

**SEMINOLE COUNTY GOVERNMENT
AGENDA MEMORANDUM**

SUBJECT: Northwest Seminole County Tri-Party Reclaimed Water Augmentation System

DEPARTMENT: Environmental Services **DIVISION:** Director's

AUTHORIZED BY: *Robert G. Adolphe* **CONTACT:** Robert G Adolphe **EXT.** 2012
Robert G. Adolphe, P.E.

Agenda Date <u>11-18-03</u> Regular <input type="checkbox"/> Consent <input type="checkbox"/> Work Session <input type="checkbox"/> Briefing <input checked="" type="checkbox"/>
Public Hearing – 1:30 <input type="checkbox"/> Public Hearing – 7:00 <input type="checkbox"/>

MOTION/RECOMMENDATION:

Update on current status of the Northwest Seminole County Tri-Party Reclaimed Water Augmentation System.


BACKGROUND:

Seminole County has joined the cities of Sanford and Lake Mary in this joint venture that supplies irrigation quality water for commercial and residential use. Benefits towards aquifer recharge result directly and indirectly.

Reviewed by:
Co Atty: <u>N/A</u>
DFS: <u>N/A</u>
Other: <u>N/A</u>
DCM: <u><i>[Signature]</i></u>
CM: <u><i>[Signature]</i></u>
File No: <u>BESA01</u>

Tri-Party Reclaimed Water Augmentation System

Presented By



October 2003

- ## History
- Sanford North WRF = 7.3 MGD
 - City wide Reclaimed System Developed Late 1980's
 - Demands at Certain Times Exceeded Supply
 - Surface Water Augmentation System 2002
 - Tri-Party Agreement
 - Seminole County
 - City of Sanford
 - City of Lake Mary

- ## Water Quality
- Pilot Testing Program
 - Chlorides
 - Turbidity
 - Color
 - Chemical Dosages to meet reclaimed water requirements
 - Alum (60 - 80 mg/L)
 - Polymer (2 - 3 mg/L)
 - Cost to produce and deliver the reclaimed water (O&M)
 - \$0.26/gal
 - Augmentation System Cost \$2,949,445
 - Capacity 7.3 MGD
 - \$/Gal: \$0.41/Gal
 - EPA Grant \$1,739,234

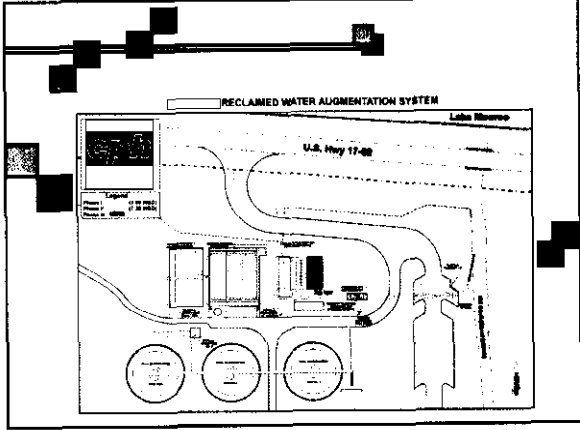


EXHIBIT C

Reclaimed Water Augmentation Cost

Project	Project Description	Length (Feet)	Unit Cost (\$/Foot)	Total Project Cost (\$)
1	Sanford North WRF	1,000,000	1.00	1,000,000
2	Sanford City Wide	1,000,000	1.00	1,000,000
3	Sanford North WRF	1,000,000	1.00	1,000,000
4	Sanford City Wide	1,000,000	1.00	1,000,000
5	Sanford North WRF	1,000,000	1.00	1,000,000
6	Sanford City Wide	1,000,000	1.00	1,000,000
7	Sanford North WRF	1,000,000	1.00	1,000,000
8	Sanford City Wide	1,000,000	1.00	1,000,000
9	Sanford North WRF	1,000,000	1.00	1,000,000
10	Sanford City Wide	1,000,000	1.00	1,000,000
11	Sanford North WRF	1,000,000	1.00	1,000,000
12	Sanford City Wide	1,000,000	1.00	1,000,000
13	Sanford North WRF	1,000,000	1.00	1,000,000
14	Sanford City Wide	1,000,000	1.00	1,000,000
15	Sanford North WRF	1,000,000	1.00	1,000,000
16	Sanford City Wide	1,000,000	1.00	1,000,000
17	Sanford North WRF	1,000,000	1.00	1,000,000
18	Sanford City Wide	1,000,000	1.00	1,000,000
19	Sanford North WRF	1,000,000	1.00	1,000,000
20	Sanford City Wide	1,000,000	1.00	1,000,000
21	Sanford North WRF	1,000,000	1.00	1,000,000
22	Sanford City Wide	1,000,000	1.00	1,000,000
23	Sanford North WRF	1,000,000	1.00	1,000,000
24	Sanford City Wide	1,000,000	1.00	1,000,000
25	Sanford North WRF	1,000,000	1.00	1,000,000
26	Sanford City Wide	1,000,000	1.00	1,000,000
27	Sanford North WRF	1,000,000	1.00	1,000,000
28	Sanford City Wide	1,000,000	1.00	1,000,000
29	Sanford North WRF	1,000,000	1.00	1,000,000
30	Sanford City Wide	1,000,000	1.00	1,000,000
31	Sanford North WRF	1,000,000	1.00	1,000,000
32	Sanford City Wide	1,000,000	1.00	1,000,000
33	Sanford North WRF	1,000,000	1.00	1,000,000
34	Sanford City Wide	1,000,000	1.00	1,000,000
35	Sanford North WRF	1,000,000	1.00	1,000,000
36	Sanford City Wide	1,000,000	1.00	1,000,000
37	Sanford North WRF	1,000,000	1.00	1,000,000
38	Sanford City Wide	1,000,000	1.00	1,000,000
39	Sanford North WRF	1,000,000	1.00	1,000,000
40	Sanford City Wide	1,000,000	1.00	1,000,000
41	Sanford North WRF	1,000,000	1.00	1,000,000
42	Sanford City Wide	1,000,000	1.00	1,000,000
43	Sanford North WRF	1,000,000	1.00	1,000,000
44	Sanford City Wide	1,000,000	1.00	1,000,000
45	Sanford North WRF	1,000,000	1.00	1,000,000
46	Sanford City Wide	1,000,000	1.00	1,000,000
47	Sanford North WRF	1,000,000	1.00	1,000,000
48	Sanford City Wide	1,000,000	1.00	1,000,000
49	Sanford North WRF	1,000,000	1.00	1,000,000
50	Sanford City Wide	1,000,000	1.00	1,000,000
51	Sanford North WRF	1,000,000	1.00	1,000,000
52	Sanford City Wide	1,000,000	1.00	1,000,000
53	Sanford North WRF	1,000,000	1.00	1,000,000
54	Sanford City Wide	1,000,000	1.00	1,000,000
55	Sanford North WRF	1,000,000	1.00	1,000,000
56	Sanford City Wide	1,000,000	1.00	1,000,000
57	Sanford North WRF	1,000,000	1.00	1,000,000
58	Sanford City Wide	1,000,000	1.00	1,000,000
59	Sanford North WRF	1,000,000	1.00	1,000,000
60	Sanford City Wide	1,000,000	1.00	1,000,000
61	Sanford North WRF	1,000,000	1.00	1,000,000
62	Sanford City Wide	1,000,000	1.00	1,000,000
63	Sanford North WRF	1,000,000	1.00	1,000,000
64	Sanford City Wide	1,000,000	1.00	1,000,000
65	Sanford North WRF	1,000,000	1.00	1,000,000
66	Sanford City Wide	1,000,000	1.00	1,000,000
67	Sanford North WRF	1,000,000	1.00	1,000,000
68	Sanford City Wide	1,000,000	1.00	1,000,000
69	Sanford North WRF	1,000,000	1.00	1,000,000
70	Sanford City Wide	1,000,000	1.00	1,000,000
71	Sanford North WRF	1,000,000	1.00	1,000,000
72	Sanford City Wide	1,000,000	1.00	1,000,000
73	Sanford North WRF	1,000,000	1.00	1,000,000
74	Sanford City Wide	1,000,000	1.00	1,000,000
75	Sanford North WRF	1,000,000	1.00	1,000,000
76	Sanford City Wide	1,000,000	1.00	1,000,000
77	Sanford North WRF	1,000,000	1.00	1,000,000
78	Sanford City Wide	1,000,000	1.00	1,000,000
79	Sanford North WRF	1,000,000	1.00	1,000,000
80	Sanford City Wide	1,000,000	1.00	1,000,000
81	Sanford North WRF	1,000,000	1.00	1,000,000
82	Sanford City Wide	1,000,000	1.00	1,000,000
83	Sanford North WRF	1,000,000	1.00	1,000,000
84	Sanford City Wide	1,000,000	1.00	1,000,000
85	Sanford North WRF	1,000,000	1.00	1,000,000
86	Sanford City Wide	1,000,000	1.00	1,000,000
87	Sanford North WRF	1,000,000	1.00	1,000,000
88	Sanford City Wide	1,000,000	1.00	1,000,000
89	Sanford North WRF	1,000,000	1.00	1,000,000
90	Sanford City Wide	1,000,000	1.00	1,000,000
91	Sanford North WRF	1,000,000	1.00	1,000,000
92	Sanford City Wide	1,000,000	1.00	1,000,000
93	Sanford North WRF	1,000,000	1.00	1,000,000
94	Sanford City Wide	1,000,000	1.00	1,000,000
95	Sanford North WRF	1,000,000	1.00	1,000,000
96	Sanford City Wide	1,000,000	1.00	1,000,000
97	Sanford North WRF	1,000,000	1.00	1,000,000
98	Sanford City Wide	1,000,000	1.00	1,000,000
99	Sanford North WRF	1,000,000	1.00	1,000,000
100	Sanford City Wide	1,000,000	1.00	1,000,000

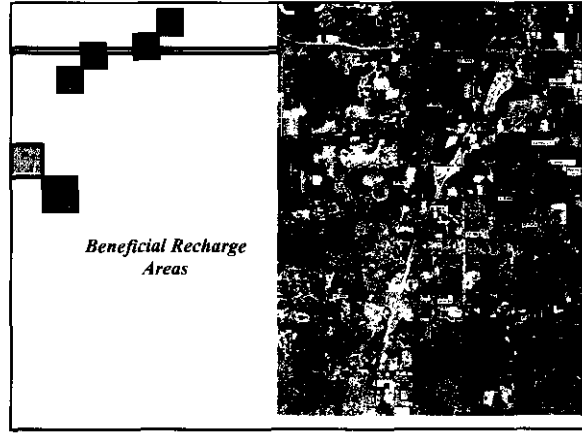
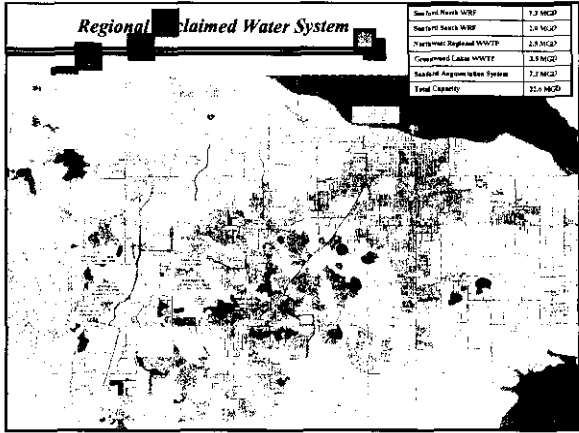
Cost Breakdown

EXHIBIT D

Reclaimed Water Allocation to Seminole County, Sanford, and Lake Mary

Location	Volume (MGD)			Total
	MGD	MGD	MGD	
SANFORD	7.3	0.0	0.0	7.3
LAKE MARY	0.0	0.0	0.0	0.0
COSTS				
General Distribution	1.00	1.00	1.00	3.00
HBBC	1.00	1.00	1.00	3.00
International Parkway H.	1.00	1.00	1.00	3.00
Lake Mary Blvd.	1.00	1.00	1.00	3.00
TOTAL	4.00	4.00	4.00	12.00

Additional 3.65 MGD Capacity Available



Current Available Reclaimed Flows

	Capacity MGD	CURRENT AAIF MGD	Current Reclaimed Flow
Sanford North WWF	7.3	7.1 ¹	4.1
Sanford South WWF ¹	2.0	N/A	N/A
Sanford Augmentation System	7.3	0	0
Northwest Regional WWTP ²	2.5	1.4	.3
Greenwood Lakes WWTP ²	3.5	2.2	1.5
Total	22.6	9.99	7.9

¹ Under Construction
² Current Reclaimed Flows 1.8 MGD out of 3.8 MGD Flow Additional Potential 2 MGD Available
³ Flows Delivered to River 1.0 MGD

Current Study

North Seminole Regional Reclaimed Water And Surface Water Augmentation System Expansion And Optimization Study

St. Johns River Water Management District.....\$50,000
 Tri-Party (Seminole County, City Of Lake Mary And City Of Sanford).....\$16,650 Each

Goals:

- Identify Additional **Cost-Effective** Uses Of Reclaimed/Augmentation Supplies and Optimize Use of Resources
- Evaluate Potential Recharge Basins
 - Retention Ponds - Rinehart Road
 - Greenwood Lakes RIB's
 - Heathrow Stormwater System
 - Timacuan Stormwater System
 - Etc

Current Study

Goals:

- Optimize Use Of Distribution System And Identify Storage And Distribution Improvements
- Improve Reliability Of Reclaimed/Augmentation System
- St. Johns River Water Management District To Model Increased Recharge And Determine Additional Safe Yields Of Groundwater Supplies
- Plan To Be Adopted As Part Of Regional Water Supply Plan Identified Projects Available For Stag Grants, Florida Forever, EPA Grants

Thank you for your time.

Presented By