

ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application For)
Approval of Reuse Project Plan)
in Seminole County by Alafaya)
Utilities, Inc.,)

Docket No. 960288-SU

PROPOSED AGENCY
ACTION ORDER
NO. PSC-98-0391-FOF-SU

PETITION ON PROPOSED AGENCY ACTION

Petitioner, SEMINOLE RANCH, LTD., and LIVE OAK RESERVE, LTD., (hereafter collectively referred to as "Petitioners") are owners and developers of two tracts of land located in Seminole County (hereafter referred to as "developments") identified as follows:

Seminole Ranch, Ltd. a/k/a Richland Properties

River Run (formerly known as "Flying Seminole Ranch") consists of approximately 727 acres approved for the construction of 1,032 single family dwelling units as well as commercial and institutional uses.

Address:

Richland Properties
One Urban Center
4830 Kennedy Blvd., Suite 740
Tampa, Florida 33609-2552

Live Oak Reserve, Ltd.

Live Oak Plantation - consists of approximately 800 acres and is seeking approval for approximately 1,328 residential units.

Address:

Live Oak Reserve, Ltd.
c/o David W. McIntosh
2200 Park Avenue N.
Winter Park, FL 32709

RECEIVED & FILED

FPSC BUREAU OF RECORDS

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FPSC-RECORDS/REPORTING

All notices, pleadings and correspondence should be directed to:

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David W. Moyé, Esq.
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Petitioners' developments are located in Alafaya Utilities, Inc.'s, (hereafter "Alafaya") wastewater treatment and reuse service area. In fact, the majority of the "customer lots" impacted by "Alafaya's Reuse Project Plan and Reuse Rates and Charges" are located in the Petitioners' developments. Accordingly, Petitioners are substantially affected by the proposed agency action. For the reasons set forth below, Petitioners file this petition for a formal proceeding as provided by Rule 25-22.029(4), Florida Administrative Code (F.A.C.) and §120.57, Florida Statutes (F.S.) and Declaratory Relief as provided in Rule 25-22.020 F.A.C. and 120.565, F.S.

Petitioners became aware of the Proposed Agency Action Order on March 30, 1998, when they were provided a copy by the City Planner's Office for the City of Oveido, Florida.

Background

Alafaya is a privately owned Class A wastewater only utility located in Seminole County. The developments are located within the city limits of Oveido, Florida (hereafter referred to as "City") and will be provided potable water through the City's water utility. The developments are subject to the City's ordinances. Since the developments are located within Alafaya's wastewater service area, they are also within Alafaya's non-exclusive reuse service area.

Alafaya's present wastewater treatment and reuse facilities can be summarized as follows:

Wastewater treatment plant	-	2.4 million gallons per day (mgd) capacity, <u>limited</u> by Department of Environmental Protection (hereafter referred to as "DEP") to its effluent disposal capacity of 1.1 mgd.
Effluent disposal capacity	-	Nine fast percolation ponds with a rated capacity of 1.0 mgd ¹ .
	-	One eighteen hole golf course with slow rate public access level spray irrigation with a rated capacity of .1 mgd. ²
Present wastewater treatment demand	-	.80 mgd.

As matters presently stand, Alafaya has wastewater treatment capacity three times its present demand, but permitted for less than one-half its capacity due to inadequate effluent disposal capacity. This latter limitation has prompted Alafaya's submission of a seriously flawed and incomplete Reuse Project Plan.

On March 6, 1996, Alafaya submitted its "Application For Approval of Reuse Project Plan" to the Florida Public Service Commission (hereinafter referred to as "Commission"). The application had attached to it a "Wastewater Reuse Study" prepared by Alafaya's engineers, Hartman & Associates, Inc. The "Wastewater Reuse Study" set forth various assumptions and estimates from which four residential reuse scenarios were developed. As recommended in the

¹ As noted in the proposed Agency Action Order (hereafter referred to as "Order"), under DEP guidelines percolation ponds are not a viable long-term disposal solution for Alafaya.

² Initially the golf course was rated at .325 mgd for reclaimed water disposal by spray irrigation but subsequent to March 1996, was reduced by DEP to .10 mgd due to saturation.

Hartman & Associates' study, the Commission concluded residential reuse scenario number four was the best alternative.

The following are some of the assumptions upon which scenario number four was based and which were adopted by the Commission in its proposed order:

1. When built out, the new territory (including Petitioner's developments) will include an additional 5,700 homes.
2. By ordinance, the City requires new developments to install a reuse distribution system. Accordingly, Petitioners will install reuse distribution lines in their respective developments at the time of construction and donate the distribution lines to Alafaya.
3. New territory should be built out in 17 years. One-half (50%) of the wastewater customers will use reuse at an average rate of 500 gallons per day (gpd). This would increase Alafaya's effluent disposal through reuse to 2.0 mgd.
4. Through scenario number 4, Alafaya will invest in the additional filters, pumps, storage facilities and trunk mains to serve the new territory [underline added].
5. The capital expenditure necessary to enlarge Alafaya's reuse system (as adjusted by the Commission) is \$3,275,000. This amount includes expenditures for the following:

Reuse Pump Station with Hydro Tank	\$200,000.00
Effluent Transfer Pump Modifications	\$100,000.00
16-inch DIP Reuse Main 13,296 LF	\$412,200.00
12-inch PVC Reuse Main 15,356 LF	\$837,000.00
10-inch PVC Reuse Main 1,374 LF	\$215,600.00

6. While additional storage may be needed to implement scenario number 4, Alafaya believes its existing 3.65 mg reuse storage pond provides adequate wet weather storage for the reuse system anticipated under scenario four.

Disputed Issues of Material Facts

The following issues of material facts, as provided by Alafaya and adopted into the proposed order, are submitted:

1. The estimate that 50% of the wastewater customers will use reuse in the amount of 500 gpd is unrealistic. Since most of the developments' lots are one-quarter acre \pm , upon which are located a residence, driveway, walkways, and patios, DEP will not permit the disposal amount estimated. See Rule 62-610.423, F.A.C.
2. DEP requires at least three days of wet weather storage, depending on soil conditions. The water table is very high in the Petitioners' developments and the soil quality is poor.³ Accordingly, more than three days of storage would most likely be required by DEP. See Rule 62-610.414 F.A.C. Contrary to the assertions of Alafaya, the present 3.65 million gallon storage pond is grossly inadequate to meet the needs of scenario number four.
3. While the proposed order states Alafaya will use the \$3,275,000 reuse capital to invest in various upgrades including "storage facilities," the budget submitted to justify the \$3,275,000 capital investment allocates no money for the purchase or construction of storage facilities.
4. As presented, Alafaya's Reuse Project Plan is not workable in that it grossly overstates reuse disposal capacity and significantly understates its wet weather reuse storage requirements.

**Alafaya's Dealings With and Representations to Reuse
Customers (Petitioners) Indicate Alafaya Intends to
Proceed With a Reuse Project Plan Contrary
to the Plan Being Approved in the Proposed Order**

Alafaya has provided Petitioners with Draft Developer Agreements (hereafter referred to as "Draft Agreement") as set forth in Exhibit 1. Petitioners have objected to portions of the Draft Agreement as stated below and ongoing negotiations (written and oral) have been unsuccessful in resolving the objections. For purposes of this Petition, the portions of the Draft Agreement for which there are unresolved objections are as follows:

³ Recall DEP reduced the golf course reuse disposal capacity from .365 mgd was .10 mgd based on water saturation.

1. (Introduction) . . . Service is contingent upon the construction and utilization of existing and contemplated wastewater collection and reuse storage and distribution facilities and the availability of capacity of these facilities.
2. (Mutual Consideration) Developer and Service Company hereby covenant and agree as follows:

(a) 2.2. Contribution-in-aid-of-Construction (CIAC) - The sum of money and/or the value of property represented by the cost of the wastewater collection systems (including lift stations) and reuse storage and distribution facilities constructed or to be constructed by a Developer which Developer transfers, or agrees to transfer to Service Company at no cost to Service Company in order to induce Service Company to provide wastewater and reuse services to the Property.

(b) 7.0. On-Site Installation. To induce Service Company to provide the wastewater collection and reuse distribution service to the Property, unless otherwise provided for herein, Developer hereby covenants and agrees to construct and to transfer ownership and control to Service Company, as a contribution-in-aid-of-construction, the on-site wastewater collection and reuse distribution systems necessary to provide Service to the Property. The term "on-site wastewater collection and reuse distribution systems" means and includes all mains, lines, pipes, reuse meters and related facilities, and equipment, including pumping stations, reuse holding ponds and storage tanks adequate in size to provide Service to each lot or unit within the Property or as otherwise required by Service Company. Developer shall install, at its sole expense, all of the aforesaid facilities within the Property in accordance with the plans, specifications and all other pertinent documents approved by the Service Company.

(c) 8.0. Off-Site Wastewater Collection and Reuse Distribution Installation - Developer will construct and install all wastewater collection and reuse distribution facilities from Developer's property to Service Company's existing facilities in accordance with overall master plans of the utility system. Developer acknowledges and agrees that at some later date the Florida Public Service Commission may direct Service Company to assess and collect a reuse tap-on/connection charge for

individual utility customers availing themselves to said services.

(d) 9.1. By these presents, Developer hereby transfers, subject to the completion of construction of facilities, to Service Company, title to the on-site and off-site systems installed by Developer or Developer's contractor pursuant to the provisions of this Agreement. Such conveyance shall take effect at the time Service Company issues its final letter of acceptance.

(e) 11.0. Agreement to Serve. Upon the completion of construction of the on-site and off-site systems, their inspection, and the other terms of this Agreement and Service Company's Service Availability Policy, Service Company covenants and agrees that it will connect or oversee the connection of the on-site and off-site systems installed by Developer to the central facilities of Service Company in accordance with the terms and intent of this Agreement.

(f) 13.1. Developer guarantees storage and disposal within Property, via the on-site reuse system, of a volume of reuse water at least equal to one hundred percent of the ADF represented by the number of ERC's being provided service within the Property at any given time. Said acceptance of reuse water shall be in compliance with all federal, state and local rules and regulations.

(g) 34.0. Developer shall make available to Service Company and assist Service Company in the irrigation of open areas, greenbelts, and if mutually agreed upon and approved by the appropriate regulatory agencies, the irrigation of the lawns and other open areas of the residential phases of this project, Service Company shall be responsible for the obtainment of all necessary regulatory agency approvals and monitoring programs for all such irrigation activities.

Storage

The Draft Agreement demonstrates the proposed Project Reuse Plan does not address the major problem that has plagued Alafaya from the beginning; lack of effluent disposal capacity. While Alafaya's engineers state Alafaya's present 3.65 million gallon storage facility provides adequate wet weather storage for the reuse system design set forth in scenario number four, its

engineers also state, in a tongue-in-cheek fashion, "[i]t is estimated that additional storage may need to be provided for implementation of this scenario [scenario number four]." See excerpts from the "Alafaya Utilities, Inc., Wastewater Reuse Study" prepared by Hartman & Associates, Inc., previously provided to the Commission and attached hereto and incorporated herein as Exhibit 2.

The majority of the consideration to be provided by the Petitioners in the Draft Agreement include the following:

1. Construct and install all wastewater collection and reuse distribution facilities from petitioners' developments to Alafaya's existing facilities in accordance with Alafaya's overall master plans.
2. Mains, lines, pipes, reuse meters and related facilities and equipment, including pumping stations, reuse holding ponds and storage tanks adequate in size to provide service to each lot in the Petitioners' developments located within the development serviced.
3. Petitioners are to guarantee storage and disposal within each development which will be equal to at least 100 percent of the average daily flow of wastewater being produced by residents within the development.
4. Petitioners are to make available to Alafaya open areas and greenbelts for reuse disposal.

Petitioners have not allocated property within their respective developments to be used as reuse holding ponds. Further, city ordinances prohibit the installation of reuse storage ponds within the developments. Despite the understanding by the Commission, as reflected in the Proposed Order, that Alafaya will use a portion of its \$3,275,000 reuse capital expenditure to invest in "additional storage facilities," Alafaya's Capital Budget Estimate of \$3,990,000 (reduced by the Commission to \$3,275,000 for other reasons) has absolutely no provision for additional reuse storage.

As demonstrated in the Draft Agreement, the lack of reuse storage facilities and disposal areas are Alafaya's major concern, which Alafaya is attempting to shift to the Petitioners. Presenting for approval a Reuse Project Plan purporting to address necessary capital investment, operating budgets, availability fees, and monthly rates, which ignores the single most troublesome and costly issue (reuse storage and disposal) is unwise and can only result in protracted litigation.

Contributions-in-Aid-of-Construction

The proposed order recognizes Petitioners are required by the City to install reuse lines in their respective developments and that these reuse lines will be transferred at no cost to Alafaya. The order also reflects an understanding that Alafaya's approved reuse capital budget includes allocations for the cost of "additional filters, pumps, storage facilities and trunk mains associated with the reuse expansion." In fact, at least \$1,764,800 of the approved \$3,275,000 budget is allocated to pump stations and trunk lines.

The Draft Agreement calls for the Petitioners to fund and construct on-site pumping stations, holding ponds and storage tanks. Further, the Draft Agreement calls for the Petitioners to fund and construct off-site "all wastewater collection and reuse distribution facilities from their respective developments to Alafaya's existing facilities." This would include funding and installing trunk mains and off-site pumping stations. At the conclusion of the construction, the Petitioners are to transfer ownership of these facilities to Alafaya. Obviously, Alafaya cannot petition the Commission for a rate approval based on capital expenditures it does not intend to expend. The petition submitted to the Commission states Alafaya will pay these costs and the proposed order reflects this understanding. Alafaya's Draft Agreement, which was prepared

long after the Reuse Project Plan was submitted to the Commission, reflects an entirely different intent on the part of Alafaya.

Relief Requested

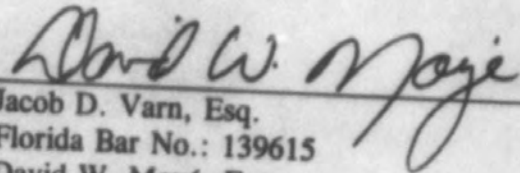
Based on the foregoing, Petitioners request the following:

1. That the proposed "Agency Action Order Approving Reuse Project and Reuse Rates Charges" be stayed pending further inquiry through an administrative hearing regarding the following aspects of the Reuse Project:
 - (a) Storage requirements and availability of same;
 - (b) Cost estimates;
 - (c) Permitability; and
 - (d) Overall viability.
2. Declaratory Statement pursuant to Section 120.565, F.S., Rule 25-22.020, F.A.C., declaring:
 - (a) The proposed order provides that the cost of providing wastewater and reuse transmission facilities from Alafaya's central facility to the Petitioners' developments shall be Alafaya's responsibility and not the responsibility of the Petitioners;
 - (b) The proposed order provides that it is Alafaya's responsibility to locate, fund, and provide adequate reuse wet weather storage ponds, tanks and pumping stations.

3. Such other relief or measures as the Commission deems proper.

Respectfully submitted,

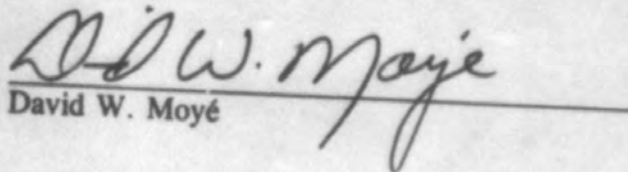
FOWLER, WHITE, GILLEN, BOGGS,
VILLAREAL & BANKER, P.A.



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Attorneys for Petitioner

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing has been furnished by U.S. Mail this 6th day of April, 1998, to Mr. Donald Rasmussen, Vice President Alafaya Utilities, Ltd., 200 Weatherfield Avenue, Altamonte Springs, Florida 32714; and Martin S. Friedman, Esq., last known counsel for Alafaya Utilities, Inc., 2548 Blirstone Pines Drive, Tallahassee, Florida 32301.



David W. Moyé

Draft

DEVELOPER AGREEMENT
RIVER OAKS AND RIVER OAKS RESERVE

THIS AGREEMENT made and entered into this _____ day of August 1997, by and between RICHLAND PROPERTIES, INC., a Florida Corporation, hereinafter referred to as "Developer", and ALAFAYA UTILITIES, INC., a Florida corporation, hereinafter referred to as "Service Company".

WHEREAS, Developer owns or controls lands located in Seminole County, Florida, and described in Exhibit "A", attached hereto and made a part hereof as if fully set out in this paragraph and hereinafter referred to as the "Property", and Developer intends to develop the Property by constructing thereon individually metered residential and commercial units; and

WHEREAS, Developer desires that the Service Company provide central wastewater collection and treatment service and reuse distribution services for the Property; and

WHEREAS, the Service Company is willing and able to provide, in accordance with the provisions of this Agreement and Service Company's Service Availability Policy, central wastewater and reuse services to the Property and thereafter operate applicable facilities so that the occupants of the improvements on the Property will receive adequate wastewater collection, wastewater treatment and reuse distribution services from Service Company; and

WHEREAS, such service is contingent upon the construction and utilization of existing and contemplated wastewater collection and reuse storage and distribution facilities and the availability of capacity of these facilities.

NOW, THEREFORE, for and in consideration of the premises, the mutual undertakings and agreements herein contained and assumed, Developer and Service Company hereby covenant and agree as follows:

- 1.0 The foregoing statements are true and correct.
- 2.0 The following definitions and references are given for the purpose of interpreting the terms as used in this Agreement and apply unless the context indicates a different meaning:
 - 2.1 "Consumer Installation" - All facilities ordinarily on the consumer's side of the point of delivery.
 - 2.2 "Contribution in aid of Construction (CIAC)" - The sum of money and/or the value of property represented by the cost of the wastewater collection systems (including lift stations) and reuse storage and distribution facilities constructed or to be constructed by a Developer, which Developer transfers, or agrees to transfer, to Service Company at no cost to Service Company in order to induce Service Company to provide wastewater and reuse services to the Property.
 - 2.3 "Equivalent Residential Connection (ERC)" - A factor used to convert a given wastewater average daily flow (ADF) to the equivalent number of residential connections. The number of ERC's contained in a given ADF is determined by dividing that ADF by the appropriate gallons per day for wastewater as defined herein. The

EXHIBIT 1

determination of the number of ERC's for the Property shall be subject to factoring as outlined in Service Company's Service Availability Policy or as mutually agreed upon by Service Company and Developer if applicable.

2.4 **"Point of Delivery"** - The point where the wastewater collection and reuse distribution pipes or meter of Service Company are connected with the wastewater collection and reuse distribution pipes of the consumer. Unless otherwise indicated, the point of delivery shall be at the consumer's lot line.

2.4 **"Property"** - The area of parcel of land described in Exhibit "A".

2.5 **"Service"** - The readiness and ability on the part of Service Company to furnish and maintain wastewater and reuse services to the point of delivery for each lot (pursuant to applicable rules and regulations of applicable regulatory agencies).

3.0 **Assurance of Title.** Within a period of forty-five (45) days after the execution of this Agreement, at the expense of Developer, Developer agrees to deliver to Service Company a copy of Title Insurance Policy or an opinion of title from a qualified attorney-at-law, with respect to the Property, which opinion shall include a current report on the status of the title, setting out the name of the legal title holders, the outstanding mortgages, taxes, liens and covenants. The provisions of this paragraph are for the purpose of evidencing Developer's legal right to grant the exclusive rights of service and conveyance by Developer contained in this Agreement.

4.0 **Connection Charges.** In addition to the contribution of any wastewater collection and reuse storage and distribution systems, where applicable, and further to induce Service Company to provide wastewater and reuse service, Developer agrees to pay those System Capacity Charges as set forth in Exhibit "B" hereto. Payment of the connection charges does not and will not result in Service Company waiving any of its rates or rules and regulations, and their enforcement shall not be affected in any manner whatsoever by Developer making payment of same. Service Company shall not be obligated to refund to Developer any portion of the value of the connection charges for any reason whatsoever, nor shall Service Company pay any interest or rate of interest upon the connection charges paid.

4.1 Neither Developer nor any person or other entity holding any of the Property by, through or under Developer, or otherwise, shall have any present or future right, title, claim or interest in and to the connection charges paid or to any of the wastewater or reuse facilities and properties of Service Company, and all prohibitions applicable to Developer with respect to no refund of connection charges, no interest payment on said connection charges and otherwise, are applicable to all persons or entities.

4.2 Any user or consumer of wastewater and/or reuse service shall not be entitled to offset any bill or bills rendered by Service Company for such service or services against the connection charges paid. Developer shall not be entitled to offset the connection charges against any claim or claims of Service Company.

5.0 Payment. Developer may pay system capacity charges on a phase-by-phase basis with such charges payable upon commencement of construction of the infrastructure for each such phase. Capacity is only reserved upon payment of the system capacity charges.

6.0 The parties agree that the capacity needed to provide service to the Property is 250,000 gallons per day for wastewater removal. Developer agrees that the number of units of capacity reserved hereby shall not exceed the number of units of development for which capacity is reserved hereby pursuant to Exhibit B. Developer agrees that wastewater to be treated by Service Company from Developer's property will consist of domestic wastewater and further agrees that it will not allow any abnormal strength wastewater to flow from Developer's property to the Utility's wastewater treatment facility that will cause harm to the treatment process. In addition, Developer further agrees that no wastewaters, fluids or other substances and materials shall be discharged to Service Company's sanitary wastewater collection/transmission system which contains any hazardous, toxic and/or industrial constituents, in whole or in part, regardless of the concentrations (i.e., strengths) of said constituents. Developer grants to Service Company the right to sample the Developer's wastewater, as referred to hereinabove, to verify Developer's compliance with this paragraph.

7.0 On-Site Installation. To induce Service Company to provide the wastewater collection and reuse distribution service to the Property, unless otherwise provided for herein, Developer hereby covenants and agrees to construct and to transfer ownership and control to Service Company, as a contribution-in-kind-of-construction, the on-site wastewater collection and reuse distribution systems necessary to provide service to the Property. The term "on-site wastewater collection and reuse distribution systems" means and includes all mains, lines, pipes, reuse meters and related facilities, and equipment, including pumping stations, reuse holding ponds and storage tanks adequate in size to provide service to each lot or unit within the Property or as otherwise required by Service Company. Developer shall install, at its sole expense, all of the aforesaid facilities within the Property in accordance with the plans, specifications and all other pertinent documents approved by the Service Company.

7.1 Developer shall cause to be prepared five (5) copies of the applications for permits and four (4) sets of finalized engineering plans prepared and sealed by a professional engineer registered in the State of Florida. Plans shall show the on-site and off-site wastewater collection, and reuse systems proposed to be installed to provide service to the Property. Developer shall cause its engineer to submit to Service Company specifications governing the material to be used and the method and manner of installation. All such plans and specifications submitted to Service Company's engineer shall meet the minimum specifications of Service Company and shall be subject to the approval of Service Company, which approval shall not be unreasonably withheld. No construction shall commence until Service Company and appropriate regulatory agencies have approved such plans and specifications in writing. When permits and approved plans are returned by appropriate regulatory agencies to Developer, Developer shall submit to Service Company one copy of the permits and approved plans.

7.2 After the approval of plans and specifications by Service Company and appropriate regulatory agencies, Developer, or the engineer of record, shall set up a preconstruction conference with engineer of record, utility contractor, appropriate building official(s), all other utility companies involved in the development of the Property, and Service Company.

7.3 Developer shall provide to Service Company's Inspector, twenty-four (24) hours notice prior to commencement of construction. Developer shall cause to be constructed, at Developer's own cost and expense, the on-site and off-site wastewater collection, and reuse systems as shown on the approved plans and specifications.

7.4 During the construction of the wastewater collection, and reuse systems by Developer, Service Company shall have the right to inspect such installations to determine compliance with the approved plans and specifications. The engineer of record shall also inspect construction to assure compliance with the approved plans and specifications. Service Company's engineer of record and utility contractor shall be present for all standard tests for pressure, infiltration, line and grade, and all other normal engineering tests (to determine that the systems have been installed in accordance with the approved plans and specifications, and good engineering practices. Developer agrees to pay to Service Company, or Service Company's authorized agent, a reasonable sum to cover the cost of inspection of installations made by Developer or Developer's contractor.

7.5 Upon completion of construction, Developer's engineer of record shall submit to Service Company a copy of the signed certification of completion submitted to the appropriate regulatory agencies. The engineer of record shall also submit to Service Company ammonia myriads of the as-built plans prepared and certified by the engineer of record.

8.0 Off-Site Wastewater Collection and Reuse Distribution Installation - Developer will construct and install all wastewater collection and reuse distribution facilities from Developer's property to Service Company's existing facilities in accordance with overall master plans of the Utility system. Developer acknowledges and agrees that at some later date the Florida Public Service Commission may direct Service Company to assess and collect a reuse tap-on/connection charge for individual utility customers availing themselves to said services.

9.1 By these presents, Developer hereby transfers, subject to the completion of construction of facilities, to Service Company, title to the on-site and off-site systems installed by Developer or Developer's contractor pursuant to the provisions of this Agreement. Such conveyance shall take effect at the time Service Company issues its final letter of acceptance. As further evidence of said transfer of title, upon the completion of the installation, but prior to the issuance of the final letter of acceptance and the rendering of service by Service Company, Developer shall:

- 9.1.1 Convey to Service Company, by bill of sale in form reasonably satisfactory to Service Company's counsel, the on-site and off-site systems as constructed by Developer and approved by Service Company. This bill of sale shall include the final cost breakdown of the actual costs of installation of the on-site and off-site systems.
- 9.1.2 Provide Service Company with copies of invoices from contractor for installation of the on-site and off-site systems.
- 9.1.3 Provide Service Company with copies of Releases of Lien for said invoices.
- 9.1.4 Assign any and all warranties and/or maintenance bonds and the rights to enforce same to the Service Company which Developer obtains from any contractor constructing the on-site and off-site systems. If Developer does not obtain such written warranty and/or maintenance bond from its contractor and deliver same to Service Company, which warranty and/or maintenance bond shall be for a minimum of one year, then in

such event, Developer, by the terms of this instrument, agrees to indemnify and save harmless the Service Company for any loss, damages, costs, claims, suits, debts or demands by reason of latent defects in the systems which could not have been reasonably discovered upon normal engineering inspection, for a period of one year from the date of acceptance by the Service Company of the on-site and off-site systems or from the date which Service Company should reasonably have accepted the on-site and off-site systems.

9.1.5 Provide to the Service Company an executed affidavit of release of liens in form reasonably satisfactory to Service Company's counsel for the on-site and off-site systems installed by Developer by reason of work performed or services rendered in connection with the installation of the on-site and off-site systems.

9.1.6 Provide Service Company with all appropriate operations/maintenance and parts manuals for the on-site and off-site systems.

9.1.7 Further cause to be conveyed to Service Company easements and/or rights-of-way covering all areas in which the on-site and off-site systems are installed, with adequate legal access to same, by recordable document in form reasonably satisfactory to Service Company's counsel. Without limitation on the foregoing, each such easement will provide that the Service Company can use the easements or right-of-way will not be planted with any plants except grass or obstructed by any structure, and that Service Company shall have no obligation to replant any plants or repair any structures located within said easements or right-of-way.

9.2 Service Company agrees that the issuance of the final letter of acceptance for on-site and off-site systems installed by Developer shall constitute the assumption of responsibility by Service Company for the continuous operation and maintenance of such systems from that date forward.

10.0 Easements - Developer hereby grants and gives to Service Company, its successors and assigns, but subject to the terms of this Agreement, the exclusive right or privilege to construct, own, maintain or operate the wastewater and reuse facilities to serve the Property, and the exclusive right or privilege to construct, own, maintain and operate said facilities in, under, upon, over and across the present and future streets, roads, alleys and easements reserved, utility strips and utility sites, and any public place as provided and dedicated to public use in the record plats, or as provided for in agreements, dedications of grants made otherwise and is independent of said record plats. Mortgages, if any, holding prior liens on the Property shall be required to either release such liens, subordinate their position or join the grant or dedication of the easements or rights-of-way, or give to Service Company assurance by way of a "non-disturbance agreement," that in the event of foreclosure, mortgagee's would continue to recognize the easement rights of Service Company, as long as Service Company complies with the terms of this Agreement. All wastewater collection facilities and reuse facilities, save and except consumer installations, shall be covered by easements or rights-of-way if not located within platted or dedicated roads or rights-of-way for utility purposes.

Developer hereby further agrees that the foregoing grants include the necessary right of ingress and egress to any part of the Property upon which Service Company is constructing or operating utility facilities. The foregoing grants shall be for such period of time as Service Company or its successors or assigns require such rights, privileges or easements in the construction, ownership, maintenance, operation or expansion of the wastewater facilities. The parties agree that in the event Developer and Service Company agree to install any of the wastewater facilities in lands within the

Property lying outside the streets and easement areas described above, then Developer or the owner shall grant to Service Company the necessary easement or easements for such "private property" installation; provided, all such "private property" installations by Service Company shall be made in such a manner as not to interfere with the then primary use of such "private property". The use of easements granted by Developer to Service Company shall not preclude the use by other utilities of these easements, such as for cable television, telephone, electric, or gas utilities, or as otherwise agreed to by Service Company, provided each does not interfere with Service Company's use thereof.

Service Company hereby agrees that all easement grants will be utilized in accordance with the established and generally accepted practices of the wastewater industry with respect to the installation of all its facilities in any of the easement areas.

11.0 Agreement to Serve. Upon the completion of construction of the on-site and off-site systems, their inspection, and the other terms of this Agreement and Service Company's Service Availability Policy, Service Company covenants and agrees that it will connect or oversee the connection of the on-site and off-site systems installed by Developer to the central facilities of Service Company in accordance with the terms and intent of this Agreement.

Such connection shall at all times be in accordance with rules, regulations and orders of the applicable governmental authorities. Service Company agrees that once it provides wastewater and/or reuse services to the Property and Developer or others have connected Consumer installations to its systems, that thereafter Service Company will continuously provide, at its cost and expense, but in accordance with the other provisions of this Agreement, including rules and regulations and rate schedules, wastewater and reuse services to the Property in a manner to conform with all requirements of the applicable governmental authority having jurisdiction over the operations of Service Company.

12.0 Application for Service: Consumer Installations. Developer, or any owner of any parcel of the Property, or any occupant of any residence, building or unit located thereon shall not have the right to, and shall not connect any consumer installation to the facilities of Service Company until formal written application has been made to Service Company by the prospective user of service, or either of them, in accordance with the then effective rules and regulations of Service Company and approval for such connection has been granted.

12.1 Although the responsibility for connecting the Consumer installation to the lines of Service Company at the Point of Delivery is that of the Developer or entity other than Service Company, with reference to such connections, the parties agree as follows:

- 12.1.1 All Consumer installation connections must be inspected by Service Company before backfilling and covering of any pipes.
- 12.1.2 Notice to Service Company requesting an inspection of a Consumer installation connection may be given by the plumber or Developer, and the inspection will be made within twenty-four (24) hours, not including Saturdays, Sundays, and holidays.
- 12.1.3 If Service Company fails to inspect the Consumer installation connection within forty-eight (48) hours after such inspection is requested by Developer or the owner of any parcel, Developer or owner may backfill or cover the pipes without Service Company's approval and Service Company must accept the connection as to any matter which could have been discovered by such inspection.

- 12.1.4 If the Developer does not comply with the foregoing inspection provisions, Service Company may refuse service to a connection that has not been inspected until Developer complies with these provisions.
- 12.1.5 The cost of constructing, operating, repairing or maintaining Consumer Installations shall be that of Developer or a party other than Service Company.
- 12.1.6 If a commercial kitchen, cafeteria, restaurant or other food preparation or dining facility is constructed within the Property, the Service Company requires that a grease trap be constructed, installed and connected so that all wastewaters from any grease producing equipment within such facility, including floor drains in food preparation areas, shall first enter the grease trap for pretreatment before the wastewater is delivered to the lines of the Service Company. Size, materials and construction of such grease trap shall be approved by Service Company.

No substance other than domestic wastewater will be placed into the wastewater system and delivered to the lines of the Service Company. Should any non-domestic wastes, grease or oils, including, but not limited to, floor wax or paint, be delivered to the lines, the consumer will be responsible for payment of the cost and expense required in correcting or repairing any resulting damage.

13.0 Exclusive Right to Provide Service and Obligation to Accept Reuse Water. Developer, as a further and essential consideration of this Agreement, agrees that Developer, or the successors and assigns of Developer, shall not (the words "shall not" being used in a mandatory definition) engage in the business or businesses of providing wastewater or reuse services to the Property during the period of time Service Company, its successors and assigns, provide wastewater and/or reuse services to the Property, it being the intention of the parties hereto that under the foregoing provision and also other provisions of this Agreement, Service Company shall have the sole and exclusive right and privilege to provide wastewater and reuse services to the Property and to the occupants of such buildings or units constructed thereon.

13.1 Developer guarantees storage and disposal within Property, via the on-site reuse system, of a volume of reuse water at least equal to one hundred percent of the ADF represented by the number of ERC's being provided service within the Property at any given time. Said acceptance of reuse water shall be in compliance with all federal, state and local rules and regulations.

14.0 Rates. Service Company agrees that the rates to be charged to Developer and individual consumers of wastewater and reuse services shall be those set forth in the tariff of Service Company approved by the applicable governmental agency. However, notwithstanding any provision in this Agreement, Service Company, its successors and assigns, may establish, amend or revise, from time to time in the future, and enforce rates or rate schedules so established and enforced and shall at all times be reasonable and subject to regulations by the applicable governmental agency, or as may be provided by law. Rates charged to Developer or consumers located upon the Property shall at all times be identical to rates charged for the same classification of service, as are or may be in effect throughout the service area of Service Company.

14.1 Notwithstanding any provision of this Agreement to the contrary, Service Company may establish, amend or revise, from time to time, in the future, and enforce rules and regulations covering wastewater and reuse services to the Property.

However, all such rules and regulations so established by Service Company shall at all times be reasonable and subject to such regulations as may be provided by law.

14.2 Any such initial or future decreased or increased rates, rate schedules, and rules and regulations established, amended or revised and enforced by Service Company from time to time in the future, as provided by law, shall be binding upon Developer upon any person or other entity holding by, through or under Developer; and upon any user or consumer of the wastewater and/or reuse services provided to the Property by Service Company.

15.0 Binding Effect of Agreement. This Agreement shall be binding upon and shall inure to the benefit of Developer, Service Company and their respective assigns and successors by merger, consolidation, conveyance or otherwise, subject to the provisions of paragraph 22.0 hereof.

16.0 Notice. Until further written notice by either party to the other, all notices provided for herein shall be in writing and transmitted by messenger, by mail or by telegram, and if to Developer, shall be mailed or delivered to Developer at:

Richland Properties, Inc.
One Urban Center
4830 West Kennedy Blvd., Suite 740
Tampa, FL 33609-2552
Attn: Mr. J. Curt Wilkinson, Vice President Development

and if to the Service Company, at:

Alafaya Utilities, Inc.
c/o Utilities, Inc.
2335 Sanders Road
Northbrook, IL 60062-6440
Attn: Mr. James Camaren, Chairman

with a copy to:

Rose, Sundstrom & Bentley
2548 Blainstone Pines Drive
Tallahassee, FL 32301
Attn: William E. Sundstrom, P.A.

17.0 Laws of Florida. This Agreement shall be governed by the laws of the State of Florida and it shall be and become effective immediately upon execution by both parties hereto, subject to any approvals which must be obtained from governmental authorities, if applicable.

18.0 Costs and Attorney's Fees. In the event the Service Company or Developer is required to enforce this Agreement by Court proceedings or otherwise, by instituting suit or otherwise, then the prevailing party shall be entitled to recover from the other party all costs incurred, including reasonable attorney's fees, including such fees and costs of any appeal.

19.0 Force Majeure. In the event that the performance of this Agreement by either party to this Agreement is prevented or interrupted in consequence of any cause beyond the control of either party, including but not limited to Act of God or of the public enemy, war, national emergency, allocation or of other governmental restrictions upon the use or availability of labor or materials, rationing, civil insurrection, riot, racial or civil rights disorder or demonstration, strike, embargo, flood, tidal wave, fire, explosion, bomb detonation, nuclear fallout, windstorm, hurricane, earthquake,

strike or other casualty or disaster or catastrophe, unforeseeable failure or breakdown of pumping transmission or other facilities (which will be repaired by Service Company as soon as reasonably possible), governmental rules or acts or orders or restrictions or regulations or requirements, acts or action of any government or public or governmental authority or commission or board or agency or agent or official or officer, the enactment of any statute or ordinance or resolution or regulation or rule or ruling or order, order or decree or judgment or restraining order or injunction of any court, said party shall not be liable for such non-performance. This provision shall not be applicable to the payment of connection charges by Developer to Service Company.

20.0 Indemnification. Each party agrees to indemnify and hold the other harmless from and against any and all liabilities, claims, damages, costs and expenses (including reasonable trial and appellate attorney's fees) to which such party may become subject by reason of or arising out of the other party's performance of this Agreement. This indemnification provision shall survive the actual connection to Service Company's wastewater and reuse systems.

MISCELLANEOUS PROVISIONS

21.0 Service Company's liability to Developer for non-performance herein shall be limited to the provisions of Section 20 hereof.

22.0 Upon the execution of this Agreement, Developer shall provide Service Company with a schedule of the build out of the development on the Property. On or before January 1 of each year, Developer shall provide Service Company with a revised build-out schedule specifically showing the anticipated number of units which will be constructed during the following two years. Service Company agrees to provide service in accordance with the schedule provided by Developer on an annual basis and upon payment of applicable service availability charges.

23.0 The rights, privileges, obligations and covenants of Developer and Service Company shall survive the completion of the work of Developer with respect to completing the facilities and services to any development phase and to the Property as a whole.

24.0 This Agreement supersedes all previous agreements or representations, either verbal or written, heretofore in effect between Developer and Service Company, made with respect to the matters herein contained, and when duly executed, constitutes the agreement between Developer and Service Company. No additions, alterations or variations of the terms of this Agreement shall be valid, nor can provisions of this Agreement be waived by either party, unless such additions, alterations, variations or waivers are expressed in writing and duly signed.

25.0 Whenever the singular number is used in this Agreement and when required by the context, the same shall include the plural, and the masculine, feminine and neuter genders shall each include the others.

26.0 Whenever approvals of any nature are required by either party to this Agreement, it is agreed that same shall not be unreasonably withheld or delayed.

27.0 The assignment, sale or transfer of this Agreement and all of the rights and privileges pertaining thereto, shall be subject to the approval, in writing, of Service Company, except in the case of a bona fide sale of the Property.

28.0 Capacity reserved hereunder to service the Property listed on Exhibit "A" hereto may not be assigned to other properties.

29.0 The submission of this Developer Agreement for examination by Developer does not constitute an offer but becomes effective only upon execution thereof by Service Company.

30.0 Failure to insist upon strict compliance of any of the terms, covenants, or conditions herein shall not be deemed a waiver of such terms, covenants, or conditions, nor shall any waiver or relinquishment of any right or power hereunder at any one time or times be deemed a waiver or relinquishment of such right or power at any other time or times.

31.0 It is agreed by and between the parties hereto that all words, terms and conditions contained herein are to be read in concert, each with the other, and that a provision contained under one heading may be considered to be equally applicable under another in the interpretation of this Agreement.

32.0 The parties hereto recognize that prior to the time Service Company may actually commence upon a program to carry out the terms and conditions of this Agreement, Service Company may be required to obtain approval from various state and local governmental authorities having jurisdiction and regulatory power over the construction, maintenance and operation of Service Company. The Service Company agrees that it will diligently and earnestly, at Developer's sole cost and expense, make the necessary proper applications to all governmental authorities and cities and will pursue the same to the end that it will use its best efforts to obtain such approval. Developer, at its own cost and expense, agrees to provide necessary assistance to Service Company in obtaining the approvals provided for herein. Upon execution of this Agreement, Service Company may require the payment of a reasonable fee to defray Service Company's legal, engineering, accounting, administrative and contingent expenses.

33.0 In the event that relocation of existing wastewater utilities are necessary for the Developer, Developer will reimburse Service Company in full for such relocations.

34.0 Developer shall make available to Service Company and assist Service Company in the irrigation of open areas, greenbelts, and if mutually agreed upon, and approved by the appropriate regulatory agencies, the irrigation of the lawns and other open areas of the residential phases of this project. Service Company shall be responsible for the obtainment of all necessary regulatory agency approvals and monitoring programs for all such irrigation activities.

IN WITNESS WHEREOF, Developer and Service Company have executed or have caused this Agreement, with the named Exhibits attached, to be duly executed in several counterparts, each of which counterpart shall be considered an original executed copy of this Agreement.

WITNESSES:

Print Name

Print Name

RICHLAND PROPERTIES, INC.

By: _____

Attest: _____

ALAFAYA UTILITIES, INC.

Print Name _____

By: _____

STATE OF FLORIDA)
COUNT OF SEMINOLE)

The foregoing instrument was acknowledged before me this _____ day of August, 1997, by Alaraya Utilities, Inc., a Florida corporation, on behalf of the corporation. He is personally known to me or has produced _____ as identification.

Print Name _____
Notary Public
State of Florida at Large

My Commission Expires:

STATE OF FLORIDA)
COUNT OF _____)

The foregoing instrument was acknowledged before me this _____ day of August, 1997, by J. Curt Wilkinson as Vice President on behalf of Richland Properties, Inc., a Florida Corporation. He is personally known to me or has produced _____ as identification.

Print Name _____
Notary Public
State of Florida at Large

My Commission Expires:

**ALAFAYA UTILITIES, INC.
WASTEWATER REUSE STUDY**

PREPARED FOR:

**UTILITIES, INC.
2335 SANDERS ROAD
NORTHBROOK, ILLINOIS 60062**

PREPARED BY:

**HARTMAN & ASSOCIATES, INC.
201 EAST PINE STREET, SUITE 1000
ORLANDO, FLORIDA 32801**

MARCH 1996

HAI #95-099.01

EXHIBIT 2

This cost estimate also includes those costs associated with the transmission of the reclaimed water to the sites as illustrated previously in Figure 5-3. It is estimated that additional storage may need to be provided for implementation of this scenario. Existing reuse storage includes the 3.65 MG storage pond located on Lockwood Road. This storage facility may provide adequate reuse storage for the Ekana Green, Little Creek, and Flying Seminole property subdivisions, if these subdivisions are connected to the reuse system. It is noted that the reject storage tank located on the Alafaya Utilities Regional WWTP site is of adequate capacity for the requirements of this scenario.

5.3.4 Residential Reuse Scenario Number Four

The last scenario focuses on providing public access level reclaimed water for residential developments within the extended Alafaya Utilities Regional WWTP service area.

Like Residential Scenario Number Three, this scenario focuses on providing public access level reclaimed water for residential irrigation within existing and proposed residential areas that will have reuse distribution utilities installed at the time that the property is developed. Specifically, this scenario will analyze providing residential reclaimed water to the proposed Flying Seminole Property, the Live Oak PUD, the River Oaks and Estes Trust property, and the undeveloped parcel north of the Flying Seminole Ranch property. The areas included in Residential Reuse Scenario Number Four are illustrated in Figure 5-5.

The Flying Seminole Ranch Property, the Live Oak PUD, the River Oaks and Estes Trust property, and the undeveloped parcel north of the Flying Seminole property are presently not included within the Alafaya Utilities, Inc., wastewater service area. It is possible that these properties may be developed as single family residential, and may be included within an expanded Alafaya Utilities, Inc., wastewater service area in the future. As mentioned previously, the Oviedo Land Development Code, Section 233 requires that reclaimed water pipe facilities be installed with the other underground facilities. Since any residential units that are constructed in the proposed areas will have reuse distribution mains installed, these areas will be considered in the analysis of this section. The total area of these properties is estimated at approximately 4,046 acres. It is estimated that the new development could include approximately 5,600 new single family residential homes. If the existing service area were expanded to include future residential development within the proposed wastewater service extension areas, wastewater generation rates at the Alafaya Utilities Regional WWTP will likewise increase according to the level of residential development.

The design demand rates originally developed in Section 5.3 and Subsection 5.3.3, would likewise need to be adjusted due to the expansion of the wastewater service area to include the proposed areas. It is estimated that the wastewater flow into the Alafaya Utilities Regional WWTP could increase by approximately 1.0 MGD, due to expansion of the existing wastewater service area to include the proposed areas. It is noted that the proposed territorial expansion has previously been applied for to the FPSC. This additional influent flow would allow construction of a reuse system with a capacity of approximately 2.00 MGD, as opposed 1.00 MGD. It is noted that the expanded customer base that will result due to the extension of the existing wastewater service area will significantly reduce the individual customers cost burden for wastewater and reuse service. A summary of the future design capacity based on the estimated flows developed in this section, is summarized in Table 5-11.

As previously described in Subsection 5.3.3, the residential areas that are included in the Residential Reuse Scenario Number Four also differ from those presented in the Residential Reuse Scenario Number One and Two.

Most of the subdivisions included in the Residential Reuse Scenario Numbers One and Two areas were not required to install separate reuse distribution piping at the time that the developments were constructed. Therefore, providing reclaimed water for residential irrigation within those subdivisions will require the construction of reuse distribution, as well as transmission main piping. In comparison, the existing and proposed subdivisions in Residential Reuse Scenario Number Three and Four have, or will have, reuse distribution piping installed at the time of construction. The requirement to install reuse lines at the time of development will allow these areas to be served with reclaimed water by constructing only the supply, storage, and transmission main facilities of a reclaimed water system. The transmission main piping will then be interconnected with the previously constructed distribution system piping within the respective subdivisions.

Reuse demand was estimated for the Ekana Green, Little Creek, and proposed property subdivisions based on the planned number of units in each of the subdivisions, and the assumption that there will be 50 percent participation among homeowners to connect. Using the 500 gpd/connection reuse demand rate, it was possible to then estimate reuse demand within the respective subdivisions.

TABLE 5-11

ALAFAYA UTILITIES, INC.
 WASTEWATER REUSE STUDY
 RESIDENTIAL REUSE SCENARIO NUMBER FOUR
 FUTURE FLOW DESIGN SUMMARY

Description	Annual Average Daily Flow (MGD-AADF)	Maximum Month Flow (MGD-MMF)
WASTEWATER TREATMENT PLANT:		
Existing WWTP Design Capacity	2.400	--
Current Influent Flow	0.806	0.890
Estimated Influent at Build-out ⁽¹⁾	2.000	2.200
EXISTING REUSE SYSTEM:		
Existing Reuse System Design Capacity	--	0.500
Ekana Golf Course Demand	0.100	0.345
Available Reuse System Capacity	--	0.155
FUTURE REUSE SYSTEM:		
Residential Reuse Design Capacity	1.531	2.297
Available Reuse System Design Capacity	1.103	1.655
Ekana Golf Course Demand	0.100	0.345
Total Reuse Demand	1.203	2.000

(1) Estimate based on the proposed certificate extension as described in this section.

Summarized in Table 5-12 is the reuse demand estimated for the Residential Reuse Scenario Number Four. As summarized in Table 5-12, the reuse demand at build out in the residential areas included in this scenario is estimated at 1.531 MGD-AAADF, or 2.296 MGD-MMF. This analysis includes the estimation that approximately 262 units will be available to participate in a residential reuse system within the Ekana Green and Little Creek subdivisions, and another 2,800 within the proposed areas.

The existing effluent disposal facilities for the reclaimed water system consist of a single three (3) cell filter rated at 0.500 MGD, a single chlorine contact basin, a 700 gpm duplex submersible pump station and a 10-inch PVC reuse transmission main that runs from the wastewater treatment plant site to the reuse storage pond located on the west side of Lockwood Road. The pump station is designed for a firm capacity (reliability) of 1.0 MGD. The 10-inch effluent reuse main has a maximum pumping capacity of 1,224 gpm, or 1.76 MGD.

Other existing reuse facilities that would be utilized include the section of 12-inch reuse main that runs from Section VI of Twin Rivers, under the Econlockhatchee River, to the master lift station located in Riverside, and Twin Rivers Section 1, Ekana Green, and Little Creek. Since the Econlockhatchee River 12-inch reuse main crossing already exists, reuse could be provided to the estimated 4,900 residential units that are to be constructed in the proposed areas east of the Econlockhatchee River by extending the reuse transmission main from the stubbed-off river crossing section, through the Riverside subdivision, to a connection point at the new developments. Additionally, a section of reuse transmission main would need to be constructed from the reuse storage site on Lockwood Road, along Ekana Drive through the Twin Rivers subdivision, to the stubbed-off river crossing on the west side of the Econlockhatchee River. It is noted that since the stubbed-off section of the reclaimed water river crossing already exists, providing reuse east of the Econlockhatchee River would not require additional permitting associated with construction of a river crossing. Reuse service to the Little Creek subdivision could be accomplished by extending the reuse transmission main south on Lockwood Road, to the connection point of the existing reuse distribution facilities at Little Creek. To provide reuse within the proposed River Oaks and Estes Trust property, the transmission main would need to be extended north on a proposed section of Lockwood Road, that will be constructed north from State Road 419 to State Road 426.

**TABLE 5-12
ALAFAYA UTILITIES, INC.
WASTEWATER REUSE STUDY
RESIDENTIAL REUSE SCENARIO NUMBER FOUR
REUSE DEMAND SUMMARY**

No.	Site	Area (ac.)	Irrigable %	Irrigable Area (ac.)	Subscription Rate (%)	Reuse Area (ac.)	Irrigation Rate (inch/week)	Estimated Reuse Capacity (gpd)
1	Ekana Green Subdivision (Formerly the Colony)	17	50	8.5	50	4.3	1.25	20,500
2	Little Creek	217	21	45.6	50	22.8	1.25	110,500
3	Proposed Flying Seminole Ranch Property Subdivision	742	19.5	145	50	72.5	1.25	325,000
4	Live Oak PUD	1,050	10	104	50	52	1.25	250,000
5	Undeveloped Land Parcel (north of Flying Seminole Ranch)	1,388	5	64.5	50	129	1.25	625,000
6	River Oaks and Estes Trust Property	866	2.5	21	50	41	1.25	200,000
Total Proposed Reuse Demand								
								1,531,000

The capital improvements necessary to provide the additional capacity identified in this analysis include improvements to expand the reclaimed water treatment filtration facilities by approximately 1.500 MGD, up to a total capacity of approximately 2.40 MGD, and other reclaimed water treatment facilities including a new 16,000 gallon chlorine contact chamber and expansion of on-site effluent transfer pump capacity by approximately double the existing capacity (700 gpm duplex). Additionally, a new high-service pumping facility to provide the required 2.0 MGD design pumping capacity will be constructed at the Lockwood Road reuse storage site. In addition, minor yard piping, electrical, and control improvements associated with the filter and chlorine contact chamber expansions would be required. The proposed improvements would consist of three (3) additional triple cell filtration units comparable to that which currently exists. The proposed units would be designed based on the same loading criteria as the existing filter units (2.0 gpm/sf at ADF). The filter improvements will consist of all minor yard piping, backwash and mudwell pumping equipment, control valves, site work and electrical improvements. In addition, the proposed improvements would consist of an additional 16,000 gallon prefabricated steel chlorine contact chamber following in the process.

Preliminary capital costs associated with constructing reuse facilities for Residential Reuse Scenario Number Four are estimated at approximately \$3,990,000, or \$2.60 per gallon of reuse demand estimated in this scenario. The capital costs identified for this scenario include those for Alafaya Utilities Regional WWTP site improvements such as new filters, CCC, electrical, yard piping, and other miscellaneous costs as summarized in Table 5-13. This cost estimate also includes those costs associated with the transmission of the reclaimed water to the sites as illustrated previously in Figure 5-5. It is estimated that additional storage may need to be provided for implementation of this scenario. Existing reuse storage includes the 3.65 MG storage pond located on Lockwood Road. This storage facility provides adequate wet weather storage for the reuse system design of this scenario. Likewise, it is noted that the reject storage tank located on the Alafaya Utilities Regional WWTP site is of adequate capacity for the requirements of this scenario.

TABLE 5-13

ALAFAYA UTILITIES, INC.
WASTEWATER REUSE STUDY
RESIDENTIAL REUSE SCENARIO NUMBER FOUR
PRELIMINARY CAPITAL COST ESTIMATE

Item Description	Units	No. of Units (#)	Unit Costs (\$/Unit)	Total Costs (\$)
Filtration Units	SF	540	\$700	\$378,000
Chlorine Contact	GAL	16,000	\$2.3	40,000
Reuse Pump Station with Hydro Tank	LS	1	\$200,000	200,000
Effluent Transfer Pump Modifications	LS	1	\$100,000	100,000
16-inch DIP Reuse Main	LF	13,296	\$31.00	412,200
12-inch PVC Reuse Main	LF	51,356	\$16.30	837,000
10-inch PVC Reuse Main	LF	14,374	\$15.00	215,600
16-inch Gate Valve	EA	17	\$1,400.00	23,800
12-inch Gate Valve	EA	65	\$1,340.00	87,100
10-inch Gate Valve	EA	18	\$20.00	16,600
Terminal Blowoff Assembly	EA	8	\$500.00	4,000
Audio/Video Preconstruction Record	LF	79,026	\$0.10	7,900
Automatic Air Release Valve	EA	4	\$2,500.00	10,000
Ductile Iron Fittings	LB	36,275	\$2.15	78,000
Concrete Replacement	SY	228	\$7.00	1,600
Electrical/Instrumentation	LS	1	\$87,000	141,000
Site Work	LS	1	\$43,500	72,000
Yard Piping	LF	1	\$65,300	108,000
Roadway Bore & Jack	EA	22	\$10,000	220,000
General Requirements	LS	1	\$77,700	236,000
Subtotal Construction				\$3,191,800
Contingency (@ 15%)				479,000
Engineering (@ 10%)				319,200
Total Project Costs				<u>\$3,990,000</u>

estimated to be built within these proposed areas. The analysis was developed based upon reuse distribution mains installed at the time of construction, as required in the Oviedo Land Development Code, Section 233. For implementation of the Residential Reuse Scenario Number Three, the Alafaya Utilities, Inc., will need to construct additional filtration, chlorine contact, and high-service pumping facilities to meet the minimum requirements for supply of the approximate 0.500 MGD-AADF of residential reclaimed water service identified in this scenario. Additionally, this scenario includes transmission main facilities. Capital costs for constructing reuse for the Residential Reuse Scenario Number Three is estimated at \$1,631,000 or \$3.57 per gallon of reuse capacity constructed.

With regard to the Residential Reuse Scenario Numbers One and Two considered in this analysis, implementation at any level would be quite costly for the level of reuse constructed unless participation rates approached 100 percent. Unit capital costs were estimated at \$6.43 and \$5.64, respectively, per gallon of capacity constructed for Residential Reuse Scenario Numbers One and Two. It is noted that actual participation rates may vary from that estimated for this analysis and therefore, greatly affect the design and cost of the residential reuse system in the areas.

With regard to the facility improvements necessary to implement the level of reuse identified in the Institutional Reuse Scenario, this analysis concludes that it is more costly on a per unit basis to pursue the improvements identified in that scenario. On a cost per gallon of reuse capacity constructed, the Institutional Reuse Scenario expansion was estimated at approximately \$5.30 per gallon of reuse capacity constructed. In addition, this scenario does not provide sufficient demand for the full utilization of the existing Alafaya Utilities Regional WWTP facilities. It is noted that the actual loading rates at the institutional sites could be higher and, as such, the actual demand rates may be higher than those estimated for this study. This scenario does not provide the utility with the best method of effluent disposal, as evaluated in this analysis. Constructing an institutional reuse system at this scale for the sake of effluent disposal is not necessary at this time due to any regulatory or capacity related constraints.

6.2 RECOMMENDATIONS

The recommendations and contents of this report provide Alafaya Utilities, Inc., with:

- the required information to plan for a cost-effective expansion of reclaimed water facilities;

- the maximum utilization of its existing wastewater treatment plant facilities; and
- the provisions of reclaimed water and wastewater services to its existing and future customers at rates competitive with similar utilities in Florida.

The Alafaya Utilities Regional WWTP is currently permitted for 2.40 MGD secondary treatment of domestic sewage. The WWTP also has 0.50 MGD of tertiary treatment facilities (filtration and disinfection), but is currently only permitted for 0.325 MGD of reclaimed water disposal by spray irrigation at the Ekana Golf Course. The recent draft copy of the pending operating permit for the Alafaya WWTP issued by the local office of the Florida Department of Environmental Protection (FDEP) indicates that the disposal capacity at the Ekana Golf Course will be reduced to 0.10 MGD on an annual average basis. The Alafaya Utilities Regional WWTP is also currently permitted for 1.0 MGD of effluent disposal at the percolation pond site. This reduction in the overall effluent disposal capacity, along with the need to alleviate the demand on ground water aquifers, has accelerated the Utility's consideration of the implementation of commercial and/or residential reclaimed water systems.

For implementation of the Residential Reuse Scenario Number Four, an additional 1.50 MGD of filter treatment capacity, and an additional 0.500 MGD treatment capacity for chlorine contact and on-site effluent pumping will be required. Additionally, a 2.0 MGD reuse pump station will need to be constructed at the Lockwood Road reuse storage site. In addition, a transmission main that would transport the reclaimed water to the various residential areas identified in this scenario would also need to be constructed. It is noted that the existing 12-inch Econlockhatchee River crossing was permitted and constructed in anticipation of providing reuse to the areas east of the river. When considering this program based on the assumption that it will provide residential irrigation reclaimed water service to the Ekana Green subdivision, Little Creek, and proposed service extension areas, without having the costs associated with construction of reuse distribution facilities, it provides an attractive scenario in terms of capital cost-effectiveness per unit of reclaimed water capacity constructed. It should also be noted that the feasibility of providing reuse at the level identified in Residential Reuse Scenario Number Four relies upon factors such as the future expansion of the Alafaya Utilities, Inc., service area, in particular, and the ability to serve future developments such as those in the service extension area.

As noted, the addition of the extension areas including the Flying Seminole Ranch property, the Live Oak PUD, River Oaks and Estes Trust property, and the undeveloped property north of Flying Seminole Ranch property to the existing service area will contribute the additional sewage flow to make the entire program much more cost-effective. It should also be noted that the inclusion of the Flying Seminole Ranch, as well as any other proposed residential development areas, into the Alafaya Utilities service area will be the best use of the existing wastewater facilities. The existing wastewater service area could be expanded to include these additional residential developments that would contribute another 1.40 MGD of wastewater flow before the Alafaya Utilities Regional WWTP capacity is exceeded. In addition, the plant site would allow for the expansion of the existing Alafaya Utilities Regional WWTP beyond the existing 2.4 MGD capacity. Any future expansion of the existing wastewater treatment facilities would make providing wastewater treatment, as well as reuse service more economically feasible than the construction of new separate facilities. These additional areas will be constructed with reclaimed water distribution piping, as required in the Oviedo Land Development Code, Section 233, which insures that there will always be sufficient effluent disposal capacity with the additional raw sewage flow. The Alafaya Utilities Regional WWTP has ample treatment capacity for wastewater flows from the extension service area properties.

Based on the analysis of this report, it is recommended that the Utility proceed with the expansion of its certificated service area as originally planned. It is also recommended that the Utility proceed with the facility expansions as required for implementation of Residential Reuse Scenario Number Four. It is our opinion that the implementation of this scenario will provide the best scenario in terms of cost-effectiveness, utilization of facilities, and benefit to the existing and future customers. Of course, the economic feasibility of these proposed facilities and implementation of this plan, including the capital improvements, will be directly impacted and dependent upon the future actions of the Florida PSC with regards to user rates and service availability charges. However, when compared to other similar systems already in service and approved by the PSC, it would appear that the economics of the recommended alternative as set forth in this report for Alafaya Utilities would be both viable and economically feasible.