



ISLAND WATER RECLAMATION FACILITY RELOCATION





Welcome & Introductions



Timing

- Environmental
 - Storms Are Getting Worse & More Frequent
 - Discharges
 - Sea Level Rise
- Solid Partnership Plan
 - District Needs Capacity for Growth
 - District is Ready to Invest in Mainland Plant
 - FPUA Needs a Financial Partner
 - Eliminate Duplication of Services
 - Best Service at Lowest Cost
 - Grants Favor Cooperative Projects
- Solid Financial Plan w/ Clear Benefits
 - Construction Is Not Getting Any Less Expensive
 - Causeway Redevelopment Hinges on Relocation



Project Evolution

- Original Interlocal (City of Fort Pierce, St. Lucie County “District” & FPUA) executed in February 2004.
- Interlocal Amended in April 2019
 - WRF Relocation Analysis by an Independent Financial & Engineering Firm
- Best Inter-Jurisdictional Coordination
- Momentum



Goals

Educate & Update

1. Timing
2. Economic Opportunity from Reutilization of the Causeway
3. Cost
4. Funding
5. Entity Creation & Governance

Achieve Consensus

Schedule Future Workshops On Each Specific Milestone

Opportunity

Conservative Impact Analysis

- GAI Consultants & Comm Solutions
- Similar to Harbor Isles
- Net Cost-Benefit 4:1 or \$556M
- Direct & Indirect Jobs – 593

Maximum Reutilization

- Redtail Design Group
- Residential, Retail, Restaurants, Hotel, Amphitheatre, Event Center

Department of Economic Opportunity Grant Potential

Environmental Stewardship



FORT PIERCE CAUSEWAY
WATERFRONT PLAN



Proposal by Redtail DG



FORT PIERCE CAUSEWAY WATERFRONT PLAN



Proposal by Redtail DG

Towards A Destination

*A Community's Vision for the Relocation of the
Fort Pierce Waste Water Treatment Plant*



City of Fort Pierce
Marcela Cambior & Associates, Inc.



Costs & Offsets

- 2021 Dollars \$131.5M
- 2027 Dollars & Capitalized Interest \$156M

- Initial Capital Cost Share 70%/30% (Worst Case – No Grants)
 - FPUA: 5.6 MGD @ \$109M
 - SLC: 2.4 MGD @ \$47M

- Cost Offsets
 - Reuse/Cooling Water to Florida Municipal Power Association, Est \$1.1M
 - Reliable Leachate Disposal, Est. \$600K
 - Strong Waste Charges & Industrial Permits, \$80K
 - Septage Hauling Revenues, \$40K
 - Reduce Combined Treatment Cost From \$1750 to \$1412 MGD/Day



Debt Service Strategy

➤ 6 Year Plan

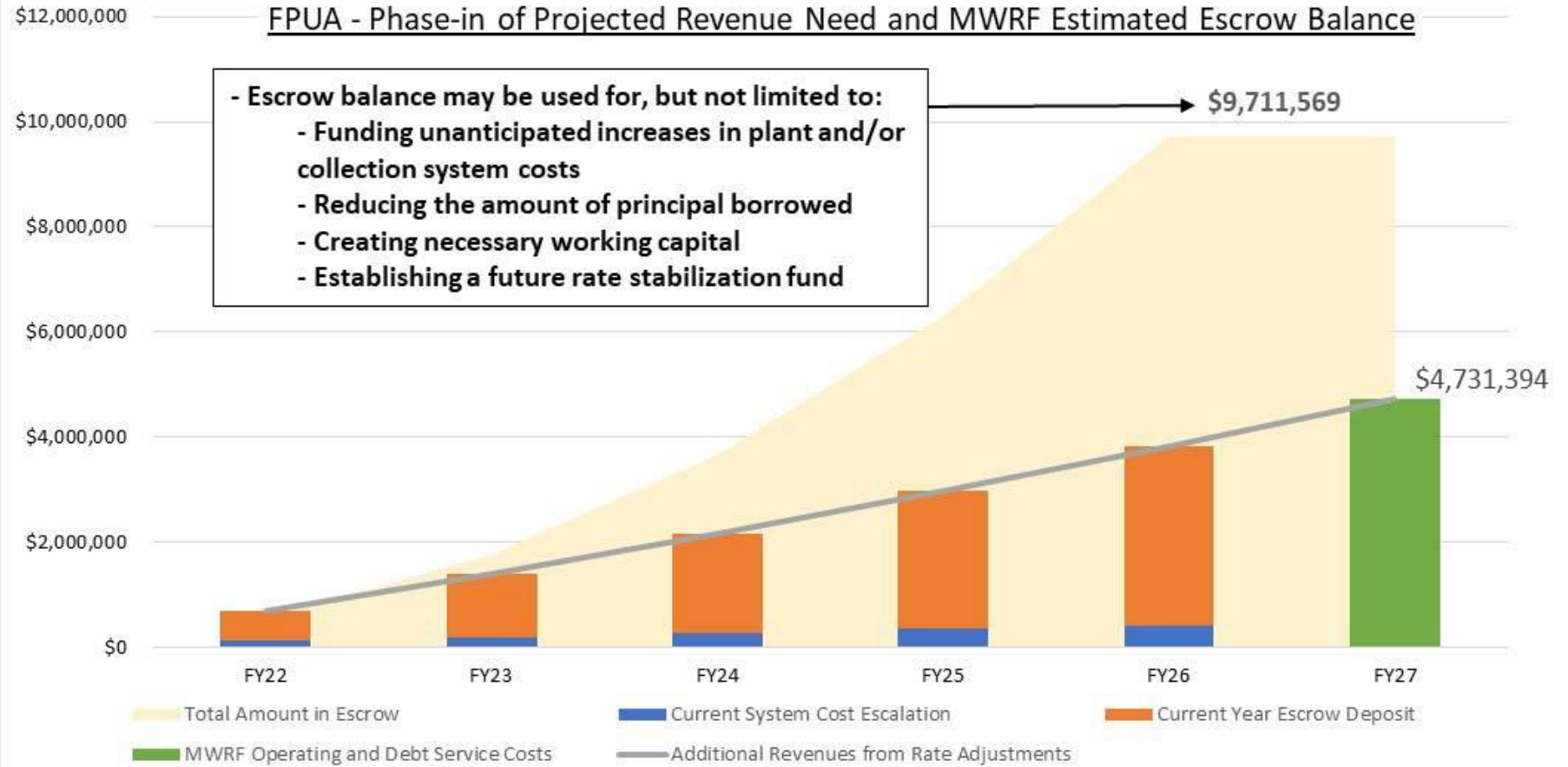
- 2021: Entity Creation, Interlocal Agreements
- 2022-2023: Design, Permitting, Easement Acquisition
- 2024-2027: Construction

➤ Landranomics

- Ramp Up Realistic Utility Rate Increases from 2022-2027
- Structure WIFIA and SRF Loans to Defer Debt Service Until 2027
- Create Escrow Accounts from 2022-2027 w/ Funds Prior to Payments
 - Offset Capital Expenditures
 - Offset Rate Increases
 - Provide Working Capital to Joint Operational Board

Wastewater Plant Relocation Conceptual Analysis

FPUA - Phase-in of Projected Revenue Need and MWRf Estimated Escrow Balance



FPUA Debt Service

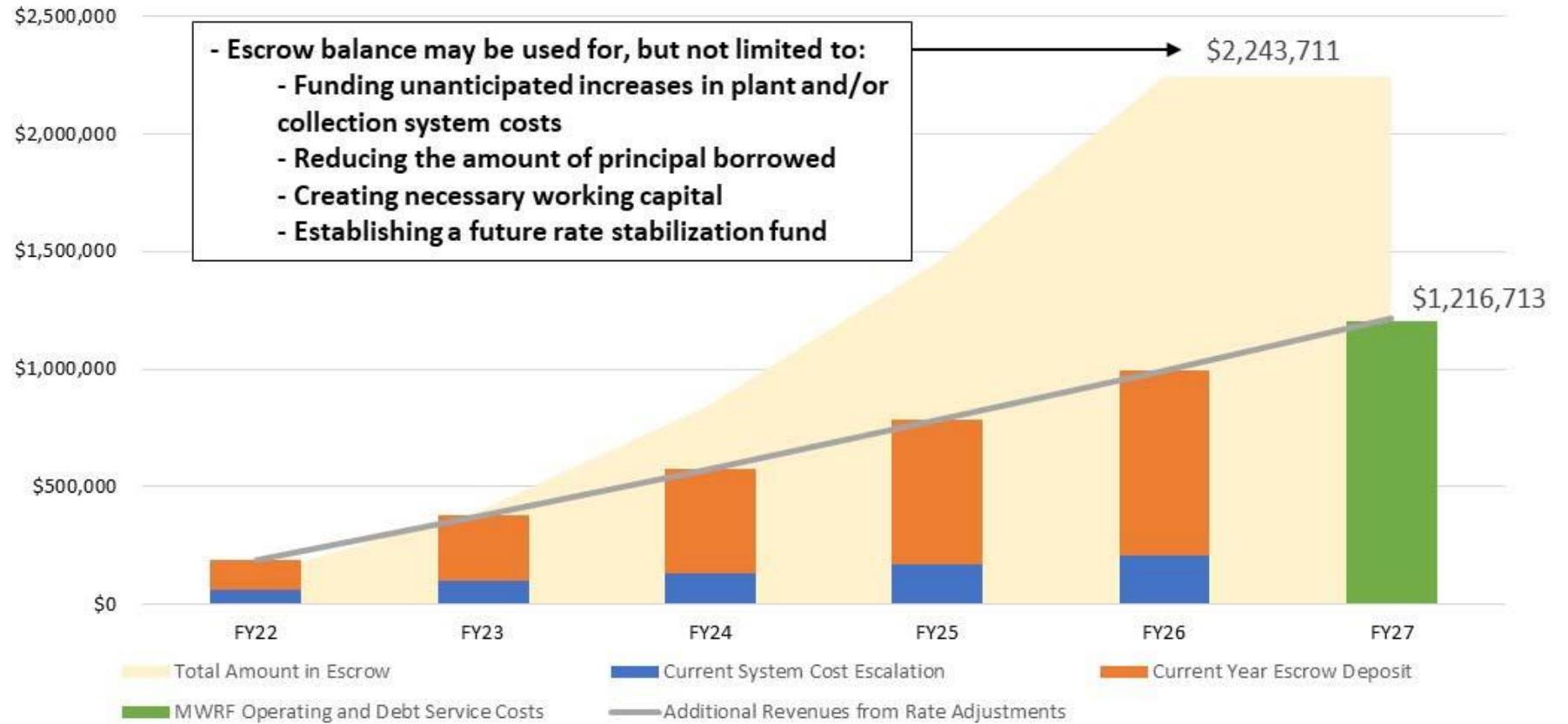
- Additional revenues from rate adjustments are based on two cost recovery approaches that achieve an incremental revenue need of approximately \$4.7 million per year by FY27 to recover only the incremental increase in the MWRf operating and debt service costs:

(1) Applied Wastewater Revenues Only: 5.5% per year for a combined increase of \$16.93 for the existing residential customer (based on 5,000 monthly gallons) or an average monthly increase of \$2.82 per month per year.

(2) Applied Water and Wastewater Revenues: 2.5% per year for a combined increase of \$12.76 for the existing residential customer (based on 5,000 monthly gallons) or an average monthly increase of \$2.13 per month per year.

[] For identification of major study assumptions and disclosures, please refer to Raftelis' presentation dated December 16, 2020.*

Wastewater Plant Relocation Conceptual Analysis
 SLCU - Phase-in of Projected Revenue Need and MWRP Estimated Escrow Balance



District Debt Service

- Additional revenues from rate adjustments are based on two cost recovery approaches that achieve an incremental revenue need of approximately \$1.2 million per year by FY27 to recover only the incremental increase in the MWRP operating and debt service costs:

(1) Applied Wastewater Revenues Only: 3.5% per year for a combined increase of \$14.60 for the existing residential customer (based on 5,000 monthly gallons) or an average monthly increase of \$2.43 per month per year.

(2) Applied Water and Wastewater Revenues: 2.1% per year for a combined increase of \$14.52 for the existing residential customer (based on 5,000 monthly gallons) or an average monthly increase of \$2.42 per month per year.

[*] For identification of major study assumptions and disclosures, please refer to Raftelis' presentation dated December 16, 2020.



Governance

Joint Operational Board

- MWRf as Independent Entity
- 5 Member Board of Technical Experts
- Secure Funding
- Control Construction
- Propose Budgets for Approval by SLC, CFP & FPUA
- Utilities Maintain Their Own Customer Base

Modeled After Successful Partnerships

- East Central Regional WW Treatment Board
- Seacoast Utility Authority
- Peace River Water Management District

Models Provided by Philip Gildan Esq.



Next Steps

- Commit to the Concept and Commit to Overcoming Obstacles
- Establish Joint Operational Board by Interlocal Agreement
- Focused Joint Workshops & Discussions
- Marketing
- Empower Your Staff's to Succeed



Opportunities

- City of Fort Pierce
 - Control of Valuable Property
 - Increased Tax Base
- Saint Lucie County
 - More Wastewater Capacity with Partnership
 - More Cost-Effective Wastewater Treatment
- Fort Pierce Utilities Authority
 - Mitigate for Imminent Environmental Issues
- Citizens
 - Jobs
 - Reduced Overall Wastewater Treatment Costs
 - Funding For Infrastructure Improvements – Roads
 - Expanded Public Use



Public Comment & Discussion





Additional Information



Finance Options

Table 5
Wastewater Plant Relocation Conceptual Analysis

Summary of Financing Options - Allocated Debt Service Payments (Options #1 and #2)

Line No.	Description	Period	Option 1 (Assumed Bond Financing) [1]			Option 2 (Assumed WIFIA / SRF Financing) [1] [2]		
			FPUA	St. Lucie County	Total	FPUA	St. Lucie County	Total
	Allocation		70.0%	30.0%	100.0%	70.0%	30.0%	100.0%
1	Yr.1	2027	\$6,864,550	\$2,941,950	\$9,806,500	\$4,060,000	\$1,740,000	\$5,800,000
2	Yr.2	2028	6,865,600	2,942,400	9,808,000	4,058,670	1,739,430	5,798,100
3	Yr.3	2029	6,862,625	2,941,125	9,803,750	4,060,315	1,740,135	5,800,450
4	Yr.4	2030	6,862,625	2,941,125	9,803,750	4,061,383	1,740,592	5,801,975
5	Yr.5	2031	6,865,250	2,942,250	9,807,500	4,058,373	1,739,302	5,797,675
6	Yr.6	2032	6,863,150	2,941,350	9,804,500	4,058,338	1,739,287	5,797,625
7	Yr.7	2033	6,863,325	2,941,425	9,804,750	4,061,225	1,740,525	5,801,750
8	Yr.8	2034	6,865,425	2,942,325	9,807,750	4,059,983	1,739,992	5,799,975
9	Yr.9	2035	6,862,100	2,940,900	9,803,000	4,061,663	1,740,712	5,802,375
10	Yr.10	2036	6,863,850	2,941,650	9,805,500	4,059,213	1,739,662	5,798,875
11	Yr.11	2037	6,863,150	2,941,350	9,804,500	4,059,685	1,739,865	5,799,550
12	Yr.12	2038	6,863,325	2,941,425	9,804,750	4,059,528	1,739,797	5,799,325
13	Yr.13	2039	6,864,025	2,941,725	9,805,750	4,058,740	1,739,460	5,798,200
14	Yr.14	2040	6,864,900	2,942,100	9,807,000	4,060,823	1,740,352	5,801,175
15	Yr.15	2041	6,862,100	2,940,900	9,803,000	4,058,723	1,739,452	5,798,175
16	Yr.16	2042	6,862,450	2,941,050	9,803,500	4,059,493	1,739,782	5,799,275
17	Yr.17	2043	6,861,925	2,940,825	9,802,750	4,059,580	1,739,820	5,799,400
18	Yr.18	2044	6,863,675	2,941,575	9,805,250	4,058,985	1,739,565	5,798,550
19	Yr.19	2045	6,863,675	2,941,575	9,805,250	4,061,208	1,740,517	5,801,725
20	Yr.20	2046	6,865,075	2,942,175	9,807,250	4,059,195	1,739,655	5,798,850
21	Yr.21	2047	6,863,850	2,941,650	9,805,500	3,986,500	1,708,500	5,695,000
22	Yr.22	2048	6,863,150	2,941,350	9,804,500	3,987,673	1,709,002	5,696,675
23	Yr.23	2049	6,862,450	2,941,050	9,803,500	3,988,110	1,709,190	5,697,300
24	Yr.24	2050	6,864,725	2,942,025	9,806,750	3,987,813	1,709,062	5,696,875
25	Yr.25	2051	6,862,275	2,940,975	9,803,250	3,986,780	1,708,620	5,695,400
26	Yr.26	2052	6,861,750	2,940,750	9,802,500	3,988,513	1,709,362	5,697,875
27	Yr.27	2053	6,862,450	2,941,050	9,803,500	3,985,958	1,708,267	5,694,225
28	Yr.28	2054	6,863,675	2,941,575	9,805,250	3,986,168	1,708,357	5,694,525
29	Yr.29	2055	6,864,725	2,942,025	9,806,750	3,985,590	1,708,110	5,693,700
30	Yr.30	2056	6,864,900	2,942,100	9,807,000	3,987,725	1,709,025	5,696,750
31	Yr.31	2057				3,989,020	1,709,580	5,698,600
32	Yr.32	2058				3,985,975	1,708,275	5,694,250
33	Yr.33	2059				3,985,643	1,708,132	5,693,775
34	Yr.34	2060				3,987,970	1,709,130	5,697,100
35	Yr.35	2061				3,985,905	1,708,245	5,694,150
36			\$205,906,750	\$88,245,750	\$294,152,500	\$141,000,466	\$60,428,759	\$201,429,225

Footnotes:

[1] Amounts derived from Tables 3 and 4 based on information provided by PFM. Terms and conditions subject to change.

[2] Based on discussions with PFM, amounts prepared to demonstrate the benefit of a financing strategy that may combine WIFIA and SRF Funding. PFM and Raffelis provide no assurances that the proposed project will be eligible for funding or that any amount of funding will be available at the time the project is constructed.

MWRF

Efficient

- Reduce Treatment Cost From \$1750 to \$1412 MGD/Day

Protect Our Environment

- Eliminates Possibility of Discharge into Indian River Lagoon
- Increase Availability of Reuse Water

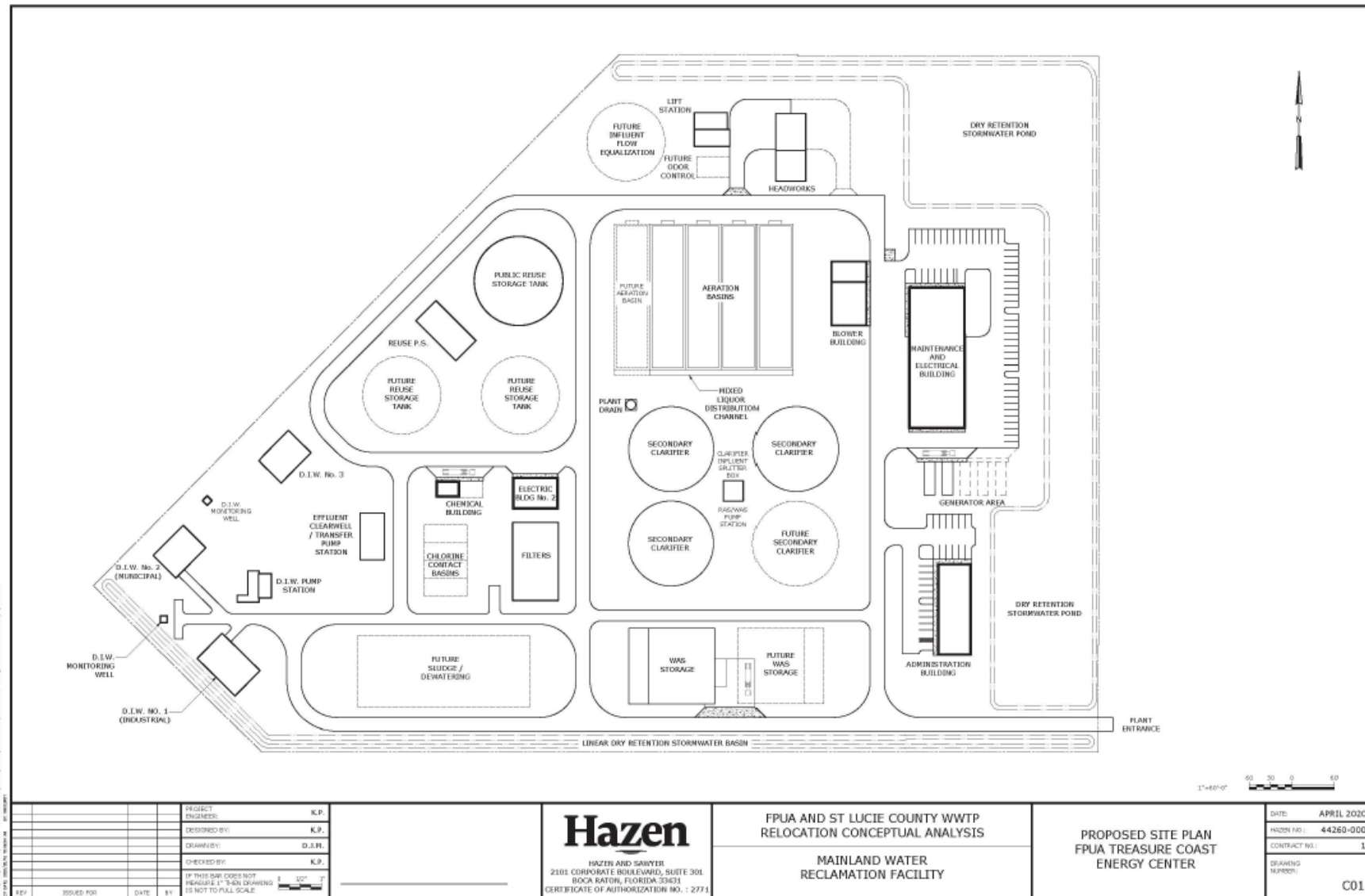


Figure 6-2: FPUA Treasure Coast Energy Center Proposed Site Plan

Flows & Population

Table 4-3: St. Lucie County Population Projections

Year	St. Lucie County 2018 Comp Plan Population Projection	BEBR 2020 Population Projection (Low)	BEBR 2020 Population Projection (Medium)	BEBR 2020 Population Projection (High)
2020	318,600	302,300	315,200	327,500
2025	349,901	319,300	342,900	364,600
2030	377,998	333,800	367,500	401,700
2035	404,100	344,300	387,400	434,100
2040	428,198	352,000	404,400	464,300

Table 4-4: MWRF Flow Projections

	2018	2020	2025	2030	2035	2040
SLC Comp Plan Population Projection	304,623	318,600	349,901	377,998	404,100	428,198
SLC Population Growth %		4.59%	9.82%	8.00%	6.90%	6.00%
FPUA ERC Projection @ SLC Growth Rate	31,742	33,198	36,460	39,377	42,094	44,619
Flow Rate (MGD) @ 190 gpd per additional ERC	4.31	4.59	5.21	5.76	6.28	6.76
Flow Rate (MGD) plus 1 MGD for SLC	5.31	5.59	6.21	6.76	7.28	7.76

Table 4-1: Historical Flow Data in MGD for SLC WWTFs

Year	Fairwinds	Holiday Pines	Lakewood
2017	0.020	0.113	0.018
2018	0.025	0.112	0.019
2019	0.026	0.115	0.012

Table 4-2: Historical Flow Data in MGD for FPUA IWRP

Year	2009	2011	2012	2013	2014	2015	2016	2017	2018	2019
AADF	4.47	3.95	4.29	4.90	3.88	4.32	6.3	4.84	4.31	4.14

Table 4-5: FPUA South Hutchinson Island Flow Projections

	2019	2020	2025	2030	2035	2040
SLC Population Growth %		2.19%	9.82%	8.00%	6.90%	6.00%
Number of Wastewater Accounts	1,453	1,485	1,631	1,761	1,883	1,996
Flow Rate (MGD) @ 272 gpd/Account	0.39	0.40	0.44	0.48	0.51	0.54

**Initial MWRF
Size: 8 MGD**

MWRF Layout

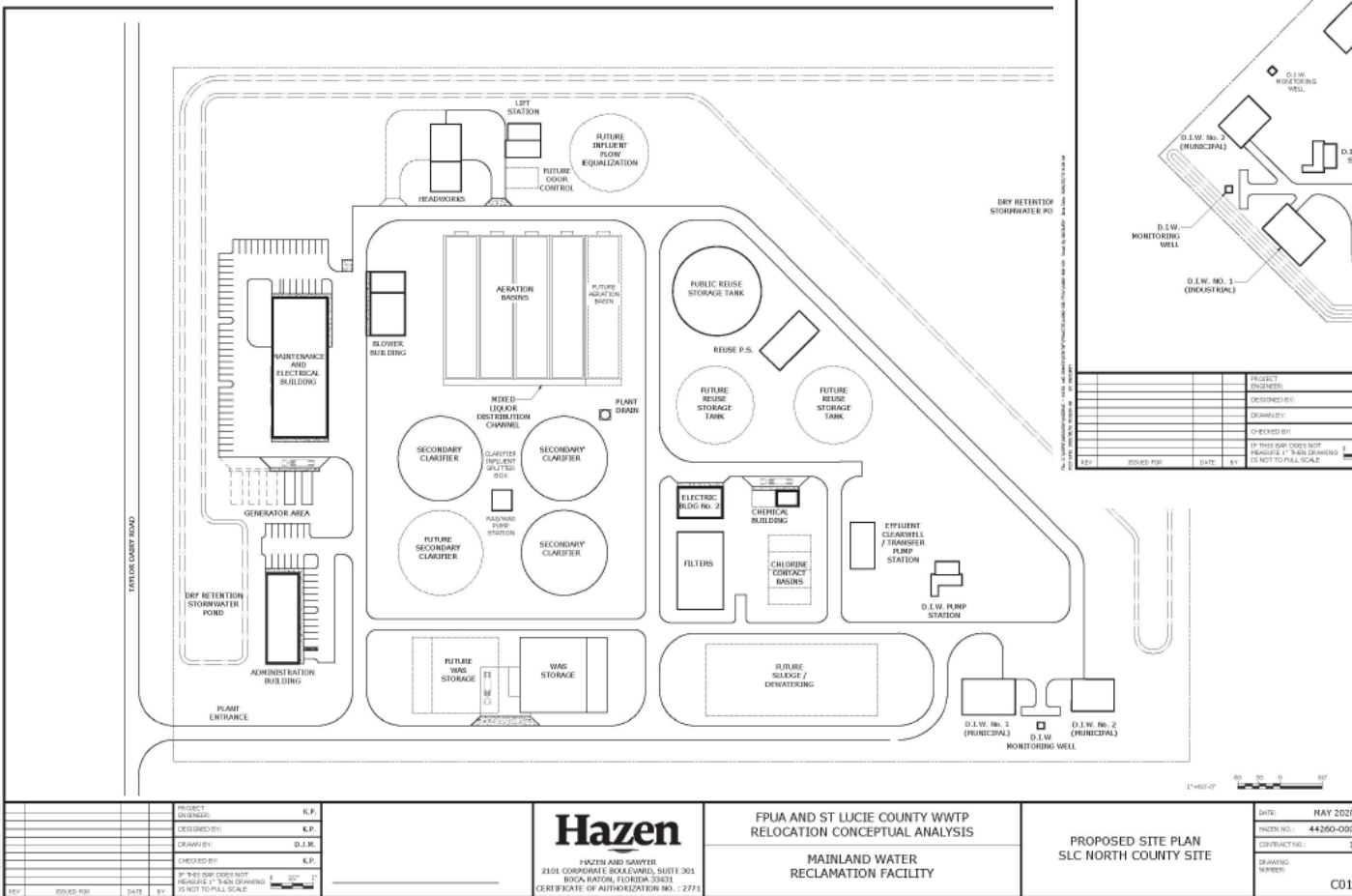


Figure 6-1: SLC North County Proposed Site Plan

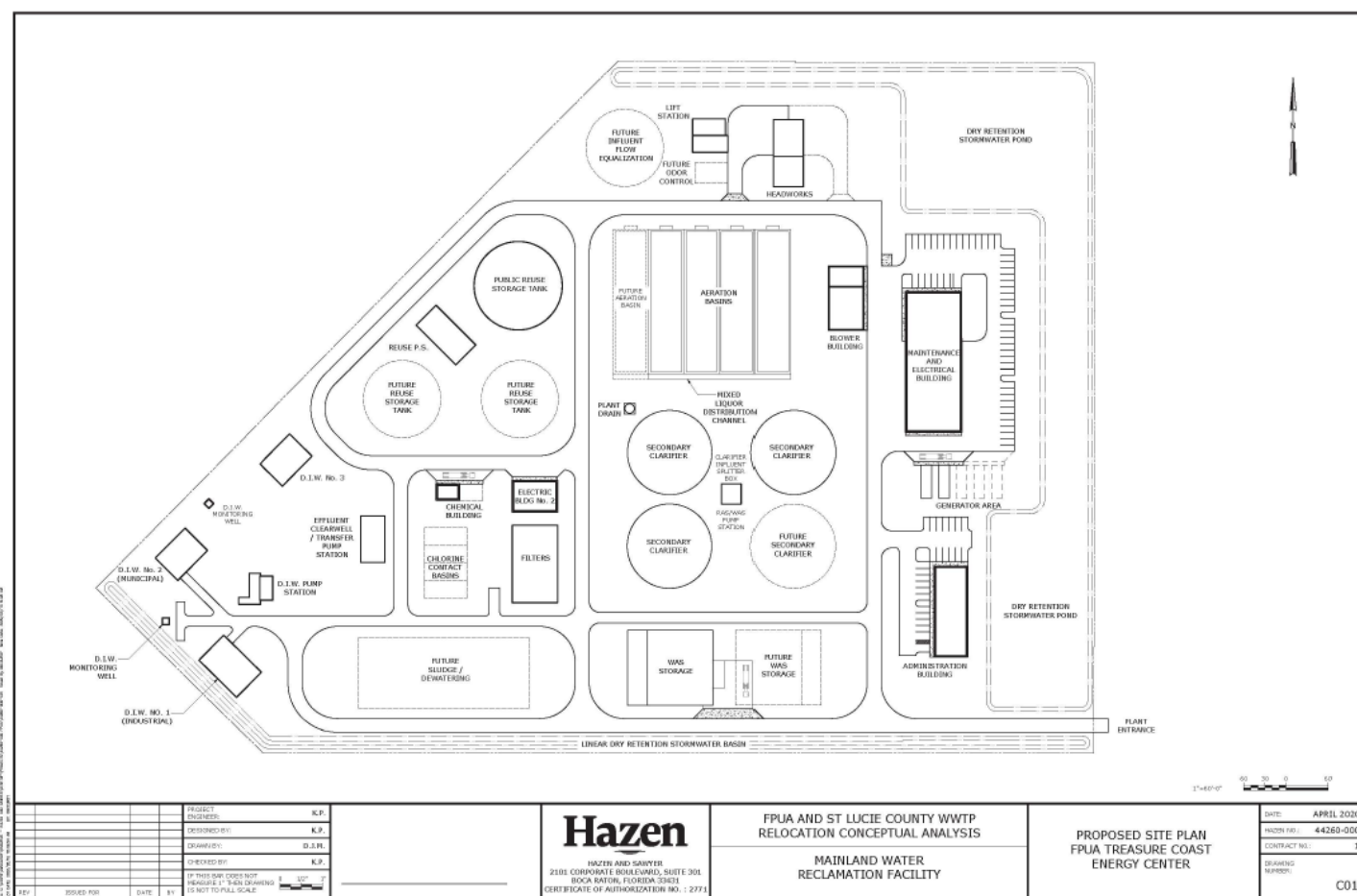


Figure 6-2: FPUA Treasure Coast Energy Center Proposed Site Plan

Future WW Collections
 Department Location

O & M Costs

Table 8-1: Current FPUA/SLC O&M Costs

	IWRF	Fairwinds Golf Course WWTF	Lakewood Park WWTF	Holiday Pines WWTF	Total
Total Annual Cost	\$2,537,274	\$27,896	\$29,611	\$280,815	\$2,855,596
Permitted Capacity, MGD	10.00	0.02	0.02	0.21	10.25
Treated Flow, MGD	4.31	0.03	0.02	0.12	4.47
Treated Flow, MGY	1,573	9	7	42	1,631
Cost, \$/ MG Treated	\$1,613	\$3,057	\$4,182	\$6,214	\$1,750

Table 8-2: Projected O&M Costs for Proposed MWRF

	FPUA IWRF (2018)	Plant City (2018)	Winter Haven (2018)	Boca Raton (2019)	Average of IWRF and References	MWRF Projections (2025)
Permitted Capacity						
MGD	10.00	10.00	7.50	17.50	11.25	8.00
MGY	3,650	3,650	2,738	6,388	4,106	2,920
Treated Flow						
MGD	4.31	4.80	4.50	12.30	6.48	5.59
MGY	1,573	1,752	1,643	4,490	2,364	2,040
Annual Cost						
Annual Cost	\$2,537,274	\$2,443,468	\$3,322,717	\$5,375,260	\$3,419,679	\$2,880,271
Cost/MG (treated)						
Cost/MG (treated)	\$1,613	\$1,395	\$2,023	\$1,197	\$1,557	\$1,412



MWRF Location Capital Cost

Summary of Projected Capital Costs of New Facilities (Millions) ^[1]		
Description	North County (Taylor Dairy Road)	South County / FPUA (Treasure Coast Energy Center)
MWRF Construction Costs ^[2]	\$119.440	\$104.620
Collection System / Routing	26.510	22.746
Sub-total Capital Costs of Proposed New Facilities	\$145.950	\$127.366
Decommission IWRF Site	\$2.382	\$2.382
Decommission 3 SLC Plants	1.733	1.733
Sub-total Decommission Costs	\$4.115	\$4.115
Total Capital Costs of Proposed New Facilities	\$150.065	\$131.481

[1] Amounts reflect estimated costs (in today's dollars) as derived from Tables 7-1 and 7-2 of the Hazen report, which is attached for your consideration. The amounts are based on information provided by the Parties and the assumptions as documented in the report, which should be read in its entirety.

[2] The MWRF facility design and costs are identical for both locations except that the North County site requires an additional deep injection well for redundancy whereas the South County site already has an existing deep injection well that is available for effluent disposal from the MWRF.

Projected MWRF Capital Costs	
Description	Amount (Millions)
Total Project Costs – Current Dollars ^[1]	\$131.5
Conceptual Project Schedule ^[2]	
FY21 – Develop Interlocal Agreement	N/A
FY22 – Planning and Design (10%)	\$13.9
FY23 – Planning and Design (10%)	\$14.5
FY24 – Construction (30%)	\$44.5
FY25 – Construction (30%)	\$45.7
FY26 – Construction (20%)	<u>\$31.4</u>
Total Project Costs – Future Dollars ^[2]	\$150.0

[1] Amount reflects the estimated costs (in today's dollars) as provided in the May 2020 (Draft) Engineering Report, which includes the plant and collection system related capital costs of the MWRF and the additional costs to decommission the existing plants.

[2] Conceptual project schedule provided by FPUA and SLCU staff, and the project costs were allocated over the period and increased by a 3% annual allowance for construction inflation based on the historical annual average increase in the Engineering News Construction (ENR) Index.



Steps Taken to the MWRF

✓ Purchased Property for Plant Site	\$ 1.1 M
✓ Purchased Property for Master Repump	\$.5 M
✓ Constructed 2 Deep Injection Wells	\$12.5 M
✓ Plant Designed	\$ 2.2 M
✓ Constructed 24" FM Along Jenkins Road	\$ 1.8 M
✓ All Master Planned Wastewater System Components Are Designed to Go Both Ways	
✓ Emergency Generator (FY 19) \$3.2 M	\$ 1.5 M
✓ Orange Ave. Force Main (FY 19-20)	\$ 1.7 M
✓ Downtown Force Main (FY 21-22)	<u>\$ 2.5 M*</u>
Total Investment	\$23.8 M

Proposed/Ongoing Projects*