

Appendix C: Centralized Services Business Case Evaluations

Please consider the environment before printing this document.

735 RANDOLPH DETROIT, MICHIGAN 48226 GLWATER.ORG



Innovation	Project Stat	u Future Planned	Roof in need of rep	air
🗆 Water MP Right Sizi		be Project		
Reliability/Redunded				
	9			
Project Engineer/Man	ager Paula Anderso	on	Budget	Water
Man	ager Paula Anderso	on	Class Lvl 1	Centralized Services
Managing	Dept Fleet and Fac	ilities	Class Lvl 2	Facilities
Date Original Business	Case Prepared 6/2	26/2014	Class Lvl 3	General Purpose
Year Proje	ct Added to CIP 20	14	Location	Multiple Counties
			Fund and Cost Center	
				ul service life and thus too costly to ructure inside GLWA's buildings.
r Scope of Work t t r	epair. Sound roofing his project encomp letermine their curr ype of roof, built-up building envelope. eplacement projec	g systems are important to passes the evaluation of e ent condition and to price proofing material, flashin The findings of the roof su ts for design and constru-	to protect the process infrastr all Water Treatment Plant and pritize their repair or replacem g, roof drains/conductors and urvey and evaluation will be uction.	ucture inside GLWA's buildings. d Booster Pump Station roofs to nent. The project will evaluate the d sealing materials that comprise the used to prioritize roof repair and
Scope of Work Cont Challenges S	epair. Sound roofing his project encomp letermine their curry ype of roof, built-up ouilding envelope. eplacement project Veather dependen imultaneously to co	g systems are important to basses the evaluation of a ent condition and to price proofing material, flashin The findings of the roof su ts for design and constru- t and seasonal work. Ma omplete the work. The pro-	to protect the process infrastr all Water Treatment Plant and pritize their repair or replacem g, roof drains/conductors and urvey and evaluation will be uction.	ucture inside GLWA's buildings. d Booster Pump Station roofs to nent. The project will evaluate the d sealing materials that comprise the used to prioritize roof repair and
Scope of Work Challenges Project History	epair. Sound roofing his project encomp letermine their curry ype of roof, built-up building envelope. eplacement project Veather dependen imultaneously to co esting for hazardou Majority of GLWA Wa and gravel" roofs. N	g systems are important to passes the evaluation of c ent condition and to price proofing material, flashin The findings of the roof su its for design and constru- t and seasonal work. Ma pomplete the work. The pro- s materials, thermal scar ater Plant facilities have Majority of the more than	to protect the process infrastr all Water Treatment Plant and pritize their repair or replacem g, roof drains/conductors and urvey and evaluation will be uction. By require management of se oject should include but, not as and condition analysis. Built-Up-Roof (BUR) membran	ucture inside GLWA's buildings. d Booster Pump Station roofs to nent. The project will evaluate the d sealing materials that comprise the used to prioritize roof repair and veral construction projects be limited to the following, material nes systems commonly referred as "tar d and few are even older up to 30
Scope of Work Challenges Project History	epair. Sound roofing his project encomp letermine their curry ype of roof, built-up building envelope. eplacement project Veather dependen imultaneously to co esting for hazardou Majority of GLWA Wa and gravel" roofs. <i>N</i> rears old. In many ir	g systems are important to passes the evaluation of c ent condition and to price proofing material, flashin The findings of the roof su its for design and constru- t and seasonal work. Ma pomplete the work. The pro- s materials, thermal scar ater Plant facilities have Majority of the more than	to protect the process infrastr all Water Treatment Plant and pritize their repair or replacem g, roof drains/conductors and urvey and evaluation will be uction. In require management of se oject should include but, not as and condition analysis. Built-Up-Roof (BUR) membran 70 roofs, are over 15 years of	ucture inside GLWA's buildings. d Booster Pump Station roofs to nent. The project will evaluate the d sealing materials that comprise the used to prioritize roof repair and veral construction projects be limited to the following, material nes systems commonly referred as "tar d and few are even older up to 30
Scope of Work Challenges Project History	epair. Sound roofing his project encomp letermine their curry ype of roof, built-up ouilding envelope. eplacement project Veather dependen imultaneously to co esting for hazardou Majority of GLWA Wa and gravel" roofs. M ears old. In many ir	g systems are important to passes the evaluation of c ent condition and to price proofing material, flashin The findings of the roof su its for design and constru- t and seasonal work. Ma pomplete the work. The pro- s materials, thermal scar ater Plant facilities have Majority of the more than	to protect the process infrastr all Water Treatment Plant and pritize their repair or replacem g, roof drains/conductors and urvey and evaluation will be uction. In require management of se oject should include but, not as and condition analysis. Built-Up-Roof (BUR) membran 70 roofs, are over 15 years of	ucture inside GLWA's buildings. d Booster Pump Station roofs to nent. The project will evaluate the d sealing materials that comprise the used to prioritize roof repair and veral construction projects be limited to the following, material nes systems commonly referred as "tar d and few are even older up to 30
Scope of Work Challenges Project History Related Project	epair. Sound roofing his project encomp letermine their curry ype of roof, built-up building envelope. eplacement project Veather dependen imultaneously to co esting for hazardou Majority of GLWA Wa and gravel" roofs. <i>N</i> ears old. In many ir none - Condition	g systems are important to passes the evaluation of a ent condition and to price proofing material, flashing The findings of the roof su ts for design and constru- t and seasonal work. Ma omplete the work. The pro- s materials, thermal scar ater Plant facilities have Majority of the more than instances, inadequate roo	to protect the process infrastr all Water Treatment Plant and pritize their repair or replacem g, roof drains/conductors and urvey and evaluation will be uction. In require management of se oject should include but, not as and condition analysis. Built-Up-Roof (BUR) membran 70 roofs, are over 15 years of	ucture inside GLWA's buildings. d Booster Pump Station roofs to nent. The project will evaluate the d sealing materials that comprise the used to prioritize roof repair and veral construction projects be limited to the following, material nes systems commonly referred as "tar d and few are even older up to 30



Project Manag	ger Project R	lisk Matrix Scoring	Project Manager Score		
Criteria	Score	Comment	71.4		
Condition		5			
Efficiency and Innovation		2			
Financial		4			
D&M		5			
Performance (Service Level/Reliability)		3			
Public Benefit		2			
Public Health & Safety		3			
Regulatory (Environmental/Legal)		4			
Review Comm	ittee Projec	t Risk Matrix Scoring	Review Committee Score		
Criteria	Score	Comment	61		
Condition	5				
Efficiency and Innovation	1				
Financial	1				
0&M	5				
Performance (Service Level/Reliability)	5				
Public Benefit	1				
Public Health & Safety	2				
Regulatory (Environmental/Legal)	3				



331001 CIP#

Phase GLWA Emp Title GLWA Salar	,	iject managel	ment		Contract N.	4	Stat	us Future F	Planned Start
Phase Budget V	Vater					ation CTA			
Phase Status F	uture Plan	ned Start			Proceeds				
Start Date						Fund Cons	truction Bor	nd Fund	
End Date					U	OYrs? No			
Cos	st Estimatio	n Information		Tot. Federal Loan Amount					
	5	Cost Est. C	Class		Prog	gram/Allow	ance Task I	nformation	
		Cost Est. D)ate	Proje	ct Manager				
		Cost Est. S	ource	CIP N	umber				
		Cost Est. P	repared By	Description					
Cost Type	e	Fiscal Year	Expens	e Fring	ge BenefilNo	nPersonne	С	omment	
GLWA Salaries CII	P2020	-Y21		\$16	6	12	020CIP		
GLWA Salaries CII	P2020	-Y22		\$32	13	22	020CIP		
	WA Salaries CIP2020 FY23				49	62	020CIP		
GLWA Salaries CII	LWA Salaries CIP2020 FY24				\$124 49 6 <mark>2020</mark>				
	P2020	=Y24		\$124	49	62	020CIP		
	P2020								
		Pho			49 FY (All figure FY23			Total	

GLW Great Lakes Water Aut	A	Roofin	g Systems		VA FY 2020- lacement a			nts and I	Booster Pu	ump Stat	331001 CIP ions
Phase Construction					Contract			Sta	tus Future I	Planned St	art
Title Roofing Syst	ems Repla	acement at Wo	ater Plants ar	nd Boo	ster Pump Sta	tions					
Phase Budget V	Vater			Cost Allocation CTA							
Phase Status F	uture Plani	ned Start				F	unding Sc	ource Bond	d Proceeds		
Start Date								Fund Con	struction Bor	nd Fund	
End Date						Use	ful Life >2	OYrs? Yes			
Cos	st Estimatio	n Information			Tot. Fe	dera	ıl Loan Am	nount			
		Cost Est. C	lass		P	rogre	am/Allow	ance Task	Information		
		Cost Est. D	ate	Pi	roject Manage	er					
		Cost Est. Se	ource	С	IP Number						
		Cost Est. P	repared By	d By Description							
Cost Typ		Fiscal Year	Expense								
Construction Construction		FY21 FY22		\$202 \$328							
Construction		FY23		,446							
Construction		FY24		,646							
Construction		FY25+	\$1	,375			20	020CIP			
Task		Start Date	End Date	Dure	ation						
Scope Developm	ient	6/1/2019	9/1/2019		92						
Procurement		9/2/2019	3/1/2020		181						
Project Execution		3/2/2020	5/23/2027		2638						
Project Closeout		5/23/2027	8/21/2027		90						
					By FY (All fig	ures					T
Prior Yr Actuals	FY19		FY21	FY2			FY24	FY25+	Total		
		0 0	202		328 1,44	6	1,646	1,375	4,997		



	Project Total Expenses By FY Compared to Prior CIPs (All figures are in \$1,000's)													
CIP	FY16 FY17 FY18 FY19 FY20 FY21 FY22 FY23 FY24 FY25 Total													
2018		3,000	3,000	3,000	2,500				0	0	11,500			
2019	0				128	169	809	1,243	4,844	0	7,193			
2020	0	0		0	0	225	375	1,625	1,825	1,375	5,425			



 \checkmark Innovation

GLWA FY 2020-2024 CIP

331002 CIP#

Roofing Systems Replacement at GLWA WRRF, CSO Retention Treatment Basins (RTB) and

Photo of Complex – I

	ancy g	Dewatering Roof at the WRRF. Budget Wast Class Lvl 1 Cent Class Lvl 2 Facili	ralized Services
-	Case Prepared 8/8/2016	Class Lvl 3 Gene	•
fear Projec	ct Added to CIP 2017	Location Multin Fund and Cost Center	
e	ome of the roofs at GLWA WRRF facilities are expensive equipment by preventing rain wa	ter entering through roofs into the f	acilities.
f C C in r i r C C C C C C C C C C C C C C C C C	nspect the roofing system conditions and as acility buildings. Document the roofing syste photographs, scaled drawings, sketches, and deficiencies of the roofing systems and their and replacements required. Document the r nto three (3) main categories, such as, 1) Ro epair, and 3) Roofs that require no action with mplementation/planning schedule with buc eplacements that GLWA should plan for ove GLWA's roofing systems evaluated under this be applicable for the GLWA's roofing system	ems inspections by taking and subm d inspection notes to adequately d drainage facilities. Recommend the roof for each building inspected on ofs that require complete replacer ithin the next 10 years. Develop a re dgetary costs tied to the schedule for er the next 10 years. Provide preven s contract. Provide any OSHA comp	itting high-quality lescribe the conditions and e extent of the roofing repairs the project. Classify the roofs nent, 2) Roofs that only require ecommended or roofing system repairs and tative care suggestions for the
-	Roof material testing for asbestos before der asbestos are very common in the GLWA's old	•	ge to manage as low levels of
	Majority of GLWA WRRF facilities have Built-Up gravel" roofs. The old Administration buildings of roof systems. The CSO RTB's and SDF's hav over 15 years old and few are even older up	s and the Newer Administration buil re metal and shingle type of roof sys	ldings have tar and gravel type stems. Majority of the roofs are

regular maintenance and repair or patch work performed to fix the leaking roof spots.

Related Project CON 143:Complex-II Incineration Building Roof Replacement.

Project Statu Future Planned

GLWA Great Lakes Water Authority	GLWA Roofing Systems Replacement	GLWA FY 2020-2024 CIP 33 ofing Systems Replacement at GLWA WRRF, CSO Retention Treatment Basins (R								
Lookup Driver	1 - Condition									
•	*Innovation note: Use cool roofs. Complex – II Incinerator (\$1.8M) and Cor to be part of fire remediation project	mplex – II Dewatering (\$1.0 M) replacement are under consi	deration							
Explanation	GLWA wastewater roof systems are old o	WA wastewater roof systems are old and some are near end of its useful life.								



Review Committee Score

Roofing Systems Replacement at GLWA WRRF, CSO Retention Treatment Basins (RTB) and

Project Manag	Project Manager Project Risk Matrix Scoring								
Criteria	Score	Comment	54.6						
Condition	4	Asset has <25% of its design service life remain	54.0						
Efficiency and Innovation		low impact on energy use & conservation							
Financial		Project will likely result in avoidance of fines							
0&M		Low impact on O&M							
Performance (Service Level/Reliability)	4	Significant positive impact on system reliability							
Public Benefit		Low impact on Public							
Public Health & Safety		2Moderate positive impact							
Regulatory (Environmental/Legal)	4	Risk of non compliance in near term							

Review Committee Project Risk Matrix Scoring

Criteria	Score	Comment	43.8
Condition	4		
Efficiency and Innovation	1		
Financial	3		
0&M	1		
Performance (Service Level/Reliability)	4		
Public Benefit	1		
Public Health & Safety	1		
Regulatory (Environmental/Legal)	2		

GLW Great Lakes Water	Authority RO	oofing Syste	ems Replac	ement a	t GLWA	WRRF, C	SO Ret	entio	n Treatmen	t Basins (RTB) and
Phase Construct	tion				Contract	NA		Stat	us Future Pla	nned Start
Title Roofing Sy Disinfectio			SLWA Wastewa	ater Treatn	nent Plant	CSO Reter	tion Tre	atmen	t Basins (RTB) a	ind Screening
Phase Budget	Wastewat	er				Cost Al	locatior	רד CTA		
Phase Status	Future Pla	nned Start				Funding	J Source	Bond	Proceeds	
Start Date		7/	3/2020				Fund	Cons	truction Bond	Fund
End Date		6/2	3/2022	Useful Life >20Yrs? Yes						
Cr	ost Estimati	ion Informatio	 1	Tot. Federal Loan Amount						
	4	Cost Est.	Class		P	Program/All	owance	e Task I	Information	
1	0/2/2017	Cost Est.	Date	Project Manager						
	Cost Est. Sou			CIP Number						
Ali Khraizat		Cost Est.	Prepared By	d By Description						
Cost Ty	ре	Fiscal Year	Expense	e Fring	ge Benefill	NonPersonr	e	С	Comment	
Construction		FY20	\$1	,000,			20200	CIP		
Construction		FY21	· ·	,000						
Construction		FY22	\$4	,000			0000	חוי		
Construction Construction		FY23 FY24		\$41 \$42			2020C			
			Fin of D subs	·			20200	>11		
Task Procurement	-	Start Date 10/4/202	End Date 0 4/2/2021	Duratior	ו 80					
Project Executio	n	4/3/202			23					
Project Closeou		5/1/202			60					
		Ph	ase Total Exp	enses By	FY (All fig	ures are in	\$1,000	's)		
Prior Yr Actua	ls FY1		FY21	FY22	FY23	FY24		25+	Total	
	0 1,000			4,000	4	l]	12	0	9,083	

	GLW Great Lakes Water Aut	A RC	ofir	ng Syster	ns Replac					24 CIP RRF, CSC) Rete	ntio	n Treatme	ent Basi	331002 CIP ns (RTB) and
Phase 3	Study and	Design ar	nd C	onstructior	Assistance		Co	ontract	NA	ι		Stat	us Active		
	oofing Syst Disinfection				WA Wastewa	ater T	reatmei	nt Plan [.]	. CS(O Retentio	on Treat	ment	Basins (RTB) and Scr	eening
Phase	e Budget V	Vastewat	er							Cost Allo	cation (CTA			
Pha	se Status 🗚	Active								Funding S	ource	Bond	Proceeds		
S	tart Date			11/8,	/2018						Fund	Const	ruction Bor	nd Fund	
E	End Date			6/23,	/2022	Useful Life >20Yrs? Yes									
	Cos	st Estimatio	on In	formation		Tot. Federal Loan Amount									
		3		Cost Est. C	lass				Prog	ram/Allov	vance T	'ask I	nformation		
	10	ate	F	Project I	Manag	er									
		ource	CIP Number												
	Cost Est. Source Cost Est. Prepe					By Description									
	Cost Typ	е	Fis	scal Year	Expense	Э	Fringe	Benefit	Non	Personne		С	omment		
Engine	ering Servi	ces	FY19	9	(\$250									
Engine	ering Servi	ces	FY20)		\$50									
	ering Servi		FY2			\$100									
Engine	ering Servi	ces	FY22	2		\$100									
	Task		St	art Date	End Date	Du	ration								
Scope	Developm	nent		7/1/2018	10/30/2018		121								
Procure	ement			11/1/2018	6/9/2019		220								
	Execution			6/10/2019	4/30/2024		1786								
Project	Closeout			5/1/2024	6/30/2024		60								
				Pha	se Total Exp	ense	s By FY	(All fig	Jure	s are in \$	1,000's))			
Prior	Yr Actuals	FY1		FY20	FY21	FY	22	FY23		FY24	FY25	5+	Total		
			250	50	100		100		0	0		0	500		

4	GLWA FY 2020-2024 CIP 3310 Roofing Systems Replacement at GLWA WRRF, CSO Retention Treatment Basins (RTB) Phase GLWA Employees Project management Contract NA Status Active												002 CIP# 3) and			
			Projec [.]	manager	nent		Co	ontract	NA			Status	Active			
Title																
PI	hase Budget	Wastewa	iter			Cost Allocation						CTA				
	Phase Status	Active				Funding Source Bond Proceed							ceeds			
	Start Date					Fund						Construc	ction Bo	nd Fun	ıd	
	End Date					Useful Life >20Yrs? No										
	Co	ost Estima	tion In	ormation		1		Tot. F	edero	al Loan A	mount				\$O	
		5		Cost Est. C	lass				Progr	am/Allo	wance	Task Info	rmation			
		Cost Est. Date						Manag	er							
		ource	С	IP Nun	nber											
			Cost Est. Pı	epared By	By Description											
	Cost Tu		Гіо				Fringe	Depefi	Non			Carr	mant			
GD	Cost Tyı WA Salaries C	•	FY19	cal Year	Expens	\$20	rnnge	Berieii 8		Personne	; Eng Ph	Comment				
	WA Salaries C		FY20			\$10		4		С	DEng Phase					
GL۱	WA Salaries C	CIP2020	FY20)		\$20		8			C Phas	C Phase				
GL۱	WA Salaries C	CIP2020	FY21			\$10		4		С	Eng Ph	ase				
	WA Salaries C		FY21			\$20		8		-	C Phas					
GL	WA Salaries C	CIP2020	FY22			\$10		4		C	Eng Ph	ase				
				Pha	se Total Exp	penses	By FY	' (All fi g	gures	are in S	\$1,000's	5)				
Prior Yr Actuals FY19 FY20 FY21							FY22 FY23 FY24 FY2									
F	Prior Yr Actua	ls FY				FY2		FY23					[otal			
F	Prior Yr Actua	ls FY	19 28	FY20 42	FY21 42	FY2	14	FY23	0	FY24 (0	126			
	Pr	roject To	28 Dtal E	42 xpenses	42 By FY Co	mpai	14 red to	o Prior	CIP	ر s (All fi	gures	0 are in S	126 1,000	_	- • • •	
CI 2018	Pr IP FY16	roject To	28	42	42		14 red to			ر s (All fi)	0 are in S FY24	126	_	Total 9,050	

	GLWA Great Lakes Water Authority	Roofir	ng Systei	ms Replo)-2024 C A WRRF, (ention Tre	eatment	331 Basins (RT	002 CIP# B) and
CIP	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total	

4,142

4,114

9,709

1,092



GLWA FY 2020-2024 CIP Water Facility Lighting Renovations

 Innovation Water MP Right Sizing Reliability/Redundancy NEWTP Repurposing 	Project Statu Active CIP Type Project	Example LED light fixture								
Project Engineer/Manager T	BD	Budget Water								
Manager 🤇	Grant Gartrell	Class Lvl 1 Centralized Services								
Managing Dept E	nergy Management	Class Lvl 2 Energy Management								
Date Original Business Case	Prepared 8/4/2016	Class Lvl 3 General Purpose								
Year Project Add	ed to CIP 2017	Location Multiple Counties								
		Fund and Cost Center								
Project Significance Energy savings, demand reduction improved visibility, safety, operational efficiency and worker productivity Scope of Work Remove identified old fixtures and replace with new LED lamps and advanced control systems.										

Challenges Some outfalls are below the river elevation; installation may be challenging.

Project History An audit was completed in 2010/2011 but little action was taken. Advancement in lighting technology since this audit has rendered it obsolete as to recent innovations, technology and cost. Across the system, equipment is in poor condition and exceeds its end of life. Some existing fixtures are antiques and compared to today's lighting, cannot meet minimum lighting standards.

A well detailed audit is to be carried out to determine the best suitable replacement lamps based on a set performance criteria, lighting controls to be incorporated and in cases where delamping might be an option, equivalent/appropriate lighting output and level is to be maintained per task/space requirements

Related Project Re lamp of Conner Creek and part of Northeast for safety issues.

Lookup Driver 8 - Efficiency

Other Important Info n/a

Explanation Technology of LED lamps and associated fixtures will reduce electrical operating expenses and improve worker safety.



GLWA FY 2020-2024 CIP Water Facility Lighting Renovations

Project Manager	Project Risk Matrix	Scoring	Project Manager Score
Criteria	Score	Comment	77.4
Condition	5		//
Efficiency and Innovation	5		
Financial	5		
0&M	1		
Performance (Service Level/Reliability)	5		
Public Benefit	3		
Public Health & Safety	4		
Regulatory (Environmental/Legal)	3		

Review Committee Project Risk Matrix Scoring

Criteria	Score	Comment	60.8
Condition	3		
Efficiency and Innovation	4		
Financial	3		
O&M	4		
Performance (Service Level/Reliability)	3		
Public Benefit	1		
Public Health & Safety	3		
Regulatory (Environmental/Legal)	3		

Review Committee Score

GLW Great Lakes Water J	Authority		GLWA FY 2020-2024 CIP Water Facility Lighting Renov	vations	351001 CIP#
Phase GLWA Em	nployees Proje	ect management	Contract NA	Status Active	
Title GLWA Sala	aries				
Phase Budget	Water		Cost Allocation	CTA	
Phase Status	Active		Funding Source	Bond Proceeds	
Start Date			Fund	Construction Bond Fund	
End Date			Useful Life >20Yrs?	No	
Co	ost Estimation	Information	Tot. Federal Loan Amount		\$O
	5	Cost Est. Class	Program/Allowance	Task Information	
		Cost Est. Date	Project Manager		
		Cost Est. Source	CIP Number		
		Cost Est. Prepared By	Description		

	Phase Total Expenses By FY (All figures are in \$1,000's)													
Prior Yr Actuals														
	0 0 0 0 0 0 0 0													

GLW Great Lakes Water	Authority		GLWA FY 2020-2024 Water Facility Light		351001 CIP	
Phase not appli	icable		Contract NA	Status	Closed Out	
Title Prior Year	Actual Expe	nses				
Phase Budget	Water		Co	st Allocation CTA		
Phase Status	Closed Out		Fur	iding Source		
Start Date				Fund		
End Date			Usefu			
C	ost Estimatio	n Information	Tot. Federal L	oan Amount	(\$O
	1	Cost Est. Class	Program	n/Allowance Task Info	ormation	
		Cost Est. Date	Project Manager			
		Cost Est. Source	CIP Number			
		Cost Est. Prepared By	Description			

Phase Total Expenses By FY (All figures are in \$1,000's)

	GLWA Great Lakes Water Authority						2020 Facili			-	enov	vations	5			3	51001 CIP#
Phase	Design and Bu	vild				C	ontract	TBI	C			Status	5 A	ctive			
Title V	Water Facility L	ighting F	enovations														
Possib	le Michael Gro	aham hc	ıs been asign	ed to mana	ade;												
Phas	e Budget Wate	ər							Cost	Alloc	ation	CTA					
Pho	ise Status Activ	/e							Fundi	ng So	ource	Bond P	roc	eeds			
S	Start Date		5/24	/2016							Fund	Constru	JCtio	on Bor	nd Fur	nd	
	End Date							Us	seful Li	fe >2	OYrs?	Yes					
	Cost Es	timation	Information		1		Tot. F	ede	ral Loa	n An	nount						
		2	Cost Est. C	lass				Proc	ıram/4	Mow	ance	Task Inf	iorm	ation			
			Cost Est. D		Pi	oject	Manag	-			unee			lanon			
			Cost Est. S		с	IP Nun	nber										
				repared By	Description												
			0031 231.1														
	Cost Type		Fiscal Year	Expen	se	Fringe	Benefi	ilNor	Persor	nne		Со	mm	ent			
Design	n-Build	F`	(19		\$250												
Design	n-Build	F	(20		\$250												
	Task		Start Date	End Date	Dure	ation											
Scope	Development		5/21/2017	6/30/201	7	40	0										
Procur	ement		8/8/2017	1/5/201	8	150)										
Projec	t Execution		1/5/2018														
Projec	t Closeout																
			Pha	se Total Ex	penses	By FY	′ (All fi	gure	s are	in \$ 1		s)					
Prio	r Yr Actuals	FY19	FY20	FY21	FY2		FY23		FY24		FY2		To	tal			
		25	50 250	C		0		0		0		0		500			
	Proje	ct Tota	Expenses	By FY Co	ompar	ed to	Prior	[,] CIF	Ps (Al	l fig	ures	are in	\$1	,000'	s)		
CIP	FY16	FY17	FY18	FY19	FY20		Y21		(22		′23	FY24		FY2		Total	
2018			933	933	93	3							0		0	2,7	99



GLWA FY 2020-2024 CIP

351001 CIP#

Water Facility Lighting Renovations

CIP	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total
2019	0		2	1,172	1,600					0	2,774
2020	0	0		250	250	0	0	0	0	0	500



 Innovation Water MP Right Sizing Reliability/Redundand NEWTP Repurposing 	CIP Type	-	t A system control roc	om
Project Engineer/Manag	er Biren Saparia		Budget	Split
Manag	er Biren Saparia		Class Lvl 1	Centralized Services
Managing De	pt SCC		Class Lvl 2	Engineering
Date Original Business Co	ase Prepared		Class LvI 3	General Purpose
Vear Project	Added to CIP 2004		Le e alfre a	City of Detroit
reur rioject i	Added to CIP 2006		Location	
			Fund and Cost Center	
		ndancy and impr		·
Project Significance Pro Scope of Work This SCA	ovide reliability, redu s project involves int ADA system installec	egrating the cont d under PC-713. T	Fund and Cost Center	t-wide Process Control System. ghout all of the facilities with the new hardware, software, and firmware
Project Significance Pro Scope of Work This SCA upg	ovide reliability, redu s project involves int ADA system installec	egrating the cont d under PC-713. T ent, troubleshootir	Fund and Cost Center roved functionality to department trol and monitoring network throug the work includes control system h	t-wide Process Control System. ghout all of the facilities with the new hardware, software, and firmware
Project Significance Pro Scope of Work This SCA upg	ovide reliability, redu s project involves int ADA system installec grade or replaceme	egrating the cont d under PC-713. T ent, troubleshootir	Fund and Cost Center roved functionality to department trol and monitoring network throug the work includes control system h	t-wide Process Control System. ghout all of the facilities with the new hardware, software, and firmware
Project Significance Pro Scope of Work This SCA upg Challenges N/A	ovide reliability, redu s project involves int ADA system installec grade or replaceme	egrating the cont d under PC-713. T ent, troubleshootir	Fund and Cost Center roved functionality to department trol and monitoring network throug the work includes control system h	t-wide Process Control System. ghout all of the facilities with the new hardware, software, and firmware
Project Significance Pro Scope of Work This SCA Upg Challenges N/A Project History Related Project	ovide reliability, redu s project involves int ADA system installec grade or replaceme	egrating the cont d under PC-713. T ent, troubleshootir	Fund and Cost Center roved functionality to department trol and monitoring network throug the work includes control system h	t-wide Process Control System. ghout all of the facilities with the new hardware, software, and firmware
Project Significance Pro Scope of Work This SCA Upg Challenges N/A Project History Related Project	ovide reliability, redu s project involves int ADA system installec grade or replaceme A - Pending Closeou	egrating the cont d under PC-713. T ent, troubleshootir	Fund and Cost Center roved functionality to department trol and monitoring network throug the work includes control system h	t-wide Process Control System. ghout all of the facilities with the new hardware, software, and firmware





361001 CIP#

Consolidated Process Control System Upgrades

Phase not appli	cable					Contract	NA	Stat	us Closed	Out			
Title Prior Year	Actual Ex	pense	s-WW										
Phase Budget	Wastewo	ater					Cost Allo	cation CTA					
Phase Status	Closed (Dut			Funding Source								
Start Date					Fund								
End Date					Useful Life >20Yrs?								
Co	ost Estimo	ation Ir	formation		Tot. Federal Loan Amount								
	1 Cost Est. Class					[Program/Allov	wance Task	Information				
	Cost Est. Date					Project Manag	er						
			Cost Est. Sc	ource	e CIP Number								
			Cost Est. Pr	epared By	d By Description								
Cost Ty	ре	Fi	scal Year	Expens	е	Fringe Benefit	NonPersonne	C	Comment				
Construction		FY1	8-		\$143			FY18					
Unknown		FY1	8-		\$165			FY16					
Unknown		FY1	8-		\$8			FY17					
			Phas	e Total Exp	oense	s By FY (All fig	gures are in \$	1,000's)					
Prior Yr Actua	ls F`	Y19	FY20	FY21	FY22 FY23 FY24 F				Total				
	316								316				

GLA GREAT Lakes Water.	Authority			Co			Y 2020-2 d Proces			System L	Jpgro	ades		361001 CIP
Phase not appli	cable					C	Contract	١A		Sta	itus (Closed (Dut	
Title Prior Year	Actual E	kpense	s-Wtr											
Phase Budget	Water				Cost Allocation CTA									
Phase Status	Closed	Out			Funding Source									
Start Date					Fund									
End Date	End Date							Usef	ful Life >2	20Yrs?				
Co	Cost Estimation Information						Tot. Fed	leral	l Loan Ai	mount				
	1 Cost Est. Class					Program/Allowance Task Information								
	Cost Est. Date					Project Manager								
			Cost Est. So	ource	CIP Number									
			Cost Est. Pr	epared By	ed By Description									
Cost Ty	ре	Fis	scal Year	Expens	е	Fring	e BenefilNo	onPe	ersonne	(Comm	nent		
Construction		FY1	8-		\$166				F	FY18				
Unknown		FY1	8-		\$36				F	FY16				
Unknown		FY1	8-		\$110				F	FY17				
			Pha	e Total Exp	ense	s By F	Y (All figu	res	are in \$	1,000's)				
Prior Yr Actua	Prior Yr Actuals FY19 FY20 FY2					22	FY23		FY24	FY25+	To	otal		
:	312											312		

ase Design and Build			Co	ontract PC	C-773C	Status	Pending Close-ou		
le PC-773C Consolida	ted Process Con	trol System U	ogrades						
Phase Budget Water					Cost Allocation	CTA			
Phase Status Pending	Close-out		Funding Source Bond Proceeds						
Start Date	5/25	/2013	Fund Construction Bond Fund						
End Date	5/25	/2016	Useful Life >20Yrs? Yes						
Cost Estimo	tion Information		Tot. Federal Loan Amount						
1	1 Cost Est. Class			Prog	gram/Allowance	Task Info	ormation		
9/15/2017	9/15/2017 Cost Est. Date			Nanager					
Contractor	Cost Est. S	ource	CIP Num	ber					
Biren Saparia	Cost Est. F	repared By	Descript	ion					
Task	Start Date	End Date	Duration						
cope Development									
rocurement									
roject Execution									
roject Closeout									

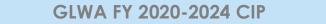
ase Design and Build			Co	ontract PC	C-773D	Status	Pending Close-ou		
le PC-773D Consolida	ated Process Cont	rol System Up	ogrades						
Phase Budget Wastew	ater				Cost Allocation	CTA			
Phase Status Pending	Close-out		Funding Source Bond Proceeds						
Start Date	5/25/	2013	Fund Construction Bond Fund						
End Date	5/22/	2016	Useful Life >20Yrs? Yes						
Cost Estime	ation Information		Tot. Federal Loan Amount						
1	1 Cost Est. Class			Prog	gram/Allowance	Task Info	ormation		
9/15/2017	9/15/2017 Cost Est. Date		Project <i>I</i>	Nanager					
Contractor	Cost Est. Se	ource	CIP Num	nber					
Biren Saparia	Cost Est. P	epared By	Descript	ion					
Task	Start Date	End Date	Duration						
cope Development									
rocurement									
roject Execution									

	GLWA Great Lakes Water Authority			C		FY 2020 Ited Proc		IP trol Syste	em Upgro	ades	361	001 (
	GLWA Employ GLWA Salaries	ees Projec	ct manager	ment		Contract	NA		Status F	Pending Clo	se-out		
Phase	e Budget Was	tewater					Cost	Allocation	CTA				
Pha	i se Status Penc	ding Close	-out				Fundi	ng Source	Bond Proc	ceeds			
S	itart Date					Fund Construction Bond Fund							
I	End Date						Useful Li	No					
	Cost Es	timation Ir	nformation		1	Tot. Federal Loan Amount							
	5 Cost Est. Class					Program/Allowance Task Information							
	Cost Est. Date				Proj	ect Manag	Jer						
	Cost Est. Source				CIP	Number							
			Cost Est. P	repared By	, Des	cription							
Prior	Yr Actuals	FY19 0	FY20	FY21	(penses B FY22	y FY (All fi FY23 0		in \$1,000' s 4 FY2 0		otal 0			
	Proje	ct Total I	Expenses	By FY C	ompare	d to Prio	CIPs (A	ll figures	are in \$	1,000's)			
CIP	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total		
18	3928	640							0	0	4,568	_	
)19	0	321	(00	0					2	0	321		
020	0	0	628	0	0	0	0	0	0	0	628	1	



GLWA FY 2020-2024 CIP Data Center Reliability/Availability Improvements

Innovation	Project Statu Pending Closeout						
Water MP Right Sizing	CIP Type Project						
□ Reliability/Redundancy							
□ NEWTP Repurposing							
Project Engineer/Manager	Biren Saparia	Budget	Split				
Manager	Biren Saparia	Class Lvl 1	Centralized Services				
Managing Dept	SCC	Class Lvl 2	Engineering				
Date Original Business Case	e Prepared	Class Lvl 3	General Purpose				
Year Project Ad	ded to CIP 2009	Location	City of Detroit				
		Fund and Cost Center					
Project Significance N/A -	Pending Closeout	Fund and Cost Center					
Project Significance N/A - Scope of Work N/A -		Fund and Cost Center					
	Pending Closeout	Fund and Cost Center					
Scope of Work N/A -	Pending Closeout	Fund and Cost Center					
Scope of Work N/A - Challenges N/A -	Pending Closeout	Fund and Cost Center					
Scope of Work N/A - Challenges N/A - Project History	Pending Closeout Pending Closeout	Fund and Cost Center					
Scope of Work N/A - Challenges N/A - Project History Related Project	Pending Closeout Pending Closeout	Fund and Cost Center					





361002 CIP#

Data Center Reliability/Availability Improvements

Phase not applicable					Contract	1A	Status	Closed Out			
Title Prior Year Actual	Expense	s-WW									
Phase Budget Waster	water					Cost Alloc	cation CTA				
Phase Status Closed	d Out					ource					
Start Date											
End Date											
Cost Estin	nation In	formation		Tot. Federal Loan Amount							
	1	Cost Est. Cl	ass	Program/Allowance Task Information							
		Cost Est. Do	ate	Proje	ect Manager						
		Cost Est. So	urce	e CIP Number							
		Cost Est. Pro	epared By	red By Description							
Cost Type	Fis	scal Year	Expens	e Frir	nge BenefilNo	onPersonne	Co	mment			
Unknown	FY18	8-		\$17		F	Y16				
		Phas	e Total Exp	penses By	· FY (All figu	res are in \$1	l,000's)				
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total			
17								17			

GLA Great Lakes Water	Authority	Date	GLWA FY 2020-2024 CIP a Center Reliability/Availability I		1002
hase GLWA Em	nployees Proje	ct management	Contract NA	Status Pending Close-out	
tle GLWA Sala	aries				
Phase Budget	Water		Cost Allocation	СТА	
Phase Status	Pending Close	e-out	Funding Source	Revenue Financed Capital	
Start Date			Fund	Improvement & Extension Fun	
End Date			Useful Life >20Yrs?	No	
Co	ost Estimation	Information	Tot. Federal Loan Amount	\$0	
	5	Cost Est. Class	Program/Allowance	Task Information	
		Cost Est. Date	Project Manager		
		Cost Est. Source	CIP Number		
		Cost Est. Prepared By	Description		

	Phase Total Expenses By FY (All figures are in \$1,000's)											
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total				
	0	0	0	0	0	0	0	0				

nase Design and Build			Con	tract DV	WS-881	Status	Pending Close-out		
le DWS-881 Data Cent	er Reliability/Avc	ilability Impr	ovements: Wa	ter					
Phase Budget Water					Cost Allocation	CTA			
Phase Status Pending	Close-out			Financed Capital					
Start Date	1/29/	2013	Fund Improvement & Extension						
End Date	2/27/	2016	Useful Life >20Yrs? No						
Cost Estimat	ion Information		Tot. Federal Loan Amount						
1	1 Cost Est. Class			Prog	gram/Allowance	Task Infor	mation		
9/15/2017	9/15/2017 Cost Est. Date		Project Manager						
Contractor	Cost Est. S	ource	CIP Numb	er					
Biren Saparia	Cost Est. P	epared By	Descriptio	n					
Task cope Development	Start Date	End Date	Duration						
rocurement									
roject Execution									

GLW Great Lakes Water At	Athority		Data	GLWA FY I Center Re		24 CIP /Availability l	mprov	ements	361002 CIP		
Phase Design an Title DWS-881 Do		Reliability/Av	ailability Impre		ntract DV W	VS-881	Status	Pending Close-ou	t		
Phase Budget						Cost Allocation					
Phase Status Start Date	Phase Status Pending Close-out Start Date 1/29/2013				Funding Source Revenue Financed Capi Fund Improvement & Extensio						
End Date		2/27	/2016		Us	seful Life >20Yrs?	No				
Co	st Estimatio	n Information									
		Cost Est. C Cost Est. E Cost Est. S Cost Est. F)ate	Project A CIP Num Descripti	Nanager ber	ram/Allowance	Task Info	ormation			
Task		Start Date	End Date	Duration							
Scope Developn	nent										
Procurement Project Executior	2										
Project Closeout											

Phase Total Expenses By FY (All figures are in \$1,000's)

	GLW Great Lakes Water Au	A			Dc		A FY 2020 er Reliab			mprover	ments	361	002 CIP#
	not applic						Contrac	NA		Status (Closed Out	t	
Title P	Prior Year A	ctua	l Expense	s-Wtr									
Phas	e Budget V	Nate	r					Cost	Allocation	CTA			
Pho	ase Status (Close	d Out					Fund	ing Source				
S	Start Date					Fund							
	End Date												
	Cos	et Feti	mation Ir	nformation		Tot. Federal Loan Amount							
			1										
	1 Cost Est. Class Cost Est. Date					Program/Allowance Task Information Project Manager							
				Cost Est. S	ource	CIP Number							
				Cost Est. P	repared By	/ Des	cription						
	Cost Typ	e	Fi	scal Year	Expe	nse Fri	inge Benef	ilNonPersc	nne	Comn	nent		
Unkno	wn		FY1	8-		\$16			FY16				
				Pho	ise Total F	vnenses R	₩ FY (All fi	aures are	in \$1,000'	د)			
Prior	r Yr Actuals	5	FY19	FY20	FY21	FY22	FY23	-		-	otal		
		16									16		
	Pro	ojec	t Total I		By FY C	ompare	d to Prio	r CIPs (A	ll figures	are in \$1	(,000's)		
CIP	FY16		FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total	
2018	60	004	10							0	0	6,014	
2019		0	33								0	33	
2020		0	0	33	0	0	0	0	0	0	0	33	



GLWA FY 2020-2024 CIP SCADA Radio Network Upgrade

 Innovation Water MP Right Sizing Reliability/Redundancy NEWTP Repurposing 	Project StatuPending CloseoutCIP TypeProject		CADA Matter Status/Cored Dawn HULI/SCADA Master External Control Points Control Points Control Points Control Points Control C
Project Engineer/Manager	Biren Saparia	Budget	Split
Manager	Biren Saparia	Class Lvl 1	Centralized Services
Managing Dept	SCC	Class Lvl 2	Engineering
Date Original Business Case	Prepared	Class Lvl 3	General Purpose
Year Project Add	ded to CIP 2009	Location	Multiple Counties
		Fund and Cost Center	
Project Significance N/A - F	Pending Closeout		
Scope of Work N/A - F	Pending Closeout		
Challenges N/A - F	Pending Closeout		
J			
Project History			
Project History	Pending Closeout		
Project History Related Project	Pending Closeout		

GLW Great Lakes Water	Authority							2024 CII io Netwo		grade	e			361003 CIP
Phase not appli	cable					С	ontract	NA		Stat	tus (Closed	Out	
Title Prior Year	Actual E	xpense	s-WW											
Phase Budget	Wastew	/ater						Cost A	llocatio	n CTA				
Phase Status	Closed	Out						Fundin	ig Sourc	e				
Start Date									Fun	d				
End Date					Useful Life >20Yrs?									
C	Cost Estimation Information					Tot. Federal Loan Amount								
	Cost Est. Class						Р	rogram/A	llowanc	e Task	Inforn	nation		
			Cost Est. De	ate	P	Project	Manage							
			Cost Est. So	ource	C	CIP Nui	mber							
			Cost Est. Pr	epared By	0	Descrip	otion							
Cost Ty	ре	Fis	scal Year	Expens	е	Fringe	e Benefith	IonPerson	ne	C	Comm	nent		
Unknown		FY1	8-		\$236				FY17					
Unknown		FY1			\$255				FY16					
Unknown		FY1	3-		\$362				Pre-B	Sifurcati	ion			
			Phas	e Total Exp	oense	s By F'	Y (All fia	ures are i	n \$1.00	0's)				
Prior Yr Actua	ls F	-Y19	FY20	FY21	FY		FY23	FY24		Y25+	То	otal		
	853											853		

GLW Great Lakes Water	YA -Authority		GLWA FY 2020-2 SCADA Radio	024 CIP Network Upg	rade		361003 CIP
Phase GLWA En	nployees Proj	ect management	Contract	IA	Status	Pending Close-out	t
Title GLWA Sala	aries Wtr						1
Phase Budget	Water			Cost Allocation	СТА		
Phase Status	Pending Clo	se-out		Funding Source	Bond Pro	oceeds	
Start Date				Fund	Construc	tion Bond Fund	
End Date			I	Useful Life >20Yrs?	Yes		
C	ost Estimation	Information	Tot. Fed	eral Loan Amount		\$	60
	5	Cost Est. Class	Pro	gram/Allowance	Task Info	rmation	
		Cost Est. Date	Project Manager				
		Cost Est. Source	CIP Number				
		Cost Est. Prepared By	Description				
				L			

		Phas	e Total Exp	enses By F	Y (All figur	es are in \$	1,000's)	
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	0	0	0	0	0	0	0	0

GLW Great Lakes Water	Authority					A FY 2020 CADA Ra			upgrad	е			361003 CIP
Phase not appli	cable					Contract	NA	4	Stc	itus	Closed	Out	
Title Prior Year	Actual Ex	pense	s-Wtr										
Phase Budget	Water							Cost Alloc	cation CTA				
Phase Status	Closed C	Dut						Funding S	ource				
Start Date									Fund				
End Date							U	seful Life >2	20Yrs?				
Co	ost Estimo	ation In	formation			Tot. F	ede	ral Loan Ar	nount				
	1]	Cost Est. C	ass			Prog	gram/Allow	vance Task	Infor	mation		
]	Cost Est. Do	ate	Pro	oject Manag	Jer	_					
			Cost Est. So	ource	CI	P Number							
			Cost Est. Pr	epared By	De	escription							
Cost Ty	се	Fis	scal Year	Expens	e F	ringe Benefi	1Nor	nPersonne	(Comi	nent		
Unknown		FY18	8-		\$251			F	-Y16				
Unknown		FY18	8-		\$216			F	Y17				
			Phas	e Total Exp	enses	By FY (All fig	qure	es are in S´	1,000's)				
Prior Yr Actua	ls F`	Y19	FY20	FY21	FY22			FY24	FY25+	Т	otal		
	467										467		

GLWA Great Lakes Water Authori	ty			GLWA FY SCAD		24 CIP Network Up	grade			361003
hase Design and E	Build			Co	ontract DV	WS-882	Status	Pendin	g Close-ou	J†
itle DWS-882 SCA	DA Radio	Network Upg	grade: Water							
Phase Budget Wo	iter					Cost Allocatio	n CTA			
Phase Status Per	nding Clos	e-out				Funding Sourc	e Bond Pr	oceeds		
Start Date		3/26	/2013			Fun	d Constru	iction Bor	nd Fund	
End Date		9/30	/2016		U	seful Life >20Yrs	? Yes			
Cost	estimation	Information			Tot. Fede	ral Loan Amou	nt			
	1	Cost Est. C				gram/Allowanc		ormation		
	1			Project A	Frog Nanager	gram/ Allowand		ormanon		
				i i ojeci n	Manager					
-	/2017	Cost Est. D			a la a v					
9/15 Contractor	/2017	Cost Est. S		CIP Num						
	/2017	Cost Est. S		CIP Num Descript						
Contractor Biren Saparia Task		Cost Est. S	ource							
Contractor Biren Saparia Task Scope Developmen		Cost Est. S Cost Est. P	ource repared By	Descript						
Contractor Biren Saparia Task Scope Developmen Procurement		Cost Est. S Cost Est. P	ource repared By	Descript						
Contractor Biren Saparia Task Scope Developmen Procurement Project Execution		Cost Est. S Cost Est. P	ource repared By End Date	Descript	ion					
Contractor Biren Saparia Task Scope Developmen Procurement Project Execution		Cost Est. S Cost Est. P Start Date 1/1/2017 1/3/2017	ource repared By End Date 1/2/2017 4/3/2017	Descript Duration 1 90	ion	es are in \$1,00	0's)			
Contractor Biren Saparia		Cost Est. S Cost Est. P Start Date 1/1/2017 1/3/2017	ource repared By End Date 1/2/2017 4/3/2017	Descript Duration 1 90	ion	es are in \$1,00 FY24 F	0's) (25+	Total		

GLWA Great Lakes Water Authority			GLWA FY 2020- SCADA Rad	2024 CIP io Network Upg	grade	361003 CIP
Phase Design and Build			Contract	DWS-882	Status Pending Close-ou	t
Title DWS-882 SCADA Ro	adio Network Upgi	rade: Waste	water			
Phase Budget Wastewa	ater					
Phase Status Pending	Phase Status Pending Close-out			Funding Source	Bond Proceeds	
Start Date	Start Date 3/26/2013			Construction Bond Fund		
End Date	End Date 9/30/2016			Useful Life >20Yrs?	Yes	
Cost Estimation Information			Tot. Fe	}		
1 Cost Est. Class			P	rogram/Allowance	Task Information	
	Cost Est. De	ate	Project Manage	r		
	Cost Est. So	ource	CIP Number			
	Cost Est. Pr	epared By	Description			
Task	Start Date	End Date	Duration			
Scope Development						
Procurement						
Project Execution						
Project Closeout						
	Phas	se Total Exp	enses By FY (All fig	ures are in \$1,000	's)	

	GLWA Great Lakes Water Authority					A FY 2020 CADA Rad			rade		361	003 CIP
Phase n	ot applicabl	е				Contract	NA		Status	Closed Out		
Title Pri	or Year Actu	al Expense	es									T
Phase	Budget Was			Cost Allocation CTA								
Phase	e Status Clos	ed Out					Fundi	ing Source				
Sto	art Date							Fund				
Er	nd Date						Useful Li	ife >20Yrs?				
		•	Tot E									
	Cost Estimation Information					Tot. Federal Loan Amount						
		1	Cost Est. C	Class			-	Allowance	Task Info	rmation		
			Cost Est. D	ate	Pro	ject Manag	er					
			Cost Est. S	ource	CIP	9 Number						
			Cost Est. P	repared By	Des	scription						
			Phc	se Total Ex	penses I	By FY (All fig	jures are	in \$1,000'	s)			
	Proie	ct Total	Expenses	By FY Co	ompare	d to Prior	CIPs (A	ll figures	are in S	\$1.000's)		
CIP	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total	
2018	6221	218							(0 0	6,439	1
2019	0	1,319	60							0	1,379	1

1,320

1,320



As-needed CIP Implementation Assistance and Related Services

] Water MP Right Sizing	CIP Type Allowance		an
Reliability/Redundancy			57
□ NEWTP Repurposing			
Project Engineer/Manager	Gaylor Johnson / Dan Edwards	Budget	Split
Manager /	Ali Khraizat	Class Lvl 1	Centralized Services
Managing Dept	WW Design Eng	Class Lvl 2	Programs
Date Original Business Case	Prepared	Class Lvl 3	Programs
Year Project Add	led to CIP 2002	Location	Multiple Counties
		Fund and Cost Center	Wastewater - 5421-892111

order basis to support the GLWA. The services provided under this contract include assistance in capital projects definition and planning, design and construction phase procurement assistance and monitoring; third party contract administration/oversight assistance/scheduling services; claims/changes analysis and resolution; technical training; value engineering (VE) services on selected design projects; develop engineering study reports; identify minimum requirements, scope of work, basis of process design, performance criteria, minimum standards of quality, and preliminary design and oversight services for design/build contracts; proposal analysis assistance; engineering forensic analysis, and additional program support services.

Scope of Work This project provides for multi-discipline Engineering services on an "as-needed basis" to support GLWA's Water & Sewer Systems. The purpose of this proposed contract is to provide implementation assistance and related services on a task order basis to support the GLWA. The services provided under this contract include assistance in capital projects definition and planning, design and construction phase procurement assistance and monitoring; third party contract administration/oversight assistance/scheduling services; claims/changes analysis and resolution; technical training; value engineering (VE) services on selected design projects; develop engineering study reports; identify minimum requirements, scope of work, basis of process design, performance criteria, minimum standards of quality, and preliminary design and oversight services for design/build contracts; proposal analysis assistance; engineering forensic analysis, and additional program support services.

Challenges N/A - Active



As-needed CIP Implementation Assistance and Related Services

Related Project CS-1433, CS-166, CS-189

Lookup Driver N/A - Active

Other Important Info

Explanation N/A - Active



As-needed CIP Implementation Assistance and Related Services

Phase Study and Design and Construction Assistance

Contract CS-166

Status Active

and monitoring; third party contract

administration/oversight assistance/scheduling

Title CS-166 WW - Capital Improvement Program (CIP) Implementation Assistance and Related Services

Services on proposed GLWA Contract No. CS 166 will be provided on a task order basis, over a three (3) year period. A task order contract is a contract for services that does not procure or specify a firm quantity of services (other than a minimum or maximum quantity) and that provides for the issuance of orders for the performance of tasks during the period of the contract. The services provided under this contract support GLWA in consistently honoring the commitments it makes to regulatory agencies, customers, and others. The services provided by the consultant will supplement existing GLWA staff or consultant activities, which are focused on procuring and administering contracts for individual capital projects. The consultant secured for this contract will act as an Agent for GLWA. For that reason, the consultant is precluded from bidding/proposing as a prime or sub-contractor on any GLWA projects that the consultant participates in the scope development for the duration of this contract. GLWA Contract No. CS-166 will replace CS-1433, As-Needed Capital Improvement Program (CIP) Implementation Assistance and Related Services, which expired on July 24, 2017. Contract No. CS-189, Job Order Contracting – Project Delivery Assistance, scheduled to expire July 24, 2018, was executed as a short term solution to assure tasks under CS-1433 were completed seamlessly, allowing time to competitively bid the request for services. GLWA required these consulting services contract, to provide specialized expertise in rapid and flexible project delivery methods such as design/build, program management, and job order contracting.

Phase Budget	Wastewater		СТА		
Phase Status	Active		Funding Source	Revenue Financed Capital	
Start Date			Fund	Improvement & Extension Fun	
End Date		ι	Jseful Life >20Yrs?	No	
C	ost Estimation Information	Tot. Fede	eral Loan Amount		
	Cost Est. Class	Pro	gram/Allowance	Task Information	
	Cost Est. Date	Project Manager	Ali Khraizat		
	Cost Est. Source	CIP Number	380402		
	Cost Est. Prepared By	Description	The purpose of this proposed contract is to provide implementation assistance and related services on a task order basis to support the GLWA. The services provided under this contract include assistance in capital projects definition and planning, design and construction phase procurement assistance		

GLWA	GLWA FY 2020-2024 CIP 380400 CIP
Great Lakes Water Authority	As-needed CIP Implementation Assistance and Related Services
	services; claims/changes analysis and resolution; technical training; value engineering (VE) services on selected design projects; develop engineering study reports; identify minimum requirements, scope of work, basis of process design, performance criteria, minimum standards of quality, and preliminary design and oversight services for design/build contracts; proposal analysis assistance; engineering forensic analysis, and additional program support services. Projected Expenses based upon historical percentage of use for CIP projects split 50/50 for water & Wastewater.

	Phase Total Expenses By FY (All figures are in \$1,000's)								
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total	
	0	0	0	0	0	0	0	0	

Great Lakes Water A	Authority	As-needed (GLWA FY 2020-2024 CIP CIP Implementation Assistance		0400 c	
hase GLWA Em i tle GLWA Salc	. , ,	ect management	Contract NA	Status Active		
Phase Budget			Cost Allocation			
Phase Status Start Date	Active			Revenue Financed Capital		
End Date			Useful Life >20Yrs?	No		
Co	ost Estimation	Information	Tot. Federal Loan Amount	\$O		
	5	Cost Est. Class Cost Est. Date Cost Est. Source Cost Est. Prepared By	Program/Allowance Project Manager CIP Number Description	Task Information		

	Phase Total Expenses By FY (All figures are in \$1,000's)									
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total		
	0	0	0	0	0	0	0	0		

ise not applic	able				Contract	NA	Statu	IS Closed Out		
le Prior Year A	ctual Exp	enses-Wtr								
Phase Budget V	Vater			Cost Allocation CTA						
Phase Status (Phase Status Closed Out					Funding S	ource			
Start Date				Fund						
End Date						Useful Life >2	20Yrs? No			
Co	st Estimati	on Information			Tot. Fee	deral Loan Ai	mount			
	1 Cost Est. Class			Program/Allowance Task Information						
		Cost Est. D	ate	Pro	ject Manage					
		Cost Est. S	ource	CIP Number ed By Description						
		Cost Est. P	repared By							
Cost Typ	e	Fiscal Year	Expense	ə Fr	inge BenefilN	onPersonne	C	omment		
Engineering Servi	ces	FY18-		\$105		ŀ	Y18 CS-166			
		Pha	se Total Exp	enses B	By FY (All figu	res are in S	1,000's)			
Prior Yr Actuals	FY1		FY21	FY22		FY24	FY25+	Total		
1	05							105		

ise not applic	able				Contract	١A	Stat	tus Closed Out	
le Prior Year A	ctual Exp	enses-WW							
Phase Budget	Wastewat	er				Cost Alloc	cation CTA		
Phase Status	Phase Status Closed Out					Funding S	ource		
Start Date	Start Date						Fund		
End Date					Useful Life >2	20Yrs? No			
Cost Estimation Information			Tot. Federal Loan Amount						
	1 Cost Est. Class			Program/Allowance Task Information					
		Cost Est. D	ate	Proj	ect Manager				
		Cost Est. S	ource	CIP Number					
		Cost Est. P	repared By	Des	cription				
Cost Typ	e	Fiscal Year	Expens	ə Frii	nge BenefilNo	onPersonne	C	Comment	
Engineering Serv	ices	FY18-		\$105		F	Y18 CS-166		
		Pha	se Total Exp	enses B	y FY (All figu	res are in S	1.000's)		
Prior Yr Actual	s FY1		FY21	FY22	FY23	FY24	FY25+	Total	
1	05							105	

GLW Great Lakes Water	VA Authority	A	s-needed	GLWA FY CIP Implei			and Related Services	380400 CIP
Phase Study and	d Design and	d Construction	n Manageme	ent Co	ontract CS	5-1433	Status Closed Out	
Title CS-1433 A	s-needed Cl	P Implemento	ation Assistan	ce and Relat	ed Service	S		
Phase Budget	Wastewater					Cost Allocation	СТА	
Phase Status	Closed Out					Funding Source	Revenue Financed Capital	
Start Date		3/24	/2006			Fund	Improvement & Extension Fu	Jn
End Date		7/24	/2017		U	seful Life >20Yrs?	No	
C	ost Estimatior	n Information			Tot. Fede	ral Loan Amount		
		Cost Est. (Class		Prog	gram/Allowance	Task Information	
		Cost Est. [Date	Project /	Nanager			
		Cost Est. S	ource	CIP Num	nber	380401		
		Cost Est. F	repared By	Descript	ion			
Task	<	Start Date	End Date	Duration				
Scope Develop	ment							
Procurement								
Project Executio	on							

Project Closeout

Phase Total Expenses By FY (All figures are in \$1,000's)



As-needed CIP Implementation Assistance and Related Services

Phase Study and Design and Construction Assistance

Contract CS-166

Status Under Procurement

administration/oversight assistance/scheduling

Title CS-166 Wtr - Capital Improvement Program (CIP) Implementation Assistance and Related Services

Services on proposed GLWA Contract No. CS 166 will be provided on a task order basis, over a three (3) year period. A task order contract is a contract for services that does not procure or specify a firm quantity of services (other than a minimum or maximum quantity) and that provides for the issuance of orders for the performance of tasks during the period of the contract. The services provided under this contract support GLWA in consistently honoring the commitments it makes to regulatory agencies, customers, and others. The services provided by the consultant will supplement existing GLWA staff or consultant activities, which are focused on procuring and administering contracts for individual capital projects. The consultant secured for this contract will act as an Agent for GLWA. For that reason, the consultant is precluded from bidding/proposing as a prime or sub-contractor on any GLWA projects that the consultant participates in the scope development for the duration of this contract. GLWA Contract No. CS-166 will replace CS-1433, As-Needed Capital Improvement Program (CIP) Implementation Assistance and Related Services, which expired on July 24, 2017. Contract No. CS-189, Job Order Contracting – Project Delivery Assistance, scheduled to expire July 24, 2018, was executed as a short term solution to assure tasks under CS-1433 were completed seamlessly, allowing time to competitively bid the request for services. GLWA required these consulting services contract, to provide specialized expertise in rapid and flexible project delivery methods such as design/build, program management, and job order contracting.

Phase Budget	Water		Cost Allocation	CTA
Phase Status	Under Procurement		Funding Source	Revenue Financed Capital
Start Date			Fund	Improvement & Extension Fun
End Date		U	No	
Co	ost Estimation Information	Tot. Fede	ral Loan Amount	
	Cost Est. Class	Prog	gram/Allowance	Task Information
	Cost Est. Date	Project Manager	Grant Gartrell	
	Cost Est. Source	CIP Number	380402	
	Cost Est. Prepare	ed By Description	provide implement related services the GLWA. The contract include definition and p construction pho	his proposed contract is to entation assistance and on a task order basis to support services provided under this e assistance in capital projects anning, design and ase procurement assistance third party contract

GLWA Great Lakes Water Authority	GLWA FY 2020-2024 CIP As-needed CIP Implementation Assistance and Related Services	380400 CIP#
	services; claims/changes analysis and resolution; technical training; value engineering (VE) services on selected design projects; develop engineering study reports; identify minimum requirements, scope of wor basis of process design, performance criteria minimum standards of quality, and prelimina design and oversight services for design/build contracts; proposal analysis assistance; engineering forensic analysis, and additional program support services. Projected Expenses based upon historical percentage of use for CIP projects split 50/50 for water & Wastewater.	rk, i, ry d
	Phase Total Expenses By FY (All figures are in \$1,000's)	
Prior Yr Actuals	FY19 FY20 FY21 FY22 FY23 FY24 FY25+ Total 0 0 0 0 0 0 0 0	

	Project Total Expenses By FY Compared to Prior CIPs (All figures are in \$1,000's)										
CIP	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total
2018	4770	1,400	100						0	0	6,270
2019	0	210	500	1,606	1,606	1,606				0	5,528
2020	0	0	210	0	0	0	0	0	0	0	210



Wastewater General Engineering Services on an As-needed Basis

 Innovation Water MP Right Sizi Reliability/Redunds NEWTP Repurposin 	ancy	Pending Closeout Allowance	Example of pipe beir Ic	ng aid
Project Engineer/Man	ager Beena Chackun	kal	Budget	Split
Man	ager Ali Khraizat		Class Lvl 1	Centralized Services
Managing	Dept WW Design Eng		Class Lvl 2	Programs
Date Original Business	Case Prepared		Class Lvl 3	Programs
Year Proje	ct Added to CIP 2004		Location	Multiple Counties
			Fund and Cost Center	
Project Significance	√arious engineering as	needed services for desig	gn and replacement of a	ging water and sewer lines.
-		rs throughout the system o		t projects for aging and dysfunctional e WRRF under different tasks on an as-
r		k also includes civil, structu tion and piping design ser		ulics, mechanical, electrical,
r				
r				
Challenges				
Challenges Project History	surveying, instrumentat			
Challenges Project History Related Project	surveying, instrumentat			



Wastewater General Engineering Services on an As-needed Basis

Project Manag	ger Project	isk Matrix Scoring	Project Manager Score
Criteria	Score	C	omment 20
Condition		1	20
Efficiency and Innovation		1	
Financial		1	
0&M		1	
Performance (Service Level/Reliability)		1	
Public Benefit		1	
Public Health & Safety		1	
Regulatory (Environmental/Legal)		1	
Review Comm	nittee Proje	Risk Matrix Scoring	Review Committee Score
Criteria	Score	Comment	0
Condition			
Efficiency and Innovation			
Financial			
0&M			
Performance (Service Level/Reliability)			
Public Benefit			
Public Health & Safety			
Regulatory (Environmental/Legal)			



380500 CIP#

Wastewater General Engineering Services on an As-needed Basis

ase Budget Water			Cost Allocation	CTA
Phase Status Active			Funding Source	Revenue Financed Capital
Start Date			Fund	Improvement & Extension Fu
End Date		Us	eful Life >20Yrs?	No
Cost Estimation	on Information	Tot. Feder	\$0	
3	Cost Est. Class	Prog	ram/Allowance	Task Information
	Cost Est. Date	Project Manager		
	Cost Est. Source	CIP Number		
	Cost Est. Prepared By	Description		

Phase Total Expenses By FY (All figures are in \$1,000's)								
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	0	0	0	0	0	0	0	0

GLWA Great Lakes Water Autho	rity	Wa	stewater		FY 2020-20 Il Engineer		ces on an	As-needed	380500 CIP: d Basis
Phase not applica					Contract N	A	Statu	us Closed Ou	t
Title Prior Year Ac	tual Expens	ses-Wtr							
Phase Budget W	ater					Cost Alloc	cation CTA		
Phase Status Cl	osed Out					Funding S	ource		
Start Date							Fund		
End Date					ι	Jseful Life >2	20Yrs?		
Cost	Estimation	Information			Tot. Fede	eral Loan Ar	mount		
	1	Cost Est. C	ass		Pro	gram/Allow	vance Task lı	nformation	
		Cost Est. Do	ate	Proje	ect Manager				
		Cost Est. Sc	ource		lumber				
		Cost Est. Pr	epared By	Desc	ription				
						L			
Cost Type		Fiscal Year	Expens	e Frin	ge BenefitNc	nPersonne	C	omment	
Engineering Servic	es Fi	/18-		\$132		F	-Y16		
		Phas	e Total Exp	enses By	FY (All figur	es are in S	1,000's)		
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total	
132	2							132	

GLW Great Lakes Water	Authority		Wa	stewater	·	A FY 2020 eral Engine		· · · ·	ces on (an A	s-neede	ed Basis	380500 CIP#
Phase not appli						Contract	NA		S	status	Closed C	Dut	
Title Prior Year	Actual E	xpense	s-WW										
Phase Budget	Wastew	vater					Co	st Alloc	cation C1	ΓA			
Phase Status	Closed	Out					Fur	nding S	ource				
Start Date									Fund				
End Date							llsefu	l Life >2	20Yrs?				
C	ost Estim	ation Ir	formation			Tot. Fe	ederal L	.oan Ar	mount				
		1	Cost Est. C	ass		I	Progran	n/Allow	vance Ta	sk Info	ormation		
			Cost Est. Do	ate	Pı	oject Manag	er						
			Cost Est. Sc	ource	С	IP Number							
			Cost Est. Pr	epared By	D	escription							
Cost Ty	ре	Fi	scal Year	Expens	е	Fringe Benefit	NonPer	sonne		Con	nment		
Engineering Ser	vices	FY1	8-		\$148			F	-Y16				
			Phas	e Total Exc	oenses	By FY (All fig	ures a	re in S	1.000's)				
Prior Yr Actua	ls F	Y19	FY20	FY21	FY2			Y24	FY25+		Total		
	148										148		

Great Lakes Water Authority						-		s-needed Basis	
hase Study and De le CS-1499 Waste	0			Contra				Active	
Currently most of the					еава	sis (CS-1499 METC	.0)		
Phase Budget Was				•		Cost Allocation	СТА		
Phase Status Acti						Funding Source	Revenue	e Financed Capital	
Start Date		5/12	/2010					ment & Extension Fu	ın
End Date		6/2	/2018		U	seful Life >20Yrs?	No		
Cost F	stimation Ir	oformation		Tot	. Fede	ral Loan Amount			
	2	Cost Est. C	Class		Pro	gram/Allowance	Task Info	ormation	
		Cost Est. D		Project Man		Ali Khraizat			
Contract		Cost Est. S	ource	CIP Number		380501			
		Cost Est. P	repared By	Description					
Task	S	tart Date	End Date	Duration					
cope Developmen	t								
rocurement									
roject Execution									
		1/9/2020	3/9/2020	60					

		11103	C IOIGI EAP	Children by I			1,000 3)	
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	0	0	0	0	0	0	0	0

			Contract N	A	Status Act	tive
	epartment-wide (General Engineering Servic	ces on an As-needed Basis			
Phase	Budget Water			Cost Allocation	CTA	
Pha	se Status Active			Funding Source	Revenue Fin	anced Capital
S	tart Date	5/12/2010		Fund	Improvemer	nt & Extension Fun
E	nd Date	6/2/2018	U	Jseful Life >20Yrs?	No	
	Cost Estimo	ation Information	Tot. Fede	eral Loan Amount		\$0
		Cost Est. Class	Pro	gram/Allowance	Task Informa	tion
		Cost Est. Date	Project Manager			
		Cost Est. Source	CIP Number			
		Cost Est. Prepared	By Description			



GLWA FY 2020-2024 CIP As-Needed General Engineering Services

 Innovation Water MP Right Sizing Reliability/Redundancy NEWTP Repurposing 	Project Statu CIP Type	Active Allowance		
Project Engineer/Manager 🤇	Grant Gartrell		Budge	· Split
Manager 🤇	Grant Gartrell		Class LvI 1	Centralized Services
Managing Dept \vee	Vater Eng		Class LvI 2	Programs
Date Original Business Case	Prepared		Class LvI 3	Programs
Year Project Add	ed to CIP 2004			Multiple Counties
			Fund and Cost Center	
Project Significance Allowar	nce for the study	y and design of c	ritical projects throughout the sys	stem prior to bidding and construction.
Scope of Work As-need	ded engineering	g services for wat	er and wastewater engineering.	
Challenges N/A - A	ctive			
Project History				
Related Project				
Lookup Driver N/A - A	ctive			
Other Important Info				
Explanation N/A - A	otivo			



GLWA FY 2020-2024 CIP As-Needed General Engineering Services

Project Manag	Project Manager Score		
Criteria	Score	Comment	39.8
Condition		3	07.0
Efficiency and Innovation		1	
Financial		1	
0&M		2	
Performance (Service Level/Reliability)		3	
Public Benefit		1	
Public Health & Safety		3	
Regulatory (Environmental/Legal)		1	
Review Comm	iittee Projec	ct Risk Matrix Scoring	Review Committee Score
Criteria	Score	Comment	0
Condition			
Efficiency and Innovation			
Financial			
0&M			
Performance (Service Level/Reliability)			
Public Benefit			
Public Health & Safety			
Regulatory (Environmental/Legal)			

380600 CIP#



As-Needed General Engineering Services

380600 CIP#

i se GLWA Em GLWA Sala	. ,	oject management	Contract N/	A	Status Active	
Phase Budget	Wastewate	er		Cost Allocation	CTA	
Phase Status	Active			Funding Source	Revenue Financed	Capital
Start Date				Fund	Improvement & Exte	ension Fun
End Date			U	seful Life >20Yrs?	No	
Co	ost Estimatio	on Information	Tot. Fede	eral Loan Amount		\$0
	5	Cost Est. Class	Prog	gram/Allowance	Task Information	
		Cost Est. Date	Project Manager			
		Cost Est. Source	CIP Number			
		Cost Est. Prepared By	Description			

Phase Total Expenses By FY (All figures are in \$1,000's)								
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	0	0	0	0	0	0	0	0

GLWA Great Lakes Water Authority					Y 2020-20 ed Gene		eerina Se	rvices	380600 C	
Phase not applicabl	0				Contract N	tus Closed Ou	ı+			
Title Prior Year Actu		s-WW		· · · ·		A	310	ios closed of	וכ	
	•	5 1111				Cost Allo	cation CTA			
Phase Budget Was										
Phase Status Clos	ed Out					Funding S	ource			
Start Date							Fund			
End Date					ι	Jseful Life >2	20Yrs?			
Cost E	stimation In	formation								
	1	Cost Est. Cl	ass	Program/Allowance Task Information						
		Cost Est. Do	ate	Projec	t Manager					
		Cost Est. Sc	ource	CIP Nu						
		Cost Est. Pr	epared By	Descri	ption					
		-								
Cost Type	Fis	scal Year	Expens	e Fring	e BenefilNc	nPersonne	(Comment		
Unknown	FY1	8-		\$158			-Y16			
		Phas	e Total Exp	enses By I	Y (All figur	es are in S	1,000's)			
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total		
								158		

GLWA Great Lakes Water Authority	GLWA FY 2020-2024 CIP As-Needed General Engineering Services									
Phase Design					Contract C	S-1432A	Statu	s Active		
Title CS-1432A Wate	er As-Neede	ed Enginee	ring Services	5						
Phase Budget Wat	er					Cost Alloco	ition CTA			
Phase Status Activ	ve			Funding Source Revenue Financed Capital						
Start Date	Start Date 1/23/2008					F	und Impro	vement & Ext	ension Fu	in
End Date		12/12/2	2018		U	seful Life >20	Yrs? No			
Cost Es	timation In	formation			Tot. Fede	eral Loan Am	ount			
	5	Cost Est. Cl	ass		Pro	gram/Allowa	ince Task In	formation		
		Cost Est. Do	ate	Proje	ct Manager	Beena Cha	ckunkal			
		Cost Est. Sc	ource	CIP N	umber	380601				
		Cost Est. Pr	epared By	Desci	ription	Alfred Bene	sh			
Cost Type Engineering Services		cal Year	Expense	e Fring \$94	ge BenefilNo	nPersonne	Сс	omment		
		Phas	e Total Exp	enses By	FY (All figure	es are in \$1,	000's)			
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total		
	94	0	0	С	0	0	0	94		

GLW Great Lakes Water	Authority		GLWA FY 2020-2 As-Needed Gene		g Services	380600 CIP#
Phase Design Title CS-1432A	Wastewater A	s-Needed Engineering S	Contract (ervices	CS-1432A	Status Active	
Phase Budget Phase Status Start Date End Date	Active	1/23/2008		_	Revenue Financed Capital Improvement & Extension Fu	Jn
C.	ost Estimation 5	Cost Est. Class Cost Est. Date Cost Est. Source	Project Manager CIP Number	380601	Task Information	
		Cost Est. Prepared By	Description	Alfred Benesh		

Phase Total Expenses By FY (All figures are in \$1,000's)								
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	0	0	0	0	0	0	0	0

	GLWA Great Lakes Water Authority						GLWA FY 2020-2024 CIP 3 As-Needed General Engineering Services						600 CIP#
	not applic						Contract	NA		Status (Closed Out		
Title F	Prior Year A	\ctuc	al Expense	s-Wtr									
Phas	e Budget	Wate	er					Cost	Allocation	CTA			
Pho	ase Status	Close	ed Out					Fundi	ing Source				
5	Start Date								Fund				
	End Date							Useful Li	ife >20Yrs?				
	<u> </u>	al Cal	ina ation. In	formation		Tot. Federal Loan Amount							
	Cost Estimation Information												
	1 Cost Est. Class					Pro		-	Allowance	Task Inform	nation		
	Cost Est. Date					Project Manager							
				Cost Est. S	ource	CIP Number							
				Cost Est. P	repared By	y Des	cription						
	Cost Typ	be	Fi	scal Year	Expe	nse Fr	inge Benefi	ilNonPerso	nne	Comm	nent		
Unkno	wn		FY1	8-		\$158			FY16				
				Pho	ise Total F	vnenses R	y FY (All fi	aures are	in \$1,000'	e)			
Prio	r Yr Actual	s	FY19	FY20	FY21	FY22	FY23				otal		
	1	58									158		
	Pr	ojec	t Total E	xpenses	s By FY C	ompare	d to Prio	CIPs (A	ll figures	are in \$1	,000's)		
CIP	FY16		FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total	
2018	14	012	446	436	386					0	0	15,280	
2019		0	316	406	327	50					0	1,099	
2020		0	0	316	94	0	0	0	0	0	0	410	



GLWA FY 2020-2024 CIP As-Needed Geotechnical and Related Engineering Services

 Innovation Water MP Right Sizir Reliability/Redundation NEWTP Repurposing 	ancy	Active Allowance	Example of testir being perform	
Project Engineer/Manc	ager Peter Fromm		Budget	Water
Mana	ager Grant Gartrell		Class Lvl 1	Centralized Services
Managing [Dept Water Eng		Class Lvl 2	Programs
Date Original Business	Case Prepared		Class Lvl 3	Programs
Year Projec	ct Added to CIP 2006		Location	Multiple Counties
			Fund and Cost Center	
Project Significance	esign of Telegraph Rc	l, Wick Rd, Park-N	erriman, & Schoolcraft water ma	in projects.
Scope of Work	roject utilized as the c	lesign mechanism Ilso, contract has	n for the Telegraph Road, Wick Ro provisions for the as-needed serv	ad, Park-Merriman, and Schoolcraft
Scope of Work	roject utilized as the c vater main projects. A construction projects s	lesign mechanism Ilso, contract has	n for the Telegraph Road, Wick Ro provisions for the as-needed serv	ad, Park-Merriman, and Schoolcraft
Scope of Work	roject utilized as the c vater main projects. A construction projects s	lesign mechanism Ilso, contract has	n for the Telegraph Road, Wick Ro provisions for the as-needed serv	ad, Park-Merriman, and Schoolcraft
Scope of Work Challenges	roject utilized as the c vater main projects. A construction projects s	lesign mechanism Ilso, contract has	n for the Telegraph Road, Wick Ro provisions for the as-needed serv	ad, Park-Merriman, and Schoolcraft
Scope of Work Challenges Project History	roject utilized as the c vater main projects. A construction projects si I/A - Active	lesign mechanism Ilso, contract has	n for the Telegraph Road, Wick Ro provisions for the as-needed serv	ad, Park-Merriman, and Schoolcraft
Scope of Work C Challenges Project History Related Project	roject utilized as the c vater main projects. A construction projects si I/A - Active	lesign mechanism Ilso, contract has	n for the Telegraph Road, Wick Ro provisions for the as-needed serv	ad, Park-Merriman, and Schoolcraft



Title Prior Year	Actual E>	pense	s-Wtr							
Phase Budget	Water						Cost Allo	cation CTA		
Phase Status	Closed (Dut					Funding S	ource		
Start Date								Fund		
End Date						l	Jseful Life >2	20Yrs?		
Co	ost Estimo	ation In	formation			Tot. Fede	eral Loan Ai	mount		
	1]	Cost Est. C	ass		Pro	gram/Allov	vance Task	Information	
			Cost Est. De	ate	Projec	t Manager				
			Cost Est. Sc	ource	CIP Number					
			Cost Est. Pr	epared By	Descri	ption				
Cost Ty	ne	Fig	cal Year	Expens	e Fring	e BenefilNo	nPersonne	(Comment	
Unknown		FY18		•	\$115			-Y16		
			Phas	e Total Exp	enses By F	FY (All figur	es are in \$	1,000's)		
Prior Yr Actua	ls F	Y19	FY20	FY21	FY22	FY23	FY24	FY25+	Total	
	115								115	

GLWA Great Lakes Water Authorit	GLWA FY 2020-2024 CIP 3 Great Lakes Water Authority As-Needed Geotechnical and Related Engineering Services								38070)0 CIP:			
Phase Construction)				Co	ontract C	S-1488		Statu	us Activ	'e		
Title CS-1488 Engi	neering S	ervices, Conc	rete Testing o	and Sc	oil Borir	ngs							
Phase Budget Wo	ater						Cost Allo	cation	CTA				
Phase Status Ac	tive			Funding Source Revenue Financed Capital							oital		
Start Date		4/8,	/2009	Fund Improvement & Extension Fun							on Fun		
End Date		4/8,	/2021	021 Useful Life >20Yrs? No									
Cost I	Estimatio	n Information				Tot. Fede	eral Loan Ar	nount					
		Cost Est. C	lass			Pro	gram/Allow	vance [°]	Task Ir	nformatio	on		
	Cost Est. Date					Manager	Grant Gar	trell					
	Cost Est. Source					CIP Number 380701							
	Cost Est. Source					By Description Engineering Services, Concrete Testing and Soil Borings (CS-1488)					and		
Cost Type		Fiscal Year	Expense	.	Frinae	BenefilNc	nPersonne		С	omment			
Engineering Service	es F	-Y19		\$620									
Task		Start Date	End Date	Dur	ation								
Scope Developme	nt												
Procurement													
Project Execution		6/1/2016	4/30/2020		1429)							
Project Closeout		5/1/2020	7/30/2020		90)							
		Pha	se Total Exp	enses	By FY	(All figur	es are in \$	1 <i>,</i> 000's	;)				
Prior Yr Actuals	FY19		FY21	FY2		FY23	FY24	FY2		Total			
	6	020 0	0		0	0	0		0	62	0		

GLW Great Lakes Water A	Authority	As-Neede	GLWA FY 2020-20 ed Geotechnical a	ngineering Services	380700 CIP	
	. ,	oject management	Contract NA	Ą	Status Active	
Title GLWA Salc	aries					
Phase Budget	Wastewate	er		Cost Allocation	СТА	
Phase Status	Active			Funding Source	Revenue Financed Capital	
Start Date				Fund	Improvement & Extension F	UN
End Date			Us	seful Life >20Yrs?	No	
Co	ost Estimatio	on Information	Tot. Fede	ral Loan Amount		5O
	5	Cost Est. Class	Prog	gram/Allowance	Task Information	
		Cost Est. Date	Project Manager			
		Cost Est. Source	CIP Number			
		Cost Est. Prepared By	Description			

		Phas	e Total Exp	oenses By F	Y (All figur	es are in \$	1,000's)	
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	0	0	0	0	0	0	0	0

	GLW	ΙΑ					A FY 2020			naineerir	ng Servic		700 CIP#
Phone	Great and poli						Contrac			-	Closed Out		
	not applie		e al Expense	sc \//\//			Connac	NA					
			•	22- 1 1 1 1				C a al	A II				
	e Budget								Allocation				
Pha	ise Status	Clos	ed Out					Fund	ing Source				
S	start Date								Fund				
	End Date							Useful L	ife >20Yrs?				
	Co	ost Es	timation I	nformation		٦	Tot. I	ederal Loc	an Amount				
			1	Cost Est. C	Class			Program/	Allowance	Task Inform	nation		
				Cost Est. D	Date	Proj	ject Mana	ger					
				Cost Est. S	ource	CIP	Number						
					repared By	, Des	cription						
				CO3I E3I. I									
	Cost Ty	ре	F	scal Year	Expe	nse Fr	inge Benef	itNonPerso	nne	Comm	nent		
Unknov	wn		FY1	8-		\$115			FY16				
				Phc	ise Total E	xpenses B	by FY (All fi	aures are	in \$1,000'	s)			
Prior	r Yr Actua	ls	FY19	FY20	FY21	FY22					otal		
		115									115		
	Pr	roje	ct Total	Expenses	By FY C	ompare	d to Prio	r CIPs (A	ll figures	are in \$1	l,000's)		
CIP	FY16		FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total	
2018			650	907	333	333	333			0	0	2,556	
2019		0	230	238	477	477	477	238			0	2,137	
2020		0	0	230	620	0	0	0	0	0	0	850	



Geotechnical and Related Services on an As-Needed Basis

 Innovation Water MP Right Sizing Reliability/Redundancy NEWTP Repurposing 	CIP Type	Pending Closeout Allowance	Example of a pip being lo	
Project Engineer/Manager	Grant Gartrell		Budget	Split
Manager	Grant Gartrell		Class Lvl 1	Centralized Services
Managing Dept	Water Eng		Class Lvl 2	Programs
Date Original Business Case	e Prepared		Class Lvl 3	Programs
Year Project Ad	ded to CIP 2007		Location	Multiple Counties
			Fund and Cost Center	
Project Significance As Ne	eded geotechni	cal consulting services.		
Scope of Work The w		sultant services for geotec g/ technical services as rec		d basis. The work also provides for
-	ional engineering		1	
-			1	
additi				
Challenges N/A -				
Challenges N/A - Project History	Pending Closeou	Jt		
Challenges N/A - Project History Related Project	Pending Closeou	Jt		

GLWA Great Lakes Water Authority			Geotech		A FY 2020- and Relate	2024 CIP d Services	on ar	n As-N	leeded	Basis	380800 CIP#
Phase not applicable					Contract	NA		Status	Closed	Out	
Title Prior Year Actual	l Expense	es-Wtr									
Phase Budget Water	ſ					Cost Allo	cation	CTA			
Phase Status Close	d Out					Funding S	ource				
Start Date							Fund				
End Date						Useful Life >2	20Yrs?	No			
Cost Esti	mation l	nformation			Tot. Fe	ederal Loan Ai	mount				
	1	Cost Est. C	lass		F	Program/Allow	vance 1	ask Inf	ormation		
		Cost Est. D	ate	Pr	oject Manage	er					
		Cost Est. S	ource	С	IP Number						
		Cost Est. P	repared By	D	escription						
			. ,								
Cost Type	F	iscal Year	Expens	e	Fringe Benefit	NonPersonne		Со	mment		
Unknown	FY1	8-		\$82		F	FY16				
		Pha	se Total Exc	enses	By FY (All fig	ures are in \$	1.000's)			
Prior Yr Actuals	FY19	FY20	FY21	FY2		FY24	FY25		Total		
82									82		

GLW Great Lakes Water	IA Authority		Geotech	GLWA FY 2 nical and Re)24 CIP Services on a	n As-N		380800 CIP
Phase Design					tract C	S-1490	Status	Pending Close-out	
Title CS-1490: N	ITH Consulto	ints: As-Neede	ed Geotechn	ical Services:W	/tr				
Phase Budget	Water					Cost Allocation	CTA		
Phase Status	Pending Clo	ose-out				Funding Source	Revenu	e Financed Capital	
Start Date		1/14	/2010			Fund	Improve	ement & Extension Fu	n
End Date		7/14	/2016		U	lseful Life >20Yrs?	No		
C	ost Estimatio	n Information			Tot. Fede	eral Loan Amount			
	5	Cost Est. (Class		Pro	gram/Allowance	Task Info	ormation	
		Cost Est. [Date	Project M	anager	Grant Gartrell			
		Cost Est. S	ource	CIP Numb	er	380801			
		Cost Est. F	Prepared By	Descriptio	n	As-Needed Geo	otechnic	al Services	
Task		Start Date	End Date	Duration					
Scope Develop				Doranorr					
Procurement									
Project Executio	on								
Project Closeou									

		Phas	e Total Exp	oenses By F	Y (All figur	es are in \$	1,000's)	
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	0							0

GLW Great Lakes Water	/A Authority	Geotech	GLWA FY 2020-20 nical and Related		n As-Needed Basis	380800 CIP#
Phase Design			Contract C	S-1490	Status Pending Close-out	
Title CS-1490: N	ITH Consult	ants: As-Needed Geotechr	nical Services:WW			
Phase Budget	Wastewate	er		Cost Allocation	СТА	
Phase Status	Pending C	lose-out		Funding Source	Revenue Financed Capital	
Start Date		1/14/2010		Fund	Improvement & Extension Fu	in
End Date		7/14/2016	U	Iseful Life >20Yrs?	No	
Ca	ost Estimatio	on Information	Tot. Fede	eral Loan Amount		
	5	Cost Est. Class	Pro	gram/Allowance	Task Information	
		Cost Est. Date	Project Manager	Grant Gartrell		
		Cost Est. Source	CIP Number	380801		
		Cost Est. Prepared By	Description	As-Needed Geo	otechnical Services	

		Phas	e Total Exp	penses By F	Y (All figur	es are in \$	1,000's)	
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	0							0

se GLWA En	nployees Pro	ject management	Contract N	IA	Status Penc	ling Close-out			
e GLWA Sala	aries								
Phase Budget	Water			Cost Allocation	CTA				
Phase Status	Pending Clo	ose-out		Funding Source	Revenue Finar	nced Capital			
Start Date				Fund	Improvement	& Extension Fun			
End Date			I	Useful Life >20Yrs?	No				
Co	ost Estimatio	n Information	Tot. Fed	eral Loan Amount		\$0			
	5	Cost Est. Class	Program/Allowance Task Information						
		Cost Est. Date	Project Manager						
		Cost Est. Source	CIP Number						
		Cost Est. Prepared By	Description						

Phase Total Expenses By FY (All figures are in \$1,000's)

	C114					GLWA	FY 202)-2024 C	IP			380	800 CIP#
	Great Lakes Water Au	A uthority			Geotec	hnical a	nd Relat	ed Servi	ces on o	an As-Ne	eded Ba		
Phase	not applic	able	;				Contrac	t NA		Status (Closed Out	ł	
Title P	rior Year A	\ctuc	al Expense	s-WW									
Phas	e Budget	Wast	ewater					Cost	Allocatio	n CTA			
Pho	ıse Status 🤇	Close	ed Out					Fund	ing Source	e			
S	itart Date								Fund	d			
	End Date							Useful I	ife >20Yrs	? No			
	Co	st Fst	imation In	formation		7	Tot.	ederal Lo	an Amoun	nt 🗌			
			1	Cost Est. C	`lass			Program/	Allowance	e Task Inforr	nation		
				Cost Est. D		Pro	ject Manag	-	Allowance		nanon		
				1			Number						
				Cost Est. S									
				Cost Est. P	repared By	, Des	cription						
	Cost Typ	e	Fis	scal Year	Exper	nse Fr	inge Benef	ilNonPerso	onne	Comn	nent		
Unknov	wn		FY18	8-		\$82			FY16				
				Pho	se Total Ex	(nonsos P	w ΕΥ (ΔΙΙ f	aures are	in \$1.000)'e)			
Prior	Yr Actuals	s	FY19	FY20	FY21	FY22	FY23	-			otal		
		82									82		
	Pro	oied	t Total E	xpenses	By FY C	ompare	d to Prio	r CIPs (A	II figure	s are in \$	1,000's)		
CIP	FY16		FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total	
2018	2	441	132							0	0	2,573	
2019		0	164								0	164	
2020		0	0	164	0							164	



General Engineering Services

380900 CIP#

Innovation	Project Statu	Pending Closeout	Analytical L	ab
Water MP Right Siz	ing CIP Type	Allowance		
🗆 Reliability/Redund				
□ NEWTP Repurposin	g			
Project Engineer/Man	ager Beena Chackun	kal	Budget	Wastewater
Man	ager Ali Khraizat		Class Lvl 1	Centralized Services
Managing	Dept WW Design Eng		Class Lvl 2	Programs
	s Case Prepared		Class Lvl 3	Programs
Date Original Busines				
•	ct Added to CIP 2007		Location	Multiple Counties
•	•		Location Fund and Cost Center	Multiple Counties
Year Proje	ct Added to CIP 2007		Fund and Cost Center	·
Year Proje	ct Added to CIP 2007	oline engineering services for	Fund and Cost Center	·
Year Proje Project Significance Scope of Work	As needed multi-discip		Fund and Cost Center various small scale pro or a variety of projects	ojects at WTP and WRRF. on an as-needed basis providing
Year Proje Project Significance Scope of Work	As needed multi-discip This project provides for multi-disciplinary profe	or rapid design turn-around f	Fund and Cost Center various small scale pro or a variety of projects	ojects at WTP and WRRF. on an as-needed basis providing
Year Proje Project Significance Scope of Work	As needed multi-discip This project provides for multi-disciplinary profe	or rapid design turn-around f	Fund and Cost Center various small scale pro or a variety of projects	ojects at WTP and WRRF. on an as-needed basis providing
Year Proje Project Significance Scope of Work Challenges	As needed multi-discip This project provides for multi-disciplinary profe	or rapid design turn-around f	Fund and Cost Center various small scale pro or a variety of projects	ojects at WTP and WRRF. on an as-needed basis providing
Year Proje Project Significance Scope of Work Challenges Project History	As needed multi-discip This project provides for multi-disciplinary profe N/A - Active	or rapid design turn-around f	Fund and Cost Center various small scale pro or a variety of projects	ojects at WTP and WRRF. on an as-needed basis providing
Project Significance Scope of Work Challenges Project History Related Project	As needed multi-discip This project provides for multi-disciplinary profe N/A - Active	or rapid design turn-around f	Fund and Cost Center various small scale pro or a variety of projects	ojects at WTP and WRRF. on an as-needed basis providing



Regulatory (Environmental/Legal)

GLWA FY 2020-2024 CIP General Engineering Services

Project Manag	er Project	Risk Matrix Scoring	Project Manager Score
Criteria	Score	Comment	
Condition		5	
Efficiency and Innovation		5	
Financial		5	
D&M		5	
Performance (Service Level/Reliability)		5	
Public Benefit		5	
Public Health & Safety		5	
Regulatory (Environmental/Legal)		5	
Review Commi	ittee Projec	t Risk Matrix Scoring	Review Committee Score
Criteria	Score	Comment	0
Condition			
Efficiency and Innovation			
Financial			
0&M			
Performance (Service Level/Reliability)			
Public Benefit			
Public Health & Safety			

			General Engineering Services						
Phase not applicable			Contrac	t NA	Statu	s Closed Out			
Title Prior Year Actual Exp	enses-Wtr								
Phase Budget Water				Cost All	ocation CTA				
Phase Status Closed Ou	Jt			Funding	Source				
Start Date					Fund				
End Date				Useful Life	>20Yrs?				
Cost Estimati	on Information		Tot.	Federal Loan /	Amount				
	Cost Est. Class			Program/Allo	owance Task In	formation			
	Cost Est. Date		Project Mana						
	Cost Est. Sourc	e	CIP Number						
	Cost Est. Prepo		Description						
Cost Type	Fiscal Year	Expense	Fringe Bene	ilNonPersonn		omment			
Unknown	FY18-	\$75	-		FY16		_		
GLWA Salaries CIP2020	FY18-	\$4		2	0FY18				
	Phase 1	otal Expens	es By FY (All f	iqures are in	\$1,000's)				
Prior Yr Actuals FY1			Y22 FY23		FY25+	Total			
81						81			

GLAN Great Lakes Water A	Authority	General Engineering Serv	ices	
	d Design and Construction Assistance	Contract NA	Status Active	
Phase Budget		Cost Allocation	СТА	
Phase Status	Active	Funding Source	Revenue Financed Capital	
Start Date	3/27/2008	Fund	Improvement & Extension Fu	n
End Date	3/27/2018	Useful Life >20Yrs?	No	
Cc	ost Estimation Information	Tot. Federal Loan Amount	\$0	C
	Cost Est. Class	Program/Allowance	Task Information	
	Cost Est. Date	Project Manager		
	Cost Est. Source	CIP Number		
	Cost Est. Prepared By	Description		

Phase Total Expenses By FY (All figures are in \$1,000's)

Great Lakes Water Author	ity			GLWA FY Gen		ineering \$	Services	;		38090
hase Study and D	esign and	Constructior	n Assistance	Co	ontract C	S-1481	Sto	itus Act	live	
tle CS-1481 Sigm	a General	Engineering	Services							
Currently most of t	he projects	are for Was	tewater Servi	ices.						
Phase Budget Wo	astewater					Cost Alloc	ation CTA			
Phase Status Ac	Phase Status Active					Funding Sc	ource Rev	enue Fin	anced Capito	1
Start Date		3/27	/2008				Fund Imp	rovemer	nt & Extension	Fun
End Date		3/27	/2018		U	seful Life >2	OYrs? No			
Cost	Estimation	Information			Tot. Fede	ral Loan Am	nount			
	2	Cost Est. C	lass		Prog	gram/Allow	ance Task	Informa	tion	
		Cost Est. D	ate	Project	Manager	Beena Cha	ackunkal			
Contract		Cost Est. S	ource	CIP Nun	nber	380901				
		Cost Est. P	repared By	Descript	lion					
			. ,							
Task		Start Date	End Date	Duration						
Project Closeout		3/28/2021	5/27/2021	60)					
		Pho	se Total Exp	enses By FY	(All figure	es are in \$1	,000's)			
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Tota	l	
) (0	0	0	0	С		0	

GLWA Great Lakee Water Authority		GLWA FY 202 Genera	20-2024 CIP I Engineering	Services		380900 CIP
Phase not applicable		Contra	ct NA	Status	Closed Out	
Title Prior Year Actual Expenses-WW						1
Phase Budget Wastewater			Cost Allo	cation CTA		
Phase Status Closed Out			Funding S	Source		
Start Date				Fund		
End Date			Useful Life >	20Yrs?		
Cost Estimation Information	n	Tot	. Federal Loan A	mount		
1 Cost Est.	Class		Program/Allov	wance Task Inf	ormation	
Cost Est.	Date	Project Man	ager			
Cost Est.	Source	CIP Number				
Cost Est.	Prepared By	Description				
Cost Type Fiscal Year	Expens	e Fringe Ben	efilNonPersonne	Cor	nment	
Unknown FY18-		\$63		FY16		
Pł	ase Total Exp	enses By FY (All	figures are in \$	51,000's)		
Prior Yr Actuals FY19 FY20	FY21	FY22 FY		FY25+	Total	
63					63	

	GLWA Great Lakes Water Authon	ity)-2024 C Engineer		ices		3809	200 CIP#
	GLWA Emplo	, ,	ct manage	ment		Contract	NA		Status A	Active		
Title (GLWA Salarie	S										
Phas	e Budget Wo	ater					Cost	Allocation	CTA			
Pha	ise Status Ac	tive					Fundi	ing Source	Revenue F	inanced C	apital	
S	Start Date							Fund	Improvem	ent & Exten	ision Fun	
	End Date						Useful Li	ife >20Yrs?	No			
	Cast		nformation		-	Tot F	ederal Loc	n Amount			\$O	
	Cost					101.1					ΨΟ	
		5	Cost Est. C		_		-	Allowance	Task Inform	nation		
			Cost Est. D	Date		ect Manag	ger					
			Cost Est. S	ource	CIP	Number						
			Cost Est. P	repared By	, Des	cription						
				ise Total Ex								
Prior	r Yr Actuals	FY19	FY20	FY21	FY22	FY23				tal		
		() ()	0	0	0	0	0	0		
	Proj	ect Total	Expenses	By FY C	ompare	d to Prio	r CIPs (A	ll figures	are in \$1	,000's)		
CIP	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total	
2018	2	.8 1,250							0	0	2,432	
2019		0 138		916	425	-	-	-		0	2,051	
2020		0 0	144	0	0	0	0	0	0	0	144	



GLWA FY 2020-2024 CIP

Energy Management: Electric Metering Improvement Program

Innovation	Project Statu	Future Planned	Example of an electr	
□ Water MP Right Sizing	-	Program	me	ter
✓ Reliability/Redundand		riogram		
□ NEWTP Repurposing				
Project Engineer/Manag	er Shaker Manns		Budget	Split
Manag	er Grant Gartrell		Class Lvl 1	Centralized Services
Managing De	pt Energy Manage	ment	Class Lvl 2	Programs
Date Original Business Co	ase Prepared 8/18/	2016	Class Lvl 3	Programs
	Added to CIP 2016		Location	Multiple Counties
Year Project				
Year Project /			Fund and Cost Center	
Project Significance Adv				electrical demands and further
Project Significance Adv opt Scope of Work This for	vanced meters for r imize load manage program will incred active demand mo	ement practices ase the number of ele	ige in real-time to reduce the ectric meters at pumping static e electricity rates. The meters	
Project Significance Adv opt Scope of Work This for	vanced meters for r imize load manage program will incred active demand mo	ement practices ase the number of ele anagement to reduce	ige in real-time to reduce the ectric meters at pumping static e electricity rates. The meters	electrical demands and further ons and treatment facilities to allow
Project Significance Adv opt Scope of Work This for ma Challenges	vanced meters for r imize load manage program will incred active demand mo nagement system f	ement practices ase the number of ele anagement to reduce for data archiving an	ige in real-time to reduce the ectric meters at pumping static e electricity rates. The meters	electrical demands and further ons and treatment facilities to allow can be tied to the existing data
Project Significance Adv opt Scope of Work This for ma Challenges Project History Pro	vanced meters for r imize load manage program will incred active demand mo nagement system f ject is in the works to	ement practices ase the number of ele anagement to reduce for data archiving an	nge in real-time to reduce the ectric meters at pumping static e electricity rates. The meters d use. nd (kW) sites - all the water tree	electrical demands and further ons and treatment facilities to allow can be tied to the existing data
Project Significance Adv opt Scope of Work This for ma Challenges Project History Pro	vanced meters for r imize load manage program will incred active demand mo nagement system f ject is in the works to	ement practices ase the number of ele anagement to reduce for data archiving an argeting high demar	nge in real-time to reduce the ectric meters at pumping static e electricity rates. The meters d use. nd (kW) sites - all the water tree	electrical demands and further ons and treatment facilities to allow can be tied to the existing data
Project Significance Adv opt Scope of Work This for ma Challenges Project History Pro Related Project Co	vanced meters for r imize load manage program will incred active demand mo nagement system f ject is in the works to	ement practices ase the number of ele anagement to reduce for data archiving an argeting high demar	nge in real-time to reduce the ectric meters at pumping static e electricity rates. The meters d use. nd (kW) sites - all the water tree	electrical demands and further ons and treatment facilities to allow can be tied to the existing data



GLWA FY 2020-2024 CIP

Energy Management: Electric Metering Improvement Program

Project Manag	ger Project	Risk Matrix Scoring	Project Manager Scor
Criteria	Score	e Comment	64.6
Condition		4	0.0
Efficiency and Innovation		5	
Financial		3	
D&M		2	
Performance (Service Level/Reliability)		5	
Public Benefit		4	
Public Health & Safety		1	
Regulatory (Environmental/Legal)		3	
Review Comm	ittee Proje	ct Risk Matrix Scoring	Review Committee Sco
Criteria	Score	Comment	0
Condition			
Efficiency and Innovation			
Financial			
0&M			
Performance (Service Level/Reliability)			
Public Benefit			
Public Health & Safety			
Regulatory (Environmental/Legal)			



GLWA FY 2020-2024 CIP

381000 CIP#

Energy Management: Electric Metering Improvement Program

Phase Design and B	uild			C	contract N	A	Stat	us Future	Planned S	tart	
Title Energy Manag	gement:	Wtr - Electric I	Metering Imp	provement F	Program						
Phase Budget Wa	ter					Cost Alloc	ation CTA				
Phase Status Futu	re Plann	ed Start		Funding Source Revenue Financed Ca							
Start Date							Fund Impro	ovement &	Extension	Fun	
End Date	End Date				Useful Life >20Yrs? No						
Cost E	Cost Estimation Information				Tot. Federal Loan Amount						
	1	Cost Est. C	lass		Prog	gram/Allow	ance Task I	nformation	l		
		Cost Est. D	ate	Project	Manager						
	Cost Est. Date Cost Est. Sour				mber						
	Cost Est. Sour				CIP Number						
		Cost Est. Pr	repared Bv	Descrip	otion						
		Cost Est. Pr	repared By	Descrip	otion						
Cost Type		Fiscal Year	Expense	e Fringe	e BenefitNo			omment			
Cost Type Design-Build	F		Expense				C 2020CIP	omment			
	F	Fiscal Year	Expense	e Fringe				omment			
Design-Build		Fiscal Year (25+	Expense \$2	e Fringe ,500 Duration	e BenefilNo			omment			
Design-Build Task		Fiscal Year (25+ Start Date	Expense \$2 End Date	e Fringe ,500 Duration	e BenefilNo			omment			
Design-Build Task Scope Developmen		Fiscal Year (25+ Start Date 7/1/2018	Expense \$2 End Date 9/30/2018	e Fringe ,500 Duration 9 81	e BenefilNo 1 7			omment			
Design-Build Task Scope Developmen Procurement		Fiscal Year (25+ Start Date 7/1/2018 9/30/2019	Expense \$2 End Date 9/30/2018 12/25/2021	e Fringe ,500 Duration 9 81 237	e BenefilNo 1 7 0			omment			
Design-Build Task Scope Developmen Procurement Project Execution		Fiscal Year (25+ Start Date 7/1/2018 9/30/2019 12/25/2021 6/21/2028	Expense \$2, End Date 9/30/2018 12/25/2021 6/21/2028 9/19/2028	e Fringe ,500 Duration 9 81 237 9	BenefilNo 1 7 0	2	2020CIP	omment			
Design-Build Task Scope Developmen Procurement Project Execution		Fiscal Year (25+ Start Date 7/1/2018 9/30/2019 12/25/2021 6/21/2028	Expense \$2 End Date 9/30/2018 12/25/2021 6/21/2028	e Fringe ,500 Duration 9 81 237 9	BenefilNo 1 7 0	2	2020CIP	omment			

GLW	Ά	F	nergy Mar		(2020-20 t: Electri		na Improv	omont Pr		381000 CIP
Phase Design an	d Build			•	ontract N		• •		lanned Star	†
		WW - Electric	Metering Imp							
Phase Budget	Nastewate	r				Cost Allo	cation CTA			
Phase Status	- - uture Plan	ned Start				Fundina S	ource Rever	nue Finance	ed Capital	
Start Date									Extension Fur	0
End Date						seful Life >2				
Ella Dale							_			
Co	st Estimatio	n Information			Tot. Fede	ral Loan Aı	mount			
	1	Cost Est. C	lass		Prog	gram/Allov	vance Task lı	nformation		
		Cost Est. D	ate	Project	Manager					
		Cost Est. So	ource	CIP Nu	mber					
		Cost Est. Pr	epared By	Descrip	otion					
Cost Typ	e	Fiscal Year	Expense	e Fringe	e BenefitNo	nPersonne	С	omment		
Design-Build		FY25+		,500			2020CIP			
Task		Start Date	End Date	Duration						
Scope Developm	nent	7/1/2018	9/30/2018	9	1					
Procurement		4/30/2019	12/25/2021	97	0					
Project Execution	ı	12/25/2021	6/21/2028	237	0					
Project Closeout		6/21/2028	9/19/2028	9	0					
		Phas	se Total Expo	enses By F	Y (All figure	es are in \$	1,000's)			
Prior Yr Actuals	5 FY19		FY21	FY22	FY23	FY24	FY25+	Total		
		0 0	0	0	0	0	2,500	2,500		

	GLWA		E	nergy M		FY 2020 ent: Ele			provem	ent Progra		000 CIP#
Phase G	hase GLWA Employees Project management					Contract NA			Status F	uture Plann	ed Start	
Title GL	WA Salaries											
Phase Budget Wastewater						Cost Allocation CTA						
Phase Status Future Planned Start					Funding Source Bond Proceeds							
Start Date					Fund Construction Bond Fund							
End Date					Useful Life >20Yrs?				No			
					1	Tot F	ederal Loc	an Amount			\$0	
	Cost Estimation Information									T -		
	5 Cost Est. Class			Program/Allowance				Task Inforn	nation			
	Cost Est. Dat			ate	Project Manager							
	Cost Est. Source			CIP	CIP Number							
	Cost Est. Prepared By			Des	Description							
			Pha	se Total Ex	penses B	v FY (All fi	aures are	in \$1,000's	s)			
Prior Yr Actuals FY19 FY20 FY21					FY22							
		0	0	()	0	0	0	0	0		
	Proie	ct Total I		By FY C	ompare	d to Prior	CIPs (A	ll fiaures	are in \$1	.000's)		
CIP	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total	
2018		1,000	1,000	1,000	1,000	1,000	1,000		0	0	6,000	
2019	C)			120	120	510	878	4,372	0	6,000	
2020	C	0		0	0	0	0	0	0	5,000	5,000	