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November 20, 2000

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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

Re: Docket No. 980744-WS

Dear Ms. Bayo:

Enclosed herewith for filing in the above-referenced docket on behalf of Florida Water Services Corporation ("Florida Water") are the following documents:

1. Original and fifteen copies of the Prefiled Direct Testimony of Hugh Gower;

2. Original and fifteen copies of the Prefiled Direct Testimony and Exhibits CHH-1 through CHH-4 of Charles H. Hughes;

3. Original and fifteen copies of the Prefiled Direct Testimony and Exhibits JC-1 through JC-3 of John Cirello; and

4. Original and fifteen copies of the Prefiled Direct Testimony and Exhibits JAP-1 through JAP-6 of James A. Perry.

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

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Thank you for your assistance with this filing.

Sincerely,

J. Stephen Menton

JSM/rl
Enclosures
Trib.3

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing was furnished by hand delivery(*) and U. S. Mail to the following this 20th day of November, 2000:

Jennifer Brubaker, Esq.(*)
Division of Legal Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Room 370
Tallahassee, FL 32399-0850

Charles Beck, Esq.
Office of Public Counsel
111 West Madison Street
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Tallahassee, FL 32399-1400

J. STEPHEN MENTON, ESQ.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into ratemaking considerations of gain on sale from sale of facilities of Florida Water Services Corporation to Orange County.	)))))	Docket No. 980744-WS Filed: November 20, 2000

ORIGINAL

PREFILED DIRECT TESTIMONY OF

DR. JOHN CIRELLO

FILED ON BEHALF

OF

FLORIDA WATER SERVICES CORPORATION

KENNETH A. HOFFMAN, ESQ.
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Tallahassee, FL 32302
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Q. WHAT IS YOUR NAME AND BUSINESS ADDRESS?

A. John Cirello, 1000 Color Place, Apopka, Florida 32703.

Q. WHAT IS YOUR CURRENT EMPLOYMENT?

A. I am President and Chief Executive Officer of Florida Water Services Corporation ("Florida Water") and ALLETE Water Services.

Q. WHAT IS FLORIDA WATER?

A. Florida Water is the largest and one of the most experienced investor-owned water and wastewater utilities in the State. Florida Water provides water service in 120 service areas and wastewater service in 37 service areas in 28 counties throughout the state. We serve approximately 240,000 connections which equates to more than half a million people. Our estimated maximum daily water capacity is 131 million gallons per day ("MGD") and our total committed wastewater capacity is 22 MGD. Florida Water has an excellent and long history of providing quality service to its customers.

Q. DESCRIBE THE RELATIONSHIP BETWEEN FLORIDA WATER SERVICES CORPORATION AND ALLETE WATER SERVICES.

A. ALLETE Water Services ("AWS"), formerly known as Minnesota Power Water Resources Group, is the parent company of Florida Water. AWS is a direct subsidiary of ALLETE Corporation, a diversified industrial services company in Duluth, Minnesota. AWS owns 100% of Florida Water as well as Heater Corporation, North Carolina's largest investor-owned water and wastewater utility, Americas' Water Services, a contract management and operation company in Illinois, and U.S. Maintenance and Management Services Group, an instrumental analysis, predictive maintenance and contract maintenance company located in Charlotte, North Carolina. AWS

provides Florida Water with assistance and expertise in a number of areas including human resources support, benefits support and treasury functions related to financing.

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

A. I will describe the decision-making process which led to Florida Water's sale of its central laboratory facilities constructed in Deltona, Volusia County. I will also describe Florida Water's investment in five water systems and the wastewater system in Orange County, Florida which were sold to Orange County in 1997 and the subsequent reinvestment of the proceeds of that sale by Florida Water in the purchase of Palm Coast Utilities, Inc. ("Palm Coast").

Q. HOW LONG HAVE YOU BEEN CEO OF FLORIDA WATER?

A. Since July 24, 1995.

Q. PLEASE SUMMARIZE YOUR DUTIES AND RESPONSIBILITIES WITH FLORIDA WATER.

A. As President and CEO, I am responsible for all aspects of the management and operations of the company including the direction and oversight of the Company's various departments including: (1) operations and engineering; (2) rates; (3) finance; (4) human resources; (5) environmental compliance; (6) health and safety; (7) business development; and (8) legal.

Q. CAN YOU IDENTIFY FLORIDA WATER EXHIBIT __(JC-1)?

A. Yes. It is a copy of my current resume.

Q. DOES THIS DOCUMENT REFLECT YOUR EDUCATION AND PROFESSIONAL EXPERIENCE.

A. Yes.

Q. COULD YOU PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND.

A. I received a Bachelors degree in civil/sanitary engineering from Rutgers University in 1965 following which I received a Masters of Science in Environmental Engineering from Rutgers in 1971. I earned a Ph.D. in Environmental Science from Rutgers University in 1975.

Q. AS PART OF YOUR EDUCATION AND TRAINING, DID YOU TAKE COURSES IN WATER QUALITY TESTING AND ANALYSIS?

A. Yes. As part of my education and training, I have taken numerous such courses. For example, I have taken courses in water and wastewater quality analysis, water chemistry, advanced water and wastewater analysis and environmental chemistry.

Q. HAVE YOU TAUGHT ANY COURSES IN WATER AND WASTEWATER TREATMENT AND TESTING?

A. Yes. I have taught numerous courses over the years. I have taught courses in water and wastewater quality analysis at Rutgers University and Middlesex County College. I have taught both undergraduate and graduate students as well as operators of water and wastewater facilities. I served as an Assistant Professor and faculty member for the Department of Environmental Science at Rutgers University from 1973-80 where I taught courses on water plant design and wastewater plant design. From 1971-80, I also taught a course on analysis of water and wastewater/testing at Middlesex County College. From 1972-80 I taught advanced water and wastewater operator training courses at Rutgers University which were part of the required curriculum for licensing.

Q. ARE YOU A MEMBER OF ANY PROFESSIONAL ASSOCIATIONS OR TRADE GROUPS?

A. Yes. I am a member of numerous such groups including the National Association of Water Companies ("NAWC"), American Water Works Association ("AWWA"), Florida Water Works Association ("FWWA"), Water Environmental Foundation ("WEF") and the American Chemical Society.

Q. HAVE YOU WRITTEN ANY BOOKS OR ARTICLES ON TOPICS IN THE WATER AND WASTEWATER INDUSTRY?

A. Yes, several. I have written training texts for water and wastewater treatment plant operators for the Water Resources Research Institute in Rutgers, New Jersey. I wrote a book on Leachate and Gas Evolution from Sanitary Landfills. I have also written several papers including a paper on composting for the Water Pollution Control Federal Journal and a paper on the impact of pharmaceutical wastewater on groundwater quality.

Q. ARE YOU A LICENSED ENGINEER?

A. Yes. I am a licensed environmental and civil engineer in New Jersey and Pennsylvania.

Q. COULD YOU PLEASE DESCRIBE THE FIELD OF ENVIRONMENTAL ENGINEERING AND YOUR PROFESSIONAL EXPERIENCE IN THIS FIELD?

A. Environmental engineering is a very diverse field that requires a knowledge of a number of specialized areas. Environmental engineering encompasses significant aspects of chemistry, physics, water quality, hydraulics, biology, micro-biology mechanics, design of unit processes, water resources, water

and wastewater treatment and stream sanitation. I have been involved in a wide range of projects in this field such as: (1) the design and construction of water and wastewater facilities; (2) the development of water resources; (3) the treatment and disposal of waste products; (4) the establishment of treatment standards for water and wastewater plants; (5) the protection of the environment through stream sanitation; (6) the protection, study and evaluation of groundwater; and (7) the management and control of runoff. My professional background includes direct experience in water quality analysis. That experience includes the operation of a commercial laboratory at Princeton Aqua Science from 1980 to 1988 which involved wet chemistry analysis through plasma spectrophotometry and gas chromatography mass spectroscopy.

Q. DOES THE FIELD OF ENVIRONMENTAL SCIENCE INCLUDE WATER QUALITY TESTING?

A. Yes. Water quality testing is an essential aspect of environmental engineering. It is used to evaluate quality of the water environment, the need for treatment for water use, the efficiency and effectiveness of treatment, the quality of wastewater and need for and degree of treatment, the effectiveness and efficiency of treatment as well as the effect upon its release to the environment.

Q. COULD YOU IDENTIFY SOME OF THE WATER AND WASTEWATER PROJECTS WITH WHICH YOU HAVE BEEN DIRECTLY INVOLVED IN YOUR CAREER?

A. I have been involved in the planning, design and construction of numerous water and wastewater projects over the years. Those projects include three

new regional wastewater facilities for the Ocean County Regional Wastewater Authority. Those plants were each over 20MGD in size with the largest being 35MGD. I was also involved in the planning, design and construction of a new 40MGD facility for the Rockaway Valley Sewer Authority, a 25 MGD upgrade to the Southern Monmouth Sewer Authority, a 200MGD upgrade for the Passaic Valley Sewer Authority, 35 MGD upgrade for the Rahway Sewer Authority and a new 20 MGD plant for Cape May County. I was also involved with the planning, design and construction of a new wastewater facility for the City of Wayne, New Jersey. Since joining Florida Water, I have overseen the upgrade and expansion of Florida Water's Amelia Island Wastewater Facility, the Deltona Wastewater Facility, the Lehigh Wastewater Facility, the Burnt Store Wastewater Facility, the Marco Island Surface Water Treatment Facility and the expansion of the Marco Island and Burnt Store Reuse Osmosis Water Treatment Facilities.

Q. DURING YOUR PROFESSIONAL CAREER, HAVE YOU BEEN INVOLVED WITH WATER QUALITY TESTING AND ANALYSIS?

A. Yes. My entire professional career has focused on the water and wastewater industry which necessarily involves water quality testing and analysis. Thus, for example, prior to coming to Florida Water I ran a company, Princeton Aqua Science, that owned a water quality testing laboratory. I was directly involved in the oversight of the laboratory operations and was familiar with the various testing procedures that are necessary to confirm compliance with water quality standards. Many of those tests were done at the in-house laboratory. However, as discussed below, some of the more complicated tests were subcontracted out to specialized laboratories. The gas

chromatography mass spectroscopy ("GC-MS") work was subcontracted out to university and commercial laboratories. In addition, the finite metals analysis was also subcontracted out.

Q. HAVE YOU PREVIOUSLY BEEN ACCEPTED AS AN EXPERT IN THE AREAS OF ENVIRONMENTAL ENGINEERING AND ENVIRONMENTAL SCIENCE BY ANY COURT OR REGULATORY AGENCY?

A. Yes, I have been accepted as an expert in many different proceedings. For example, I have testified as an expert in proceedings before the New Jersey Department of Environmental Protection, the United States EPA, Region II, the Superior Court for the County of Monmouth, New Jersey, the Superior Court for the County of Ocean, New Jersey as well as the Florida Division of Administrative Hearings.

Q. YOU HAVE BEEN IN THIS BUSINESS FOR ROUGHLY 35 YEARS. CAN YOU PLEASE DESCRIBE SOME OF THE SIGNIFICANT CHANGES YOU HAVE SEEN IN THE WATER AND WASTEWATER INDUSTRY OVER THAT TIME PARTICULARLY WITH RESPECT TO ENVIRONMENTAL AND TESTING REQUIREMENTS.

A. The industry has changed dramatically. We now measure constituents of water previously described as zero. For example, 35 years ago we measured in parts of constituents in millions of parts of water for its concentration. Today, we measure that same constituent in parts per billion and parts per trillion routinely which is over one million times smaller. Thirty-five years ago, we might have said a constituent wasn't present. Today, we know that

it is present, but in a smaller quantity. We can measure to molecular level by elements to include the structure or the molecule as well.

Q. HAS THE AMOUNT AND LEVEL OF TESTING INCREASED FOR FLORIDA WATER OVER THE LAST SEVERAL YEARS?

A. Yes. For Florida Water, as with all companies in this industry, the extent and amount of testing has significantly increased over the last several years. The frequency and number we test by constituent has exploded. We measure and monitor today for more constituents than ever before basically because we can.

Q. CAN YOU DESCRIBE HOW WATER AND WASTEWATER ENVIRONMENTAL REQUIREMENTS HAVE CHANGED OVER THE LAST 15 YEARS?

A. Health risks are necessarily a very important factor in providing water service. Because of the enormous implications and possible complications involved in providing water service, there are a variety of regulatory concerns that must be addressed as part of the business. Over the last fifteen years, there have been a growing and ever changing number of federal and state environmental laws, rules and regulations applicable to the water and wastewater industry. Many water quality standards have become more stringent requiring more monitoring, testing and analysis. The constituents of water are important. Therefore, we measure what we can and monitor what can be measured, routinely. As technology has evolved, so has the number of tests and the standards we test to. The measurements required are more complicated and we are measuring smaller and smaller quantities. We

are using very complicated techniques to measure more and smaller quantities and lower standards because we can.

Q. CAN YOU IDENTIFY SOME OF THE NEW ENVIRONMENTAL LAWS AND REGULATIONS THAT HAVE BEEN PUT IN PLACE OVER THE LAST SEVERAL YEARS?

A. Yes. One of the most important new developments was the adoption of the Safe Drinking Water Act in 1996. In addition, there have been a number of new regulations including long-term enhanced service water treatment rules, disinfection by-products rules, and unregulated contaminate monitoring rules.

Q. WHAT IS THE BERT T. PHILLIPS ANALYTICAL LABORATORY?

A. The Bert T. Phillips Analytical Laboratory (the "Lab") is a central laboratory facility constructed in Deltona, Volusia County, Florida by Florida Water with satellite labs in Lehigh, Amelia Island and Spring Hill. The Lab was designed to provide analytical support services for Florida Water's multiple water and wastewater treatment plants throughout the state. Construction of the facility began in September 1994 on the second floor of a Deltona office building owned by Florida Water (f/k/a Southern States Utilities).

Q. WHEN DID YOU BEGIN AS CEO OF FLORIDA WATER?

A. July 24, 1995.

Q. WHAT WAS THE STATUS OF THE LABORATORY WHEN YOU BEGAN YOUR TENURE AS CEO OF FLORIDA WATER?

A. The Lab had begun operations in the spring of 1995. At the time I became CEO, the Lab was still in the process of obtaining the necessary certifications to provide water quality analysis testing, Laboratory personnel were being

hired and certification testing was underway for the equipment, techniques and laboratory personnel.

Q. DID YOU HAVE PRIOR EXPERIENCE WITH A WATER COMPANY THAT OWNED AND OPERATED ITS OWN LABORATORY?

A. Yes. Prior to coming to Florida Water, I worked for Princeton Aqua Science which owned and operated its own laboratory. That laboratory provided much of the basic wet chemistry needed for the company, however, the more complicated organic analyses were out-sourced to certified laboratories. It is not unusual in the industry for a water company to operate a lab for certain relatively simple testing and to subcontract out to a certified laboratory for more sophisticated organic testing. For example, Metcalf and Eddy Services was the second largest contract operator of water and wastewater plants in the country. When I was its President, that company sent out to qualified laboratories all of its sophisticated organic chemistry analysis.

Q. WHAT DO YOU MEAN BY A CERTIFIED LABORATORY?

A. The United States Environmental Protection Agency ("U.S. EPA") and the State of Florida, Department of Environmental Protection ("DEP") and Department of Health require water quality tests or analyses to be performed by a laboratory that has been certified by the State Department of Health or the U.S. EPA. The tests that must be done by a certified lab generally include basic chemical analysis (wet chemistry) and sophisticated organic analyses that require highly specialized equipment and personnel. These organic analyses include GC-MS, gas chromatography, total organic carbon, etc.

Q. HAD FLORIDA WATER'S LAB RECEIVED THE NECESSARY CERTIFICATIONS TO PERFORM THESE TYPES OF TESTS AT THE TIME YOU BECAME CEO?

A. No. As I mentioned earlier, the Lab was still in the certification process when I started with Florida Water. Laboratories are certified by tests and by equipment. In order to obtain certification, a lab must have an established staff of highly trained personnel as well as the sophisticated equipment. The Lab was encountering difficulties in recruiting and retaining the high caliber scientific staff required for certification. These problems were holding up the certification process for months on end, especially with respect to the sophisticated organic analysis certifications.

Q. HOW DID THE LACK OF CERTIFICATION IMPACT THE SERVICES THAT COULD BE PROVIDED BY THE LAB?

A. As I noted earlier, certification is by test and equipment. Initially, the Lab was only able to provide basic wet chemistry type tests for Florida Water since it was only certified to perform those type tests. The more sophisticated organic analyses had to be out-sourced to certified laboratories because Florida Water's Lab was not certified for these analyses.

Q. DID FLORIDA WATER EVER GET THE LAB UP AND RUNNING AT 100 PERCENT CAPACITY?

A. No. The Lab obtained its certification from the Department of Health and Rehabilitative Services to provide wet chemistry analysis in October 1995 and organic analysis in October 1996. Upon obtaining the organic certification, the Lab began performing these sophisticated types of tests for Florida Water while continuing to provide the basic wet chemistry analyses

it had been previously performing. However, the Lab was not running at its capacity and, as a consequence, there were a number of inefficiencies encountered. Florida Water was finding it difficult to maintain the highly trained staff levels necessary for a certified laboratory. This was a small in-house lab with a limited future for qualified water chemists. Therefore, after training and certification with us, many of the scientific staff left for large commercial labs that offered a better chance for advancement and a future.

Q. CAN YOU EXPLAIN SOME OF THE OPERATIONAL DIFFICULTIES ENCOUNTERED IN RUNNING A CERTIFIED LABORATORY?

A. Yes. In addition to the need to recruit and retain highly trained personnel, the equipment utilized in a certified laboratory can be very inefficient to operate unless it is utilized basically around the clock, in other words 24 hours a day, 7 days a week, 365 days a year. For example, every time you shut down a GC-MS machine, the certifying agencies require that you recalibrate it before you can use it again. This recalibration process takes two to three hours at a minimum. If you are able to run the machine around the clock, the regulations only require the machine to be recalibrated once a week. Thus, to efficiently utilize this equipment you really need to use it on a continuous basis otherwise you could spend more time calibrating the machine than doing actual analysis.

Q. DESCRIBE THE STEPS THAT YOU TOOK WITH RESPECT TO THE LAB AFTER YOU BECAME CEO OF FLORIDA WATER.

A. After becoming CEO, I reviewed the status of the Lab's certification efforts and began analyzing the long-term prospects for the Lab. Because of my

prior experience in running a company with a laboratory, I felt I had a good understanding of the complexity of the analyses involved, the ever changing regulatory climate and the potential long-term obstacles to efficient operation of the Lab. It was my feeling that the types and complexity of tests that would be required by the U.S. EPA and the Florida DEP would likely continue to change and increase over time. I was concerned about Florida Water's ability to obtain these analyses at the lowest possible costs without being unnecessarily burdened by the complexities of operating a certified laboratory. I hired a consulting firm, Environmental Compliance Monitoring, Inc. ("ECM") with whom I had previously had a working relationship, to address the laboratory issues and to review the options for Florida Water with respect to its Lab. ECM's technical manager for the project was Thomas Grenci who personally made site visits and prepared a detailed review of the situation. In June of 1997, approximately a year after I assumed responsibility as CEO for Florida Water, ECM issued an extensive report that included specific recommendations.

Q. CAN IDENTIFY EXHIBIT (__JC-2)?

A. Yes. It is a copy of the report issued by ECM in June 1997.

Q. AFTER RECEIVING THE ECM REPORT, DID YOU THINK FLORIDA WATER NEEDED TO MODIFY ITS LONG-TERM PLANS WITH RESPECT TO THE LAB?

A. Yes. The ECM Report highlighted the vulnerability that Florida Water would be facing in operating the Lab at a time when costs were rapidly increasing and regulations were continually changing. The ECM Report made it clear that in order for the Lab to be cost-effective, there would be a

need to expand its operations and bring in significant work from outside of Florida Water. I was concerned that bringing in outside work could further complicate the situation and would not necessarily alleviate the long-term problems of recruiting and retaining qualified personnel. The ECM Report suggested that one possible option was to focus on simpler wet chemistry tests and subcontract out for the more complicated organic analyses. As I indicated earlier, this is a common approach in the industry. With respect to shutting down the lab's organic analysis, this approach would have potentially resulted in a huge loss for Florida Water in the short-term. We discussed the possibility of returning the sophisticated organic testing equipment to the manufacturer and seeking a refund, but we were concerned that, because the equipment had been used and was over one year old, it might not be accepted by the manufacturer.

Q. WAS THE ECM REPORT USEFUL TO YOU IN DEVELOPING YOUR BUSINESS PLANS WITH RESPECT TO THE LAB?

A. Very much so. The ECM Report was a thorough assessment of the long-term prospects for operating the Lab and outlined a number of options for consideration in developing a long-term strategy. ECM's analysis confirmed my impression that there were potential long-term obstacles to successful and cost efficient operation of a certified organic laboratory by Florida Water. As discussed earlier, the ECM report listed a number of potential options including bringing in outside laboratory business to supplement Florida Water's analytical requirements so that the equipment could be run more efficiently. Another option was to outsource the sophisticated organic testing and sell off the highly specialized equipment. Under this approach, Florida

Water would simply operate a basic wet chemistry laboratory. We were considering these options and other options at the time we were contacted by Mr. Myron Gonzalez of Harbor Branch Oceanographic Institute, Inc. ("Harbor Branch") about the possibility of purchasing the Lab. Harbor Branch is a well-respected, non-profit oceanographic institute with outstanding scientific credentials that desired to expand its analytical business as a source of continued support for its activities. I entered into negotiations with Harbor Branch believing that there was a great potential for a mutually beneficial arrangement by selling the Lab to them.

Q. EXPLAIN YOUR NEGOTIATIONS WITH HARBOR BRANCH.

A. After they contacted me about potentially purchasing the Lab, I took Myron Gonzalez, Harbor Branch's manager of lab operations, and Stephen Farinacci, their controller, to Deltona in July of 1997 to review the facilities. We discussed at length the testing work that Florida Water was currently doing at the facility. Harbor Branch was well aware of the need for efficiencies in the lab operations and indicated an interest in doing testing for Florida Water at the Lab. In fact, it was my impression that the continuation of that work for Florida Water was an essential component to their interest in the purchase of the Lab. I worked with our Chief Financial Officer and accounting staff to analyze the financial aspects of the potential transaction. Our CFO worked closely with Harbor Branch's controller, Stephen Farinacci, to work through the details. Through this process, it became clear that Harbor Branch's price for doing the lab work for Florida Water would actually be less than our current and projected costs.

Q. EXPLAIN WHAT HAPPENED NEXT.

A. Because Harbor Branch would have the same need to run the equipment on a continuous basis in order to gain efficiencies, I explored the possibility of selling the Lab to Harbor Branch and entering into a long-term arrangement with them to provide essential testing services for Florida Water. It was my opinion that Florida Water had a unique opportunity to contract for critical services with a well respected, nonprofit group that had excellent credentials and reputation. Harbor Branch offered to purchase the Lab and lab equipment and provide Florida Water with testing services for a fixed price. The transaction was structured so that Florida Water and its customers would not incur any costs in excess of what was anticipated through operation of the Lab by Florida Water. Indeed, the arrangement that was reached enabled Florida Water to significantly reduce its anticipated testing costs.

A. DID YOU REACH AN AGREEMENT TO SELL THE LAB TO HARBOR BRANCH?

A. Yes. Harbor Branch made a very good offer that I concluded was in the best interests of Florida Water and its customers to accept.

Q. WHY DID YOU THINK IT WAS IN FLORIDA WATER'S BEST INTERESTS TO SELL THE LAB?

A. By entering into a contract with a non-profit company to provide essential testing services for Florida Water, we were able to reduce and stabilize our long-term testing costs while gaining the benefit of independent laboratory certification. We were able to eliminate Florida Water's vulnerability to rising costs and uncertainties surrounding the operation of the Lab. Harbor Branch had the ability to access a number of highly qualified professionals that Florida Water could not realistically hope to recruit and retain. In

addition, Harbor Branch was in a position to utilize the equipment more consistently and efficiently.

Q. WHAT DO YOU MEAN BY INDEPENDENT LABORATORY CERTIFICATION?

A. By having a third party do the sophisticated laboratory analysis, we are able to avoid any questioning of the integrity of the tests.

Q. WHEN DID THE SALE OF THE LABORATORY CLOSE?

A. In December 1997.

Q. CAN YOU DESCRIBE THE FINANCING FOR THE SALE OF THE LAB TO HARBOR BRANCH?

A. Yes. Because of Harbor Branch's status as a non-profit entity and our desire to foster a long-term relationship, Florida Water agreed to finance the purchase of the Lab by Harbor Branch. Because Harbor Branch was a non-profit organization, financing was a problem and their financing costs were impacting on the sales price. We decided that the benefits that Florida Water would gain from this transaction warranted our agreement to finance the purchase. The financing arrangement was carefully analyzed by Florida Water and its parent company AWS to insure that it did not impact the company's financial position. Our analysis indicated that the money Florida Water would save by not having to operate or contract to others for laboratory services at much higher prices more than offset the financing costs.

Q. DID FLORIDA WATER RECOGNIZE A GAIN OR A LOSS ON THE SALE OF THE LAB?

A. The Lab was sold at a loss of approximately $35,601. However, we saved more than triple that amount in reduced costs in the first year following the sale. This sale has allowed us to put in place a contractual arrangement that should extend through 2002 to control our testing costs. This is the type of prudent business decision that will help Florida Water avoid future rate cases.

Q. ARE THERE OPTIONS TO EXTEND THE TESTING CONTRACT WITH HARBOR BRANCH?

A. Yes. We have a five year contract to 2002 with Harbor Branch and can renew that contract for 5 additional years or at one year options.

Q. DO YOU ANTICIPATE CONTINUING YOUR RELATIONSHIP WITH HARBOR BRANCH?

A. Yes. We intend to renegotiate the current arrangement and extend it for a longer term.

Q. CAN YOU EXPLAIN IN MORE DETAIL HOW FLORIDA WATER HAS BEEN ABLE TO REDUCE ITS COSTS BY SELLING THE LAB?

A. Yes. The cost in the market place for high level chemists has been rising consistently and significantly at very fast rates. Florida Water has been able to avoid these escalating personnel costs and secure a long-term arrangement for necessary testing services.

Q. HAS FLORIDA WATER CONDUCTED AN ANALYSIS OF WHAT THE COSTS WOULD HAVE BEEN IF IT HAD NOT ENTERED INTO A CONTRACT WITH HARBOR BRANCH BUT INSTEAD HAD CONTRACTED IN THE MARKET PLACE FOR ANALYTICAL LABORATORY SERVICES?

A. Yes. We have compared the amounts that Florida Water has paid to Harbor Branch for analytical testing with the costs that it would have to pay in the general market for the years 1998-2002. Having the analytical work performed at Enviro-Lab, a certified laboratory in Ormond Beach which competes with Harbor Branch, would result in 23% to 24% higher costs than Florida Water will pay to have the same work performed at Harbor Branch under the present contract terms.

Q. CAN YOU IDENTIFY EXHIBIT __ (JC-3)?

A. Yes. It is a copy of the cost analysis prepared by Florida Water comparing the costs that Enviro-Lab would charge for the analytical work Harbor Branch performs under its contract with Florida Water.

Q. EXPLAIN THE CONTRACTUAL RELATIONSHIP BETWEEN FLORIDA WATER AND HARBOR BRANCH.

A. Florida Water pays Harbor Branch a fee for lab services. Harbor Branch makes regular payments on a five year note for the purchase of the Lab assets. Harbor Branch leases laboratory space at four Florida Water locations: Deltona, Springhill, Lehigh and Amelia Island.

Q. EXPLAIN HOW THE PERSONNEL AT THE LAB TRANSITIONED WITH THE SALE TO HARBOR BRANCH.

A. Harbor Branch hired all but three of the fifteen or sixteen Florida Water personnel who worked at the Lab. The Florida Water personnel who worked at the Lab and remained with the company serve to interface and coordinate Florida Water's testing with Harbor Branch. This arrangement has worked out extremely well.

Q. EXPLAIN FLORIDA WATER'S LEASE ARRANGEMENTS WITH HARBOR BRANCH?

A. Upon closing the sale, Harbor Branch moved much of the high-tech equipment, such as the GC-MS, gas chromatography and spectrophotometers, from the Lab to Harbor Branch's facilities in Ft. Pierce. By moving this equipment, Harbor Branch was able to consolidate its operations and ensure the efficient use of the high-tech equipment. In order to perform the basic wet chemistry analyses for Florida Water and to prepare samples for the more complicated analyses to be performed in Ft. Pierce, Harbor Branch has established elementary laboratory sites at several Florida Water facilities. Harbor Branch rents the second floor of Florida Water's Deltona facility. They also rent space at Florida Water's Lehigh, Springhill and Amelia Island facilities. In addition to providing some basic wet chemistry, Harbor Branch uses these sites to serve as pre-labs for samples before they are transmitted to their main lab for testing. The leases at these sites are essentially market rate transactions that help facilitate the testing work that Harbor Branch performs for Florida Water. These arrangements allow Florida Water to obtain prompt turn around on the organic analyses. The prompt and dependable turn around of these analyses has facilitated efficient operations by Florida Water.

Q. EXPLAIN THE DECISION MAKING PROCESS THAT LED FLORIDA WATER TO SELL ITS SYSTEMS IN ORANGE COUNTY TO THE COUNTY.

A. Florida Water's facilities were essentially landlocked by Orange County Utilities and there was very little potential for growth. Florida Water made

a prudent business decision to enter into negotiations to sell its systems in Orange County in order to focus its business development activities in areas that held potential for greater future growth. Florida Water, through its parent corporation, had already entered into an option agreement for the potential purchase of Palm Coast. The sale of the Orange County systems was a way for Florida Water to obtain the capital necessary to purchase Palm Coast.

Q. EXPLAIN THE BENEFITS FLORIDA WATER OBTAINED BY SELLING ITS SYSTEMS IN ORANGE COUNTY AND REINVESTING THE PROCEEDS IN THE PURCHASE OF PALM COAST.

A. At the time Florida Water sold its Orange County systems, those systems had roughly a 1% growth rate and approximately 8,000 customers. As indicated earlier, there was little opportunity for further growth with the systems. By selling the systems and using the proceeds to reinvest in the purchase of Palm Coast, Florida Water obtained water and wastewater systems in Flagler County which had a 6% to 7% growth rate and more than 30,000 customers.

Q. WAS FLORIDA WATER'S DECISION TO SELL ITS ORANGE COUNTY SYSTEMS INFLUENCED BY THE FLORIDA PUBLIC SERVICE COMMISSION'S PRIOR TREATMENT OF THE SALE OF OTHER SYSTEMS?

A. Certainly. Florida Water had litigated the issue of whether customers should share in the gain on the sales of systems in some of its prior rate cases. The Florida Public Service Commission had established a policy of allowing Florida Water shareholders to keep the gains on the sales of Florida Water's

St. Augustine Shores systems and its Venice Gardens systems. The treatment of the gains from these sales indicated the Commission recognized that the gains from the sale of a system belonged to Florida Water's shareholders and not the customers of other Florida Water systems.

Q. IF YOU KNEW THAT FLORIDA WATER SHAREHOLDERS WOULD NOT BE PERMITTED TO KEEP THE ENTIRE GAIN ON THE SALE OF THE ORANGE COUNTY SYSTEMS, WOULD IT HAVE AFFECTED YOUR NEGOTIATIONS WITH THE COUNTY?

A. Yes. If I thought that the shareholders would have to share the gain on the sale of the Orange County systems, Florida Water would have insisted upon a higher sales price which could have potentially jeopardized the transaction. A higher sales price would have resulted in a higher costs to the taxpayers of Orange County.

Q. WERE THE SYSTEMS SOLD TO ORANGE COUNTY A NET CONTRIBUTOR TO FLORIDA WATER'S OVERALL FINANCIAL OPERATIONS?

A. Yes. The systems, after direct costs and allocated overhead, produced a before tax profit to Florida Water's operations and indeed supported or otherwise contributed to Florida Water's overall return on equity.

Q. AS CEO FOR FLORIDA WATER, WERE YOU INVOLVED IN THE NEGOTIATIONS THAT LED TO THE PURCHASE OF PALM COAST BY FLORIDA WATER?

A. Yes. I was the primary representative of Florida Water responsible for that purchase.

Q. EXPLAIN THE CIRCUMSTANCES SURROUNDING THE SALE OF PALM COAST TO FLORIDA WATER.

A. In 1996, Minnesota Pow : Water Resources (which was the name of Florida Water's parent at the time) and Palm Coast entered into an option agreement regarding the potential sale of Palm Coast to Florida Water. In the latter part of 1997, as Florida Water was winding up the sale of its Orange County systems to the County, Florida Water was seeking to reinvest and to close the gap or expand on the customer base that was going to be lost upon consummation of the Orange County sale. Consequently, Florida Water began to actively pursue negotiations with Palm Coast and moved from the option agreement to a purchase agreement.

Q. WHEN WAS THE PURCHASE AGREEMENT ENTERED INTO BETWEEN FLORIDA WATER AND PALM COAST?

A. On May 11, 1998.

Q. WHEN DID THE AGREEMENT FINALLY CLOSE?

A. The closing took place on January 22, 1999. The closing was delayed for several months because of the need to obtain approval by Flagler County.

Q. WHAT WAS THE SOURCE OF THE FUNDS FOR THE PURCHASE OF PALM COAST?

A. Approximately $17.5 million of the funds necessary to purchase Palm Coast were provided through an equity infusion by Florida Water's parent company, Minnesota Power Water Resources.

Q. WAS THE EQUITY INFUSION FROM MINNESOTA POWER WATER RESOURCES RELATED TO THE PRIOR SALE OF THE ORANGE COUNTY FACILITIES?

A. Yes. In early 1998, Florida Water had transferred a dividend of approximately $10 million to its parent company, Minnesota Power Water Resources. A significant portion of this dividend was attributable to the sale of the Orange County systems. Minnesota Power's agreement to provide the equity infusion necessary to purchase Palm Coast was premised upon the prior transfer from Florida Water to Minnesota Power Water Resources of proceeds from the Orange County sale.

Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

roxanne\ORANGE\cirello.tes

John Cirello, Ph.D., P.E.

President & Chief Executive Officer
Florida Water Services

John Cirello was named President and Chief Executive Officer of Florida Water Services Corporation, Florida's largest private water and wastewater utility, in July 1995. He also holds the titles of Executive Vice President of ALLETE Corporation, Florida Water's parent company; *President and Chief Executive Officer of ALLETE Water Services, a holding company comprising of both regulated and non-regulated affiliated companies;* Chairman of Heater Utilities in North Carolina and Americas' Water Services in Chicago, Illinois.

Prior to joining Florida Water, Mr. Cirello, served as President of Metcalf & Eddy Services, a recognized industry leader in contract operations for water and wastewater facilities throughout the United States. He previously held executive positions with several other companies, including Vice President at Chemical Waste Management; Vice President at International Technology Corporations; and President, Princeton Aqua Science.

A graduate of Ruters University in New Brunswick, New Jersey, Mr. Cirello holds a bachelor of science degree in civil engineering, a master's degree in environmental engineering, and a doctorate in environmental science. He returned to Rutgers as an assistant professor and instructor after service in the U.S. Army Corps of Engineers, the State of California Department of Water Resources and the Baltimore Gas and Electric Company.

Cirello's vision for his company's future is as clear as fresh drinking water. This growth plan calls for diversifying Florida Water's service and product lines and providing unequaled customer service. His goal is to show customers a better way to be responsible stewards of Florida's water resources, ensuring an adequate supply for future generations.

Cirello and his wife, Sherron, reside in Longwood, Florida, and have three daughters: Sue, Beth and Sherry. His hobbies include antique car collecting and golf.

ECM
environmental compliance monitoring, inc.

June 26, 1997

John Cirello, Ph.D., P.E.
Florida Water Services Corporation
1000 Color Road
Apopka, FL 32703

RE: Laboratory Assessment; Deltona Laboratory

Dear Dr. Cirello:

Enclosed, please find a report of findings for the evaluation of the Florida Water Services Corporation, analytical laboratory in Deltona, FL. The report includes a summary of procedures, results, and recommendations.

ECM appreciates this opportunity to provide the services that you require. If you have any questions pertaining to the report, or if we can be of any assistance, please feel free to contact me.

Very truly yours,

ENVIRONMENTAL COMPLIANCE MONITORING, INC.

Thomas Grenci
Technical Manager

#1122

349 Route 206, Hillsborough Professional Building, South Somerville, New Jersey 08876
(908) 874-0990 • Fax (908) 874-0920

ECM

environmental compliance monitoring, inc.

FLORIDA WATER SERVICES CORPORATION
DELTONA, FLORIDA

LABORATORY ASSESSMENT
REPORT OF FINDINGS

JUNE 1997

349 Route 206
Hillsborough Professional Building
South Somerville, NJ 08876

Telephone: 908-874-0990
Telefax: 908-874-0920

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1.0 INTRODUCTION

Environmental Compliance Monitoring, Inc. (ECM) has performed an evaluation of the Florida Water Services Corporation (FWSC) Deltona, FL laboratory. The evaluation included an on-site review of the laboratory with staff interviews, customer survey, and market survey. Information obtained in the review was used to determine the laboratory's capabilities for in-house support and the potential for expansion into the commercial market. The laboratory visit and evaluation did not specifically evaluate quality assurance/quality control and adherence to methodology. For the purpose of this evaluation, it is assumed that as a laboratory certified by the State of Florida Department of Health and Rehabilitative Services (FDHRS), the laboratory provides analysis in accordance with the FDHRS regulations.

The FWSC Deltona, FL laboratory was established several years ago to centralize and better control the company's internal environmental laboratory testing. Until its operation most testing was contracted to commercial laboratories. The FWSC laboratory was constructed and operations commenced in 1994-5. Due to difficulties obtaining full laboratory certification, the laboratory started accepting samples in 1996. Costs for the capital investment for start-up including construction, equipment, and staffing was estimated at 2 million dollars.

Once the FWSC laboratory started accepting samples, the transition from diverting analysis from commercial laboratories to the FWSC laboratory created many service related problems. These problems caused a great deal of dissatisfaction among its customers. Although some of the customer dissatisfaction persists, the laboratory has generally improved its performance over previous quarters. The laboratory needs to improve communications and customer interaction to properly service the operating groups.

The laboratory would have better served FWSC by phasing in laboratory operations. For example, by focusing the laboratory start-up on inorganic analyses, a service base could have been quickly established. Subsequent expansion could have been phased into the laboratory, as required. Alternately, the purchase of an existing, fully operational, commercial laboratory could have been less expensive, and would have provided near immediate analysis for operations.

Operating costs for the FWSC laboratory are relatively high as compared to commercial market prices. Some departments in the laboratory, however, are cost effective. For example inorganic analyses, estimated at 70 percent of the FWSC laboratory workload, appear to be performed in a cost effect manner. Organic analyses, however, are analyzed at a disproportionate cost to the laboratory.

There are several options that the FWSC laboratory may pursue to better serve FWSC. These options include:

- -development of the laboratory commercially to offset fixed operating costs
- -leaving the laboratory unchanged with only basic modifications such as scheduling and customer service
- -separating the laboratory into an individual separate profit center or corporation
- -sell the laboratory to an outside entity
- -reduce the scope of services that the laboratory performs to only those that can be provided cost effectively.

3.0 EVALUATION PROCEDURE SUMMARY

The evaluation of the FWSC Deltona laboratory included a site visit, data review, discussions with customers, an area market survey, and general correspondence with FWSC internal and external sources.

ECM met with Craig Anderson, Laboratory Manager from the FWSC laboratory and conducted a site visit of the FWSC laboratory on March 13, 1997. Discussions with Mr. Anderson and some of his staff focused on such overall topics including staffing, equipment, facility, operation, and utilization. Staffing was evaluated with regard to structure, capabilities, and organization as they relate to commercial market laboratories. The laboratory equipment was evaluated for analytical versatility, redundancy, capacity, and condition. The facility was evaluated with regard to its location, set-up, and capability to be modified. Additional information obtained included a review of work through- put, existing certifications, inter-company billing, and costs.

Discussions with several FWSC facility managers were held in order to access the degree of customer satisfaction with the laboratory. Discussions were focused on analytical turn around time (TAT), sampling services, scheduling, costs, and communications.

A limited market survey of local commercial laboratories was performed to determine a baseline price structure for comparison with the FWSC laboratory. Price quotations for select standard analyses were obtained by ECM from several laboratories in the FWSC laboratory service area. Discussions with these commercial laboratories were held to ascertain additional information regarding the market including capacity, key competitors, and general market conditions. In addition to the ECM survey, a comprehensive price list was provided by the FWSC laboratory that summarized a competitive bid recently published by the Seminole County Department of Public Works. This bid summary contained price comparisons for six commercial laboratories including two of the laboratories surveyed by ECM and the FWSC laboratory.

Additional information relevant to the operation of the FWSC laboratory was obtained through internal FWSC sources as well as external sources. These sources included the FWSC accounting group, the FDHRS, the North Carolina Department of Environmental Health and Natural Resources, and other laboratories and consulting companies which utilize commercial laboratories in the localities serviced by the FWSC laboratory.

4.0 RESULTS AND RECOMMENDATIONS

During the FWSC laboratory evaluation, many areas of the laboratory's operation were assessed. Through limited observations and discussions, many recommendations were developed. These recommendations are ultimately contingent on the future direction of the laboratory. The following is a summary of findings and recommendations pertaining to the FWSC laboratory.

4.1 Communication

The laboratory has a general need to better communicate within the company. The laboratory should strive to provide technical information and support to the operating facilities. The laboratory should provide its customers:

- -sample coordination to meet facility schedule requirements.
- -prioritization of analysis with regard to reporting compliance.
- -data review with outlier results flagged by a communication with the operations manager. Laboratory reports should include the facility permit limits next to the result for easy reference.
- -performance of treatability studies and other analytical trouble shooting.
- -offer recommendations for remedial actions.

Better communication between the laboratory with management and administration is necessary. The laboratory manager should provide monthly and quarterly reports to Eric Teittinen. These reports should be concise. Key issues (in summary form) should include:

- -Health and Safety
- -Quality Assurance
- -Customer satisfaction
- -overtime
- -cost issues
- -an estimate of productivity
- -"other" miscellaneous, to focus on specific issues.

The laboratory manager should be provided cost tracking information, by accounting, on a monthly basis. Tracking these costs will be useful in planning, budgeting, and controlling costs.

4.2 Laboratory Utilization

In general, it appears that the laboratory had a very slow start-up period from construction to obtaining FDHRS certification. Once certified, the laboratory required additional time to provide timely data in a satisfactory manner. During the site evaluation,

examples such as unacceptable reporting format to the FDHRS and late reports were cited by the laboratory and facility managers. Although the laboratory is approaching satisfactory performance, problems in the laboratory persist. Many errors in start-up have been made, and the costs incurred. These costs add a large depreciation charge to the laboratory operating costs.

"Utilization" in the laboratory was variable. The greatest costs in terms of capital and labor were in the organic analysis group. Organic analysis was, and still is, the analytical area of least use in the laboratory. Although the laboratory is currently past the start-up phase, it continues to spend a disproportionate cost on organic testing. This is due in part to the low volume of samples requiring organic analyses that are handled in the laboratory. In contrast, the laboratory provides inorganic analyses at a level and cost more closely in line with commercial laboratories. Table 1. provides a department summary of analyses performed based on estimated values.

The laboratory loses its effectiveness to handle small sample lots from FWSC facilities that are not located with in the laboratory's proximity (estimated as an approximate 2 hour radius). Courier, UPS, and packaging costs out weigh the worth of capturing low cost analyses. Local laboratories should be used for small volume and fast TAT tests such as coliform. Higher cost analyses and long TAT parameters are more cost effective when using Couriers or UPS.

4.3 Laboratory Costs

Estimates of laboratory revenue have been prepared for the last three quarters of 1996. Although these estimates do not reflect actual revenues, they were calculated for comparison to commercial market standards. The estimates (see Appendix 1) were extrapolated from the estimated numbers of analyses performed in each quarter. The total number of analyses were multiplied by the unit prices to provide an extended total. Revenue estimates were determined using two price lists: the standard FWSC laboratory price list and an average of the prices submitted in the Seminole County Department of Public Works bid summary. The fourth quarter revenues were then compared to the fourth quarter expense summary (see Table 2.). The revenues appeared to be substantially lower than the fourth quarter laboratory costs. The fourth quarter revenues were then projected for annual 1997 revenue. These revenues are also lower than the budgeted laboratory costs and allocations for 1997.

4.4 Customer Satisfaction

Discussions were held with several of the facility operation managers who are serviced by the FWSC laboratory. The discussions were held in order to evaluate the general customer satisfaction of the users of the laboratory. Of those interviewed, there appeared to be general dissatisfaction with the services received to date. Although criticism was less extreme for recent performance, much of the critique appeared to be lingering concerns of the previous two

years. General areas of concern included:

Turn-Around-Time (TAT) - There were general concerns over the turn-around-time (TAT) for analysis. Poor scheduling by the laboratory made the TAT issue more critical. There were several instances for example where the laboratory had scheduled quarterly sampling events on the last few days of a quarter, thus putting pressure on the facilities to meet reporting deadlines.

Laboratory Costs - There were concerns over cost. Examples were cited of commercial laboratories providing very competitive pricing in contrast to the FWSC laboratory. The FWSC laboratory price structure is discussed in detail in the Market Survey (see section 4.5). These prices were compared to laboratory costs and allocations (see Appendix 2 for 1997 allocations).

Reporting Formats - A comment was made that the laboratory did not follow the states requirements for completing a report format. A clarification by the laboratory suggested that it was a misunderstanding and the problem has since been rectified.

Laboratory Autonomy - There was a concern that the laboratory selected analytical methods unilaterally with out regard for the facilities. There was general consensus that operations use to have more control over commercial laboratories, where as the laboratory now is autonomous.

Confidence on the Laboratory - There was a general feeling of mis-trust or non-confidence over the laboratory's capabilities. For example, they agreed that the laboratory needed a courier to pick-up samples however they felt that one courier wouldn't provide adequate service.

Communication - As stated in section 4.1 there is a need for better interaction between the Laboratory Manager and the operations group. Communication via memos, reports, phone conversations, and meetings will express the laboratory's desire to provide the proper support required by operations.

4.5 Market Survey

The market survey provided information pertaining to pricing structure, capacity and competition in the regional market. Prices were surveyed from several laboratories to compare to the price list used by the FWSC laboratory. Additional laboratory price lists derived from a recent Seminole County bid document (Appendix 3) were used to compare more competitive prices comparable to a large contract bid. The FWSC laboratory and two of the ECM surveyed laboratories participated in the Seminole County bid.

The unit prices used by the FWSC laboratory were comparable to the prices obtained by the ECM survey (see Table 3.). The prices, however, were relatively higher than those of the Seminole County

bid prices. In fact, the FWSC laboratory, along with two of the laboratories in the ECM survey, submitted relatively lower prices than those of the survey prices (see Table 4.).

The laboratory should determine the type of markets to target in order to evaluate a growth strategy. Internally, the laboratory should identify the facilities which have sufficient samples to make analysis cost-effective. Mr. Anderson suggested that due to federal regulations, the work load will be somewhat elevated in 1997 due to three year cyclical requirements, followed by a slow down in 1998 and 1999, then increased again in 2000. This trend should be incorporated into planning.

It was noted that the laboratory also has a potential market in North Carolina. A source of increased internal revenue may arise from the analytical needs of ISI in North Carolina. Expansion into North Carolina will require that the laboratory obtains North Carolina Department of Environment Health and Natural Resources (NCDEHNR) certification. The NCDEHNR has certification for drinking water and waste water. The Division of Laboratory Services oversees the drinking water laboratory certification. That division does not have a reciprocity agreement with Florida. They will, however accept the Water Study Performance evaluation results for the semi-annual program. The certification process takes approximately 4 to 6 months and costs approximately $600.00/ year plus an on-site audit expenses incurred by the NCDEHNR. The Division of Water Quality oversees the wastewater certification program. This group will give interim approval based on data review of the FDHRS performance sample results, audit and quality assurance program. Final approval is based on an eventual on-site audit and approval which will be made at the convenience of the department. The process for interim approval should take approximately one month and has a minimum cost of $2,000.00/ year.

If the FWSC laboratory decides to pursue commercial markets, it will require a marketing plan. Further research into the commercial market is required to identify a suitable customer base.

4.6 Considerations for Future Laboratory Development

There are several considerations FWSC may pursue for the future development of the FWSC laboratory. Below are some of the possible directions that FWSC may consider.

4.6.1 Build the laboratory in to a commercial laboratory

Since the boom in the environmental laboratory market in the 1980's, the laboratory market has continuously declined. Competition has been strong and pricing has been low in all states, including Florida. Projections for the laboratory market over the next three years suggest sustained levels to only moderate recovery. Many investors have sold off or closed their

laboratories, taking relatively large losses. For example, two water companies, United Water in NJ and The Aquarion Group in CT., recently divested its commercial laboratories, keeping only in house laboratory support. Laboratory Resources, Inc. owned by United Water, with approximately 12 million dollars in annual revenues, closed its laboratories earlier this year, liquidating the assets. IEA, Inc. owned by The Aquarion Group, had approximate annual revenues of 24 million dollars. The laboratory has been sold to another large laboratory group, American Environmental Network, Inc. Many other mergers and or closures have taken place over the last several years. As the market thins, some of the laboratory over capacity may turn around demand. In the longer term, this thinning out may lead to stability and the potential for growth. The advantage for survival lies with the established, cash stable laboratories. An investment for the FWSC laboratory will require a sound marketing plan.

The laboratory is currently not ready to provide commercial laboratory work at a level consistent with existing commercial laboratories. Several concerns include the need for additional equipment, personnel, and increased revenues.

The laboratory is adequately equipped to provide the majority of test parameters performed by most commercial laboratories. The laboratory needs, however, additional capital equipment to allow for commercial production, diverse sample matrices, and down time. A capital cost of approximately $500,000. would be required to prepare the laboratory. There is a similar need for additional staff including: a laboratory director experienced in the operations of a commercial environmental laboratory (preferable a person experienced in the Florida market), a sales person (with Florida market experience), and approximately 8 laboratory technicians, chemists, and support. The laboratory would require approximately 2 to 2.5 million dollars of revenue per year to support their costs.

4.6.2. Leave the laboratory unchanged

The laboratory can be maintained as an internal support laboratory, however, concerns such as customer service and operations as previously discussed, must be addressed. The cost associated with this strategy, at this time, will have to be accepted as a cost associated with maintaining internal control of the analytical support.

4.6.3. Split the laboratory into a separate cost or profit center

This option would closely resemble the commercial option including the need to improve customer service and develop new sources of revenue, such as support for other internal companies through testing or data management.

4.6.4. Sell the laboratory to an outside company

It will be difficult to sell the laboratory and recoup the initial capital costs invested into the laboratory if the laboratory is sold "as is". Selling the laboratory at a loss would entail some type of write off to FWSC. The laboratory will be more valuable to a perspective buyer if a long term analytical contract accompanies the sale of the assets. A "use or lose" agreement for a determined period would entice many more potential buyers. Such a contract should include strong language guaranteeing performance with specific criteria so as not to adversely affect the operation groups.

4.6.5. Reduce the current scope of laboratory operations

The laboratory has high utilization in the wet chemistry, metals and other inorganic areas. There is relatively low utilization in the organic analysis group. It may be feasible to retain the inorganic laboratory and close out or sell much of the organic testing section of the laboratory. Organic analysis may be coordinated from the laboratory and subcontracted to outside laboratories. Because of the initial cost of the organic laboratory testing equipment resale, as in the option above, would create a loss on its sale possibly incurring a write off on the equipment. The laboratory would also need to reduce other overhead costs such as rent, utilities, and personnel to compensate for the reduced revenues.

TABLES

TABLE 1
Florida Water Services Corporation
Deltona Analytical Laboratory
Department Summary of Analytical Work Performed
as Quarterly Revenues*, 1996

Department	2nd Quarter FWSC Price	%	3rd Quarter FWSC Price	%	4th Quarter FWSC Price	%	FWSC Price** Less Subcontracted	%
Microbiology	$ 13,240.00	18	$ 19,496.00	20	$ 15,540.00	14	$ 7,710.00	9
General Wet Chemistry	$ 11,586.00	16	$ 11,712.00	12	$ 18,765.00	17	$ 16,397.00	18
Ion Chemistry	$ 17,376.00	24	$ 10,881.00	11	$ 25,855.00	23	$ 24,920.00	24
Total Organic Carbon	$ 1,350.00	2	$ 2,650.00	3	$ 3,825.00	3	$ 3,700.00	4
Radiological	$ 11,020.00	15	$ 2,850.00	3	$ 4,750.00	4	$ 0.00	0
Metals	$ 13,935.00	19	$ 25,671.00	27	$ 18,549.00	17	$ 18,529.00	20
Total Inorganic without Radiological	$ 57,488.00	78	$ 70,411.00	73	$ 82,535.00	74	$ 71,256.00	79
Gas Chemistry	$ 5,208.00	7	$ 10,369.00	11	$ 15,033.00	14	$ 11,728.00	13
GC/MS	$ 0.00	0	$ 0.00	0	$ 0.00	0	$ 0.00	0
HPLC	$ 0.00	0	$ 12,690.00	13	$ 8,630.00	8	$ 7,655.00	8
Total Organics	$ 5,208.00	7	$ 23,059.00	24	$ 23,663.00	21	$ 19,383.00	21
Total	$ 73,716.00		$ 96,320.00		$ 110,948.00		$ 90,639.00	

* The revenues are derived from extrapolating FWSC Laboratory unit prices to estimates of analyses performed for each quarter.

** These revenues reflect the extrapolated quarterly revenues less analytical work subcontracted to outside laboratories for the 4th Quarter.

TABLE 2

LAB EXPENSES
4TH QUARTER-1996

Account #	Account Description	4th Quarter Expenses-1996
00001.665.99.1840.3000.100	LABOR	67,742
00001.665.99.1840.3000.105	FRINGE BENEFITS	1,039
00001.665.99.1840.3000.110	PURCHASED POWER	8,251
00001.665.99.1840.3000.125	MATERIAL & SUPPLIES	34,654
00001.665.99.1840.3000.135	OFFICE PRINTING	-
00001.665.99.1840.3000.140	OFFICE SUPPLIES	1,199
00001.665.99.1840.3000.150	CONTRACTUAL SERVICES	280
00001.665.99.1840.3000.153	CONTRACTUAL SERVICES	29,231
00001.665.99.1840.3000.155	RENTAL OF EQUIPMENT	2,696
00001.665.99.1840.3000.160	TRANSPORTATION	2,407
00001.665.99.1840.3000.165	INSURANCE	170
00001.665.99.1840.3000.175	TELEPHONE EXPENSES	1,846
00001.665.99.1840.3000.185	POSTAGE	5,793
00001.665.99.1840.3000.190	DUES & SUBSCRIPTIONS	1,014
00001.665.99.1840.3000.195	TRAVEL EXPENSES	280
00001.665.99.1840.3000.200	FOOD EXPENSES	89
00001.665.99.1840.3000.205	EMPLOYEE TRAINING EXPENSES	627
00001.665.99.1840.3000.210	OFFICE MACHINE MAINTENANCE	14,375
00001.665.99.1840.3000.250	MISCELLANEOUS EXPENSES	145
	TOTAL	**$ 171,818**

Does not include taxes or depreciation. Only includes operating expenses.

NOTE:
Does not include corporate allocation

Labor does not include payroll taxes (est.20%) of labor

Est. depreciation of capital costs (5%/yr. of $2,000,000. = $100,000./Yr.; $25,000/ quarter

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TABLE 3
Florida Water Services Corporation
Deltona Analytical Laboratory
Price List Comparison for Local Environmental Laboratories

Test Parameter	PBS&J Surveyed Unit Price	Orlando Labs Surveyed Unit Price	Accutest Lab Surveyed Unit Price	FWSC Lab List Unit Price
VOA (by 601)	$ 110.00	$ 76.00	$ 65.00	$ 45.00
VOA (by 624)	$ 130.00	$ 120.00	$ 125.00	$ 100.00
ABN (by 625)	$ 200.00	$ 288.00	$ 250.00	$ 200.00
Pesticides (by 608)	$ 90.00	$ 116.00	$ 95.00	$ 65.00
Priority Pollutant Metals (13)	$ 125.00	$ 140.00	$ 125.00	$ 125.55
BOD	$ 20.00	$ 20.00	$ 20.00	$ 20.00
Total Coliform	$ 20.00	$ 12.00	$ 10.00	$ 10.00
TSS	$ 10.00	$ 8.00	$ 10.00	$ 8.00
COD	$ 12.00	$ 16.00	$ 15.00	$ 16.25
Nitrate-N	$ 10.00	$ 24.00	$ 15.00	$ 15.00
Ammonia-N	$ 15.00	$ 12.00	$ 15.00	$ 20.00
TKN	$ 18.00	$ 28.00	$ 20.00	$ 23.00
Iron	$ 10.00	$ 12.00	$ 10.00	$ 10.00
Calcium	$ 10.00	$ 12.00	$ 10.00	$ 10.00
pH	$ 5.00	$ 8.00	$ 5.00	$ 5.00
Surfactants	$ 20.00	$ 28.00	$ 35.00	$ 16.25

* The surveyed unit prices were based on a request for quotation assuming 2-5 samples per month for a 1 year term.

TABLE 4
Florida Water Services Corporation
Deltona Analytical Laboratory
Price List Comparison of Surveyed Laboratory Prices and
Seminole County Bid Prices

Test Parameter	PBS&J Surveyed Unit Price	PSB&J Seminole Co. Bid Unit Price	Orlando Labs Surveyed Unit Price	Orlando Labs Seminole Co. Bid Unit Price	FWSC Lab List Unit Price	FWSC Lab Seminole Co. Bid Unit Price
VOA (by 601)	$ 110.00	$ 65.00	$ 76.00	$ 87.00	$ 45.00	$ 42.25
VOA (by 624)	$ 130.00	$ 60.00	$ 120.00	$ 75.00	$ 100.00	$ 42.25
ABN (by 625)	$ 200.00	$ 120.00	$ 288.00	$ 102.00	$ 200.00	$ 81.25
Pesticides (by 608)	$ 90.00	$ 75.00	$ 116.00	$ 87.00	$ 65.00	$ 65.00
Priority Pollutant Metals (13)	$ 125.00	$ 74.00	$ 140.00	$ 149.00	$ 125.55	$ 120.25
BOD	$ 20.00	$ 12.00	$ 20.00	$ 13.00	$ 20.00	$ 13.00
Total Coliform	$ 20.00	$ 10.00	$ 12.00	$ 10.00	$ 10.00	$ 6.50
TSS	$ 10.00	$ 5.00	$ 8.00	$ 5.00	$ 8.00	$ 5.20
COD	$ 12.00	$ 8.00	$ 16.00	$ 14.00	$ 16.25	$ 16.25
Nitrate-N	$ 10.00	$ 7.00	$ 24.00	$ 21.00	$ 15.00	$ 9.75
Ammonia-N	$ 15.00	$ 8.00	$ 12.00	$ 11.00	$ 20.00	$ 9.10
TKN	$ 18.00	$ 15.00	$ 28.00	$ 18.00	$ 23.00	$ 13.00
Iron	$ 10.00	$ 3.50	$ 12.00	$ 11.00	$ 10.00	$ 6.50
Calcium	$ 10.00	$ 3.50	$ 12.00	$ 11.00	$ 10.00	$ 6.50
pH	$ 5.00	$ 3.00	$ 8.00	$ 5.00	$ 5.00	$ 3.90
Surfactants	$ 20.00	$ 15.00	$ 28.00	$ 35.00	$ 16.25	$ 16.25

* The surveyed unit prices were based on a request for quotation (March 1997) assuming 2-5 samples per month for a 1 year term. The Seminole County Bid prices were based on a 1/22/97 bid assuming a greater scope of work.

APPENDIX I

Estimated Laboratory Rates for the FWSC Laboratory and Average Seminole County Bid

Florida Water Services Corporation
Deltona Analytical Laboratory
Estimated Parameter Rates for the FWSL Laboratory
Page 1 of 2

Parameters	Average Rate
MICROBIOLOGY:	
Fecal Coliform	$ 9.00
Total Coliform	$ 9.00
Heterotrophic Plate Count	$ 9.00
GENERAL WET CHEMISTRY:	
Alkalinity	$ 6.00
Ammonia-N	$ 10.00
Biochemical Oxygen Demand	$ 11.00
Chemical Oxygen Demand	$ 11.00
Color	$ 6.00
Cyanide	$ 24.00
Hardness	$ 8.00
Mixed Liquor SS	$ 8.00
MLVSS	$ 10.00
Odor	$ 7.00
pH	$ 4.00
Silicates	$ 15.00
Specific Conductance	$ 4.00
Sulfide	$ 15.00
Surfactants	$ 19.00
Total Kjeldahl Nitrogen	$ 14.00
Total Dissolved Solids	$ 6.00
Total Solids	$ 7.00
Total Suspended Solids	$ 6.00
Turbidity	$ 6.00
ION CHROMATOGRAPHY:	
Bromide	$ 10.00
Chloride	$ 9.00
Fluoride	$ 9.00
Nitrate-N	$ 11.0
Nitrite-N	$ 9.00
Phosphate-P	$ 12.00
Sulfate	$ 8.00
TOTAL ORGANIC CARBON	$ 14.00
RADIOLOGICAL	$ 90.00
METALS (FIAA, GFAA, CVAA):	
Aluminum	$ 7.00
Arsenic	$ 9.00
Barium	$ 7.00
Cadmium	$ 8.00
Calcium	$ 6.00
Chromium	$ 8.00
Copper	$ 7.00
Iron	$ 6.00
Lead	$ 8.00
Magnesium	$ 6.00
Manganese	$ 6.00
Mercury	$ 15.00
Nickel	$ 7.00
Potassium	$ 6.00

Florida Water Services Corporation
Deltona Analytical Laboratory
Estimated Parameter Rates for the FWSL Laboratory
Page 2 of 2

Parameters	Average Rate
METALS (CONT.)	
Selenium	$ 9.00
Silver	$ 7.00
Sodium	$ 6.00
Thallium	$ 8.00
Vanadium	$ 7.00
Zinc	$ 7.00
GAS CHROMATOGRAPHY:	
GC/NPD Method 504	$ 35.00
GC/NPD Method 507	$ 65.00
GC/ECD Method 508	$ 71.00
GC/ECD Method 515	$ 120.00
GC/ECD Method 548	$ 65.00
GC/ECD Method 552	$ 65.00
GC/PID Method 602	$ 33.00
GC/Hall Method 601	$ 33.00
GAS CHROMATOGRAPHY/MASS SPECTROSCOPY:	
GC/MS VOA Method 524	$ 100.00
GC/MS VOA Method 624	$ 100.00
GC/MS Semi Method 525	$ 200.00
GC/MS Semi Method 625	$ 200.00
HIGH PERFORMANCE LIQUID CHROMATOGRAPHY:	
HPLC Method 531	$ 65.00
HPLC Method 547	$ 65.00
HPLC Method 549	$ 65.00
HPLC Method 550	$ 65.00
HPLC Method 555	$ 65.00

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Florida Water Services Corporation
Deltona Analytical Laboratory
2nd Quarter, 1996
Estimated Revenues Based on FWSL Laboratory Unit Rates
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Test Parameters	Estimated Number Samples Analyzed	Estimated Market Value ($)
MICROBIOLOGY:		
Fecal Coliform	70	$ 630.00
Total Coliform	1226	$ 11,034.00
Heterotrophic Plate Count	–	$ 0.00
Total Microbiology		**$ 11,664.00**
GENERAL WET CHEMISTRY:		
Alkalinity	134	$ 804.00
Ammonia-N	54	$ 540.00
Biochemical Oxygen Demand	95	$ 1,045.00
Chemical Oxygen Demand	–	$ 0.00
Color	2	$ 12.00
Cyanide	–	$ 0.00
Hardness	31	$ 248.00
Mixed Liquor SS	–	$ 0.00
Mixed Liquor Volatile SS	1	$ 10.00
Odor	–	$ 0.00
pH	29	$ 116.00
Silicates	–	$ 0.00
Specific Conductance	128	$ 512.00
Sulfide	–	$ 0.00
Surfactants	–	$ 0.00
Total Kjeldahl Nitrogen	85	$ 1,190.00
Total Dissolved Solids	287	$ 1,722.00
Total Solids	42	$ 294.00
Total Suspended Solids	95	$ 570.00
Turbidity	76	$ 456.00
Total General Wet Chemistry		**$ 7,519.00**
ION CHROMATOGRAPHY:		
Bromide	–	$ 0.00
Chloride	370	$ 3,330.00
Fluoride	26	$ 234.00
Nitrate-N	354	$ 3,894.00
Nitrite-N	182	$ 1,638.00
Phosphate-P	104	$ 1,248.00
Sulfate	213	$ 1,704.00
Total Ion Chromatography		**$ 12,048.00**
TOTAL ORGANIC CARBON	54	$ 756.00
Total TOC		**$ 756.00**
RADIOLOGICAL	58	$ 5,220.00
Total Radiological		**$ 5,220.00**
METALS (FIAA, GFAA, CVAA):		
Aluminum	–	$ 0.00
Arsenic	55	$ 495.00
Barium	47	$ 329.00
Cadmium	55	$ 440.00
Calcium	100	$ 600.00
Chromium	48	$ 384.00
Copper	444	$ 3,108.00
Iron	63	$ 378.00

Florida Water Services Corporation
Deltona Analytical Laboratory
2nd Quarter, 1996
Estimated Revenues Based on FWSL Laboratory Unit Rates
Page 2 of 2

Test Parameters	Estimated Number Samples Analyzed	Estimated Market Value ($)
METALS (CONT.)		
Lead	469	$ 3,752.00
Magnesium	36	$ 216.00
Manganese	3	$ 18.00
Mercury	47	$ 705.00
Nickel	19	$ 133.00
Potassium	35	$ 210.00
Selenium	48	$ 432.00
Silver	28	$ 196.00
Sodium	89	$ 534.00
Thallium	--	$ 0.00
Vanadium	19	$ 133.00
Zinc	20	$ 140.00
Total Metals		**$ 12,203.00**
GAS CHROMATOGRAPHY:		
GC/NPD Method 504	--	$ 0.00
GC/NPD Method 507	--	$ 0.00
GC/ECD Method 508	4	$ 284.00
GC/ECD Method 515	--	$ 0.00
GC/ECD Method 548	--	$ 0.00
GC/ECD Method 552	--	$ 0.00
GC/PID Method 602	17	$ 561.00
GC/Hall Method 601	94	$ 3,102.00
Total Gas Chromatography		**$ 3,947.00**
GAS CHROMATOGRAPHY/MASS SPECTROSCOPY:		
GC/MS VOA Method 524	--	$ 0.00
GC/MS VOA Method 624	--	$ 0.00
GC/MS Semi Method 525	--	$ 0.00
GC/MS Semi Method 625	--	$ 0.00
Total GC/MS		**$ 0.00**
HIGH PERFORMANCE LIQUID CHROMATOGRAPHY:		
HPLC Method 531	--	$ 0.00
HPLC Method 547	--	$ 0.00
HPLC Method 549	--	$ 0.00
HPLC Method 550	--	$ 0.00
HPLC Method 555	--	$ 0.00
Total HPLC		**$ 0.00**
Total 2nd Quarter	--	**$ 53,357.00**

Florida Water Services Corporation
Deltona Analytical Laboratory
3rd Quarter, 1996
Estimated Revenues Based on FWSL Laboratory Unit Rates
Page 1 of 2

Test Parameters	Estimated Number Samples Analyzed	Estimated Market Value ($)
MICROBIOLOGY:		
Fecal Coliform	159	$ 1,431.00
Total Coliform	1727	$ 15,543.00
Heterotrophic Plate Count	–	$ 0.00
Total Microbiology		**$ 16,974.00**
GENERAL WET CHEMISTRY:		
Alkalinity	44	$ 264.00
Ammonia-N	30	$ 300.00
Biochemical Oxygen Demand	138	$ 1,518.00
Chemical Oxygen Demand	–	$ 0.00
Color	8	$ 48.00
Cyanide	–	$ 0.00
Hardness	21	$ 504.00
Mixed Liquor SS	10	$ 80.00
Mixed Liquor Volatile SS	6	$ 60.00
Odor	3	$ 21.00
pH	55	$ 220.00
Silicates	–	$ 0.00
Specific Conductance	41	$ 164.00
Sulfide	–	$ 0.00
Surfactants	16	$ 304.00
Total Kjeldahl Nitrogen	94	$ 1,316.00
Total Dissolved Solids	202	$ 1,212.00
Total Solids	56	$ 392.00
Total Suspended Solids	224	$ 1,344.00
Turbidity	83	$ 498.00
Total General Wet Chemistry		**$ 8,245.00**
ION CHROMATOGRAPHY:		
Bromide	–	$ 0.00
Chloride	273	$ 2,457.00
Fluoride	–	$ 0.00
Nitrate-N	233	$ 2,563.00
Nitrite-N	120	$ 1,080.00
Phosphate-P	23	$ 276.00
Sulfate	121	$ 968.00
Total Ion Chromatography		**$ 7,344.00**
TOTAL ORGANIC CARBON	106	$ 1,484.00
Total TOC		**$ 1,484.00**
RADIOLOGICAL	15	$ 1,350.00
Total Radiological		**$ 1,350.00**
METALS (FIAA, GFAA, CVAA):		
Aluminum	–	$ 0.00
Arsenic	95	$ 855.00
Barium	90	$ 630.00
Cadmium	128	$ 1,024.00
Calcium	20	$ 120.00
Chromium	128	$ 1,024.00
Copper	1175	$ 8,225.00
Iron	15	$ 90.00

Florida Water Services Corporation
Deltona Analytical Laboratory
3rd Quarter, 1996
Estimated Revenues Based on FWSL Laboratory Unit Rates
Page 2 of 2

Test Parameters	Estimated Number Samples Analyzed	Estimated Market Value ($)
METALS (CONT.)		
Lead	1217	$ 9,736.00
Magnesium	1	$ 6.00
Manganese	--	$ 0.00
Mercury	41	$ 615.00
Nickel	27	$ 189.00
Potassium	--	$ 0.00
Selenium	90	$ 810.00
Silver	65	$ 455.00
Sodium	18	$ 108.00
Thallium	--	$ 0.00
Vanadium	25	$ 175.00
Zinc	28	$ 196.00
Total Metals		**$ 24,258.00**
GAS CHROMATOGRAPHY:		
GC/NPD Method 504	3	$ 105.00
GC/NPD Method 507	59	$ 3,835.00
GC/ECD Method 508	54	$ 3,834.00
GC/ECD Method 515	--	$ 0.00
GC/ECD Method 548	--	$ 0.00
GC/ECD Method 552	--	$ 0.00
GC/PID Method 602	22	$ 726.00
GC/Hall Method 601	77	$ 2,541.00
Total Gas Chromatography		**$ 11,041.00**
GAS CHROMATOGRAPHY/MASS SPECTROSCOPY:		
GC/MS VOA Method 524	--	$ 0.00
GC/MS VOA Method 624	--	$ 0.00
GC/MS Semi Method 525	--	$ 0.00
GC/MS Semi Method 625	--	$ 0.00
Total GC/MS		**$ 0.00**
HIGH PERFORMANCE LIQUID CHROMATOGRAPHY:		
HPLC Method 531	54	$ 3,510.00
HPLC Method 547	54	$ 3,510.00
HPLC Method 549	54	$ 3,510.00
HPLC Method 550	--	
HPLC Method 555	54	$ 3,510.00
Total HPLC		**$ 14,040.00**
Total 3rd Quarter	--	**$ 84,736.00**

Florida Water Services Corporation
Deltona Analytical Laboratory
4th Quarter, 1996
Estimated Revenues Based on FWSL Laboratory Unit Rates
Page 1 of 2

Test Parameters	Estimated Number Samples Analyzed	Estimated Market Value ($)
MICROBIOLOGY:		
Fecal Coliform	240	$ 2,160.00
Total Coliform	1209	$ 10,881.00
Heterotrophic Plate Count	9	$ 81.00
Total Microbiology		**$ 13,122.00**
GENERAL WET CHEMISTRY:		
Alkalinity	128	$ 768.00
Ammonia-N	54	$ 540.00
Biochemical Oxygen Demand	181	$ 1,991.00
Chemical Oxygen Demand	4	$ 44.00
Color	3	$ 18.00
Cyanide	40	$ 960.00
Hardness	99	$ 792.00
Mixed Liquor SS	19	$ 152.00
Mixed Liquor Volatile SS	--	$ 0.00
Odor	6	$ 42.00
pH	25	$ 100.00
Silicates	3	$ 45.00
Specific Conductance	128	$ 512.00
Sulfide	6	$ 90.00
Surfactants	2	$ 38.00
Total Kjeldahl Nitrogen	97	$ 1,358.00
Total Dissolved Solids	282	$ 1,692.00
Total Solids	42	$ 294.00
Total Suspended Solids	396	$ 2,376.00
Turbidity	74	$ 444.00
Total General Wet Chemistry		**$ 12,256.00**
ION CHROMATOGRAPHY:		
Bromide	--	$ 0.00
Chloride	501	$ 4,509.00
Fluoride	7	$ 63.00
Nitrate-N	427	$ 4,697.00
Nitrite-N	395	$ 3,555.00
Phosphate-P	71	$ 852.00
Sulfate	471	$ 3,768.00
Total Ion Chromatography		**$ 17,444.00**
TOTAL ORGANIC CARBON	133	$ 1,862.00
Total TOC		**$ 1,862.00**
RADIOLOGICAL	25	$ 2,250.00
Total Radiological		**$ 2,250.00**
METALS (FIAA, GFAA, CVAA):		
Aluminum	4	$ 28.00
Arsenic	98	$ 882.00
Barium	81	$ 567.00
Cadmium	99	$ 792.00
Calcium	104	$ 624.00
Chromium	98	$ 784.00
Copper	616	$ 4,312.00
Iron	40	$ 240.00

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Deltona Analytical Laboratory
4th Quarter, 1996
Estimated Revenues Based on FWSL Laboratory Unit Rates
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Test Parameters	Estimated Number Samples Analyzed	Estimated Market Value ($)
METALS (CONT.)		
Lead	598	$ 4,784.00
Magnesium	25	$ 150.00
Manganese	1	$ 6.00
Mercury	81	$ 1,215.00
Nickel	19	$ 133.00
Potassium	25	$ 150.00
Selenium	81	$ 729.00
Silver	81	$ 567.00
Sodium	63	$ 378.00
Thallium	1	$ 8.00
Vanadium	17	$ 119.00
Zinc	17	$ 119.00
Total Metals		**$ 16,587.00**
GAS CHROMATOGRAPHY:		
GC/NPD Method 504	–	$ 0.00
GC/NPD Method 507	71	$ 4,615.00
GC/ECD Method 508	36	$ 2,556.00
GC/ECD Method 515	2	$ 240.00
GC/ECD Method 548	3	$ 195.00
GC/ECD Method 552	–	$ 0.00
GC/PID Method 602	66	$ 2,178.00
GC/Hall Method 601	149	$ 4,917.00
Total Gas Chromatography		**$ 14,701.00**
GAS CHROMATOGRAPHY/MASS SPECTROSCOPY:		
GC/MS VOA Method 524	--	$ 0.00
GC/MS VOA Method 624	--	$ 0.00
GC/MS Semi Method 525	--	$ 0.00
GC/MS Semi Method 625	--	$ 0.00
Total GC/MS		**$ 0.00**
HIGH PERFORMANCE LIQUID CHROMATOGRAPHY:		
HPLC Method 531	37	$ 2,405.00
HPLC Method 547	36	$ 2,340.00
HPLC Method 549	37	$ 2,405.00
HPLC Method 550	--	$ 0.00
HPLC Method 555	37	$ 2,405.00
Total HPLC		**$ 9,555.00**
Total 4th Quarter	--	**$ 87,777.00**

Florida Water Services Corporation
Estimated - Average Parameter Rates
for the Seminole County Bid of 1/22/97
Page 1 of 2

Parameters	Average Rate
MICROBIOLOGY:	
Fecal Coliform	$ 14.00
Total Coliform	$ 10.00
Heterotrophic Plate Count	$ 10.00
GENERAL WET CHEMISTRY:	
Alkalinity	$ 10.00
Ammonia-N	$ 20.00
Biochemical Oxygen Demand	$ 20.00
Chemical Oxygen Demand	$ 16.25
Color	$ 10.00
Cyanide	$ 45.00
Hardness	$ 10.00
Mixed Liquor SS	$ 8.00
MLVSS	$ 16.00
Odor	$ 8.50
pH	$ 5.00
Silicates	$ 15.00
Specific Conductance	$ 7.00
Sulfide	$ 15.00
Surfactants	$ 16.25
Total Kjeldahl Nitrogen	$ 23.00
Total Dissolved Solids	$ 8.00
Total Solids	$ 8.00
Total Suspended Solids	$ 8.00
Turbidity	$ 7.00
ION CHROMATOGRAPHY:	
Bromide	$ 10.00
Chloride	$ 15.00
Fluoride	$ 9.75
Nitrate-N	$ 15.00
Nitrite-N	$ 10.00
Phosphate-P	$ 12.00
Sulfate	$ 15.00
TOTAL ORGANIC CARBON	$ 25.00
RADIOLOGICAL	$ 190.00
METALS (FIAA, GFAA, CVAA):	
Aluminum	$ 10.00
Arsenic	$ 12.35
Barium	$ 9.10
Cadmium	$ 9.10
Calcium	$ 10.00
Chromium	$ 9.10
Copper	$ 7.50
Iron	$ 10.00
Lead	$ 7.50
Magnesium	$ 6.50
Manganese	$ 10.00
Mercury	$ 12.35
Nickel	$ 15.00
Potassium	$ 6.50

Florida Water Services Corporation
Estimated - Average Parameter Rates
for the Seminole County Bid of 1/22/97
Page 2 of 2

Parameters	Average Rate
METALS (CONT.)	
Selenium	$ 12.35
Silver	$ 6.50
Sodium	$ 11.00
Thallium	$ 9.10
Vanadium	$ 9.10
Zinc	$ 6.50
GAS CHROMATOGRAPHY:	
GC/NPD Method 504	$ 35.00
GC/NPD Method 507	$ 40.00
GC/ECD Method 508	$ 65.00
GC/ECD Method 515	$ 120.00
GC/ECD Method 548	$ 40.00
GC/ECD Method 552	$ 65.00
GC/PID Method 602	$ 42.25
GC/Hall Method 601	$ 45.00
GAS CHROMATOGRAPHY/MASS SPECTROSCOPY:	
GC/MS VOA Method 524	$ 100.00
GC/MS VOA Method 624	$ 100.00
GC/MS Semi Method 525	$ 200.00
GC/MS Semi Method 625	$ 200.00
HIGH PERFORMANCE LIQUID CHROMATOGRAPHY:	
HPLC Method 531	$ 65.00
HPLC Method 547	$ 65.00
HPLC Method 549	$ 65.00
HPLC Method 550	$ 65.00
HPLC Method 555	$ 40.00

Florida Water Services Corporation
Deltona Analytical Laboratory
2nd Quarter, 1996
Estimated Revenues Based on an Average of the Seminole County Bid Unit Prices
Page 1 of 2

Test Parameters	Estimated Number Samples Analyzed	Estimated Market Value ($)
MICROBIOLOGY:		
Fecal Coliform	70	$ 980.00
Total Coliform	1226	$ 12,260.00
Heterotrophic Plate Count	–	$ 0.00
Total Microbiology		**$ 13,240.00**
GENERAL WET CHEMISTRY:		
Alkalinity	134	$ 1,340.00
Ammonia-N	54	$ 1,080.00
Biochemical Oxygen Demand	95	$ 1,900.00
Chemical Oxygen Demand	–	$ 0.00
Color	2	$ 20.00
Cyanide	–	$ 0.00
Hardness	31	$ 310.00
Mixed Liquor SS	–	$ 0.00
Mixed Liquor Volatile SS	1	$ 16.00
Odor	–	$ 0.00
pH	29	$ 145.00
Silicates	–	$ 0.00
Specific Conductance	128	$ 896.00
Sulfide	–	$ 0.00
Surfactants	–	$ 0.00
Total Kjeldahl Nitrogen	85	$ 1,955.00
Total Dissolved Solids	287	$ 2,296.00
Total Solids	42	$ 336.00
Total Suspended Solids	95	$ 760.00
Turbidity	76	$ 532.00
Total General Wet Chemistry		**$ 11,586.00**
ION CHROMATOGRAPHY:		
Bromide	–	$ 0.00
Chloride	370	$ 5,550.00
Fluoride	26	$ 253.50
Nitrate-N	354	$ 5,310.00
Nitrite-N	182	$ 1,820.00
Phosphate-P	104	$ 1,248.00
Sulfate	213	$ 3,195.00
Total Ion Chromatography		**$ 17,376.50**
TOTAL ORGANIC CARBON	54	$ 1,350.00
Total TOC		**$ 1,350.00**
RADIOLOGICAL	58	$ 11,020.00
Total Radiological		**$ 11,020.00**
METALS (FIAA, GFAA, CVAA):		
Aluminum	–	$ 0.00
Arsenic	55	$ 679.25
Barium	47	$ 427.70
Cadmium	55	$ 500.50
Calcium	100	$ 1,000.00
Chromium	48	$ 436.80
Copper	444	$ 3,330.00
Iron	63	$ 630.00

Florida Water Services Corporation
Deltona Analytical Laboratory
2nd Quarter, 1996
Estimated Revenues Based on an Average of the Seminole County Bid Unit Prices
Page 2 of 2

Test Parameters	Estimated Number Samples Analyzed	Estimated Market Value ($)
METALS (CONT.)		
Lead	469	$ 3,517.50
Magnesium	36	$ 234.00
Manganese	3	$ 30.00
Mercury	47	$ 580.45
Nickel	19	$ 285.00
Potassium	35	$ 227.50
Selenium	48	$ 592.80
Silver	28	$ 182.00
Sodium	89	$ 979.00
Thallium	–	$ 0.00
Vanadium	19	$ 172.90
Zinc	20	$ 130.00
Total Metals		**$ 13,935.40**
GAS CHROMATOGRAPHY:		
GC/NPD Method 504	–	$ 0.00
GC/NPD Method 507	–	$ 0.00
GC/ECD Method 508	4	$ 260.00
GC/ECD Method 515	–	$ 0.00
GC/ECD Method 548	–	$ 0.00
GC/ECD Method 552	–	$ 0.00
GC/PID Method 602	17	$ 718.25
GC/Hall Method 601	94	$ 4,230.00
Total Gas Chromatography		**$ 5,208.25**
GAS CHROMATOGRAPHY/MASS SPECTROSCOPY:		
GC/MS VOA Method 524	–	$ 0.00
GC/MS VOA Method 624	–	$ 0.00
GC/MS Semi Method 525	–	$ 0.00
GC/MS Semi Method 625	–	$ 0.00
Total GC/MS		**$ 0.00**
HIGH PERFORMANCE LIQUID CHROMATOGRAPHY:		
HPLC Method 531	–	$ 0.00
HPLC Method 547	–	$ 0.00
HPLC Method 549	–	$ 0.00
HPLC Method 550	–	$ 0.00
HPLC Method 555	–	$ 0.00
Total HPLC		**$ 0.00**
Total 2nd Quarter	–	**$ 73,716.15**

Florida Water Services Corporation
Deltona Analytical Laboratory
3rd Quarter, 1996
Estimated Revenues Based on an Average of the Seminole County Bid Unit Prices
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Test Parameters	Estimated Number Samples Analyzed	Estimated Market Value ($)
MICROBIOLOGY:		
Fecal Coliform	159	$ 2,226.00
Total Coliform	1727	$ 17,270.00
Heterotrophic Plate Count	--	$ 0.00
Total Microbiology		**$ 19,496.00**
GENERAL WET CHEMISTRY:		
Alkalinity	44	$ 440.00
Ammonia-N	30	$ 600.00
Biochemical Oxygen Demand	138	$ 2,760.00
Chemical Oxygen Demand	--	$ 0.00
Color	8	$ 80.00
Cyanide	--	$ 0.00
Hardness	21	$ 210.00
Mixed Liquor SS	10	$ 80.00
Mixed Liquor Volatile SS	6	$ 96.00
Odor	3	$ 25.50
pH	55	$ 275.00
Silicates	--	$ 0.00
Specific Conductance	41	$ 287.00
Sulfide	--	$ 0.00
Surfactants	16	$ 260.00
Total Kjeldahl Nitrogen	94	$ 2,162.00
Total Dissolved Solids	202	$ 1,616.00
Total Solids	56	$ 448.00
Total Suspended Solids	224	$ 1,792.00
Turbidity	83	$ 581.00
Total General Wet Chemistry		**$ 11,712.50**
ION CHROMATOGRAPHY:		
Bromide	--	$ 0.00
Chloride	273	$ 4,095.00
Fluoride	--	$ 0.00
Nitrate-N	233	$ 3,495.00
Nitrite-N	120	$ 1,200.00
Phosphate-P	23	$ 276.00
Sulfate	121	$ 1,815.00
Total Ion Chromatography		**$ 10,881.00**
TOTAL ORGANIC CARBON	106	$ 2,650.00
Total TOC		**$ 2,650.00**
RADIOLOGICAL	15	$ 2,850.00
Total Radiological		**$ 2,850.00**
METALS (FIAA, GFAA, CVAA):		
Aluminum	--	$ 0.00
Arsenic	95	$ 1,173.25
Barium	90	$ 819.00
Cadmium	128	$ 1,164.80
Calcium	20	$ 200.00
Chromium	128	$ 1,164.80
Copper	1175	$ 8,812.50
Iron	15	$ 150.00

Florida Water Services Corporation
Deltona Analytical Laboratory
3rd Quarter, 1996
Estimated Revenues Based on an Average of the Seminole County Bid Unit Prices
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Test Parameters	Estimated Number Samples Analyzed	Estimated Market Value ($)
METALS (CONT.)		
Lead	1217	$ 9,127.50
Magnesium	1	$ 6.50
Manganese	--	$ 0.00
Mercury	41	$ 506.35
Nickel	27	$ 405.00
Potassium	--	$ 0.00
Selenium	90	$ 1,111.50
Silver	65	$ 422.50
Sodium	18	$ 198.00
Thallium	--	$ 0.00
Vanadium	25	$ 227.50
Zinc	28	$ 182.00
Total Metals		**$ 25,671.20**
GAS CHROMATOGRAPHY:		
GC/NPD Method 504	3	$ 105.00
GC/NPD Method 507	59	$ 2,360.00
GC/ECD Method 508	54	$ 3,510.00
GC/ECD Method 515	--	$ 0.00
GC/ECD Method 548	--	$ 0.00
GC/ECD Method 552	--	$ 0.00
GC/PID Method 602	22	$ 929.50
GC/Hall Method 601	77	$ 3,465.00
Total Gas Chromatography		**$ 10,369.50**
GAS CHROMATOGRAPHY/MASS SPECTROSCOPY:		
GC/MS VOA Method 524	--	$ 0.00
GC/MS VOA Method 624	--	$ 0.00
GC/MS Semi Method 525	--	$ 0.00
GC/MS Semi Method 625	--	$ 0.00
Total GC/MS		**$ 0.00**
HIGH PERFORMANCE LIQUID CHROMATOGRAPHY:		
HPLC Method 531	54	$ 3,510.00
HPLC Method 547	54	$ 3,510.00
HPLC Method 549	54	$ 3,510.00
HPLC Method 550	--	
HPLC Method 555	54	$ 2,160.00
Total HPLC		**$ 12,690.00**
Total 3rd Quarter	--	**$ 96,320.20**

Florida Water Services Corporation
Deltona Analytical Laboratory
4th Quarter, 1996
Estimated Revenues Based on an Average of the Seminole County Bid Unit Prices
Page 1 of 2

Test Parameters	Estimated Number Samples Analyzed	Estimated Market Value ($)
MICROBIOLOGY:		
Fecal Coliform	240	$ 3,360.00
Total Coliform	1209	$ 12,090.00
Heterotrophic Plate Count	9	$ 90.00
Total Microbiology		**$ 15,540.00**
GENERAL WET CHEMISTRY:		
Alkalinity	128	$ 1,280.00
Ammonia-N	54	$ 1,080.00
Biochemical Oxygen Demand	181	$ 3,620.00
Chemical Oxygen Demand	4	$ 65.00
Color	3	$ 30.00
Cyanide	40	$ 1,800.00
Hardness	99	$ 990.00
Mixed Liquor SS	19	$ 152.00
Mixed Liquor Volatile SS	--	$ 0.00
Odor	6	$ 51.00
pH	25	$ 125.00
Silicates	3	$ 45.00
Specific Conductance	128	$ 896.00
Sulfide	6	$ 90.00
Surfactants	2	$ 32.50
Total Kjeldahl Nitrogen	97	$ 2,231.00
Total Dissolved Solids	282	$ 2,256.00
Total Solids	42	$ 336.00
Total Suspended Solids	396	$ 3,168.00
Turbidity	74	$ 518.00
Total General Wet Chemistry		**$ 18,765.50**
ION CHROMATOGRAPHY:		
Bromide	--	$ 0.00
Chloride	501	$ 7,515.00
Fluoride	7	$ 68.25
Nitrate-N	427	$ 6,405.00
Nitrite-N	395	$ 3,950.00
Phosphate-P	71	$ 852.00
Sulfate	471	$ 7,065.00
Total Ion Chromatography		**$ 25,855.25**
TOTAL ORGANIC CARBON	133	$ 3,825.00
Total TOC		**$ 3,825.00**
RADIOLOGICAL	25	$ 4,750.00
Total Radiological		**$ 4,750.00**
METALS (FIAA, GFAA, CVAA):		
Aluminum	4	$ 40.00
Arsenic	98	$ 1,320.30
Barium	81	$ 737.10
Cadmium	99	$ 900.90
Calcium	104	$ 1,040.00
Chromium	98	$ 891.80
Copper	616	$ 4,620.00
Iron	40	$ 400.00

Florida Water Services Corporation
Deltona Analytical Laboratory
4th Quarter, 1996
Estimated Revenues Based on an Average of the Seminole County Bid Unit Prices
Page 2 of 2

Test Parameters	Estimated Number Samples Analyzed	Estimated Market Value ($)
METALS (CONT.)		
Lead	598	$ 4,485.00
Magnesium	25	$ 162.50
Manganese	1	$ 10.00
Mercury	81	$ 1,000.35
Nickel	19	$ 285.00
Potassium	25	$ 162.50
Selenium	81	$ 1,000.35
Silver	81	$ 526.50
Sodium	63	$ 693.00
Thallium	1	$ 9.10
Vanadium	17	$ 154.70
Zinc	17	$ 110.50
Total Metals		**$ 18,549.60**
GAS CHROMATOGRAPHY:		
GC/NPD Method 504	--	$ 0.00
GC/NPD Method 507	71	$ 2,840.00
GC/ECD Method 508	36	$ 2,340.00
GC/ECD Method 515	2	$ 240.00
GC/ECD Method 548	3	$ 120.00
GC/ECD Method 552	--	$ 0.00
GC/PID Method 602	66	$ 2,788.50
GC/Hall Method 601	149	$ 6,705.00
Total Gas Chromatography		**$ 15,033.50**
GAS CHROMATOGRAPHY/MASS SPECTROSCOPY:		
GC/MS VOA Method 524	--	$ 0.00
GC/MS VOA Method 624	--	$ 0.00
GC/MS Semi Method 525	--	$ 0.00
GC/MS Semi Method 625	--	$ 0.00
Total GC/MS		**$ 0.00**
HIGH PERFORMANCE LIQUID CHROMATOGRAPHY:		
HPLC Method 531	37	$ 2,405.00
HPLC Method 547	36	$ 2,340.00
HPLC Method 549	37	$ 2,405.00
HPLC Method 550	--	$ 0.00
HPLC Method 555	37	$ 1,480.00
Total HPLC		**$ 8,630.00**
Total 4th Quarter	--	**$ 110,948.85**

APPENDIX II

Laboratory Budget Allocations

1997 ALLOCATIONS OF LABORATORY WORK TO VARIOUS PLANTS

		1996 ACTUAL EXPENSES								96ww	97 WW	WW	96wat	97Wat	Water	97 WW	97 Water
		1Qww	1Qw	2Qww	2Qw	3Qww	3Qw	4Qww	4Qw	Total $	Adjust.	Total %	Total $	Adjust.	Total %	$ Alloc	$ Alloc
Lake Conway W	104						150			0	0	0.000	150	360	0.075	0.	582.
Daetwyler W	105						150			0	0	0.000	150	360	0.075	0.	582.
University Shores Lab				795		200		152				0.000			0.000		
University Shores W/S	106	1712	248	1040	2204	2266	1590	6155	4763	12320	13148	3.745	8805	-2250	0.964	29045.	7476.
Holiday Heights W	121		160		150		300		638	0	0	0.000	1248	1275	0.371	0.	2877.
Westmonte W	122		60		723		100		323	0	0	0.000	1206	0	0.177	0.	1375.
Lake Gibson W/S	210	687		387	60		300		105	1074	1404	0.364	465	1995	0.362	2826.	2806.
Sugar Creek W	212				30				0	0	0	0.000	30	1755	0.263	0.	2036.
Orange Hill W	214				30		300		0	0	0	0.000	330	1755	0.307	0.	2378.
Gibsonia W	215				30		300		0	0	0	0.000	330	1755	0.307	0.	2378.
Lake Harriet W	323		160		290		510		120	0	0	0.000	1080	1275	0.346	0.	2686.
Fern Park W	324		240		100		360		90	0	0	0.000	790	1275	0.304	0.	2355.
Lake Brantley W	325		460		465		335		380	0	0	0.000	1640	1275	0.429	0.	3324.
Harmony Homes W	326		120		190		285		150	0	0	0.000	745	1275	0.297	0.	2304.
Meredith Manor W	330		150		180		180		585	0	0	0.000	1095	1275	0.349	0.	2703.
Apple Valley W	332		360		2269		785		1073	0	0	0.000	4487	1275	0.847	0.	6571.
Druid Hills W	334		350		290		340		720	0	0	0.000	1700	1275	0.438	0.	3393.
Chuluota W/S	335	430	375	156	84	340	424	510	60	1436	1700	0.461	943	1275	0.326	3576.	2530.
Dol Ray Manor W	336		210		280		350		140	0	0	0.000	980	1275	0.332	0.	2572.
Fl Central Comm Pk S	340	24		22		1302		1977		3325	5512	1.300	0	0	0.000	10078.	0.
Hermits Cove W	438		90		186		474		255	0	0	0.000	1005	1275	0.335	0.	2600.
River Park W	439									0	0	0.000	0	0	0.000	0.	0.
Palm Port W/S	440	162	414	494	165	279	190	270	90	1205	988	0.323	859	1275	0.314	2501.	2434.
River Grove W	442		414		165		90		90	0	0	0.000	759	1275	0.299	0.	2320.
Pomona Park W	443		280		150		260		180	0	0	0.000	870	1275	0.315	0.	2446.
Park Manor W/S	444		162	501		277		261		1039	972	0.296	162	1275	0.211	2293.	1639.
Wootens W	446		414		212		165		850	0	0	0.000	1641	1275	0.429	0.	3326.
Welaka MHP W	447		200		120		800		90	0	0	0.000	1210	1275	0.365	0.	2834.
Saratoga Harbor W	448		484		165		567		90	0	0	0.000	1306	1275	0.380	0.	2944.
Interlachen Lks Est W	470		120		150		420		120	0	0	0.000	810	1275	0.307	0.	2378.
St Johns Highlands W	471		90		234		440		255	0	0	0.000	1019	1275	0.337	0.	2616.
Beechers Point W/S	472	172	60	494	60	263	235	229	60	1158	972	0.313	415	1275	0.249	2429.	1927.

		1st Qu	1st Qu	2nd Qu	2nd Qu	3rd Qu	3rd Qu	4th Qu	4th Qu	WW	97 WW	WW	Water	97Wat	Water	97 WW	97 Water
		WW	Water	WW	Water	WW	Water	WW	Water	Total $	Adjust.	Total %	Total $	Adjust.	Total %	$ Alloc	$ Alloc
Silver Lake Oaks W/S	473	162	140	509	90	279	180	288	60	1238	972	0.325	470	1275	0.257	2520.	1990.
Skycrest W	551		130		150		195		120	0	0	0.000	595	1275	0.275	0.	2133.
Fern Terrace W	552		155		210		180		120	0	0	0.000	665	1275	0.285	0.	2212.
Piney Woods W	553		310		180		120		210	0	0	0.000	820	1275	0.308	0.	2389.
Spring Lake	553						160			0	0	0.000	160	1275	0.211	0.	1637.
Valencia Terrace W/S	554	290	314	229	639	814	120	356	920	1689	972	0.391	1993	1275	0.481	3035.	3727.
Carlton Village W	555		180		340		275		200	0	0	0.000	995	1275	0.334	0.	2589.
Friendly Center W	556		110		120		250		464	0	0	0.000	944	1275	0.326	0.	2531.
East Lake Harris W	557		215		105		240		260	0	0	0.000	820	1275	0.308	0.	2389.
Hobby Hills W	558		200		150		195		250	0	0	0.000	795	1275	0.304	0.	2361.
Palm MHP W	559		280		130		165		160	0	0	0.000	735	1275	0.296	0.	2292.
Sunshine Parkway W/S	560	814	120	984	150	1081	370	846	318	3725	1896	0.827	958	1275	0.328	6411.	2547.
Morningview W/S	562	173	105	221	135	484	230	300	90	1178	852	0.299	560	1275	0.270	2315.	2093.
Picciola Island W	564		110		150		195		150	0	0	0.000	605	1275	0.276	0.	2144.
Stone Mountain W	565		125		200		180		150	0	0	0.000	655	0	0.096	0.	747.
Western Shores W	566		110		1470		1115		344	0	0	0.000	3039	1275	0.634	0.	4920.
Venetian Village W/S	567	187	120	233	150	454	280	270	220	1144	852	0.294	770	1275	0.301	2276.	2332.
Imperial Terrace W	570		90		150		280		120	0	0	0.000	640	1275	0.282	0.	2184.
Holiday Haven W/S	573	104	70	200	170	487	210	270	60	1061	792	0.273	510	0	0.075	2113.	582.
Silver Lakes Est. W	574		320		1110		1260		435	0	0	0.000	3125	1275	0.647	0.	5018.
Grand Terrace W	575		139		519		140		620	0	0	0.000	1418	1275	0.396	0.	3071.
Quail Ridge W	578		90		130		185		200	0	0	0.000	605	1275	0.276	0.	2144.
Palisades W	579		110		150		255		320	0	0	0.000	835	1275	0.310	0.	2406.
Fishermans Haven W/S	673		1006	206	115	176	65		482	382	0	0.056	1668	1275	0.433	436.	3356.
Leilani Heights W/S	675		926	156	230	426	130	426	1094	1008	0	0.148	2380	1275	0.538	1150.	4168.
Fox Run W/S	679		86		584		143		609	0	0	0.000	1422	1275	0.397	0.	3076.
Fountains W	772				30				105	0	0	0.000	135	1635	0.260	0.	2019.
Lake Ajay W	773				110				0	0	0	0.000	110	1635	0.257	0.	1990.
Intercession City W	780				30		180		0	0	0	0.000	210	1635	0.271	0.	2104.
Tropical Park W	781				30		440		0	0	0	0.000	470	1995	0.363	0.	2811.
Pine Ridge Estates W	782						705		315	0	0	0.000	1020	1635	0.390	0.	3028.
Windsong W	783				30		165		0	0	0	0.000	195	1635	0.269	0.	2087.
Bay Lakes Estates W	784				30		90		0	0	0	0.000	120	1635	0.258	0.	2002.

		1st Qu	1st Qu	2nd Qu	2nd Qu	3rd Qu	3rd Qu	4th Qu	4th Qu	WW	97 WW	WW	Water	97Wat	Water	97 WW	97 Water
		WW	Water	WW	Water	WW	Water	WW	Water	Total $	Adjust.	Total %	Total $	Adjust.	Total %	$ Alloc	$ Alloc
BVL Regional Lab		2464		5915	2283	1858	743	1768	1291			0.000			0.000		
BVL	785	3300	277	2104	660	300	910	250	490	17959	16982	5.139	6654	3285	1.462	39849.	11335.
Beacon Hills W/S	886	502	1594	526	2848	710	2190	526	2391	2264	2260	0.665	9023	-1110	1.164	5159.	9024.
Woodmere W/S	888	342	600	342	200	342	1095	342	175	1368	3492	0.715	2070	-555	0.223	5543.	1728.
Citrus Springs W/S	906	690	312	776	316	1558	4825	962	510	3986	2106	0.896	5963	-3825	0.314	6948.	2438.
Pineridge W	907		89		283		175		120	0	0	0.000	667	1275	0.286	0.	2215.
Crystal River W	984		116		225		392		135	0	0	0.000	868	1275	0.315	0.	2444.
Rolling Green W	985								0	0	0	0.000	0	1275	0.188	0.	1454.
Gospel Island W	986		21		96		240		0	0	0	0.000	357	0	0.053	0.	407.
Point O Woods W/S	987	1051	98	1307	735	2623	571	2698	135	7679	5188	1.892	1539	1275	0.414	14674.	3209.
Rosemont W	988		28		143		263		28	0	0	0.000	462	1275	0.255	0.	1981.
Sugar Mill Woods W/S	989	724		889	600	954	2798	1239	2190	3806	4212	1.179	5588	-2550	0.447	9144.	3465.
Apache Shores W/S	990	327	56	106	28	196	658	182	43	811	972	0.262	785	1275	0.303	2033.	2349.
Golden Terrace W	992				164		387		0	0	0	0.000	551	1275	0.269	0.	2082.
Oak Forrest W	993		28		173		277		28	0	0	0.000	506	1275	0.262	0.	2031.
Spring Garden W/S	994	317	56	69	143	188	258	57	28	631	972	0.236	485	1275	0.259	1828.	2007.
Lakeside W	995		43		239		231		10	0	0	0.000	523	1275	0.264	0.	2051.
Lakeview W	1054		90		120		165		90	0	0	0.000	465	0	0.068	0.	530.
Keystone Heights W	1094		180		250		435		200	0	0	0.000	1065	1275	0.344	0.	2669.
Postmasters Village W	1095		120		150		285		120	0	0	0.000	675	1275	0.287	0.	2224.
Marion Oaks Reg. Lab		2073	320	1853	1713	1566	691	1511				0.000			0.000		
Marion Oaks W/S	1106	660	826	1203	1224	1214	3415	1018	683	11098	2106	1.942	8872	-3825	0.742	15059.	5756.
South Forth S	1113	30		280		340		200		850	1468	0.341	0	0	0.000	2644.	0.
Salt Springs W/S	1115	213	140	706	150	862	270	984	150	2765	1896	0.685	710	1275	0.292	5316.	2264.
Citrus Park W/S	1117		143	250	30	190	340	40		480	792	0.187	513	1275	0.263	1451.	2039.
Samira Villas W	1118		50		100		30		0	0	0	0.000	180	0	0.026	0.	205.
Keystone Club Est W	1279		150		110		245		160	0	0	0.000	665	1275	0.285	0.	2212.
Geneva Lakes Est W	1298		290		150		265		120	0	0	0.000	825	1275	0.309	0.	2395.
Zephyr Shores W/S	1427	250	45		30		600		65	250	972	0.180	740	1875	0.385	1394.	2982.
Palm Terrace W/S	1429	1467	467		810	1135	1209	354	644	2956	2106	0.744	3130	1275	0.648	5773.	5024.
Amelia Regional Lab		2001		2949	1540	2147		332	590			0.000			0.000		
Amelia Island W/S	1518	1751	90	2002	508	1831	645	1751	360	14764	8966	3.490	3733	-1275	0.361	27063.	2803.
Kingswood W	1701		60		100		436		60	0	0	0.000	656	0	0.096	0.	748.

		1st Qu	1st Qu	2nd Qu	2nd Qu	3rd Qu	3rd Qu	4th Qu	4th Qu	WW	97 WW	WW	Water	97Wat	Water	97 WW	97 Water
		WW	Water	WW	Water	WW	Water	WW	Water	Total $	Adjust.	Total %	Total $	Adjust.	Total %	$ Alloc	$ Alloc
Oakwood W	1702		60		100		564		60	0	0	0.000	784	0	0.115	0.	894.
Sugar Mill CC W/S	1801	719	390	523	2137	983	566	702	1218	2927	1700	0.680	4311	1275	0.821	5277.	6371.
Jungle Den W/S	1802	132	50	212	60	479	210	250	60	1073	680	0.258	380	0	0.056	1999.	433.
Deltona Lab		2456	467			1629		505				0.000			0.000		
Deltona W/S	1806	2159	6627	9050	2790	4239	22677	7059	19622	27097	10682	5.556	52183	-16575	5.237	43085.	40609.
Enterpr(Stone Is)W/S	1807	60		30		196		508		794	972	0.260	0	0	0.000	2014.	0.
Valrico Hills W/S	1901	250	85		90	250	300	250	195	750	972	0.253	670	1755	0.357	1964.	2766.
Hershel Heights W/S	1902						300		0	0	0	0.000	300	480	0.115	0.	890.
Seaboard W	1906		610		1620		1205		750	0	0	0.000	4185	765	0.728	0.	5645.
Tropical Isle S	2101							250		250	0	0.037	0	0	0.000	285.	0.
Deep Creek W/S	2201								0	0	0	0.000	0	1080	0.159	0.	1232.
Burnt Store W/S	2202	538	5162	53	5848	431	4829	96	6022	1118	1798	0.429	21861	1875	3.491	3326.	27070.
Palm Valley W	2301		60				150	0		0	0	0.000	210	1875	0.307	0.	2378.
Remington Forest W	2302		100		1995		150		30	0	0	0.000	2275	1755	0.593	0.	4596.
Covered Bridge W/S	2401			264	30	474	388		130	738	0	0.109	548	1275	0.268	842.	2079.
Marco Island Lab		2126		997		1620		1909				0.000			0.000		
Marco Island W/S	2601	1879	4653	1012	4992	1552	6799	782	13087	11877	10914	3.352	29531	6150	5.247	25992.	40693.
Marco Shores W/S	2602		300		300	298	300	0	734	298	1716	0.296	1634	1875	0.516	2297.	4002.
Spring Hill Lab		1942		3238		1113		1866	746			0.000			0.000		
Spring Hill W/S	2701	1005	264	1230	6603	1392	7954	1674	3503	13460	4212	2.599	19070	-8925	1.492	20154.	11570.
Sunny Hills Lab		439		810		462		697	140			0.000			0.000		
Sunny Hills W/S	2801	170		620	90	685	430	250		4133	-2936	0.176	660	1275	0.285	1365.	2207.
Lehigh Regional Lab		6352	25	1796	400	2611	286	2745				0.000			0.000		
Lehigh W/S	2901	3394	1110	3520	2055	2585	1875	1930	2647	24933	11082	5.296	8398	2085	1.542	41074.	11955.
TOTALS		46700	37434	51259	62000	48141	93125	47997	79383	194097	127314	47.3	271942	86625	52.7	366556	408930
97 Budget Total Central Lab =		775,486															

Docket No.: 980744-WS
Exhibit ___ (JC-2)
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APPENDIX III

Unit Rates for the January 22, 1997
Seminole County Analytical Services Bid

B.C.C. -SEMINOLE COUNTY, FL			POSTING TIME/DATE:
BID TABULATION SHEET			FROM:
			UNTIL: /
			Page 1 of 4

RFP-274	RESPONSE -1-	RESPONSE -2-	RESPONSE -3-
FDER CHEMICAL SAMPLE	Flowers Chemical Labs, Inc	Bionomics Lab	Tri Tech Labs
ANALYSIS	481 Newburyport Ave.	4310 E. Anderson Rd.	PO BOX 140966
DEPT/DIV: Public Wks/Utilities	Altamonte Springs, FL 32701	Orlando, FL 32812	Orlando, FL 32814
OPENED: 1/22/97	407-339-5984	407-851-2560	407-275-8463
ITEM DESCRIPTION			
Primary Organics/Inorganics	$ 410.00	$ 900.00	$ 700.00
Unregulated Group I/II/etc	$ 525.00	$ 600.00	$ 575.00
EPA Method 601 and 602	$ 40.00	$ 50.00	$ 62.00
EPA Method 608	$ 40.00	$ 75.00	$ 82.00
THM's	$ 20.00	$ 40.00	$ 30.00
VOC	$ 30.00	$ h 75.00	$ 65.00
Radionuclides	$ h 180.00	$ 50.00	$ 35.00
Sludge analysis	$ 115.00	$ 125.00	$ 135.00
Priority Pollutants	$ 370.00	$ 400.00	$ 500.00
TTO total toxic organics	$ 285.00	$ 300.00	$ 450.00
CFR 258 Appendix I	$ 125.00	$ h 300.00	$ 160.00
CFR 258 Appendix II	$ 285.00	$ L 200.00	$ 900.00
Pesticides/Herbicides	$ 130.00	$ 200.00	$ 157.00
TOTAL GROUP I	$ Low 2,555.00	$ 5 3,315.00	$ 4 3,851.00
EDB	$ 35.00	$ 40.00	$ 36.00
pH	$ 4.00	$ 5.00	$ 2.00
conductivity	$ 4.00	$ 5.00	$ 4.00
Total Alkalinity	$ 5.00	$ 5.00	$ 7.00
bicarbonate	$ 5.00	$ 5.00	$ 3.00
BOD	$ 7.00	$ 10.00	$ 10.00
CBOD	$ 7.00	$ 10.00	$ 11.00
COD	$ 10.00	$ 8.00	$ 11.00
TOC	$ 12.00	$ 8.00	$ 16.00
Fluorides	$ 7.00	$ 10.00	$ 7.00
Nitrites	$ 6.00	$ 15.00	
Nitrates	$ 6.00	$ 15.00	$ 7.00
Ammonia	$ 7.00	$ 15.00	$ 9.00
Ortho Phosphates	$ 7.00	$ 10.00	$ 7.00
Total Phosphates	$ 12.00	$ 15.00	$ 9.00
TSS	$ 5.00	$ 10.00	$ 7.00
TDS	$ 5.00	$ 10.00	$ 7.00
Chlorophyll A	$ 15.00	$ 30.00	$ 25.00
Sulfates	$ 11.00	$ 5.00	$ 7.00
color	$ 4.00	$ 5.00	$ 5.00
Fecal coliform	$ 8.00	$ 15.00	$ 7.00
Total coliform	$ 7.00	$ 15.00	$ 7.00
Fecal Strep	$ 8.00	$ 15.00	$ 8.00
Calcium	$ 5.00	$ 5.00	$ 6.00
TOTAL GROUP II	$ Low 6 202.00	$ 2 286.00	$ 4 218.00

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Tabulated by: Jacqui Perry Recommendation of Award:

B.C.C. -SEMINOLE COUNTY, FL			POSTING TIME/DATE:
BID TABULATION SHEET			FROM:
			UNTIL: /
			Page 2 of 4

RFP-274	RESPONSE -1-	RESPONSE -2-	RESPONSE -3-
FDER CHEMICAL SAMPLE ANALYSIS	Flowers Chemical Labs, Inc	Bionomics Lab	Tri Tech Labs
DEPT/DIV: Public Wks/Utilities	481 Newburyport Ave.	4310 E. Anderson Rd.	PO BOX 140966
OPENED: 1/22/97	Altamonte Springs, FL 32701	Orlando, FL 32812	Orlando, FL 32814
ITEM DESCRIPTION	407-339-5984	407-851-2560	407-275-8463
Magnesium	$ 5.00	$ 5.00	$ 6.00
Potassium	$ 5.00	$ 5.00	$ 6.00
Iron	$ 5.00	$ 5.00	$ 6.00
Sodium	$ 5.00	$ 5.00	$ 6.00
Arsenic	$ 8.00	$ 10.00	$ 6.00
Cadmium	$ 5.00	$ 10.00	$ 6.00
Chromium	$ 5.00	$ 10.00	$ 6.00
Copper	$ 5.00	$ 10.00	$ 6.00
Mercury	$ 8.00	$ 30.00	$ 11.00
Manganese	$ 5.00	$ 5.00	$ 6.00
Nickel	$ 5.00	$ 10.00	$ 6.00
Lead	$ 5.00	$ 10.00	$ 6.00
Selenium	$ 8.00	$ 10.00	$ 6.00
Zinc	$ 5.00	$ 10.00	$ 6.00
Barium	$ 5.00	$ 10.00	$ 6.00
Silver	$ 5.00	$ 10.00	$ 6.00
Chlorides	$ 8.00	$ 10.00	$ 8.00
TKN	$ 12.00	$ 15.00	$ 11.00
Chlorine residual (free)	$ 15.00	$ 10.00	
Total chlorine residual	$ 15.00	$ 10.00	$ 2.00
Molybdenum	$ 5.00	$ 5.00	$ 6.00
Cyanide	$ 18.00	$ 30.00	$ 25.00
Total Phenols	$ 15.00	$ 30.00	$ 25.00
Oils & Grease EPA Method 413	$ 40.00	$ 40.00	$ 21.00
Antimony	$ 5.00	$ 10.00	$ 6.00
Beryllium	$ 5.00	$ 10.00	$ 6.00
Cobalt	$ 5.00	$ 5.00	$ 6.00
Thallium	$ 5.00	$ 10.00	$ 6.00
Vanadium	$ 5.00	$ 10.00	$ 6.00
Tin	$ 5.00	$ 10.00	$ 6.00
Total hardness	$ 5.00	$ 10.00	$ 8.00
Odor	$ 5.00	$ 10.00	$ 5.00
surfactants	$ 10.00	$ 20.00	$ 15.00
aluminum	$ 5.00	$ 10.00	$ 6.00
diobromochlorpropane	$ 30.00	$ 40.00	$ 35.00
Total solids	$ 8.00	$ 10.00	$ 6.00
Non-metallic Priority Pollutants	$ 300.00	$ 200.00	$ 400.00
Phthalate Esters	$ 70.00	$ 200.00	$ 80.00
MTBE	$ 33.00	$ 50.00	$ 50.00
Semivolatiles PAH	$ 75.00	$ 75.00	$ 80.00
TRPH	$ 55.00	$ 40.00	$ 45.00
Acute Toxicity	$ 700.00	$ 400.00	$ 650.00
Chronic Whole effluent toxicity	$ 850.00	$ 500.00	$ 1,200.00
TOTAL GROUP III	$ 3 2,393.00	$ 5 1,925.00	$ 2 2,815.00
	*SEE BID FOR Supplemental Items	*SEE BID FOR ADD/ EXEPTIONS	

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B.C.C. -SEMINOLE COUNTY, FL			POSTING TIME/DATE:
BID TABULATION SHEET			FROM:
			UNTIL: /
			Page 3 of 4

RFP 274	RESPONSE 4	RESPONSE 5	RESPONSE 6
FDER CHEMICAL SAMPLE ANALYSIS	Florida Water Services	Orlando Labs	PBS&J Env. Lab Div.
DEPT/DIV: Public Wks/Utilities	255 Enterprise Rd	820 Humphries Ave	6635 E. Colonial Dr.
OPENED: 1/22/97	Deltona, FL 32725	Orlando, FL 32803	Orlando, FL 32807
ITEM DESCRIPTION	407-860-1198	407-896-6645	407-277-4443
Primary Organics/Inorganics	$ 2 718.25	$ 377.00	$ h 890.00
Unregulated Group I/II/etc	$ 2 793.00	$ h 1,728.00	$ 615.00
EPA Method 601 and 602	$ 5 42.25	$ h 87.00	$ 65.00
EPA Method 608	$ 5 65.00	$ h 87.00	$ 75.00
THM's	$ 5 29.25	$ h 45.00	$ 33.00
VOC	$ 5 42.25	$ h 75.00	$ 60.00
Radionuclides	$ 2 123.50	$ 30.00	$ 120.00
Sludge analysis	$ 2 162.50	$ h 183.00	$ 90.00
Priority Pollutants	$ h 1,300.00	$ 2 637.00	$ 500.00
TTO total toxic organics	$ L 227.50	$ h 455.00	$ 350.00
CFR 258 Appendix I	$ 2 185.25	$ 185.00	$ 100.00
CFR 258 Appendix II	$ h 1,105.00	$ 2 1,098.00	$ 700.00
Pesticides/Herbicides	$ h 422.50	$ L 73.00	$ 250.00
TOTAL GROUP I	$ highest 5,216.25	$ 2 5,060.00	$ 3 3,848.00
EDB 28- to 40-	$ 4 35.75	$ L 28.00	$ 40.00
pH 2- to 5-	$ 1 3.90	$ 5.00	$ 3.00
conductivity 3.90 to 5-	$ 3.90	$ 5.00	$ 4.00
Total Alkalinity 5- to 7-	$ 6.50	$ 5.00	$ 7.00
bicarbonate 3- to 7-	$ 6.50	$ 7.00	$ 7.00
BOD 7- to 13-	$ 13.00	$ 13.00	$ 12.00
C8OD 7- to 20-	$ 13.00	$ 20.00	$ 12.00
COD 8- to 16 32	$ 16.25	$ 14.00	$ 8.00
TOC 7- to 24-	$ 16.25	$ 24.00	$ 7.00
Fluorides 7- to 11-	$ 9.75	$ 11.00	$ 7.00
Nitrites 4- to 15-	$ 9.75	$ 11.00	$ 4.00
Nitrates 6- to 21-	$ 9.75	$ 21.00	$ 7.00
Ammonia 7- to 11-	$ 9.10	$ 11.00	$ 8.00
Ortho Phosphates 6- to 11-	$ 7.80	$ 11.00	$ 6.00
Total Phosphates 7- to 21-	$ 9.10	$ 21.00	$ 7.00
TSS 5- to 10-	$ 5.20	$ 5.00	$ 5.00
TDS 4- to 10-	$ 5.70	$ 5.00	$ 4.00
Chlorophyll A 10- to 30-	$ 16.25	$ 15.00	$ 10.00
Sulfates 5- to 11-	$ 9.75	$ 11.00	$ 6.00
color 4- to 11-	$ 6.50	$ 11.00	$ 4.00
Fecal coliform 7- to 15-	$ 9.10	$ 10.00	$ 12.00
Total coliform 6 80 to 15-	$ 6.50	$ 10.00	$ 10.00
Fecal Strep 8- to 16 25	$ 16.25	$ 14.00	$ 15.00
Calcium 3.50 to 11-	$ 6.50	$ 11.00	$ 3.50
TOTAL GROUP II	$ 3 252.05	$ hi 299.00	$ 5 208.50
202- to 299-			

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Tabulation Form - Recommendation of Award:

BID TABULATION SHEET			FROM:
			UNTIL: /
			Page 4 of 4
RFP:274	RESPONSE 4:	RESPONSE 5:	RESPONSE 6:
FDER CHEMICAL SAMPLE ANALYSIS	Florida Water Services	Orlando Labs	PBS&J Env. Lab Div.
DEPT/DIV: Public Wks/Utilities	255 Enterprise Rd	820 Humphries Ave	6635 E. Colonial Dr.
OPENED: 1/22/97	Deltona, FL 32725	Orlando, FL 32803	Orlando, FL 32807
ITEM DESCRIPTION	407-860-1198	407-896-6645	407-277-4443
Magnesium 3.50 to 11-	$ 2 6.50	$ 11.00	$ 3.50
Potassium 3.50 to 11-	$ 2 6.50	$ 11.00	$ 3.50
Iron 3.50 to 11-	$ 2 6.50	$ 11.00	$ 3.50
Sodium 3.50 to 11-	$ 2 6.50	$ 11.00	$ 3.50
Arsenic 6- to 12.35	$ Hi 12.35	$ 11.00	$ 6.00
Cadmium 5- to 11-	$ 7 9.10	$ 11.00	$ 6.00
Chromium 5- to 11-	$ 9.10	$ 11.00	$ 6.00
Copper 3.50 to 11-	$ 6.50	$ 11.00	$ 3.50
Mercury 8- to 30-	$ 12.35	$ 17.00	$ 12.00
Manganese 3.50 to 11-	$ 6.50	$ 11.00	$ 3.50
Nickel 3.50 to 11-	$ 9.10	$ 11.00	$ 3.50
Lead 6- to 11-	$ 9.10	$ 11.00	$ 6.00
Selenium 6- to 12.35	$ 12.35	$ 11.00	$ 6.00
Zinc 3.50 to 11-	$ 6.50	$ 11.00	$ 3.50
Barium 3.50 to 11-	$ 9.10	$ 11.00	$ 3.50
Silver 5- to 11-	$ 6.50	$ 11.00	$ 6.00
Chlorides 5- to 11-	$ 9.75	$ 11.00	$ 5.00
TKN 11- to 18-	$ 13.00	$ 18.00	$ 15.00
Chlorine residual (free) 5.20 to 20-	$ 5.20	$ 20.00	$ 7.00
Total chlorine residual 2- to 14-	$ 5.20	$ 14.00	$ 7.00
Molybdenum 3.50 to 11-	$ 9.10	$ 11.00	$ 3.50
Cyanide 12- to 30-	$ 29.25	$ 28.00	$ 12.00
Total Phenols 15- to 30-	$ 18.20	$ 28.00	$ 15.00
Oils & Grease EPA Method 413 16.25 to 40	$ 16.25	$ 25.00	$ 20.00
Antimony 5- to 11-	$ 9.10	$ 11.00	$ 6.00
Beryllium 3.50 to 11-	$ 9.10	$ 11.00	$ 3.50
Cobalt 3.50 to 11-	$ 9.10	$ 11.00	$ 3.50
Thallium 6- to 11-	$ 9.10	$ 11.00	$ 6.00
Vanadium 3.50 to 11-	$ 9.10	$ 11.00	$ 3.50
Tin 3.25 to 11-	$ 10.40	$ 11.00	$ 3.50
Total hardness 5.20 to 11-	$ 5.20	$ 11.00	$ 7.00
Odor 4- to 11-	$ 6.50	$ 10.00	$ 4.00
surfactants 15- to 35-	$ 16.25	$ 35.00	$ 15.00
aluminum 3.50 to 11-	$ 6.50	$ 11.00	$ 3.50
diobromochlorpropane 30- to 42.25	$ 42.25	$ 38.00	$ 30.00
Total solids 5- to 10-	$ 5.20	$ 5.00	$ 7.00
Non-metallic Priority Pollutants 200 - 515	$ 305.00	$ 515.00	$ 450.00
Phthalate Esters 55.25 to 200-	$ 55.25	$ 145.00	$ 120.00
MTBE 29.25 to 60-	$ 29.25	$ 60.00	$ 35.00
Semivolatiles PAH 75- to 120-	$ 81.25	$ 102.00	$ 120.00
TRPH 19.50 to 55-	$ 19.50	$ 50.00	$ 25.00
Acute Toxicity 190 to 700	$ 500.00	$ 190.00	$ 400.00
Chronic Whole effluent toxicity 425-	$ 500.00	$ 425.00	$ 1,500.00
TOTAL GROUP III 1500	$ Low 1,868.55	$ 4 2,000.00	$ hi 2,906.50
		*ONE	
	1868.55 to 2906.50	CONCENTRATION	

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Florida Water Services
Costs to Contract Laboratory Analys
May 17, 1999

	1998	1999	2000	2001	2002
Harbor Branch Contracted Lab Expenses	$523,986	$593,019	$634,753	$523,961	$575,744
EnviroLab Estimated Lab Expenses	$650,821	$732,530	$780,223	$650,796	$714,955

Generally, having the same analytical work performed at EnviroLab in Ormond Beach would cost 23% to 24% higher than having the work performed at Harbor Branch under the present contract terms.