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DOCKET NO. 960451-WS - APPLICATION FOR RATE INCREASE IN
DUVAL, NASSAU, AND ST. JOHNS COUNTIES BY UNITED WATER
FLORIDA INC.

DIRECT TESTIMONY OF THOMAS HAMILTON, DEPARTMENT OF
ENVIRONMENTAL PROTECTION, APPEARING ON BEHALF OF THE
STAFF OF THE FLORIDA PUBLIC SERVICE COMMISSION

DATE FILED: DECEMBER 18, 1996

- ACK _____
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- APP _____
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DOCUMENT NUMBER-DATE
13447 DEC 18 96
FPSC-RECORDS/REPORTING

DIRECT TESTIMONY OF THOMAS R. HAMILTON

1 -
2 Q. Please state your name and business address.

3 A. My name is Thomas R. Hamilton and my business address is 900 University
4 Boulevard, Suite 300, Jacksonville, FL 32211.

5 Q. Please state a brief description of your educational background and
6 experience.

7 A. I received a Bachelor of Science in Mechanical Engineering from Auburn
8 University. I am a Florida registered professional engineer, Professional
9 Engineer License No. PE 0024457. I have been employed by the HRS from
10 January, 1972 until the present as an Environmental Engineer. During this
11 time I have worked in the fields of Drinking Water, Wastewater, and swimming
12 pools.

13 Q. By whom are you presently employed?

14 A. I am employed by the Department of Health and Rehabilitative Services
15 (HRS) Duval County Public Health Unit.

16 Q. How long have you been employed with the Department of Health and
17 Rehabilitative Services and in what capacity?

18 A. I have been employed by the HRS during the last years as a Professional
19 Engineer Supervisor. I have been employed by the HRS from 1972 until the
20 present.

21 Q. What are your general responsibilities at the HRS?

22 A. I am responsible for the permitting, compliance and enforcement
23 activities for the Public Water Systems in Duval County.

24 Q. Are you familiar with United Water Florida Inc.'s twenty Water Treatment
25 Plants in Duval County?

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1 | A. Yes. I am generally familiar with these facilities. I requested that
2 | my plant inspectors and Dr. Tofflemire prepare feedback on UWF's plants. A
3 | summary of their review of UWF's water plants is provided in Exhibit TRH-1.
4 | Q. Does the utility have a current construction permit?
5 | A. Yes. UWF has two current construction permits for the San Jose water
6 | treatment plant. The December 12, 1996 memo from Dr. Tofflemire (see Exhibit
7 | TRH-1) summarizes recent modifications to nine water treatment plants in the
8 | last five years.
9 | Q. Is the San Jose water plant in compliance with its permit?
10 | A. Yes. UWF has two years to construct the San Jose plant modification and
11 | work is proceeding.
12 | Q. Are the utility's treatment facilities and distribution system
13 | sufficient to serve its present customers?
14 | A. Yes. Except for meeting a criteria of four hours retention time at
15 | average daily flow and two hours retention time at maximum daily flow in the
16 | ground storage tank for hydrogen sulfide removal at the San Jose and San Pablo
17 | water treatment plants.
18 | Q. Does the utility maintain the required 20 psi minimum pressure
19 | throughout the distribution system?
20 | A. Yes.
21 | Q. Does the utility have an adequate auxiliary power source in the event
22 | of a power outage?
23 | A. Yes.
24 | Q. Are the utility's water wells located in compliance with Rule
25 | 62-555.312, Florida Administrative Code?

- 1 | A: Yes.
- 2 | Q. Does the utility have certified operators as required by Rule 62-699,
3 | Florida Administrative Code?
- 4 | A. Yes.
- 5 | Q. Has the utility established a cross-connection control program in
6 | accordance with Section 62-555.360, Florida Administrative Code?
- 7 | A. Yes.
- 8 | Q. Is the overall maintenance of the treatment plant and distribution
9 | facilities satisfactory?
- 10 | A. Yes, except for a recent chlorine alarm problem at the Wheat Road plant.
- 11 | Q. Does the water produced by the utility meet the State and Federal
12 | maximum contaminant levels for primary and secondary water quality standards?
- 13 | A. Yes. Based upon information from the review of one of my employees,
14 | Deborah Jones.
- 15 | Q. Does the utility monitor the organic contaminants listed in Section
16 | 62-550.410, Florida Administrative Code?
- 17 | A. Yes. UWF's waiver, however, for reduced monitoring for pesticides and
18 | PCB's has not yet been submitted and approved.
- 19 | Q. Do recent chemical analyses of raw and finished water, when compared to
20 | regulations, suggest the need for additional treatment?
- 21 | A. Yes. The additional treatment is only needed for copper exceedences,
22 | where corrosion control treatment to reduce copper levels at residence taps
23 | is planned.
- 24 | Q. Does the utility maintain the required chlorine residual or its
25 | equivalent throughout the distribution system?

1 | A: Yes.

2 | Q. Are the plant and distribution systems in compliance with all the other
3 | provisions of Chapter 62, Florida Administrative Code, not previously
4 | mentioned?

5 | A. Yes.

6 | Q. Has any of UWF's water treatment plants been the subject of any HRS
7 | enforcement action within the past two years?

8 | A. Yes. The San Pablo had two Consent Orders issued for permitting
9 | violations and are further discussed in Exhibit TRH-1.

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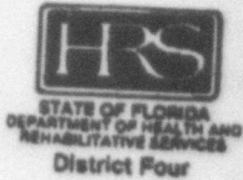
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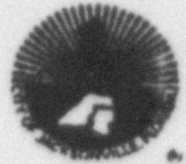
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LAWTON CHILES, GOVERNOR

HRS Duval County Public Health Unit
Environmental Health/Engineering Division
900 Building - Suite 300
900 University Boulevard North
Jacksonville, Florida 32211



JOHN A. DELANEY, MAYOR

December 12, 1996

MEMORANDUM

TO: Thomas R. Hamilton, P. E. Administrator
Environmental Engineering Section

FROM: T. James Tofflemire, P. E. I
Environmental Engineering Section

RE: UNITED WATER FLORIDA FILE REVIEW

I reviewed the card file, the release letter book, and then our main file relative to any recent Water Treatment Plant permits, or Consent Orders. My review did not focus on distribution system permits of which there are hundreds.

I found that the subject twenty United Water Treatment Plant in Duval County, were (for the great majority) existing for many years and were permitted by the Department of Environmental Protection when they had this permitting authority instead of by Duval County Public Health Unit. For the following nine plants our office (DCPHU) was involved in plant or intertie modification permits:

1. Arlington Grid/Elvia Water Treatment Plant - New well and two H.S. pumps 1693-WD-2785 (7/2/93), well bactis (2/24/94), no release letter.
2. Holly Oaks Grid/Queen Acres Water Treatment Plant - Removed hydrotank and replaced H.S. pump 1693-WD-2762 As Built approval of 7/26/93.
3. Holly Oaks Grid/Monument Road Water Treatment Plant - Innovative pilot plant work was done on H₂S removal and corrosion control 1994-95.
4. Forest Brook - PRV (pressure reducing valve) intertie to City 1691-WD-2558, Consent Order release 8/25/95.
5. Hyde Grove - PRV intertie 1691-WD-2557, Consent Order release 8/29/95, second project: new ground storage tank 1691-WD-2412, Bactis done 1/15/92, no release.

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Thomas R. Hamilton, P. E. Administrator
Environmental Engineering Section
UNITED WATER FLORIDA FILE REVIEW

December 12, 1996

6. Lake Forest - New ground storage tank, hydrotank, pumps 1691-WD-2471, releases of 5/25/93 and 12/15/93.
7. Royal Lakes - New well 1692-WD-2710, release 10/23/92
8. San Jose - New ground storage tank and pumps 1690-WD-3579 (9/26/96), have two years to build, started but not finished yet; second project: corrosion control PO₄ feed 1696-WD-3671 (12/5/96), not built yet; third project: new well 1692-WD-2710, released 5/6/93.
9. San Pablo/Marshview Water Treatment Plant Rehabilitation - 1692-WD-2674 permit expired and put in service before release, Consent Order release 4/23/96.

Noted above are several projects for which releases were either not applied for, or completed after the fact, under Consent Order. However, a number of projects were completed properly. See the above list of nine Water Treatment Plant.

In talking with Mr. Nowlin, our Enforcement Specialist, I learned that in 1995 and 1996 there was only two Consent Orders dealing with the San Pablo/Marshview Water Treatment Plant. In 1994 there was a large Consent Order grouping a series of earlier violations. In general, for the last two years United Water compliance relative proper distribution system permit completion appears good, since there are no recent distribution system Consent Orders.

I have written a memo of December 9, 1996 to our staff who inspect the United Water Florida Plants and review the chemical and bacteriological data of United Water regularly. The information they submitted is included in the testimony questions which are attached. In general, there are relatively few problems in the twenty Water Treatment Plants. United Water Florida has told us they plan to upgrade the aeration system on a number of their plants to make it highly efficient and also provide corrosion control by raising the pH.

TJT/tkf



Jacksonville Suburban Utilities Corp.
 Engineering Department
 1400 Millons Road, Jacksonville, Florida 32225
 Phone (904) 721-4600 FAX (904) 721-4680

RECEIVED

June 1, 1994

JUN 3 1994

Mr. Jim Toffelmire, P.E.
 Department of Health & Rehabilitative Services
 515 West Sixth Street
 Jacksonville, Florida 32206

**ENVIRONMENTAL
 ENGINEERING
 DIVISION**

RE: Treatment Plant Capacity Summary List - Duval County Plants

Dear Mr. Toffelmire:

The enclosed water treatment plant capacity summary is an up-to-date list of Jacksonville Suburban Utilities water treatment plants in Duval County in response to your fax request of May 18, 1994 for consistent information regarding plant capacities. The "Control Factor" column gives the limiting capacity of each plant. Water plants which are part of a gridded system are totaled for a capacity of all plants on the system.

The capacities of our systems and individual plants are as follows:

Arlington Grid	3.666 MGD	Holly Oaks Grid	1.038 MGD
Jax Heights Grid	1.860 MGD	Forest Brook	0.075 MGD
Hyde Grove	0.258 MGD	Lake Forest	0.300 MGD
Magnolia Gardens	0.356 MGD	Royal Lakes	5.390 MGD
San Jose	1.566 MGD	Venetia Terrace	0.072 MGD
Ortega Hills	0.210 MGD	San Pablo	0.450 MGD
Riverview off	0.228 MGD	Brackridge off	0.210 MGD

The above capacities are updated as work affecting the plant capacity is performed. These capacities will be used on future DEP permit applications to the Duval County Health Unit as long as they remain valid.

Best regards,

Chris Kirk
 Staff Engineer

Attachment

cc: Steve Manis, P.E.

* ALL FLOWS IN MGD

SYSTEM	PLANT	NUMBER OF WELLS	CONSUMPTIVE USE MAX ONLY	PERMIT MAX YEARLY	DESIGN WELL PUMP CAPACITY	DESIGN HIGH SERVICE CAPACITY	DESIGN GROUND STORAGE CAPACITY	CONTROL FACTOR	LATEST 12 MO. ADP THRU 04/30/84	
ARLINGTON : PERMITS 2-031-0028NM										
	ALDERMAN PARK	2			2,736	2,882	0,800	1.5	0,800	0,828
	COLUMBINE	1			1,728	1,800	0,810	1.0	0,810	0,848
	ELVA	1			1,872	2,188	1,470	1.2	1,470	0,000
	LAKE LUCINA	1			1,728	2,380	0,800	1.2	0,800	0,798
	UNIVERSITY PARK	1			2,016	2,520	0,188	1.37	0,188	0,378
SYSTEM TOTAL		6	11,100	8,882	10,080	12,470	3,868	1.24	3,868	2,444
HOLLY OAKS : PERMITS 2-031-0018N										
	HOLLY OAKS	1			0,848	0,288	0,188	1.2	0,188	0,038
	QUEEN ACRES	1			0,720	1,728	0,308	1.2	0,308	0,188
	MONUMENT ROAD	1			2,880	2,888	0,540	1.2	0,540	0,881
SYSTEM TOTAL		3	2,980	1,018	4,348	5,904	1,038	1.2	1,038	1,088
JAX HEIGHTS : PERMITS 2-031-0034N										
	OAK HILL	1			1,080	0,808	0,540	1.2	0,540	0,278
	GREEN FOREST	1			1,440	2,138	0,540	1.2	0,540	0,240
	WHEAT ROAD	1			2,880	2,880	0,780	1.2	0,780	0,728
SYSTEM TOTAL		3	5,470	2,738	5,400	5,828	1,860	1.2	1,860	1,244
INDEPENDENTS : PERMITS 2-031-										
* 0040N	FOREST BROOK	1	0,078	0,088	0,432	0,317	0,088	0,078	0,047	
* 0036N	HYDE GROVE	1	0,258	0,188	1,182	1,182	0,308	0,258	0,120	
* 0041N	LAKE FOREST	1	0,382	0,318	0,720	0,720	0,300	0,300	0,280	
* 0039N	MAGNOLIA GARDENS	1	0,398	0,307	1,182	1,387	0,818	0,398	0,182	
* 0038N	ROYAL LAKES	3	5,380	3,330	6,182	6,878	6,884	5,380	2,888	
* 0033N	SAN JOSE	3	8,810	3,880	7,344	8,812	1,888	3.12 (6.0)	2,180	
* 0041N	VENETIA TERRACE	1	0,100	0,070	0,432	0,317	0,072	0,072	0,080	
* 0025U	ORTEGA HILLS	2	0,238	0,180	0,380	1,182	0,210	0,210	0,108	
* 0037N	SAN PABLO SOUTH	1	0,818	0,818	1,842	1,008	0,480	0,480	0,388	
	RD OVERVIEW OFF	1	N/A	N/A	0,380	1,440	0,228	0,228	0,048	
	BRACKENRIDGE OFF	1	N/A	N/A	0,282	0,870	0,210	0,210	0,037	
								0,118	0,288	
TOTAL SYSTEM								15,878	11,014	

Design Criteria: Ground Storage Capacity = 4 Hour Detention provided for Hydrogen-Sulfide removal
 Tank Static Volume = Design Ground Storage Capacity (from table)8