BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

ORIGINAL
FILE COPY

IN RE: Application for Certificates to provide Water and Wastewater Service in Clay County by Point Water and Sewer, Inc.	DOCKET NO. 961321-WS Date Submitted for Filing: May 23, 1997

PREHEARING REBUTTAL TESTIMONY OF GARY HOWALT ON BEHALF OF POINT WATER AND SEWER, INC.

Q. Please state your name and address for the record.

A. My name is Gary K. Howalt, and my business address is 8711 Perimeter Park Boulevard, Suite 11, Jacksonville, Florida 32216.

Q. By whom are you employed?

A. I am employed by Environmental Services, Inc., an environmental consulting firm.

Q. What is your position with Environmental Services, Inc.?

A. I am the Vice President of Environmental Services, Inc. I provide environmental consulting services to numerous clients.

Q. Please identify where you received your undergraduate degree and the area of concentration of your studies?

A. I received my Bachelors degree in Biology from the University of South Florida in 1977.

Q. Please outline your employment experience since 1977?

A. A current and correct copy of my resume is attached hereto as Exhibit "GKH-1".

Q. Have you been certified by and association?

A. Yes. I have been a Certified Professional Wetlands Scientist-Society of Wetlands Scientists since 1996. I have been certified as a Wetland Delineator by the Jacksonville District of the United States Corp. of Engineers as part of the Corps. Wetland Delineator Program since 1993.

Q. Are you a member of any professional associations?

A. Yes. I am a member of several associations, including American Water Resource Association, Florida Planning and Zoning Association, Florida Assoc. of Environmental Professionals and the National Assoc. of Environmental Professionals.

Q. Have you given testimony on environmental matters before the courts or government agencies?

A. Yes. I have testified in various administrative proceedings.

Q. Are you familiar with the service area sought by Point Water & Sewer, Inc. (hereinafter referred to as "PWS") in its application ("Requested Area")?

A. Yes. The Point Condominiums are located in Clay County, on the east side of the U.S. Highway 17, south of Doctor's Inlet, which is just south of the Town of Orange Park. The site borders the western shore of the St. John's River and includes a shallow water area in front of a seawall that supports submerged aquatic vegetation composed mainly of eel grass, Vallisneria americana.

Q. Have you inspected the waters in the St. John's River adjoining the Requested Area?

A. Yes. I was project manager for a marina expansion project for Whitney's Marine, which included environmental studies of the benthic community and water quality in support of environmental permitting. The project was conducted in 1996 and 1997 and fully permitted by the environmental agencies. A true and correct copy of our report is attached hereto as Exhibit "GKH-2" and incorporated herein by reference.

Q. Does the PWS existing sewage discharge materially and adversely impact the environment?

A. I am continuing my investigation, but at this time, my answer would be "no." The amount of daily discharge (less than 16,000 gallons) is insignificant with respect to the overall St. John's River environment. For example, various plants discharge millions of gallons of similar effluent into the St. John's River. As a matter of fact, there are numerous large plants which discharge millions of gallons daily within a three mile range, with some within one mile.

Q. Is the aquatic environment in Tampa Bay similar to the aquatic environmental in the St. John's River?

A. No. Because the subject portion of the St. John's River is a freshwater environment and the majority of Tampa Bay is a salt-water environment.

Q. What effect do increases in nutrient levels associated with sewage discharge have on the environment?

A. The effect various based upon the current circumstances. In certain situations, increases in nutrient levels will cause a proliferation of submerged aquatic vegetation or have no effect.

Q. Can eel grass be replanted and replaced?

A. Absolutely.

Q. Is it in the public interest for PWS' outfall line to continue to discharge into the St. John's River?

A. At this time, I believe that the PWS facility does not pose any detriment to the environment or the public interest.

Q. Is it in the public interest for PWS to serve the Requested Area?

A. At this time, I believe that the PWS facility does not pose any detriment to the environment or the public interest.

Q. Does the Fleming Wastewater Plant, which is located 1/2 mile from PWS, discharge into the St. John's River?

A. Yes. Therefore, if PWS tied into the Clay County Authority, it would discharge into the same St. John's River.

Q. Does this complete your testimony in this matter?

A. Yes, but I will answer any other questions.

GARY KEITH HOWALT
VICE PRESIDENT

PROFESSIONAL EXPERIENCE SUMMARY

Mr. Howalt has over 19 years of diverse technical and project management experience in environmental assessment programs. His experience includes the collection and analysis of biological materials, water quality and quantity, and sediment samples from a variety of freshwater, estuarine, and marine environments; wildlife habitat analysis; and wetlands and endangered species ecology. He has performed the ecological assessments needed to identify development potential and constraints to development for a variety of industrial, public utility, commercial, residential and highway projects, including Developments of Regional Impact (DRIs) and Environmental Audits.

ACADEMIC BACKGROUND

B.A. Biology University of South Florida. 1977

RESPONSIBILITIES WITH ENVIRONMENTAL SERVICES, INC.

Mr. Howalt is a Senior Scientist with Environmental Services, Inc., and is responsible for determining the wetland jurisdictional limits for the various regulatory agencies, determining the ecological quality of the wetlands and preparing various environmental permit applications.

He also assists in designing, implementing, and monitoring mitigation plans to create wetlands. In addition, Mr. Howalt negotiates and coordinates activities with the various environmental agency representatives during his permitting efforts. He assists with the design, permitting and construction of golf course projects and is versed on the environmental sensitivity of these projects; he has attended the Golf Course Superintendents Association of American Education Seminars, which is used to certify golf course superintendents. He also is qualified to sample for stack testing air quality programs that include continuous monitor certifications, particle size analyses and control equipment efficiency determinations for electrical power plants and industrial facilities.

Mr. Howalt prepares and reviews text, maps and technical drawings for projects. His responsibilities extend to the management of interdisciplinary projects, assigning and supervising personnel performing environmental services, client liaison, and participation in agency hearings and workshops.

PRIOR EXPERIENCE

1988-PRESENT: ENVIRONMENTAL SERVICES, INC./SOUTHEASTERN ENVIRONMENTAL AUDITS, INC. Mr. Howalt joined the Environmental Services, Inc., and Southeastern Environmental Audits, Inc. staff as an environmental consultant in the summer of 1988.

EXHIBIT "GKH-1"

1980-1988:	CONSERVATION CONSULTANTS, INC. Environmental Consultant.
1978-1980.	WASTE WATER ENGINEERS, INC. Environmental Consultant.
1975-1976:	UNIVERSITY OF SOUTH FLORIDA. Laboratory Research Assistant

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

American Water Resources Association
Florida Association of Environmental Professionals
Florida Planning and Zoning Association, Northeast Chapter
National Association of Environmental Professionals
Northeast Florida Chapter, FAEP

CERTIFICATIONS

Mr. Howalt is a certified wetland delineator by the Jacksonville District of the U.S. Army Corps of Engineers as part of the Corps' Wetland Delineator Certification Program (WDCP) and a Certified Professional Wetland Scientist by the Society of Wetland Scientists.

PROJECT EXPERIENCE

Gopher Tortoise Relocation Project, Highland Lakes, Jacksonville, FL

Gopher Tortoise Relocation Project, Jacksonville Golf and Country Club, Jacksonville, FL

Gopher Tortoise Relocation Project, Adams Walk, Jacksonville, FL

Wetland Assessment and Permitting, White Oak Plantation, Nassau County, FL

Environmental Assessment, 4,500 acre PGA Hall of Fame, Jacksonville, FL

Emissions Testing, Florida Power and Light Company, Port Everglades Plant, Fort Myers Plant, Manatee Plant, Indiantown Plant, FL

Emissions Testing, Brewster Phosphates, Fort Lonesome, FL

Wetland Assessment for substation site, Jacksonville Electric Authority, Jacksonville, FL

Sewer Line Corridor Assessment, Montgomery Correctional Institute, City of Jacksonville, FL

Ortega Lakes DRI, Jacksonville, FL

Environmental Permitting, Mitigation Plan Development and Implementation, Queen's Harbour Yacht and Country Club, Jacksonville, FL

Environmental Permitting, Mitigation Plan Development and Implementation, Port of Fernandina Expansion Project, Fernandina Beach, FL

Environmental Permitting and Mitigation Plan Development, Floridin Company, Gadsden County, FL

Port of Fernandina DRI Substantial Deviation, Fernandina Beach, FL

Wetland Assessment, Permitting and Mitigation Plan Development, Rana Place Development, Jacksonville, FL

Wetland Assessment, Permitting and Mitigation Plan Development, First Coast Family Golf Center, Jacksonville, FL

Wetland Assessment, Permitting and Mitigation Plan Development, Mill CoveGolf Club, Jacksonville, FL

Wetland Assessment, Permitting and Mitigation Plan Development, Mandarin Water System Inter-tie, Jacksonville,FL

Wetland Assessment, Permitting and Mitigation Plan Development, Greyfield Development, Jacksonville, FL

Wetland Assessment, Permitting and Mitigation Plan Development, Sweetwater Oaks Development, Jacksonville, FL

Consumptive Use Permit, Sawgrass Country Club, St. Johns County, FL

Consumptive Use Permit, Queen's Harbour Yacht & Country Club, Jacksonville, FL

Consumptive Use Permit, Ponte Vedra Inn & Country Club, St. Johns County, FL
Wetland Assessment, Permitting and Mitigation Plan Development, Avenues Crossing, Jacksonville, FL

Wetland Assessment, Permitting, Mitigation Plan Development and Implementation, Crossroads Development, Ponte Vedra Beach, FL

Preliminary Environmental Assessment and Wetland Jurisdictional Review, Turtle Shores, St. Johns County, FL

Preliminary Environmental Assessment and Wetland Jurisdictional Review, Wilks Forwarding Company, Jacksonville, FL

Wetland Jurisdictional Review, Duval North County Commerce Park DRI, Jacksonville, FL

Environmental Assessments, Palmer Ranch DRI, Sarasota County, FL

Environmental Assessment, Tara DRI, Manatee County, FL

Environmental Assessment, Terra Ceia Isles DRI, Manatee County, FL

Environmental Assessment, First Coast Technology Park DRI, Duval County, FL

Wetland Assessment and Permitting, Deer Creek, Sarasota County, FL

Wetland Assessment and Permitting, 120-Acre Commercial Site, Sarasota County, FL

Water Quality Study, Evers Reservoir Expansion, Manatee County, FL

Environmental Permitting, 180-Foot Pier, South Seas of Terra Ceia Bay, Manatee County, FL

Gopher Tortoise Relocation Project, Palmer Ranch, Sarasota County, FL

200-Acre Gopher Tortoise Management Area, Palmer Ranch, Sarasota County, FL

Environmental Assessment, DOT Project, U.S. 41, Hillsborough and Pasco Counties, FL

Environmental Assessment, DOT Project, I-4 and Lake Mary Interchange, Seminole County, FL

Environmental Assessment, DOT Project, S.R. 19 Bridge Replacement, Lake County, FL

Ecological Study, Picketville Road Landfill Superfund Site, Jacksonville, FL

Construction Water Quality Monitoring, Trail Ridge Landfill, Jacksonville, FL

Macroinvertebrate Assessment, Jefferson-Smurfit Plant, Jacksonville, FL

Wetland Delineation, Mayo Clinic of Jacksonville, Jacksonville, FL

Wetlands Assessments, U.S. Navy, Kings Bay, GA

Wetlands Assessment and Permitting, U.S. Air Force, Avon Park, FL

Wetland Assessment and Wetland Delineation, Gulf Coast Landfill, Lee County, FL

Wasteload Allocation Study, Graceville Sewage Treatment Plant, Jackson County, FL

Administrative Hearing Expert Witness, Egans Creek Marina, Nassau County, FL

Wetland Assessments, U.S. Silica Company, Mill Creek, OK

Wetland Assessments, U.S. Silica Company, Portage, OH

Wetland Assessments, U.S. Silica Company, Rockwood, MI

Wetland Assessments, U.S. Silica Company, Dundee, OH

Wetland Assessments, U.S. Silica Company, Ottawa, IL

Wetland Assessments, U.S. Silica Company, Pacific, MO

Wetland Assessments, U.S. Silica Company, Dubberly, LA

Phase I Environmental Audit, NCNB-Cypress Hammock, Jacksonville, FL

Phase I Environmental Audit, Mountasia Fantasy Golf, Orange Park, FL

Phase I Environmental Audit, Tarnegie Corp., Ponte Vedra Beach, FL

Contamination Assessment, Gate Regency, Jacksonville, FL

Surface Water Quality Monitoring Program, Queen's Harbour Yacht and Country Club, Jacksonville, FL

Surface Water Quality Monitoring and Mitigation Plan Development, Hodges-Pablo Creek, Jacksonville, FL

Wetland Assessment and Permitting, 220-Acre Mobile Home Park, Sarasota County, FL

Environmental Assessment and Permitting of Numerous Properties, Manatee and Sarasota Counties, FL

Hydrographic and Water Quality Studies, Tara Ltd., Manatee County, FL

Marina Hydrogrpahic and Water Quality Study, Manatee River, Donelson Group, Inc., Manatee County, FL

Marina Hydrographic and Water Quality Study, Sarasota Bay, Manatee Canvest Corporation, Manatee County, FL

Offshore Disposal Assessment, U.S. Army Corps of Engineers, West of Tampa Bay, FL

Water Quality Monitoring, Tampa Harbor Deepening Project, U.S. Army Corps of Engineers, Tampa Bay, FL

Shallow Water Ecosystems Monitoring, Tampa Harbour Deepening Projects, U.S. Army Corps of Engineers, Tampa Bay, FL

WHITNEY'S MARINE
CLAY COUNTY, FLORIDA
SURFACE WATER QUALITY RESULTS
OF 10/16/96 SAMPLING EVENT

FDEP File No. 102873469
ESI Project No. EJ96058

28 October 1996

FOR

Whitney's Marine
Attn: Mrs. Candis Whitney
3027 Highway 17 South
Orange Park, Florida 32073

AND

Florida Department of Environmental Protection
Northeast District Office
Attn: Mr. Steve Sabia
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256-7590

BY

Environmental Services, Inc.
8711 Perimeter Park Boulevard, Suite 11
Jacksonville, Florida 32216

EXHIBIT "GKH-2"

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

III. METHODOLOGY

A. Quality Assurance/Quality Control

Water samples were collected and *in situ* measurements were conducted according to ESI's Comprehensive Quality Assurance Plan (CompQAP) #910112G, approved for renewal by FDEP on 2 May 1996. Specific Quality Control measures to ensure accuracy, precision, completeness, representativeness and replicability are discussed below.

B. Sampling Station Locations

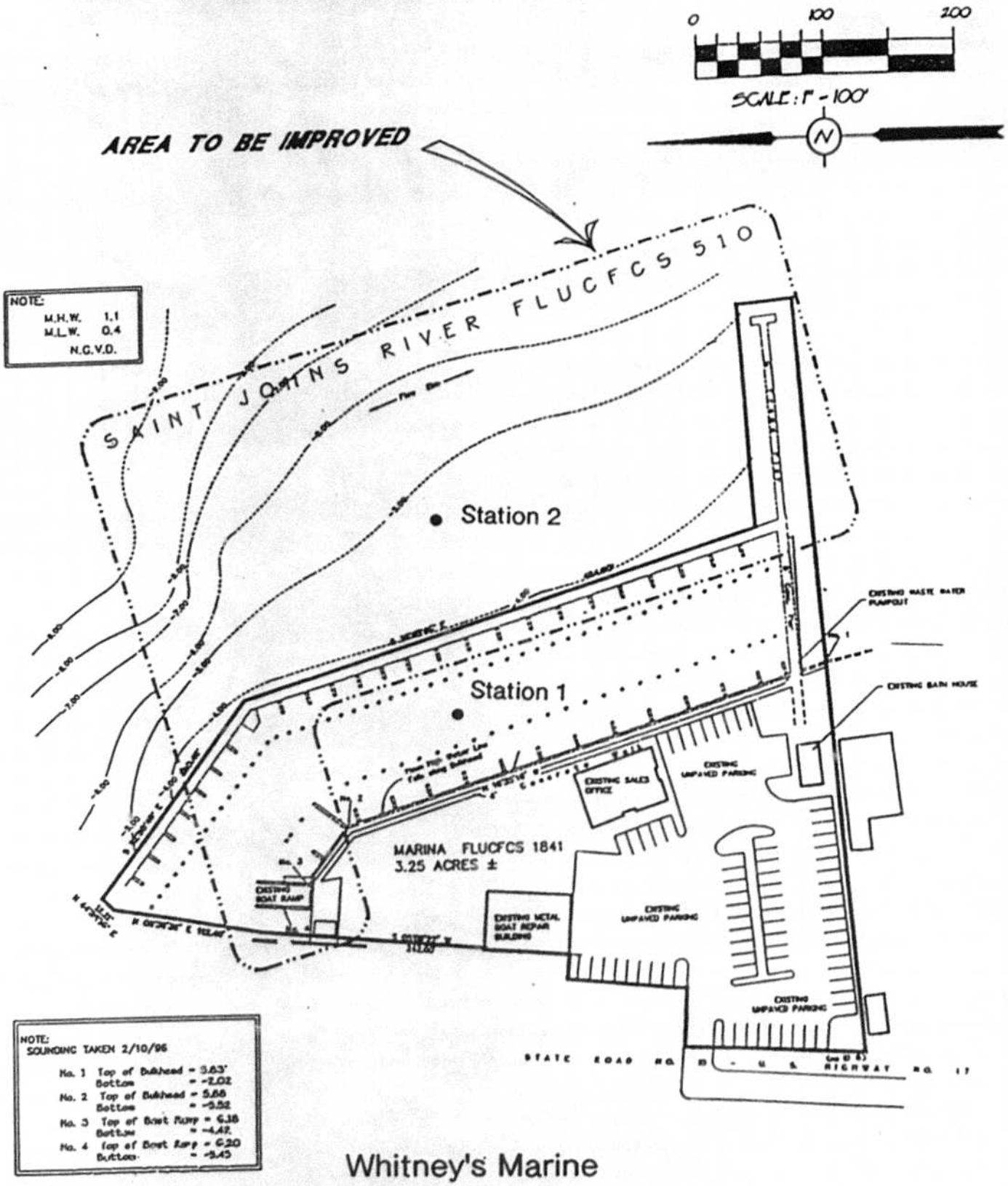
Two (2) stations, illustrated on the site map (Figure 1), were approved by FDEP and sampled by ESI during this investigation. Station 1 was located inside the existing boat slips, and Station 2 was located in the St. Johns River within the proposed marina expansion area.

C. Sampling Event of 16 October 1996

The sampling event was conducted on 16 October 1996 by ESI personnel, Mr. Jeffrey K. Jones. Mrs. Candis Whitney supervised the collection of samples and field measurements. Both stations were sampled from a boat. All field observations and measurements were recorded with indelible ink into a bound field notebook, and are presented in Table 1. No visible turbidity plumes, oily sheens, or other unusual conditions were observed in the water at either of the stations.

D. Field Water Quality Measurements

The following parameters were measured *in situ* at each station using a HydroLab Surveyor II: temperature (°C), pH (standard units), dissolved oxygen (mg/l), specific conductance (µmhos/cm) and salinity (g/l). Turbidity (NTU) was also measured in the field using a Hach Model 16-800 Nephelometric Turbidimeter. Both instruments were calibrated in the ESI laboratory on the morning of 16 October 1996, prior to the sampling event. Calibration notes were recorded in the field notebook (Appendix A). Immediately following the sampling event, the instrument calibrations were checked at Whitney's Marine using calibration standards to verify accuracy. Post-sampling calibration checks for pH, dissolved oxygen, specific conductance and turbidity all measured within an acceptable error margin of one (1.0) percent. Post-sampling measurements were recorded in the field notebook (Appendix A).



Whitney's Marine

ESI Project No. EJ96058

Figure 1

E. Sample Collection, Preservation and Handling

Water samples for laboratory chemical analyses were collected from mid-depth (3.0 feet at each station) using a 2.2 liter Kemmerer sampler. Water chemistry samples were collected in 500 ml High Density Polyethylene (HDPE) containers, which were provided (pre-acidified with HNO_3) by the subcontract laboratory. Three (3) replicate water samples were collected at each station, and an Equipment Rinse sample was prepared using distilled water, resulting in seven (7) total samples for laboratory analysis.

All sample containers were labeled on site with station name, sample identification number, and date and time of collection. Immediately following collection, all sample containers were sealed and placed on ice. Chain-of-custody records for the water samples were initiated at the time of collection and kept with the sealed sample cooler, which was delivered by Mr. Jones to the subcontract laboratory. The maximum holding time was at least 28 days for each of the parameters of interest.

F. Laboratory Analyses

Water samples were analyzed using EPA-approved methods at Environmental Conservation (ENCO) Laboratories in Jacksonville, Florida, a state certified laboratory (CompQAP #960038G, approved for renewal by FDEP on 20 February 1996). Specific analytical techniques and method detection limits for each water quality parameter are listed below (Table 1), along with the Florida Class III Freshwater Surface Water Quality Criteria, as defined in Rule 62-302.530 F.A.C.

Table 1. Laboratory analytical methods, method detection limits (MDLs), and Florida water quality standards for parameters of interest.

Parameter	EPA Method	MDL	Surface Water Quality Criterion[a]	Units
Total Arsenic	EPA 200.7	7	≤ 50	µg/l (or ppb)
Total Chromium	EPA 200.7	3	≤ 207[b]	µg/l (or ppb)
Copper	EPA 220.2	1	≤ 11.8[b]	µg/l (or ppb)
Total Hardness	EPA 130.1	N/A[c]	N/A	mg/l (or ppm)

[a] Pursuant to Rule 62-302.530 F.A.C. (Class III Freshwater Surface Waters)
[b] Criteria for chromium and copper are based on water hardness of 100 mg/l.
[c] N/A = Not Applicable

IV. RESULTS

A. Field Water Quality Parameters

Field observations and results of the *in situ* water quality measurements for Stations 1 and 2 are provided below (Table 2).

Table 2. Field observations, ***in situ*** measurements and sample collection data from vicinity Whitney's Marine during the sampling event of 16 October 1996.

Parameter	Station 1	Station 2
Antecedent Weather Conditions:		
Wind Velocity & Direction	10 MPH Southeast	10 MPH Southeast
Air Temperature	24°C	24°C
Cloud Cover	< 20 percent	< 20 percent
Precipitation	None	None
Water Conditions:		
Tidal Stage	Flood, 2 hours after low	Flood, 2½ hours after low
Flow Direction	None	Slow, to North
Water Surface	1-3 inch ripples	6-10 inch ripples
Total Water Depth	7.0 feet	7.0 feet
In situ Measurements:		
Time	12:20	12:45
Sampling Depth	3.0 feet	3.0 feet
Water Temperature	22.9°C	22.8°C
pH	6.91	6.91
Dissolved Oxygen	6.9 mg/l	6.8 mg/l
Specific Conductance	880 µmhos/cm	800 µmhos/cm
Salinity	0.0 g/l	0.0 g/l
Turbidity	3.2 NTU	3.6 NTU
Laboratory Sample Collection:		
Time (Replicates A, B and C)	12:30, 12:33, 12:35	12:50, 12:53, 12:55
Sampling Depth	3.0 feet	3.0 feet

B. Laboratory Analyses

Water chemistry results from the sampling event of 16 October 1996 are summarized below (Table 3). The complete laboratory report from ENCO Laboratories is attached (Appendix B). Comparison of these results to Class III Freshwater Surface Water criteria indicated that all parameters were within compliance of state standards.

Table 3. Laboratory analytical results of water samples collected at Whitney's Marine during the sampling event of 16 October 1996.

Parameter	Surface Water Criterion[a]	Units	Station 1			Station 2			Equipment Rinse
			Rep 1	Rep 2	Rep 3	Rep 1	Rep 2	Rep 3	
Total Arsenic	≤ 50	µg/l	ND[b]	ND	ND	ND	ND	ND	---[c]
Total Chromium	≤ 207[d]	µg/l	ND	ND	ND	ND	ND	ND	---
Copper	≤ 11.8[d]	µg/l	2	4	ND	ND	ND	1	ND
Total Hardness	N/A[e]	mg/l	---	200	---	---	100	---	---

[a] Pursuant to Rule 62-302.530 F.A.C. (Class III Freshwater Surface Waters)
[b] ND = Not Detected at MDL listed above (Table 1)
[c] --- = Not Analyzed
[d] Criteria for chromium and copper are based on water hardness of 100 mg/l.
[e] N/A = Not Applicable

V. CONCLUSIONS

The results of this sampling event, conducted on 16 October 1996, revealed that all physical and chemical water quality parameters analyzed were within compliance of Florida's Water Quality Criteria for Class III Freshwater Surface Waters, as defined in Rules 62-302.500, 62-302.510 and 62-302.530 F.A.C. No water quality concerns were identified during this investigation.

VI. SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Gary K. Howalt
Senior Project Manager

Jeffrey K. Jones
Senior Scientist

VII. REFERENCES

American Public Health Association (APHA), AWWA and WPCF, 1989, Standard Methods for the Examination of Water and Wastewater, (17th Edition, Part 10500), APHA, New York.

Florida Administrative Code (F.A.C.), 1996, Chapter 62-302, Surface Water Quality Standards, Section 530 "Table: Surface Water Quality Criteria."

Florida Department of Environmental Protection, 1992, Standard Operating Procedures for Laboratory Operations and Sample Collection Activities (DEP - QA-001/92), Florida DEP, Quality Assurance Section, Tallahassee, Florida.