

Completed by:	Les Major
Department Head Review:	Dan Hartman

Responsible Department:	Public Works
Fund:	Wastewater #2

Projec	ct Name:		Utility Line Replacement - Wastewater										
Brief De	escription:		Replacement and rehabilitation of ageing wastewater collection system										
Fundin	ng Source		Existing Grant Funds Identified for Project		Potential Grant Funds Identified		Funds Identified From Capital Project Fund		Funds Identified From Other Fund (Name)		No Identified Funding		
Revenue	Generated		Significant Ongoing Revenue Source		Small Ongoing Revenue Source		x One-Time Revenue Generated		No Revenue Generated				
Legally	Mandated		Court D	ecision	Regulatory F	Requirement	Pending Le	gal Action	x Potential Legal Action		Normal Liability		
Public Hea	alth & Safety	,	Existing Sev	ere Hazard	Existing Mi		Potential Se	vere Hazard	Potential Minor Hazard		No Health or Safety Issue		
Operating E	Budget Impa	ict	Decreases and/or Pers		Minimal or No Impact on Operating and/or Personnel Costs		Slight Increase to Operating and/or Personnel Costs		Significant Increase to Operating and/or Personnel Costs				
Environment a	nd Sustaina	bility	Enhances En and/or Sus		Benefits En and/or Sus		No Environm	ental Impact		Negative ntal Impact	Diminishes E	nvironment	
% Of Popul	lation Serve	d	100% of Popu by Pr	oject	Majority of Serv		Approxima Populatio	•		50% of the on Served			
Preservati	on of Facility	у	Loss of Facili without Comp	ty Imminent Project	Additional Dawnston	Project	Project Co Normal Major	Maintenance	Project Constitutes Normal Minor Maintenance		New Facility Safety Issue		
Project	Useful Life		20+ Years With Little/No 20+ Years With Normal Maintenance Maintenance X		5-9 Years with Normal Maintenance		1-4 Years with Normal Maintenance						
	onformity to Strategic Plans & Department		Established F			Assists in Accomplishing Established Plans / Goals		Will Not Assist or Will Hinder Accomplishing Plans / Goals		Recommended by City Council		Recommened by Staff	
Recreational o	r Aesthetic \	Value	Major		Moderate value		No Value x		Possibly Detrimental				
Estimated Fro	equency of l	Use	Every	-	Several Times per Week Several Times per I		s per Month	Once per Month or Less					
			Vision	2030 Guid	ing Principle	s Priority - (	Choose One	Rost Eit)					
х	(A) Safe and F Public Infr	Reliable rastructure		(B) Economic	Vitality and Co	ommunity Am	r	· .	(C) Public Safety		(D) Other		
			Cat	tegory of Ca	nital Expend	litures - (Ch	oose One Be	st Fit)					
	Land		Building	<b>J</b> ,	Equipment	areares (en	Vehicle		Technology	x	Infrastructure		
	Improvement		Improvement					•	· · ·				
					Financial Im	pact - Exper	ises						
	Life-To- Date*	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total	
Project Costs		431,000	442,000	453,000	464,000	475,000	488,000	500,000	512,000	524,000	537,000	4,826,000	
On-Going Maintenance												-	
Total Project Costs	-	431,000	442,000	453,000	464,000	475,000	488,000	500,000	512,000	524,000	537,000	4,826,000	
*Life-to-date includes any act	ual expenditures	s from start of pr	oject through Jul	-									
Basis for Project Cost Estimate													
	Formal Proposal Contractor/Engineer Estimate State Purchasing Co-Op x Staff Estimate												
					Financial Im	pact - Reven	ues						
	Life-To- Date*	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total	
Revenue Estimate *Life-to-date includes any act	ual revenue ces	erated from star	t of project throu	gh July 2019 and	estimates for th	je remainder of l	FY 2018					-	

Project Name:	Utility Line Replacement - Wastewater
Please provide details for the following:  1. Project Description  2. Justification  3. Measure of Success  4. Description of Revenue Generated (if applicable)	The City of Golden owns and maintains 78.67 miles of sanitary sewer mains. The expected lifespan of these pipes is approximately 75 years. In order to maintain the current system, approximately one mile of sewer main should be replaced each year. The cost estimate has been calculated based on replacing one mile of sewer at current contract unit costs and is a combination of both open trench replacement and cured in place plastic (CIPP). Replacement method is selected based on a variety of factors including size, condition, capacity, and the number of service connections. Sewer main replacements are prioritized by pipe age, video inspection, increased maintenance, repair costs and ROW costs associated with the street replacement project. A reliable wastewater collection system is expected by the residents of Golden and this type of project ensures that. This project will not change ongoing maintenance costs for the distribution system overall, but deferred investment would result in increases to maintenance.
List any obstacles for implementation	

	Date
Received by Finance Department	
Reviewed by City Manager:	



Completed by:	Les Major
Department Head Review:	Dan Hartman

Responsible Department:	Public Works
Fund:	Wastewater #3

Projec	ct Name:		Flow Monitoring Upgrades									
Brief Description:  Installation of new and upgradeing of existing sanitary sewer flow monitoring stations												
Fundir	ng Source		Existing Grant Funds Identified for Project		Potential Grant Funds Identified		Funds Identified From Capital Project Fund X		Funds Identified From Other Fund (Name)		No Identifie	ed Funding
New/Additional	Revenue Ge	nerated	Significan Revenue		_	ing Revenue ırce	One-Time	e Revenue erated	No New/Additional Revenue Generated			
Legally	Mandated		Court D	ecision	Regulatory Requirement X		Pending Legal Action		X Potential Legal Action		Normal Liability	
Public Hea	alth & Safety	у	Existing Sev	ere Hazard	Existing Minor Hazard		Potential Se	evere Hazard	Potential Minor Hazard X		No Health or	Safety Issue
Operating E	Budget Impa	ıct	Decreases and/or Pers	Operating onnel Costs	Minimal or No Impact on Operating and/or Personnel Costs X		Slight Increase to Operating and/or Personnel Costs		Significant Increase to			
Environment a	and Sustaina	bility	Enhances Enhances Enhances Enhances	nvironment stainability		nvironment stainabilty		nental Impact		Negative ntal Impact	Diminishes Environment	
% Of Popu	lation Serve	d		lation Served oject (		Population ved	Approxima	ately 50% of on Served		50% of the on Served		
Preservati	on of Facilit	у	Loss of Facili	ty Imminent Project	without	amage Likely t Project lletion	Normal Majo	onstitutes r Maintenance X	Project Constitutes Normal Minor Maintenance		New Facility/ No Safety Issue	
Project Useful Life		20+ Years With Little/No Maintenance		20+ Years With Normal Maintenance		10-20 Years With Normal Maintenance X		5-9 Years with Normal Maintenance		1-4 Years with Normal Maintenance		
Contormity to Strategic Plans & Department			Complishing Assists in Accomplishing Plans / Goals Established Plans / Goals		Plans / Goals	Will Not Assist or Will Hinder Accomplishing Plans / Goals		Recommended by City Council		Recommened by Staff		
Recreational or Aesthetic Value Major Value		Value		te value		/alue X	Possibly D	etrimental				
Estimated Fr	equency of	Use	Every	Day	Several Tim	es per Week		es per Month X	Once per M	onth or Less		
			Visio	n 2030 Guidi	ing Principle	s Priority - (	Choose One	Best Fit)				
х	(A) Safe and I Public Infi	Reliable rastructure		(B) Economic		ommunity An			(C) Public Safety		(D) Other	
			Ca	tegory of Ca	nital Evnen	ditures - (Ch	oose One Be	act Eit)				
	Land		Building	tegory or ca	Equipment Equipment	uitures - (Cil	Vehicle		Technology	х	Infrastructure	
	Improvement		Improvement	:	-4		1					
					Financial Im	pact - Expei	nses					
	Life-To- Date*	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
Project Costs		30,000	30,000	30,000	-	-	-	-	-	-	-	90,000
On-Going Maintenance												-
Total Project Costs	-	30,000	30,000	30,000	-	-	-	-	-	-	-	90,000
*Life-to-date includes any act	tual expenditure	s from start of pr	oject through Ju	•								
	Formal Propo	osal		Contractor/Er	•	ect Cost Est ate	mate	State Purchasi	ng Co-Op	х	Staff Estimate	
					Financial Inc	nact Paus	21105					
	Life-To- Date*	2019	2020	2021	2022	pact - Rever	2024	2025	2026	2027	2028	Total
Revenue Estimate *Life-to-date includes any act								2323	2020	LJLI	2020	-

Project Name:	Flow Monitoring Upgrades
Please provide details for the following:  1. Project Description  2. Justification  3. Measure of Success  4. Description of Revenue Generated (if applicable)	The City of Golden currently owns and maintains five sewer flow monitoring stations. These stations are used to monitor flow and look for increases during storm events. Flow increases during storms indicate problems in the collection system such as cross connections with stormsewer or leaks into the sewer. This information allows the Utilities Division to prioritize efforts in the prevention of inflow and infiltration. These stations are an integral part of our planning process for sever main rehabilitation and replacement. Originally installed in 2008 the flow measuring equipment has begun to deteriorate and maintenance needs are increasing. This project will install one additional monitoring station and upgrade/replace flow sensors in the other five stations. A reliable wastewater collection system is expected by the residents of Golden and this type of project ensures that. This project will not change ongoing maintenance costs for the distribution system overall, but deferred investment would result in increases to maintenance. The project will ensure that the wastewater utility continues to use the best available information to plan capital projects. 2019 project will include replacement of failing hardware and telemetry equipment. 2020 project is to install a flow monitoring station that will collect data from the downtown area.
List any obstacles for implementation	

	Date
Received by Finance Department	
Reviewed by City Manager:	



Les Major	
Dan Hartman	
	<u> </u>

Responsible Department:	Public Works
Fund:	Wastewater #4

Project Name:			Equipment Upgrade for Sanitary Sewer Video System									
Brief D	escription:		Replace components of the sanitary sewer video system									
Funding Source			Existing Grant Funds Identified for Project		Potential Grant Funds Identified		Funds Identified From Capital Project Fund X		Funds Identified From Other Fund (Name)		No Identified Funding	
New/Additional Revenue Generated			Significant Ongoing Revenue Source		Small Ongoing Revenue Source		One-Time Revenue Generated		No New/Additional Revenue Generated			
Legally Mandated			Court Decision		Regulatory Requirement		Pending Legal Action		X Potential Legal Action		Normal Liability	
Public Health & Safety			Existing Severe Hazard		Existing Minor Hazard		Potential Severe Hazard		Potential Minor Hazard		No Health or Safety Issue	
Operating Budget Impact			Decreases Operating and/or Personnel Costs		Minimal or No Impact on Operating and/or Personnel Costs X		Slight Increase to Operating and/or Personnel Costs		Significant Increase to Operating and/or Personnel Costs			
Environment a	and Sustaina	bility	Enhances Environment and/or Sustainability		Benefits Environment and/or Sustainabilty		No Environmental Impact		Minor or Negative Environmental Impact		Diminishes Environment	
% Of Popu	lation Serve	d	by Pr	llation Served oject K	Majority of Population Served		X Approximately 50% of Population Served		Less than 50% of the Population Served			
Preservation of Facility					Additional Damage Likely without Project Completion		Project Constitutes Normal Major Maintenance X		Project Constitutes Normal Minor Maintenance		New Facility/ No Safety Issue	
Project Useful Life			20+ Years With Little/No Maintenance		20+ Years With Normal Maintenance		10-20 Years With Normal Maintenance		5-9 Years with Normal Maintenance X		1-4 Years with Normal Maintenance	
Conformity to Strategic Plans & Department Goals			Critical to accomplishing Established Plans / Goals		Assists in Accomplishing Established Plans / Goals		Will Not Assist or Will Hinder Accomplishing Plans / Goals		Recommended by City Council		Recommened by Staff	
Recreational or Aesthetic Value			Major	Value	Modera	te value		Value X	Possibly Detrimental		,	<u>`</u>
Estimated Frequency of Use			Every Day		Several Times per Week		Several Times per Month		Once per Month or Less			
	Vision 2030 Guiding Principles Priority - (Choose One Best Fit)											
X (A) Safe and Reliable Public Infrastructure			(B) Economic Vitality and Communi that Improve Quality of Life			ommunity An			(C) Public Safety		(D) Other	
			Ca	tegory of Ca	nital Expen	ditures - (Ch	oose One Be	est Fit)				
Land Improvement			Building Improvement	х	Equipment		Vehicle		Technology		Infrastructure	:
					Financial Im	pact - Expe	nses					
Project Costs	Life-To- Date*	<b>2019</b> 15,000	<b>2020</b> 15,000	<b>2021</b> 15,000	2022	<b>2023</b> 50,000	2024	2025	2026	2027	2028	Total 95,000
-		13,000	13,000	13,000		30,000						33,000
On-Going Maintenance  Total Project Costs		15.000	45.000	15.000		50,000						-
*Life-to-date includes any act	tual expenditure	15,000 s from start of pr	15,000 oject through Ju	15,000 ly 2018 and estin	nates for the ren			<u> </u>	-	-	-	95,000
Basis for Project Cost Estimate												
	Formal Propo	sal		Contractor/Er	ngineer Estim	ate		State Purchasi	ing Co-Op	х	Staff Estimate	
					Financial Im	pact - Revei	nues					
	Life-To- Date*	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
Revenue Estimate  *Life-to-date includes any act	tual revenue gen	erated from start	t of project throu	igh July 2018 and	estimates for t	he remainder of	FY 2018	1				-

Project Name:	Equipment Upgrade for Sanitary Sewer Video System						
Please provide details for the following:  1. Project Description  2. Justification  3. Measure of Success  4. Description of Revenue Generated (if applicable)	The City of Golden uses video inspection as an aid to prioritizing sewer main replacement and rehabilitation. In conjunction with flow monitoring and known maintenance issues video inspection provides valuable information on existing pipe condition. The current video system was purchased in 2012 and is showing its age. Heavy use by Utilities and Stormwater over the last several years have lead to minor failures and increased maintenance. This project will allow for replacement of the cable and cable real loang with updating the data entry pendant (laptop type device) and mechanical portions of the tractor. A reliable wastewater collection system is expected by the residents of Golden and this type of project ensures that. This project will not change ongoing maintenance costs for the collection system overall, but deferred investment would result in increases to maintenance. 2019 upgrades are replacement of cable and addition of larger tractor wheels. 2020 projects will include pendant upgrade and tractor rebuild. The replacement of the tractor/camera is planned for 2023, at that time the existing system will still have some trade in value and will decrease the cost of a new unit.						
List any obstacles for implementation							

	Date
Received by Finance Department	
Reviewed by City Manager:	



Completed by:	Anne Beierle
Department Head Review:	Dan Hartman

Responsible Department:	Public Works				
Fund:	Wastewater #5				

Project Name:		Treatment Plant Upgrades - Wastewater										
Brief De	escription:		Golden's contribution to upgrades or replacement of the domestic wastewater plant at Coors									
Funding Source		Existing Grant Funds		Potential Grant Funds		Funds Identified From		Funds Identified From		No Identified Funding		
runung source			Identified for Project		Identified		Capital Project Fund		Other Fund (Name)			
Revenue Generated			Significant Ongoing Revenue Source		Small Ongoing Revenue Source		One-Time Revenue Generated		No Revenue Generated			
Legally Mandated			Court Decision		Regulatory Requirement		Pending Legal Action		Potential Legal Action		Normal Liability	
Public Health & Safety			Existing Severe Hazard		x Existing Minor Hazard		Potential Severe Hazard		Potential Minor Hazard		No Health or Safety Issue	
- Tubile Health & Salety			Dogrange	Operating	Minimal or No Impact on		Slight Ingress to Operating		x Significant Increase to			
Operating E	Budget Impa	act	Decreases Operating and/or Personnel Costs		Operating and/or Personnel Costs x		Slight Increase to Operating and/or Personnel Costs		Operating and/or Personnel Costs			
Environment a	ınd Sustaina	bility	Enhances Environment and/or Sustainability		Benefits Environment and/or Sustainabilty		No Environmental Impact		Minor or Negative Environmental Impact		Diminishes Environment	
			100% of Popu	lation Served	Majority of Population		x Approximately 50% of		Less than 50% of the			
% Of Popu	lation Serve	ed	,	-	Served		Population Served		Population Served			
Preservati	on of Facilit	у	Loss of Facili without Comp	Project	Additional Damage Likely without Project Completion		Project Constitutes Normal Major Maintenance		Project Constitutes  Normal Minor  Maintenance		New Facility Safety Issue	
			20+ Years W		20+ Years V	Vith Normal	x 10-20 Years With Normal		5-9 Years with Normal		1-4 Years with Normal	
Project Useful Life			Maintenance		Maintenance x		Maintenance		Maintenance		Maintenance	
Conformity to Strategic Plans & Department Goals			Critical to accomplishing Established Plans / Goals		Assists in Accomplishing Established Plans / Goals		Will Not Assist or Will Hinder Accomplishing Plans / Goals		Recommended by City Council		Recommened by Staff	
Recreational or Aesthetic Value			X Major Value		Moderate value		No Value x		Possibly Detrimental			
Estimated Frequency of Use			Every Day x		Several Times per Week		Several Times per Month		Once per Month or Less			
			ing Principle	s Priority - l	Choose One	Rost Eit\						
x (A) Safe and Reliable				(B) Economic					(C) Public		(D) Other	
	Public Infr	rastructure		that Impro	ove Quality of	Life			Safety			
Category of Capital Expenditures - (Choose One Best Fit)						1						
	Land Improvement		Building Improvement		Equipment		Vehicle		Technology	x	Infrastructure	
Financial Impact - Expenses												
	Life-To- Date*	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
Project Costs			2,000,000	2,000,000	2,000,000							6,000,000
On-Going Maintenance												-
Total Project Costs	-	-	2,000,000	2,000,000	2,000,000	-	-	-	-	-	-	6,000,000
*Life-to-date includes any actual expenditures from start of project through July 2018 and estimates for the remainder of FY 2018												
Basis for Project Cost Estimate  Formal Proposal Contractor/Engineer Estimate State Purchasing Co-Op x Staff Estimate												
	. Siai r ropu								<sub>0</sub> 23 0µ	I	Estimate	
	Life-To-				Financial Im	pact - Rever	nues					
Revenue Estimate	Date*	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total -
*Life-to-date includes any act	tual revenue gen	I nerated from star	t of project throu	igh July 2018 and	estimates for th	ne remainder of	FY 2018	ıl		I	1	

Project Name:	Treatment Plant Upgrades - Wastewater
Please provide details for the following:  1. Project Description  2. Justification  3. Measure of Success  4. Description of Revenue Generated (if applicable)	Domestic wastewater from Golden is treated under contract at a wastewater plant located on the Coors Brewery and operated by MillerCoors. The contract includes provisions requiring Golden's financial contribution for upgrades at the plant under limited circumstances, including changes to regulations that would require treatment changes. Golden has been placed on notice by Coors that they are evaluating potential ugrades that may qualify for reimbursment by Golden. This budget item is a placeholder anticipating this possibility and has been scheduled based on compliance schedules that exist in the current MillerCoors discharge permit issued by the State.
	Timing and costs are unknown. Would require bonds to fund completely.
List any obstacles for implementation	

	Date
Received by Finance Department	
Reviewed by City Manager:	