



# **Captiva Island Wastewater Alternatives**

## **FGUA South Seas WW System Service Area Expansion Concept**

**Captiva Community Panel Meeting  
November 12, 2019**

# Florida Governmental Utility Authority

- A “single purpose,” multi-jurisdictional entity for utility ownership, operation and management
- Created by six counties in 1999 through an inter-local agreement
- Government Services Group, Inc. has served as “System Manager” since inception
- Currently includes 13 counties; serving 120,000 customer connections; \$85M in annual operations

## FGUA Client Benefits

Enables local government to improve quality of service and maintain control (seat on Board of Directors)

Places NO burden on local governments' financial resources

All financial, operational and environmental risk remains the sole responsibility of the FGUA

System improvements; current and future, are financed on a tax-exempt basis

Maximizes economies of scale

Puts the customer first with dedicated customer attention



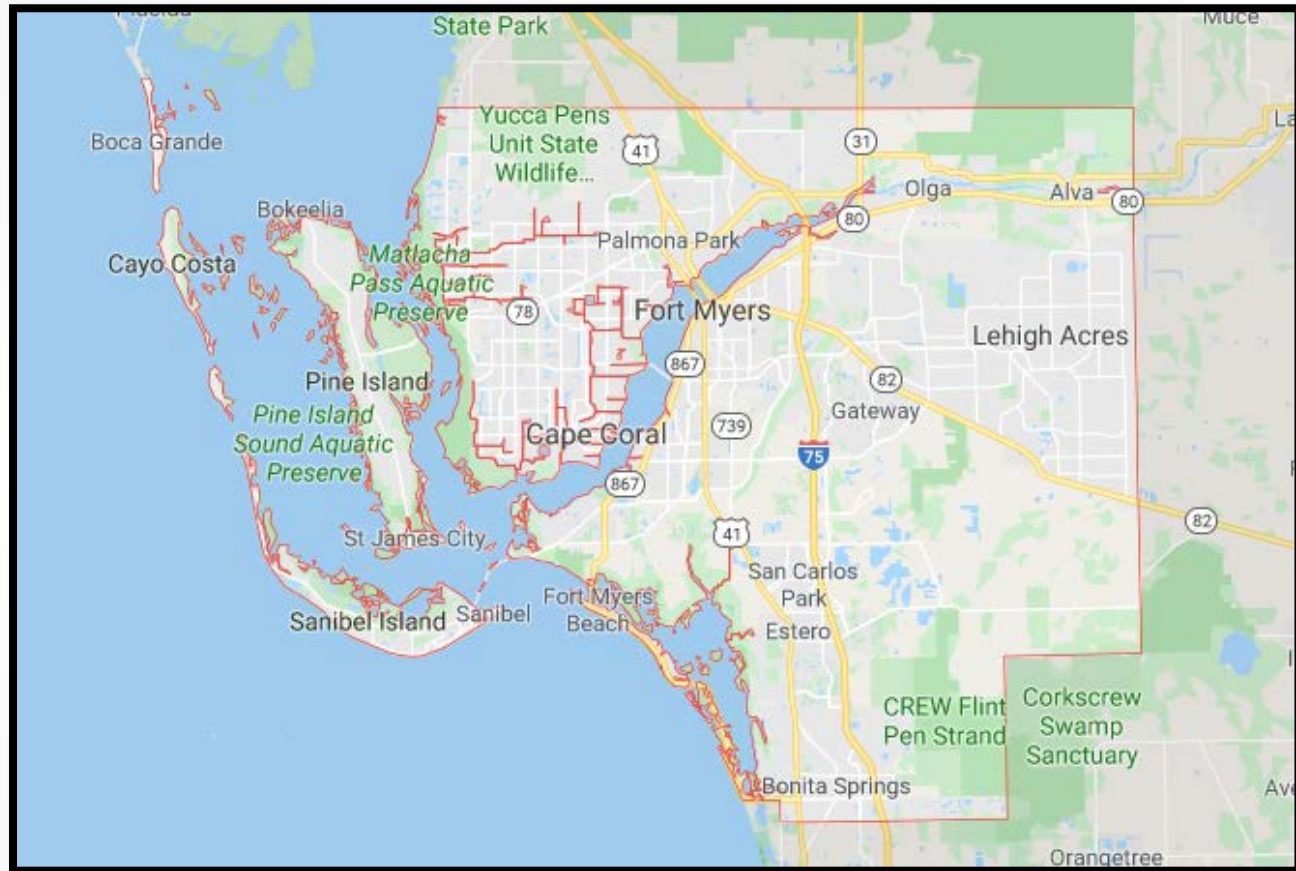
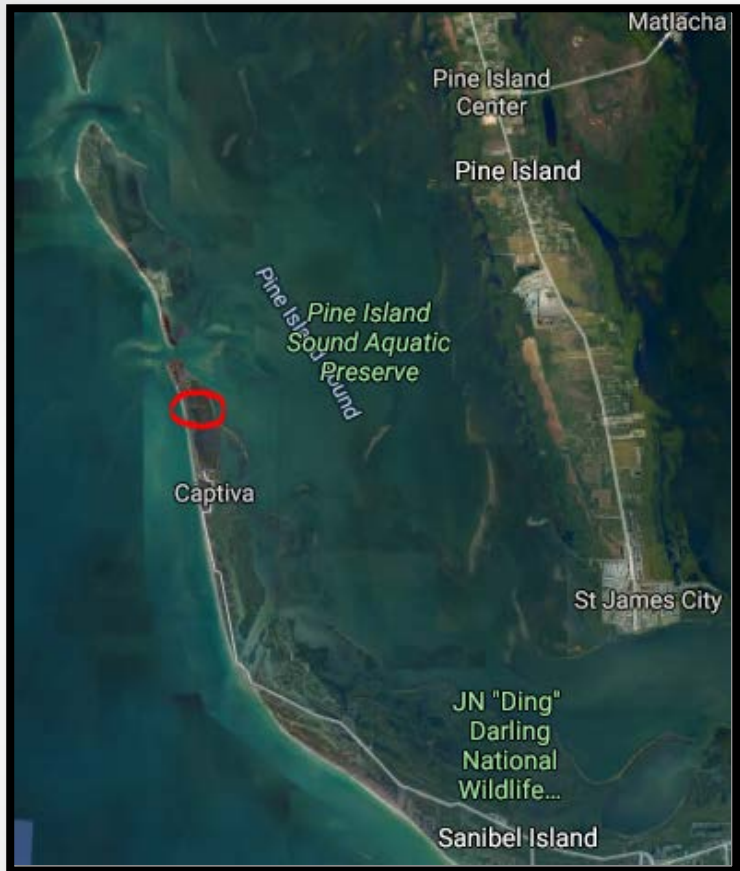
# Captiva Island Wastewater Alternatives

- **Presentation will cover:**

- Project Location & Key Design Considerations
- Advanced Wastewater Treatment
- Regulatory Overview
- Resiliency and Sustainability
- Expansion Concept and Cost Estimates
- Qualitative Considerations – pro's and con's
- Summary and Closing

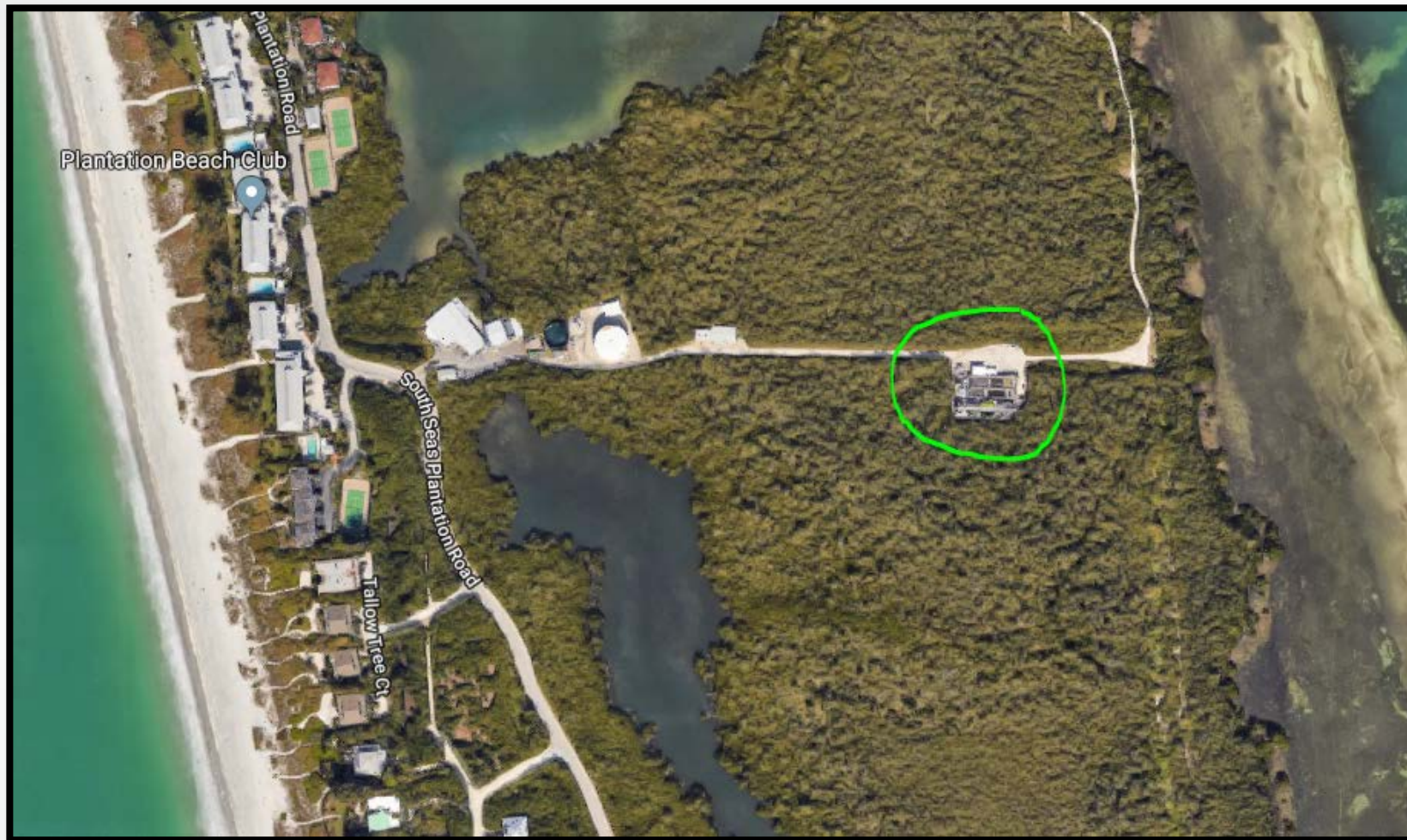


# Project Location Maps – Lee County, FL



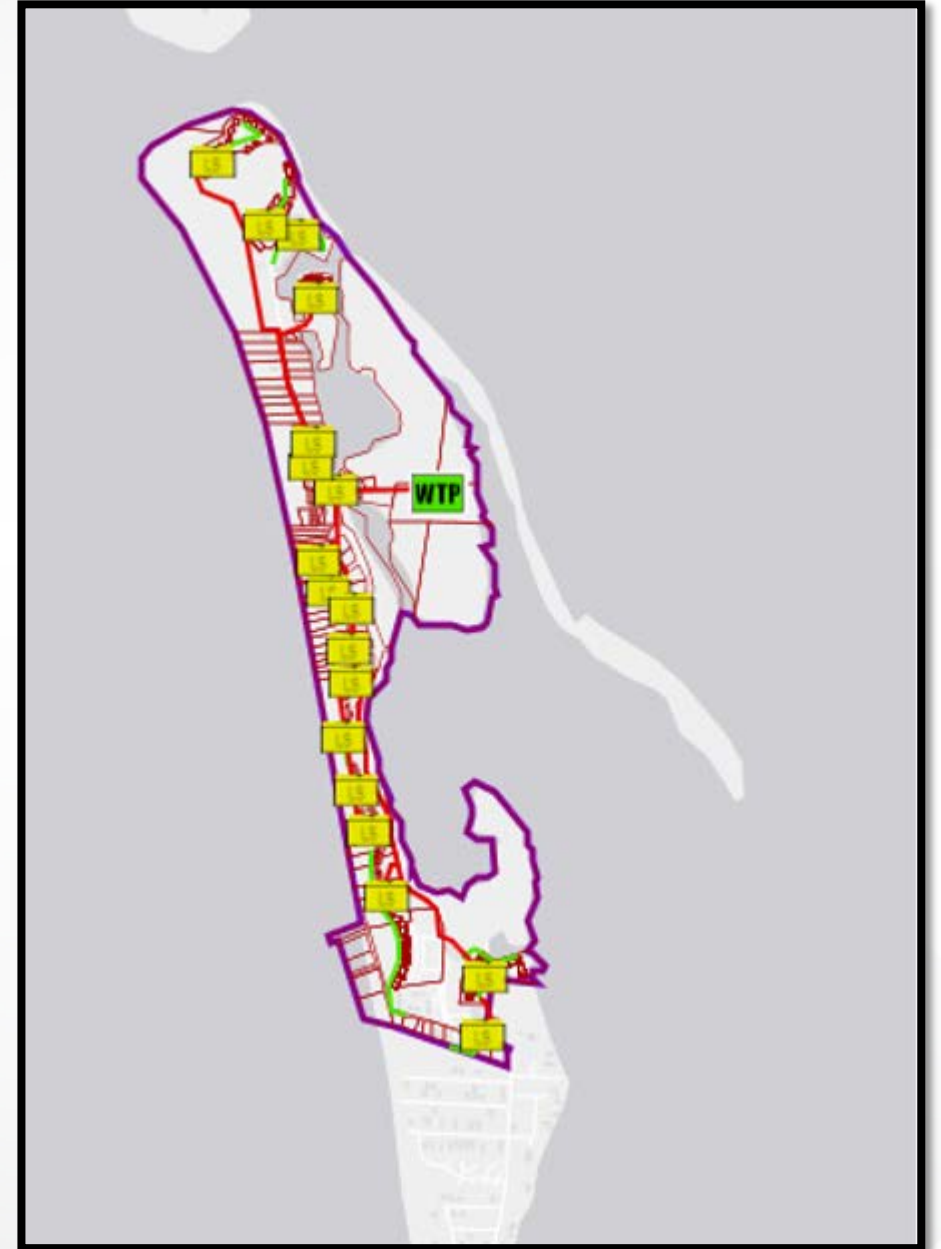


# Project Location Map



# South Seas WW System

- Serves South Seas Plantation and adjacent areas at north tip of Captiva Island
- Existing collection system consists of gravity mains and 18 lift stations
- Treatment Plant
- Effluent disposal system consists of public access reuse and backup injection well
- Regulatory status – In Compliance

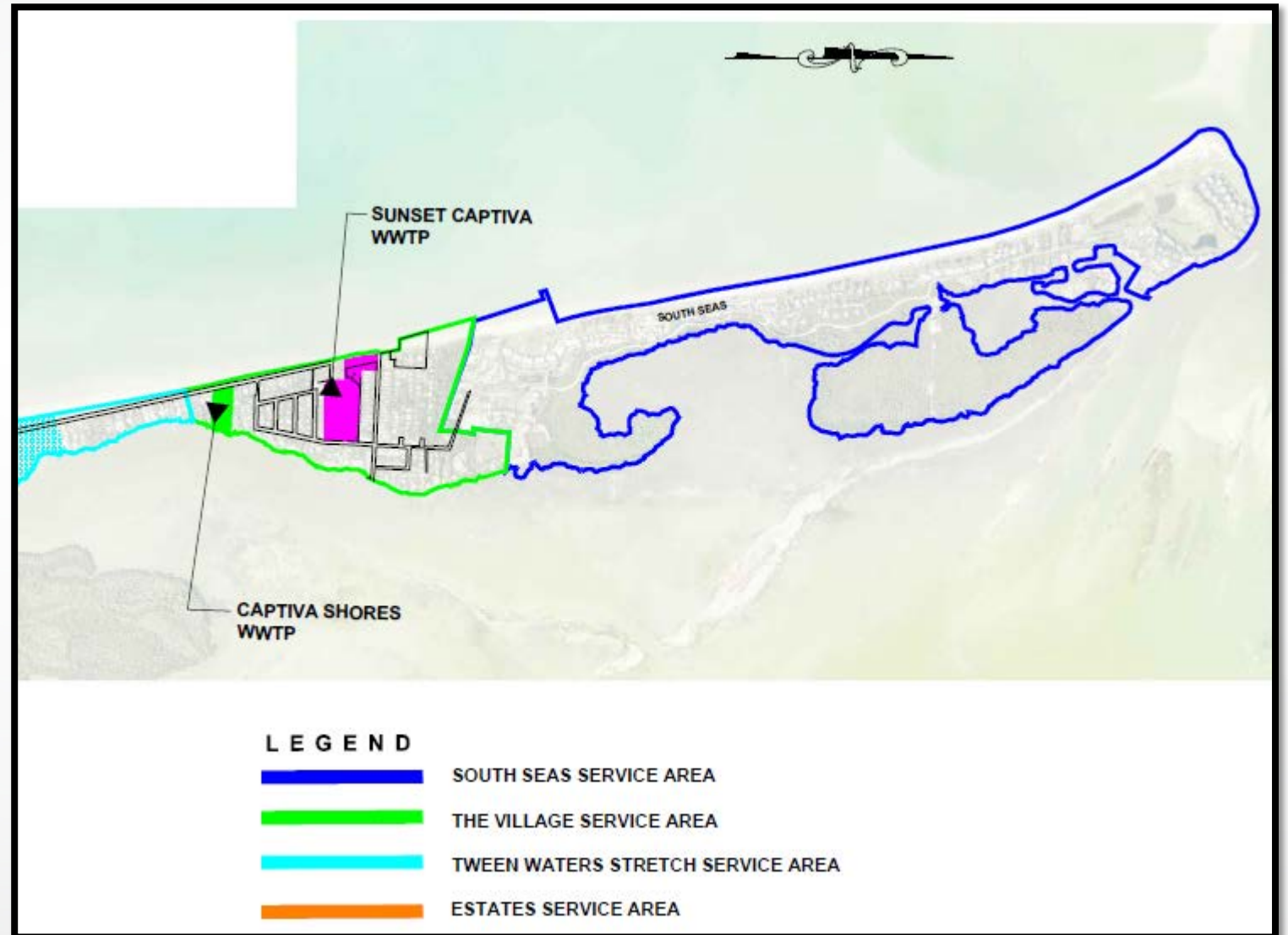




# South Seas WW System – expanded service area

(Map Source: TKW Report dated Aug 2018, Figure 1)

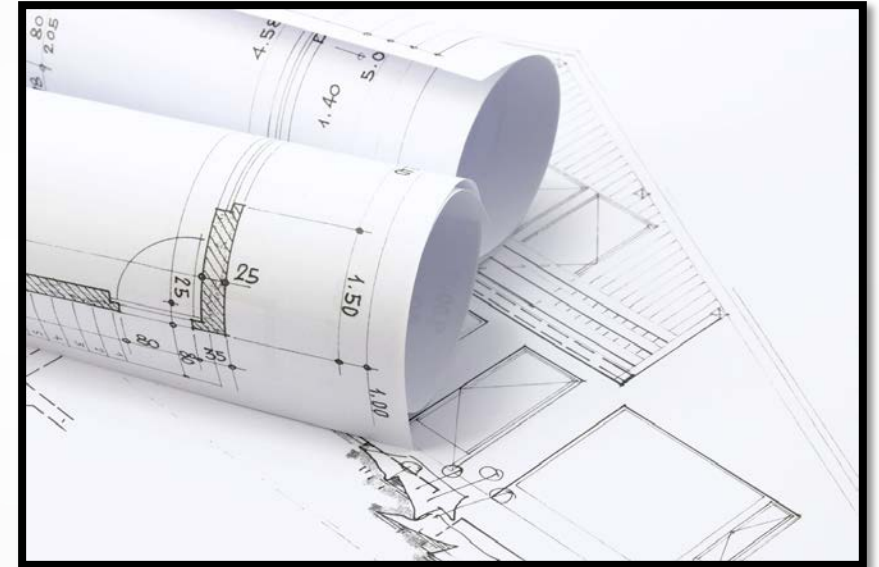
- Additional South Seas WW service area to include “Village Service Area”



# Key Design Considerations

- **State of the art facility**

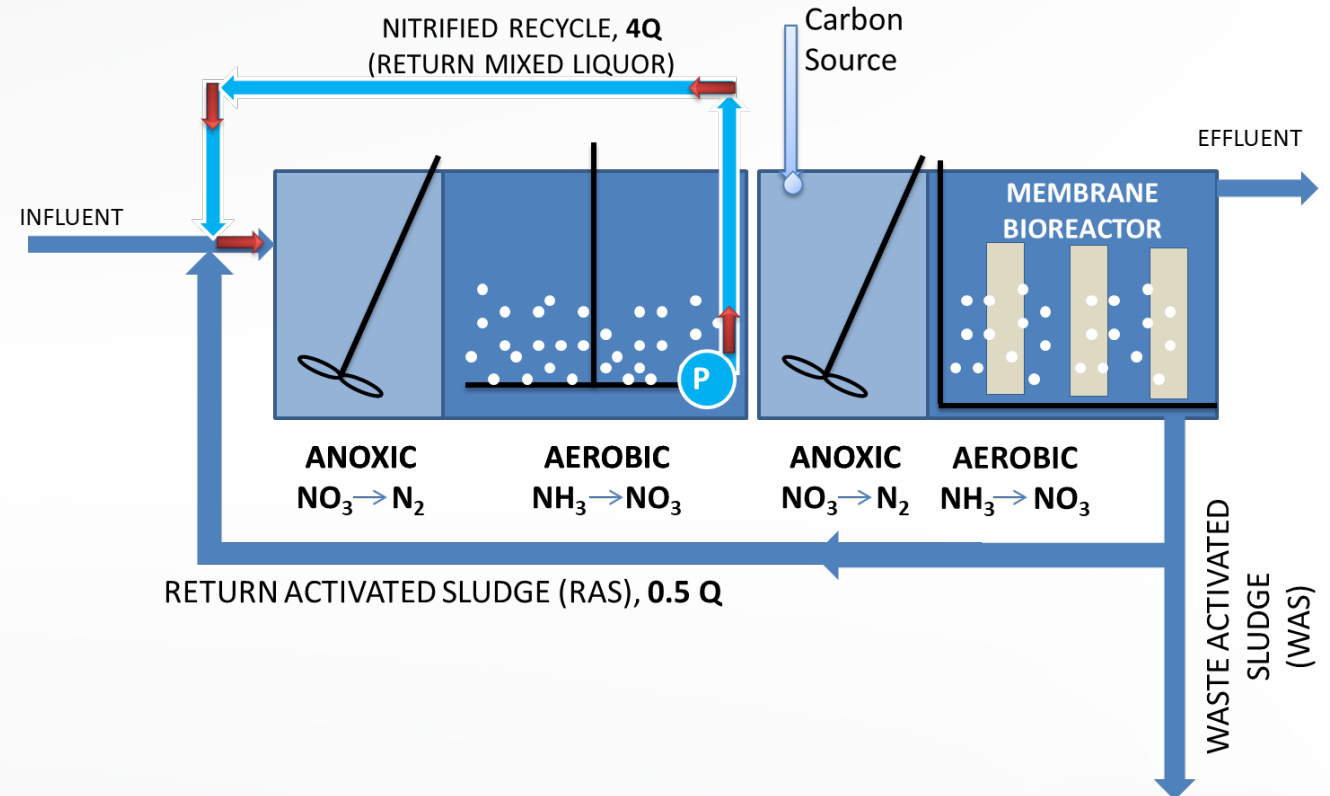
- Sized for 0.3 MGD; expandable to 0.4 MGD
- Membrane Bioreactor (MBR)
- Advanced Wastewater Treatment (AWT)
- Public access reclaimed water
  - Class I Reliability
  - High Level Disinfection
- Alternative Disposal – Class V Injection Wells
- Resilient & Sustainable Construction
- Construction within existing footprint
  - Goal: No encroachment into protected wetlands/mangroves





# Advanced Wastewater Treatment (AWT)

- Florida Statute 403.086
- Annual Average Limits
  - Biochemical Oxygen Demand – 5 mg/l
  - Suspended Solids – 5 mg/l
  - Total Nitrogen – 3 mg/l
  - Total Phosphorous – 1 mg/l
- Typically applied to WWTP's utilizing surface water discharges
- The proposed nutrient removal is a 4-stage Bardenpho process with membrane filtration



# Public Access Reclaimed Water

## Class I Reliability, FDEP Rule 62-610.300(1)(c)

### Bar Screens

A minimum of two are required, each sized for peak flow

### Pumps

A backup pump must be provided for each pumping system

### Aeration Basins

At least two equal volume basins are required

### Blowers

Design oxygen transfer shall be maintained with the largest unit out of service. At least two units must be installed

### Clarifiers

With the largest unit out of service, the remaining units must have a design flow capacity of at least 75% of design flow

### Filters

With the largest unit out of service, the remaining units must have a design flow capacity of at least 75% of design flow

### Chlorine Contact

With the largest unit out of service, the remaining units must have a design flow capacity of at least 50% of design flow

### Electric Power

A backup power source shall be provided which is sufficient to operate all vital components during peak wastewater flow

# Public Access Reclaimed Water (cont)

- High Level Disinfection, FDEP Rule 62-600.440 (5)
  - Filtration for TSS levels below 5.0 mg/l
  - Total chlorine residual of at least 1.0 mg/l at all times
  - Minimum contact time of 15 minutes at peak flow
  - Fecal coliform below detectable limits





# Resiliency & Sustainability

- WWTP located in FEMA FIRM Category AE Elev 10
- Will be designed for FIRM Category VE Elev 13 plus 2 feet for contemplated SLR
- All structures will be flood-proofed
  - All critical mechanical & electrical components installed above 15' elevation
- All structures will be designed to withstand Category 5 Hurricane
- Construction in marine environment
  - Nonferrous metals where practical
  - Concrete structures
  - Specialty epoxy coatings





# Conceptual Layouts and Cost Estimates

Subject to change based on Lee County criteria, project delivery methods, marketplace conditions, stakeholder requirements, funding limitations, & permitting. Costs exclude land acquisition and legal fees.



Note: Construction of new WW Collection System and Force Main for Village area can occur concurrently with Phases 1, 2, and 3, but finish at same time as end of Phase 3.

# SOUTHSEAS WWTP EXPANSION TO 300,000 GPD MBR EXISTING CONDITIONS SITE PLAN



1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

ENGINEERING

Project No.

Sheet No.

Scale

Revision

Drawn By

Checked By

Approved By

4839 CROSS BAYOU BOULEVARD  
NEW PORT RICHEY, FL 34852  
(727) 848-8232 (727) 848-7701  
FL CDA NO. 9754 & FL REG. NO. 49129

**U.S. water**  
Services Corporation

FGUA SOUTHSEAS WWTP MBR  
EXISTING SITE PLAN  
LEE COUNTY, FLORIDA



RELOCATE DISC FILTERS AND OPS BUILDING AS NECESSARY

FILTER & TEMPORARY C.C.C.

CONVERT EXISTING AQUASTORE TANKS TO 180,000 GPD WWTP

		4939 CROSS BAYOU BOULEVARD NEW PORT RICHEY, FL 34652 (727) 848-8292 (727) 848-7701 FL COA NO. 9754 & FL REG. NO. 49239		FGUA SOUTHSEAS WWTF MBR SITE PLAN PHASE 1 LEE COUNTY, FLORIDA		<table><tr><th colspan="2">ENGINEERING</th></tr><tr><td>Engineer: <b>RE</b></td><td>Date: 11/4/2004</td></tr><tr><td>Drawn: <b>SP</b></td><td>Scale: N.T.S.</td></tr><tr><td>Checked: <b>SP</b></td><td></td></tr></table>		ENGINEERING		Engineer: <b>RE</b>	Date: 11/4/2004	Drawn: <b>SP</b>	Scale: N.T.S.	Checked: <b>SP</b>	
ENGINEERING															
Engineer: <b>RE</b>	Date: 11/4/2004														
Drawn: <b>SP</b>	Scale: N.T.S.														
Checked: <b>SP</b>															



# SOUTHSEAS WWTP EXPANSION TO 300,000 GPD MBR PHASE 2



DEMOLISH EXISTING CONCRETE  
STRUCTURES

DATE: 11/14/2018	
ENGINEERING	DATE: 11/14/2018
DESIGNED BY: [blank]	DRAWN BY: [blank]
CHECKED BY: [blank]	SCALE: 1/2" = 1'-0"
PROJECT: FGUA SOUTHSEAS WWTP MBR SITE PLAN PHASE 2 LEE COUNTY, FLORIDA	
4836 CROSS BAYOU BOULEVARD NEW PORT RICHEY, FL 34652 (772) 846-5522 FAX (772) 846-7701 FL CON. NO. 9754 & FL REG. NO. 10729	
U.S. Water Services Corporation	
5	5



# SOUTHSEAS WWTP EXPANSION TO 300,000 GPD MBR PHASE 3





Operations and Controls

Add Additional MBR Equipment

Flow Splitter Box	Digester 50K gal.	Equalization Tank 50K gal.	1st Anoxic Tank 35K gal.	Aeration Tank 70K gal.	2nd Anoxic Tank 15K gal.	MBR 40K gal.	CCC 15K gal.
		EQ/Dig Blower		Aeration Blower	Rec	MBR Pump	
		EQ/Dig Blower		Aeration Blower	Rec	MBR Blower	
	Digester 50K gal.	Equalization Tank 50K gal.	1st Anoxic Tank 35K gal.	Aeration Tank 70K gal.	2nd Anoxic Tank 15K gal.	MBR 40K gal.	CCC 15K gal.

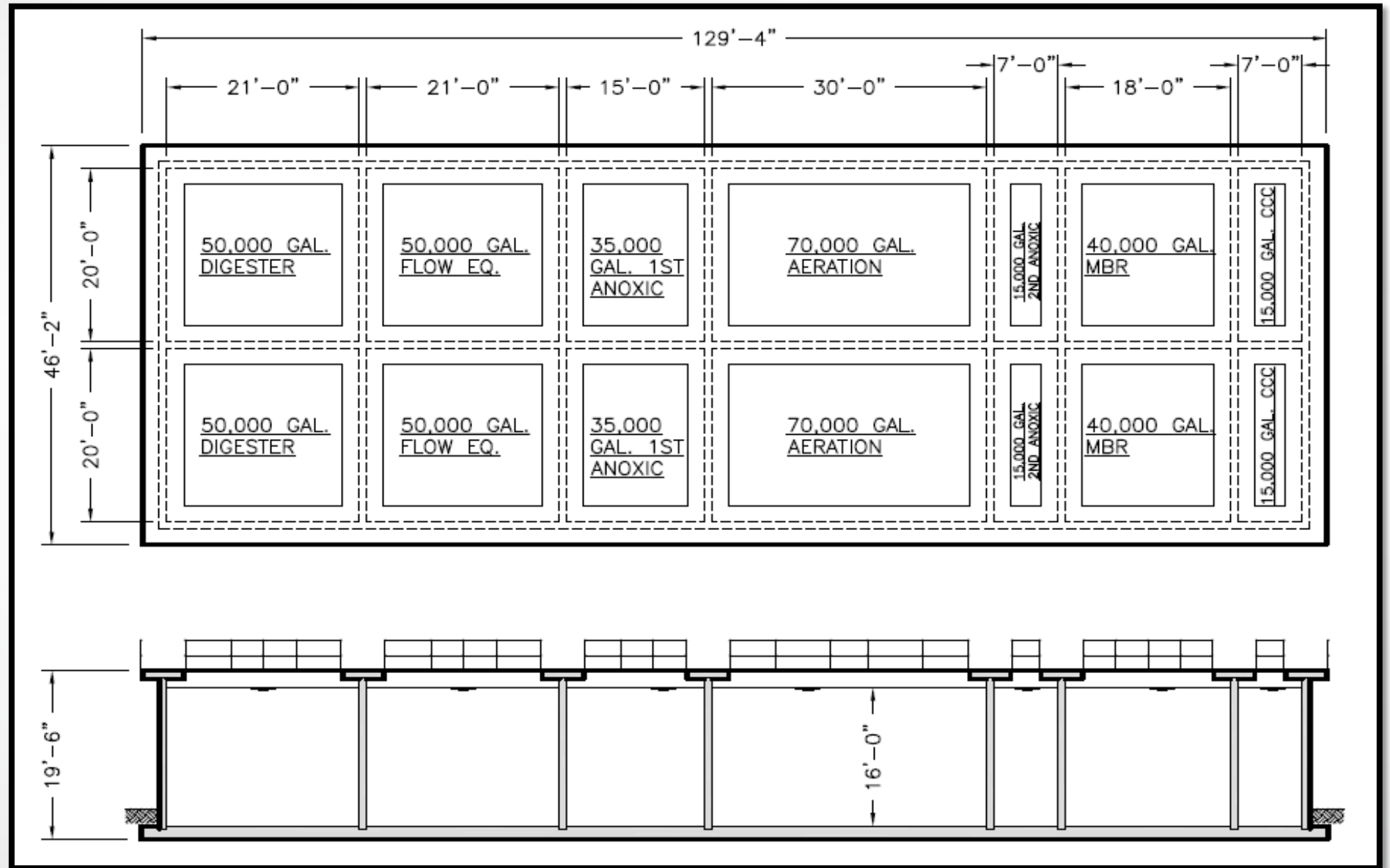
ENGINEERING		<div style="border: 1px solid black; height: 100px; width: 100%;"></div>	
Engineer's No.	Date 11/4/2018		
Person By ICE	State N.Y.		
Checked By ICE			

FGUA SOUTHSEAS WWTF MBR  
SITE PLAN PHASE 4  
LEE COUNTY, FLORIDA

4939 GROSS BAYOU BOULEVARD  
NEW PORT RICHEY, FL 34852  
(727) 848-8292 (727) 848-7701  
FL COA NO. 9754 & FL REG. NO. 45129

# Contractor Partner (Mack Industries Inc.)

## Rendering of Preliminary Layout



# Cost Estimate – WWTP Summary Breakdown

Item	Estimated Cost
<b>Phase 1</b> - Conversion of Aquastore Tanks to 180,000 gpd Treatment (to remain)	\$424,000
<b>Phase 2</b> - Demolish Existing Concrete Structures	\$273,000
<b>Phase 3</b> - Construct 400,000 gpd AWT Class I Reliable Public Access Reuse; MBR treatment of 300,000 GPD (elevated& hardened)	\$4,307,000
Contractor's Overhead and Profit (10%), Engineering and Permitting (10%), Construction Management (5%), and Contingency (10%)	\$2,275,569
FGUA CIP Mgmt, Inspection, and Legal (11%)	\$899,722
<b>Total</b>	<b>\$8,179,291</b>
<b>Phase 3 - AWT Equipment</b> - 300,000 gpd	\$440,000
Contractors Overhead and Profit (15%), Engineering and Permitting (10%), Construction Management (5%), and Contingency (10%)	\$200,090
FGUA CIP Mgmt, Inspection, and Legal (11%)	\$79,112
<b>Total</b>	<b>\$719,202</b>
<b>Total Phases 1, 2, and 3, with AWT Equipment</b>	<b>\$8,898,493</b>





# Cost Estimate – Village Collection & WWTP Expansion

Item	Cost (\$000)
Collection System (TKW Exhibit 3)	\$3,600,000
WWTP Expansion to AWT (FGUA)	\$8,898,000
8500 LF of 4-inch FM to WWTP	<u>\$534,831</u>
Total Estimated Program Cost	\$13,032,831
ERCs in Village Service Area (TKW Exh 2)	412

# “PRO’s” Qualitative Considerations for cost allocation

Customer	POTENTIAL BENEFITS / "PROS"
<b>Existing Customers</b>	- Longer life and higher reliability facility
	- Grant opportunity may lower costs
	- Economies of Scale
	- Environmental benefit to Captiva Island
<b>New Customers</b>	- "Central Sewer" no septic tanks pkg plants
	- Utilize ppty already owned by FGUA
	- FGUA acquisition cost of Aqua, "done"
	- Redevelop existing pkg plant sites
	- Environmental benefit to Captiva Island
	- Provides for add'l expansion (Phase 4)





# “CON’s” Qualitative Considerations for cost allocation

Customer	POTENTIAL CHALLENGES / "CONs"
<b>Existing Customers</b>	- "Stranded" assets/ improvements
	- Higher long term operational costs
	- Timing unknown for higher utility rates
	- Construction disruption
<b>New Customers</b>	- Regulatory permit requirements
	- Actual costs TBD (see Cost Estimate caveats)
	- Rate Study & cost allocation method
	- Construction disruption

# Summary and Closing

- FGUA as a public utility, has completed 61 projects at the South Seas WWTP, totaling \$2.1M over the 6 years since acquisition from Aqua Utilities, Inc.
- Project location includes Village area new WW collection system, new force main to South Seas WWTP, & WWTP expansion
- Design criteria sized for 0.3 MGD plant (expansion); expandable to 0.4 MGD. “Central Sewer” eliminates septic tanks and package plants and produces reusable reclaimed water
- Advanced Wastewater Treatment using MBR process removes additional nitrogen and phosphorus providing more environmental benefit, greater eligibility for grant funding



## Summary and Closing (cont'd)

- Resiliency and Sustainability criteria incorporated into the WWTP expansion for Hurricane Category 5 criteria, FEMA Flood Elevations, and Sea Level Rise projections
- Total Program Costs and ERCs are combination of TKW and FGUA/ USWSC layouts and cost estimates, as noted
- Estimated \$13.03M for 412 new ERCs adds to the FGUA service area, cost allocation dependent on future rate study to consider grant funding scenarios
- Lee County as government leader, to provide overall direction on next steps, incorporating community input



# **Captiva Community Panel Meeting**

**November 12, 2019**

**Questions?**





## Supplemental slides...

- cost estimate detail
- FGUA historical costs, WWTP only

# Cost Estimate

Item	Cost
<b><u>Phase 1 - Conversion of Aquastore Tanks to 180,000 gpd Treatment (to remain)</u></b>	
Install Aeration System in 150K gal Tank	\$ 90,000
Convert 72K gal Tank to Clarifier	\$129,000
Convert 43K gal Tank to CCC	\$ 40,000
Relocate Disc Filers	\$ 35,000
Piping Allowance	\$ 50,000
Electrical Allowance	\$ 50,000
Site Work Allowance	\$ 30,000
Subtotal	\$424,000
<b><u>Phase 2 - Demolish Existing Concrete Structures</u></b>	
Sludge Removal	\$ 80,000
Cleaning	\$ 15,000
Disinfection	\$ 3,000
Concrete Demo and Removal	\$175,000
Subtotal	\$273,000



# Cost Estimate (cont)

## **Phase 3 - Construct 400,000 gpd AWT Class I Reliable Public Access Reuse; MBR treatment of 300,000 GPD (elevated& hardened)**

Geotechnical/Soil Stabilization	\$ 70,000
Concrete Structure	\$ 750,000
Grating, Handrails, Upper Deck for Equipment	\$ 140,000
Elevated Control Building 800 sq ft	\$ 240,000
MBR Equipment (300,000 gpd of MBR treatment)	\$1,600,000
SCADA	\$ 60,000
Sitework (grating, fencing, security, lighting)	\$ 75,000
Elevated Generator	\$ 200,000
Equipment Installation	\$ 410,000
Electrical	\$ 320,000
Piping force main and reclaimed water	\$ 40,000
Additional Intermediate Injection Well	\$ 402,000
<b>Subtotal</b>	<b>\$4,307,000</b>

## **Phase 3 - AWT - 300,000 gpd**

AWT - 4 Anoxic Mixers	\$ 80,000
AWT - 4 Anoxic Recirculation Pumps	\$ 80,000
AWT - Metering & Controls	\$ 30,000
AWT - Electrical	\$ 50,000
AWT - Carbon Source Feed System	\$ 50,000
AWT - Alum Feed System	\$ 50,000
AWT - Equipment Installation	\$ 100,000
<b>Subtotal</b>	<b>\$ 440,000</b>

# Cost Estimate (cont)

## Summation & AWT Cost

<b>Subtotal</b>		<b>\$5,444,000</b>
Contractors Overhead and Profit @	15%	\$ 816,600
Subtotal		\$6,260,600
Engineering & Permitting	10%	\$ 626,060
Construction Management @	5%	\$ 313,030
Subtotal		\$7,199,690
Contingency @	10%	\$ 719,969
<b>Total</b>		<b>\$7,919,659</b>

# Cost Estimate (cont)

<b>Phase 4 – Add'l MBR Equipment for +100,000 GPD (Total 400,000 GPD)</b>		
<u>MBR Equipment</u>		\$ 420,000
Subtotal		\$ 420,000
Contractors Overhead and Profit @	15%	\$ 63,000
Subtotal		\$ 483,000
Engineering & Permitting	10%	\$ 48,300
Construction Management @	5%	\$ 24,150
Subtotal		\$ 555,450
Contingency @	10%	\$ 55,545
<b>Total</b>		<b>\$ 610,995</b>



REGION	SYSTEM	DESCRIPTION	JOB #	AMOUNT
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP GENERATOR AUTOMATIC TRANSFER SWITCH REPAIRS	343-23	\$ 4,012.51
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP EQ TANK PUMP NO. 1	343-18	\$ 2,455.62
SOUTH	SOUTH SEAS	WWTP REPLACE SLUDGE DRAIN VALVES ON FILTERS	343-03	\$ 2,836.28
SOUTH	SOUTH SEAS	WWTP AIR HEADER REPAIRS	343-12	\$ 3,824.29
SOUTH	SOUTH SEAS	WWTP Replace Chlorine Analyzer	323-08	\$ 1,400.55
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP CLARIFIER DRIVE REPLACEMENT	323-10	\$ 4,613.54
SOUTH	SOUTH SEAS	REPLACEMENT OF EFFLUENT PUMP #2	323-19	\$ 12,168.06
SOUTH	SOUTH SEAS	WWTP CLARIFIER FLIGHT / CHAIN DRIVE SYSTEM REPAIRS	343-13	\$ 9,971.45
SOUTH	SOUTH SEAS	WWTP DECANT & SUMP PUMP REPLACEMENT	343-26	\$ 1,133.59
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP REPLACE EFFLUENT DISCHARGE CHECK VALVES AT SOUTH SEAS	383-10	\$ 4,564.58
SOUTH	SOUTH SEAS	WWTP REPLACE BLOWER DISCHARGE ISOLATION AND CHECK VALVES	383-20	\$ 5,133.17
SOUTH	SOUTH SEAS	DATA LOGGERS FOR SHALLOW INJECTION WELL	383-24	\$ 6,134.14
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP REPLACE NTU METER DISPLAY	383-26	\$ 2,850.12
SOUTH	SOUTH SEAS	WWTP EFFLUENT INSTRUMENT & CONTROL PANEL COMPONENT REPLACEMENT	383-30	\$ 4,065.88
SOUTH	SOUTH SEAS	WWTP CHLORINE PROBE FAILURE	383-33	\$ 10,557.82
SOUTH	SOUTH SEAS	WWTP #2 BACKWASH PUMP MOTOR AND STARTER	383-34	\$ 2,201.95
SOUTH	SOUTH SEAS	WWTP TANK LEAK REPAIRS	323-38	\$ 9,962.41
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP REPLACE SURGE TANK PUMP #1	383-45	\$ 8,556.69
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP FAILED STENNER PUMP - LEAD CHLORINE FEED STENNER PUMP	323-41	\$ 1,936.51
SOUTH	SOUTH SEAS	REPLACE CLARIFIER DRIVE GEARS AND DRIVE CHAIN	383-13	\$ 18,084.75
SOUTH	SOUTH SEAS	WWTP PROCESS BLOWER #1	323-45	\$ 7,258.88
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP RAS TANK WALL LEAK REPAIR	383-49	\$ 5,745.46
SOUTH	SOUTH SEAS	WWTP - REPAIR FAILED SIW PRESSURE SENSOR	323-48	\$ 2,197.22
SOUTH	SOUTH SEAS	WWTP EMERGENCY GENERATOR SWITCHGEAR FAILURE	363-321	\$ 13,424.78
SOUTH	SOUTH SEAS	SOUTH SEA WWTP REPLACE CHLORINE ANALYZER	323-49	\$ 6,433.78
SOUTH	SOUTH SEAS	REPLACE THE MAIN BREAKER FOR SURGE BLOWER #2	323-67	\$ 1,338.82
SOUTH	SOUTH SEAS	WWTP- REPLACE DISFUSERS FOR DIGESTER #2	323-69	\$ 2,909.37
SOUTH	SOUTH SEAS	PROCESS BLOWER #2 REPAIR	383-50	\$ 19,348.74
SOUTH	SOUTH SEAS	WWTP REPAIR SURGE BLOWER #2 (BEARING FAILURE)	383-52	\$ 24,239.08
SOUTH	SOUTH SEAS	WWTP REPAIR SURGE BLOWER #1 (BEARING FAILURE)	383-51	\$ 13,046.13
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP FAILED CENTRIGUE	323-80	\$ 1,837.32
SOUTH	SOUTH SEAS	MISSION PLC TOUCH SCREEN AT WWTP	323-81	\$ 2,000.00
SOUTH	SOUTH SEAS	WWTP INSTALL MEMORY MODULE IN THE WWTP PLC	323-83	\$ 1,413.44
SOUTH	SOUTH SEAS	WWTP EMERGENCY GENERATOR REPAIR	323-91	\$ 12,109.97
SOUTH	SOUTH SEAS	REPAIR THE CLAIRIFER DRIVE	323-97	\$ 8,000.00
SOUTH	SOUTH SEAS	REPLACE TWO VALES IN THE FLOW CONTROL GATE	323-99	\$ 4,138.11
SOUTH	SOUTH SEAS	3SSS - REPLACE WWTP HEAT/AIR CONDITIONER	323-102	\$ 1,549.10
SOUTH	SOUTH SEAS	#2 CHLORINE FEED PUMP FAILURE	323-113	\$ 1,747.90
SOUTH	SOUTH SEAS	Breaker for Surge Blower #1	323-116	\$ 1,500.00
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP ELECTRICAL REPAIRS, TEMPORARY PIPING TO PROCESS & EQ BLOWERS & EMERGENCY HAULING	343-27A	\$ 49,778.18
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP PANEL REPLACEMENT & BLOWER REPAIR AND INSTALLATION	343-27C	\$ 94,590.85
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP MAIN POWER PANEL REPLACE AND REWIRE	343-27D	\$ 88,711.49
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP DRAIN AND CLEAN SURGE TANK AT THE SOUTH SEAS WWTP	323-23	\$ 9,130.80
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP INSTALL AUTO DIALER / ALARM SYSTEM	343.27e	\$ 81,461.17
SOUTH	SOUTH SEAS	SOUTH SEAS PANEL AND EQUIPMENT REPLACMENET ELECTRICAL DEMOLITION	343-27f	\$ 22,228.80
SOUTH	SOUTH SEAS	SOUTH SEAS RELOCATE CHLORINE TANKS FOR INSTALLING NEW SHALLOW DISPOSAL WELL	383-03	\$ 7,469.85
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP PIPING AND FENCING RELATED TO THE SHALLOW INJECTION WELL PROJECT	15-109	\$ 74,712.86
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP PLANT UPSET	323-30	\$ 91,125.76
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP WEATHER EVENT	323-33	\$ 14,736.29
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP DRAIN AND CLEAN THE SURGE TANK	323-34	\$ 7,383.19
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP SHALLOW INJECTION WELL AND MONITORING WELL SAMPLING	383-12	\$ 60,307.82
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP REPLACE FILTER MEDIA CLOTH FOR EFFLUENT FILTERS AT SOUTH SEAS WWTP	383-16	\$ 14,419.77
SOUTH	SOUTH SEAS	SOUTH SEAS BYPASS ISOLATION VALVE LS #4	383-38	\$ 4,109.99
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP INSTALL FILTER BYPASS VALVE OPERATORS, TSS PROBE AND PROCESS VALVE CONTROL SYSTEM.	383-41	\$ 85,679.69
SOUTH	SOUTH SEAS	SOUTH SEAS REPLACE THE FILTER CONTROL POWER PANEL	323-54	\$ 11,657.18
SOUTH	SOUTH SEAS	SOUTH SEAS CONSTRUCT ACCESS PLATFORMS FOR EMERGENCY GENERATOR	323-53	\$ 11,723.61
SOUTH	SOUTH SEAS	SOUTH SEAS INSTALL NEW PLATFORM, PIPING AND SCREEN FOR HEADWORKS	323-62	\$ 99,791.21
SOUTH	SOUTH SEAS	SOUTH SEAS WWTF IMPROVEMENTS - INJECTION WELL AND MONITORING WELL	UA010	\$ 189,080.00
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP CLEAN THE SURGE TANK	323-64	\$ 11,923.51
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP Electrical System Upgrade	Yr 2013-14-15	\$ 316,825.34
SOUTH	SOUTH SEAS	SOUTH SEAS WWTP Shallow Injection Well - Capital Project	Yr 2016	\$ 271,261.00
Sub TOTAL				\$ 1,864,810.37
Total w 11% CIP and Insp				\$ 2,095,292.55

# Summary of FGUA Investments into the South Seas WWTP, 2013 - 2019

