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June 3, 1999

Ms. Blanca S. Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Betty Easley Conference Center, Room 110  
Tallahassee, Florida 32399-0850

**HAND DELIVERY**

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RECORDS AND REPORTING

Re: Docket No. 981637-WS

Dear Ms. Bayo:

Enclosed herewith for filing in the above-referenced docket on behalf of JEA are the following documents:

1. Original and fifteen copies of the Rebuttal Testimony of Timothy E. Perkins, with attached Exhibit \_\_ (TEP-1); ~~981637-99~~ 99
2. The original and fifteen copies of the Prehearing Statement of JEA; and ~~981637-99~~ 99
3. A disk in Word Perfect 6.0 containing a copy of the Prehearing Statement.

Please acknowledge receipt of these documents by stamping the extra copy of this letter "filed" and returning the same to me.

Thank you for your assistance with this filing.

Sincerely,

*J. Stephen Menton*  
J. Stephen Menton

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RECORDS

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Enclosures

Ms. Blanca S. Bayo, Director  
Page 2  
June 3, 1999

**CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that a copy of the foregoing rebuttal testimony and prehearing statement were furnished by U. S. Mail this 3<sup>rd</sup> day of June, 1999 to the following:

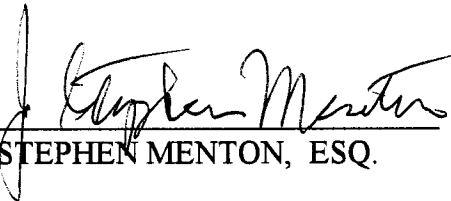
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By:

  
J. STEPHEN MENTON, ESQ.

ORIGINAL

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REBUTTAL TESTIMONY  
OF TIMOTHY E. PERKINS  
ON BEHALF OF  
JEA  
DOCKET NO. 981637-WS

DOCUMENT NUMBER-DATE

00000 JUN-3 2008

FPSC-RECORDS/REPORTING

1 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

2 A. My name is Timothy E. Perkins. My business address  
3 is 21 Church Street, Jacksonville, Florida 32202-  
4 3139.

5 Q. BY WHOM ARE YOU EMPLOYED?

6 A. I am employed by JEA.

7 Q. WHAT IS YOUR POSITION WITH JEA?

8 A. My current position is Vice President,  
9 Environmental.

10 Q. WHAT IS THE NATURE OF YOUR WORK FOR JEA?

11 A. My primary responsibilities include oversight of  
12 environmental compliance and permitting issues  
13 related to JEA's utility operations in JEA's four  
14 county service area. As part of my  
15 responsibilities, I am JEA's primary contact with  
16 environmental and legislative bodies regarding all  
17 aspects of electric, water and sewer permitting as  
18 well as water quality and industrial pretreatment  
19 issues.

20 Q. ARE YOU INVOLVED IN THE PERMITTING PROCESSES FOR  
21 JEA'S WATER AND WASTEWATER TREATMENT FACILITIES?

22 A. Yes. As part of my job responsibilities, I oversee  
23 the preparation of permit applications and  
24 participate in the permitting process for all of  
25 JEA's water and wastewater facilities.

1 Q. FOR PURPOSES OF HAVING YOU QUALIFIED AS AN EXPERT  
2 IN THE FIELD OF ENVIRONMENTAL PERMITTING, PLEASE  
3 SET FORTH YOUR EDUCATIONAL AND PROFESSIONAL  
4 EXPERIENCE.

5 A. I received a Bachelor of Science degree in  
6 environmental engineering with highest honors from  
7 the Florida Institute of Technology. I am a  
8 licensed professional engineer in the State of  
9 Florida. I have been in my current position as  
10 Vice President, Environmental for JEA since 1998.  
11 I was the Vice President for water and wastewater  
12 treatment for JEA's predecessor, the Jacksonville  
13 Electric Authority from 1997-1998 prior to which I  
14 was the Managing Engineer, Water Division Chief,  
15 for the Department of Public Utilities from 1987-  
16 1996. In both of those positions, I was  
17 responsible for the operation and maintenance of 28  
18 water treatment plants, a 2,160 mile water  
19 distribution system, a water quality program and a  
20 public education program. As Vice President for  
21 Water and Wastewater Treatment, I was responsible  
22 for operations and maintenance of five regional  
23 wastewater treatment plants and approximately 650  
24 sewage pump stations. I was also responsible for  
25 regulatory compliance and permitting. The Division

1 had a staff of 236 personnel with an annual  
2 operating budget of \$19.7 million. From 1984-1987,  
3 I was a professional engineer in the water service  
4 division of the Department of Public Works. Prior  
5 to that, I worked for private engineering companies  
6 from 1979-1984 during which time I was responsible  
7 for the design of water and wastewater facilities  
8 and oversaw contract administration, construction  
9 inspection and the start up of water and wastewater  
10 facilities.

11 **Q. WHAT ARE YOUR PROFESSIONAL AFFILIATIONS?**

12 **A.** I am the Vice Chair of the Management Committee of  
13 the Association of Metropolitan Water Agencies. I  
14 also served on the Florida Section Governing Board  
15 of the American Waterworks Association and I am a  
16 member of the Water Environment Federation.

17 **Q. CAN YOU PLEASE IDENTIFY THE DOCUMENT LABELED**  
18 **EXHIBIT \_\_\_\_ (TEP-1)?**

19 **A.** Yes. It is my resume.

20 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
21 **DOCKET?**

22 **A.** The purpose of my testimony is to address certain  
23 issues raised by the prefiled testimony of Kirsten  
24 Smeltzer of the Florida Department of Environmental  
25 Protection ("DEP") and Caroline Silvers of the St.

1 Johns River Water Management District ("SJRWMD").  
2 Their testimony was submitted on behalf of the  
3 Public Service Commission staff in this docket.

4 Q. HAVE YOU REVIEWED THE PREFILED TESTIMONY OF KRISTEN  
5 SMELTZER IN THIS DOCKET?

6 A. Yes.

7 Q. ARE THERE ANY ISSUES IN MS. SMELTZER'S TESTIMONY  
8 WHICH YOU WISH TO COMMENT UPON?

9 A. Yes. On page 11 of her testimony, Ms. Smeltzer  
10 indicates that JEA recently received an \$11 million  
11 state grant to implement reuse. In fact, the state  
12 grant was only \$5 million. JEA has contributed the  
13 remaining \$6 million to implement a reuse program.  
14 JEA is the process of implementing an extensive  
15 reuse system. Construction has started on the  
16 reuse system. The filtering system has been  
17 completed and a portion of the lines are under  
18 construction and the remainder of the lines are  
19 under design. On page 10 of her testimony, Ms.  
20 Smeltzer indicates that JEA has not yet identified  
21 any definite reuse customers for its Mandarin  
22 wastewater treatment facility. JEA has in fact  
23 identified nine potential reuse customers for its  
24 reused water and letters of intent have been  
25 executed by eight of the nine potential reuse

1 customers. It is estimated that these customers  
2 will use 1.5 MGD of reuse from the Mandarin  
3 Wastewater treatment facility. JEA's entire reuse  
4 system will be completed by December 2000.

5 **Q. ARE THERE ANY OTHER ASPECTS OF THE TESTIMONY OF MS.**  
6 **SMELTZER THAT YOU WISH TO COMMENT UPON?**

7 A. Yes. On page 11 of her testimony, Ms. Smeltzer  
8 indicates that JEA recently purchased the Julington  
9 Creek Wastewater Treatment Plant ("Julington  
10 Creek") and, on page 12 of her testimony, she  
11 indicates that Julington Creek faces a potential  
12 enforcement action. In fact, JEA has not completed  
13 the purchase of Julington Creek. Negotiations  
14 regarding the possible acquisition of that plant  
15 are on-going between JEA and the current owner of  
16 the facility, JCP Utility Company ("JCP"). Because  
17 the purchase of the Julington Creek facility has  
18 not been completed, JEA is not in control of the  
19 facility. JEA is not aware of any potential  
20 enforcement actions against Julington Creek. No  
21 pending enforcement actions against the facility  
22 have been brought to JEA's attention during the  
23 negotiations. As set forth in the prefiled direct  
24 testimony of Scott Kelly submitted in this docket,  
25 JEA has the capacity to provide wastewater



1 treatment service to the requested territory  
2 through facilities currently owned and operated by  
3 JEA. Acquisition of Julington Creek is not  
4 essential to JEA's ability to provide wholesale  
5 service to St. Johns County as called for in the  
6 April 13, 1999 Agreement, Exhibit \_\_, (SDK-2).

7 Q. HAVE YOU REVIEWED THE PREFILED DIRECT TESTIMONY OF  
8 SCOTT KELLY IN THIS DOCKET?

9 A. Yes.

10 Q. DOES MR. KELLY'S TESTIMONY ACCURATELY SET FORTH THE  
11 CAPACITIES OF JEA'S WATER AND WASTEWATER TREATMENT  
12 PLANTS?

13 A. Yes. JEA's Mandarin Wastewater Treatment Plant has  
14 a permitted capacity of 7.5 MGD with 5.86 MGD  
15 currently reserved by developers and other  
16 entities. JEA's Arlington East Wastewater  
17 Treatment Plant is currently being expanded to 15  
18 MGD and has reserve capacity capable of  
19 supplementing Mandarin if needed. The  
20 interconnected water plants that comprise JEA's  
21 South Grid have a total permitted capacity of 97.33  
22 MGD with a commitment to existing and future  
23 customers of 43.32 MGD. JEA has submitted  
24 consumptive use permit applications with the SJRWMD  
25 seeking long-term water use permits for the

1 wellfields that supply all of JEA's water plants  
2 including those identified in Mr. Kelly's  
3 testimony. The consumptive use permit applications  
4 are currently under review and no action is  
5 expected on the long-term permits before July,  
6 1999.

7 Q. HAVE YOU REVIEWED THE PREFILED DIRECT TESTIMONY OF  
8 CAROLINE SILVERS IN THIS DOCKET?

9 A Yes.

10 Q. ARE THERE ANY ISSUES IN MS. SILVERS' TESTIMONY  
11 WHICH YOU WISH TO COMMENT UPON?

12 A. Yes. As indicated in the prefiled testimony of  
13 Scott Kelly, JEA currently meets the water needs of  
14 its customers through two separate interconnected  
15 grids of large water plants. One such  
16 interconnected grid (the "North Grid") is located  
17 north of the St. Johns River in Duval County. The  
18 second interconnected grid (the "South Grid") is  
19 located on the south side of Duval County. An  
20 interconnected water plant configuration provides a  
21 very high level of reliability and allows JEA to  
22 balance withdrawals from the Floridan Aquifer in  
23 order to minimize drawdown and other adverse  
24 impacts. The interconnected grids also provide  
25 back-up reliability in case of an outage in the

1 system. In fact, because of the special  
2 protections afforded by an interconnected grid,  
3 many of the private utilities in this area of the  
4 state, including United Water Florida, Inc., have  
5 contracted with JEA for emergency back-up and  
6 peaking protection. Although the SJRWMD has not  
7 established a safe yield for the Aquifer in this  
8 region, preliminary results of studies undertaken  
9 by JEA indicate that it can safely withdraw between  
10 50 to 60 MGD from its South Grid wellfields without  
11 unacceptable adverse environmental impacts.  
12 Because of the hydrogeology in the South Grid area,  
13 some localized problems can arise as a result of  
14 fracturing near withdrawal sites. These localized  
15 problems can be dealt with through planning,  
16 monitoring and modifications to existing  
17 wellfields. JEA, with its interconnected system  
18 and available resources, has the ability to detect  
19 and address these problems before they become  
20 significant. JEA's current capital budget has  
21 allocated \$9 million over the next four years for  
22 wellfield optimization efforts. In sum, the  
23 existing wellfields which supply JEA's South Grid  
24 have sufficient capacity to provide service to St.  
25 Johns County in accordance with the April 19, 1999

1 Agreement between JEA and St. Johns County without  
2 unacceptable adverse environmental impacts. In  
3 addition, JEA is in the process of implementing a  
4 long term strategy to interconnect its North and  
5 South Grids. There is excess capacity available in  
6 the North Grid which, through interconnection, can  
7 be utilized to minimize the risk of adverse impacts  
8 in the South Grid. The St. Johns River inhibits  
9 the flow of groundwater from the northside to the  
10 southside of the river. JEA has determined that  
11 interconnection of the North and South Grids will  
12 enable it to utilize the excess groundwater  
13 capacity available from the North Grid. When the  
14 interconnection of the North and South Grids is  
15 completed, it will enable JEA to further balance  
16 withdrawals from the Floridan Aquifer to protect  
17 against adverse impacts. It will also enhance the  
18 development of a truly regionalized system with  
19 many attendant benefits.

20 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

21 **A. Yes.**

22

23 Perkins.reb

**Timothy E. Perkins, P.E.**  
2131 Birch Bark Ct. E., Jacksonville, FL 32246  
7164

(904) 221-  
Docket No. 981637-WS  
Exhibit (TEP-1)  
Resume of Timothy E. Perkins, P.E.  
Page 1 of 2

B.S. Highest Honors  
Licensed Professional Engineer

Environmental engineering, Florida Institute  
of Technology, Melbourne, FL

### Employment History

#### **JEA**

##### **Vice President, Environmental**

**1998-Present**

Responsible for contacts with Environmental and Legislative bodies regarding all facets dealing with electric, water and sewer permitting; water quality; and industrial pretreatment program.

#### **Jacksonville Electric Authority (JEA)**

##### **Vice President Water and Wastewater Treatment**

**1997-1998**

Responsible for operation and maintenance of 28 water treatment plants, 2160 mile water distribution system, water quality program, regulatory compliance, permitting, and public education.

#### **Water Division Chief/Managing Engineer,**

##### **Department of Public Utilities**

**1997-1996**

Responsible for operation and maintenance of 28 water treatment plants, 2160 mile water distribution system, water quality program, regulatory compliance, permitting, and public education. The division had a staff of 236 personnel with an annual operating budget of 19.7 million dollars.

#### **Professional Engineer, Water Services Division**

##### **Department of Public Works**

**1984-1987**

Responsible for engineering plan review, analysis of impacts of proposed development on the water and wastewater system and negotiation of developer funded expansions of the water and sewer system. Developed computerized hydraulic models of the water distribution system and wastewater transmission system. Designed and oversaw construction of regional wastewater pumping facilities.

#### **BESSENT HAMMACK & RUCKMAN, INC., JACKSONVILLE, FL**

##### **Project Engineer**

**1983-1984**

Responsible for the design of water and wastewater facilities for subdivisions and commercial properties including water treatment, water distribution, wastewater collection, wastewater treatment and stormwater pumping facilities.

#### **SEVERDRUP & PARCEL & ASSOCIATES, ST. LOUIS, MO; JACKSONVILLE, FL AND VERO BEACH, FL**

##### **Environmental Engineer**

**1979-1983**

Responsible for design of water and wastewater treatment facilities, pumping facilities, ground storage tanks, sewage force mains and water transmission mains. Oversaw contract administration, construction inspection and start up of water and wastewater facilities.

### Affiliations

Association of Metropolitan Water Agencies, Vice Chair  
Management Committee  
American Water Works Association, Member Florida Section  
Governing Board  
Water Environment Federation, Member

### **Career Achievements**

Developed and directed installation of an automated water treatment plant control system which operates 22 water plants from central location. Automated control system reduces operations manpower requirements for manual operation by 26 personnel saving 1.3 million dollars per year.

Recommended development and implementation of a departmental automation plan drafted scope and requests for proposals for consultant services and negotiated consultant contract. Preparation of the plan is now under way.

Aggressively expanded water meter replacement program. Meter replacements were increased 500% through reallocation of existing personnel. Average residential water meter service life has been reduced to 15 years.

Implemented a program of capital improvements, which will facilitate consolidation of water plants. Upon completion of the program, 9 water plants with high operations and maintenance costs will be removed from service.

Developed and managed implementation of an award winning water conservation public education program.

Established a program to monitor lead and copper in residential drinking water which was cited as a model program for other utilities by the State drinking water program.

Authored for proposals, negotiated contracts and managed consultant services for a water quality study, water facility master plan, water audit, leak detection program, hydrogeological model, aquifer management plan and design and construction of a regional water treatment plant.