ORIGINAL

LAW OFFICES
ROSE, SUNDSTROM & BENTLEY, LLP
2548 BLAIRSTONE PINES DRIVE
TALLAHASSEE, FLORIDA 32301

(850) 877-6555
FAX (850) 656-4029
www.rsbattorneys.com

REPLY TO CENTRAL FLORIDA OFFICE

CENTRAL FLORIDA OFFICE
SANLANDO CENTER
2180 W. STATE ROAD 434, SUITE 2118
LONGWOOD, FLORIDA 32779
(407) 830-6331
FAX (407) 830-8522

FREDERICK L. ASCHAUER, JR.
CHRIS H. BENTLEY, P.A.
ROBERT C. BRANNAN
DAVID F. CHESTER
F. MARSHALL DETERDING
JOHN R. JENKINS, P.A.
STEVEN T. MINDLIN, P.A.
CHASITY H. O'STEEN
DAREN L. SHIPPY
WILLIAM E. SUNDSTROM, P.A.
DIANE D. TREMOR, P.A.
JOHN L. WHARTON

WAYNE L. SCHIEFELBEIN, *OF COUNSEL*
ROBERT M. C. ROSE *(1924-2006)*

MARTIN S. FRIEDMAN, P.A.
VALERIE L. LORD
BRIAN J. STREET

November 13, 2006

HAND DELIVERY

RECEIVED-FPSC
06 NOV 13 AM 10:10
COMMISSION
CLERK

Ms. Blanca Bayo
Commission Clerk & Administrative Services Director
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399

RE: Docket No.: 060256-SU; Alafaya Utilities, Inc.'s Application for Rate Increase in Seminole County, Florida
Our File No.: 30057.112

Dear Ms. Bayo:

Enclosed for filing in the above-referenced docket is the response of Alafaya Utilities, Inc., (*Utility*) to Staff's fifth data request dated October 12, 2006:

(1) For each pro forma plant addition/project reflected on MFR Schedule A-3, please provide the utility's approved "Capital Project Request" from Integrated Solutions System.

RESPONSE: Please refer to Exhibit 1 attached hereto.

(2) In Alafaya's response to Question 1(a) of Staff's First Data Request, the utility stated that the new digester will be sized to treat residuals to class B standards and increase the percent solids content. As a result, Alafaya also stated that this project will significantly decrease residuals hauling costs.

(a) Please state what the resulting reduction amount is for test year sludge removal expense.

RESPONSE: The resulting reduction amount is estimated to be $300,000 per year.

CMP ____
COM ____
CTR ____
ECR ____
GCL ____
OPC ____
RCA ____
SCR ____
SGA ____
SEC 1
OTH ____

DOCUMENT NUMBER-DATE
10377 NOV 13 06
FPSC-COMMISSION CLERK

(b) Please provide all of the utility's calculations, bases, work papers, and support documentation for the resulting reduction amount of test year sludge removal expense.

RESPONSE: The unit disposal cost is reduced from 12 cents per gallon to 6.5 cents per gallon. The new digesters will result in a higher concentration of sludge. Together these two components are expected to reduce the sludge hauling costs by $300,000 per year.

(3) In an effort to determine normal staffing levels and historical salary increases, please provide the information requested in the following tables related to salaries and wages.

Period	For SE-50 Florida Office (Account No. 6010950) - Managerial Employees					
	Number of Full-Time Employees	Average Full-Time Salary Amount ($)	Average Full-Time Salary Increase (%)	Number of Part-Time Employees	Average Part-Time Salary Amount ($)	Average Part-Time Salary Increase (%)
2001	1	5,870	N/A	N/A	N/A	N/A
2002	1	6,310	– 7.49	N/A	N/A	N/A
2003	2	2,851	– 54.81	N/A	N/A	N/A
2004	1	4,452	+56.16	N/A	N/A	N/A
2005	2	5,059	+13.63	N/A	N/A	N/A
As of 9/30/06	2	4,178	– 17.41	N/A	N/A	N/A

Period	For SE-50 Florida Office (Account No. 6010950) - Non-Managerial Employees					
	Number of Full-Time Employees	Average Full-Time Salary Amount ($)	Average Full-Time Salary Increase (%)	Number of Part-Time Employees	Average Part-Time Salary Amount ($)	Average Part-Time Salary Increase (%)
2001	16	2,155	N/A	5	588	N/A
2002	17	2,299	+6.68	3	994	+69.05
2003	15	2,445	+6.35	3	1,170	+17.71
2004	15	2,469	+0.98	2	2,220	+89.74
2005	15	2,889	+17.01	2	2,030	- 8.56
As of 9/30/06	18	1,279	- 55.73	1	1,157	- 43.00

Period	For SE-50 Florida Operator (Account No. 6010940) - Managerial Employees					
	Number of Full-Time Employees	Average Full-Time Salary Amount ($)	Average Full-Time Salary Increase (%)	Number of Part-Time Employees	Average Part-Time Salary Amount ($)	Average Part-Time Salary Increase (%)
2001	1	11,170	N/A	N/A	N/A	N/A
2002	3	8,988	-19.53	N/A	N/A	N/A
2003	4	16,948	+88.56	N/A	N/A	N/A
2004	1	10,268	- 39.41	N/A	N/A	N/A
2005	3	11,435	+11.73	N/A	N/A	N/A
As of 9/30/06	6	3,258	- 71.51	N/A	N/A	N/A

Period	For SE-50 Florida Operator (Account No. 6010940) - Non-Managerial Employees					
	Number of Full-Time Employees	Average Full-Time Salary Amount ($)	Average Full-Time Salary Increase (%)	Number of Part-Time Employees	Average Part-Time Salary Amount ($)	Average Part-Time Salary Increase (%)
2001	14	16,445	N/A	1	1,495	N/A
2002	14	14,653	- 10.90	N/A	N/A	N/A
2003	14	11,832	- 19.25	1	300	N/A
2004	17	18,163	+53.51	1	2,251	650.33
2005	16	17,229	- 5.14	N/A	N/A	N/A
As of 9/30/06	15	9,038	- 47.54	N/A	N/A	N/A

Period	For SE-51Computer (Account No. 6019045)- Managerial Employees					
	Number of Full-Time Employees	Average Full-Time Salary Amount	Average Full-Time Salary % Increase	Number of Part-Time Employees	Average Part-Time Salary Amount	Average Part-Time Salary % Increase
2001	N/A	N/A	N/A	N/A	N/A	N/A
2002	N/A	N/A	N/A	N/A	N/A	N/A
2003	N/A	N/A	N/A	N/A	N/A	N/A
2004	N/A	N/A	N/A	N/A	N/A	N/A
2005	N/A	N/A	N/A	N/A	N/A	N/A
As of 9/30/06	N/A	N/A	N/A	N/A	N/A	N/A

Period	For SE-51 Computer (Account No. 6019045) - Non-Managerial Employees					
	Number of Full-Time Employees	Average Full-Time Salary Amount ($)	Average Full-Time Salary Increase (%)	Number of Part-Time Employees	Average Part-Time Salary Amount ($)	Average Part-Time Salary Increase (%)
2001	4	9,091	N/A	N/A	N/A	N/A
2002	5	9,091	- 0.66	N/A	N/A	N/A
2003	5	8,668	- 4.01	N/A	N/A	N/A
2004	5	9,535	+10.00	N/A	N/A	N/A
2005	7	9,960	+4.46	N/A	N/A	N/A
As of 9/30/06	7	6,455	- 35.91	N/A	N/A	N/A

Period	For SE-60 Office (Account No. 6019050) - Managerial Employees					
	Number of Full-Time Employees	Average Full-Time Salary Amount	Average Full-Time Salary % Increase	Number of Part-Time Employees	Average Part-Time Salary Amount	Average Part-Time Salary % Increase
2001	N/A	N/A	N/A	N/A	N/A	N/A
2002	N/A	N/A	N/A	N/A	N/A	N/A
2003	N/A	N/A	N/A	N/A	N/A	N/A
2004	N/A	N/A	N/A	N/A	N/A	N/A
2005	N/A	N/A	N/A	N/A	N/A	N/A
As of 9/30/06	N/A	N/A	N/A	N/A	N/A	N/A

Period	For SE-60 Florida Office (Account No. 6019050) - Non-Managerial Employees					
	Number of Full-Time Employees	Average Full-Time Salary Amount ($)	Average Full-Time Salary Increase (%)	Number of Part-Time Employees	Average Part-Time Salary Amount ($)	Average Part-Time Salary Increase (%)
2001	21	17,685	N/A	N/A	N/A	N/A
2002	23	40,857	+131.02	N/A	N/A	N/A
2003	28	48,564	+18.86	N/A	N/A	N/A
2004	28	48,188	- .077	N/A	N/A	N/A
2005	31	70,833	+46.99	N/A	N/A	N/A
As of 9/30/06	36	20,490	- 71.07	N/A	N/A	N/A

As of 2006, all employees are being allocated through SE.50. Allocation books are only complete through June 2006, as of current. The portions of the table that ask through information through "9/30/06" is really only information through 6/30/06.

(4) On June 23, 3006, there was an informal meeting/telephone conference between the utility, Commission staff, the Florida Department of Environmental Protection, and the St. John Water Management District. At that meeting, there was a general consensus that the utility should install augmentation wells to address reuse quantity and pressure concerns from its customers.

(a) Given the utility has experienced several reuse pressure and outage concerns from its customers, would Alafaya agree that the need for its current reuse availability fee is no longer needed to encourage more customers to connect to the utility's reuse system? If not, please explain in detail why.

RESPONSE: It is possible that the current reuse availability fee could no longer be needed. However, it must be noted that the Utility's gallonage rates and base facility

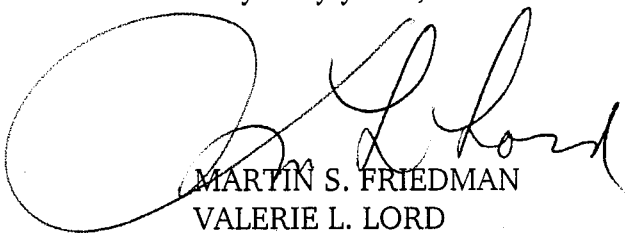
charges for usage customers must cover the revenue requirement determined in this case.

(b) With regard to the augmentation wells, provide the following information: (1) a copy of all invoices and other support documentation (i.e. "Capital Project Request" from Integrated Solution System) if the plant addition has been completed; (2) a copy of the signed contract, any bids and an approved "Capital Project Request" from Integrated Solution System if the plant addition has not been completed; and (3) a status of the engineering, permitting, and construction efforts, if the plant addition has not been completed; and (4) the projected in-service date(s) for these wells.

RESPONSE: A meeting with SJRWMD staff to discuss the permitting of the proposed augmentation wells is set for November 11, 2006. To date, the District has provided conflicting information regarding whether a Consumptive Use Permit will be required in this instance. If the District determines that a CUP is required, then the lengthy permitting process and the opportunity for other parties to object to the proposed authorized withdrawal will make it impossible to id entify accurately when the augmentation wells will be completed. The timing and cost of the project will necessarily be dependent on the outcome of the November 11, 2006 meeting.

Should you have any questions, please do not hesitate to give me a call.

Very truly yours,



MARTIN S. FRIEDMAN
VALERIE L. LORD
For the Firm

VLL/tlc
Enclosures

cc: Ralph Jaeger, Esquire, Office of General Counsel (w/o enc. - via hand delivery)
Mr. Troy Rendell, Division of Economic Regulation (w/enc. - via hand delivery)
Ms. Cheryl Bulecza-Banks, Div. Of Economic Regulation (w/o enc.-via hand delivery)
Ms. Patti Daniel, Division of Economic Regulation (w/o enc. - via hand delivery)
Mr. Richard Redemann, Div. of Economic Regulation (w/o enc. - via hand delivery)
Mr. Bart Fletcher, Division of Economic Regulation (w/o enc. - via hand delivery)
Steven M. Lubertozzi, Chief Regulatory Officer (w/enclosures - via U.S. Mail)
Kirsten Weeks, CPA (w/o enclosures - via U.S. Mail)
John Hoy, Regional Vice President for Operations (w/o enclosures - via U.S. Mail)
Patrick C. Flynn, Regional Director (w/enclosures - via U.S. Mail)
Mr. Frank Seidman (w/o enclosures - via U.S. Mail)
Ms. Deborah Swain (w/o enclosures - via U.S. Mail)
Stephen Reilly, Esquire, Office of Public Counsel (w/enclosures - via U.S. Mail)

M:\1 ALTAMONTE\UTILITIES INC\ALAFAYA UTILITIES\(.112) 2005 RATE CASE\PSC Clerk 012 (Data Request 5).ltr.wpd

APPROVED

Utilities, Inc. - Integrated Solutions System

Project Request

Florida FL C067 0647 203
Region State Co# Sub# ID #

Priority Level: 2 - Contractual *Project Created:* *Related to ID #:*

Project Name: **Engineering-1 MG Reuse GST @ Alafaya WWTP**

Company: **Alafaya Utilities, Inc.**

System: **Alafaya Utilities, Inc.**

Expenses to Start: **03/01/2006**

Expenses to End: **08/15/2006**

Service(s): ☐ Water ☒ Sewer ☐ Water & Sewer ☒ Reuse ☐ Other...

Benefits Category: ☐ Regulatory Requirement ☒ Expand Capacity ☐ Ongoing Maintenance ☒ Improve Service ☒ Provide New Service ☐ Other (explain below) ☐ Cost Reduction ☐ Improve Safety

Estimated Costs by Component

WO#: 067-0647-116-06-02
PO#: GL#:

Component(s)	Component Description	Original Estimate
20002	Capitalized Time	$590.00
20003	IDC	$1,597.00
20105	Engineering	$65,750.00
20916	Permits	$1,000.00
20105	Contingency	$3,300.00

Asset Designation
- ◉ New Asset(s)
- ○ Upgrading Asset(s)
- ○ Repairing Asset(s)
- ○ Replacing Asset(s)

If replacing existing equipment, when (year) was the original asset placed in service?

Cap Plan Estimate: $65,000.00 **Estimate Totals:** $72,237.00

Capitalized Time Estimate: 20 Hours Total # of Customers: 6,970 # of Affected Customers: 6,970 Cost per Customer: $10.36

Annual Offset In Expenses:

Signature Authority & Approvals

Submitted by:	***Bryan K. Gongre***	Title: Regional Manager	Date: 05/15/06
$5,000 - $25,000	***Patrick Flynn***	Regional Director	Date: 05/16/06
$25,001 - $75,000	***John Hoy***	Regional VP of Operations	Date: 05/26/06
$75,001 - $100,000		VP of Operations	Date:
Over $100,000		Chief Executive Officer	Date:

APPROVED

Utilities, Inc. - Integrated Solutions System

Project Request

Florida FL C067 0647 203
Region State Co# Sub# ID #

Priority Level: **2 - Contractual** *Project Created:* *Related to ID #:*

Project Name: **Engineering-1 MG Reuse GST @ Alafaya WWTP**

Company: **Alafaya Utilities, Inc.**

System: **Alafaya Utilities, Inc.**

Expenses to Start: **03/01/2006**

Expenses to End: **08/15/2006**

Attachment(s) - Ref. # 203

☐ Fax ☐ QuickMail / Email
☐ Interoffice Mail ☒ Hand Delivery

Project Description
List of System Projects

Estimate(s) Required

CPH Proposal #U0780
See File #647.6.1 Reclaimed Storage Tank Addition

Project Description ☐ **See Notes Screen for addt'l info** **Estimate Total:** $72,237.00

The scope of this project includes:
- the design of a 1.0 MG covered ground storage tank
- the design of a dome to cover the existing 1.5 MG storage tank
- the design of additional high service pump capacity
- design of on-site stormwater retention and conveyance system
- modifications to the existing pump controls and plant piping including the resolution of any conflicts with existing structures or pipe components
- engineering estimate of cost to construct the various proposed improvements

The design assumes that the new controls can be installed in the existing building and that no changes will be required regarding the existing transfer pump station.

Justification & Benefits

The Alafaya WWTP's twin treatment trains are hydraulically designed to treat 2.400 mgd. The plant's permitted capacity is limited by effluent disposal to 1.535 mgd. By designing and constructing additional reuse storage and reuse pumping capacity, plant staff will be able to meet peak day demand generated by increasing numbers of reuse customers. As reuse demand increases, permitted plant capacity can increase.The tank addition will provide additional storage to meet high demands as well as wet weather storage in lieu of sending reuse quality effluent to the percolation ponds. Additional storage is also necessary due to extremely high demands during the spring and summer months. Currently the utility cannot meet these peak day demands due to insufficient plant flow and limited storage volume. This generates a significant number of customer complaints and prevents the Utility from adequately serving additional reuse customers who request service.
The existing 1.5 MG storage tank was originally constructed as a reject storage tank. In 2000, it was modified by adding a floating cover that was intended to prevent degradition of the reuse water before its delivery to residential and general service customers. However, its multi-panel design allows the rapid growth of plant material in the gaps between the panels that must be periodically removed. Due to safety concerns, we use a vendor with appropriate training and equipment to remove the vegatation 2-4 times per year. The engineering design effort will identify the most cost effective materials and methodology to use in place of the floating cover.
Additional high service pump capacity will be required to meet increasing peak instantaneous demand and to take advantage of the new tank's storage capacity.
A DEP stormwater permit will be required in order to construct the improvements.

Project Request

Florida FL C067 0647 203
Region State Co# Sub# ID #

Priority Level: **2 - Contractual** *Project Created:* *Related to ID #:*

Project Name: **Engineering-1 MG Reuse GST @ Alafaya WWTP**

Company: **Alafaya Utilities, Inc.**

System: **Alafaya Utilities, Inc.**

Expenses to Start: **03/01/2006**

Expenses to End: **08/15/2006**

Alternatives

1. POSTPONE THE ENGINEERING DESIGN- This engineering work is necessary to determine the shortcomings of the plant facilities in an attempt to increase capacity and insure system integrity while providing satisfactory customer service.
2. DO THE PROJECT IN PHASES. This option still requires the engineering effort if only as a master planning option.
3. DELETE CONSIDERATION OF COVERING THE REUSE TANK. The existing tank has a floating cover in place but as previously stated creates additional maintenance that from a safety and O&M perspective should be considered. The incremental cost to examine this issue is not excessive and there is no obligation to design and construct a cover.

Timing of Project

This project is included in the upcoming rate case and needs to move forward to meet time constraints associated with that effort. The St. John's River WMD is willing to fund up to 20% of the construction cost of the facilities, but not the engineering cost. By doing the design and permitting in 2006, construction can be scheduled for early 2007 and placed in service before the April and May peak day periods.

System Information

- **Acquisition Date**
  10/01/1994

- **Facility Update**

7/23/02 - The Alafaya WWTF was upgraded to provide residential and commercial reuse service to those areas specified in accordance with the agreement between Alafaya Utilities and the City of Oviedo. The utility has installed a 20" reuse transmission main from the east side of Lockwood Boulevard, which travels along a rear easement to CR 419. From this point, transmission mains ranging in size from 6"- 18" travel to the north, west and east covering portions of the service area.
The Alafaya WWTF is designed for 2.4 MGD of treatment capacity. The current permitted capacity is 1.535 MGD AADF that is limited by effluent disposal per the terms of the permit renewed in March 2004. The percolation ponds are rated at 1.00 MGD, the Ekana Golf Course spray irrigation system is rated at 0.100 MGD and the public access

Project Request

Florida FL C067 0647 203
Region State Co# Sub# ID #

Priority Level: **2 - Contractual** *Project Created:* *Related to ID #:*

Project Name: **Engineering-1 MG Reuse GST @ Alafaya WWTP**

Company: **Alafaya Utilities, Inc.**

System: **Alafaya Utilities, Inc.**

Expenses to Start: **03/01/2006**

Expenses to End: **08/15/2006**

irrigation system is rated at 0.435 MGD. Permitted capacity can be increased through the addition of reuse customers and with submittal of general use permit applications for reuse projects greater than 0.100 mgd as well as through growth in residential reuse. The permitted capacity was rerated in 2005 to reflect the increase in reuse demand.

- **Anticipated Growth in Area**

This area is a high growth corridor between Seminole and Orange counties and contains a strong potential for additional development. Live Oak, Phases 4 and 5, are scheduled for development in 2006 and will contain reuse facilities.

An 18" reuse main delivers reclaimed water to both the Live Oak and Sanctuary subdivisions, which at build out will be approx. 2,500 single family homes. A 20" reuse main is permitted, which will parallel a 10" RM between the WWTP and the 18" terminus at the Econ River crossing. This will improve the hydraulic capacity of the reuse system. The Oviedo Forest subdivision (about 100 lots) will be developed in 2006 on N. Lockwood Blvd. and will

- **Rate Case Information**

Last Order Date: 10/94

Order Number: 23100

Type: S

Docket: 900456-SU

Test Year: Acquisition

- **List of Other Projects for System - by Project Status**

Sub	Status	Proj ID	Project Name	Date	Estimate	Spent
0647	Fully Approved	4427	AL-8 Lift Station Pump #1 Replacement	09/22/06	$5,031	
0647	Open	1621	Replacement Digester for Alafaya WWTF	01/01/04	$724,500	$655,929
0647	Open	1704	Reclaimed Interconnect w/ City of Oviedo	12/01/04	$34,100	$0
0647	Placed In Service	697	20" Reuse Main from WWTF to west side of	08/01/02	$790,801	$619,951
0647	Placed In Service	3842	Twin Rivers Force Main/Lift Station	02/01/06	$157,020	$84,659
0647	Placed In Service	203	Engineering-1 MG Reuse GST @ Alafaya	03/01/06	$70,050	$66,250
0647	Placed In Service	3379	Alafaya-Paint Tanks & Equipment	05/15/06	$31,625	
0647	Closed	2365	I&I Study Const. Remedies - Phase I	07/01/04	$231,850	$214,500
0647	Closed	2561	Install Meter @ GC Pond	10/01/04	$15,300	$12,279
0647	Closed	2645	Force Main Operational Engineering	01/01/05	$20,500	$18,247
0647	Closed	3324	AL - 9 Liftstation Wet Well Rehab	01/02/05	$9,000	$8,400
0647	Closed	3327	Emergency Blower rebuild Hoffman #3	01/02/05	$6,327	$6,327
0647	Closed	3320	Hoffman Blower Rebuild	02/01/05	$7,621	$7,679
0647	Closed	2327	2005 Alafaya Sanitary Sewer Cleaning	03/01/05	$92,097	$33,511
0647	Closed	3513	Master L/S Submersble Pump #2	06/22/05	$6,202	$6,202
0647	Closed	3780	Alafaya TR Main Bio cube Media	10/21/05	$5,895	$4,925
0647	DECLINED	3848	2006 Alafaya Sanitary Sewer Cleaning	04/01/06	$37,957	
0647	Proposed	1167	Alafaya Reuse GST- 1 MG	01/01/07		
647	Proposed	8001	Augmentation wells	01/01/07		
647	Proposed	8002	CR 419 reuse main extension to Live Oak,	01/01/07		
0647	Proposed	1164	Eng-Alafaya Headworks	03/01/07		

Project Request

APPROVED

Region	State	Co#	Sub#	ID#
Florida	**FL**	**C067**	**0647**	**203**

Priority Level: **2 - Contractual** *Project Created:* *Related to ID #:*

Project Name: **Engineering-1 MG Reuse GST @ Alafaya WWTP**

Company: **Alafaya Utilities, Inc.** Expenses to Start: **03/01/2006**

System: **Alafaya Utilities, Inc.** Expenses to End: **08/15/2006**

0647	Closed	2561	Install Meter @ GC Pond Manholes	10/01/04	$15,300	$12,279
0647	Closed	2645	Force Main Operational Engineering Analysis	[illegible]	[illegible]	[illegible]
0647	Closed	3324	AL 9 Liftstation Wet Well Rehab	01/02/05	$9,000	$8,400
0647	Closed	3327	Emergency Blower rebuild Hoffman #3	01/02/05	$6,327	$6,327
0647	Closed	3320	Hoffman Blower Rebuild	02/01/05	$7,621	$7,679
0647	Closed	2327	2005 Alafaya Sanitary Sewer Cleaning	03/01/05	$92,097	$33,511
0647	Closed	3513	Master L/S Submersble Pump #2	06/22/05	$6,202	$6,202
0647	Closed	3780	Alafaya TR Main Bio cube Media	10/21/05	$5,895	$4,925
0647	DECLINED	3848	2006 Alafaya Sanitary Sewer Cleaning	04/01/06	$37,957	
0647	Proposed	1167	Alafaya Reuse GST- 1 MG	01/01/07		
647	Proposed	8001	Augmentation wells	01/01/07		
647	Proposed	8002	CR 419 reuse main extension to Live Oak Phase 5	01/01/07		
0647	Proposed	1164	Eng-Alafaya Headworks	03/01/07		
0647	Proposed	1165	Alafaya WWTP Headworks	04/01/07		
0647	Proposed	204	Eng-Alafaya Sludge Handling Equipment	06/01/07		
0647	Proposed	1170	Eng-LIttle Creek Reuse Main	06/01/07		
0647	Proposed	1171	Little Creek Reuse Main Construction	06/01/07		
647	Proposed	8003	GSM Replacements	01/01/08		
0647	Proposed	205	Alafaya Sludge Handling Facilities	06/01/08		
647	Proposed	8004	Reuse Filter	01/01/09		

APPROVED

Utilities, Inc. - Integrated Solutions System

Project Request

Florida FL C067 0647 697
Region State Co# Sub# ID #

Priority Level: 1 - Regulatory *Project Created:* 11/07/02 *Related to ID #:* 420

Project Name: **20" Reuse Main from WWTF to west side of Lockwood**

Company: Alafaya Utilities, Inc.

System: Alafaya Utilities, Inc.

Expenses to Start: 08/01/2002

Expenses to End: 10/20/2006

Service(s): ☐ Water ☐ Sewer ☐ Water & Sewer ☒ Reuse ☐ Other...

Benefits Category: ☐ Regulatory Requirement ☐ Expand Capacity ☐ Ongoing Maintenance ☒ Improve Service ☒ Provide New Service ☐ Other (explain below) ☐ Cost Reduction ☐ Improve Safety

Estimated Costs by Component

WO#: 067-0647-116-03-02
PO#: GL#:

Component(s)	Component Description	Original Estimate
20002	Capitalized Time	$2,550.00
20003	IDC	$31,527.00
20812	Engineering	$37,500.00
20812	Permits	$14,500.00
20812	Surveying	$20,000.00
20812	Plant	$488,000.00

Asset Designation
○ New Asset(s)
○ Upgrading Asset(s)
○ Repairing Asset(s)
○ Replacing Asset(s)

If replacing existing equipment, when (year) was the original asset placed in service?

Cap Plan Estimate: $560,000.00 **Estimate Totals:** $594,077.00

Capitalized Time Estimate: 100 Hours Total # of Customers: 5,873 # of Affected Customers: Cost per Customer: $101.15

Annual Offset In Expenses:

Signature Authority & Approvals

Submitted by:	***Bryan Gongre***	Title: Asst. Operations Manager	Date: 07/23/02
$5,000 - $25,000	***Don Rasmussen***	Regional Director	Date: 08/29/02
$25,001 - $75,000		Regional VP of Operations	Date:
$75,001 - $100,000	***Susan J. Fortino***	VP of Operations	Date: 11/11/02
Over $100,000	**Jim Camaren**	Chief Executive Officer	Date: 10/22/02

APPROVED

Utilities, Inc. - Integrated Solutions System

Project Request

Florida	FL	C067	0647	697
Region	*State*	*Co#*	*Sub#*	*ID #*

Priority Level: 1 - Regulatory *Project Created:* 11/07/02 *Related to ID #:* 420

Project Name: **20" Reuse Main from WWTF to west side of Lockwood**

Company: **Alafaya Utilities, Inc.**

System: **Alafaya Utilities, Inc.**

Expenses to Start: **08/01/2002**

Expenses to End: **10/20/2006**

Attachment(s) - Ref. # 697

☐ Fax ☒ QuickMail / Email
☐ Interoffice Mail ☐ Hand Delivery

Project Description List of System Projects	Estimate(s) Required Timeline Required	See Boyd Environmental Engineering Services Proposal dated June 28, 2002 - Timeline included

Project Description ☒ See Notes Screen for addt'l info **Estimate Total:** $594,077.00

The project consists of the costs related to the engineering, permitting and construction of a 20" reuse water main beginning at the Alafaya WWTF and traversing a rear easement from the facility approximately 7,000 LF to the west side of Lockwood Boulevard. The new main would then be connected to an existing 20" reuse main at Lockwood Boulevard.

Justification & Benefits

Water conservation issues surrounding the availability of reuse have gained significant importance throughout the region among state and local governmental authorities. This is primarily due to the population growth throughout the state and dwindling groundwater supplies. During the past (as well as the present), Alafaya Utilities has provided reuse quality effluent to the Twin Rivers golf course as a means of effluent disposal. The benefits of providing reclaimed water include additional effluent disposal capacity, revenue and a positive public image.

Background:
To facilitate the distribution of reclaimed water to the service area, the utility was required to invest in and install transmission mains that would connect to existing subdivision infrastructure, as well as future developer-contributed facilities. The distribution system design is based upon a study performed by an engineering firm using a projected 50% subscription rate at build out. The final design incorporated the use of an existing 10" reuse main that originates at the WWTF and terminates at the golf course holding pond, in conjunction with a proposed parallel 20" reuse main.

Currently the utility is utilizing the 10" reuse main to provide service to the Ekana Green and Waverlee Woods subdivisions. Due to the reuse program's infancy and current subscription rate, the use of this line has permitted adequate service capability. Although this is currently the case, the system as it stands will not provide adequate carrying capacity necessary to provide reuse service to other areas as projected.

Justification:
The project is necessary to facilitate the projected 50% residential reuse service subscription rate within the Sanctuary and Live Oak subdivisions.

Project Request

Region	State	Co#	Sub#	ID #
Florida	FL	C067	0647	697

Priority Level: 1 - Regulatory *Project Created:* 11/07/02 *Related to ID #:* 420

Project Name: **20" Reuse Main from WWTF to west side of Lockwood**

Company: **Alafaya Utilities, Inc.**

System: **Alafaya Utilities, Inc.**

Expenses to Start: **08/01/2002**

Expenses to End: **10/20/2006**

Alternatives

Timing of Project

Timeline Required

See Proposed Schedule provided in June 28, 2002 Boyd Environmental Engineering proposal.

System Information

- **Acquisition Date**

  10/01/1994

- **Facility Update**

7/23/02 - The Alafaya WWTF was upgraded to provide residential and commercial reuse service to those areas specified in accordance with the agreement between Alafaya Utilities and the City of Oviedo. The utility has installed a 20" reuse transmission main from the east side of Lockwood Boulevard, which travels along a rear easement to CR 419. From this point, transmission mains ranging in size from 6"- 18" travel to the north, west and east covering portions of the service area.
The Alafaya WWTF is designed for 2.4 MGD of treatment capacity. The current permitted capacity is 1.535 MGD AADF that is limited by effluent disposal per the terms of the permit renewed in March 2004. The percolation ponds are rated at 1.00 MGD, the Ekana Golf Course spray irrigation system is rated at 0.100 MGD and the public access irrigation system is rated at 0.435 MGD. Permitted capacity can be increased through the addition of reuse customers and with submittal of general use permit applications for reuse projects greater than 0.100 mgd as well as through growth in residential reuse. The permitted capacity was rerated in 2005 to reflect the increase in reuse demand.

- **Anticipated Growth in Area**

This area is a high growth corridor between Seminole and Orange counties and contains a strong potential for additional development. Live Oak, Phases 4 and 5, are scheduled for development in 2006 and will contain reuse facilities.

An 18" reuse main delivers reclaimed water to both the Live Oak and Sanctuary subdivisions, which at build out will be approx. 2,500 single family homes. A 20" reuse main is permitted, which will parallel a 10" RM between the WWTP and the 18" terminus at the Econ River crossing. This will improve the hydraulic capacity of the reuse

- **Rate Case Information**

Last Order Date:	10/94
Order Number:	23100
Type:	S
Docket:	900456-SU
Test Year:	Acquisition

APPROVED

Utilities, Inc. - Integrated Solutions System

Project Request

Florida FL C067 0647 697
Region State Co# Sub# ID #

Priority Level: **1 - Regulatory** *Project Created:* **11/07/02** *Related to ID #:* 420

Project Name: **20" Reuse Main from WWTF to west side of Lockwood**

Company: **Alafaya Utilities, Inc.**

System: **Alafaya Utilities, Inc.**

Expenses to Start: **08/01/2002**

Expenses to End: **10/20/2006**

● **List of Other Projects for System - by Project Status**

Sub	Status	Proj ID	Project Name	Date	Estimate	Spent
0647	Fully Approved	4427	AL-8 Lift Station Pump #1 Replacement	09/22/06	$5,031	
0647	Open	1621	Replacement Digester for Alafaya WWTF	01/01/04	$724,500	$655,929
0647	Open	1704	Reclaimed Interconnect w/ City of Oviedo	12/01/04	$34,100	$0
0647	Placed In Service	697	20" Reuse Main from WWTF to west side of	08/01/02	$790,801	$619,951
0647	Placed In Service	3842	Twin Rivers Force Main/Lift Station	02/01/06	$157,020	$84,659
0647	Placed In Service	203	Engineering-1 MG Reuse GST @ Alafaya	03/01/06	$70,050	$66,250
0647	Placed In Service	3379	Alafaya-Paint Tanks & Equipment	05/15/06	$31,625	
0647	Closed	2365	I&I Study Const. Remedies - Phase I	07/01/04	$231,850	$214,500
0647	Closed	2561	Install Meter @ GC Pond	10/01/04	$15,300	$12,279
0647	Closed	2645	Force Main Operational Engineering	01/01/05	$20,500	$18,247
0647	Closed	3324	AL - 9 Liftstation Wet Well Rehab	01/02/05	$9,000	$8,400
0647	Closed	3327	Emergency Blower rebuild Hoffman #3	01/02/05	$6,327	$6,327
0647	Closed	3320	Hoffman Blower Rebuild	02/01/05	$7,621	$7,679
0647	Closed	2327	2005 Alafaya Sanitary Sewer Cleaning	03/01/05	$92,097	$33,511
0647	Closed	3513	Master L/S Submersble Pump #2	06/22/05	$6,202	$6,202
0647	Closed	3780	Alafaya TR Main Bio cube Media	10/21/05	$5,895	$4,925
0647	DECLINED	3848	2006 Alafaya Sanitary Sewer Cleaning	04/01/06	$37,957	
0647	Proposed	1167	Alafaya Reuse GST- 1 MG	01/01/07		
647	Proposed	8001	Augmentation wells	01/01/07		
647	Proposed	8002	CR 419 reuse main extension to Live Oak,	01/01/07		
0647	Proposed	1164	Eng-Alafaya Headworks	03/01/07		
0647	Proposed	1165	Alafaya WWTP Headworks	04/01/07		
0647	Proposed	204	Eng-Alafaya Sludge Handling Equipment	06/01/07		
0647	Proposed	1170	Eng-Little Creek Reuse Main	06/01/07		
0647	Proposed	1171	Little Creek Reuse Main Construction	06/01/07		
647	Proposed	8003	GSM Replacements	01/01/08		
0647	Proposed	205	Alafaya Sludge Handling Facilities	06/01/08		
647	Proposed	8004	Reuse Filter	01/01/09		

APPROVED

Utilities, Inc. - Integrated Solutions System

Project Request

Florida FL C067 0647 1621
Region State Co# Sub# ID #

Priority Level: 1 - Regulatory *Project Created:* 09/09/03 *Related to ID #:*

Project Name: **Replacement Digester for Alafaya WWTF**

Company: **Alafaya Utilities, Inc.**

System: **Alafaya Utilities, Inc.**

Expenses to Start: **01/01/2004**

Expenses to End: **12/31/2006**

Service(s): ☐ Water ☒ Sewer ☐ Water & Sewer ☐ Reuse ☐ Other...

Benefits Category: ☒ Regulatory Requirement ☒ Expand Capacity ☐ Ongoing Maintenance ☐ Improve Service ☐ Provide New Service ☐ Other (explain below) ☐ Cost Reduction ☒ Improve Safety

Estimated Costs by Component

WO#: 067-0647-116-03-09 PO#: GL#:

Component(s)	Component Description	Original Estimate
20002	Capitalized Time	$4,080.00
20003	IDC	$18,543.00
20112	Engineering	$36,500.00
20112	Construction	$420,000.00
20112	Demolition	$30,000.00
20112	Controls & Instrumentation	$70,000.00
20112	Bypass Sludge Pumping	$148,000.00
20112	Contingency	$20,000.00

Asset Designation

- ○ New Asset(s)
- ○ Upgrading Asset(s)
- ○ Repairing Asset(s)
- ◉ Replacing Asset(s)

If replacing existing equipment, when (year) was the original asset placed in service? 1/1/1972

Cap Plan Estimate: $725,000.00 **Estimate Totals:** $747,123.00

Capitalized Time Estimate: 160 Hours Total # of Customers: 6,006 # of Affected Customers: Cost per Customer: $124.40

Annual Offset In Expenses:

Signature Authority & Approvals

Submitted by:	***David L. Orr, PE***	Title: Regional Manager	Date: 10/23/03
$5,000 - $25,000	***Patrick Flynn***	Regional Director	Date: 10/28/03
$25,001 - $75,000		Regional VP of Operations	Date:
$75,001 - $100,000	***Lisa Crossett***	VP of Operations	Date: 11/20/03
Over $100,000	**James L. Camaren**	Chief Executive Officer	Date: 11/24/03

APPROVED

Utilities, Inc. - Integrated Solutions System

Project Request

Florida FL C067 0647 1621
Region State Co# Sub# ID #

Priority Level: 1 - Regulatory *Project Created:* 09/09/03 *Related to ID #:*

Project Name: **Replacement Digester for Alafaya WWTF**

Company: **Alafaya Utilities, Inc.**

System: **Alafaya Utilities, Inc.**

Expenses to Start: **01/01/2004**

Expenses to End: **12/31/2006**

Attachment(s) - Ref. # 1621

☐ Fax ☒ QuickMail / Email
☐ Interoffice Mail ☐ Hand Delivery

Project Description
List of System Projects

Estimate(s) Required
Timeline Required

Project Description ☐ See Notes Screen for addt'l info **Estimate Total:** $747,123.00

Replace the existing 250,000 gallon thickner/digester with two (2) new digester units with a combined volume of 814,000 gallons, which will allow the generation of Class B sludge. This will also include valves, piping, electrical components and appropriately sized blower capacity.

Provide engineering services for design, permitting, construction oversight activities, surveying, and soil borings.

Provide increased sludge hauling during demolition and construction phases.

Replace existing office trailer with a 20'by 40' control building including the electrical equipment for the digesters. The building design will provide for the future addition of electrical equipment associated with plant surge tank and headworks facilities.

Justification & Benefits

1. The existing steel digester was constructed in 1972 as a WWTP. It was purchased and installed by Alafaya Utilities in 1982 in its present location. The digester tank is in very poor structural condition. The steel is delaminating above the water line. The catwalk is in relatively poor shape. The unit is also leaking through the concrete slab at the base of the steel tank. Repeated efforts to stop the liquid from seaping out have been unsuccessful. The leak is becoming progressively worse.
2. The current digester's capacity is inadequate for the facility's rated flow of 1.535 mgd, much less the hydraulic design flow of 2.400 mgd. In order to process sludge efficiently at current flow conditions plus additional flow caused by customer growth over the next 5 years, about twice as much digester capacity is needed. In the absence of adequate digester/thickener capacity, sludge hauling costs will increase dramatically due to an inability to dewater properly.
3. In addition to its poor structural condition, the existing digester's mechanical and electrical components require frequent repair. Over the past few years, it has needed electrical repairs eight different times and mechanical repairs on 24 different occasions. This also causes a negative impact on the treatment process due to a buildup of solids in the two treatment trains.
4. $800,000 of this project was included in the last rate case, Docket #020408-SU, as a pro forma project.

Alternatives

Project Request

Region	State	Co#	Sub#	ID #
Florida	FL	C067	0647	1621

Priority Level: 1 - Regulatory *Project Created:* 09/09/03 *Related to ID #:*

Project Name: **Replacement Digester for Alafaya WWTF**

Company: **Alafaya Utilities, Inc.**

System: **Alafaya Utilities, Inc.**

Expenses to Start: **01/01/2004**

Expenses to End: **12/31/2006**

1. REHABILITATE THE EXISTING DIGESTER. This unit was originally a WWTP and was modified to operate as a sludge thickener and digester when installed in 1982. However, the sludge produced by the digester has a lower solids concentration resulting in elevated sludge processing and hauling costs. The estimated cost to completely overhaul the existing tank is $150,000. However, since the leak in the concrete slab has developed, this option is no longer feasible as either a short term or long term solution. This alternative would not provide the minimum volume needed to stabilize the sludge to Class B quality to avoid off-site stabilization expense.
2. OVERHAUL THE EXISTING DIGESTER AND CONSTRUCT A SECOND SIMILARLY SIZED UNIT ON SITE. Space limitations on the Alafaya WWTP site preclude the construction of a second unit of the same size. There is a leak under the slab that supports the steel tank making the continued use of the existing tank infeasible.
3. ELIMINATE DIGESTER FROM PROCESS - The Alafaya WWTF consists of two ring steel plants, neither of which has a digester compartment. A digester must be sized to adequately handle the waste sludge flow generated by each treatment train as measured by a 38% reduction in volatile solids.

Timing of Project Timeline Required

In addition to the safety issues, the aforementioned leak at the base of the tank likely will be noted during a future compliance inspection of the treatment plant.

System Information

- **Acquisition Date**
  10/01/1994

- **Facility Update**

7/23/02 - The Alafaya WWTF was upgraded to provide residential and commercial reuse service to those areas specified in accordance with the agreement between Alafaya Utilities and the City of Oviedo. The utility has installed a 20" reuse transmission main from the east side of Lockwood Boulevard, which travels along a rear easement to CR 419. From this point, transmission mains ranging in size from 6"- 18" travel to the north, west and east covering portions of the service area.
The Alafaya WWTF is designed for 2.4 MGD of treatment capacity. The current permitted capacity is 1.535 MGD AADF that is limited by effluent disposal per the terms of the permit renewed in March 2004. The percolation ponds are rated at 1.00 MGD, the Ekana Golf Course spray irrigation system is rated at 0.100 MGD and the public access irrigation system is rated at 0.435 MGD. Permitted capacity can be increased through the addition of reuse customers and with submittal of general use permit applications for reuse projects greater than 0.100 mgd as well as through growth in residential reuse. The permitted capacity was rerated in 2005 to reflect the increase in reuse demand.

- **Anticipated Growth in Area**

This area is a high growth corridor between Seminole and Orange counties and contains a strong potential for additional development. Live Oak, Phases 4 and 5, are scheduled for development in 2006 and will contain reuse facilities.

Project Request

Region	State	Co#	Sub#	ID #
Florida	FL	C067	0647	1621

Priority Level: 1 - Regulatory *Project Created:* 09/09/03 *Related to ID #:*

Project Name: **Replacement Digester for Alafaya WWTF**

Company: **Alafaya Utilities, Inc.**

System: **Alafaya Utilities, Inc.**

Expenses to Start: **01/01/2004**

Expenses to End: **12/31/2006**

An 18" reuse main delivers reclaimed water to both the Live Oak and Sanctuary subdivisions, which at build out will be approx. 2,500 single family homes. A 20" reuse main is permitted, which will parallel a 10" RM between the WWTP and the 18" terminus at the Econ River crossing. This will improve the hydraulic capacity of the reuse system. The Oviedo Forest subdivision (about 100 lots) will be developed in 2006 on N. Lockwood Blvd. and will

- **Rate Case Information**

Last Order Date: 10/94

Order Number: 23100

Type: S

Docket: 900456-SU

Test Year: Acquisition

- **List of Other Projects for System - by Project Status**

Sub	Status	Proj ID	Project Name	Date	Estimate	Spent
0647	Fully Approved	4427	AL-8 Lift Station Pump #1 Replacement	09/22/06	$5,031	
0647	Open	1621	Replacement Digester for Alafaya WWTF	01/01/04	$724,500	$655,929
0647	Open	1704	Reclaimed Interconnect w/ City of Oviedo	12/01/04	$34,100	$0
0647	Placed In Service	697	20" Reuse Main from WWTF to west side of	08/01/02	$790,801	$619,951
0647	Placed In Service	3842	Twin Rivers Force Main/Lift Station	02/01/06	$157,020	$84,659
0647	Placed In Service	203	Engineering-1 MG Reuse GST @ Alafaya	03/01/06	$70,050	$66,250
0647	Placed In Service	3379	Alafaya-Paint Tanks & Equipment	05/15/06	$31,625	
0647	Closed	2365	I&I Study Const. Remedies - Phase I	07/01/04	$231,850	$214,500
0647	Closed	2561	Install Meter @ GC Pond	10/01/04	$15,300	$12,279
0647	Closed	2645	Force Main Operational Engineering	01/01/05	$20,500	$18,247
0647	Closed	3324	AL - 9 Liftstation Wet Well Rehab	01/02/05	$9,000	$8,400
0647	Closed	3327	Emergency Blower rebuild Hoffman #3	01/02/05	$6,327	$6,327
0647	Closed	3320	Hoffman Blower Rebuild	02/01/05	$7,621	$7,679
0647	Closed	2327	2005 Alafaya Sanitary Sewer Cleaning	03/01/05	$92,097	$33,511
0647	Closed	3513	Master L/S Submersble Pump #2	06/22/05	$6,202	$6,202
0647	Closed	3780	Alafaya TR Main Bio cube Media	10/21/05	$5,895	$4,925
0647	DECLINED	3848	2006 Alafaya Sanitary Sewer Cleaning	04/01/06	$37,957	
0647	Proposed	1167	Alafaya Reuse GST- 1 MG	01/01/07		
647	Proposed	8001	Augmentation wells	01/01/07		
647	Proposed	8002	CR 419 reuse main extension to Live Oak,	01/01/07		
0647	Proposed	1164	Eng-Alafaya Headworks	03/01/07		
0647	Proposed	1165	Alafaya WWTP Headworks	04/01/07		
0647	Proposed	204	Eng-Alafaya Sludge Handling Equipment	06/01/07		
0647	Proposed	1170	Eng-Little Creek Reuse Main	06/01/07		
0647	Proposed	1171	Little Creek Reuse Main Construction	06/01/07		
647	Proposed	8003	GSM Replacements	01/01/08		
0647	Proposed	205	Alafaya Sludge Handling Facilities	06/01/08		
647	Proposed	8004	Reuse Filter	01/01/09		

Project Request

Region	State	Co#	Sub#	ID #
		0647		3842

Priority Level: 1 - Regulatory *Project Created:* 01/05/06 *Related to ID #:*

Project Name: **Twin Rivers Force Main/Lift Station Improvements**

Company: Alafaya Utilities, Inc.

System: Alafaya Utilities, Inc.

Expenses to Start: 02/01/2006

Expenses to End: 10/01/2006

Service(s): ☐ Water ☒ Sewer ☐ Water & Sewer ☐ Reuse ☐ Other...

Benefits Category: ☒ Regulatory Requirement ☐ Expand Capacity ☐ Ongoing Maintenance ☒ Improve Service ☐ Provide New Service ☐ Other (explain below) ☒ Cost Reduction ☐ Improve Safety

Estimated Costs by Component

WO#: 067-0647-116-06-01

PO#: GL#:

Component(s)	Component Description	Original Estimate
	Capitalized Time	$4,720.00
	IDC	$5,412.00
	Engineering, including Permitting	$13,020.00
	Construction	$130,000.00
	Contingency	$14,000.00

Asset Designation

- ○ New Asset(s)
- ○ Upgrading Asset(s)
- ○ Repairing Asset(s)
- ○ Replacing Asset(s)

If replacing existing equipment, when (year) was the original asset placed in service?

Cap Plan Estimate:

Estimate Totals: $167,152.00

Capitalized Time Estimate: 160 Hours

Total # of Customers: 6,967

# of Affected Customers:

Cost per Customer: $23.99

Annual Offset In Expenses:

Signature Authority & Approvals

Submitted by:	*Scotty L. Haws*	Title:	Date:
$5,000 - $25,000	*Patrick Flynn*	Regional Director	Date:
$25,001 - $75,000		Regional VP of Operations	Date:
$75,001 - $100,000	*Lisa Crossett*	VP of Operations	Date:
Over $100,000	Jim Camaren	Chief Executive Officer	Date:

Project Request

Region	State	Co#	Sub#	ID #
			0647	3842

Priority Level: 1 - Regulatory *Project Created:* 01/05/06 *Related to ID #:*

Project Name: **Twin Rivers Force Main/Lift Station Improvements**

Company: **Alafaya Utilities, Inc.**

System: **Alafaya Utilities, Inc.**

Expenses to Start: **02/01/2006**

Expenses to End: **10/01/2006**

Attachment(s) - Ref. # 3842

☐ Fax ☐ QuickMail / Email
☐ Interoffice Mail ☐ Hand Delivery

Project Description
List of System Projects

Estimate(s) Required
Timeline Required

Project Description ☐ See Notes Screen for addt'l info **Estimate Total:** $167,152.00

Design, permit and construct force main and lift station improvements to the Twin Rivers and Pinebrook lift stations to include:
1. Replacing the existing 88-hp pumps with 20-hp pumps at the Pinebrook lift station. These two pumps would be stored as spares for use at Twin Rivers, Live Oak, and Sanctuary lift stations.
2. Modify the existing 88-hp pumps at the Twin Rivers lift station to increase its pumping capacity.
3. Modify 10" FM piping near Twin Rivers LS to redirect the Pinebrook force main so it dumps directly into the Twin Rivers wet well for repumping to the Alafaya WWTP.

Justification & Benefits

Currently, a 10-inch force main conveys sewer from the Pinebrook LS across the Econlockhatchee River and the Twin Rivers Golf Course, then connects to the Twin Rivers LS's 16-inch force main. From there, the flow is combined with several other force mains before it ultimately discharges into the Alafaya WWTP. The 10-inch force main between the Pinebrook LS and the Twin Rivers LS has ruptured on at least seven (7) occasions since May 2003. A section of the damaged pipe was analyzed for integrity and found to be in compliance with the manufacturer's specifications and AWWA pipe standards. A 700-LF section of DR18 C-900 PVC force main was replaced with ductile iron pipe from the Pinebrook LS to the east side of the Econ River in 2004 after three ruptures occurred in that section. Since then, four ruptures have happened on the west side of the Econ River with the most recent break occurring on 12/21/05. All of the FM breaks have been longitudinal ruptures, which are typical of pressure-related breaks.

An engineering analysis was performed on the above-referenced section of collection system force main. It was determined that the most cost effective solution to eliminate future breaks is to reroute the force main so it dumps directly into the Twin Rivers LS. This will effectively lower the back pressure on the Pinebrook FM and eliminate water hammer from damaging the 10" pipe. Initially, existing air release valves on the FM were replaced and additional ARVs installed in an effort to eliminate the water hammer but this was not successful in curing the problem. The computer model indicates that transient energy waves are still being produced because of the size of the pumps, the flow patterns into the wet wells that affects the pump cycles, high back pressure on the manifolded system, a significant change in pipe elevation, and the long run of pipe from Pinebrook to the WWTP, about 3 miles.

A Consent Order was issued by FDEP in June 2005 due to the numerous sewer spills into the Econ River. Each time that a pipe failure causes raw sewage to flow into the river a stipulated fine is automatically imposed on the utility based on the volume of the spill. This project will address the cause of the pipe failures and thus satisfy the Consent Order.

Project Request

Region	State	Co#	Sub#	ID #
			0647	3842

Priority Level: **1 - Regulatory** *Project Created:* **01/05/06** *Related to ID #:*

Project Name: **Twin Rivers Force Main/Lift Station Improvements**

Company: **Alafaya Utilities, Inc.**

System: **Alafaya Utilities, Inc.**

Expenses to Start: **02/01/2006**

Expenses to End: **10/01/2006**

The existing 88-hp pumps at Pinebrook are oversized and will be replaced with 20-hp pumps. The large pumps will be stored as backup pumps for use at three other 88-hp stations in Alafaya (AL-13, AL-23, and AL-26). The existing 88-hp pumps at Twin Rivers LS will be modified with different impellers installed to increase the station's pumping capacity.

Alternatives

1. REPLACE THE REMAINDER OF THE 10" FORCE MAIN BETWEEN THE ECON RIVER AND THE TWIN RIVERS LIFT STATION WITH DUCTILE IRON PIPE. This option would be very cost prohibitive due to existing pipe running across the golf course, underground utility conflicts, and running through an existing S/D. This would prove to be a temporary fix because this alternative does not address the high head pressure that the engineering report suggests is part of the problem.
2. REPLACE 10" FORCE MAIN FROM THE RIVER, ACROSS THE GOLF COURSE TO THE EAST EDGE OF THE S/D WITH DUCTILE IRON PIPE. While cheaper than Option 1 because of the shorter length, this option would also be cost prohibitive relative to the proposed project cost and would also prove to be an inadequate solution.
3. LEAVE AS IS. This is not a viable option due to the history of frequent pipe failures and the language in the CO, which will not be lifted until a permanent solution is constructed. Taking no action would cause FDEP to take additional enforcement action and also exposes the utility to stipulated penalties with each spill.

Timing of Project

Timeline Required

Project design would commence upon approval. The CO requires that we submit an application to FDEP by 2/20/06. The engineer needs at least 30 days to complete the design and submit to the department. Once the permit is issued, we have 240 days to complete the improvements. The engineer estimates that the whole process can be completed within 224 days from project approval.

System Information

- **Acquisition Date**
  10/01/1994
- **Facility Update**

Project Request

Region	State	Co#	Sub#	ID #
			0647	3842

Priority Level: 1 - **Regulatory** *Project Created:* **01/05/06** *Related to ID #:*

Project Name: **Twin Rivers Force Main/Lift Station Improvements**

Company: **Alafaya Utilities, Inc.**

System: **Alafaya Utilities, Inc.**

Expenses to Start: **02/01/2006**

Expenses to End: **10/01/2006**

7/23/02 - The Alafaya WWTF was upgraded to provide residential and commercial reuse service to those areas specified in accordance with the agreement between Alafaya Utilities and the City of Oviedo. The utility has installed a 20" reuse transmission main from the east side of Lockwood Boulevard, which travels along a rear easement to CR 419. From this point, transmission mains ranging in size from 6"- 18" travel to the north, west and east covering portions of the service area.
The Alafaya WWTF is designed for 2.4 MGD of treatment capacity. The current permitted capacity is 1.535 MGD AADF that is limited by effluent disposal per the terms of the permit renewed in March 2004. The percolation ponds are rated at 1.00 MGD, the Ekana Golf Course spray irrigation system is rated at 0.100 MGD and the public access irrigation system is rated at 0.435 MGD. Permitted capacity can be increased through the addition of reuse customers and with submittal of general use permit applications for reuse projects greater than 0.100 mgd as well as through growth in residential reuse. The permitted capacity was rerated in 2005 to reflect the increase in reuse demand.

- **Anticipated Growth in Area**

This area is a high growth corridor between Seminole and Orange counties and contains a strong potential for additional development. Live Oak, Phases 4 and 5, are scheduled for development in 2006 and will contain reuse facilities.

An 18" reuse main delivers reclaimed water to both the Live Oak and Sanctuary subdivisions, which at build out will be approx. 2,500 single family homes. A 20" reuse main is permitted, which will parallel a 10" RM between the WWTP and the 18" terminus at the Econ River crossing. This will improve the hydraulic capacity of the reuse system. The Oviedo Forest subdivision (about 100 lots) will be developed in 2006 on N. Lockwood Blvd. and will

- **Rate Case Information**

Last Order Date:

Order Number:

Type:

Docket:

Test Year:

- **List of Other Projects for System - by Project Status**

Sub	Status	Proj ID	Project Name	Date	Estimate	Spent
0647	Fully Approved	4427	AL-8 Lift Station Pump #1 Replacement	09/22/06	$5,031	
0647	Open	1621	Replacement Digester for Alafaya WWTF	01/01/04	$724,500	$655,929
0647	Open	1704	Reclaimed Interconnect w/ City of Oviedo	12/01/04	$34,100	$0
0647	Placed In Service	697	20" Reuse Main from WWTF to west side of	08/01/02	$790,801	$619,951
0647	Placed In Service	3842	Twin Rivers Force Main/Lift Station	02/01/06	$157,020	$84,659
0647	Placed In Service	203	Engineering-1 MG Reuse GST @ Alafaya	03/01/06	$70,050	$66,250
0647	Placed In Service	3379	Alafaya-Paint Tanks & Equipment	05/15/06	$31,625	
0647	Closed	2365	I&I Study Const. Remedies - Phase I	07/01/04	$231,850	$214,500
0647	Closed	2561	Install Meter @ GC Pond	10/01/04	$15,300	$12,279
0647	Closed	2645	Force Main Operational Engineering	01/01/05	$20,500	$18,247
0647	Closed	3324	AL - 9 Liftstation Wet Well Rehab	01/02/05	$9,000	$8,400
0647	Closed	3327	Emergency Blower rebuild Hoffman #3	01/02/05	$6,327	$6,327

Sub	Status	Proj ID	Project Name	Date	Estimate	Spent
0647	Fully Approved	4427	AL-8 Lift Station Pump #1 Replacement	09/22/06	$5,031	
0647	Open	1621	Replacement Digester for Alafaya WWTF	01/01/04	$724,500	$655,929
0647	Open	1704	Reclaimed Interconnect w/ City of Oviedo	12/01/04	$34,100	$0
0647	Placed In Service	697	20" Reuse Main from WWTF to west side of Lockwood	08/01/02	$790,801	$619,951
0647	Placed In Service	3842	Twin Rivers Force Main/Lift Station Improvements	02/01/06	$157,020	$84,659
0647	Placed In Service	203	Engineering-FMC Reuse GST @ Alafaya WWTP	03/01/06	$70,556	$66,250
0647	Placed In Service	3379	Alafaya-Paint Tanks & Equipment	05/15/06	$31,625	
0647	Closed	2365	I&I Study Const. Remedies - Phase I	07/01/04	$231,850	$214,500
0647	Closed	2561	Manholes	10/01/04	$15,300	$12,279
0647	Closed	2645	Force Main Operational Engineering	01/01/05	$20,500	$18,247
0647	Closed	3324	AL-9 Liftstation Wet Well Rehab	04/02/05	$60,000	$60,000
0647	Closed	3327	Emergency Blower rebuild Hoffman #3	01/02/05	$6,327	$6,327
0647	Closed	3320	Hoffman Blower Rebuild	02/01/05	$7,621	$7,679
0647	Closed	2327	2005 Alafaya Sanitary Sewer Cleaning	03/01/05	$92,097	$33,511
0647	Closed	3513	Master L/S Submersble Pump #2	06/22/05	$6,202	$6,202
0647	Closed	3780	Alafaya TR Main Bio cube Media	10/21/05	$5,895	$4,925
0647	DECLINED	3848	2006 Alafaya Sanitary Sewer Cleaning Replacement	04/01/06	$37,957	
0647	Proposed	1167	Alafaya Reuse GST- 1 MG	01/01/07		
647	Proposed	8001	Augmentation wells	01/01/07		
647	Proposed	8002	CR 419 reuse main extension to Live Oak, Phase 5	01/01/07		
0647	Proposed	1164	Eng-Alafaya Headworks	03/01/07		
0647	Proposed	1165	Alafaya WWTP Headworks	04/01/07		
0647	Proposed	204	Eng-Alafaya Sludge Handling Equipment	06/01/07		
0647	Proposed	1170	Eng-Little Creek Reuse Main	06/01/07		
0647	Proposed	1171	Little Creek Reuse Main Construction	06/01/07		
647	Proposed	8003	GSM Replacements	01/01/08		
0647	Proposed	205	Alafaya Sludge Handling Facilities	06/01/08		
647	Proposed	8004	Reuse Filter	01/01/09		

Project Request

Region *State* *Co#* *Sub#* *ID #*

0647 3842

Priority Level: 1- Regulatory *Project Created:* 01/05/06 *Related to ID #:*

Project Name: **Twin Rivers Force Main/Lift Station Improvements**

Company: **Alafaya Utilities, Inc.** Expenses to Start: **02/01/2006**

System: **Alafaya Utilities, Inc.** Expenses to End: **10/01/2006**