#### UTILITIES

### CAPITAL IMPROVEMENTS PROGRAM FY 2019 - FY 2023

(All figures in thousands of dollars)

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UPDATED 4/18/18 Mtg with Tom and Kristin

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PROJECT IDENTIFICATION	TOTAL PROJECT COST	Prior Years' Funding	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
UTILITY OPERATIONS TRANSFER FUNDING:							
Water System Utility Relocation Misc. Projects Watermain Renewal/Replacement Projects Wastewater Gravity Sewer Replacement Projects Wastewater Lift Station Renewal/Replacement Projects Wastewater Inflow Abatement - Rehabilitation Structures	20 yrly 200 yrly 250 yrly 100 yrly 200 yrly	100 1,000 1,150 700 1,000	20 200 250 100 200	20 200 250 100 200	20 200 250 100 200	20 200 150 200 200	20 200 150 200 200
Wastewater Force Main Renewal/Replacement Projects	350 yrly	1,750	350	350	350	350	350
UTILITY OPERATIONS TRANSFER FUNDING TOTAL			1,120	1,120	1120	1120	1120
OTHER SOURCES:							
Administrataion Projects GIS Atlas (Mapping) Advanced Metering Infrastructure (AMI)	250 2,500	250 2,500					
Wastewater Projects Wastewater Treatment Plant Tank Coating Wastewater Treatment Plant Permit Renewal (FDEP) Wastewater Deep Injection Well Permit Renewal Wastewater Deep Injection Well Mechanical Integrity Test (MIT) Wastewater Treatment Plant DIW Pump Replacement Wastewater Treatment Plant Expansion Wastewater - The Loop Forcemain Extension	250 75 75 120 40 2,300 3,300	1,800	75 75 40 100 1,500	120	250	1000	1000
Water Projects  Water Treatment Plant Phase 1 Ground Water (RO) Water Treatment Plant RO Well Field Construction Water Treatment Plant RO Deep Injection Well Construction Water Treatment Plant Construction (CMR) WTP - Bal Harbor Pressure Study WTP - Hendrickson Dam Inspection Program & Maintenance Water Hydro Biological Monitoring Plan (HBMP) WTP - Elevated Tank Coating WTP - SCU Tank Coating	3,812 2,607 4,325 29,634 150 25 bi-yrly 75 150 200	3,812 2,607 4,325 29,634 40	25 150	150 75 200	25		25
OTHER SOURCES TOTAL			1,965	645	375	1,000	1,025
UTILITY FUND TOTAL			3,085	1,765	1,495	2,120	2,145

Project Title:	JT Relocation Pr	oject <sup>-</sup>	Γο Be Deter	mined					
Acct #: 411-	-8423-533-63-09				Projec	t Code: TBI	D		
Project Priority: Infrastructure Sustainability - Maintain and enhance t City's capital assets and quality municipal services.					efficient	service deliv nagement pr	er an	City's infrastruct d quality aestheti es and systems ir	c appeal. Apply
Previous Years	FY 2019	F	FY 2020 FY 2021 FY 2022					FY 2023	Total Cost
\$0	\$ 20,000	\$	20,000	\$ 20	,000	\$ 20,000	)	\$ 20,000	\$ 100,000
Front Ft S			Prelimi Survey	ct: nary Est in Progr	ess		partment: Utilities Adm ntact Person: Tom Jackso		
Right of Way Completed							Pro	ject Description	n:
Sq. Ft.	Particular Sq. Ft.  Sq. Ft.  Equipment N/A  Sq. Ft.  Particular Publicular No Lange Sq. Ft.  Equipment N/A  Gift  7. Effect of Operation Cost:  7. Effect of Operation Not Sq. Particular Not Sq. Publicular Not Sq. Publicula			Not Yet Partly A Publicly No Lan Gift f Opera	Acquired Acquired Acquired Acquired All Divided Acquired				date non- ects and/or y FDOT, Public Works
Engineering Land Site Improvement Construction	ing \$ 20,000 \$ Equipment  \$ Other Costs: Relocation of existing lin No additional operating of				sting lines.	Proi	iect Justification:		
Landscaping	\$	_   {		0 Total	I		FDO	T programs road	dway
Equipment 4. Sources of	\$ Financing:	-	3. Effect o	n incom	e (+ or -	-):	also	ovements in a 5 performs non-pr ects. Charlotte 0	rogrammed
Local 1st Yr. UF 2nd Yr. UF 3rd Yr. UF 4th Yr. UF 5th Yr. UF	State Feder		Loss of Taxes Gain From Sale of Previous Facility New Revenues  X No Effect Total				Work perfo on au non- ident proce	ks and City Publorm non-program n as needed bas programmed pro tified funds from essed and a pro reated to identify	ic Works also named projects sis. Once a bject is TBD will be ject code will

Project Title: Water	Main Renewa	l/Replacement	Project	Го Ве De	etermined					
Acct #: 411-8423	-533-63-21			Projec	t Code: TBI	)	-			
Project Priority: Infrastructure Sustainability - Maintain and enhance the City's capital assets and quality municipal services.  Goal: Maintain and enhance efficient service delibest management p maintenance.							quality aestheti	ic appeal. Apply		
Previous Years F							FY 2023	Total Cost		
\$0 \$2	200,000	\$ 200,000	\$ 200	,000	\$ 200,000	0	\$ 200,000	\$ 1,000,000		
1. Land Cost:  Acres Front Ft Sq Ft RIGHT OF W  2. Building Constr Sq. Ft Sq. Ft Sq. Ft Sq. Ft.		tion Cost:  6. Status of Land Acquisition:  Not Yet Acquired Partly Acquired Publicly Owned					Department:     Utilities Administration  Contact Person:     Tom Jackson  Project Description:  FY 2019 - 2023  TBD Funds provide renewal & replacement of existing water mains on an as needed basis. The end of life to water mains cannot be			
N/A			No Land Gift	I INVOIVE	ea	Repla		its are based on and Public Work		
In Previous CIP \$ In Present CIP \$ Engineering \$ Land \$ Site \$ Improvement \$	7. Effect of Operation           3. Estimated Costs:         7. Effect of Operation           3. Person         \$         Person           4. Person         \$         Contract           5. Engineering         \$         200,000         \$         Equipment           4. Person         \$         Contract         \$         Contract			onal Ser		project detern meet i unuse Major progra	ets. Annual promined by operations of the control o	jects are ations staff to eds. Funds I at end of year. ojects are ually.		
Construction \$ 800,000   Landscaping \$ \$ 0 Total						TBD	ct Justification projects may diate need to	result from		
4. Sources of Finar  Local Stat  1st Yr. UF  2nd Yr. UF  3rd Yr. UF  4th Yr. UF  5th Yr. UF	•	8. Effect o					luce costs re ble repairs. ( ct is identified will be create	Once a d a project ed and funds from TBD to		

Project Title:	Gravity Sewer Re	plac	ement Projec	t To Be	Determin	ied			
Acct #: 41-8	3536-535-6328				Projec	t Code: TBI	D		
	<b>y:</b> stainability - Main ets and quality m				efficient	service deliv nagement pr	er and	City's infrastructi I quality aestheti s and systems in	c appeal. Apply
Previous Years	FY 2019		FY 2020	FY 2	2021	FY 2022	2	FY 2023	Total Cost
\$ 0	\$ 250,000	\$	250,000	\$ 250	0,000	\$ 150,00	0	\$ 150,000	\$ 1,050,000
2. Building C Sq. Ft. Equipm 3. Estimated In Previous CIP In Present CIP Engineering Land Site	OF WAY  Construction Co  nent  N/A  Costs:  \$	0 0	5. Status (	Prelimin Survey Plans in Complet of Land Not Yet Partly A Publicly No Lan Gift of Opera Pers Cont	in Program Preparented  Acquired Acquired Ownedd Involved Onal Ser	ress ration  tion: ed  ed  st (+ or -): rvices for Services	Proj FY 2 Fund gravi asph sewe gravi proje sewe work Publi repay volur proje	er replacement ity lines are car	replace and restore associated with Old clay pipe adidate ment with PVC relocation nated with facing and an increase in Vorks paving
Improvement Construction	\$ 840,00			0				ect Justification:	
Landscaping Equipment	\$ \$			0 Total			gravit	ewal and replace ty sewer is perfe tain system cap	ormed to
4. Sources of  Local  1st Yr. UF  2nd Yr. UF  3rd Yr. UF  4th Yr. UF  5th Yr. UF	State Feder	al - - -	8. Effect on income (+ or -):  Loss of Taxes Gain From Sale of Previous Facility New Revenues  X No Effect Total			le of	reduction common	cing storm wate pipe gravity sev	r infiltration. ver lines e to storm water orks projects to street se a project is ode will be om TBD will be

Project Title: Lift Station Renewal/	Replacement	Project To Be De	etermined				
Acct #: 411-8536-535-63-29		Projec	t Code: TBI	)			
Project Priority: Infrastructure Sustainability - Maintain City's capital assets and quality munic	e the City's infrastructer and quality aesthete actices and systems i	tic appeal. Apply					
Previous Years FY 2019	FY 2020	FY 2022	FY 2023	Total Cost			
\$ 0 \$ 100,000	\$ 100,000	\$ 100,000	\$ 200,000	\$ 200,000	\$ 700,000		
1. Land Cost:  Acres Front Ft Sq Ft RIGHT OF WAY	5. Status	of Project: Preliminary Est Survey in Progr Plans in Prepar Completed	ress	Department:			
2. Building Construction Cost:  Sq. Ft.  Equipment N/A  3. Estimated Costs:	Building Construction Cost:  Sq. Ft.  Equipment  N/A  Sq. Ft.  Partly A  X Publicly No Land Gift			Annual Project Funds will design and Construct wastewater lift station rehabilitation or improvements on an as need basis to maintain level of			
In Previous CIP         \$         0           In Present CIP         \$         0           Engineering         \$         140,000           Land         \$	P \$0						
Construction \$ 560,000 Landscaping \$ \$ \$ 0 Total Equipment				Project Justification Provide improved waste capacity. Projects are ic	water transmission lentified by		
4. Sources of Financing:  Local State Federal  1st Yr. UF  2nd Yr. UF  3rd Yr. UF  4th Yr. UF  5th Yr. UF	8. Effect of	Loss of Taxes Gain From Sal Previous Facil New Revenue No Effect Total	le of lity	wastewater master plan or other studies. Projects may result from immediate need to maintain level of service to customer or reduce cost responding to multiple repair. They City operates 118 Lift Stations. Wastewater Collection staff perform renew and/or replacement of equipment on an as needed basis. Projects are scheduled to match available funding. Renewal/Replacement is typically for components rather then complete rehabilitation/replacement of an individual lift station.			

Project Title: Inflow Abatement Re	hab Structure	s Project	To Be D	etermined			
Acct #: 411-8536-535-63-56			Projec	t Code: TB	D		
Project Priority: Infrastructure Sustainability - Maintair City's capital assets and quality munic		e k	efficient	service deliv nagement pr	er and	City's infrastruct quality aestheti s and systems in	ic appeal. Apply
Previous Years FY 2019	FY 2020 FY 2021 FY 2022			2	FY 2023	Total Cost	
\$ 0 \$ 200,000 \$ 200,000 \$ 200,0				\$ 200,00	0	\$ 200,000	\$ 1,000,000
1. Land Cost:  Acres Front Ft Sq Ft RIGHT OF WAY	Acres				Con	artment: Utilities Adm tact Person: Tom Jackso	n .
2. Building Construction Cost:  Sq. Ft.  Equipment N/A	Not Yet A Partly Ad Publicly	Acquisition:  et Acquired Acquired Cly Owned Ind Involved  FY 2019 - 2023 Annual Project for rehabilitative replacement includes interior coating of manholes and working of manholes and working of manholes inflow protectors, smoke teasure grouting and lining sewer line.					
3. Estimated Costs:         In Previous CIP       \$ 0         In Present CIP       \$ 0         Engineering       \$ 200,000         Land       \$ 5         Site       \$ 5         Improvement       \$ 0	7. Effect o \$ \$ \$ \$ \$ \$ \$	\$ Contractual for Services \$ Equipment			of the City's wastewater collection system elements throughout the City's service area. Project implements strategies for reducing storm water infiltration.		
Construction \$ 800,000 Landscaping \$ \$ 0 Total Equipment					Inspe renew	ect Justification ction, replacen al of the City's	nent and collection
4. Sources of Financing:	8. Effect o	n income	+ (+ or -	·):		m will reduce in r, reduce collec	
Local State Federal Los  1st Yr. UF Ga  2nd Yr. UF Pre			Taxes rom Sa us Facil evenue	le of ity s	defects, maintain system capacity and reduce wet weather overflows. Rehabilitation work extends useful life which reduces replacement needs. Once a project is identified a project code will be created and funds will be transferred.		

Project Title: I	Force Main Rene	wal/Replaceme	ent Project	To Be De	etermined				
Acct #: 411	-8536-535-63-67			Projec	t Code: TBI	)			
Project Priority: Infrastructure Sustainability - Maintain and enhance the City's capital assets and quality municipal services.  Goal: Maintain and enhance efficient service delive best management pramaintenance.							quality aestheti	c appeal. Apply	
Previous Years	FY 2019	FY 2020	FY 2	2021	FY 2022	2	FY 2023	Total Cost	
\$ 0	\$ 350,000	\$ 350,000	\$ 350	0,000	\$ 350,000	0	\$ 350,000	\$ 1,750,000	
	Ft	x	Survey in Progress Plans in Preparation Completed				Department:		
Sq. Ft.  Sq. Ft.  Partly Ad  X Publicly			. Ito meet immediate needs.				erations staff e needs. ce existing		
3. Estimated (In Previous CIP) In Present CIP Engineering Land Site Improvement Construction Landscaping	Present CIP         \$         Cont           gineering         \$         350,000         \$         Equiport           and         \$         Othe         No add           provement         \$         1,400,000         *			conal Ser tractual f pment er Costs:		Project Justification: Rehabilitation and improvement			
Equipment  4. Sources of  Local  1st Yr. UF  2nd Yr. UF  3rd Yr. UF  4th Yr. UF  5th Yr. UF	\$State Feder		Gain Previ	of Taxes From Sa ous Facil Revenue	le of lity s	as a land of syste capital break certain identices	isting facilities result of end or changes to the m for growth cal projects. For cannot be project of ed and funds of ferred.	of service life to utilities or other to main oredicted with to roject is code will be	

## Capital Improvements Program Carryover from FY 2018

Project Title:	GIS Atlas (Utility	Mapping)				
Acct #: 411	-0000-536-31-00		Projec	ct Code: UT	AT11	<u> </u>
	<b>y:</b> stainability - Mair ets and quality m	ce the City's infrastruction and quality aesthed technology in application.	etic appeal.			
Previous Years	FY 2019	FY 2020	FY 2021	FY 2022	2 FY 2023	Total Cost
\$ 250,000	\$ 0	\$ 0	\$ 0	\$0	\$ 0	\$ 250,000
2. Building C Sq. Ft. Equipr	FtN/A Construction Co	x	of Project: Preliminary Est Survey in Progr Plans in Prepar Completed of Land Acquisi Not Yet Acquired Partly Acquired Publicly Owned No Land Involve Gift of Operating Cost Contractual f Equipment Other Costs: TBD	ress ration ition: ed led st (+ or -): rvices for Services	Department:     Utilities Ad Contact Person:     Tom Jacks Project Description FY 2018-FY 2019 The project will develor apping system of wastewater facilities. will provide a record of support the operations System.  Prepare Design Report Mapping of utility facily FUTURE YEARS Complete GIS mapping Atlas, develop asset a management application new position to support functions	on:  op a GIS based ater and The GIS system of utility facilities to s of the Utility  ort and begin GIS ities  ing, develop Utility and financial ions through with
Improvement Construction Landscaping Equipment	\$ \$ \$		0 Total Annuall		Project Justification A GIS data base and maintain reco	will compile ords of utility
4. Sources of  Local  1st Yr 2nd Yr 3rd Yr 4th Yr 5th Yr	State Feder		Loss of Taxes Gain From Sa Previous Facil New Revenue  No Effect Total	le of	The GIS data bas multiple missions mapping, operation management, ass financial manage	se will support , Utility onal records set and

# Capital Improvements Program Carryover from FY 2018

Project Title:	Advanced Meterin	g Infrastructure	(AMI)						
Acct #: 411	-8423-533-6403	-		Projec	t Code: AM	IIMT	R		
	y: ustainability - Maini sets and quality mu			Goal:  Maintain and enhance the City's infrastructure to ensure					
		micipal scrvices	·-	sufficient and effective service delivery and quality aesthetic appeal. Maximize use of new technology in applicable areas.					
Previous Years	FY 2019	FY 2020	FY 2020 FY 2021 FY 2022			022 FY 2023		Total Cost	
\$ 2,500,000	\$ 0	\$ 0	\$	0	\$ 0		\$ 0	\$ 0	
1. Land Cost:		5. StatusX	5. Status of Project: Preliminary Estimate Survey in Progress				partment: Utilities Adn ntact Person: Tom Jackso	on	
Completed				ted Project Description:					
Equipment Public			Not Yet Partly A Publicly	Acquisition:  Acquired Acquire monthly on-site meter Acquire monthly on-site meter Acquire monthly on-site meter Acquired Acquire					
	N/A	7 500	Gift			Sele	ect vendor, award	contract, begin	
3. Estimated of In Previous CIP In Present CIP Engineering Land Site Improvement		\$	\$ Contractual for Serv \$ Equipment			program. Reserve may be needed all meters are new and may requir			
Construction	\$	-	_	_	out needs.	Pro	ject Justification:		
Landscaping Equipment	\$ \$ 2,500,000	-   -	O Total				ate water meters ollect daily or mor		
4. Sources of  Local  1st Yr. UF  2nd Yr. 3rd Yr. 4th Yr. 5th Yr	Financing: State Federa	8. Effect of	Loss of Gain F	of Taxes From Salus Facil Revenue	e of	to collect daily or monthly water use data and remotely transmit data to a collector or to a central office computer. System will reduce labor of reading water meters with monthly on-site read cycles.			

<sup>\*</sup> FUNDING SOURCES (SEE PAGE 8.05)

							_			
Project Title: \	Wastewater Treat	tmen	t Plant Tank	Coating						
Acct #:			-		Projec	t Code: WV	VTC2	1	·	
Project Priority: Infrastructure Sustainability - Maintain and enhance the City's capital assets and quality municipal services.  Goal: Apply best managem infrastructure mainte							ems in			
Previous Years	FY 2019   FY 2020   EV 2021   EV 2022					2 FY 2023		Total Cost		
\$0	\$ 0		\$ 0	\$ 25	0,000	\$ 0		\$ 0	\$ 250,000	
2. Building C Sq. Ft. Equipn	Ft  N/A  onstruction Co  nent  N/A  Costs:	0 0	5. Status (	Prelimi Survey Plans i Comple of Land Not Ye Partly A Publick No Lan Gift of Opera Con Equi Othe	nary Esti in Progr n Prepareted Acquisi t Acquired y Owned d Involve ting Cos conal Ser tractual for	ess ation tion: ed ed	Department:     Utilities Administration Contact Person:     Tom Jackson Project Description: FY 2019 - 2023 replace interior coating system in our wastewater equalization tank. There are two tanks at the MPF and two tanks at the BPF. Coating replacement is on a rotational schedule based on need every 2-5 years.			
Construction \$ \$ 0 Tota  Equipment \$ \$ 8. Effect on incom  Local State Federal Loss of a Gain			<u>0</u> Tota	I		Project Justification: Interior tank coating system has a warranty of 2-5 years.				
			has a warranty of Annual inspection performed, when s of Taxes n From Sale of vious Facility v Revenues  Effect  has a warranty of Annual inspection performed, when s failure is detected the warranty perior system will be rep Coating system is protect concrete s wastewater.				a coating outside of d, the coating laced. needed to			

Project Title:	Wastewater Treat	ment Plant Pern	nit Renewal (FDE	 P)				
Acct #: 411-	-8711-535-63-31		Projec	t Code: W	VPERM			
	mmunication & Co	size transpare s.	ency in City operation	s, reporting and				
Previous Years	FY 2019	FY 2022	P FY 2023	Total Cost				
\$ 0	\$ 75,000	\$ 0	\$0	\$ 0	\$ 0	\$ 75,000		
	Ft	x	of Project: Preliminary Est Survey in Progr Plans in Prepar Completed	ess ation	Department:			
Sq. Ft.	Sq. Ft.  Sq. Ft.  Equipment N/A  6. Status of Land Acquisition:  Not Yet Acquired Partly Acquired Y Publicly Owned No Land Involved Gift				FY 2019 The WWTP is required to maintain an operating permit issued by the Florida Department of Environmental Protection. Permit compliance			
3. Estimated (In Previous CIP) In Present CIP Engineering Land Site Improvement	\$	0 \$	Personal Ser Contractual for Equipment Other Costs: Permit renewal or additional operations	vices or Services	requires renewal at 5 year intervals. Funds are needed for engineering services to prepare permit application materials prior to September 2019.			
Construction Landscaping Equipment	onstruction \$   \$ 0 Total				Project Justification Florida Departme Regulation will re	nt of		
4. Sources of Local  1st Yr. UF  2nd Yr. 3rd Yr. 4th Yr. 5th Yr.	Financing: State Federa		n income (+ or - Loss of Taxes Gain From Sal Previous Facil New Revenue No Effect Total	of the WWTP ope in 2019. Current p September 2014 2019.	erating permit permit is valid			

Project Title:	WWTP Deep Inje	ction Well Permit	Renewal (FDEP)				
Acct #: 411	-8711-535-63-31		Projec	t Code: DW	/PERM	1.00	
	mmunication & C ships, communica			,	ency in City operation	ons, reporting and	
Previous Years	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total Cost	
\$ 0	\$ 75,000	\$0	\$ 0	\$0	\$0	\$ 75,000	
2. Building C Sq. Ft. Equipr	Ft  N/A  Construction Construct	x	of Project:  Preliminary Esti Survey in Progr Plans in Prepar Completed  of Land Acquisi Not Yet Acquired Partly Acquired Publicly Owned No Land Involve Gift  of Operating Cos Personal Ser Contractual f Equipment Other Costs: Permit renewal o additional operat	ess ation  tion: ed  et (+ or -): vices or Services	Contact Person Tom Jack Project Descrip FY 2019 The WWTP effl deep well is reg Underground In (UIC) permit. F	tion:  uent disposal julated by an jection Control ermit uires renewal at	
Construction	\$	_			Project Justificati	on:	
Landscaping Equipment	\$ \$	\$	0 Total		Florida Departn Regulation will	nent of require renewal	
4. Sources of  Local  1st Yr. UF  2nd Yr  3rd Yr  4th Yr  5th Yr	State Federa		Loss of Taxes Gain From Sa Previous Facil New Revenue No Effect Total	le of ity	Regulation will require renewal of the UIC permit by 2019.		

Project Title:	WWTP Deep Inje	ction	n Well Mecha	nical Integrity Tes	sting (MIT)			
Acct #: 411	-8711-535-63-31			Projec	t Code: DW	MIT		
	mmunication & C ships, communica					ency i	n City operations	, reporting and
Previous Years	FY 2019		FY 2020 FY 2021 FY 20			2	FY 2023	Total Cost
\$ 0	\$ 0	,	\$ 120,000	\$ 0	\$ 0		\$ 0	\$ 120,000
	Ft		5. Status	Preliminary Esti Survey in Progr Plans in Prepar Completed	ess ation	Cor	Dartment: Utilities Admintact Person: Tom Jackso Dject Descriptio	n
2. Building Construction Cost: 6.  Sq. Ft.  Equipment  N/A			6. Status of Land Acquisition:  Not Yet Acquired Partly Acquired X Publicly Owned No Land Involved Gift			The WWTP effluent disposal well is regulated by an Underground Injection Control (UIC) permit. Permit compliance requires  Mechanical Integrity Testing		
3. Estimated Costs:         In Previous CIP \$ 0         In Present CIP \$ 120,000         Engineering \$ 120,000         Land \$ 5         Site \$ 1         Improvement \$ 1			7. Effect of Operating Cost (+ or -):  \$ Personal Services \$ Contractual for Services \$ Equipment \$ Other Costs: Required testing for permit renewal. No additional operating cost.			(MI <sup>-</sup> Proj	F) at 5 year int ect will perforr uired period.	ervals.
Construction Landscaping Equipment	\$ \$	_	\$	0 Total			ject Justification is required by	
4. Sources of  Local  1st Yr.  2nd Yr.  3rd Yr.  4th Yr.  5th Yr.	Financing: State Feder	al - -	8. Effect o	Loss of Taxes Gain From Sa Previous Facil New Revenue  No Effect Total	le of ity			,

Project Title:	WWTP Deep Inje	ction Well Pum	o Replacement					
Acct #: 411	-8711-535-63-31		Proje	ct Code: DW	/PUMP			
	<b>y:</b> ıstainability - Mair sets and quality m							
Previous Years	FY 2019	FY 2020	FY 2021	FY 2022	PY 2023	Total Cost		
\$ 0	\$ 40,000	\$ 0	\$ 0	\$0	\$ 0	\$ 80,000		
2. Building C Sq. Ft. Equipm  3. Estimated In Previous CIP In Present CIP Engineering Land Site	t: 5. Status of Project:  x Preliminary Estiment Survey in Progress Plans in Preparate Completed  Construction Cost: 6. Status of Land Acquisition  Not Yet Acquired Partly Acquired Partly Acquired X Publicly Owned No Land Involved No Land Involved Gift  Costs: 7. Effect of Operating Cost			ress ration  ition: ed d ed st (+ or -): rvices for Services	Department: Utilities Adri Contact Person: Tom Jackso Project Description FY 2019 Change out pump FY 2017 and FY 2019 is the final previous cheduled in previous contents.	on on: o 3 2018 each pump. FY		
Equipment         \$ 40,000           4. Sources of Financing:         8. Effect on inc           Local State Federal         Los           1st Yr.         UF         Ga           2 <sup>nd</sup> Yr.         Presentation			on income (+ or Loss of Taxes Gain From Sa Previous Fac	s ale of lity	Project Justification: The effluent pump station was constructed in 2001 with two duty pumps and one jockey pump. The City added high level disinfection to the effluent process in 2015. The pump materials are not designed to handle the chlorine added by high level disinfection. Three new pumps			
5 <sup>th</sup> Yr		\$X	No Effect Total		designed for chemi are recommended.			

Project Title:	WWTP EXPANSI	ON					<u></u>	
Acct #: 411	-8711-535-63-31		Proje	ct Code: W	WPE	(P		
	<b>y:</b> stainability - Mair ets and quality m		. efficier appea	in and enhand nt and effective	e ser mana	e City's infrastruct vice delivery and o gement practices e.	quality aesthetic	
Previous Years	FY 2019	FY 2020	FY 2021	FY 2022	2	FY 2023	Total Cost	
\$ 200,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 1,000,0	00	\$ 1,000,000	\$ 2,500,000	
1. Land Cost: Acres Front Sq Ft		5. Status	of Project: Preliminary Es Survey in Pros Plans in Prepa Completed	gress	Co	partment:     Utilities Adm ntact Person:     Tom Jackso	on	
Sq. Ft.		st: 6. Status	of Land Acquis  Not Yet Acquis  Partly Acquire  Publicly Owne  No Land Involution	red d d	FY 2018-2019 The DEP Rule requires the City to monitor flow rates of WWTP treatment and if flow rates reach 75% of the plant design flow capacity, a WWTP Expansion design report is required. Flow rates indicate the 75 % condition is			
3. Estimated of In Previous CIP In Present CIP Engineering Land Site Improvement	\$ \$ \$ \$	0 0 0 0 \$ \$ \$ \$	\$ Contractual for Services \$ Equipment			expected to occur within 5 years.  Design report to identify future alternatives of WWTP expansion i		
Construction Landscaping Equipment	\$	00 \$	0 Total		Ар	ject Justification laned approacl acity and expa	h for WWTP	
4. Sources of  Local  1st Yr. UF  2nd Yr  3rd Yr  4th Yr  5th Yr	Financing: State Feder	Loss of Taxe Gain From S Previous Fac New Revenu  No Effect Total	s ale of sility	capacity and expansion is required by DEP rule when the capacity of the WWTP reaches 75% of the permitted capacity.		ule when the VTP reaches		

Project Title:	The Loop Force N	<i>l</i> lain	Extension					**	
Acct #: 411	-8711-535-63-67				Projec	t Code: LO	OP21		
Project Priority: Infrastructure Sustainability - Maintain and enhance the City's capital assets and quality municipal services.  Goal: Maintain and enhance the efficient and effection appeal. Maximize areas.								vice delivery and	quality aesthetic
Previous Years	FY 2019		FY 2020	FY 20	021	FY 2022	2	FY 2023 Total C	
\$ 1,800,000	\$ 1,500,000		\$0	\$ 0	)	\$ 0		\$ 0	\$ 3,300,000
Acres Front Sq Ft  2. Building C Sq. Ft Equipr	Front Ft				ary Estin Programmed Acquire Acquired Counced I Involve	ess ation  tion: ed  et (+ or -):	Proceedings of the second the sec	Project will constructed main on Jones Layeen the Seminole or Rd. This pipelin 2006 Water and Water Plan. The force ovide increased of the water transmission outh half of the second all wastewater upon one for Street. Enginee	on:  Tuct a new 14"  toop Road  Gulf RR and  ie is identified in  Jastewater  ie main is needed  apacity for  ion originating in  ervice area.  ier west of I-75 is  14" force main in  ring evaluation  ect has indicated  if Station 60 with
Construction	\$ 3,000,00	00		_				ject Justification	
Landscaping Equipment	\$ \$	_	\$	0 Total			futu		transmission
4. Sources of  Local  1st Yr. UIF  2nd Yr  3rd Yr  4th Yr  5th Yr	uipment \$ 8. Effect on inco  Local State Federal Yr. UIF Gair  Yr Prev Yr New Yr New				f Taxes rom Sa us Facil evenue	le of ity	future wastewater transmission capacity requirements, and to provide improved reliability of the wastewater transmission system by providing a second pathway to the WWTP.		reliability of ansmission ng a second

Project Title:	Phase 1 Ground V	Vater (RO)					
Acct #: 411	-8422-533-65-02		Proje	ct Code: PH	1GW		
	y: stainability - Maint ets and quality mu						
Previous Years	FY 2019	FY 2022	2	FY 2023	Total Cost		
\$ 3,812,000	\$0	\$0	\$0	\$ 0		\$ 0	\$ 3,812,000
2. Building C Sq. Ft. Equipr	Ft  med Propert  construction Cos  ment  N/A  Costs:	7. Effect of \$	Equipment	press pration  sition: ed d d ved  est (+ or -): ervices for Services	Projec This project RO WTF cost estite 40,378,0 CMAR complete angineer construction FY 2015 RO plant	Utilities Admoter Person: Tom Jackson to Description ject will constitute of Improvement as been as a second based on the second watering for well from the RO ring inspection of the RO result o	ruct a 4 MGD nt. The project en updated 90% plans & r consists: of all elds, deep plant: and ns for D plant.
Construction	\$	_	0			Justification	
Landscaping Equipment	\$ \$	\$	0 Total		Plan, de improve	sign, & cons ment project	truct WTP s to meet
4. Sources of  Local  1st Yr  2nd Yr  3rd Yr  4th Yr  5th Yr	Financing:		Loss of Taxe Gain From Sa Previous Fac New Revenu  No Effect Total	s ale of ility	forecast 2009 Wa will need through Phase I Phase II	as defined in ater Supply M If to be comp permitting ar & II - Permitt I -Permitting	Master Plan. RO leted in phases

During Titl	DO 144 HE: 110							
Project Title:	RO - Well Field Co	nstruction				1. December 1		
Acct #: 411	-8422-533-65-02		Projec	ct Code: RO	-WEL			
	<b>y:</b> istainability - Maint ets and quality mu		efficient Apply b	t service deliv	ce the City's infrastr very and quality aes nent practices and s nance.	thetic appeal.		
Previous Years	FY 2019	FY 2020	FY 2021	FY 2022	2 FY 2023	Total Cost		
\$ 2,607,000	\$ 0	\$ 0	\$ 0	\$ 0	\$0	\$ 2,607,000		
2. Building C Sq. Ft Equipm	Ft  ned Propert  construction Cos  ment  N/A	t: 6. Status	of Project: Preliminary Est Survey in Programmer Preparation Completed of Land Acquired Not Yet Acquired Partly Acquired Publicly Owned No Land Involve Gift	ress ration ition: ed d	Contact Person Tom Jack Project Descrip This project will MGD RO WTP The project cos been updated to based on 90% cost estimate.	kson  tion: I construct a 4 Improvement. It estimate has o \$40,378,000 plans & CMAR		
In Previous CIP In Present CIP Engineering Land Site Improvement	Previous CIP \$ 0 \$ Per Present CIP \$ 0 \$ Cor Sineering \$ \$ Equ and \$ \$ 128,000 Oth Net Cor all 4			rvices for Services				
Construction	\$ 2,607,00	-	0		Project Justificati			
Landscaping \$ \$ Total					Plan, design, & co improvement proje	ects to meet		
4. Sources of  Local  1st Yr 2nd Yr 3rd Yr 4th Yr 5th Yr.	Financing: State Federa		Loss of Taxes Gain From Sa Previous Faci New Revenue	sale of	regulatory requirements & water use forecast as defined in the March 2009 Water Supply Master Plan. RO will need to be completed in phases through permitting and testing of Phase I & II - Permitting & Well fields Phase III -Permitting & Injection Well Phase IV - Permitting & RO facility			
5 fl.		\$	No Effect Total					

Project Title:	RO - Deep Injection	on Well							
Acct #: 411	-8422-533-65-02			Projec	t Code: RO	-DIW	· · · · · ·		
Project Priorit Infrastructure Su City's capital ass	y: istainability - Main ets and quality mo	tain and enhan unicipal service	s.	efficient	ery ar nent pr	City's infrastruct ad quality aesthe actices and sys	etic appeal.		
Previous Years	FY 2019	FY 2020	FY 2020 FY 2		FY 2022	2 FY 2023		Total Cost	
\$ 4,325,000	\$0	\$ 0	\$	0	\$ 0		\$ 0	\$ 4,325,000	
	Ftned Prope <mark>rt</mark>	X	Preliming Survey Plans in Comple of Land A Not Yet Partly A Publicly	nary Esti in Progr Prepar ted Acquisi Acquired Cquired Owned	ess ation tion:	Proj This MGD proje upda 90%	ct cost estima ted to \$40,378 plans & CMAF	on: nstruct a 4 provement. The te has been 3,000 based on R cost	
	N/A		No Land Involved Gift			estimate. This project is the concentrate disposal system of			
3. Estimated of In Previous CIP In Present CIP Engineering Land Site Improvement Construction Landscaping Equipment	0 8 	Contractual for Services Equipment Other Costs: net operating cost increase for all 4 RO projects			Submit DEP Application for DIW FY 2016 - FY 2018: Bid & Construct Concentrate disposal system of RO project  Project Justification: Plan, design, & construct WTP improvement projects to meet				
4. Sources of  Local  1st Yr 2nd Yr 3rd Yr 4th Yr 5th Yr	Financing: State Federa	on income (+ or -):  Loss of Taxes  Gain From Sale of  Previous Facility  New Revenues				improvement projects to meet regulatory requirements & water use forecast as defined in the March 2009 Water Supply Master Plan. RO will need to be completed in phases through permitting and testing of Phase I & II - Permitting & Well fields Phase III -Permitting & Injection Well Phase IV - Permitting & RO facility			

Project Title:	Phase 1 Ground W	ater (RO) Reve	erse Osmosis	Plant - CON	STRUCT	TON		
Acct #: 411	-8422-533-65-04		Pı	oject Code:	RO-CM	<b>I</b> R		
Project Priorit Infrastructure Su City's capital ass	<b>y:</b> stainability - Mainta sets and quality mur	e the Ma effi Ap	Goal:  Maintain and enhance the City's infrastructure to ensure efficient service delivery and quality aesthetic appeal.  Apply best management practices and systems in infrastructure maintenance.					
Previous Years	FY 2019	FY:	2022	22 FY 2023 Total				
\$ 29,634,000	\$ 0	\$ 0	\$ 0	\$	0	\$0	\$ 29,634,000	
2. Building C Sq. Ft. Equipr	Ftned Propert	X	of Project: Preliminary Survey in F Plans in Pr Completed of Land Acc Not Yet Ac Partly Acqu Publicly Ov No Land In	Progress eparation quisition: quired wned	Pr Th MC Th be	epartment:  Utilities Adnormact Person:  Tom Jackson Description is project will completed by the project cost of the project cost of the project of the project cost	on: onstruct a 4 nprovement. estimate has	
3. Estimated		7. Effect of	Gift of Operating	Cost (+ or -	): FY	2016 - FY 201	9	
In Previous CIP In Present CIP Engineering Land Site Improvement	\$0 \$ \$ \$	\$	Persona Contract Equipme Other Co	I Services ual for Servicent osts: ng cost increase	Va cor	Value engineer, bid and construct R.O. Facility		
Construction	\$ 29,634,000		•			oject Justification		
Landscaping Equipment	Landscaping \$ \$0 Tot Equipment \$				imp	n, design, & const rovement projects	s to meet	
4. Sources of  Local  1st Yr 2nd Yr 3rd Yr 4th Yr 5th Yr	Financing:  State Federal  ———————————————————————————————————	n income (+ Loss of Ta Gain Fron Previous I New Reve No Effect Total	axes n Sale of Facility	fore 200 will thro Pha	regulatory requirements & water use forecast as defined in the March 2009 Water Supply Master Plan. RO will need to be completed in phases through permitting and testing of Phase I & II - Permitting & Well fields Phase III -Permitting & RO facility			

Project Title:	WTP Bal Harbor	Pres	sure Study						
Acct #: 411	-8422-533-65-02				Projec	t Code: B	HSTE	ΟY	
Project Priority: Infrastructure Sustainability - Maintain and enhance the City's capital assets and quality municipal services.  Goal: Maintain and enhance the efficient service deliance deli								and quality aesthe practices and syst	tic appeal.
Previous Years	FY 2019		FY 2020	FY 20	21	FY 202	22	FY 2023	Total Cost
\$0	\$0	,	\$ 150,000	\$ 0		\$0		\$ 0	\$ 150,000
	Ft N/A Construction Co	st:	5. Status (	Prelimina Survey in Plans in Complete of Land A Not Yet A Partly Ac Publicly (	ary Estin Progr Prepared cquisi Acquired Owned	ess ation tion:	Pro Inv cor We Blv	epartment:  Utilities Admontact Person:  Tom Jackso oject Descriptio estigate water aditions in the Fest and South of	n: pressure PGI areas f Bal Harbor ollection and
	N/A			No Land Gift	Involve	∍d	who	ere and why pr	essure drop
In Previous CIP In Present CIP Engineering Land Site	B. Estimated Costs:         7. Effect of Open           In Previous CIP         0         \$         Pe           In Present CIP         0         \$         Co           Engineering         \$         150,000         \$         Eq           Land         \$         Oth         Oth         Oth				ng Cos nal Ser actual for ment Costs:	nethods to oss in water			
Improvement Construction Landscaping Equipment  4. Sources of Local 1st Yr. UF	construction \$ andscaping \$ \$ 0 Total quipment \$ 8. Effect on incomplete Local State Federal Loss				Taxes		WT 20 mon and to in	pject Justification: P staff has doo psi differential I nitoring stations I La Costa. Sta	cumented a between s Tropicana aff is seeking pressure in
1st Yr.       UF						ity	the	La Costa zone	

Project Title: WTP Hend	rickson Da	am Inspection	Program	and Ma	nagement			<del></del>	
Acct #: 411-8422-533-	63-30			Projec	t Code: DA	MINS			
<b>Project Priority:</b> Infrastructure Sustainability City's capital assets and qu	est managem cture mainte		ctices and sys	tems in					
Previous Years FY 20	19	FY 2020	FY 2021 FY 2022			2 FY 2023		Total Cost	
\$ 0 \$ 25,00	00	\$ 0	\$ 25	000	\$ 0		\$ 25,000	\$ 75,000	
1. Land Cost:  Acres Front Ft Sq Ft	Acres X Preliminary Estimate Survey in Progress						rtment: Utilities Adm act Person: Tom Jackso		
N/A	·						ct Descriptio	n:	
Sq. Ft.  Equipment  N/A			Acquisition:  Not Yet Acquired Partly Acquired Publicly Owned No Land Involved Gift  Pect of Operating Cost (+ or -): Personal Services				FY 2019; FY 2021; FY 2023 Funds are programmed for dam inspection and report documenting the condition of the dam components and recommending maintenance and rehabilitation.		
Engineering \$ Land \$ Site \$ Improvement \$ Construction \$	ering \$ 75,000 \$ Equipme \$ Other C No addition					Projec	t Justification		
Landscaping \$ Equipment \$		\$	<u>7</u> Total			Hendrick creek to p	son Dam impoun provide a water s	ds water from shell upply reservoir for onstructed in 1965	
4. Sources of Financing: 8. Effect on income (+ or -):					):	and a ma	jor rehabilitation	of the spillway was	
Local State  1 <sup>st</sup> Yr. UF  2 <sup>nd</sup> Yr. UF  3 <sup>rd</sup> Yr. UF  4 <sup>th</sup> Yr. UF  5 <sup>th</sup> Yr. UF	X	Gain F Previo	of Taxes From Sal us Facili Revenue	le of ity s	completed in FY 2010. Operational protocol of the dam facilities provides for annual dam inspections to monitor and document conditions of the dam components. A maintenance program and capital project are developed to address deficiencies. A specialized engineering firm will be engaged to perform dam inspections and to develop recommendations for maintenance and rehabilitation projects. Funds are programmed for bi-annual inspections and reports.				

Project Title:	WTP Hydro Biolog	ical Monitoring	Plan			
Acct #: 411	-8422-533-31-14		Projec	t Code: WP	PHBMP	
attractive neighborourism, cultural	y: Enhance and promorhoods & working opportunities, hea and its vibrant, saf	environment, h thy eco-system	eritage .	the City's wa	ater quality.	,
Previous Years	FY 2019	FY 2020	FY 2021	FY 2022	PY 2023	Total Cost
\$ 0	\$ 0	\$ 75,000	\$ 0	\$0	\$ 0	\$ 75,000
Acres Front Sq Ft Sq Ft  2. Building C Sq. Ft. Equipm  3. Estimated In Previous CIP In Present CIP Engineering Land Site	Front Ft			ation tion: ed	Department: Utilities Add Contact Person: Tom Jacks Project Description FY 2020 SWFWMD water requires a sampling plan to document conditions of Shell Testing and sample on a monthly basis and a summary report on a 5 year cycle. The summary report for \$75,000 on a 5 cycle. The 2015 Streport is currently	use permit ng and testing biological Il Creek. bling is required s each year eport is required The cost of ort is budgeted S year recurring Summary
Improvement Construction Landscaping Equipment	\$ \$ \$	- - - - \$	0 Total		Project Justification The City Water Treatm obtains source water fi	ent Plant (WTP) om Shell Creek,
4. Sources of  Local  1st Yr.  2nd Yr.  3rd Yr.  4th Yr.  5th Yr.			Loss of Taxes Gain From Sa Previous Facil New Revenue	le of	authorized by a water issued by SWFWMD. requires the City to per testing, complete data technical report to dempermitted water use coregulatory standards. Tactivities consisting of testing, data analysis, a 5 year technical sum assigned the term Hyd Monitoring Plan	The WUP form water quality and furnish a constrate implies with The composite water sampling, and preparation of mary report are

			_				
Project Title: WTP Elevated Tank (	Coating					*	
Acct #: 411-8422-533-65-02			Projec	t Code: WF	P-ETC	)	
Project Priority: Infrastructure Sustainability - Maintain City's capital assets and quality munic		the	efficient Apply be	service deliv	ery a	e City's infrastruct and quality aesthe practices and syst e.	tic appeal.
Previous Years FY 2019	FY 2020	FY 2	2021	FY 2022	2	FY 2023	Total Cost
\$0 \$0	\$ 150,000	150,000 \$ 0				\$ 0	\$ 150,000
1. Land Cost: Acres Front Ft Sq Ft	5. Status o	Prelimin Survey	nary Esti in Progr n Prepar	ess	Со	partment:     Utilities Adm ntact Person:     Tom Jackso	n
2. Building Construction Cost:  Sq. Ft.  Equipment  N/A  3. Estimated Costs:  In Previous CIP \$ 0 In Present CIP \$ 0 Engineering \$ 0 Land \$ 5 Site \$ 150,000  Construction \$ 5	6. Status of	Not Yet Partly A Publicly No Land Gift  f Operate Perse Cont Equi	Acquisi Acquired Couned Owned Involve	ed ed st (+ or -):	The and trea tank year hire freq	two off-site tanted water. The serequire insperse rechedule. The atank enginee erform inspections on a 5 year uency.  2020  Elevated Storauires replaceme exterior coating	on-site tanks ks to store inside of the ction on a 5 project will ring company on of tank r return  ge Tank nt of interior
Construction \$ Landscaping \$	\$	Total				ject Justification vide inspection	
Equipment \$  4. Sources of Financing:  Local State Federal  1st Yr.  2nd Yr.  UF  3rd Yr.  4th Yr.  5th Yr.	8. Effect of	Loss of Gain F	of Taxes From Sal ous Facili Revenue	le of	tank	ntenance to wa ks to maintain i vice.	

	<del></del> -				_			·	<del></del>
Project Title:	WTP Solid Conta	ct U	nit (SCU) Tar	nk Coatin	g				
Acct #: 411-8422-533-65-02 Project Code: S0								;	
Project Priorit Infrastructure Su City's capital ass			Goal: Maintain and enhance the City's infrastructure to ensure efficient service delivery and quality aesthetic appeal. Apply best management practices and systems in infrastructure maintenance.			etic appeal.			
Previous Years	EV 2019		FY 2020 FY		2021 FY 2022		2	FY 2023	Total Cost
\$ 0	\$0	;	\$ 200,000	\$0		\$0		\$0	\$ 200,000
1. Land Cost: Acres Front Ft Sq Ft			Status of Project:      X Preliminary Estimate     Survey in Progress     Plans in Preparation     Completed			Department:			
2. Building Construction Cost:  Sq. Ft.  Equipment  N/A			6. Status of Land Acquisition:  Not Yet Acquired Partly Acquired X Publicly Owned No Land Involved Gift			The inside concrete surface of the South SCU treatment unit is showing age related pitting of the concrete surface. The project will clean and and apply tank coating system to restore the interior tank surface.			
3. Estimated In Previous CIP In Present CIP Engineering Land Site Improvement		0 0	7. Effect o \$ \$ \$ \$ \$ \$	Pers Cont Equi	onal Ser	ot (+ or -): vices or Services			
Construction \$ Landscaping \$ Equipment \$  4. Sources of Financing:  Local State Federal  1st Yr. 2nd Yr. UF		al	\$0 Total  8. Effect on income (+ or -):  Loss of Taxes Gain From Sale of Previous Facility			le of ity	The mai trea anti	Project Justification: The project is normal maintenance for concrete water treatment basins. Re-coating is anticipated over a 15 year planning period.	
3 <sup>rd</sup> Yr 4 <sup>th</sup> Yr 5 <sup>th</sup> Yr		-	*	New F No Eff Total	Revenue fect	S			