	Kate Polkovsky	March 12, 2020
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

CAPITAL PROJECT WORKSHEET

PROJECT COMPONENT Specify year(s)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Land Determined Costs										
Concept Planning										
Detailed Planning and Design										
Site Servicing										
Strucure/Building Construction	530,000	530,000	550,000	550,000	550,000	550,000	550,000	550,000	550,000	550,000
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	**530,000**	**530,000**	**550,000**	**550,000**	**550,000**	**550,000**	**550,000**	**550,000**	**550,000**	**550,000**

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.

CITY BUSINESS PLAN + BUDGET

CAPITAL PROJECT CHARTER

YEAR:	2021
CHARTER NUMBER:	WATER-004
CHARTER NAME:	Water Network Level of Service
LEAD DEPARTMENT:	Utilities - Water

TYPE:	Choose one: ☒ RMR ☐ 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	☐ 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 –

<table>
<tr><td></td><td>1. Not performing the recommended work will increase risk to surrounding properties as driving factor recommending projects is lower fire protection than the City's established Level of Service.
2. Construction near/in established areas will likely impact traffic on arterials/collector roads.
3. Soil conditions could a specific construction method (trenchless, open cut) affecting budget, schedule and availability of qualified contractors
4. Maintenance of water supply during construction to ensure adequate fire protection of surrounding properties.
5. Inclement weather (impact dependent on construction method)
6. Unknown utility conflicts at high level planning stage, could impact both budget and schedule.</td></tr>
<tr><td>STRATEGIC PLAN & CORPORATE BUSINESS PLAN ALIGNMENT:</td><td>The Water Network Level of Service 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: N / A

Activity: N / A

Administrative Priority: A.5. Service Enhancement Opportunities

Activity: N / A</td></tr>
<tr><td>STAKEHOLDER IDENTIFICATION:</td><td><table><tr><th>Name & Role</th><th>Responsibility or Contribution</th></tr><tr><td>PMP professional</td><td>Project Management</td></tr><tr><td>Utilities
Primary</td><td>Owner of the infrastructure
Involved in project planning, prioritization and technical assistance</td></tr><tr><td>Residents
Secondary</td><td>Information</td></tr><tr><td>City of St Albert Risk & Insurance Department</td><td>Consulted on all projects to determine if insurance is required?</td></tr><tr><td>City council</td><td>Approval</td></tr></table></td></tr>
<tr><td>TIMELINE:</td><td>This is an ongoing program where every year design or construction is taking place in different locations throughout the City based on challenges in the water network, both from a level of service perspective as well as from an occurrence of breaks.

Design for each location will be completed one year prior to construction.</td></tr>
</table>

FINANCIAL INFORMATION:	**Investment Year**	**2021**	$	2,440,000
		2022	$	4,400,000
		2023	$	6,780,000
		2024	$	1,692,000
		2025	$	1,790,000
		2026	$	852,000
		2027	$	1,855,000
		2028	$	690,000
		2029	$	1,800,000
		2030	$	2,000,000
		Total	**$**	**24,299,000**
			See Capital Project Worksheet for details.	

OPERATIONAL IMPACTS:		☐ Yes ☒ No If yes, refer to Operating Impacts Worksheet for details.
ASSOCIATED OPERATING BUSINESS CASE:		N/A

APPROVAL

Author:	Victor Adewumi	March 10, 2020
	Project Charter Developer	Date
Director:	Kate Polkovsky	March 12, 2020
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

CAPITAL PROJECT WORKSHEET

PROJECT COMPONENT Specify year(s)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Land Determined Costs										
Concept Planning										
Detailed Planning and Design	400,000	750,000		202,000		250,000		100,000		
Site Servicing										
Strucure/Building Construction	1,800,000	3,650,000	6,740,000	1,450,000	1,750,000	562,000	1,815,000	550,000	1,760,000	1,960,000
Landscaping										
Construction Management	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	**2,240,000**	**4,440,000**	**6,780,000**	**1,692,000**	**1,790,000**	**852,000**	**1,855,000**	**690,000**	**1,800,000**	**2,000,000**

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

Comments: Costs estimates in 2015 dollars based on work required as indicated in the 2014 UMP Update. 2017 – 2019 Includes a 5% annual inflation. 2020-2026 is in 2019 dollars. 10% of the cost of each project has been allocated to the year before to begin design the year prior to construction.

Year	Project Type/Location
2019	Construction of High Priority Locations (Identified in 2018)
2020	Design of St. Vital Ave. and Montcalm Cres., Line Rehabilitation
2021	St. Vital Ave and Montcalm Cres. Construction, Giroux East Design
2022	Giroux East Water Main Construction, Sturgeon Fill Line Design
2023	Sturgeon Fill Line Upgrade Construction
2024	Fallhaven Pl. Construction, Larson Ave. Design, Line Rehabilitation
2025	Larson Avenue Construction
2026	Local looping/Upgrade Project, Erin Ridge Phase 2 Design
2027	Erin Ridge North Transmission Line Phase 2 Construction
2028	Local looping/Upgrade Project
2029	Local looping/Upgrade Project
2030	Local looping/Upgrade Project

CITY BUSINESS PLAN
+ BUDGET

CAPITAL PROJECT CHARTER

YEAR:	2021
CHARTER NUMBER:	WATER-006
CHARTER NAME:	Pump Station and Reservoir Rehabilitation Program
LEAD DEPARTMENT:	Utilities - Water

TYPE:	☒ RMR ☐ GROWTH	
	This project supports the ongoing rehabilitation of existing Pump Station and Reservoir 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:	Condition Assessment and Rehabilitation Program for the City's Reservoir and Pumphouses.	

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

	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 2020 in time for the 2021 budget cycle. This work will roll into the full design in 2021 and construction in 2022. 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 this 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 2020. 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 & CORPORATE BUSINESS PLAN ALIGNMENT:	Council Priority: 4. Infrastructure Investment 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 - Utilities Primary	Infrastructure Owner and Responsible Department
Residents Secondary	Information
City of St Albert Risk & Insurance Department	Consulted on all projects to determine if insurance is required?
City council	Approval

TIMELINE:

2022 – Design – Sturgeon Reservoir & Pump Station Rebuild
Q1 – RFP
Q3 Design completed

2023 – Rebuild
Q1 Tender
Q2-4 Construction

FINANCIAL INFORMATION:

Investment Year		
2021	$	200,000
2022	$	2,500,000
2023	$	21,700,000
2024	$	-
2025	$	-
2026	$	-
2027	$	200,000
2028	$	-
2029	$	-
2030	$	-
Total	**$**	**24,600,000**

See Capital Project Worksheet for details.

OPERATIONAL IMPACTS:

☐ Yes ☒ No

If yes, refer to Operating Impacts Worksheet for details.

ASSOCIATED OPERATING BUSINESS CASE:

APPROVAL

Author:	Victor Adewumi	March 10, 2020
	Project Charter Developer	Date
Director:	Kate Polkovsky	March 12, 2020
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

CAPITAL PROJECT WORKSHEET

PROJECT COMPONENT Specify year(s)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Land Determined Costs										
Concept Planning	200,000						200,000			
Detailed Planning and Design		2,500,000								
Site Servicing										
Strucure/Building Construction			21,700,000							
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	**200,000**	**2,500,000**	**21,700,000**	**-**	**-**	**-**	**200,000**	**-**	**-**	**-**

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 Rebu

CITY BUSINESS PLAN + BUDGET

CAPITAL PROJECT CHARTER

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

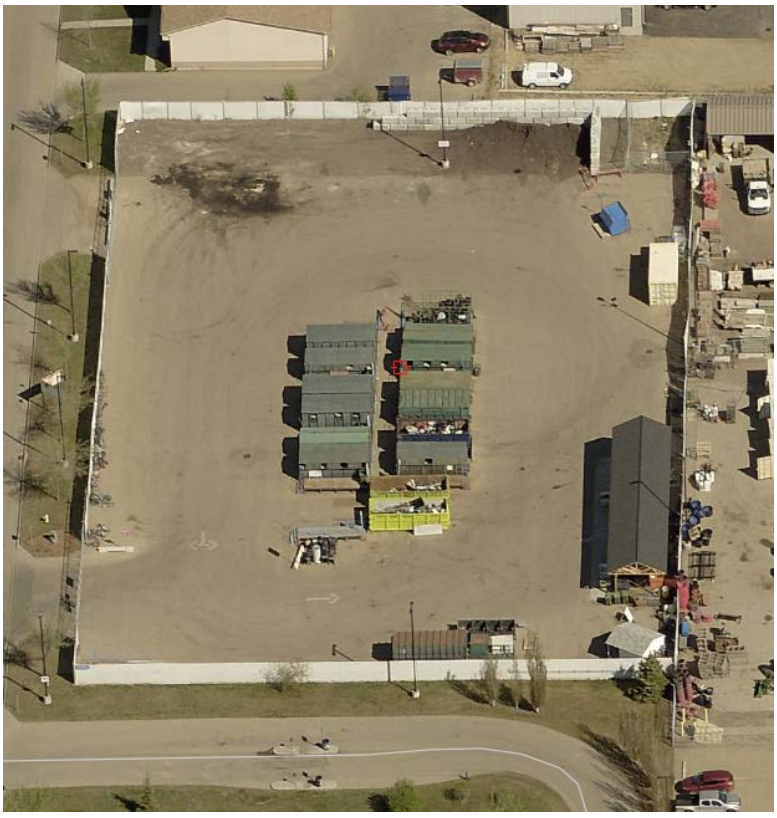
TYPE:	(•) RMR ( ) GROWTH	
	This is for the ongoing maintenance of the existing Recycling Depot.	
ASSET CATEGORY:	(•) Civic Facilities ( ) Master Plan, Studies, & Other ( ) Roads & Other Engineered Structures ( ) Historical/Cultural	( ) Parks & Trails ( ) Mobile & Other Equipment ( ) Land & Land Improvements
	Upgrades and replacement of equipment/infrastructure for the existing Mike Mitchell Recycling Depot at 7 Chevigny Street.	

PROJECT CHARTER JUSTIFICATION:	Repair and replacement of existing infrastructure at the Mike Mitchell Recycling Depot (such as railing and platforms) 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		
STRATEGIC PLAN & CORPORATE BUSINESS PLAN ALIGNMENT:	Council Priority: 6. Environmental Stewardship Activity: 6.4 Enhance waste minimization strategies with emphasis on reduce and reuse activities. Administrative Priority: N / A 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		
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**	**2021**	$ -
		2022	$ -
		2023	$ 30,000
		2024	
		2025	$ -
		2026	$ 32,500
		2027	$ -
		2028	$ -
		2029	$ -
		2030	$ -
		Total	**$ 62,500**
			See Capital Project Worksheet for details.
OPERATIONAL IMPACTS:			○ Yes ◉ No If yes, refer to Operating Impacts Worksheet for details.
ASSOCIATED OPERATING BUSINESS CASE:			N/A

APPROVAL

Author:	Olivia Kwok	March 26, 2020
	Project Charter Developer	Date
Director:	Olivia Kwok	March 26, 2020
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

CAPITAL PROJECT WORKSHEET

PROJECT COMPONENT Specify year(s)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Land Determined Costs										
Concept Planning										
Detailed Planning and Design										
Site Servicing										
Strucure/Building Construction			30,000			32,500				
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	**-**	**-**	**30,000**	**-**	**-**	**32,500**	**-**	**-**	**-**	**-**

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

Comments:
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.

CITY BUSINESS PLAN + BUDGET

CAPITAL PROJECT CHARTER

YEAR:	2024
CHARTER NUMBER:	WATER-002/WASTW-010/STORM-001
CHARTER NAME:	Utility Master Plan
LEAD DEPARTMENT:	Utilities – Water, Wastewater, Storm

TYPE:	☉ RMR ☐ GROWTH	
	The Utility Mater Plan Update is required to assess our existing water, wastewater and stormwater infrastructure to determine required upgrades, repairs, or rehabilitations and establish future infrastructure needs as per the future development growth.	
ASSET CATEGORY:	☐ 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 was completed in 2020 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 2020 updates, as well as lands that have been considered in any annexations.	

PROJECT CHARTER JUSTIFICATION:	The Utilities 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,

<table>
<tr><td></td><td>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 UMP reassessment for the City's Water, Wastewater and Storm systems will begin in 2024 for completion in 2020 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 2020 and then in 2023/24 completely redone.
• 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.</td></tr>
<tr><td>STRATEGIC PLAN & CORPORATE BUSINESS PLAN ALIGNMENT:</td><td>The UMP 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: N / A

Administrative Priority: A.3. Mandated Service Requirements

Activity: A.2.3 Succession Planning</td></tr>
<tr><td>STAKEHOLDER IDENTIFICATION:</td><td><table><tr><th>Name & Role</th><th>Responsibility or Contribution</th></tr><tr><td>Utilities
Primary</td><td>Primary Stakeholder</td></tr><tr><td>Engineering Services
Secondary</td><td>Secondary Stakeholder</td></tr><tr><td>City of St Albert Risk & Insurance Department
Secondary</td><td>Consulted on all projects to determine if insurance is required.</td></tr></table></td></tr>
<tr><td>TIMELINE:</td><td>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.</td></tr>
</table>

FINANCIAL INFORMATION:	**Investment Year**	**2021**	$ -
		2022	$ -
		2023	$ 975,000
		2024	$ -
		2025	$ -
		2026	$ -
		2027	$ -
		2028	$ -
		2029	$ -
		2030	$ -
		Total	**$ 975,000**
			See Capital Project Worksheet for details.
OPERATIONAL IMPACTS:			☐ Yes ☒ No If yes, refer to Operating Impacts Worksheet for details.
ASSOCIATED OPERATING BUSINESS CASE:			N/A

APPROVAL

Author:	Neeraj Sinha	March 10, 2020
	Project Charter Developer	Date
Director:	Kate Polkovsky	March 10, 2020
	Director	Date
DCAO/CPO:		
	Deputy Chief Administrative Officer/Chief People Officer	Date

CAPITAL PROJECT WORKSHEET

PROJECT COMPONENT Specify year(s)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Land Determined Costs										
Concept Planning			$ 975,000.00							
Detailed Planning and Design										
Site Servicing										
Strucure/Building Construction										
Landscaping										
Construction Management										
Commissioning and QA/QC										
Contingency										
Public Participation Activities										
Equipment										
TOTAL	-	-	**$ 975,000.00**	-	-	-	-	-	-	-

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

Comments:
Cost split equally among utilities (water, wastewater, and storm).
2023: Based on an average consultant cost of $ 150/hr and approximately 6,500 hrs of work.