

EAST CENTRAL REGIONAL WATER RECLAMATION FACILITY 10-YEAR CIP

Revised March 16, 2017

CCI Forecast  
(2017)

2.92

2.49

2.54

2.48

2.42

2.62

2.63

2.56

2.58

2.32

Project Description	Total FY 18-27	Adopted Budget FY 17	Enc and Funds Available Carryforward Projects in FY17	FY 17 Revised	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27
<b>1 Pretreatment (5 Mech Bar Screens, 2 Grit Chambers, 5 Compactors, 2 Classifiers, 03)</b>	\$ 1,414,936													
1-A Bar Screen System Rehab (42272009)	0		110,910	110,910										
1-B Grit Collection System Improvements (14993402)	0		0	0										
1-D Headworks Upgrade: Screening & Grit Removal, Electric, Structure Rehab, and Flow Meters. (42272130)	0			0										
1-E Rehab Odor Control System (40172520)	166,000			0	166,000									
1-G New Headworks Odor Control System & Ductwork	1,248,936			0						1,248,936				
<b>2 Flow Equalization Basin and Tank</b>	\$ 3,510,465			0										
2-A EQ Basin Mixing System Evaluation (42272011)	0		0	0										
2-B Valve and Gate Replacement (10993402)	0		126,071	126,071										
2-C Replace Davit Cranes (42272131)	0		45,000	45,000										
2-D Install 4 New Return Piping Valves at Splitter Box (42272228)	0	32,000	(32,000)	0										
2-E Flow Equalization Basin Mixing System Design and Improvements (40172514)	794,140			0	110,700	683,440								
2-F Structural Repairs/Rehab to EQ Basin - Davit Cranes - (In House Project) (40172521)	179,894			0	55,000					124,894				
2-G Replace 4 3-Way Valves & Actuators on Submersible Pumps - (In House Project) (40172522)	118,400			0	118,400									
2-H Replace Process Water Booster Pumps & Install Water Cannons	522,818			0								522,818		
2-I Replace 8 Submersible Pumps	1,895,213			0								1,895,213		
<b>3 Aeration Basin No. 1 &amp; 5, Anoxic Basin, Influent and Effluent Structures</b>	\$ 11,816,790			0										
3-A Aeration Basin No. 1 Cleaning and Rehabilitation	2,614,088			0								2,614,088		
3-B Aeration Basin No. 5 Cleaning and Rehabilitation (42172493)	9,202,702			332,000		6,200,000							2,670,702	
<b>4 Aeration Basins No. 2 &amp; 6 and Aerated Channels</b>	\$ 16,562,529			0										
4-A AB 2 & 6 Mixed Liquor Trough Rehab (42272010) (Included in Clarifier Rehab)	0		0	0										
4-B Blower & Air Piping System Evaluation & Improvements (42272056)	3,417,373		1,774,157	1,774,157	2,672,232	745,141								
4-C MLSS Transfer System Pump Rehab (Couch Pumps) (In House Project) (40172523)	442,700			0	442,700									
4-D Replace Air Piping from AB-1 to AB-2	284,766			0		284,766								
4-E Aeration Basin No. 2 & 6 Rehab (13993402)	12,139,289			0		455,627	4,424,573	4,531,189						2,727,900
4-F Replace Aerated Channel Blowers	278,401			0								278,401		
<b>5 Clarifiers, RAS, WAS &amp; Scum Pumps</b>	\$ 8,774,942			0										
5-A Replace Scum Wasting Pumps (42272013), RAS Pumps & Meters, WAS Pumps, & RAS Pump Seal Water	2,951,701		50,694	50,694			1,458,281	1,493,420						
5-B Clarifier Rehabilitation (42272014) (14993405)	5,431,128		0	0			2,683,236	2,747,892						
5-C Automated Sludge Withdrawal System (14993404)	0		0	0										
5-D 30" RAS Pipe Repairs (42272225)	0		1,017,882	1,017,882										
5-E Clarifier Effluent Trough Rehab	392,113			0								392,113		
<b>6 Chlorination System No. 1 &amp; 2 (2 Contact Chambers, Chlorine Bldg w/ CL Gas Equip)</b>	\$ 3,964,547			0										
6-B Design & Construct Effluent Screens	3,730,082			0								472,390	3,257,691	
6-C Evaluate Chlorination System Improvements (42272132)	0		52,000	52,000										
6-D Replace Hypochlorite Feed Pumps & Tanks	234,465			0		234,465								
<b>7 Effluent Pump Stations No. 1 &amp; No. 2 (11 Vertical Turbine Pumps, 3 VFDS)</b>	\$ 11,189,878			0										
7-A Effluent Pump Rebuild (14993406) (42272133) (In House Project)	2,571,890	277,500	401,816	679,316										
7-B Replace Effluent Pump, Valves, Actuators Nos. 7, 8, 9 (40172513)	1,258,184			0	1,258,184	296,157	303,323	310,632	317,763	324,724	332,269	339,832	347,191	
7-D Variable Frequency Drives for Effluent Pump Nos. 10, 11 (40172519)	186,000			0	186,000									
7-E Replace Surge System Compressors (In House Project)	37,332			0			37,332							
7-F Rebuild East Effluent Pump Station, New Pumps, Discharge Header/Piping	7,136,472			0					122,217	624,469	6,389,787			
<b>8 Deep Injection Wells No. 1 - 7</b>	\$ 499,575			0										
8-A Monitoring Wells 2, 4, 6, 7 Repl & MW-2 Lower Zone Abandonment (14993416)	0		0	0										
8-B Rehabilitate Injection Wells	499,575			0						499,575				
8-D Monitoring Well #2 Replacement (13993408)	0		29,623	29,623										
<b>9 Biosolids &amp; Dewatering Systems</b>	\$ 1,370,442			0										
9-B Rehab/Repair Belt Filter Presses and Related Equipment (42272135)	0		200,000	200,000										
9-C Supernatant Pump Station Replacement/Abandonment	234,465			0		234,465								
9-D Centrifuge Scroll Replacement / Rehabilitation	1,085,977			0								354,293	361,966	369,718
9-E Digester Gas Beneficial Use Study Update	50,000			0		50,000								

EAST CENTRAL REGIONAL WATER RECLAMATION FACILITY 10-YEAR CIP

Project Description	Total FY17-26	Adopted Budget FY 17	Carryforward Projects In FY17	FY 17 Revised	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27
<b>10 Electrical System</b>	\$ 9,295,165													
10-A Electrical System Evaluation & Improvements (14993413)	0		22,584	22,584										
10-C Remote Racking System	113,907			0		113,907								
10-D Replace Main Switchgear (Main Electric Building)	2,986,839			0				2,986,839						
10-E Replace MCC-1 to MCC-5, and Panelboard PDP, PA, PAA	1,008,286			0					1,008,286					
10-M Install Portable Generator Switchboards	2,372,981			0						2,372,981				
10-X Replace MCC-5 (East Effluent Pump Station) & Install Second Feeder	408,947			0							408,947			
10-Z1 Electrical Maintenance Testing (42272233)	2,404,205	1,028,900		1,028,900					1,136,197					1,268,009
<b>11 Septage Receiving Station &amp; Sand Drying Beds</b>	\$ 113,907			0										
11-B Abandon/Modify Septage Facility	113,907			0		113,907								
11-C Septage Facility Building Upgrade (13993404)	0		0	0										
<b>12 Site Related Projects (Landscaping, Security Upgrades, Process Water Piping, Roadway, Etc.)</b>	\$ 5,763,828			0										
12-A ECR Roadway Rehab & Resurfacing (14993409) (In House Project)	750,905		119,909	119,909		341,720								409,185
12-B Process Water/Reuse Irrigation System Upgrade (42272060)	0		6,484,060	6,484,060										
12-C ECRWRF Expand Security System CCTV (14993415) (42272137)	0	256,200	130,216	386,416										
12-D Process Water Valve and Pipe Replacement (42272138)	0		21,350	21,350										
12-E Enhance Turnpike Landscape Buffer (In House Project)	116,663			0			116,663							
12-G AWT Motor Operated Valve Replacement	255,623			0							255,623			
12-H AWT Replace 2 Reclaimed Water Vertical Turbine Pumps	106,510			0							106,510			
12-I AWT Replace 2 Lift Station Submersible Pumps	206,619			0							206,619			
12-J AWT Replace 2 Filter Feed Pumps	299,113			0									299,113	
12-K AWT Pumps, Piping, and Structures Recoating	298,123			0										298,123
12-L AWT Filter Media Replacement	496,870			0										496,870
12-M AWT Backwash Pump Replacement	331,246			0										331,246
12-N AWT VFD, Instrumentation, and Control Panel Replacement	668,222			0										668,222
12-O Gate and Valve Repair and Replacement Program (40172515)	2,234,034			0	200,000	205,840	210,620	215,900	220,657	225,695	230,939	236,195	241,310	246,479
<b>13 General Facility Needs (Machinery &amp; Equipment)</b>	\$ 147,581			0										
13-A Laboratory Rehab/Equipment Replacement (42272017) - (In House Project)	147,581		49,130	49,130	66,400					81,181				
13-B 2009 ECR Improvements Project (09993419)	0		0	0										
13-C Replace Buried Waste Oil Tank at Generator Building (42272139)	0		242,500	242,500										
<b>14 Computer Upgrades</b>	\$ 980,234			0										
14-A SCADA HMI Modernization (09993424) (In House Project) (40172524)	300,000		16,557	16,557	300,000									
14-B ECR Fiber Cable Installation (42272054)	0		0	0										
14-C PLC Replacement (42272140)	680,234			0	110,700	569,534								
<b>15 Emergency Generation Systems</b>	\$ 2,919,532			0										
15-A Inlet Silencers (42272230)	0			213,500										
15-B Generator Rehab for Units 3&4 (In House Project)	1,266,389			0		1,266,389								
15-C Generator Rehab for Units 1&2 (In House Project)	1,453,143			0								1,453,143		
15-D Rehab Roof Oil Coolers (40172516)	200,000			0	200,000									

EAST CENTRAL REGIONAL WATER RECLAMATION FACILITY 10-YEAR CIP

Project Description	Total FY17-26	Adopted Budget	Carryforward	FY 17 Revised	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27
		FY 17	Projects in FY17											
<b>16. Buildings &amp; Structures</b>	\$ 691,682			0										
16-A Replace/Rehab HVAC Equipment (14993412) (42272141)	0	77,400	69,015	146,415										
16-B Control Building AC Replacement(14993411)	0		237,232	237,232										
16-C Warehouse Awning Installation (40172097)	0		0	0										
16-D ECR Control Building Improvements (14993414)	0		290,627	290,627										
16-E Building Envelope Repairs (12993409) (42272142)	0	80,000	158,703	238,703										
16-F Handrail, Grating, Walkway, Stair Repairs (42272143) (Safety Improvements)	0		1,191,033	1,191,033										
16-G Miscellaneous Concrete Repairs (42272144)	0	53,670	51,600	105,270										
16-H Replace Generator, Level Control Station And Effluent Pump Station Building Roof (42272229)	0	533,700		533,700										
16-I Rehabilitate South Blower Building (42272231)	0			0										
16-J Rehabilitate North Blower Building (42272232)	0			0										
16-K Abandon/Secure/Modify Decant Tank No. 3	341,694			0		341,694								
16-L Convert Dewatering Building to Storage/Repair Building	349,988			0			349,988							
<b>17. CIP Administrative</b>	\$ 12,680,378			0										
17-B Biosolids Contingency (13993422)	0		4,630,100	4,630,100										
17-C ECR Board Discretionary CIP Reserve - 8% of Annual CIP (40172517)	6,294,730			0	470,905	970,964	786,737	982,870	224,426	440,196	634,455	684,679	574,238	545,260
17-D Project Management (40172518)	6,385,648			0	385,247	607,228	621,919	636,905	651,527	665,799	681,270	696,775	711,866	727,112
<b>10 YR PROJECTED CAPITAL EXPENDITURES FY 2018-2027</b>	\$ 91,364,510	\$ 2,339,370	\$ 17,490,769	\$ 20,375,639	\$ 6,742,468	\$ 13,715,245	\$ 10,972,871	\$ 13,905,647	\$ 3,681,272	\$ 6,608,449	\$ 9,246,418	\$ 9,939,940	\$ 8,464,079	\$ 8,088,123
		<b>FY16 Budget</b>	<b>Carryforward Projects in FY17</b>	<b>FY 17 Revised</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>	<b>FY 22</b>	<b>FY 23</b>	<b>FY 24</b>	<b>FY 25</b>	<b>FY 26</b>	<b>FY 27</b>
Contributions FY 2018-2027 (Shortfall) Surplus Funding	94,090,967				6,918,936	11,551,805	11,898,359	12,255,310	6,311,485	7,584,301	10,043,781	10,043,781	9,195,639	8,287,570
Cash Balance January 31, 2017	32,391,215				176,468	(2,163,440)	925,489	(1,650,337)	2,630,213	975,852	797,362	103,841	731,561	199,447
Value of 1% Reserve Requirement				2,686,965	2,767,574	3,850,602	3,966,120	4,085,103	4,207,656	4,333,886	4,463,903	4,463,903	4,597,820	4,735,754
Less Project Encumbrances	\$ (2,727,282)													
Less Remaining Project Budget	\$ (17,531,904)													
Subtotal	\$ 12,132,029													
Less 1% Reserve Requirement (FY17)	\$ (2,686,965)													
Subtotal	\$ 9,445,064													
Estimated Unrestricted Reserve Balance	\$ 9,445,064													
Estimated Transfer of Fund 476 WPB AWT R&R Cash Balance January 31, 2017	\$ 1,685,149													
Estimated Unrestricted Reserve Balance	\$11,130,213			\$ 11,130,213	\$ 11,226,072	\$ 7,979,605	\$ 8,789,576	\$ 7,020,255	\$ 9,527,915	\$ 10,377,537	\$ 11,044,883	\$ 10,351,362	\$ 10,949,006	\$ 11,010,518
Contributions FY 2018-2027	\$ 98,121,415	\$ 4,865,349	\$ 4,030,448	\$ 4,030,448	\$ 6,918,936	\$ 11,551,805	\$ 11,898,359	\$ 12,255,310	\$ 6,311,485	\$ 7,584,301	\$ 10,043,781	\$ 10,043,780.99	\$ 9,195,639	\$ 8,287,570.08
West Palm Beach	28,735,543			1,180,345	2,026,259	3,383,027	3,484,518	3,589,053	1,848,362	2,221,116	2,941,392	2,941,392	2,693,007	2,427,073
Town of Palm Beach	8,410,379			345,466	593,050	990,151	1,019,856	1,050,452	540,983	650,081	880,893	880,893	788,195	710,361
Lake Worth	16,119,975			662,146	1,136,684	1,897,800	1,954,734	2,013,376	1,036,889	1,245,994	1,650,053	1,650,053	1,510,715	1,361,532
Palm Beach County	33,641,614			1,381,867	2,372,206	3,960,617	4,079,436	4,201,819	2,163,937	2,600,331	3,443,581	3,443,581	3,152,789	2,841,451
Riviera Beach	11,213,904			460,624	790,738	1,320,210	1,359,816	1,400,610	721,314	866,779	1,147,864	1,147,864	1,050,933	947,153
Annual Percent Contribution				1.50%	2.50%	3.00%	3.00%	3.00%	1.50%	1.75%	2.25%	2.25%	2.00%	1.75%
Est Plant Value (3% increase/year) (FY17 Add AWT Value \$ 18,131,047)(FY19 Add BioSolids Value \$100,000,000)		\$ 243,267,474	\$ 268,696,545	\$ 276,757,442	\$ 385,060,165	\$ 396,611,970	\$ 408,510,329	\$ 420,765,639	\$ 433,388,608	\$ 446,390,266	\$ 446,390,266	\$ 459,781,974	\$ 473,575,433	\$ 473,575,433
Value of 1% Reserve Requirement		2,432,675	2,686,965	2,767,574	3,850,602	3,966,120	4,085,103	4,207,656	4,333,886	4,463,903	4,463,903	4,597,820	4,735,754	4,735,754