



# Public Service Commission

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

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**DATE:** February 23, 1998  
**TO:** Division of Records and Reporting  
**FROM:** Division of Legal Services (Gervasi) *RG*  
**RE:** Docket No. 971186-SU - Application for approval of reuse project plan and increase in wastewater rates in Seminole County by Sanlando Utilities Corporation.

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

RG/dr

cc: Division of Water and Wastewater (Willis, Bethea, Casey, Crouch, Rendell, Xanders)

- ACK \_\_\_\_\_
- AFA \_\_\_\_\_
- APP \_\_\_\_\_
- CAF \_\_\_\_\_
- CMU \_\_\_\_\_
- CTR \_\_\_\_\_
- EAG \_\_\_\_\_
- LEG \_\_\_\_\_
- LIN \_\_\_\_\_
- OPC \_\_\_\_\_
- ROH \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
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DOCUMENT NUMBER-DATE  
**02517 FEB 23 88**  
 FPSC-RECORDS/REPORTING

State of Florida



## Public Service Commission

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

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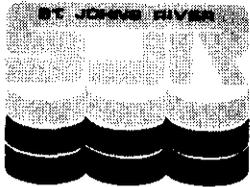
**DATE:** February 23, 1998  
**TO:** All Parties of Record  
**FROM:** Rosanne Gervasi, Esquire, Division of Legal Services *RG*  
**RE:** Docket No. 971186-SU - Application for approval of reuse project plan and increase in wastewater rates in Seminole County by Sanlando Utilities Corporation.

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Please find enclosed a copy of materials which were received by Commission Staff regarding the above-referenced docket.

RG/dr

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



**WATER  
MANAGEMENT  
DISTRICT**

February 11, 1998

Ms. Rosanne Gervasi, Senior Attorney  
Public Service Commission  
Capital Service Office Center  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

Subject: Sanlando Utilities Corporation, Consumptive Use Permit No. 2-117-0006AUR2, Seminole County

Dear Ms. Gervasi,

In response to your letter dated January 23, 1998, I am providing the following information regarding Sanlando Utilities Corporation's consumptive (water) use permit ("CUP"). I have responded to the questions contained in your letter by each item. Please do not hesitate to contact me at (904) 329-4491 should you have further questions regarding this project or this matter.

RESPONSES

- Question 1: Sabal Point has submitted the required annual progress report for 1997 (see attached).
- Question 2: As of this date, the Sabal Point Country Club has not submitted the required cost estimates.
- Question 3: As of this date, the Wekiva Golf Course has not submitted the required annual reports.
- Question 4: A copy of the CUP for West Lake Brantley is attached.
- Question 5: A copy of Sanlando's Water Conservation Plan is attached.
- Question 6: The allocated water use for the 3 golf courses and West Lake Brantley is as follows:
  - A. Wekiva Golf Course - 0.263 million gallons per day, 96 million gallons per year.
  - B. Sweetwater Country Club - 0.247 million gallons per day, 90 million gallons per year.

Henry Dean, Executive Director  
John R. Wehle, Assistant Executive Director

**POST OFFICE BOX 1429**

TELEPHONE 904-329-4500  
TDD 904-329-4450

FAX (Executive) 329-4125

(Legal) 329-4485

**PALATKA, FLORIDA 32178-1429**

SUNCOM 904-880-4500  
TDD SUNCOM 880-4450

(Permitting) 329-4315 (Administration/Finance) 329-4508

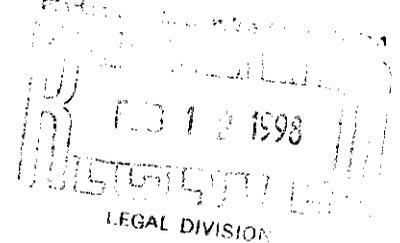
**SERVICE CENTERS**

618 E. South Street  
Orlando, Florida 32801  
407-897-4300  
TDD 407-897-5960

7775 Baymeadows Way  
Suite 102  
Jacksonville, Florida 32256  
904-730-8270  
TDD 904-448-7900

PERMITTING:  
305 East Drive  
Melbourne, Florida 32904  
407-884-4940  
TDD 407-722-5368

OPERATIONS:  
2133 N. Wickham Road  
Melbourne, Florida 32935-8109  
407-752-3100  
TDD 407-752-3102



William M. Segal, CHAIRMAN  
MAITLAND

Dan Roach, VICE CHAIRMAN  
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COCOA

Otis Mason, SECRETARY  
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JACKSONVILLE

Griffin A. Greene  
VERO BEACH

James H. Williams  
OCALA

Patricia T. Harden  
SANFORD

Reid Hughes  
DAYTONA BEACH

C. Sabal Point Country Club - 0.211 million gallons per day, 77.12 million gallons per year.

D. West Lake Brantley - 0.168 million gallons per day, 61.4 million gallons per year.

The above allocations are based on the supplemental needs of the golf courses and the nursery during a 2 in 10 year drought event. The actual usage is generally below this amount and varies based on many factors, primarily the weather. If you wish, I can provide historical usage for this projects.

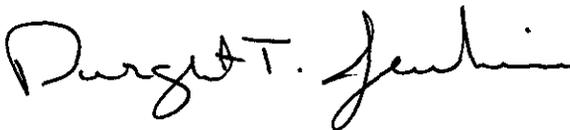
Question 7: Allocated use for Sanlando is 3,422.61 million gallons in 1997, projected to increase to 3,544.53 million gallons by 2004.

Question 8: The District's CUP rules do not contain a specific definition of the term "economic feasibility". However, the State Reuse Coordinating Committee has approved for use by the water management districts a document titled "Guidelines for Preparation of Reuse Feasibility Studies for Consumptive Use Permit Applicants", dated November 1996, which was developed by a subcommittee of the Reuse Coordinating Committee that was comprised of water management district and Public Service Commission representatives. A copy of this document is enclosed herewith. Also, enclosed is an excerpt from the District's amicus curiae brief filed on January 20, 1998, which explains the District's position on this issue.

Question 9: Under the District's CUP rules, permittees have the obligation to provide information, usually in the form of an economic feasibility study, demonstrating that it would not be able, financially, to continue in operation if it were required to use reclaimed water. Further, when the supplier of reclaimed water is a Public Service Commission regulated utility, the District relies on the Commission's determination of economic feasibility in setting rates, i.e. the District assumes that the Commission will set a fair rate for the reclaimed water or a combination of water, wastewater, and/or reclaimed water rates that result in a fair distribution of the costs for the reclaimed water system.

Question 10: The recommendation regarding cost-sharing funding requests has not yet been brought before the District's Governing Board. We anticipate presenting the recommendation to the Board at the March Governing Board meeting on 3/10-11/1998.

Sincerely,



Dwight T. Jenkins, Esq., P.G.  
Director, Division of Water Use Regulation  
Department of Resource Management



2662 Sabal Club Way • Longwood, Florida 32779 • (407) 869-8787

March 17, 1997

Ms. Shannon L. Joyce, P.G.  
St. Johns River Water Management District  
618 E. South Street  
Orlando, Fl 32801

RECEIVED  
MAR 18 1997  
2-117-0227UVRM  
PDS  
ORLANDO  
SJR WMD

RE: Consumptive Use Permit 2-117-0227UVRM  
Reuse Progress Report

Dear Shannon:

Per Our telephone conversation today, I am forwarding copies of the letter I sent to and received from Sanlando Utilities Corporation in reference to the reuse project.

If you have any questions, please give me a call at (407)-862-2136.

Sincerely,

Joe Yorty  
Golf Course Superintendent



# Sanlando Utilities CORPORATION

March 10, 1997

Mr. Joe Yorty  
Golf Course Superintendent  
Sabal Point Country club  
2662 Sabal club Way  
Longwood, FL 32779

RECEIVED

MAR 19 1997

2-117-0227AUVRM

PDS  
ORLANDO  
SJR WMD

Re: SJRWMD Reuse Project Progress Report  
Your March 3, 1997 Letter

Dear Mr. Yorty

1. Considering our present situation it appears that a reasonable estimate for the completion date of the reuse system is now 2002.
2. If you have any questions please do not hesitate to give me a call.

Sincerely,

SANLANDO UTILITIES CORPORATION

*Hampton P. Conley*

Hampton P. Conley  
Executive Vice President

cc: File S1.12  
Reuse File

SABAL POINT  
COUNTRY CLUB

2662 Sabal Club Way • Longwood, Florida 32779 • (407) 869-8787

March 3, 1997

Mr. Hampton P. Conley  
Executive Vice President  
Sanlando Utilities Corporation  
P.O. Box 3884  
Longwood, FL 32791

RE: SJRWMD Reuse Project Progress Report

Dear Mr. Conley:

I am required to forward to SJRWMD an annual progress report on the reuse water project. I am going to assume that the completion date would be the most important issue for all concerned. The last information I have refers to completion of this project in 1999 or 2000. Could you please forward to me any information that is more current pertaining to this project.

Your attention to this matter is greatly appreciated.

Sincerely,

Sabal Point Country Club

*Joe Yorty*

Joe Yorty  
Golf Course Superintendent

RECEIVED  
MAR 19 1997  
2-117-022 ?ACVR  
PDS  
ORLANDO  
SJR WMD.



**WATER  
MANAGEMENT  
DISTRICT**

Henry Dean, Executive Director  
John R. Wehle, Assistant Executive Director

**POST OFFICE BOX 1429 PALATKA, FLORIDA 32178-1429**  
**TELEPHONE 904/329-4500 SUNCOM 904/860-4500**  
**FAX (EXECUTIVE/LEGAL) 329-4125 (PERMITTING) 329-4315 (ADMINISTRATION/FINANCE) 329-4508**

**FIELD STATIONS**  
618 E. South Street 7775 Baymeadows Way PERMITTING: OPERATIONS:  
Orlando, Florida 32801 Suite 102 305 East Drive 2133 N. Wickham Road  
407/894-5423 Jacksonville, Florida 32256 Melbourne, Florida 32904 Melbourne, Florida 32935-8109  
904/730-6270 407/984-4940 407/254-1762

FEBRUARY 9, 1993

PAUL KLINGER  
1980 WEST LAKE BRANTLEY ROAD  
LONGWOOD, FL 32779

SUBJECT: CONSUMPTIVE USE PERMIT NO. 2-117-0132NSMR

ENCLOSED IS YOUR PERMIT AND THE FORMS NECESSARY FOR SUBMITTING INFORMATION TO COMPLY WITH CONDITIONS OF THE PERMIT AS AUTHORIZED BY THE GOVERNING BOARD OF THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT ON FEBRUARY 9, 1993. ALSO ATTACHED IS FORM EN-1 WHICH IS USED TO INDICATE THE PERSON WHO WILL BE RESPONSIBLE FOR REPORTING YOUR COMPLIANCE INFORMATION. DESIGNATING ONE PERSON TO BE RESPONSIBLE FOR REPORTING THIS INFORMATION WILL SIMPLIFY THE COMPLIANCE PROCESS BY ALLOWING US TO CONTACT THE PERSON MOST FAMILIAR WITH THIS INFORMATION AND ENABLE USE TO KEEP OUR FILES UP-TO-DATE FOR ANY FUTURE REFERENCE. PLEASE RETURN FORM EN-1 COMPLETED WITH YOUR FIRST REPORT TO THE DISTRICT. ALL COMPLIANCE INFORMATION MUST BE SUBMITTED TO THE DISTRICT'S PALATKA OFFICE, P.O. BOX 1429, PALATKA, FLORIDA, 32178-1429.

PERMIT ISSUANCE DOES NOT RELIEVE YOU FROM THE RESPONSIBILITY OF OBTAINING PERMITS FROM ANY FEDERAL, STATE, AND/OR LOCAL AGENCIES ASSEPTING CONCURRENT JURISDICTION FOR THIS WORK. THE ENCLOSED PERMIT WILL EXPIRE ON FEBRUARY 9, 2000.

IN THE EVENT YOU SELL YOUR PROPERTY, THE PERMIT WILL BE TRANSFERRED TO THE NEW OWNER IF WE ARE NOTIFIED BY YOU WITHIN THIRTY DAYS OF THE RECORDING OF THE SALE. PLEASE ASSIST US IN THIS MATTER SO AS TO MAINTAIN A VALID PERMIT FOR THE NEW PROPERTY OWNER.

THE PERMIT ENCLOSED IS A LEGAL DOCUMENT AND SHOULD BE KEPT WITH YOUR OTHER IMPORTANT DOCUMENTS. PLEASE READ THE PERMIT CAREFULLY SINCE YOU ARE RESPONSIBLE FOR COMPLIANCE WITH ANY PROVISOS WHICH ARE A PART OF THIS PERMIT. PROVISO COMPLIANCE IS A LEGAL REQUIREMENT AND YOUR ASSISTANCE IN THIS MATTER WILL BE GREATLY APPRECIATED.

Joe E. Hill, CHAIRMAN LEESBURG      Joseph D. Collins, VICE CHAIRMAN JACKSONVILLE      Jesse J. Parrish, III, TREASURER TITUSVILLE      Lenore N. McCullagh, SECRETARY ORANGE PARK  
Merritt C. Fore OCALA      Ralph E. Simmons FERNANDINA BEACH      Sandra H. Gray DE BARY      Patricia T. Harden SANFORD      James H. Williams OCALA

PAUL KLINGER  
PAGE TWO  
FEBRUARY 9, 1993

ACCORDING TO CHAPTER 40C-2.401 AND SECTION 6.4 OF THE CONSUMPTIVE WATER USE HANDBOOK, A PERMANENT TAG IS ISSUED BY THE DISTRICT FOR WELL IDENTIFICATION. THIS TAG MUST BE PROMINENTLY DISPLAYED AT THE SITE OF WITHDRAWAL BY PERMANENTLY AFFIXING THE TAG TO THE PUMP, HEADGATE, VALVE, OR OTHER WITHDRAWAL FACILITY. FAILURE TO DISPLAY A WELL TAG SHALL CONSTITUTE VIOLATION OF A PERMIT CONDITION AND MAY, IF WILLFUL, BE GROUNDS FOR REVOCATION OF THE PERMIT. PLEASE REFER TO YOUR COPY OF 40C-2 IF YOU NEED FURTHER CLARIFICATION.

YOU WILL FIND ENCLOSED A COPY OF THE MAP SUBMITTED WITH YOUR APPLICATION, WITH EACH WELL'S LOCATION AND NUMBER IDENTIFIED. WHEN PLACING THE TAG ON THE WELL, REFER TO THIS MAP TO ENSURE PROPER WELL IDENTIFICATION.

IF YOU HAVE ANY QUESTIONS CONCERNING YOUR PERMIT COMPLIANCE INFORMATION, THE ATTACHED FORMS OR WELL TAGS, CONTACT ME AT 904-329-4274.

THANK YOU FOR YOUR INTEREST IN OUR WATER RESOURCES.

SINCERELY,



ROSIE PARKER, DATA CONTROL TECHNICIAN  
DIVISION OF PERMIT DATA SERVICES

GR:LD

ENCLOSURES: PERMIT WITH COMPLIANCE FORMS  
MAP  
WELL TAG(S)

CC: DISTRICT PERMIT FILE  
NAOMI WHITNEY

**ST. JOHNS RIVER WATER MANAGEMENT DISTRICT**

Post Office Box 1429  
Palatka, Florida 32078-1429

PERMIT NO. 2-117-0182NSMR DATE ISSUED FEBRUARY 9, 1993  
**CONSUMPTIVE USE**

A PERMIT AUTHORIZING:  
**USE OF GROUND WATER FROM THE FLORIDAN AQUIFER TO IRRIGATE 28.25  
ACRES OF WOODY ORNAMENTALS.**

LOCATION:

**SECTION 05, TOWNSHIP 21 SOUTH, RANGE 29 EAST  
SEMINOLE COUNTY  
GARDEN ARTS NURSERY**

ISSUED TO:  
*(owner)*

**PAUL KLINGER  
1980 WEST LAKE BRANTLEY ROAD  
LONGWOOD, FL 32779**

Permittee agrees to hold and save the St. Johns River Water Management District and its successors harmless from any and all damages, claims, of liabilities which may arise from permit issuance. Said application, including all plans and specifications attached thereto, is by reference made a part hereof.

This permit does not convey to permittee any property rights nor any rights or privileges other than those specified herein, nor relieve the permittee from complying with any law, regulation or requirement affecting the rights of other bodies or agencies. All structures and works installed by permittee hereunder shall remain the property of the permittee.

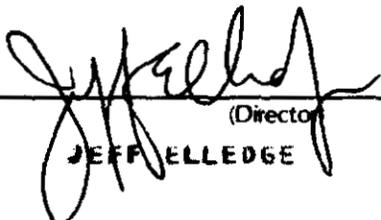
This Permit may be revoked, modified or transferred at any time pursuant to the appropriate provisions of Chapter 373 or 403, Florida Statutes and 40C-1, Florida Administrative Codes:

PERMIT IS CONDITIONED UPON:

**SEE CONDITIONS ON ATTACHED "EXHIBIT A", DATED FEBRUARY 9, 1993**

AUTHORIZED BY: St. Johns River Water Management District

Department of Resource Management      Governing Board

By:  (Director)      By:  (Assistant Secretary)  
**JEFF ELLEDGE**      **HENRY DEAN**

**"EXHIBIT A"**

**CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 2-117-0182NSMR**

**PAUL KLINGER**

**DATED FEBRUARY 9, 1993**

- 1. DISTRICT AUTHORIZED STAFF, UPON PROPER IDENTIFICATION, WILL HAVE PERMISSION TO ENTER, INSPECT AND OBSERVE PERMITTED AND RELATED FACILITIES IN ORDER TO DETERMINE COMPLIANCE WITH THE APPROVED PLANS, SPECIFICATIONS AND CONDITIONS OF THIS PERMIT.**
- 2. NOTHING IN THIS PERMIT SHOULD BE CONSTRUED TO LIMIT THE AUTHORITY OF THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT TO DECLARE A WATER SHORTAGE AND ISSUE ORDERS PURSUANT TO SECTION 373.175, FLORIDA STATUTES, OR TO FORMULATE A PLAN FOR IMPLEMENTATION DURING PERIODS OF WATER SHORTAGE, PURSUANT TO SECTION 373.246, FLORIDA STATUTES. IN THE EVENT A WATER SHORTAGE IS DECLARED BY THE DISTRICT GOVERNING BOARD, THE PERMITTEE MUST ADHERE TO THE WATER SHORTAGE RESTRICTION AS SPECIFIED BY THE DISTRICT, EVEN THOUGH THE SPECIFIED WATER SHORTAGE RESTRICTIONS MAY BE INCONSISTENT WITH THE TERMS AND CONDITIONS OF THIS PERMIT.**
- 3. PRIOR TO THE CONSTRUCTION, MODIFICATION, OR ABANDONMENT OF A WELL, THE PERMITTEE MUST OBTAIN A WATER WELL CONSTRUCTION PERMIT FROM THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT OR THE APPROPRIATE LOCAL GOVERNMENT PURSUANT TO CHAPTER 40C-3, FLORIDA ADMINISTRATIVE CODE. CONSTRUCTION, MODIFICATION, OR ABANDONMENT OF A WELL WILL REQUIRE MODIFICATION OF THE CONSUMPTIVE USE PERMIT WHEN SUCH CONSTRUCTION, MODIFICATION OR ABANDONMENT IS OTHER THAN THAT SPECIFIED AND DESCRIBED ON THE CONSUMPTIVE USE PERMIT APPLICATION FORM.**
- 4. LEAKING OR INOPERATIVE WELL CASINGS, VALVES, OR CONTROLS MUST BE REPAIRED OR REPLACED AS REQUIRED TO ELIMINATE THE LEAK OR MAKE THE SYSTEM FULLY OPERATIONAL.**
- 5. LEGAL USES OF WATER EXISTING AT THE TIME OF PERMIT APPLICATION MAY NOT BE SIGNIFICANTLY ADVERSELY IMPACTED BY THE CONSUMPTIVE USE. IF UNANTICIPATED SIGNIFICANT ADVERSE IMPACTS OCCUR, THE DISTRICT SHALL REVOKE THE PERMIT IN WHOLE OR IN PART TO CURTAIL OR ABATE THE ADVERSE IMPACTS, UNLESS THE IMPACTS CAN BE MITIGATED BY THE PERMITTEE.**
- 6. OFF-SITE LAND USES EXISTING AT THE TIME OF PERMIT APPLICATION MAY NOT BE SIGNIFICANTLY ADVERSELY IMPACTED AS A RESULT OF THE CONSUMPTIVE USE. IF UNANTICIPATED SIGNIFICANT ADVERSE IMPACTS OCCUR, THE DISTRICT SHALL REVOKE THE PERMIT IN WHOLE OR IN PART TO CURTAIL OR ABATE THE ADVERSE IMPACTS, UNLESS THE IMPACTS CAN BE MITIGATED BY THE PERMITTEE.**

7. THE DISTRICT MUST BE NOTIFIED, IN WRITING, WITHIN 30 DAYS OF ANY SALE, CONVEYANCE, OR OTHER TRANSFER OF A WELL OR FACILITY FROM WHICH THE PERMITTED CONSUMPTIVE USE IS MADE OR WITHIN 30 DAYS OF ANY TRANSFER OF OWNERSHIP OR CONTROL OF THE REAL PROPERTY AT WHICH THE PERMITTED CONSUMPTIVE USE IS LOCATED. ALL TRANSFERS OF OWNERSHIP OR TRANSFERS OF PERMITS ARE SUBJECT TO THE PROVISIONS OF SECTION 40C-1.612.
8. A DISTRICT-ISSUED IDENTIFICATION TAG SHALL BE PROMINENTLY DISPLAYED AT EACH WITHDRAWAL SITE BY PERMANENTLY AFFIXING SUCH TAG TO THE PUMP, HEADGATE, VALVE OR OTHER WITHDRAWAL FACILITY AS PROVIDED BY SECTION 40C-2.401, FLORIDA ADMINISTRATIVE CODE. PERMITTEE SHALL NOTIFY THE DISTRICT IN THE EVENT THAT A REPLACEMENT TAG IS NEEDED.
9. TREATED EFFLUENT MUST BE USED AS IRRIGATION WATER WHEN IT BECOMES AVAILABLE, ECONOMICALLY FEASIBLE, AND PERMISSIBLE UNDER APPLICABLE STATE AND FEDERAL STATUTES OR REGULATIONS PROMULGATED THEREUNDER.
10. WHENEVER FEASIBLE, THE PERMITTEE MUST USE NATIVE VEGETATION THAT REQUIRES LITTLE SUPPLEMENTAL IRRIGATION FOR LANDSCAPING WITHIN THE SERVICE AREA OF THE PROJECT.
11. THIS PERMIT WILL EXPIRE 7 YEARS FROM THE DATE OF ISSUANCE.
12. MAXIMUM ANNUAL GROUNDWATER WITHDRAWALS FOR IRRIGATION USE MUST NOT EXCEED 61.4 MGAL/YR (188 AC-FT).
13. MAXIMUM ANNUAL GROUNDWATER FOR FROST AND FREEZE PROTECTION MUST NOT EXCEED 1.087 MGAL/YR (3.336 AC-FT).
14. WELL NUMBERS 1, 2 AND 3 AS LISTED ON THE APPLICATION MUST BE EQUIPPED WITH TOTALIZING FLOW METERS WITHIN 6 MONTHS OF PERMIT ISSUANCE. THESE METERS MUST MAINTAIN 95% ACCURACY, BE VERIFIABLE AND BE INSTALLED ACCORDING TO MANUFACTURER SPECIFICATIONS.
15. TOTAL WITHDRAWALS FROM WELL NUMBERS 1, 2 AND 3 AS LISTED ON THE APPLICATION MUST BE RECORDED CONTINUOUSLY, TOTALLED MONTHLY, AND REPORTED TO THE DISTRICT AT LEAST EVERY SIX MONTHS FROM THE INITIATION OF THE MONITORING USING FORM NO. EN-50.
16. THE PERMITTEE MUST MAINTAIN ALL METERS OR OTHER DISTRICT APPROVED FLOW MEASURING DEVICES. IN CASE OF FAILURE OR BREAKDOWN OF ANY METER OR OTHER DEVICE, THE DISTRICT MUST BE NOTIFIED IN WRITING WITHIN 5 DAYS OF ITS DISCOVERY. A DEFECTIVE METER OR OTHER DEVICE MUST BE REPAIRED OR REPLACED WITHIN 30 DAYS OF ITS DISCOVERY.

2-117-0182NSMR

17. THE PERMITTEE MUST HAVE ALL FLOW METERS CHECKED FOR ACCURACY AT LEAST ONCE EVERY 5 YEARS WITHIN 30 DAYS OF THE ANNIVERSARY DATE OF PERMIT ISSUANCE, AND RECALIBRATED IF THE DIFFERENCE BETWEEN THE ACTUAL FLOW AND THE METER READING IS GREATER THAN 5%. DISTRICT FORM NO. EN-51 MUST BE SUBMITTED TO THE DISTRICT WITHIN 10 DAYS OF THE INSPECTION/CALIBRATION.
18. PERMITTEE MUST IMPLEMENT THE CONSERVATION PLAN SUBMITTED ON OCTOBER 8, 1992 AND APPROVED BY THE DISTRICT IN ACCORDANCE WITH THE SCHEDULE CONTAIN THEREIN. A REPORT DETAILING THE PROGRESS OF PLAN IMPLEMENTATION MUST BE SUBMITTED TO THE DISTRICT ON OR BEFORE MARCH OF 1996.
19. SOURCE CLASSIFICATION IS THE FLORIDAN AQUIFER.
20. USE CLASSIFICATION IS 100% NURSERY IRRIGATION.

Saulando Utilities Corp.

**ATTACHMENT I**  
**Water Conservation Plan**

**SANLANDO UTILITIES**  
**WATER CONSERVATION PLAN**

## 1.0 Introduction

Sanlando Utilities currently has three (3) potable water service areas, Wekiva Hunt Club, Des Pinar and Woodlands. This Water Conservation Plan covers all three systems. The map in Attachment C shows the combined service area.

Sanlando Utilities has adopted as part of its Comprehensive Plan an objective to promote Water Conservation. In order to provide consistency and continuity in the Water Conservation Program and to minimize any duplication of effort, Sanlando Utilities has prepared and intends to implement this Water Conservation Plan. The plan shall be submitted to the St. Johns River Water Management District in support of the Consumptive Use Permit (CUP) Application.

Implementation and development of this program will be an on-going process and this plan is only intended to set initial goals and schedules for the program. This plan will be further expanded and defined by the Utility as the program is further developed.

## 2.0 Water Conservation Plan Implementation

### 2.1 Goals

Provide high quality water to Sanlando customers reliably, at a reasonable cost, and at sufficient pressures and quantities to allow unimpeded water use and accommodate economic development while providing economic signals and water conservation technologies designed to minimize water waste.

### 2.2 Objectives

The following objectives support the water conservation goals:

- A. Provide high quality water meeting all drinking water standards;
- B. Minimize the Max Day/Average Day factor to allow efficient capacity utilization;
- C. Promote efficient water use as a life-style in order to extend aquifer supplies and avoid the need for regulatory intervention;
- D. Maintain competitive water rates and total water bills.

## 2.3 Policies

The following policies and programs shall be conducted to support the Water Conservation Goals and Objectives:

### A. Conservation Rate Structure

On January 22, 1992, Sanlando Utilities and the Department of Environmental Regulation (Protection) entered into a settlement stipulation with The Friends of the Wekiva and the Florida Audobon Society which required among other things, that Sanlando use its best efforts to implement an 'inverted rate structure' in order to encourage the conservation of water and the reduction of sewage effluent. In March 1993, in order to comply with this settlement stipulation, Sanlando Utilities filed, with the State of Florida Public Service Commission (PSC), a petition for a Limited Proceeding to implement a water conservation plan (inverted rate structure). The PSC approved Sanlando's petition on December 10, 1993. The PSC's order approving the petition was subsequently protested. In March 1995, Sanlando filed a Stipulation with the PSC regarding the Limited Proceeding to Implement a Water Conservation Plan in Seminole County (Docket No. 930256-WS). Sanlando shall comply with the terms contained in that Limited Proceeding and currently awaits a letter ruling from the Internal Revenue Service before implementation. If a favorable ruling is rendered, Sanlando will implement reuse under the following schedule where N is the date the rate structure is implemented.

	<i>Implementation Step</i>	<i>Completion</i>
1	<i>Reuse System Preliminary Plans Complete</i>	<i>N + 1 year</i>
2	<i>Final Plans and Specifications</i>	<i>N + 2 years</i>
3	<i>Financing Complete</i>	<i>N + 4 years</i>
4	<i>Site Acquired</i>	<i>N + 3 years</i>
5	<i>Begin Construction</i>	<i>N + 3.5 years</i>
6	<i>End Construction</i>	<i>N + 4 years</i>
7	<i>Begin Reuse</i>	<i>N + 4 years</i>
8	<i>Operational Level Attained</i>	<i>N + 5 years</i>

B. Consumer and Employee Education

Sanlando Utilities participates in Consumer and Employee Water Conservation Education. Sample Water Conservation literature is attached. Education efforts for the program include the following:

- 1) Semi-annually, conservation messages are sent with the bills.
- 2) Periodic advertisements are added to the homeowners' associations newsletters.
- 3) Public tours of our facilities are offered on demand to the public.
- 4) We participate in National Drinking Water Week. We sponsor a conservation-based coloring contest for grades K-5, with monetary awards. Winners are gathered at the utility with a local celebrity presenting the awards.
- 5) We participate annually in Mid-Florida Water Utility Council's Water Celebration, in conjunction with National Drinking Water Week. Conservation is presented along with other water related topics.
- 6) We thoroughly investigate all high bill complaints or high reads.

C. Installation of Water Savings Devices

Sanlando Utilities promotes the retrofit of water saving devices and the building codes of the counties within which we operate require such devices in all new installations. We are not able to subsidize their purchase by our customer base.

D. Water Audits

A water audit is a detailed comparison of water delivered to a distribution system versus metered uses to identify unaccounted for losses. Water audits help to identify normal volumes for various uses and identify abnormally high demand areas and potential water conserving methods.

System wide water audits will be performed on a monthly basis to compare the difference between water pumped and water billed. All wells are test pumped regularly and derived pumping data is compared with calibrated master meters at each plant.

Annual water audit results will be analyzed and identified deficiencies will be acted upon. Large volumes of unaccounted for water and obvious meter discrepancies such as billing more water than pumped, if they occur, will indicate a need for action and will be investigated and corrected by Sanlando Utilities.

All known flows of the following types are accounted for within our service area:  
Irrigation, Sewer Cleaning, Water Quality Flushing, Construction, New Line Flushing,  
Main Breaks, and Field Use.

E. Meter Calibration

All delivery meters within the system 2 inches and larger, are calibrated at least annually and more often if needed. Plant master meters are calibrated semi-annually or more often if needed.

F. Leak Detection Program

Sanlando Utilities has an informal leak detection program. Crews are available for water main repairs and all known leaks are repaired. Sanlando Utilities has an on-going capital improvement program and it is intended that older portions of the system will be upgraded to large pipe sizes and newer pipe lines to provide fire protection and improved distribution flow/pressures; subject to funding constraints.

The on-going water audits will further dictate the need for a more detailed program.

G. Reclaimed Water Program

The feasibility of initiating a reuse program has been evaluated. The Wekiva Hunt Club Wastewater Treatment Facility will initially irrigate the three golf courses in the area, Sabal Point, Sweetwater, and Wekiva, with further plans to provide residential areas with reclaimed water for irrigation. The ultimate goal is to reach 100% reuse. Currently, Sanlando Utilities awaits a letter ruling from the Internal Revenue Service on the plan for funding the project.

**Guidelines for Preparation of Reuse Feasibility Studies**  
**for**  
**Consumptive Use Permit Applicants**

**November 1996**

**Prepared by the**  
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## **INTRODUCTION**

The purpose of this document is to provide guidelines for water use permit applicants, who have been requested by their Water Management District to conduct an evaluation regarding the feasibility of using reclaimed water. The following aspects of a reuse feasibility study are addressed:

- Environmental feasibility;
- Technical feasibility; and
- Economic feasibility, including a present value cost analysis.

These guidelines apply only to applicants for consumptive use permits (CUP's), who are potential end users of reclaimed water. Public water supply utilities having wastewater management responsibility must follow the reuse feasibility study guidelines issued in 1991 by the Department of Environmental Protection (DEP). The public water supply applicants for CUP's should contact the applicable water management district to discuss the contents of the study.

### **Reuse in Florida**

Sub-sections 373.250(1) and 403.064(1), Florida Statutes, establish the following state reuse objectives:

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Reclaimed water can be used for a wide range of beneficial purposes, such as landscape and agricultural irrigation; cooling and industrial processes; ground water recharge; wetland creation, restoration, and enhancement; fire protection; fountains and other aesthetic uses; and toilet flushing.

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<sup>1</sup> US Environmental Protection Agency and US Agency for International Development, 1992. Guidelines for water use: EPA/625/R-92/004; US EPA Technology Transfer, Cincinnati, Ohio.

Reuse of reclaimed water benefits end users of water, public water supply utilities, and the people of Florida in many ways:

- reclaimed water is a high quality water source,
- reuse conserves water by reducing the demands on ground water and surface water,
- reuse postpones costly investment for development of new water sources and supplies,
- reclaimed water can be a reliable source during droughts,
- reuse eliminates surface water discharges that may harm valuable surface waters,
- reuse often can recharge ground water aquifers,
- reclaimed water can have a fertilizer benefit, and
- reclaimed water can save money.

# REUSE FEASIBILITY GUIDELINES

## AVAILABILITY/GENERAL

1. Any projects which are not within five miles of an existing or proposed reclaimed water source (i.e. pipeline or plant), are solely for potable use, or provide documentation from the nearest reclaimed water provider that reclaimed water will not be available within the permit duration, may not need to submit a reuse feasibility study.
2. Has a contract been signed with the reclaimed water supplier? If applicable, please provide a copy of the executed agreement or the current draft under negotiation. If a contract has been signed, please submit the executed agreement in lieu of a reuse feasibility study.
3. What is your current or proposed water source (e.g. ground water, stormwater, or surface water) and use(s) (e.g. irrigation, power generation, other)?
4. Are you within a Reuse Service Area permitted by DEP (Rule 62.610.490(1), F.A.C.)?

## ENVIRONMENTAL FEASIBILITY

1. Does reclaimed water storage need to be provided on site? If yes, please provide an estimate of the available storage volume.
2. Is the storage area isolated or part of a surface water management system?
3. If reclaimed water will be stored in a surface water management system, does this system discharge off site? If so, what is the receiving water body?
4. Are there any wetlands on site? If so, will the use, or storage, of reclaimed water affect the seasonal water level fluctuations or water quality within the wetlands? Please provide supporting information.
5. Are there any public water supply wells within 500 feet of the area to be irrigated with reclaimed water or any proposed unlined reclaimed water storage areas?
6. Are there any other issues affecting the environmental feasibility of using reclaimed water at this project?

## **TECHNICAL FEASIBILITY**

1. Is the reclaimed water quality acceptable for use on your project? If not, please describe the proposed use of water and the specific limitations that you believe prevent the use of reclaimed water.
2. How much reclaimed water can be supplied and does this meet all of the demands of the project? What is the source of the backup supply and if necessary, the supplemental supply needed to meet all demand?
3. Are there any other issues affecting the technological feasibility of using reclaimed water at the project?

## **ECONOMIC FEASIBILITY**

1. What are the new design or retro-fit costs of converting to reclaimed water? Please provide a 20-year present value analysis comparing the cost of using reclaimed water to the cost of using the current source. Please refer to Appendices A and B for assistance.
2. Is a supplemental or back-up source proposed for use with the reclaimed water system? Please include these costs in the present value analysis described in question number 1.
3. Are there any other issues affecting the economic feasibility of utilizing reclaimed water at this project? For example, the cost of obtaining or altering surface water management permits, NPDES permits, etc. If so, these costs should be reflected in the present value analysis.

## **APPENDIX A**

## GLOSSARY

1. **Discount Rate** - the interest rate used to reduce future sums of money in order to facilitate the comparison of alternatives in current dollars.
2. **End User of Water** - person that is subject to consumptive use permitting, but does not provide for public water supply. Examples include agricultural establishments, nurseries, golf courses, mines, commercial and industrial facilities, and projects with landscape irrigation demands.
3. **Executed Agreement** - a legally binding contract.
4. **Future value** - the value of a monetary investment or a series of investments at some future point in time after the accumulation of additional value as a result of compounding at a given interest rate.
5. **Present Value** - the monetary value in current dollars that is equivalent to some future amount of money.
6. **Public Water Supply Utility** - a public or private utility which supplies potable water through a public water supply system.
7. **Reclaimed water** - water that has received at least secondary treatment and basic disinfection and is reused for a beneficial purpose after flowing out of a domestic wastewater treatment facility.
8. **Reuse** - the deliberate application of reclaimed water, in compliance with DEP and water management district rules, for a beneficial purpose.
9. **Surface Water Management System** - any combination of dams, impoundments, reservoirs, appurtenant works, or works that provide drainage, water storage, conveyance, or other surface water management capabilities.
10. **Wastewater Management Responsibility** - providing collection, transmission, or treatment of domestic wastewater.
11. **Wetlands** - those areas that are inundated or saturated by surface water or ground water at a frequency and a duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Soils present in wetlands generally are classified as hydric or alluvial, or possess characteristics that are associated with reducing soil conditions. The prevalent vegetation in wetlands generally consists of facultative or obligate hydrophytic macrophytes that are typically adapted to areas having soil conditions described above. These species, due to morphological, physiological, or reproductive adaptations, have the ability to grow, reproduce or persist in aquatic environments or anaerobic soil conditions. Florida wetlands generally include swamps, marshes, bayheads, bogs, cypress domes and strands, sloughs, wet prairies, riverine swamps and marshes, hydric seepage slopes, tidal marshes, mangrove swamps and other similar areas. Florida wetlands generally do not include longleaf or slash pine flatwoods with an understory dominated by saw palmetto.

## **APPENDIX B**

## Present Value Analysis of Using Current Source and Reclaimed Water

### Definition and Use of Present Value Analysis

The present value analysis is defined as the analysis of value obtained by discounting, separately for each year, the difference of all project related expenses (costs) and revenues (benefits) accruing throughout the period of analysis at a fixed, predetermined discount rate. For the purpose of these guidelines, the scope of a present value analysis is limited to the project's expenses to use reclaimed water. The present value analysis demonstrated here should also be applied to the project's cost of using the existing water source to allow a comparison of the two sources. It is important to note that a project that incurs a higher cost in water supply could be still feasible as long as the project is able to yield a desired rate of return on investment.

### Calculation of Present Value

The present value (PV) is the discounted future value (either costs and benefits) at a fixed, predetermined discount rate. For a project, the PV is the sum of discounted future costs and benefits accruing throughout the life of the project. Thus:

$$1) \quad P = \text{pwf}^n \times B^n \text{ (or } C^n)$$

$$2) \quad \text{pwf}^n = \frac{1}{(1+i)^n}$$

$$3) \quad PV = (B_t - C_t) + \frac{B_{t+1} - C_{t+1}}{(1+i)^1} + \frac{B_{t+2} - C_{t+2}}{(1+i)^2} + \dots + \frac{B_{t+n} - C_{t+n}}{(1+i)^n}$$

Where

P = Present value (at Year = 0)

pwf<sup>n</sup> = Present worth factor (single payment)

B = Benefits

C = Costs

i = Discount rate or interest rate

n = Number of years for which costs are incurred or benefits received

t = Year 0 or the beginning year of the project

It should be noted that the pwf<sup>n</sup> has two applications. Equation (2) is used when asking "What is the present value of \$1 (single payment) given to me n years in the future given the discount rate i?" The equation for pwf<sup>n</sup> may be modified when asking "What is the present value of \$1 (multiple payments in same amount) given to me each year for n years in the future given the discount rate i?" In such cases, Equation (2) can be rewritten as:

$$4) \quad \text{pwf} = \frac{1 - \frac{1}{(1+i)^n}}{i}$$

Where

pwf = Present worth factor (multiple payments in same amount over  $n$  years)

The above formulas are provided for reference only. Applicants may find that actual calculations of PV are fairly easy using spreadsheet programs such as Lotus 123 or Microsoft Excel or some calculators with built-in PV functions.

### **Period of Analysis**

Applicants need to use a period of 20 years for a present value analysis. The first year of the analysis (Year 1) should correspond to the year when the project will be completed.

### **Suggested Discount Rate for Present Value Analysis**

The applicant can use either the current discount rate developed annually by the U.S. Bureau of Reclamation (USBR) or the interest rate that would be paid by the applicant to a financial institution on long term (15-30 year) loans. The USBR's discount rate is published in the Federal Register each December and is available from the Regulation Department of any of the Water Management Districts. A quote on the interest rates of long term loans can be obtained from local commercial banks.

### **Costs to be Considered**

All capital and operation and maintenance costs incurred by the applicant and associated with the withdrawal and transmission of water from its source to final delivery points will be considered. Capital costs include construction cost or contribution for internal connections/lines plus other related costs such as engineering, legal services, contingencies, etc. Operation and maintenance costs include user fees or quantity charges paid to a supplier and costs of labor, energy, and replacement and upgrade to operate and maintain withdrawal facilities and transmission lines.

### **Sunk Costs**

Construction costs of facilities previously constructed or under construction shall be considered as sunk cost and shall not be included in the cost analysis. However, all operation and maintenance costs for all existing and future facilities shall be included.

### **Depreciation Methods and Salvage Values**

The straight line method of depreciation should be used in the present value analysis. The useful lives<sup>1</sup> of certain equipment and facilities are provided as follows:

- Storage ponds/reservoir                      50 years
- Transmission/Distribution pipes            50 years
- Steel and concrete structures                30 years
- Pumping equipment                              15 years
- Auxiliary equipment                             10 years

Example: The salvage value of 6" pipeline costing \$50,000 in the first year. At the end of the 20 year period of analysis, 40 percent (20 yr/50 yr) of its useful life will have been utilized. Therefore, the applicant will have a \$30,000 salvage value of his/her initial investment of \$50,000. The \$30,000 salvage value will then be discounted with an appropriate discount rate to reflect its present value.

### **Replacement**

The applicant may need to consider to replace existing facilities or equipment during the period of analysis. The useful life presented in the preceding section shall be used to determine when facilities or equipment will require replacement, unless replacement is required earlier to comply with any applicable rules or permit conditions.

### **Basis of Costs**

All costs should be expressed in current dollars. Inflation during the 20-year period of analysis should not be included in the present value analysis.

### **Documentation of Costs and Assumptions**

The sources of all costs and assumptions used in preparing the present value analysis need to be documented and clearly presented as part of analysis.

## An Example of Present Value Analysis for Reuse at a Golf Course

The following is a hypothetical and simplified example of a present value analysis for irrigation of a golf course. This example is provided for illustration purposes only. Therefore, actual item or unit cost and water use for a similar size of golf course may be different from the case presented here. An actual present value analysis may be more complicated and may require more detailed documentation of costs and assumptions. The water management district may be able to provide a more representative present value analysis for your use and/or area.

### Background

An 18 hole golf course located in Green County in Florida holds a Consumptive Use Permit (CUP) for a total amount of 150 million gallons per year (MGY)<sup>2</sup> for the irrigation of 150 acres of turf area. The golf course has its own water supply system consisting of three deep wells equipped with electrical pumps. Currently the permittee pumps the ground water directly into its irrigation system. It was estimated by the permittee the pumping cost has been about \$0.15/1,000 gallons<sup>3</sup> and that the actual annual water use has been around 120 MGY over the last five years. Since the CUP is going to expire in January 1996, the permittee intends to renew the permit for a maximum use of 150 MGY and proposes to continue the use of its existing water supply system. As part of the permit renewal process, the CUP applicant is required to conduct a reuse feasibility study which includes a present value analysis of using the current source of water compared to the use of reclaimed water if it is available.

### Possible supply of reclaimed water

There is a 10 MGD wastewater treatment plant (WWTP) owned and operated by Green County. The WWTP is located approximately two miles from the golf course. The WWTP is upgrading its treatment facility and planning to provide the reclaimed water for landscape irrigation and other useful purposes. The WWTP proposes to construct an 8 inch diameter transmission pipe to deliver the reclaimed water from the WWTP to the golf course. The designed pressure of reclaimed water at the delivery point will be 50 psi. The WWTP will charge a \$0.10 per 1,000 gallon fee for the reclaimed water to recover a portion of treatment and transmission costs.

The availability of reclaimed water is a benefit to the golf course since reclaimed water is considered to be a very reliable source of supply and is not subject to water use restrictions in the event of drought. In order to use the reclaimed water however, the golf course would incur certain capital costs. Based on the current irrigation system configuration, the golf course estimated that a portion of irrigation needs can be met by directly connecting the irrigation system with the reuse system. Considering its peak daily and seasonal water use requirement, some of the reclaimed water would be delivered to an onsite lake during low-use hours and then it would be used to meet peak demands. This would require a new pump station by the lake. For the purpose of this document, it is assumed that the on-site lake is an

isolated lake without discharges. Overall, the golf course is expected to reduce its cost in electricity by 60 percent with the reuse option<sup>4</sup>.

The golf course has been subject to restricted watering hours in recent years and the restrictions are likely to stay. Thus, the applicant wants to determine the present value using reclaimed water. For the purpose of this present value analysis, the following assumptions are used:

1. Discount rate = 8%
2. All costs are in 1995 dollars
3. Annual water use = 120 million gallons

### **PV of the reclaimed water option**

Given the following cost items:

a.	Capital cost	
	• 1,000 ft. of 8" PVC pipe (\$15/ft) <sup>5</sup>	\$15,000
	• 2,000 ft. of 6" PVC pipe (\$12/ft) <sup>5</sup>	\$24,000
	• Misc. valves and boxes (approx. 10% of piping cost) <sup>5</sup>	\$3,900
	• One irrigation pump (@ \$15,000) <sup>6</sup>	\$15,000
	• Engineering & legal (approx. 10% of total)	\$5,800
	<b>Total</b>	<b>\$63,700</b>
b.	Annual O&M cost	
	• Electrical cost for pumping (40% of current costs)	\$7,200
	• Maintenance	\$5,000
	• Reuse quantity charge (\$0.10/1,000 gal)	\$12,000
	<b>Total</b>	<b>\$24,200</b>

Calculations of PV (rounded to nearest \$100):

Note: For ease of example presentation, cost figures are shown as positive values and salvage figures are shown as negative values.

1. Initial capital cost (in Year 0) = \$63,700
2.  $PV_{\text{Initial}} = \$63,700$  (already at present value)  
Replacement capital cost for irrigation pump (in Year 15) = \$15,000

$$\begin{aligned}
 PV_{\text{Replace}} &= \$15,000 \times \frac{1}{(1+0.08)^{15}} \\
 &= \$15,000 \times 0.3152 \\
 &= \$4,800
 \end{aligned}$$

3. Replacement capital cost for valves/boxes (in Year 10) = \$4,000

$$\begin{aligned}
 PV_{\text{Replace}} &= \$4,000 \times \frac{1}{(1+0.08)^{10}} \\
 &= \$4,000 \times 0.4632 \\
 &= \$1,900
 \end{aligned}$$

4. Salvage value (SV) for pipes (in Year 20)

$$\begin{aligned}
 SV &= (\$15,000 + \$24,000) \times \frac{30 \text{ years}}{50 \text{ years}} \\
 &= \$23,400
 \end{aligned}$$

$$\begin{aligned}
 PV_{\text{SV}} &= \$23,400 \times \frac{1}{(1+0.08)^{20}} \\
 &= \$23,400 \times 0.2145 \\
 &= \$5,000
 \end{aligned}$$

5. Salvage value (SV) of the initial pump (in Year 20)

$$SV = 0 \text{ (installed at year 0 with a useful life = 15 years)}$$

6. Salvage value (SV) for the replacement pump (in Year 20)

$$\begin{aligned}
 SV &= \$15,000 \times \frac{15 \text{ years}}{20 \text{ years}} \\
 &= \$11,300
 \end{aligned}$$

$$\begin{aligned}
 PV_{\text{SV}} &= \$11,300 \times \frac{1}{(1+0.08)^{20}} \\
 &= \$11,300 \times 0.2145 \\
 &= \$2,500
 \end{aligned}$$

7. Salvage value (SV) for the replacement valves/boxes (in Year 20)

$$SV = 0 \text{ (installed at year 10 with a useful life = 10 years)}$$

8. O&M costs (1-20 years)

$$\begin{aligned}PV_{O\&M} &= \$24,200 \times \frac{1 - \frac{1}{(1 + 0.08)^{20}}}{0.08} \\ &= \$24,200 \times 9.8181 \\ &= \$237,600\end{aligned}$$

9. Total present value of the reclaimed water option

$$\begin{aligned}PV &= PV_{\text{Initial}} + PV_{\text{Replace}} - PV_{\text{SV}} + PV_{\text{O\&M}} \\ &= \$63,700 + \$4,800 + \$1,900 - \$5,000 - \$2,500 + \$237,600 \\ &= \$300,500\end{aligned}$$

### Conclusion

This present value analysis provides the cost of using reclaimed water at the golf course. The same methodology can also be used to evaluate the PV of using current sources, such as ground or surface water. After the cost of the existing source and reclaimed water are known, an informed decision can be made about which source will be used. One of the benefits of using reclaimed water is that it can be a more reliable and stable water supply since it is not subject to district water use restrictions.

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<sup>1</sup> The indicated useful lives in this document are consistent with requirements placed upon applicants for grant funding from state or federal money for construction of new wastewater treatment facilities (see Rule 62-501.310(2)(j)3d, F.A.C.

<sup>2</sup> The allocated amount of water is determined using AFSIRS model (version 5.5) and based primarily on the following parameters:

- Location - Brevard County
- Soil type - Eau Gallie sand
- Irrigated acreage - 150 acres
- Water table depth - 3 feet
- Irrigation system - Multiple head sprinkler system

It should be noted that the water use allocation for this golf course may not be applicable to golf courses in other locations. Applicants should always consult with appropriate WMDs to determine their water use allocation prior to the completion of the present value analysis.

<sup>3</sup> The cost of pumping was estimated by a golf course located in SJRWMD.

<sup>4</sup> The 60 percent reduction was estimated based on the assumption that all pumping incurred by three pumps on existing wells will be eliminated and the pumping requirement for the irrigation system will be reduced due to the pressure from the reuse system.

<sup>5</sup> Final Report: Reclaimed Water User Cost Study. 1992. KPMG. Vienna, VA.

<sup>6</sup> Based on a number of engineering reports and reuse studies.

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## **APPENDIX B**

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The applicant may need to consider to replace existing facilities or equipment during the period of analysis. The useful life presented in the preceding section shall be used to determine when facilities or equipment will require replacement, unless replacement is required earlier to comply with any applicable rules or permit conditions.

### **Basis of Costs**

All costs should be expressed in current dollars. Inflation during the 20-year period of analysis should not be included in the present value analysis.

### **Documentation of Costs and Assumptions**

The sources of all costs and assumptions used in preparing the present value analysis need to be documented and clearly presented as part of analysis.

isolated lake without discharges. Overall, the golf course is expected to reduce its cost in electricity by 60 percent with the reuse option<sup>4</sup>.

The golf course has been subject to restricted watering hours in recent years and the restrictions are likely to stay. Thus, the applicant wants to determine the present value using reclaimed water. For the purpose of this present value analysis, the following assumptions are used:

1. Discount rate = 8%
2. All costs are in 1995 dollars
3. Annual water use = 120 million gallons

### **PV of the reclaimed water option**

Given the following cost items:

a.	Capital cost	
	• 1,000 ft. of 8" PVC pipe (\$15/ft) <sup>5</sup>	\$15,000
	• 2,000 ft. of 6" PVC pipe (\$12/ft) <sup>5</sup>	\$24,000
	• Misc. valves and boxes (approx. 10% of piping cost) <sup>5</sup>	\$3,900
	• One irrigation pump (@ \$15,000) <sup>6</sup>	\$15,000
	• Engineering & legal (approx. 10% of total)	\$5,800
	<b>Total</b>	<b>\$63,700</b>
b.	Annual O&M cost	
	• Electrical cost for pumping (40% of current costs)	\$7,200
	• Maintenance	\$5,000
	• Reuse quantity charge (\$0.10/1,000 gal)	\$12,000
	<b>Total</b>	<b>\$24,200</b>

Calculations of PV (rounded to nearest \$100):

Note: For ease of example presentation, cost figures are shown as positive values and salvage figures are shown as negative values.

1. Initial capital cost (in Year 0) = \$63,700
2.  $PV_{\text{Initial}} = \$63,700$  (already at present value)  
Replacement capital cost for irrigation pump (in Year 15) = \$15,000

8. O&M costs (1-20 years)

$$\begin{aligned} PV_{O\&M} &= \$24,200 \times \frac{1 - \frac{1}{(1 + 0.08)^{20}}}{0.08} \\ &= \$24,200 \times 9.8181 \\ &= \$237,600 \end{aligned}$$

9. Total present value of the reclaimed water option

$$\begin{aligned} PV &= PV_{Initial} + PV_{Replace} - PV_{SV} + PV_{O\&M} \\ &= \$63,700 + \$4,800 + \$1,900 - \$5,000 - \$2,500 + \$237,600 \\ &= \$300,500 \end{aligned}$$

### Conclusion

This present value analysis provides the cost of using reclaimed water at the golf course. The same methodology can also be used to evaluate the PV of using current sources, such as ground or surface water. After the cost of the existing source and reclaimed water are known, an informed decision can be made about which source will be used. One of the benefits of using reclaimed water is that it can be a more reliable and stable water supply since it is not subject to district water use restrictions.

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<sup>1</sup> The indicated useful lives in this document are consistent with requirements placed upon applicants for grant funding from state or federal money for construction of new wastewater treatment facilities (see Rule 62-501.310(2)(j)3d, F.A.C.

<sup>2</sup> The allocated amount of water is determined using AFSIRS model (version 5.5) and based primarily on the following parameters:

Location - Brevard County  
Soil type - Eau Gallie sand  
Irrigated acreage - 150 acres  
Water table depth - 3 feet  
Irrigation system - Multiple head sprinkler system

It should be noted that the water use allocation for this golf course may not be applicable to golf courses in other locations. Applicants should always consult with appropriate WMDs to determine their water use allocation prior to the completion of the present value analysis.

<sup>3</sup> The cost of pumping was estimated by a golf course located in SJRWMD.

<sup>4</sup> The 60 percent reduction was estimated based on the assumption that all pumping incurred by three pumps on existing wells will be eliminated and the pumping requirement for the irrigation system will be reduced due to the pressure from the reuse system.

<sup>5</sup> Final Report: Reclaimed Water User Cost Study. 1992. KPMG. Vienna, VA.

<sup>6</sup> Based on a number of engineering reports and reuse studies.

**IN THE SECOND DISTRICT COURT OF APPEAL  
STATE OF FLORIDA**

**SOUTHWEST FLORIDA WATER  
MANAGEMENT DISTRICT,**

**Appellant,**

**v.**

**Case Nos. 97-1626, 97-1700, 97-2204  
97-2205, 97-2206, 97-2302**

**CHARLOTTE COUNTY, et al.,**

**Appellees.**

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**INITIAL BRIEF OF AMICUS CURIAE  
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT**

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Consequently, the ALJ erred in determining BOR 3.1 was facially invalid because the application of the rule to a particular segment of WUP applicants was not authorized under section 403.064, while the ALJ made no determination that BOR 3.1 was also invalid when applied to *all other* WUP applicants. Therefore, any asserted invalid application of BOR 3.1 to WWTP/WUP applicants does not justify the facial invalidation of the proposed rule, and the administrative remedy for any alleged improper application of BOR 3.1 to WWTP applicants lies elsewhere.

Therefore, the ALJ erroneously construed sections 403.064(3) and (5) and the final order regarding proposed rule BOR 3.1 should be set aside.

**D. Proposed Rule BOR 3.1 Is Not Vague and Does Not Vest Unbridled Discretion**

Proposed BOR Rule 3.1 provides, in pertinent part:

Investigation of the feasibility of the use of reclaimed water (reuse) shall be required within the SWUCA for all uses and reuse shall be required where *economically, environmentally, and technically feasible...* (Emphasis added.)

(R 6601).<sup>4</sup>

The State Water Policy at Florida Administrative Code Rule 62-40.310 provides, in pertinent part:

The following statement of general water policy shall guide Department review of water management programs, rules, and plans. Water management programs, rules and plans, where *economically and environmentally feasible*, not contrary to the public interest, and consistent with Florida law, shall seek to:

...

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<sup>4</sup> The St. Johns District, South Florida Water Management District and the Northwest Florida Water Management District also have similar reuse criteria. See, Fla.Admin.Code R. 40C-2.301(4)(f), 40E-2.301(1)(h) and 40A-2.802(1)(b)2, respectively.

(d) Advocate and direct the reuse of reclaimed water as an integral part of water and wastewater management programs, rules, and plans consistent with protection of the public health and surface and ground water quality.

...  
(g) Encourage demand management and the development of alternative water supplies, including water conservation, reuse of reclaimed water, desalination, stormwater and industrial wastewater reuse, recharge, and aquifer storage and recovery. (Emphasis added.)

(R 11710).<sup>5</sup>

Specifically regarding reuse, the State Water Policy mandates, in pertinent part:

In implementing consumptive use permitting programs, a reasonable amount of reuse of reclaimed water shall be required within designated water resource caution areas, unless objective evidence demonstrates that such reuse is not *economically, environmentally, or technically feasible* (Emphasis added).

Fla.Admin.Code R. 62-40.416(2); (R 11710).

The ALJ factually determined that the treatment requirements and public health considerations involved in the development of a reuse system are “highly technical and complex” (R 6604), and that the determination of the feasibility of developing a reuse system necessarily involved “consideration of a variety of factors which are technical and site-specific.” (R 6800). The ALJ also found that the development of WUP rules to address the numerous variables involved in water use, by necessity, required rules general enough to accommodate the diverse needs and conditions in SWFWMD’s jurisdiction, yet specific enough to accomplish their purpose. (R 6251-6252). Nevertheless, the ALJ found that the BOR 3.1 “economically, environmentally and technically feasible” criteria

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<sup>5</sup> The legislature has also established the promotion of the use of water of the lowest acceptable quality as a policy of the State Comprehensive Plan . § 187.201(8)(b)11, Fla. Stat. (1995). The legislature directed state agencies to apply the policies where *economically and environmentally feasible*. § 187.101(3), Fla. Stat. (1995).

set forth no objective standards, factors or criteria to be used in determining when the development of reclaimed water would not be required and therefore the rule was vague and vested the SWFWMD with unbridled discretion. (R 6604, 6610, 6799-6800, 6823). The ALJ erroneously applied the law. The ALJ's reasoning would perhaps be colorable had proposed rule BOR 3.1 only stated "reuse shall be required where feasible." However, BOR 3.1 qualifies and limits the word "feasible" by the use of "economic," "environmental," and "technical" factors in the determination of feasibility. Each of these terms have a plain and ordinary meaning, particular to those WUP applicants subject to the rule. State v. Hoyt, 609 So. 2d 744 (Fla. 1st DCA 1992) (courts must consider whether the words have definite meaning to the class of persons within the purview of the regulation).

The test for vagueness under section 120.52(8)(d) is whether the rule requires the doing of an act in terms so vague that men of common intelligence must guess at its meaning. Cole Vision Corp. v. Dep't of Business, 688 So. 2d 404 (Fla. 1st DCA 1997).; Bertens v. Stewart, 453 So. 2d 92 (Fla. 2d DCA 1984); but see Fla. East Coast Industries, Inc. v. State, Dep't of Community Affairs, 677 So. 2d 357 (Fla. 1st DCA 1996), rev. denied, 689 So. 2d 1069 (Fla. 1997). For regulatory enactments, such as BOR 3.1, the test for vagueness is more lenient than for penal enactments. City of St. Petersburg v. Pinellas County Police Benevolent Ass'n, 414 So. 2d 293 (Fla. 2d DCA), rev. denied, 421 So. 2d 518 (Fla. 1982); Bertens, supra. The leniency rule is particularly pertinent when dealing with environmental standards. State v. Hamilton, 388 So. 2d 561 (Fla. 1980).

The test for “unbridled discretion” under section 120.52(8)(d), Florida Statutes (1995), is whether the challenged rule contains sufficient standards or guidelines to enable the implementing agency and the courts to determine whether the agency is carrying out the legislature’s intent. Fla. East Coast Industries, Inc., *supra*; Dep’t of Insurance v. Southeast Volusia Hospital Dist., 438 So. 2d 815 (Fla. 1983), appeal dismissed, 466 U.S. 901 (1984); Barrow v. Holland, 125 So.2d 749 (Fla. 1960). The specificity with which the enacting body must set out standards and guidelines depends upon the subject matter dealt with and the degree of difficulty involved in articulating finite standards. State, Dep’t of Citrus v. Griffin, 239 So. 2d 577 (Fla. 1970); Cole Vision, *supra*; Ameriquatic, Inc. v. State, Dep’t of Natural Resources, 651 So. 2d 114 (Fla. 1st DCA 1995). The nature of some areas of regulation, such as environmental protection, makes it impractical or undesirable to draft detailed or specific rules, but rather necessitates setting forth the fundamental policy anchored by general guidelines to provide flexibility in dealing with ad hoc complex and fluid conditions. (R 6452-6454); Microtel Inc. v. Fla. Public Service Com’n, 464 So. 2d 1189 (Fla. 1985); Marine Industries Ass’n of South Fla., Inc. v. Fla. Dep’t of Env’tl. Protection, 672 So. 2d 878 (Fla. 4th DCA 1996). Mathematical certainty or specificity is simply not required. Southeastern Fisheries Ass’n v. Dep’t of Natural Resources, 453 So. 2d 1351 (Fla. 1984); State v. Peters, 534 So. 2d 760 (Fla. 3d DCA 1988), rev. denied, 542 So. 2d 1334 (Fla. 1989). It is entirely appropriate, based upon the nature of the problem, for legislative enactments to be expressed in generic descriptions or legislative policy approximations. Hamilton, *supra*; Watson v. City of St. Petersburg, 489 So. 2d 138 (Fla. 2d DCA), rev. denied, 494 So. 2d 1153 (Fla. 1986)

(terms “substantially alter the water table” and “significantly increase ambient noise level” in tree removal ordinance did not vest unbridled discretion).

The ALJ expressly determined that the nature of reuse requirements involved complex ad hoc considerations and that the application of BOR 3.1 necessarily involved site-specific considerations. (R 6604, 6800). Consequently, the law does not mandate finite standards. For instance, in Cole Vision, supra at 410, the petitioner asserted that the challenged Board of Optometry rule containing the phrases “implies or suggests,” “clearly and sufficiently indicate,” and “ associated or affiliated with” vested unbridled discretion because it failed to provide adequate standards to assist optometrists in determining whether they were improperly engaged in a business relationship with a commercial establishment. Id at 410. The court rejected the argument stating that the sufficiency of a rule’s standards and guidelines may depend on the subject matter dealt with and the degree of difficulty involved in articulating finite standards. The court concluded that it would be impossible for the Board of Optometry to adopt rules in such excruciating detail that every potential circumstance arising in the practice of optometry on a mercantile or commercial establishment would be expressly addressed. In other words, where it would be impracticable, due to the subject matter, for a rule to articulate universally applicable factors, it does not vest the agency with unbridled discretion for a rule to set forth general descriptions or approximations. See also Fla. League of Cities, Inc. v. Administration Com’n, 586 So. 2d 397 (Fla. 1st DCA 1991) (court rejected an attack that a sanctioning statute vested unbridled discretion because the law had to be applied on a case-by-case basis due to the myriad possible circumstances relating to its application); Dep’t of

Administration v. Nelson, 424 So. 2d 852 (Fla. 1st DCA 1983) (court held that terms “interest which conflicts” and “activity which interferes” with state employment did not vest unbridled discretion because the terms were subject to common understanding and there was no need not further define the terms due to the variety of factual situations that may arise).

The ALJ relied upon Cortes v. State, Bd. of Regents, 655 So. 2d 132 (Fla. 1st DCA 1995) to essentially conclude that a rule is vague unless it contains some objective legislative factors. The ALJ’s reliance on Cortes is misplaced. (R 6799-6800). Nothing in Cortes mandates a listing of factors or specific criteria to avoid vagueness and, importantly, unlike this case, there was no factual determination in Cortes that the challenged rule involved a subject matter of complex and site-specific considerations. Indeed, the challenged rule in Cortes was found to vest unbridled discretion because it failed to provide *any standards at all* regarding when a university president would invoke one fee assessment referendum method over another method. In contrast, BOR 3.1 plainly establishes the standard that reuse will not be required if the applicant can establish that reuse is not “feasible” under the “economic, environmental and technical” factors of feasibility. Thus, contrary to the ALJ’s reasoning, no case law requires every administrative rule to contain factors or objective standards. Even so, the feasibility requirement of BOR 3.1 does contain factors. The proposed rule does not solely state that reuse must be “feasible.” The proposed rule qualifies the word “feasible” by the factors “economic,” “environmental,” and “technical” which all have plain meanings, particularly in the context of the site-specific considerations acknowledged by the ALJ.

Obviously, "economic feasibility" plainly relates to the fiscal ability of a WUP applicant to institute reuse. Likewise, "environmentally feasible" plainly relates to whether a WUP applicant can accomplish reuse within the bounds of environmental protection regulations. Finally, "technically feasible" plainly relates to whether the best scientific or technological information available will allow the WUP applicant to institute reuse. Whether a WUP applicant can "economically" accomplish reuse is a fiscal consideration unique to each applicant. The fiscal capabilities of an applicant are not identical, particularly, for instance, between a profit-oriented private utility and a governmental public utility. Also, a governmental WUP applicant may have statutory or other legal constraints that would affect the economic practicality of instituting a reuse program. The "environmentally" and "technically" feasible standards are influenced by each WUP applicant's location and type of use. These ad hoc considerations preclude the ability of SWFWMD to adopt blueprint "feasibility" standards universally applicable to all factual circumstances. Regulation in complex areas, as determined by the ALJ, must deal with unforeseen variations in factual circumstance, and the practical necessities of discharging government responsibilities inevitably limit the specificity with which government can delineate precise standards or prohibitions, particularly in the area of environmental regulation.

The phrase "economically, environmentally and technically feasible" is also not facially vague in the context of the rule requirement. If a term is undefined in a rule, its common ordinary meaning applies. Cole Vision, supra; Fla. East Coast Industries, supra. Each term "economically feasible," "environmentally feasible," and "technically feasible"

have plain and ordinary meanings, particularly to those subject to the requirement. The word “feasible” is easily understood as “capable of being accomplished; possible.” American Heritage Dictionary 494 (1985 ed.); Black’s Law Dictionary 609 (6th ed. 1990). “Economically” pertains “to matters of finance.” American Heritage, *supra* at 437. “Environmentally” pertains to “the combination of external or extrinsic physical conditions that affect and influence the growth and development of organisms.” Id. at 458. “Technically” relates to “scientific,” “industrial and mechanical,” “technological.” Id. at 1248. Thus, the challenged term “economically feasible” plainly means financially capable of accomplishment. The challenged term “environmentally feasible” plainly means capable of being accomplished without adversely affecting the “physical conditions” that “affect and influence the growth and development of organisms” within the parameters established by law. Finally, the term “technically feasible” plainly means capable of being technologically accomplished. If an agency were required to define terms whose meaning is readily ascertainable from ordinary usage or usage in the trade, it could hardly promulgate any rule. Loxahatchee River Env’tl. Control Dist. v. School Bd. of Palm Beach County, 496 So. 2d 930 (Fla. 4th DCA 1986), approved, 515 So. 2d 217 (Fla. 1987).

The terms “economically feasible,” “environmentally feasible,” and “technically feasible,” are not uncommon in legislative enactments. The State Comprehensive Plan itself uses the term “economically and environmentally feasible.” § 187.101(3), Fla. Stat. (1995). The term “economically feasible” is used in a myriad of legislative provisions. See, e.g., §§ 373.042(4); 373.461(1)(a); 163.3177(2); 311.105(1)(e); 364.052(5);

388.4111; 403.702(2)(a); 403.704(17); 403.707(6)(c); 403.953(1)(d); 420.5087(4); 479.02(6), Fla. Stat. (1997). The term “technically feasible” is also contained in numerous legislative enactments. See, e.g., §§ 282.307(2)(a); 287.045(5); 373.461(1)(a); 403.953(1)(d); 934.15(1)(d), Fla. Stat. (1997). Furthermore, similar language has survived vagueness challenges. In Boyce Motor Lines, Inc. v. United States, 342 U.S. 337 (1952), the issue was whether the term “so far as practicable and where feasible” was vague as contained in an Interstate Commerce Commission regulation governing truck routes. The Supreme Court determined the language was not facially vague and recognized that only a reasonable degree of certainty was required to avoid a vagueness attack and that the use of ordinary terms to describe ideas having common usage and understanding was sufficient. Likewise in People ex rel. Adamoski v. Chicago Land Clearance Com’n., 150 N.E. 2d 792 (Ill. 1958), the court found the term “where feasible” in a residential development statute was not vague because the term had a plain meaning and particular significance when read in the context of the statute.

All the vagueness doctrine requires is adequate notice; not surveyor’s precision or mathematical certainty. State v Manfredonia, 649 So. 2d 1388 (Fla. 1995). The nature of a multifaceted and complex regulated subject matter, such as water use, sometimes precludes the use of detailed standards. Hamilton, supra (term “pollution” not vague); Smith v. State, 237 So. 2d 139 (Fla. 1970) (lawmakers are not required to anticipate every eventuality that might arise in the implementation of the law and detail standards for each eventuality); Zellwood Drainage & Water Control Dist. v. St. Johns River Water Management Dist. 11 F.A.L.R. 3324-A (DOAH 1989) (WUP rule terms “environmental

or economic harm” and “serious harm” are not vague). The terms “economically, environmentally and technically feasible” have common, ordinary meanings easily understandable to WUP applicants. Moreover, the ALJ determined, yet ignored, his findings that the nature of reuse feasibility involved a variety of site specific considerations, which, as a matter of law, obviate specificity to survive a vagueness challenge. Life Concepts, Inc. v. Harden, 562 So. 2d 726 (Fla. 5th DCA 1990) (quantitative standards are not required to avoid vagueness); McGuire v. State, 489 So. 2d 729 (Fla. 1986) (law need not furnish detailed specifications to withstand vagueness challenge). Therefore, it cannot be concluded that the plain meaning of the criteria “economically, environmentally and technically feasible” is substantially incomprehensible to those WUP applicants regulated under the WUP program as to really be no rule or standard at all. See The Reserve, Ltd. v. Town of Longboat Key, 17 F.3d 1374 (11th Cir. 1994), cert. denied, 513 U.S. 1080 (1995) (enactment is void for vagueness when it is substantially incomprehensible as to really be no rule or standard at all).

Additionally, the ALJ erroneously rejected SWFWMD’s contention that pre-application conferences (R 6261) could be used by WUP applicants to clarify any doubt regarding the meaning of the facial feasibility language in BOR 3.1. (R 6610). The ALJ evidently concluded that such clarification process cannot be considered in a facial challenge. However, in Joseph E. Seagram & Sons v. Hostetter, 384 U.S. 35 (1966), the Supreme Court rejected a facial vagueness challenge partly because the evidence established that an affected person could access the state liquor authority for a

clarification on the authority's interpretation of the definition. Likewise, in Arnett v. Kennedy, 416 U.S. 134 (1974), the Supreme Court did not find the statute facially vague, *inter alia*, because the agency charged with implementing the law provided a process where employees could seek advice from the agency on the agency's interpretation of the statute and its regulations. Id at 160. See also United States Civil Service Com'n v. Nat'l Ass'n of Letter Carriers, 413 U.S. 548 (1973) (court rejected a facial vagueness attack noting the importance of the Commission procedure allowing employees to seek advice from the Commission regarding the meaning of the challenged language); Village of Hoffman Estates v. Flipside, 455 U.S. 489, 497 (1989) (degree of vagueness allowable for non-penal provision is tempered by the ability to resort to an administrative process for clarification). Consequently, the ALJ erroneously interpreted the law in concluding that a facial vagueness challenge obviated consideration of agency procedures available to the regulated public regarding the agency's interpretation of its enabling statute or rules.

Therefore, the ALJ erred in holding proposed rule BOR 3.1 was vague and vested unbridled discretion under section 120.52(8)(d) and the Court should set aside the action. § 120.68(7)(d), Fla. Stat. (1997).

### III.

#### **WATER MANAGEMENT DISTRICTS HAVE STATUTORY AUTHORITY TO REQUIRE DESALINATION**

SWFWMD's existing rule BOR 7.3.6.4 and proposed rule BOR 3.1 require certain industrial and public WUP applicants within the Northern Tampa Bay water use caution area and within the SWUCA to investigate the feasibility of desalination. The