



Public Service Commission

-M-E-M-O-R-A-N-D-U-M-

DATE: March 24, 1998
TO: Division of Records and Reporting
FROM: Division of Legal Services (Gervasi) *ps*
RE: Docket No. 971186-SU - Application for approval of reuse project plan and increase in wastewater rates in Seminole County by Sanlando Utilities Corporation.

Please file the attached letter dated March 11, 1998, in the docket file for the above-referenced docket.

RG/dr

cc: Division of Water and Wastewater (Rendell)

- ACK _____
- AFA _____
- APP _____
- GAF _____
- CMU _____
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DOCUMENT NUMBER-DATE DATE
 03587 MAR 26 1998
 FPSC-RECORDS/REPORTING

F. Kayo Bowman
P.G.A. Golf Professional

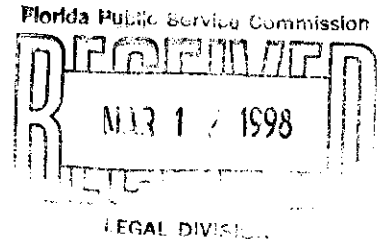


P.O. Box 3174
Longwood, FL 32779

PHONE (407) 862-5113

March 11, 1998

Rosanne Gervasi, Senior Attorney
Division of Legal Services
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0863



Re: Docket No. 971186-SU: Application for approval of reuse project plan and increase in wastewater rates in Seminole County by Sanlando Utilities Corporation

Dear Ms. Gervasi:

As we discussed at the PSC meeting last week, I am providing you with an initial information packet. It includes four attachments as follows:

- a. Attachment 1--PSC letter dated January 29, 1998 (2 pages).
- b. Attachment 2--Wekiva Golf Club's answers (with one attachment, Irrigation Concepts Inc. letter dated September 28, 1995) to the PSC letter in Attachment 1 (2 pages including attachment).
- c. Attachment 3--Wekiva Golf Club's net income for 1994-97 (1 page).
- d. Attachment 4--Results of a telephone survey conducted by Wekiva Golf Club from January 29-February 12, 1998 entitled "Survey of Golf Courses that use or will use Reclaimed Water" (6 pages).

In the very near future we will provide you with a position paper regarding this issue. It will summarize Wekiva Golf Club's views and concerns. We want to ensure that you capture all of the costs, so that your rate decisions result in a successful and fair conclusion for all parties. Please do not hesitate to give me a call. We want to make your task as easy as is possible.

Sincerely,

A handwritten signature in cursive script that reads "Tammy Bowman".

Tammy Bowman
Manager
Wekiva Golf Club

State of Florida



Public Service Commission

-M-E-M-O-R-A-N-D-U-M-

DATE: March 24, 1998
TO: All Parties of Record
FROM: Rosanne Gervasi, Esquire, Division of Legal Services *RG*
RE: Docket No. 971186-SU - Application for approval of reuse project plan and increase in wastewater rates in Seminole County by Sanlando Utilities Corporation.

Please find enclosed a copy of materials which the Commission Staff has received from the Wekiva Golf Club, regarding the above-referenced docket.

RG/dr

cc: Division of Records and Reporting - with original attachment
Division of Water and Wastewater - without attachment (Rendell)

STATE OF FLORIDA

Commissioners:
 JULIA L. JOHNSON, CHAIRMAN
 J. TERRY DEASON
 SUSAN F. CLARK
 JOE GARCIA
 E. LEON JACOBS, JR.



DIVISION OF WATER & WASTEWATER
 CHARLES H. HILL
 DIRECTOR
 (850) 413-6900

Public Service Commission

January 29, 1998

Francis & Leola Bowman
 Wekiva Golf Course
 101 Lyndhurst Drive
 Longwood, FL 32779

Re: Docket No. 971186-SU: Application for approval of reuse project plan and increase in wastewater rates in Seminole County by Sanlando Utilities Corporation

Dear Mr. & Mrs. Bowman:

As you may be aware, Sanlando Utilities Corporation has filed an application in the above referenced docket seeking approval of a reuse project plan and an increase in the rates to its wastewater customers. In addition, the utility has requested that the Commission approve reuse rates to its reuse customers under one of two different rate structures: either a gallonage rate in the amount of \$0.22 per 1,000 gallons or a base facility/gallonage rate structure in the amount of \$1,060 per month plus \$0.11 per 1,000 gallons. Under the utility's request, the proposed reuse rates would apply to all irrigation customers (such as golf courses) when the customers are available to accept the reuse.

According to the utility's application, Wekiva Golf Course (Wekiva) has been listed as a potential reuse customer. The purpose of this letter is to find out more about Wekiva's current method of irrigation in order to help the Commission staff analyze whether the utility's requested reuse rate is appropriate. Therefore, we request that you please respond to the following:

1. What are your current sources of water for irrigation?
2. How long have these sources been in place?
3. What is the cost annually for irrigation on the golf course? What is the breakdown of these costs?
4. According to a response to the Commission staff's data request, the utility intends for each golf course to be responsible for funding any internal piping modifications beyond the meter to receive reuse. Has Wekiva conducted any study as to how much

Mr. & Mrs. Bowman
Page 2
January 29, 1998

it would cost to receive reuse from Sanlando? If so, what were the findings of that study?

5. Would the golf course accept reuse if it becomes available from Sanlando? If so, what is the golf course's position on the utility's requested reuse rate?

We would appreciate a response to this inquiry by February 12, 1998 with the Director, Division of Records and Reporting, 2540 Shumard Oak Blvd., Tallahassee, FL 32399. Please reference Docket No. 971186-SU on your response. In addition, please provide a copy of your response to the parties of record in this docket:

Cleatous J. Simmons, Esq. (Counsel to Sanlando)
Lowndes, Drosdick, Doster, Kantor, & Reed, P.A.
P.O. Box 2809
Orlando, FL 32802

Jennifer B. Springfield, Esq.
St. Johns River Water Management District
P.O. Box 1429
Palatka, FL 32178-1429

Thank you for your cooperation and assistance in this matter. If you have any questions, please feel free to contact me at (850) 413-7011 or Ms. Rosanne Gervasi at (850) 413-6224.

Sincerely,



Edith H. Xanders
Regulatory Analyst
Bureau of Special Assistance

EHX:ehx

cc: Division of Legal Services (Gervasi)
Division of Water and Wastewater (Hill, Willis, Bethea, Casey, Crouch, Golden, Rendell)

ANSWERS TO QUESTIONS BY PUBLIC SERVICE COMMISSION

1. What are the sources of water for irrigation?

Answer: Wekiva uses two wells located on golf course property.

2. How long have these sources been in place?

Answer: Twenty-four years.

3. What is the cost annually for irrigation on the golf course?
What is the breakdown of these costs?

Answer: For 1997
Pump stations electrical power costs-\$20,275.92
Labor-\$41,797.50
Parts, inventory, and equipment-\$24,969.61

4. According to a response to the Commission Staff's data request, the utility intends for each golf course to be responsible for funding any internal piping modifications beyond the meter to receive reuse. Has Wekiva conducted any study as to how much it would cost to receive reuse from Sanlando? If so, what were the findings of that study?

Answer: A reuse study was done by Irrigation Concepts in 1995. See attached letter for figures. Obviously, a recosting at today's rates would be required.

5. Would the golf course accept reuse if it becomes available from from Sanlando? If so, what is the golf course's position on the utility's requested reuse rate?

Answer: At this time there is not enough data to make a fair evaluation. We do not pay for water at the present time. The increased cost of \$32,600 for water plus substantial costs of retrofitting the current irrigation system (see answer #4) appears not to be economically feasible. Therefore, we do not believe we should pay for reuse water.

September 28, 1995

Review of Wekiva Golf Club Irrigation System for Future Reuse Water

The present irrigation system is operated with an OSMAC Central Control Unit. The sprinkler head layout is primarily single row, located in the center of the fairway (with an occasional double row of heads).

The existing irrigation mainlines are (4") and (6").

The pump system consists of two wells. One pump produces 1,100 gallons per minute while the other 250 gallons per minute. The watering window for the existing 380 golf irrigation sprinkler heads is approximately eight hours.

The present routing of the golf course winds through residential homes. Many of the homes patios and swimming pools receive overspray, as well as direct spray, from the existing irrigation. In order to avoid any overspray from the reuse water, which presents a health and liability problem, a complete re-design and installation would be necessary.

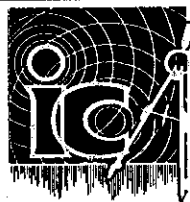
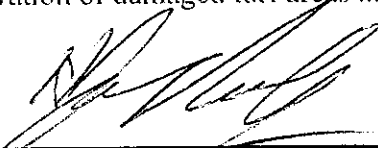
The layout would require a triple row system as indicated on the two typical golf course hole designs. A triple row system layout would increase the total number of sprinkler heads from 380 to approximately 750. The additional amount of water necessary to irrigate the golf course in the present watering window would require a new and larger mainline.

The proposed reclaimed water supply to the golf course would be at a lower pressure than the 110 PSI necessary to operate the golf course sprinkler heads. A booster pump will be needed to attain the 80 PSI required to operate the sprinkler heads at the manufacturers recommended efficiency.

The following is a line item list and cost breakdown for the irrigation installation budget figure:

(1) Approx. 75,000' of piping (12" through 2")	\$475,000.00
(2) 750 sprinkler heads	\$150,000.00
(3) Booster pump station (1,600 GPM)	\$80,000.00
(4) Electrical	\$10,000.00
(5) Renovation of damaged turf areas	\$25,000.00

H. Joel Newberg



2835 20th AVENUE NORTH • ST. PETERSBURG, FLORIDA 33713
(813) 321-1373

**Irrigation
Concepts Inc.**

- DESIGN
- CONSULT
- MANAGEMENT

ATTACHMENT 3

MEMO TO: Tammy Bowman
 FROM: Rodney Eddins
 RE: Wekiva Income
 DATE: March 2, 1998

Below is Wekiva's net income for the years requested:

1994 \$ 118,179.20	less \$ 32,600	= \$ 85,579.20
1995 \$ 35,936.20	less \$ 32,600	= 3,336.20
1996 \$ (79,638.47)	less \$ 32,600	= 109,238.47
1997 \$ (20,122.13)	1997 Draft Only less \$ 32,600	= \$ 52,722.13

SURVEY OF GOLF COURSES THAT USE OR WILL USE RECLAIMED WATER

HUNTER'S CREEK

Superintendent: Craig Sutton
407/240-6006

Source: Orange County Utilities

Do they pay for water? No

Do they pay for electricity for pumps? Yes

Course was designed for reclaimed water. Has had reclaimed water since inception. Has problems with sodium buildup on bermuda grass and also high mortality rate of pine trees.

INTERLACHEN

Superintendent: Stuart Leventhal
407/657-5223

Source: Winter Park Utilities

Do they pay for water? No

Do they pay for electricity for pumps? They pay for only 1/2 of pump electricity.

Has had reclaimed water for 8 years. The utility built a holding pond for storage of the water and paid to move the pump station to that pond.

CASSLEBERRY

Superintendent: Pat Murphy
407/695-7110

Source: City of Casselberry Water Department

Do they pay for water? No

Do they pay for electricity for pumps? No

The City of Casselberry paid for all modifications to the irrigation system and pumps. The City also pays for the maintenance of the pumps.

TIMACUAN

Superintendent: Barry Shuman
407/322-7270

Source: City of Lake Mary (comes from Sanford)

Do they pay for water? Yes. They pay 15 cents per 1000 gallons.

Do they pay for electricity for pumps? Yes

The City of Sanford gave Timacuan \$1.1 million dollars to take reclaimed water. The city also installed all piping and the pump station.

ORANGE TREE (Scheduled to take reclaimed water in the near future.)

Superintendent: Lee Frick
407/352-0330

Source: Conserve II (Orange County and City of Orlando)

Will they pay for water? No

Will they pay for electricity for pumps? Yes. Conserve II guarantees that the cost of electricity will not exceed the average cost per month the course presently pays.

Conserve II is providing a 12" direct line feed into a new pump station which Conserve II also is installing. This pump station meets the volume and pressure demands of the existing irrigation system.

FOREST LAKE

Superintendent: Joel Brownsberger
407/654-4622

Source: City of Ocoee

Do they pay for water? No

Do they pay for electricity for pumps? Yes

The property on which the course is located was originally a spray field for reclaimed water. The course leases the property from the City, and the irrigation system was designed specifically for reclaimed water. Reclaimed water has caused high ph in the soil and resulted in a weak turf grass root system. To solve this problem, application of sulfur is required and is an added expense.

WINDERMERE (Scheduled to take reclaimed water in the near future.)

Superintendent: Mark McKenna
407/876-1814

Source: Orange County

Will they pay for water? No

Will they pay for electricity for pumps? No

Orange County is installing a direct 10" feed line into a county provided pump station. Orange County will maintain the pump station for the golf course.

MAYFAIR

Superintendent: Clyde Shilling
407/322-2980

Source: City of Sanford

Do they pay for water? No

Do they pay for electricity for pumps? No

The City of Sanford installed a completely new wall-to-wall irrigation system of 870 heads for reclaimed water. In 1989 the total cost was \$750,000. This also included a new pump station. Maintenance of the pump station and the irrigation system was done by the City for 9 years. Currently the City is paying Mayfair \$54,000 for two irrigation employees plus the irrigation parts budget.

GLEN ABBEY

Owner: Alex McConnell
407/668-4209

Source: Southern States Utilities (terminated 1994)

Did they pay for water? No

Did they pay for electricity for pumps? Yes.

DEP discontinued reclaimed water operations due to continual failures of the perimeter monitoring system which controlled the level of the retention pond for storage of the reclaimed water.

Reclaimed water caused high ph in the soil and clogged filters, pipe lines and sprinkler heads with algae. It also caused high sodium levels which require treatment with gypsum--an added cost.

WINTER PINES

Superintendent: Joe Ondo
407/657-7565

Source: Winter Park Utilities

Do they pay for the water? No

Do they pay for the electricity for the pumps? They pay 1/2 of the electricity bill for the first 150,000 gallons. After that the electricity is free.

The City has contributed money, labor, and equipment to expand the course's irrigation system.

The course requires the application of gypsum to combat sodium buildup--an added cost.

ERROL ESTATE

27 holes

Superintendent: Dommi Veasey
407/886-0650

Source: City of Apopka

Do they pay for the water? Yes. 10 cents per 1,000 gallons.

Do they pay for electricity for the pumps? No

City of Apopka paid for a new pump station and all tie ins. The City also maintains the pump station.

The increased chlorine levels of reclaimed water raises the soil ph level which requires increased applications of fertilizers and fungicides. The result is increased maintenance costs.

METRO WEST

Superintendent: Tom Trammell
407/297-0051

Source: Conserve II (Orange County and City of Orlando)

Do they pay for the water? No

Do they pay for electricity for the pumps? Yes

The course was designed to use reclaimed water. Conserve II put a liner and a float system in a natural pond for storage of reclaimed water.

Ph levels and sodium levels are high due to use of reclaimed water. Has algae and snail problems in small heads.

WINTER SPRINGS

Superintendent: Jack Skinner
407/699-0872

Source: City of Winter Springs

Do they pay for the water? No

Do they pay for the electricity for the pumps? No

For the first 7-8 years the utility paid for 1/2 of the irrigation repairs and 1/2 of the irrigation technician's salary.

High ph levels caused a black layer of muck on the greens. Treatment adds to normal costs. Buffering agents are added to allow fertilizers to be effective in high ph environment. Hydraulic filters must be changed more often.

LAKE NONA

Superintendent: Brett Harris
407/826-5362

Source: Lake Nona Community

Do they pay for the water? No

Do they pay for the electricity for the pumps? No

The course was designed for reclaimed water generated by the community. Community only provides 50,000 gallons per day of reclaimed water. This is a very small percentage of course's total usage of mostly clean water.

TUSCAWILLA

Superintendent: Dale Stump
407/365-6181

Source: City of Winter Springs

Do they pay for the water? No

Do they pay for the electricity for the pumps? Yes

City provided a 16" direct line to the course and provided a pump station for the water. The City also maintains the pump station.

Increased buffering agents are used in fertilizer applications due to high ph in soil.

ORANGE COUNTY NATIONAL

Superintendent: Kevin Adams
407/656-5336

Source: Conserve II (Orange County and City of Orlando)

Do they pay for the water? No

Do they pay for the electricity for the pumps? No

The water is provided under pressure to the course. The pump station and the holding tank are off site and maintained by Conserve II.

High phosphates and nitrates rapidly create algae which must be treated at added cost.