I. Meeting Packet

State of Florida
Public Service Commission
INTERNAL AFFAIRS AGENDA
Tuesday – September 15, 2015
Immediately Following Agenda Conference
Room 105 - Gerald L. Gunter Building

1. Presentation on Florida Funders Group by Gary Williams, Executive Director, Florida Rural Water Association. (No attachment)

2. The Florida Public Service Commission's 2015 Regulatory Plan. Approval is sought. (Attachment 1)

3. Executive Director's Report (No attachment)

4. Other Matters.

BB/kh

OUTSIDE PERSONS WISHING TO ADDRESS THE COMMISSION ON ANY OF THE AGENDAED ITEMS SHOULD CONTACT THE OFFICE OF THE EXECUTIVE DIRECTOR AT (850) 413-6463.

Attachment 1

State of Florida

Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

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

DATE: September 4, 2015

TO: Braulio L. Baez, Executive Director

FROM: Pamela H. Page, Senior Attorney, Office of the General Counsel PHP S.M.C.

RE: Re: The Florida Public Service Commission's 2015 Regulatory Plan
CRITICAL INFORMATION: Please place on September 15, 2015 Internal Affairs. The Regulatory Plan must be posted on the Commission's website and submitted to JAPC by October 1, 2015.
Approval of draft Regulatory Plan is Sought.

Effective July 1, 2015, Section 120.74, Florida Statutes (F.S.), was amended to require agencies to submit a more comprehensive regulatory plan than was previously required under the law. Under the amended law, agencies must publish their regulatory plan on the agency's website and submit it to the Joint Administrative Procedures Committee (JAPC) by October 1, 2015. Attached is a draft of the Commission's 2015 Regulatory Plan. Staff is seeking approval of the draft Regulatory Plan in order to comply with the requirements of Section 120.74, F.S.

The amended law requires an agency to determine whether new laws will require new or amended rules. If the Governor or Attorney General issues a letter to JAPC stating that a law affects all or most agencies, the agency may exclude the law from the plan. The Governor or the Attorney General has not issued a letter to this effect for the reporting year 2015.

The regulatory plan must also state each existing law for which the Commission will initiate rulemaking in the current fiscal year. The plan must be certified by the Commission's Chairman and Chief Legal Officer and published on the Commission's internet website. A certification of rule review and the regulatory plan signed by the Commission's Chairman and Chief Legal Officer must be submitted to JAPC.

Staff is seeking approval of the Commission's draft 2015 Regulatory Plan in order to comply with the requirements of Section 120.74, F.S.

DRAFT

STATE OF FLORIDA

COMMISSIONERS:
ART GRAHAM, CHAIRMAN
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RONALD A. BRISÉ
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Public Service Commission

September x, 2015

Kenneth J. Plante
Coordinator
Joint Administrative Procedures Committee
680 Pepper Building
111 W. Madison Street
Tallahassee, FL 32399-1400

Dear Mr. Plante:

Re: Florida Public Service Commission's 2015 Regulatory Plan

The Florida Public Service Commission (Commission) hereby files its Regulatory Plan pursuant to Section 120.74, Florida Statutes (F.S.).

Section 120.74(1)(a), F.S., requires a listing of each law enacted or amended during the previous 12 months which creates or modifies the duties or authority of the agency, a statement whether rule adoption is required to implement the law, and if so, whether a notice of rule development has been published; and an identification of the date by which the agency expects to publish the notice of proposed rule. The Commission's report of laws pursuant to Section 120.74(1)(a), F.S., is attached hereto as Attachment A.

Section 120.74(1)(b), F.S., states that the regulatory plan must also include a listing of each law not listed pursuant to Section 120.74(1)(a), F.S., which the agency expects to implement by rulemaking before the following July 1, including a statement whether rulemaking is intended to simplify, clarify, increase efficiency, improve coordination with other agencies, reduce costs, or delete obsolete, unnecessary, or redundant rules. The Commission's report of laws pursuant to Section 120.74(1)(b), F.S., is attached hereto as Attachment B.

Section 120.74(1)(c), F.S., requires an identification and listing of laws which were previously identified in a prior year's regulatory plan as requiring rulemaking to implement, but for which a notice of proposed rule has not been published. The Commission has no laws to report pursuant to Section 120.74 (1)(c), F.S.

Section 120.74 (1)(d), F.S., requires the Commission to submit a certification regarding the regulatory plan. Pursuant to Section 120.74(1)(d), F.S., we hereby verify that we have

reviewed the attached regulatory plan and that the Commission regularly reviews all of its rules. The Commission's rules were most recently reviewed for the period January 1, 2012, through July 1, 2015, to determine if the rules remain consistent with the Commission's rulemaking authority and the laws implemented.

ART GRAHAM
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Florida Public Service Commission
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REGULATORY PLAN

LAWS CREATING OR MODIFYING DUTIES OR AUTHORITY- SECTION 120.74(1)(a), F.S.

Laws	Rulemaking Necessary	Notice of Rule Development Published	Expected Date of Notice of Proposed Rule	Reason Why Rulemaking Is Not Necessary
2015-129 –Imposes new requirements for Commissioners; also provides that customers may not be charged a higher rate for increased usage due to a billing period extension; requires monies received for demand-side renewable energy to be used solely for that purpose; defines terms; authorizes electric utilities to petition for financing orders for nuclear asset-recovery bonds and provides requirements and penalties.	Rulemaking is necessary for amendments to Chapter 366, F.S., on customer charges.	September 30, 2015	April 1, 2016	No rulemaking is necessary for Chapter 350, F.S., amendments on new requirements for Commissioners, or Chapter 366 F.S., amendments on nuclear asset recovery bonds because the statutes are very specific and prescriptive as to requirements for Commissioners; demand-side renewable energy; and terms and authority for utility financing orders.
2015-003 – Repeals Section 120.745, F.S., pursuant to its own terms.	No	N/A	N/A	Self-effectuating statutory repeal.
2015-155 – Requires indexing and transmission of agency final orders to DOAH; and provides requirements for electronic transmission of agency final orders to DOAH.	No	N/A	N/A	Statute is prescriptive as to the procedures to be followed for the indexing and transmission of agency final orders to DOAH.

LAWS CREATING OR MODIFYING DUTIES OR AUTHORITY- SECTION 120.74(1)(a), F.S.

Laws	Rulemaking Necessary	Notice of Rule Development Published	Expected Date of Notice of Proposed Rule	Reason Why Rulemaking Is Not Necessary
2015-162 – Revises deadline to propose rules implementing new laws, revises annual review requirements of agency rules; repeals section on legislative survey of regulatory impacts; and rescinds any suspension of rulemaking authority under section 120.745, F.S.	No	N/A	N/A	Statute is very specific and prescriptive as to the regulatory plan preparation and submittal requirements and the components of the biennial rule review.
2015-138 – Requires state agencies to purchase flags made in the United States.	No	N/A	N/A	Statute is very specific as to the requirements for state agencies to purchase flags made in the United States.
2015-173 – Providing additional hiring requirements and employment qualifications for agency inspectors general.	No	N/A	N/A	Statute is very specific as to hiring requirements and employment qualifications for agency inspectors general.

LAWS NOT CREATING OR MODIFYING DUTIES OR AUTHORITY TO BE IMPLEMENTED PRIOR TO JULY 1, 2016- SECTION 120.74(1)(b), F.S.

Laws	Intent of Rulemaking
Section 350.0603, F.S.	Amend Rule 25-6.0436, F.A.C., Depreciation, to clarify standards for depreciation rates.
Section 350.115, F.S.	Amend Rule 25-25.0061, F.A.C., Purchasing Threshold Amounts and Procedures for Automatic Annual Adjustments, to clarify and conform to Category One and Category Two purchasing thresholds.
Section 364.10, F.S.	Amend Rule 25-4.0665, F.A.C., Lifeline Service, to eliminate quarterly reporting; to prohibit a company from discontinuing a customer's lifeline local service if applicable charges, taxes, and fees are paid; and to clarify carrier responsibilities to conform to new federal lifeline rules.
Section 364.105, F.S.	Amend Rule 25-4.0665, F.A.C., Lifeline Service, to eliminate quarterly reporting; to prohibit a company from discontinuing a customer's lifeline local service if applicable charges, taxes, and fees are paid; and to clarify carrier responsibilities to conform to new federal lifeline rules.
Section 364.182(1), F.S.	Amend Rule 25-4.0665, F.A.C., Lifeline Service, to eliminate quarterly reporting; to prohibit a company from discontinuing a customer's lifeline local service if applicable charges, taxes, and fees are paid; and to clarify carrier responsibilities to conform to new federal lifeline rules.
Section 364.04 (2) (b), F.S.	Amend Rule 25-9.001, F.A.C., Application and Scope, to clarify and specify application and scope for tariff rules.
Section 366.03, F.S.	Amend Rule 25-6.093, F.A.C., Information to Customers, to make consistent with Section 366.05(1)(d), F.S. Amend Rule 25-6.100, Customer Billings, to make consistent with Section 366.05(1)(b), F.S.

LAWS NOT CREATING OR MODIFYING DUTIES OR AUTHORITY TO BE IMPLEMENTED PRIOR TO JULY 1, 2016- SECTION 120.74(1)(b), F.S.

Laws	Intent of Rulemaking
Section 366.04 (2) (f), F.S.	Amend Rule 25-6.04364, F.A.C., Electric Utilities Dismantlement, to clarify and update the rule to conform to current accounting principles applicable to electric utilities. Amend Rule 25-6.093, F.A.C., Information to Customers, to make consistent with Section 366.05(1)(d), F.S.
Section 366.041 (1), F.S.	Amend Rule 25-6.093, F.A.C., Information to Customers, to make consistent with Section 366.05(1)(d), F.S. Amend Rule 25-6.097, F.A.C., Customer Deposits, to make consistent with Section 366.05(1)(c), F.S. Amend Rule 25-7.045, F.A.C., Depreciation, to clarify and update the rule to conform to current accounting principles applicable to gas utilities.
Section 366.05 (1), F.S.	Amend Rule 25-6.097, F.A.C., Customer Deposits, to make consistent with Section 366.05(1)(c), F.S. Amend Rule 25-6.100, Customer Billings, to make consistent with Sections 366.05(1)(b) and 366.95(4), F.S. Amend Rule 25-7.046, F.A.C., Subcategories of Gas Plant Depreciation, to clarify and update the rule to conform to current accounting principles applicable to gas utilities. Amend Rule 25-7.079, F.A.C., Information to Customers, to implement Section 366.05(1)(d), F.S. Amend Rule 25-7.083, F.A.C., Customer Deposits, to implement requirements of Section 366.05(1)(b), F.S. Amend Rule 25-9.001, F.A.C., Application and Scope, to clarify and specify application and scope of rules applicable to electric and gas utilities. Amend Rule 25-7.045, F.A.C., Depreciation, to clarify and update the rule to conform to current accounting principles applicable to gas utilities.

LAWS NOT CREATING OR MODIFYING DUTIES OR AUTHORITY TO BE IMPLEMENTED PRIOR TO JULY 1, 2016- SECTION 120.74(1)(b), F.S.

Laws	Intent of Rulemaking
Section 366.05 (1), F.S.	Amend Rule 25-7.046, F.A.C., Subcategories of Gas Plant Depreciation, to clarify and update the rule to conform to current accounting principles applicable to gas utilities. Amend Rule 25-7.079, F.A.C., Information to Customers, to implement Section 366.05(1)(d), F.S. Amend Rule 25-9.002, F.A.C., Definitions, to clarify and update definitions for tariff rules.
Section 366.05(3), F.S.	Amend Rule 25-6.093, F.A.C., Information to Customers, to make consistent with Section 366.05(1)(d), F.S.
Section 366.05(4), F.S.	Amend Rule 25-6.100, Customer Billings, to make consistent with Sections 366.05(1)(b) and 366.95(4), F.S.
Section 366.06 F.S.	Amend Rule 25-7.079, F.A.C., Information to Customers, to implement Section 366.05(1)(d), F.S.
Section 366.06 (1), F.S.	Amend Rule 25-6.093, F.A.C., Information to Customers, to make consistent with Section 366.05(1)(d), F.S. Amend Rule 25-6.097, F.A.C., Customer Deposits, to make consistent with Section 366.05(1)(c), F.S. Amend Rule 25-7.045, F.A.C., Depreciation, to clarify and update the rule to conform to current accounting principles applicable to gas utilities. Amend Rule 25-7.046, F.A.C., Subcategories of Gas Plant Depreciation, to clarify and update the rule to conform to current accounting principles applicable to gas utilities.

LAWS NOT CREATING OR MODIFYING DUTIES OR AUTHORITY TO BE IMPLEMENTED PRIOR TO JULY 1, 2016- SECTION 120.74(1)(b), F.S.

Laws	Intent of Rulemaking
Section 367.021, F.S.	Amend Rule 25-9.002, F.A.C., Definitions, to clarify and update definitions for tariff rules.
Section 367.031, F.S.	Amend Rule 25-30.033, F.A.C., Application for Original Certificate of Authorization and Initial Rates and Charges, to update and clarify application requirements; to update by requiring filing of electronic media tariff draft; to delete obsolete and unnecessary language and requirements; and to add reference to forms to be made available by Dept. of State hyperlinks.
Section 367.037, F.S.	Amend Rule 25-30.030, F.A.C., Notice of Application, to clarify and update language for clarity; to delete obsolete and unnecessary language and requirements; to amend to require noticing of property owners; and to require a customer meeting and noticing if the application results in a rate change.
Section 367.045, F.S.	Adopt Rule 25-30.029, F.A.C., Legal Description of Service Area, to clarify and identify types of applications requiring a legal description; to describe requirements for legal description previously included in notice rule and to allow reference to local streets. Amend Rule 25-30.030, F.A.C., Notice of Application, to update language for clarity; to delete obsolete and unnecessary language and requirements; to amend to require noticing of property owners; and to require a customer meeting and noticing if the application results in a rate change. Amend Rule 25-30.033, F.A.C., Application for Original Certificate of Authorization and Initial Rates and Charges, to update and clarify application requirements; to update by requiring filing of electronic media tariff draft; to delete obsolete and unnecessary language and requirements; and to add reference to forms to be made available by Dept. of State hyperlinks. Amend Rule 25-30.036, F.A.C., Application for Amendment to Certificate of Authorization to Extend or Delete Service, to clarify the information required to demonstrate need for service and technical ability; to eliminate requirement for documentation of land ownership or long-term land use if existing plant will be used to serve the proposed extension; to require complete legal description of existing territory including the proposed extension or deletion; to delete obsolete requirements and unnecessary language; and to add reference to forms to be made available by Dept. of State hyperlink.

LAWS NOT CREATING OR MODIFYING DUTIES OR AUTHORITY TO BE IMPLEMENTED PRIOR TO JULY 1, 2016- SECTION 120.74(1)(b), F.S.

Laws	Intent of Rulemaking
Section 367.045, F.S.	Amend Rule 25-30.034, F.A.C., Application for Certificate of Authorization for Existing Utility Currently Charging for Services, to update and clarify application requirements; to delete obsolete and unnecessary language; to require identification of proposed territory not currently served; to specify the requirements for demonstrating need for service in the proposed area; to require identification of current land use designation and any known land use restrictions for the proposed service territory; and to add reference to forms to be made available by Dept. of State hyperlink.
Section 367.071, F.S.	Amend Rule 25-9.001, F.A.C., Application and Scope, to clarify and specify application and scope of tariff rules.
Section 367.091, F.S.	Amend Rule 25-30.030, F.A.C., Notice of Application, to clarify and update language for clarity; to delete obsolete and unnecessary language and requirements; to amend to require noticing of property owners; and to require a customer meeting and noticing if the application results in a rate change. Amend Rule 25-30.033, F.A.C., Application for Original Certificate of Authorization and Initial Rates and Charges, to update and clarify application requirements; to update by requiring filing of electronic media tariff draft; to delete obsolete and unnecessary language and requirements; and to add reference to forms to be made available by Dept. of State hyperlinks. Amend Rule 25-30.037, F.A.C., Application for Authority to Transfer, to delete unnecessary language; to update application requirements for clarity; to address applications for transfer of an exempt entity to a regulated entity; to address applications for the transfer of a regulated utility to an exempt entity other than a governmental entity; and to add reference to forms to be made available by Dept. of State hyperlink. Adopt Rule 25-30.038, F.A.C., Application for Transfer to a Governmental Authority, to clarify and address application requirements for transfer of a regulated utility to a governmental authority.
Section 367.101, F.S.	Amend Rule 25-9.001, F.A.C., Application and Scope, to clarify and specify application and scope of tariff rules.

LAWS NOT CREATING OR MODIFYING DUTIES OR AUTHORITY TO BE IMPLEMENTED PRIOR TO JULY 1, 2016- SECTION 120.74(1)(b), F.S.

Laws	Intent of Rulemaking
Section 367.121, F.S	Adopt Rule 25-30.029, F.A.C., Legal Description of Service Area, to clarify and identify types of applications requiring a legal description; to describe requirements for legal description previously included in notice rule and to allow reference to local streets. Adopt Rule 25-30.038, F.A.C., Application for Transfer to a Governmental Authority, to clarify and address application requirements for transfer of a regulated utility to a governmental authority. Amend Rule 25-30.039, F.A.C., Application for Name Change, to update and clarify; to delete obsolete and unnecessary language; and to add reference to forms to be made available by Dept. of State hyperlink. Amend Rule 25-30.090, F.A.C., Abandonments, to update and clarify language; to delete obsolete and unnecessary language; and to require abandoning utility to identify location of books and records.
Section 367.1213, F.S.	Amend Rule 25-30.033, F.A.C., Application for Original Certificate of Authorization and Initial Rates and Charges, to update and clarify application requirements; to update by requiring filing of electronic media tariff draft; to delete obsolete and unnecessary language and requirements; and to add reference to forms to be made available by Dept. of State hyperlinks. Amend Rule 25-30.034, F.A.C., Application for Certificate of Authorization for Existing Utility Currently Charging for Services, to update and clarify application requirements; to delete obsolete and unnecessary language; to require identification of proposed territory not currently served; to specify the requirements for demonstrating need for service in the proposed area; to require identification of current land use designation and any known land use restrictions for the proposed service territory; and to add reference to forms to be made available by Dept. of State hyperlink. Amend Rule 25-30.035, F.A.C., Application for Grandfather Certificate, to update and clarify application requirements; to delete obsolete and unnecessary language; and to add reference to forms to be made available by Dept. of State hyperlink.

LAWS NOT CREATING OR MODIFYING DUTIES OR AUTHORITY TO BE IMPLEMENTED PRIOR TO JULY 1, 2016- SECTION 120.74(1)(b), F.S.

Laws	Intent of Rulemaking
Section 367.1213, F.S.	Amend Rule 25-30.036, F.A.C., Application for Amendment to Certificate of Authorization to Extend or Delete Service, to clarify the information required to demonstrate need for service and technical ability; to eliminate requirement for documentation of land ownership or long-term land use if existing plant will be used to serve the proposed extension; to require complete legal description of existing territory including the proposed extension or deletion; to delete obsolete requirements and unnecessary language; and to add reference to forms to be made available by Dept. of State hyperlink. Amend Rule 25-30.037, F.A.C., Application for Authority to Transfer, to delete unnecessary language; to update application requirements for clarity; to address applications for transfer of an exempt entity to a regulated entity; to address applications for the transfer of a regulated utility to an exempt entity other than a governmental entity; and to add reference to forms to be made available by Dept. of State hyperlink.
Section 367.1214, F.S.	Amend Rule 25-30.039, F.A.C., Application for Name Change, to update and clarify; to delete obsolete and unnecessary language; and to add reference to forms to be made available by Dept. of State hyperlink.
Section 367.165, F.S.	Amend Rule 25-30.090, F.A.C., Abandonments, to update and clarify language; to delete obsolete and unnecessary language; and to require abandoning utility to identify location of books and records.
Section 367.171, F.S.	Amend Rule 25-30.035, F.A.C., Application for Grandfather Certificate, to update and clarify application requirements; to delete obsolete and unnecessary language; and to add reference to forms to be made available by Dept. of State hyperlink.
Section 427.704, F.S.	Repeal Rule 25-4.113, F.A.C., Refusal or Discontinuance of Service by Company, as obsolete.

II. Outside Persons Who Wish to Address the Commission at Internal Affairs

OUTSIDE PERSONS WHO WISH
TO ADDRESS THE COMMISSION AT

INTERNAL AFFAIRS
September 15, 2015

Speaker	**Representing**	**Item #**
Gary Williams	Florida Rural Water Assoc.	2

III. Supplemental Materials for Internal Affairs

Note: The following material pertains to Item 1 of this agenda.

Drinking Water Services 2015

Mission Statement: To provide technical assistance, training and professional advice to drinking water system owners, drinking water operators, distribution operators, and maintenance personnel so that they can make the best, most economical and environmentally sound decisions to maintain compliance with local, state and federal regulations and provide the best, most healthful drinking water to their customers.

DRINKING WATER SERVICES:
We assist drinking water systems in all phases of operations, maintenance, management, finance, and compliance.

Public Health Protection & Safe Drinking Water Act (SDWA) Compliance ~ FRWA responds immediately to assist systems with addressing any and all issues related to public health protection, SDWA & FDEP compliance, Sanitary Survey deficiencies, Warning Letters, and Consent Orders.

1. **WATER SOURCES, WELLS**
   - Protection, Physical Components & Condition
   - Watershed Management
   - Wellhead Protection, Maintenance & Sanitation
   - Source Vulnerability Assessment
   - Source Water Quality & Quantity
   - Capacity & Location of Source Facilities
   - Design & Condition of Source Facilities
   - Transmission of Raw Water
2. **WATER TREATMENT PROCESSES**
   - Treatment Processes and Facilities
   - Treatment Plant Location, Sequence & Layout
   - Capacity of Treatment Facilities
   - Troubleshooting & Training
3. **WATER SUPPLY PUMPS & PUMPING FACILITIES**
   - Pump Types, Capacity & Condition
   - Lubrication, Cavitation &
   - Troubleshooting & Preventative Maintenance
   - Pumping Station Evaluation
4. **STORAGE FACILITIES, TANKS**
   - Storage Types, Location & Capacity
   - Design of Storage Tanks
   - Mixing, Turn-Over, Baffling & Venting
   - Inspection & Painting of Storage Tanks
   - Cleaning & Maintenance of Tanks
   - Tank & Site Security, Signage & Alarms
5. **DISTRIBUTION SYSTEMS, PRESSURE, FLOW, FLUSHING**
   - Distribution Maps, Records & Water Loss
   - Field Sampling/Measurements
   - Distribution System Design & Maintenance
   - Valve & Fire Hydrant Exercising Training & Programs
   - Automatic Flushing Valves vs. Manual Blow-offs
   - Traditional vs. Unidirectional Flushing
6. **MONITORING, REPORTING & DATA VERIFICATION, DBPS**
   - Notices - Precautionary Boil Water, etc.
   - Regulatory Records Review & Benchmarking
   - Water Quality Monitoring Plans & Strategies
   - Groundwater, Revised Total Coliform & D/DBP Rules
7. **WATER SYSTEM MANAGEMENT & OPERATIONS**
   - Record Keeping, Review & Retention
   - Water Quality Goals & Consumer Confidence Reports
   - Public Relations, Marketing, Policies & Ordinances
   - Water System Staffing, Work Orders & Priorities
   - Asset Management, Inventories & Remaining Useful Life
   - O&M Manuals, Preventative Maintenance & Procedures
8. **WATER SYSTEM FINANCIAL REQUIREMENTS**
   - Budgeting, Financial Planning & Reserves / Contingencies
   - Capital Improvement Plans & Fiscal Sustainability
   - Rates, Impact Fees & Revenue Needs
   - Water System Funding & Sources
9. **OPERATOR COMPLIANCE WITH STATE REQUIREMENTS**
   - Operator Certification, Competency & Training
10. **FRWA RESOURCES FOR WATER SYSTEMS**
    - Operator Certification, Competency & Training

services inside

- We help systems prepare for Sanitary Surveys.

We also assist systems with other regulatory agencies regulations and requirements when necessary

Water Management Districts,
County Health Departments,
Local / Regional agencies, etc.

1. WATER SOURCES, WELLS

FRWA Circuit Riders and the Groundwater personnel are ready and able to assist your water system with any and all source water / wellhead issues.

Wellhead Protection, Physical Components, Maintenance & Condition ~ FRWA Circuit Riders are trained to identify potential sources of contamination at the wellhead, and to advise systems how to eliminate contamination and protect vital source water. We have years of experience with successful well disinfection techniques, and can also assist systems with locating or eliminating potential future well sites. We would be happy to inspect your wells to identify any potential problems and assist you with wellhead sanitation issues.

Well Capacity & Quantity ~ We can help you determine if your wells are adequate for your demands – peak hour and maximum day demands per FDEP Rule 62-555.315(2) & (3), FAC. This accomplished by testing flow meters and checking monthly operations reports for peak demands. Our Ground Water personnel can also assist with well drawdown testing and recommend methods to improve yield or reduce screen plugging.

Location of Proposed New Wells ~ FRWA can help identify and site new wells to areas / zones that are not influenced by potential contamination per Rule 62-555.520(4)(a)4c, FAC. FRWA Circuit Riders are available to identify any Sanitary Hazards located within 500 feet of new wells or located less than 500 feet upstream of new surface water intakes.

Well Water Quality ~ FRWA Circuit Riders have sampling equipment to test for common impurities such as: pH, temperature, total dissolved solids (TDS), iron, alkalinity, chlorine, and sulfate. We can review raw water sampling results to assess quality and treatability issues and provide treatment recommendations.

Wells Disinfection, Bacteriological Surveys, and Wells Evaluations ~ per FDEP Rule 62-555.315 (6) FAC.

Design & Condition of Source Facilities ~ We are ready to evaluate the design, piping configuration, and condition of your wells, well pumps, valves, piping, etc. and recommend changes / maintenance actions.

Groundwater Services ~Our Ground Water personnel are available to help with:

- Wellhead Protection Plans & Ordinances
- Wellhead Protection Zone Signage
- Watershed Management
- Source Vulnerability Assessment
- Water Management District Consumptive Use Permit Applications

Ground Water personnel will provide your system with Wellhead Protection Plans designed specifically for your water system which will assist you with protecting your source water through proper maintenance and setbacks. FRWA will show you how your source water arrives at its destination through delineation of "capture zones". We can also provide assistance with wellhead protection zone signage. Our staff can also assist your system with compilation and completion of Water Management District consumptive use permit applications.

Revised Total Coliform Rule (RTCR) Compliance ~ FRWA Circuit Riders are available to help your system comply with the RTCR, complete monitoring plans, and Level 1 or 2 Assessments. The RTCR establishes a maximum contaminant level (MCL) for E. coli and uses E. coli and total coliforms to initiate a "find and fix" approach to address fecal contamination that could enter into the distribution system. It requires public water systems to perform assessments to identify sanitary defects and subsequently take action to correct them. Before April 1, 2016 Public Water Systems must develop a written sample siting plan that identifies the system's sample collection schedule and all sample sites, including sites for routine and repeat monitoring. Systems monitoring quarterly or annually must also identify additional routine monitoring sites in their sample siting plans. Plans are subject to FDEP review and revision.

The Groundwater Rule and Achieving 4-Log Virus Inactivation using CT Calculations ~ FRWA Circuit Riders and Engineers can help you determine if you can meet 4-log virus inactivation using CT Calcs if your water source is *Microbially Contaminated* or *susceptible* to microbial contamination per paragraph 62-555.315(6)(b) or (f) FAC. Additionally you must demonstrate it daily in your MORs that treatment reliably achieves at least four-log (99.99 percent) inactivation or removal of viruses before or at the first customer at all flow rates. Achieving this level of treatment may or may not be difficult depending on the unique conditions of the system; i.e. storage time, water temperature, peak flow and chlorine concentration. Inactivation is a function of the disinfectant concentration and the amount of time the water spends in contact with the disinfectant before the first service connection.

2. WATER TREATMENT PROCESSES

Source Water Treatment ~ FRWA Circuit Riders are ready & able to assist your system with water treatment issues.

- Capacity & Adequacy of drinking water source and treatment facilities per FDEP Rule 62-555.320 (6) FAC
- Wells under the direct influence of surface water shall comply with Rule 62-550.817, FAC
- Disinfection per 62-555.320 (12) & (13) FAC
- Processes, Sequence & Layout
- Treatment Facilities Condition
- Troubleshooting & Training
- Color Coding of Piping per 62-555.320 (10) FAC

Stage 2 Disinfection By-Product Reduction Assistance – Your FRWA circuit rider can assist you with planning and implementing a strategy to reduce your system's DBP levels and assist you with compliance.

- Reduced chlorine dosing,
- Disinfectant residual management including relocation of injection point,
- Treatment & reduction of DBP precursors,
  - Filtration with GAC or alternative medias,
  - Alternative pre-treatment / oxidation methods (e.g. Hydrogen Peroxide),
  - Alternative disinfectants,
  - logarithm of the reciprocal of Hydrogen Ion concentration (pH) control
- Distribution system management and maintenance,
  - Unidirectional flushing,
  - Design, installation & maintenance of Automatic Flushing Valves at remote locations,
  - Storage tank level control and maintenance,
  - Improved storage tank mixing,
  - Strategic location and installation of manual flushing points,
- and etc.

Treatment Recommendations to Improve Water Quality, Taste and Aesthetics ~ FRWA Circuit Riders regularly assist systems with water treatment recommendations including:

- Process Control,
- Laboratory Procedures & Organization,
- Sampling & Monitoring,
- Jar & Bench Testing,
- Testing New Treatment with Pilot Studies,
- Daily Logging Procedures,
- Chemical Dosing / Feed Systems,
- Coagulation / Flocculation
- Filtration (GAC, green sand, multi-media, iron, etc.)
- Sedimentation / Clarification, etc.

We can assist systems with any and all aspects of water treatment at your facility. Our engineers assist systems with design and permitting of treatment changes or improvements that can help you improve the quality of water that you provide to your customers.

Other Treatment Strategies ~ FRWA Circuit Riders have a broad range of experience with treatment strategies for primary and secondary contaminants. We have assisted systems treatment for impurities, including but not limited to:

Primary Drinking Water Contaminants

- Microorganisms, viruses, total coliforms, fecal coliform & e. coli
- Turbidity
- Disinfection By-Products
- Inorganic Chemicals (including)
- Arsenic
- Asbestos
- Cadmium
- Cyanide
- Fluoride
- Lead
- Nitrate / Nitrite
- Organic Chemicals & Pesticides
- Radionuclides

Secondary Drinking Water Contaminants

- Aluminum
- Chloride
- Color
- Copper
- Corrosivity
- Fluoride
- Foaming Agents
- Iron
- Manganese
- Odor
- pH
- Silver
- Sulfate – black water 62-555.315 (5) FAC
- Total Dissolved Solids
- Zinc

3. WATER SUPPLY PUMPS & PUMPING FACILITIES

Evaluation of Pumping Facilities ~ FRWA Circuit Riders can assist with evaluation of your pumping facilities and appurtenances – including operation, maintenance, condition, troubleshooting, preventative maintenance, and recommendations per FDEP Rule 62-555.320(8), (15), (16) & (17) FAC :

- Visually Inspecting Gages, Valves, etc.
- Checking sources of noise and vibration
- Shaft Misalignment
- Identifying Cavitation, Vortexing/loss of suction
- Troubleshooting obstructions in discharge / suction,
- Drive Problems & Reverse Rotation,
- Design-Performance Problems,
- Venting & Air Conditioning,
- Identifying causes of performance loss (i.e.- pressure/volume problems and efficiency decrease due to wear),
- Electrical / Temperatures Problems,
- Pump bearing wear / life,
- Proper lubrication material & techniques,
- Proper logs & records maintenance, and
- Identifying and repairing leaking glands / seals, etc.
- Finished-Drinking-Water Meters
- Finished-Drinking-Water Sampling Taps

Pump Types, Capacity & Adequacy ~ Circuit Riders have expertise with pump station design and capacity. We can help you determine if your pumps are adequate for your demands – peak hour and maximum day:

- Recommending the proper pump for the application, fluid, pressures, and flows
- Hydraulic Tests
- Pump Capacity Adequacy per FDEP Rule 62-555.320(6), FAC
  - Total Capacity > MDD + Fire-Flow Demand

Pump Station Work Area and Equipment Conditions Safety

- Demonstrate proper safety procedures and use of safety equipment
  - safe work environment
  - electrical hazards
  - mechanical hazards
- Keeping pump stations clean from:
  - pest control, herbicides,
  - gasoline, solvents
  - paint, etc.
- handling spills, debris removal, etc.

Flooding Protection ~ Circuit Riders provide recommendations for relocating or protecting pumps, motors & controls not above the 100-year floodplain as required by FDEP Rule 62-555.320 (4), FAC.

Protection from Tampering, Vandalism & Sabotage ~ We can provide suggestions to increases site security.

- Site should be fenced & locked per FDEP Rule 62-555.315(1) & 62-555.320(5), FAC
- No trespassing signs,
- Lighting,
- Web cameras, and
- Entry alarms

Pump Station Electrical Equipment, Motors & Controls ~ Recommendations and troubleshooting are available for:

- Station and Equipment Grounding
- Surge Protection
- Lightning Protection
- Voltage Drop / Brownout Protection
- Short Circuit Studies
- Soft-Start Controls
- Variable Frequency Drives
- Add-a-phase equipment
- Power Factor Correction
- Auxiliary Power / Generator per 62-555.320 (14), FAC
- Starting Current Limitations
- Programmable Controllers
- Water Level, Pressure, Flow Sensors
- Elapsed Time Meters
- Alternators
- Timing Relays
- SCADA (supervisory control & data acquisition)

4. STORAGE FACILITES, TANKS

Finished water storage is critical to the efficient operation of water distribution systems. The major purposes of storage are to provide (1) storage volume for daily equalization and flow balancing; (2) fire flow volume; (3) pressure to the distribution system; and (4) for emergency situations including hurricanes, power failures, etc.

Evaluation of Storage Tanks ~ FRWA Circuit Riders can assist with evaluation of your storage facilities / tanks – operation, maintenance, condition, troubleshooting, preventative maintenance, and recommendations including:

- FDEP requires ANNUAL removal of accumulated sludge and biogrowths from tanks per Rule 62-555.350(2) FAC.,
- 5-year Storage Tank Inspections by a PE,
- Maintenance & painting tanks
- Liquid level gauges, floats, cables, etc.
- Tank Mixers,
- Turn-Over,
- Baffling,
- Venting, Overflow pipes & splash pads
- Safety and access equipment, and
- Cathodic protection (passive / active).

Storage Tank Visual Inspections for Sanitary Conditions or Vandalism ~ Your Circuit Riders can help you establish routines for frequent visual inspections for your storage tanks or sanitary conditions or vandalism. These are recommended to be performed daily or the very least weekly, annually for other items

- Identify tank closure / security defects,
- Ensure access hatches are closed and locked,
- Ensure vents, overflows, and drains are screened to stop access by insects, birds, rats, and other animals.

Evidence of these activities should be placed in the Log Book and O&M Logs. Thus annual inspections are <u>vital</u> and more frequent inspections (monthly / quarterly) are highly recommended.

Finished water storage tanks impact water quality. Systems that have water quality compliance issues frequently also have high water age and poorly maintained storage tanks. Problems resulting from high water age can include: depletion of chlorine residual; formation of disinfection by-products; bacteriological hits in the distribution system; corrosion leading to lead / copper leaching; increased color, odor, and taste; blackwater formation from sulfates converted by sulfide bacteria; or nitrification by bacterial conversion of ammonia when chloramines are used.

Tanks, Capacity & Adequacy ~ Circuit Riders have expertise with tank design and capacity. We can help you determine if your tanks are adequate for your maximum day demands and fire protection storage per FDEP Rule 62-555.320 (19) FAC:

- Tank location, capacity and hydraulics
- Operational storage volume analysis
- in conjunction with the capacity of
- its source, treatment, and finished-water pumping facilities, its finished-water storage capacity is sufficient to meet peak-hour demand for at least four consecutive hours.
- Tank / Site Security, Signage & Alarms 62-555.320 (5)

Storage Tank Operations & Maintenance Checklist ~ Water Circuit Riders are prepared to recommend that you use this checklist as a supplement to your O&M Manual and Preventive Maintenance Logs for your system. This checklist is designed to comply with FDEP Rule 62-555.350(2) FAC that encourages and requires operators and suppliers of water to "keep all necessary public water system components in operation and maintain such components in good operating condition so the components function as intended."

5-year Storage Tank Inspections by a Florida Professional Engineer ~ FRWA maintains a list of Associate Members that Perform Storage Tank Inspections under the responsible charge of a professional engineer per FDEP Rule 62-555.350(2) FAC. ALL water systems regardless of size must clean and inspect tanks for structural and coating integrity -- finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding HDPE, bladder or diaphragm-type hydropneumatic tanks.

Hydropneumatic Tank Replacement Recommendations ~ Water Circuit Riders can help you with replacing your old leaking hydropneumatic tank. Once your tank starts to leak it has failed and CANNOT NOT be safely repaired / patched. You have several options to consider and your Circuit Rider and the FRWA Engineer are available to help you through the process: 1) Replace your existing tank with one of the same size (like-for-like) built to ASME standards – no permitting / engineering would be involved; 2) Install a new tank built to ASME standards, but sized for your system – this requires engineering evaluation / permitting and may be less expensive; or 3) Install several ANSI/WSC Standard PST 2000 pressurized 119-gallon water storage tanks – requires engineering / permitting and may be the least expensive.

FRWA also maintains a list of hydropneumatic tank suppliers / installers per FDEP Rule 62-555.320 (20), FAC

5. DISTRIBUTION SYSTEMS, PRESSURE, FLOW, FLUSHING

Importance of Maintaining Your Distribution System. A properly maintained distribution system is important for ensuring that you can provide high quality water to your customers, continue operating in the event of an emergency, extend system life, minimize water main breaks, isolate damages segments and minimize property damage as a result of responding to an emergency, and help prevent contamination events.

Distribution System Management & Assistance ~ Experienced FRWA Drinking Water Circuit Riders provide the following assistance to you and your water distribution system.

- Distribution Maps & Records,
- Distribution System Design & Adequacy,
  - testing & logging distribution system pressures and flow capacities for the purposes fire-fighting flow certification
- Field Sampling, Measurements & Analysis,
- Preventative Maintenance,
- Valve & Hydrant Exercising & Training
- Backflow / Cross-Connection Control,
- Contamination reduction,
- Security,
- Meters – testing, replacing, etc.,
- Corrosion Control,
- New pipe and existing distribution system disinfection
- In-ground pipe condition analysis
- Water Conservation,
- Water loss reduction,
- Water quality improvement,
- Flushing
  - Automatic Flushing Valves vs. Manual Blow-offs,
  - Traditional vs. Unidirectional Flushing,
- Customer Concerns,
- Remote/Online Monitoring/Water Quality Parameters/ Alerts,
- Asset Management,
- Staffing,
- Locates (GPR)
- etc.
- in-ground pipe flow capacity study
- Precautionary boil water notice assistance

and single pipeline, the resulting flow approaches the scouring velocity (5 feet per second) necessary to scour deposits and debris from the mains. Traditional flushing is not as effective at cleaning and tends to stir up sediment increasing customer complaints. You are required to flush dead-end mains at least quarterly per FDEP Rule 62-555.350(2), FAC – you should be more proactive and flush more frequently and regularly! More frequent flushing is likely to maintain good water quality. Your Circuit Riders can refer you to vendors for purchasing Automatic Flushing Valves or you can build your own using a battery powered irrigation valve assembly.

Leak Detection ~ FRWA Circuit Riders are trained and equipped in the use of multiple leak location technologies. We can provide exhaustive leak surveys on your entire water distribution system using state-of-the-art equipment, including subsurface acoustical leak detectors and advanced leak correlation technology. We can also provide flow data logging using multiple technologies, allowing for isolation of suspected leaky areas of your distribution system. This data can be used to determine the extent of leaks, as well as their location. We also provide onsite guidance for leak repair and prevention.

Water Loss Audits / Recommendations ~ FRWA Circuit Riders can help your system complete a water loss audit to help you better understand where your water is going and how to account for any water loss experienced by your system. We compare the amount of water pumped by your system to the total billed gallons, and can help you estimate and account for any water loss you may be experiencing. Unaccounted for water losses are a major cost to water systems, as well as a major conservation concern to regulatory agencies. If your system is experiencing excessive unaccounted for water losses, FRWA will assist you with water loss reduction techniques including leak detection, water theft prevention and many other conservation practices. Once water losses are corrected, FRWA will help your system implement water conservation policies that will assist you with monitoring and correcting future water losses.

Cross Connection Control Plans and Distribution System Evaluations ~ FRWA can assist your system with creation or improvement of your cross connection control plan. We can perform a system evaluation to help you determine proper backflow devices required for specific customers and can help you locate qualified and reliable backflow inspection providers. FRWA works closely with FDEP to assist systems with understanding and complying with cross connection control regulations.

6. MONITORING, REPORTING & DATA VERIFICATION, DBPs

Monitoring & Reporting ~ FRWA Water Circuit Riders assist systems with all phases of drinking water monitoring and reporting.

- Monthly Operating Reports (MOR's)
- Water Quality Monitoring Plans & Strategies
- Regulatory Records Requirements & Storage
- Benchmarking Water Quality
- Groundwater Rule Monitoring Requirements
- Revised Total Coliform Rule Monitoring Requirements
- D/DBP Rule Locational Running Annual Average

Electronic Monthly Operating Reports (MOR's) ~ FRWA Circuit Riders provide assistance and training of your operations personnel on use and completion of electronic MOR's and e-Logs for distribution operators, to improve communication between systems and FDEP and improve water system accountability.

Sampling / Monitoring Plans and Proper Sampling Techniques ~ We assist systems with completion and implementation of:

- Microbiological sampling plans,
- Lead & Copper sampling plans,
- Stage 2 (TTHM and HAA5) sampling plans,
- Nitrate / Nitrite monitoring,
- Radionuclide monitoring, Revised Total Coliform Rule (RTCR) Assessments,
- Primary & Secondary contaminant monitoring,
- Volatile & Synthetic organic monitoring, etc.

FRWA will also train system personnel on proper sampling techniques for all required sampling.

Reduced Monitoring and Monitoring Waivers ~ FRWA assists systems with completion and submission of:

- Asbestos waivers,
- Volatile Organic Contaminant waivers,
- Synthetic Organic Contaminant waivers,
- Pesticide waivers, etc.

FRWA can help systems apply for reduced sampling monitoring and waivers. FDEP accepts FRWA verification of these waivers when required. FRWA can also assist your system with reduced staffing requests.

Public Notices ~ FRWA Water Circuit Riders assist systems in issuing public notification when exceeding primary, secondary and unregulated standards as well as customer friendly explanations as required by 62-560 FAC. Your circuit rider will advise your operations personnel on any and all issues related to public notification.

- Precautionary Boil Water Notices per Rule 62 -555.335, FAC
- Tier 1 Public Notice, 62-560.410(1)(a)1, FAC
- Tier 2 Public Notice, 62-560.410(1)(a)2, FAC
- Tier 3 Public Notice, 62-560.410(1)(a)3, FAC
- Suspicious Activity notify the State Warning Point (800) 320-0519 immediately (within 2 hours) per 62-555.350(10)
- Primary Standards Public Notice, 62-560.410, FAC
- Secondary Standards Public Notice, 62-560.430 FAC

7. WATER SYSTEM MANAGEMENT & OPERATIONS

Effective Water System Management & Operations ~ You are probably surprised to learn that FRWA Water Circuit Riders can also assist your system with effective managerial capacity. The 1996 amendments to the Safe Drinking Water Act (SDWA) made developing financial, managerial and technical capacity equal priorities for utilities operating in the United States. FRWA has resources available to your system to improve leadership, accountability, staffing, organization, and effective internal and external communication. Effective Management can be difficult to define and measure. It is far easier to spot insufficient managerial capacity than it is to define appropriate managerial strength. FRWA can provide training for effective utility leadership and recommend ways to develop and improve managerial capacity.

- Utility demonstrates pride of ownership
  - Governing body & manager fully understands their accountability / fiduciary responsibly
- Organizational Chart (clearly defined)
  - Staffing & organization
  - Clear roles & responsibilities
  - Clear lines of authority
  - Communications
- Human Resource Management
  - Clear rules & standards
  - Personnel policies
  - Staff training & credentials
- Effective regulator relations - FDEP, WMD, etc.
- Good / clear media communications & messaging
- Effective customer communication
  - Public Relations, marketing & policies
- Utility demonstrates regulatory compliance
  - Staff fully understands & meets all current monitoring requirements
  - Understands what it will take to meet future operational demands
    * Sets Water Quality Goals
    * Anticipates new rules / compliance
  - Consistent Record Keeping & Retention
  - Organized / systematic approach to maintenance
  - Established Standard Operating Procedures
  - Utility conducts safe operations
  - Utility prepared to handle emergencies
  - Utility has a Comprehensive Business Plan for compliance, performance and improvement

Board & Management Training ~ FRWA Financial/Management Circuit Riders offer comprehensive Council / Board / Commission training. This training helps decision-makers understand their accountability and fiduciary responsibly. Additionally we acquaint and update boards on current financial and managerial issues. We also provide system staff with managerial and financial training.

Utility Management Certification ~ FRWA offers the "Utility Management Certification" program designed to recognize the professional educational achievements of individuals and to market their achievements and skills to increase the value of today's utility manager.

Hiring Consulting Engineers~ FRWA Circuit Riders assist systems in preparing notices, forms, and assistance for hiring engineering consultants through the Request for Proposal (RFP) process. Florida Statutes Section 287.055 dictates how public entities must hire engineering firms -- known by the term Consultants Competitive Negotiation Act (CCNA). FRWA has a standard format and can help you through this process including sitting on the selection committee as an unbiased third party. Municipalities, cities, counties, and special districts must follow CCNA and use a Request for Proposals (RFP) procedure whenever:

- For any engineering **study** activity with the fee greater than **$35,000** (Category Two, per 287.017);
- For any **individual project** with estimated construction costs greater than **$325,000** (Category Five, per 287.017);
- Continuing contract consultants have different threshold amounts ($200,000 for reports and $2M for construction projects) and must be hired specifically under CCNA as continuing consultants.

Management & Operations Tools ~ FRWA Water Circuit Riders have the following tools / sample documents to help you and your system with management & operations.

- Consumer Confidence Reports
- O&M Manuals
- Preventative Maintenance Logs / Procedures
- Emergency Preparedness / Response Plans (ERP)
- Vulnerability Assessments (VA)
- Water Users Agreements
  - Ordinances
  - Policies & Procedures
- Public Relations / Customer Relations
- Educational materials for Customers or children
- Water System Work Orders & Priorities
  - Standard Operating Procedures
- Asset Management
  - Utility Inventories
  - Remaining Useful Life
- New water systems start-up checklist
- Coastal Resilience Evaluations
  - enhance resilience to climate-related coastal impacts

Operations & Maintenance (O&M) Manuals ~ FRWA Circuit Riders can provide assistance and a template for completion of required O&M Manual per FDEP Rule 62-555.350(13), FAC. Our Circuit Riders will assist your system in compiling the information. The O&M Manual should be a quick reference for successful daily operation and include anything from trouble shooting to emergency procedures. The rule requires the O&M Manual to contain:

- Bound and Indexed Equipment Manufacturer Manuals (you can download most of these manuals off of the web or get them from equipment manufacturers)
- Operation and Control Procedures
- Preventive Maintenance and Repair Procedures

We recommend that you make at least two copies of the O&M Manual and store one in a safe place in case the plant copy gets lost or damaged by normal use. Your O&M Manual and PM Logs can be stored in a 3-ring binder.

Preventive Maintenance (PM) Logs ~ FRWA can assist your system with creation and improvement of up-to-date Preventive Maintenance Logs of your system per FDEP Rules 62-555.350 (2) & (12), FAC. We recommend that you include the Preventive Maintenance Logs in your O&M Manual Binder. The Preventive Maintenance Logs show the date and type of all maintenance performed, which requires the following:

- Preventive Maintenance Logs on Electrical and Mechanical Equipment
- Cleaning and Inspection Logs of Treatment Facilities and Storage Tanks
- Records of Coatings and Linings Rehabilitation or Repair
- Licensed Engineer Inspection Report (once every 5-years) for Finished-Drinking-Water Storage Tanks and Hydropneumatic Tanks
- Written Flushing Program and Logs showing that Dead-End Water Mains are being flushed at least quarterly
- Isolation Valves Exercise Logs

Corrosion Control Plans and Lead and Copper/Water Quality Parameter Sampling and Monitoring Plans ~ FRWA can assist systems with desktop studies (RTW) of corrosion potential of their water system, and assist them with treatment change recommendations and permitting that will reduce the potential for corrosion in their distribution system. We provide guidance and assistance with completion and implementation of Lead and Copper Sampling Plans and Water Quality Parameters sampling when required, using our field laboratory sampling equipment.

Meter Accuracy Testing as required by FDEP and Water Management Districts ~ FRWA has state-of-the-art flow meter testing equipment that we will use to check the accuracy of system water meters as required by regulatory agencies. We can test meters of all sizes and shapes, and will provide systems and regulatory agencies with required verification of accuracy to return systems to compliance. These portable flow testers can also be used for daily or overnight logging of flow rates to help systems determine if elevated flows may be due to leaks, water theft, faulty check valves, etc.

Water Main and Valve Location and GIS Mapping ~ FRWA Drinking Water Circuit Riders use cutting edge technology such as Ground Penetrating Radar (GPR) to assist water systems with location of water mains, valves, service lines, etc., even difficult to locate non-traced PVC pipe. We can locate and advise systems regarding onsite excavation to reduce and/or avoid the potential for damage to existing infrastructure (gas mains, cables, phone lines, electrical lines, etc.) We use GPR in conjunction with Global Positioning System (GPS) location technology to mark existing maps for future use, as well compiling locational data in a database for use in building highly accurate maps of distribution systems. FRWA can even build and print full sized maps using a graphic plotter. Our personnel use the latest ARCview Software to assist systems with their specific mapping needs. We also employ Multi-Frequency Pipe and Cable locators and Sondes (transmitting beacons) capable of locating pipes of all materials in all types of soils.

Water System Maps ~ All Water Systems should have an up-to-date map of all water lines, valves, hydrants, tanks, wells, treatment plants, etc. Community Water Systems are required to keep these maps per FDEP Rule 62-555.350(14), FAC. Your Water Circuit Rider or FRWA Engineer are available to get you started and to assist you. Your water system map needs to include:

- Water Mains – location, size, material
- Location of Valves & Fire Hydrants
- Wells & Treatment Plants
- Pumping Facilities
- Storage Tanks
- Interconnections with Other Public Water Systems

The intent is to have a map that shows basic system components, but the rule doesn't say that you have to spend a lot of money or hire engineers / surveyors to do your map for you. The rule doesn't specify the map size or scale. Your map may be a single map or system atlas; may be on paper or computer.

Fire Hydrant Exercising & Flow Testing ~ We have fire hydrant testing equipment available to our members such as pressure loggers and recorders and pitot gauges. FRWA Circuit Riders can assist your system with flow testing as well as train your distribution personnel in the use of this equipment. This flow/pressure testing can assist with insurance rate reduction as well as result in improvements in public safety.

Hydrant Pressure Relief & Flow Diverters~ FRWA fire hydrant pressure relief valves can be used to prevent damage to your distribution system while any required water storage tank cleaning and inspection is being performed on your system. FRWA fire hydrant flow diverters can be used by systems to safely flush water mains to reduce water age and improve water quality.

Valve Exercising Program ~ FRWA valve exercisers assist systems with ensuring longer service life for system valves and help reduce damage caused by manual operation. EPA recommends that valves should be exercised annually and your Water Circuit Rider can help you get started. The benefits of a valve exercise program include: improved reliability – use it or lose it; familiarizing crews with valve locations; identify lost or inoperable valves; locate obstructed valve boxes; and ensures isolation of distribution system sections when necessary.

Flushing, Unidirectional Flushing & Automatic Flushing Valves ~ FRWA Drinking Water Circuit Riders are ready to explain the difference between random hydrant flushing and systematic unidirectional flushing – and then will help you start a unidirectional flushing program and install Automatic Flushing Valves. Unidirectional Flushing forces flow in a single direction

Consumer Confidence Reports (CCR) ~ FRWA partners with FDEP in conducting annual workshops located conveniently around the State to assist systems with the completion and final regulatory approval of these required documents. FRWA annually produces templates to guide systems with completion of CCR's. FRWA can provide your system with the template and direction on how to complete your CCR. Our services now include hosting electronic consumer confidence report posting online, for those systems that qualify and that do not have a dedicated website.

Emergency Preparedness / Response Plans (ERP) and Vulnerability Assessments (VA) ~ FRWA Circuit Riders can provide assistance and a template with completion of the required Emergency Response Plan and Vulnerability Assessment per FDEP Rule 62-555.350 (15) FAC. Your plan must include:

- Communication Procedures / Charts
- Copies of Inter-local or Mutual Aid Agreements (FlaWARN)
- Results of a Vulnerability Assessment
- Standby Power-Requirements, Compliance and Details (amount of fuel)
- Cybersecurity
- Disaster-Specific Preparedness Response Plan for: Vandalism or Sabotage; Drought; Hurricane; Structure Fire; and if applicable - Flood, Forest or Brush Fire, Hazardous Material Release
- Emergency Drinking Water
- Chemicals Storage
- Bio Incidents/Contamination concerns

You are required to coordinate the Emergency Response Plan with your Local County Emergency Planning Committee and Law Enforcement Agencies, and update and implement the plan as necessary afterward.

8. WATER SYSTEM FINANCIAL REQUIREMENTS

Effective Water System Financial Capacity ~ FRWA Water Circuit Riders can assist your system with effective financial capacity. Financial Capacity refers specifically to having appropriate accounting practices and financial planning to ensure current and future compliance. For many utilities, this emphasis on financial capacity will require additional management training. FRWA can provide training to develop and improve FRWA can provide training for effective utility leadership and recommend ways to develop and improve financial capacity.

- Budgeting,
- Financial Planning & Reserves / Contingencies ,
- Capital Improvement Plans & Fiscal Sustainability ,
- Rates, Impact Fees & Revenue Needs,
- Water System Funding & Sources,
- Financial Capacity,
- Revenue Sufficiency,
- Full life-cycle cost recovery,
- Capital financing,
- Affordability & Customer diversity,
- Credit Worthiness,
- Financial health,
- Ability to service debt,
- Fiscal Management & Controls,
- Budget,
- Accounting system,
- Cash management,

Rate Studies ~ FRWA Financial/Management Circuit Riders prepare system specific utility rate studies based on full cost pricing and the rational nexus approach. FRWA uses contemporary industry standards for recommending and establishing utility rates, these include: American Water Works Association (AWWA) Manuals of Practice, Generally Accepted Accounting Principles (GAAP), Governmental Accounting Standards Board (GASB34), and Florida Public Service Commission guidelines. FRWA presents the rate study findings and recommendations to the decision-makers (Council / Board / Commission) and will defend our findings as necessary. FRWA advocates for syncing water rates to annual verifiable cost-of-living adjustments (example: the Florida Public Service Commission Price Index to automatically adjust rates annually). We recommend that water systems reinvest in vital infrastructure and strongly discourage transfers out of the enterprise fund.

Impact Fee Studies ~ FRWA Financial/Management Circuit Riders assist systems with Impact / Capacity Fees studies presents the impact fee study findings and recommendations to the decision-makers (Council / Board / Commission. Impact Fees are one -time charges assessed to the new development or connections to reimburse utility systems for costs to supply water, collect, treat, and dispose of wastewater. Impact Fees are proportional to the capacity set aside for the new development or connection. In some systems these charges are sometimes called Capacity Fees while others may be called Benefit Assessments, User

Fees, Contributions In Aid of Construction (CIAC), or Connection Charges.

Asset Management Plans, Fiscal Sustainability and Capital Improvement Plans (CIP) ~ FRWA Water Circuit Riders can help you prepare Asset Management Plans including:

- **Inventorying** the condition, age, and performance of critical assets,
- **Plan** for maintenance, repair and long term asset replacement planning,
- along with a plan for funding such activities through the development of a **Capital Improvement Plan (CIP)**, and
- **Project Funding Options** and application assistance.

Energy Audits ~ Water and wastewater systems are significant energy consumers with an estimated 3%-4% of total U.S. electricity consumption used for the movement and treatment of water and wastewater. FRWA can help utilities to find efficiencies, both in water and energy use by performing energy audits to identify opportunities to save money, energy, and water.

Capital Project Funding ~ FRWA works closely with USDA Rural Development Loans and Grants program and the FDEP State Revolving Fund Loans Funding Assistance program to provide funding sources for interim loans and system improvements.

9. OPERATOR COMPLIANCE WITH STATE REQUIREMENTS

Water Operator Compliance & Training ~ FRWA is committed to operator training. FRWA Water Circuit Riders are here to improve system operations and encourage higher levels of certification, professionalism, and expertise. FRWA can provide training for:

- Operator Certification
- Ongoing Training (including one-on-one)
- Regulatory Update Sessions (Focus-On-Change)
- Improved Operator Competency
- Improved Technical Knowledge
- Implementation for enhanced operations
- Effective O&M Programs

Water Treatment & Distribution System Operator Training Services ~ FRWA provides ongoing operator certification training for drinking water license levels A, B, C, & D – we also provide an FDEP approved course required for Distribution Operator Certification. We regularly conduct test review sessions to provide prospective drinking water operators and distribution operators with the tools they need to confidently approach the state examinations. Circuit riders have also offered individual training for operator trainees in need of targeted assistance.

FRWA holds over 100 training sessions throughout the year on timely subjects to help keep operators, management personnel and trainees informed about new technology, ideas, rules, best management practices, etc. Required Continuing Education Units (C.E.U.'s) are provided for licensed operators of any level through both online and onsite training courses located conveniently throughout the State of Florida. Our training classes score consistently high marks from our students. Our annual **"Focus on Change"** sessions are the industry's premier update and training event for operators and system personnel in Florida. FRWA's **"Annual Technical and Training Conference"** provides industry professionals with in-depth training on a variety of drinking water related subjects, along with intensive operator license review sessions.

Contract Operations & Agreements ~ FRWA provides training, instructions, and a checklist for important issues to be included and considered in any Contract Operation Agreement. The checklist delineates Owner's and Contract Operator's duties, assignments, and responsibilities with respect to the operation of the water and wastewater systems in Florida under FDEP Rules – it may be attached to or included an Exhibit or Attachment to Contract Operator agreements. The Owner is ultimately responsible for the operation of the system in compliance with FDEP rules and regulations. This responsibility cannot be delegated to the Contract Operator per Florida Statute.

Safety Training ~ FRWA provides training and support to treatment plant personnel for all safety related drinking water issues including:

- Chlorine Gas & Sodium Hypochlorite Safety,
- Standard Operating Procedures (SOPs),
- Confined Space Entry Training,
- Slip, Trip & Fall Protection on walking and/or working surfaces,
- Hazardous Gas monitoring and/or equipment,
- Arc Flash Safety
- High Voltage Lockout / Tag out program training,
- Personal Protective Equipment (PPE) – protection for eyes, face, head, foot, hand, etc.,
- Proper Clothing,
- Self-Contained Breathing Apparatus (SCBA) inspection & certification,
- Chemical Storage And Handling,
- Eyewash Maintenance,
- Safety Data Sheets (SDS),
- Chlorine Tank and equipment repair and maintenance,
- Lab and Environmental Sampling and Safety,
- Ladder Safety Devices, Handrail & Walk Way Maintenance,
- Proactive Water Plant Housekeeping,
- etc.

10.FRWA RESOURCES AVAILBALE TO WATER SYSTEMS

FRWA Drinking Water Library – FRWA has developed an extensive library of drinking water related papers and publications that will assist your system with everyday operations and simplify complex rules and regulations. These publications include: Contract Operators Checklist and Contract Operators Service Agreements, various chemical safety manuals, Water Board Management Training Program and Handbook, Energy Reduction Planning for Utilities, Practical Water Conservation, Drought Preparedness, Preventative Maintenance for Small Systems, public relations advise, Hydrogen Sulfide Removal, Water Loss Control, Water System Startup Manual, youth drinking water pamphlets, water distribution safety and maintenance and many, many more.

Water Equipment Available to FRWA Members:

3" Trash Pump
6" By-pass Pump
Activity Chart Recorders
Advanced Drinking Water Laboratory
Amp Meters
Backflow Test Kits
Basic Drinking Water Laboratory
Calibrated Thermometer
Chemical Feed Pumps
Chlorine Meters
Chlorine Repair Kits
Chlorine Tracer Studies
Colorimeters
Conductivity/UV 254 Meter
Corrosion Control Test Kit
Electric Meters (volt)
Electric Motors
Fire Hydrant Flow Gauges
Flowmeters
Fuel Pumps and Tanks
Generator Load Bank
Generators (10 to 150 kW)
GPS Mapping Systems
GPS Unit (sub-meter)
Ground Penetrating Radar (GPR)
Groundwater Model
Hach DR-5000 Spectrophotometer
Handheld Infrared Device
Hydrant Flowmeters
Hydrant Pressure & Flow Kits
Hydrant Pressure Relief Valve
Jar Tester
Large Ultrasonic Meter Testers
Lead Test Kits
Leak Correlators/Leak Loggers
Leak Detectors
Line Tracers
Magnetic Locators
Magnetic Stirrer
Microscopes
Multi-Meters
Optical Range Finders
ORP Meters
pH Meters
Portable Jar Mixer/Testing
Pressure Recorders/Loggers
Pressure Relief Valves
Rain Gauge
Rapid Development Repeater/Radios/ Sat Phones
Regal Gas Chlorinator
Rotation Meters/SCBA/Cl_2 Kits
Semi-Trailer
Small Meter Analyzer
Small Meter Tester
Hydrogen Sulfide Test Kit
Total Dissolved Solids tester
Test Kit (Oxygen)
Test Kits/Lab
Test Kits/Water Quality
Thickness Gauges
Trash Pump
TTHM/TOC Test Kits
Turbidimeters
Ultrasonic Flowmeter
Valve Exercisers
Valve Locator (Magnetic)
Various individual parameter test kits
VFD's
Voltage Converter
Water Level Indicators
Water Quality Parameter Test Kit
Weather Proof Recorders
Well Sounders

Emergency Response and Equipment – FRWA Circuit Riders are first responders for emergency response situations and will be among the first people to contact systems before, during and after these events. FRWA, in conjunction with FlaWarn, provides emergency assistance and the necessary equipment to help keep water systems functional in an emergency situation. Events such as hurricanes, tornadoes, lightning strikes, and flooding prompt FRWA Staff to provide the resources needed, at a moment's notice. Our people are responsible for onsite staging of equipment and relief operations and maintenance during recovery. FRWA's emergency equipment available to FRWA Members include:

(20) Stand-By Generators (50 kW to 150 kW)
(10) Portable Generators (2000 to 6500 Watt, and 15 kW)
Variable Frequency Drive (VFDs) Controllers (10 -20 HP)
By-pass and trash pumps (6-in, 4-in, and 3-in)
By-pass quick disconnects
Self-Contained 2006 Emergency Response Trailer
15 kW PTO generator
Emergency Fuel Tanks (gas & diesel)
Satellite phones
5-ft x 8-ft enclosed single axel trailers to haul equipment
Various lab equipment – pH Meters, Chlorine Analyzers and Dissolved Oxygen Probe, etc.
Meter Detectors – valve locators, pipe probes, line locates, etc.
Flow Meter and Flow and Pressure Recorders
Fire Hydrant Flow Meters
Winches – 12 volt and 500 lb. hitch to tailgate
Hand Tools – shovels, wrenches, voltage and amp meters, electrical connectors, etc.
Valve tool – electric valve exercisers, and curb wrenches
Sewer Cameras
Regal Gas Chlorinator
53-ft single drop semi-trailer capable of carrying 5 large generators
Lift Station Control Panel
Leak Detection equipment
Storage tank wall thickness gauge
Ground Penetrating Radar (GPR)
Active and Passive line locators
Safety Equipment – Self-Contained Breathing Apparatus (SCBA), Chlorine A & B Kits, Chlorine Gas Detectors, etc.

Drinking Water Engineering Support

FRWA has professional engineers on staff with over fifty years of combined experience to assist members with engineering, design and permitting. FRWA does ask for member contributions to support engineering salaries and costs, which is still less than most engineers charge for their services. Engineering support includes all phases of the project:

Engineering Studies, Design, Permitting, Financing, Bidding, Construction Management, Operations Troubleshooting, etc.:

- FDEP Consent Order Assistance,
- System Design Adequacy
- Redundancy & Reliability,
- Hydraulic Studies,
- Capacity Analysis Reports,
- New / Emergency Well Construction,
- Treatment Improvements, Troubleshooting, or Expansion,
- DBP Reduction Assistance,
- 4-Log (CT) Treatment Calculation Certifications,
- Corrosion Control / Iron Sequestration,
- Minor Facility Modifications,
- Storage & Hydropneumatic Tanks,
- Water Main Extensions / Replacements,
- Pumps & Pump Stations,
- Engineering Reports
- Feasibility Studies,
- Preliminary Engineering Reports,
- Environmental Reports,
- Unidirectional Flushing Plans,
- Pilot Studies, and Jar / Bench Testing,
- Evaluation of new / alternative / state-of-the-art treatment methods,
- Operation and Maintenance Performance Reports,
- Assistance in Hiring an Engineering Consultant through the Request For Proposal (RFP) & CCNA Process,
- Troubleshooting Project Design / Construction
- Value Engineering,
- Constructability Reviews,
- Construction Management
- Support,
- Training,
- Troubleshooting,
- Planning Assistance,
- Capital Improvements Plans
- Fiscal Sustainability,
- Asset Management,
- Utility Inventories
- Remaining Useful Life
- Master Planning,
- Facility Plans,
- Water Supply Plans,
- Comprehensive Plans,
- Funding
- USDA Rural Development
- State Revolving Fund
- Short-term financing
- Risk Management Plans (RMP) and On-Site Compliance Audits,
- and many more services, just ask.

FLORIDA RURAL WATER ASSOCIATON
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FRWA Drinking Water Staff

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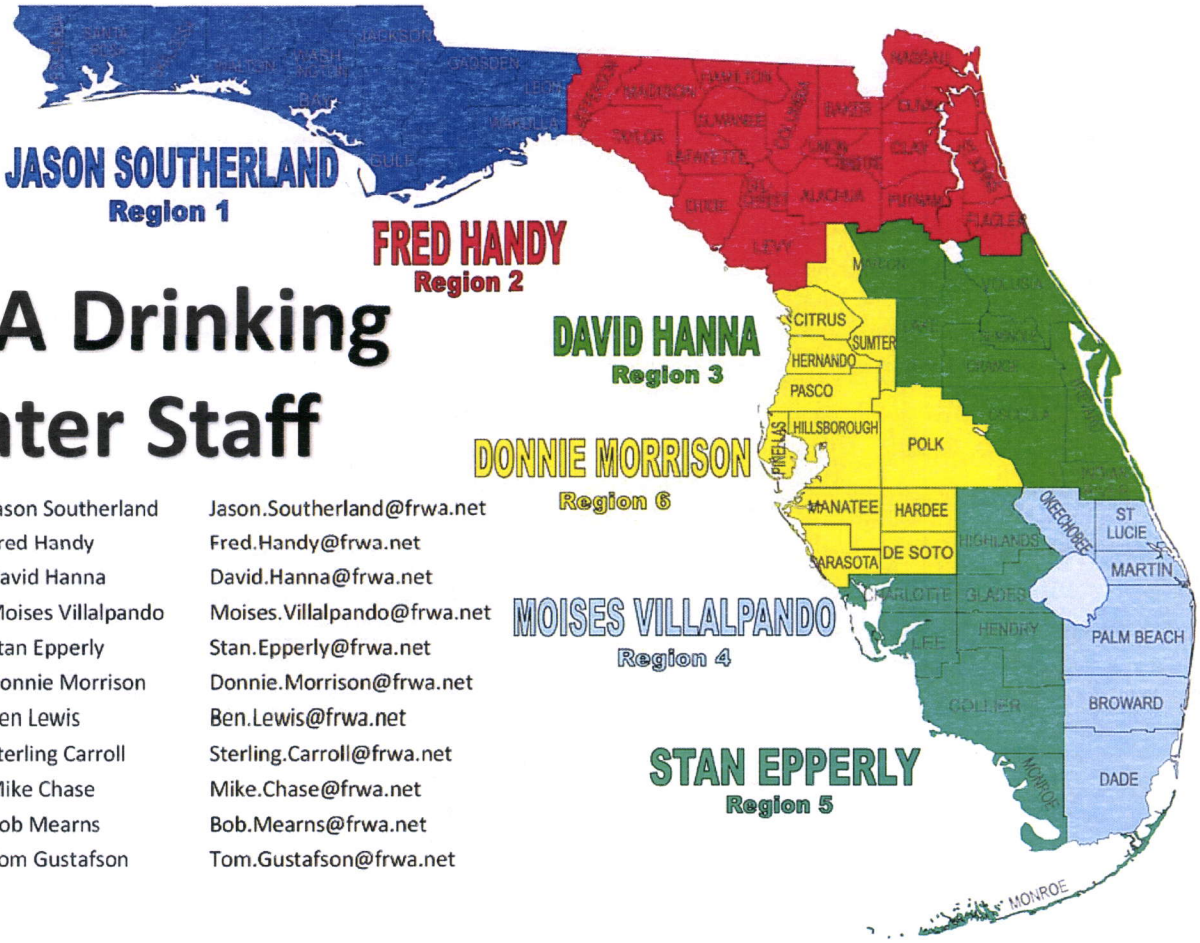


Groundwater Sourcewater Services 2015

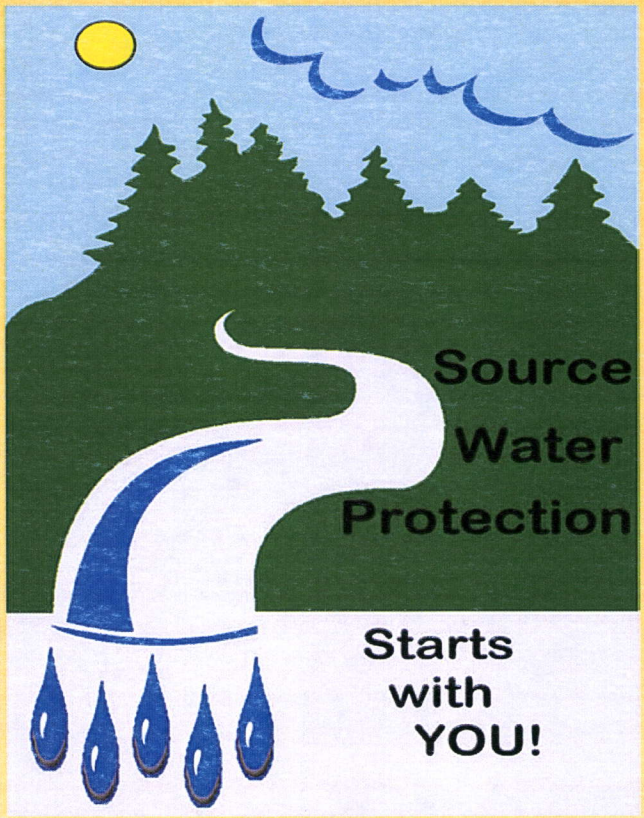
Mission Statement:

To help Water systems and their communities, identify potential threats to their drinking and recreational waters, and establish implementable protection steps for the entire community. To protect and effectively utilize source waters, along with source planning and locating sources for the future.

Source Water

"Source water protection was founded on the concept that informed citizens, equipped with fundamental knowledge about their drinking water source and the threats to it, will be the most effective advocates for protecting this valuable resource."

Florida Rural Water Association's Source Water Protection Technical Assistance Program provides technical assistance to rural and small communities with the development and implementation of local source water protection plans. Source water is water from streams, rivers, lakes or underground aquifers that is used to provide public drinking water, as well to supply private wells used for human consumption. A source water protection plan is a local initiative designed to prevent the deterioration of water resources used for drinking water. A source water protection plan involves the following steps: defining the water supply resources to be protected; forming a steering committee; identifying potential threats to the quality and quantity of drinking water resources; recommending and implementing measures to reduce threats to drinking water resources; and planning for the future, including water supply emergency events. In order to get the most scientifically accurate data, FRWA's Source Water Protection Specialist gathers lists of a variety of potential contaminant sources and hydrogeologic data from the Department of Environmental Protection and Florida's Water Management Districts. They then seek the guidance and input of local stake holders during the planning process to ensure that the completed source water protection plan reflects the needs of the local community. Individuals on the planning team commonly include local government officials, water suppliers, representatives from various county and regional agencies, and individuals from interested non-governmental organizations.



More services inside

Ground Water

Recognizing that the best way to maintain high quality drinking water is to prevent contaminants from reaching drinking water sources, in 1986 the federal Safe Drinking Water Act was amended to require states to develop Wellhead Protection Programs. Florida's Wellhead Protection Program coordinates and builds on existing programs and rules that protect Florida's ground water resources.

Florida Rural Water Association's Groundwater Protection Services include assistance in developing Wellhead Protection Plans for member systems. A Wellhead Protection Area is defined as the surface and subsurface area surrounding a public water supply well or well-field, through which contaminants are reasonably likely to move toward and reach the well. Conceptual groundwater flow modeling is used to help determine the direction of subsurface and aquifer flows. An inventory of all potential sources of drinking water contaminants is conducted, typically compiled from existing state regulatory databases and on-the-ground observations. Common potential contaminants can include agricultural, commercial, industry, and human activities. The potential contaminant sources identified during the inventory should be managed in a way to prevent any groundwater contamination. Local communities have many options, including ordinances, zoning restrictions, land purchases, conservation easements, voluntary actions, encouragement of best management practices, and local government cooperative efforts.

Wellhead Protection helps prevent groundwater from becoming polluted by managing potential sources of contamination in the area which supplies water to a public well. Public health is protected and the added expense of treating polluted water or drilling new wells is avoided though wellhead protection efforts.

Creation of Source Water (SWPP) and Wellhead Protection Plans (WHP)

✓ **Delineate** the Source Water Protection Area (SWPA).

Delineating the SWPA shows the area to be protected and prescribes the boundaries of the area from which drinking water supplies are drawn. This could be a zone around the drinking water well (known as the wellhead protection area or WHP) and can also consist of a complete Watershed or Water Basin where many wells draw water.

✓ **Inventory of Threats** known and potential sources of contamination.

The threat inventory lists all documented and potential contaminant sources or activities of concern that may be potential threats to drinking water supplies. The threat inventory indicates the level of concern assigned to each potential risk by ranking, rating, or prioritizing management measures to reduce or eliminate them.

✓ **Determine the Susceptibility** of the PWS to contaminant sources or activities within the SWPA or WHP.

Determining susceptibility of the PWS to inventoried threats relates the nature and severity of the threat to the likelihood of source waters serving that system being contaminated. Mitigating factors taken into account when determining susceptibility include potency or toxicity of the contaminant, volume of discharge or release, distance from wells or intakes, and the likelihood of entry of the contaminant into the source waters. We will show the containments direction of movement and at which speed it is moving toward your PWS. Always better to protect a water supply from contamination over treating/removing contamination once it occurs.

✓ **Implement Management Measures** to prevent, reduce, or eliminate risks to your drinking water supply.

Using the information gathered from the assessments allows specific management measures to be formulated and put in place. By examining the results of the contaminant source inventory and the susceptibility determination for each PWS, these measures can be tailored to address each threat or array of risks specific to each PWS. Ensure that the public has information necessary to control and modify their own actions to prevent contamination and to participate effectively in community activities to protect drinking water.

✓ **Develop Contingency Planning Strategies** to deal with water supply contamination or service interruption emergencies.

In the event of short- or long-term water drinking water supply disruption as a result of natural causes (e.g., chemical contamination, biological contamination or floods) or intentional destruction (e.g., vandalism or terrorism), water supply replacement strategies that coordinate all available efforts to restore service to single or multiple PWSs are an indispensable part of any drinking water protection program

These plans are developed for your system with the help of the Florida Rural Water Association, to be adopted and implemented by your water system to protect your water Supply.

Critical Well Assessments and Recommendations

Address water quality and potential water quality concerns, issues and bacteriological issues.

- ✓ Inventorying the condition, age, and performance of the well.
- ✓ Identify issues with the well such as well seal, venting, well cover, drainage, issues with concrete pad, packing gland, Electric conduit and A&V Valve
- ✓ Plan for maintaining, repairing, and, as necessary, replacing well(s).
- ✓ Well problem troubleshooting (i.e. shock chlorine/reagents, Bacteriological concerns)

- **GIS Mapping System Assistance**
  - ✓ Mapping Water and Wastewater Systems using GPS by collecting features (i.e.manholes, water valves, wells, flush stands, hydrants, etc.).
  - ✓ Line and feature locates using Ground Penetrating Radar (GPR) and/or locating equipment.
  - ✓ Process collected data, update attributes for each feature, create collection and distribution lines, generate maps of collected/created data, and valve exercising forms.
  - ✓ FRWA will train someone from your system on how to use the GPS unit and how to collect your assets
  - ✓ FRWA Provides
    - ♦ GIS Agreement
    - ♦ GPS Equipment
    - ♦ Metal Detectors
    - ♦ Valve locators
    - ♦ Ground Penetrating Radar (GPR)
    - ♦ Training for all system staff on use of equipment listed above
    - ♦ Draw Water and Collection lines
    - ♦ Electronic Data (which can be submitted to GIS Department, Planning Department or Engineers for future expansions or growth)
    - ♦ Electronic and Printed Wall Map and Mapbook
  - ✓ System Provides
    - ♦ Signed GIS Agreement
    - ♦ Staff to do locates and collection
    - ♦ Staff to draw water and/or collection lines on draft map (after collection is completed) or System will provide Existing Line Maps.
    - ♦ Payment to FRWA once final maps have been approved, but before final maps have been printed.
- **New Well Locations**
  - ✓ Assist systems with identifying the groundwater flow and potential threats in the area to help in finding better locations and drilling depths for future wells.

- **Assist FRWA Circuit Riders when needed with Regulatory Concerns**
  - ✓ Consumer Confidence Reports (CCR)
  - ✓ Monthly Operating Reports (MOR)
  - ✓ Disinfection By-Product Evaluation
  - ✓ Other Areas as Requested.

- **Pharmaceutical Education**
  - ✓ Assist in keeping pharmaceuticals from entering the environment, drinking water and any new regulations and cost to customer.
  - ✓ Provide Education Materials for proper disposal of Pharmaceuticals
  - ✓ Provide information on locations for disposing of Pharmaceuticals
  - ✓ Assist and provide information for holding a proper collection event.

- **VOC and SOC Waivers**
  - ✓ Assist in completing required documentation for submittal to Primacy Agency
    - ♦ By contacting FRWA and requesting assistance our staff will work to help you complete the required waiver. We will obtain the required sampling results (from system, laboratory and/or Primacy Agency), we will take an inventory of all threats in a 500meter radius of wells and help create a map identifying these threats, and we will complete the required forms to submit to Primacy Agency.
    - ♦ If granted a waiver by FLDEP, it will allow the system to obtain reduced monitoring of Volatile Organic Contaminants (VOC) and Synthetic Organic Contaminants (SOC). Obtaining a waiver could prevent the routine sampling of 51 or more chemicals and could save the system considerably in laboratory fees and man hours.
    - ♦ FDEP may ask FRWA to verify wavier submittals which we will do on your behalf to help your system qualify for any waivers.

- **Under the Direct Influence of Surface Water (UDI)**
  - ✓ Assist in Microscopic Particulate Analysis results
  - ✓ Assist in determining if Public Supply is UDI.
    - ♦ If a system is continually failing Total Coliform results DEP or you may ask FRWA to assist in determining why. FRWA will do an assessment to identify if the well structure might be allowing bacteria into the well. We will give our recommendations for correcting any issues (seal any cracks/holes, properly screened vents, removing dead animals in open holes with access to the water in well and preventing further access, well needing to be shocked, identifying if system needs to have casing inspected for cracks/holes, or determining if well needs to be abandoned and a deeper well drilled).
    - ♦ If all efforts made do not correct the issue then the well will have to be tested for a direct influence of surface water. This may result in the determination that your system must meet the Surface Water Treatment Rule, which is expensive and burdensome. We hope to assist in avoiding that determination for your system.

Equipment Available to FRWA Members

This equipment is purchased with membership dues and is available to the members through the FRWA Staff. This effort saves systems thousands of dollars.

3" Trash Pump
4" Trash Pump
6" By-pass Pump
Amp Meters
Centrifuges
Chlorine Tracer
Colorimeters
D O Meters
Flow Meters
Generators (10 to 150 kW)
GPS Mapping Systems
Ground Penetrating Radar
Lift Station Panel (Central)
Line Tracer
Long Handled PE Dipper
Lufkin Measuring Wheel
Magnetic Locators
Magnetic Stirrer
Manhole Inspection Mirror w/Light
Microscopes
Multi-Meters
ORP Meters
pH Meters
Portable Flow Meter
Portable Sewer Line Inspection System
Portable Ultrasonic Flowmeter
Rain Gauge
Rotation Meters
Sewer Line Video
Sludge Judge
Smoke Blower
Soil Extraction Kit
Sulfide Test Kit
Suspended Solids Interface Level Analyzer
Tensette Pipet
Test Kit (Oxygen)
Ultrasonic Flowmeter
V Notch Weir (6' Tel-Mar)
V Notch Weir (8' Tel-Mar)
Valve Locator (Magnetic)
VFD's
Video Camera (Push)
Voltage Converter

Wastewater Equipment

Activity Chart Recorders
Advanced Drinking Water Laboratory
Backflow Test Kits
Basic Drinking Water Laboratory
Calibrated Thermometer
Chemical Feed Pumps
Chlorine Meters
Chlorine Repair Kits
Electric Meters (volt)
Electric Motors
Fuel Pumps and Tanks
Fire Hydrant Gauges
Flowmeter
Four Leg Bridle
Generators (10-150 kw)
Generator Load Bank
GIS Software and Mapping Equipment
Global Positioning System (locates)
GPS Mapping Systems
Ground Penetrating Radar Units
Groundwater Model
Handheld Infrared Device
Hydrant Flowmeters
Hydrant Pressure and Flow Kits
Hydrant Pressure Relief Valve
Hydrogen Peroxide Test Kit
Large Meter Testers
Lead Test Kits

Water and Source Water/Groundwater Equipment

Water and Source Water/Groundwater Equipment (cont.)

Leak Correlators
Leak Detectors
Line Tracers
Magnetic Locator
Meter Testers
Optical Range Finders
Portable Jar Mixer
Pressure Recorders
Pressure Relief Valves
Power Distribution Box
Rapid Deployment Repeater System
Regal Gas CL2
Satellite Phone
SCBA
Semi Trailer
Small Meter Analyzer
Small Meter Tester
Solar Charging Kit
TTHM/TOC Test Kits
Thickness Gauges
Test Kits/Lab
Test Kits/Water Quality
Turbidimeters
Valve Exercisers
VFDs
Valve Locators
Voltage Converter
Water Level Indicators
Weather Proof Recorders

Membership Services

✓Training Assistance to Water & Wastewater Operators;
✓Training Discounts;
✓Regulatory Representation;
✓Monitoring Legislation at State and Federal Levels;
✓Promotion of Funding for Water and Wastewater Projects;
✓FRWA Annual Conference;
✓On-Site Assistance at No Charge;
✓Access to FRWA Equipment
✓Sourcewater Protection Plans
✓Wellhead Protection Plans
✓GPS/GIS Mapping Services
✓Fiscal Sustainability
✓Professional Engineering
✓Pharmaceuticals & Personal Care Products (PPCPs) treatment technologies, monitoring and removing
✓Mercury reduction programs
✓Handling / logging customer complaints proactively
✓Contract Operations—checklist & whitepaper

FLORIDA RURAL WATER ASSOCIATON
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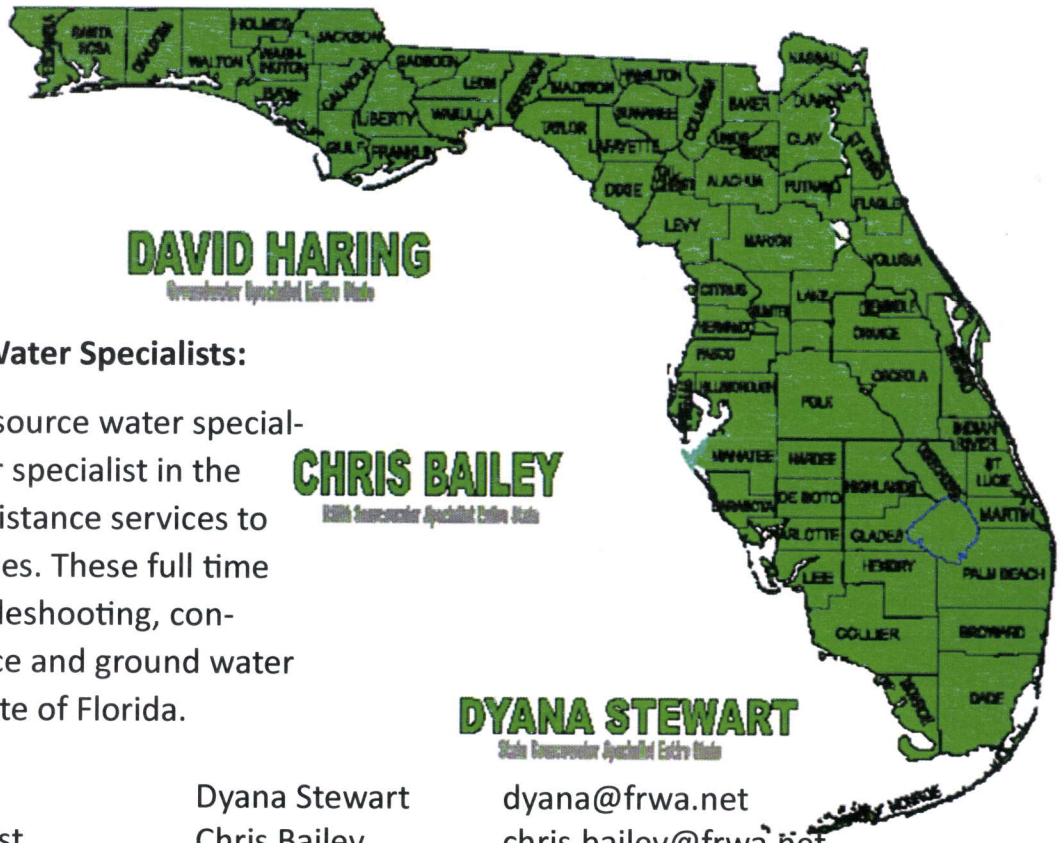


Source Water and Ground Water Specialists:

The Association has two (2) source water specialists and one (1) groundwater specialist in the field to provide technical assistance services to your systems and communities. These full time technicians assist with troubleshooting, consulting, and correcting surface and ground water concerns throughout the State of Florida.

DEP Source Water Specialist	Dyana Stewart	dyana@frwa.net
USDA Source Water Specialist	Chris Bailey	chris.bailey@frwa.net
DEP Ground Water Specialist	David Haring	david.haring@frwa.net
Source Water/Groundwater Supervisor	Ben Lewis	ben.lewis@frwa.net

Wastewater Information 2015

FRWA Wastewater Mission Statement

To help wastewater systems collect, treat, and dispose of effluent and residuals, while protecting natural systems and complying with local, state and federal regulations.

Florida Rural Water Association (FRWA) provides technical assistance and numerous services to assist its Members in the daily operations of your wastewater system. As a member of FRWA, you have access to various products and services, such as, training, ,wastewater equipment, on-site technical assistance and practical regulatory explanations.

WASTEWATER SERVICES

Wastewater Treatment Troubleshooting – FRWA provides an in-depth analysis of plant operations to help identify problematic issues and to provide short and long term solutions.

- ✓ Meeting effluent standards – utilizing various lab analyses, such as, Nitrates, Phosphorous and Biochemical Oxygen Demand (BOD) to determine if facility is exceeding current permit limits and evaluate plant process for better treatment.
- ✓ Process control evaluation and recommendations – utilizing various equipment such as, wastewater labs, microscope, Dissolved Oxygen Probe and Oxidation Reduction Potential (ORP) to determine problems in process control
- ✓ Diffusers and blower operations – check amperage and visually inspect equipment for equipment failure and/or problems and recommend denitrification strategies.
- ✓ Nitrification/ denitrification/ anoxic zones – evaluate process control using several types of equipment, ORP to determine oxygen levels.
- ✓ Biological Nutrient Reduction – utilize various types of equipment, lab analyses and calculation programs to determine Nutrient Reduction problems.
- ✓ Energy Audits and recommendations to reduce power bills and increase treatment.
- ✓ Lab Sampling and Testing – Sludge Volume Index (SVI), Sludge Density Index (SDI), Mixed Liquor Suspended Solids (MLSS), Sludge Age, Mean Cell Residence Time (MCRT), Food to Mass (F/M) Ratio, Solids Retention Time (SRT), etc. Available formula sheets/explanation sheet with goals and suggested levels.
- ✓ Return Activated Sludge (RAS) / Waste Activated Sludge (WAS) pumping rates – verify pumping rates using ultrasonic flow meters and evaluating return wastage ratios.
- ✓ Corrosion, Hydrogen Sulfide (H_2S) formations, odor problems and reduction in the WWTF – identify problem- Cathodic protection of steel structures/tanks.
- ✓ Coatings and structural integrity of hydraulic structures, hand railing, etc – inspect structural integrity and condition of equipment and structures/ tanks.
- ✓ Electronic DMRs (EDMRs) – Assist with implementation and use of EDMR.
- ✓ Preventative Maintenance-PM development, implementation, reporting requirements.

More services inside

Collection System Assistance

FRWA provides additional evaluation and assistance for the operation and maintenance of the collection system. FRWA has equipment available to assist in the continued emergency operation of the collection system, such as by-pass pumps and lift station pumps.

- ✓ Mapping Collection Systems using Global Positioning System (GPS).
- ✓ Line and manhole locates using Ground Penetrating Radar (GPR)/ Metal Detectors.
- ✓ Manhole and lift stations inspections – forms, vacuum testing, corrosion and odor needs, etc.
- ✓ Lift station floats and operations – visually inspect the lift station for problem areas, such as, tangled floats, pumps not sealed and pumping properly, grease build-up on pumps, etc.
- ✓ Corrosion, H_2S formation, odor problems and reduction in collection systems – problems/ solutions/ white paper/ assistance.
- ✓ Locating line blockages and leakage – utilizing sewer camera and other devices FRWA is able to determine the location and/or cause of the blockages and provide assistance in the clearing of these blockages.
- ✓ Air release valve maintenance – provide assistance and training on how to properly maintain and repair air release valves for optimum efficiency.

Critical Asset Evaluation and Management (Fiscal Sustainability)

This is a new EPA requirement for wastewater facilities and is being provided by FDEP and FRWA through the Clean Water State Revolving Fund Program (CWSRF).The purpose of the Fiscal Sustainability Program is to prepare a plan for each qualifying system at the request of the CWSRF program.

- ✓ Inventorying the condition, age, and performance of Critical Assets
- ✓ Plan for maintaining, repairing, and, as necessary, replacing the treatment works and a plan for funding such activities = modifications to Capital Improvements Program (CIP)
- ✓ Full cost pricing of wastewater rates – rates studies that provide funding for system need
- ✓ Syncing wastewater rates to annual cost-of-living adjustments (use the Florida Public Service Commission Price Index to automatically adjust rates annually)
- ✓ Impact fee studies – using engineering and fiscal accountability studies to determine the impact fees a system should be charging to remain solvent
- ✓ Project funding options and application assistance
- ✓ Provide certification that the system has been evaluated and is implementing a water and energy conservation plan as part of the Fiscal Sustainability Plan. FRWA will be completing the Fiscal Sustainability/ Asset Management Plans for the CWSRF Program.
- ✓ Other Financial and Management Services Available:
  - Utility Management – assistance, training, certification, promotion
  - Rate Analysis and Cost of Service – Analysis of cost of providing service and presentation to governing board
  - Interim Finance Program – lowest cost required Interim/Gap financing required by USDA, FDEP State Revolving Fund (SRF)
  - Finance Programs, Grants, and Loans, etc – all funding program assistance
  - Long Range Planning and Capacity Analysis – evaluate present and future expansions
  - Customer Relations and Services – improve Customer Service and Public Awareness about WWTFs and collection systems
  - Regulatory Updates and Assistance – provide regulatory updates and clarification of the rules and regulations
  - Infiltration and Inflow –Quantify water entering the sewage collection system during wet weather

conditions and compare rainfall to daily flow for quantifying problems

- Emergency Response Planning and Vulnerability Assessments – all required and essential plans assistance

Inflow and Infiltration (I&I) studies

FRWA provides assistance in the identification of problem areas within the collection system and to provide long-term solutions for collection system maintenance.

- ✓ Video Push Camera Inspection System – inspect and troubleshoot collection system lines
  - * FRWA provides camera, expertise and locational information on potential problems
  - * Systems provides sufficient employee support, traffic control and repair of potential problems
- ✓ Smoke Testing to identify inflow and infiltration areas and collection system integrity. FRWA provides the smoke blower and FRWA Staff expertise in identify potential sources of infiltration and inflow. FRWA has examples of Smoke Testing Notifications to be used before and during smoke testing events.
  - •FRWA Staff will provide the following:
    - *Smoke testing equipment
    - *FRWA Staff will provide training and assistance for the Manhole Inspection Program
    - * Provide recommendations and examples for public notification/emergency services notification of smoke testing event
  - •The Wastewater System is required to provide the following:
    - * Purchase the gasoline to operate the smoke blower and other related supplies
    - * Provide two (2) employees
    - * Purchase the liquid smoke
    - * Provide Public Notification/Emergency Services (fire department, etc.) Notification prior to the Smoke Testing Event
- ✓ Establishing Ordinances and Fines for illegal connections, such as rain water gutters, storm drains, and using sewer cleanout and manholes for storm drainage
- ✓ Sewer **Tool Kit** to help utilities reduce sanitary sewer overflows by improving system maintenance and to provide additional forms and information regarding the System's liability when a sewer overflow occurs
  - Forms - to set up a maintenance program and emergency response to sewer overflows
  - Models - to provide assistance in developing a comprehensive maintenance plan for the treatment system

Pretreatment Programs

FRWA is able to provide recommendations to reduce and/or minimize problems to the WWTF by reducing and/or minimizing what goes into the collection system utilizing various pretreatment programs.

- ✓ Fats, Oils and Greases (FOGs) – provide assistance in setting up removal and/or control programs
- ✓ Industrial Pretreatment Programs – Mercury Best Management Practices (BMP) assistance, Program Design and ordinances
- ✓ Recommendations for controlling heavy metals – arsenic, lead, mercury, cadmium, chromium, copper, nickel, zinc, etc.
- ✓ Forms are available to assist the system is setting up an Industrial Pretreatment Program to minimize hazardous wastes from entering the wastewater system

Headworks and Primary Troubleshooting

We provide assistance and/or troubleshooting in the operation to minimize the amount of debris entering the WWTF and to reduce additional maintenance and repair costs to the plant.

- ✓ Bar Screens proper handling and disposal of screenings. Bar Screens provide troubleshooting and operation and maintenance information for optimum operating efficiency
- ✓ Sand and Grit Evaluation and Removal – identification of problems associated in capacity reduction in lift stations, treatment plants and reduction in diffuser operations.
- ✓ Recommendations for installing sand and grit removal in WWTFs headworks or other strategies.

Flow Meter Testing and Calibration/Verification

FRWA provides assistance in the identification of hydraulic issues utilizing ultrasonic and other devices to determine the actual wastewater flow, as required by the Florida Department of Environmental Protection (FDEP).

- ✓ Meter calibration – verify calibration and pumping rate for accuracy and efficiency of the pump
- ✓ FRWA provides meter testing equipment, test, reports/system provides system employee to help to help with repair/reporting.

Disposal/ Reuse Evaluation and Feasibility

Provide additional assistance in identification of problematic areas; surface water disposal concerns/cost/ regulatory elimination.

- ✓ Sprayfield maintenance – provide written recommendations/scheduling for spray head replacement, harvesting ground cover, ponding issues and erosion.
- ✓ Monitoring wells – identify percolation rates based on monitor well levels, evaluate lab analyses for permit , determine groundwater flow and identify source areas
- ✓ Re-use applications recommend things, evaluate application and permit compliance utilizing FRWA in-house engineers, feasibility and funding assistance

Residuals/ Sludge/ Biosolids Disposal Options and Treatment

We provide technical and engineering assistance in the design of various treatment and operations of sludge disposal.

- ✓ Sludge drying beds – application rates, re-rating, refurbishing, stock piling, etc.
- ✓ Land application, landfill, composting, etc.
- ✓ Provide engineering assistance with sludge treatment design issues and equipment issues.
- ✓ Sludge Treatment Equipment Evaluation – provide assistance in troubleshooting and improving equipment efficiency.
- ✓ Consider other options for dewatering, such as belt presses, centrifuges, screw presses, etc.

Emergency Response Plans and Equipment

FRWA in conjunction with FlaWarn, is able to provide assistance and the necessary equipment to help keep WWTFs and wastewater collection systems functional in an emergency situation, such as hurricanes, lightning strikes, and flooding. FRWA Staff is able to provide the resources needed, at a moment's notice. Here is a list of FRWA's Emergency Equipment available to FRWA Members:

- ✓ 20 - Stand-by generators (50kw to 150kw)
- ✓ 10 - Portable generators (2000 to 6500 Watt, and 15 kw)
- ✓ Variable Frequency Drive (VFDs) Controllers (10 -20 HP)
- ✓ By-pass and trash pumps (6", 4", and 3")
- ✓ By-pass quick disconnects

- ✓ Self-Contained 2006 Emergency Response Trailer
- ✓ 15 KW PTO generator
- ✓ Emergency Fuel Tanks (gas & diesel)
- ✓ Satellite phones
- ✓ 5'x 8' encosed single axle trailers to haul equipment
- ✓ Various lab equipment – pH Meters, Chlorine Analyzers and Dissolved Oxygen Probe, etc.
- ✓ Ground Penetrating Radar
- ✓ Meter Detectors – valve locators, pipe probes, line locates, etc.
- ✓ Flow Meter and Flow and Pressure Recorders
- ✓ Fire Hydrant Flow Meters
- ✓ Winches – 12 volt and 500 lb. hitch to tailgate
- ✓ Hand Tools – shovels, wrenches, voltage and amp meters, electrical connectors, etc
- ✓ Valve tool – electric valve exercisers, and curb wrenches
- ✓ Sewer Cameras
- ✓ Regal Gas Chlorinator
- ✓ 53' single drop semi-trailer capable of carrying 5 large generators
- ✓ Lift Station Control Panel
- ✓ Safety Equipment – Self-Contained Breathing Apparatus (SCBA), Chlorine A & B Kits, Chlorine Gas Detectors, etc.

Safety Issues

FRWA stands ready to provide training and support for safety issues including:

- ✓ Standard Operating Procedures (SOPs)
- ✓ Confined Space Entry Training
- ✓ Slip, Trip and Fall protection on walking and/or working surfaces
- ✓ Hazardous gas monitoring and/or equipment
- ✓ Lockout and Tag out programs Training
- ✓ Personal Protective Equipment (PPE) – protection for eyes, face, head, foot, hand, etc.
- ✓ Proper clothing
- ✓ Self-Contained Breathing Apparatus (SCBA) ensure equipment is inspected and certified annually
- ✓ Respiratory Protection
- ✓ Chemical Storage and Handling
  - Safety Data Sheets (SDS)
  - Keeping chlorine tank repair and equipment up to date
- ✓ Lab and Environmental sampling and safety
- ✓ Ladder safety devices and handrail and walkway maintenance
- ✓ Proactive WWTP housekeeping

Electrical, Computers and Computer Diagnostic Software, etc.

- ✓ Electrical evaluations and calibrations – provide assistance in identifying problematic areas and make recommendations. Energy efficiency evaluations and recommendations.
- ✓ SCADA, telemetry and controls – provide assistance in the operation and troubleshooting of the equipment
- ✓ Lightning protection – provide engineering assistance in the proper installment and operation in minimizing lightning strikes to the system

Wastewater Continuing Education Units (CEUs) and License Preparatory Training

We provide owners and operators of WWTFs with the most up-to-date wastewater information and technology available. FRWA provides over 100 training sessions for CEUs, per year to our members.

- ✓ Prepare for wastewater operator Class A,B, C, and D license examinations
- ✓ Provider for operator license renewal CEUs
- ✓ Provide annual on-site, hands-on training to include regulatory updates, compliance issues and technological improvements and/or advancements. This is also available at Focus on Change and/or the Annual FRWA Conference
- ✓ Sacramento correspondence course and time management tips to improve learning techniques
- ✓ Utility Management Course and Certification – National Utility Manager Certification
- ✓ Resource library materials available upon request to members, such as: books, videos and presentations, forms, wastewater manuals, FDEP and EPA rules and regulations, cross-connection and articles of interest.
- ✓ Online Training available for CEUs and education

Wastewater Engineering Support

FRWA has three engineers on staff with over seventy-five years of combined experience to assist members with Engineering Design and Permitting issues. FRWA does ask for contributions to support engineering salaries and costs, which is still less than most Engineers charge.

Construction Management Support and/or Troubleshooting

- ✓ Provide assistance in hiring an engineering consultant through the Consultants Competitive Negotiation Act (CCNA) Process
- ✓ Value Engineering and Constructability Reviews
- ✓ Feasibility and Preliminary Engineering Reports
- ✓ Capital Improvement planning
- ✓ Minor Plant Engineering Design and Permit Modifications
- ✓ FDEP permitting and consent orders
- ✓ Capacity Analysis Reports
- ✓ Operation and Maintenance Performance Reports
- ✓ WWTF Operating Permit Renewals

Wastewater Equipment

One of the benefits of being an FRWA Member, is the availability of various types of equipment that can be loaned to the WWTF, at no additional cost. This equipment is purchased by Annual Membership Dues and is available to FRWA Members at no additional cost. Please contact FRWA at (850) 668-2746 or your Wastewater Circuit Rider for equipment availability. The FRWA staff can perform the task with the FRWA equipment and/or provide additional training to the WWTF staff in the operation of the loaned equipment. The only condition for using the loaned equipment is to take care of it and to return the equipment in the same condition.

Some of the Wastewater Equipment Available to FRWA Members are:

3" Trash Pump – to by-pass lift station pumps
4: by-pass pump
6" By-pass Pump – to by-pass lift station pumps
Amp Meters – to measure voltage
Centrifuges
Chlorine Tracer
Colorimeters
D O Meters – to check dissolved oxygen
Generators (10 to 150 kW) – back-up power system
GPS Mapping Systems – to map collection systems

Lift Station Panel (Central)
Line Tracer
Long Handled PE Dipper
Lufkin Measuring Wheel – to measure distance
Magnetic Locators – to locate piping
Magnetic Stirrer
Manhole Inspection Mirror w/Light – visually inspect manhole
Microscopes – to perform microbiology evaluation
Multi-Meters
ORP Meters – oxidation reductive process to measure low levels of dissolved oxygen in wastewater
pH Meters – to measure the pH in wastewater and water
Portable Flow Meter
Portable Ultrasonic Flowmeter – to measure the wastewater flow and compare with actual flow meter calibration
Rain Gauges
Rotation Meters
Smoke Blower – used to identify infiltration and intrusion problems within sewer line
Sludge Judge – to measure sludge in clarifier
Soil Extraction Kit
Sulfide Test Kit – to check hydrogen sulfide levels
Suspended Solids Interface Level Analyzer
Tensette Pipet
Test Kit (Oxygen)
V Notch Weir (6' Tel-Mar)
V Notch Weir (8' Tel-Mar)
Valve Locator (Magnetic) – used to locate valves
VFDs
Voltage Converter – to reduce voltage
Weighted Stand & Sample Cup For Tracer
YSI DO Meter – to measure dissolved oxygen in wastewater

The following list of items are utilized by FRWA Staff to provide on-site assistance in troubleshooting wastewater systems and are not loanable to the Members. Please contact one of the FRWA Staff for assistance and availability of this equipment:

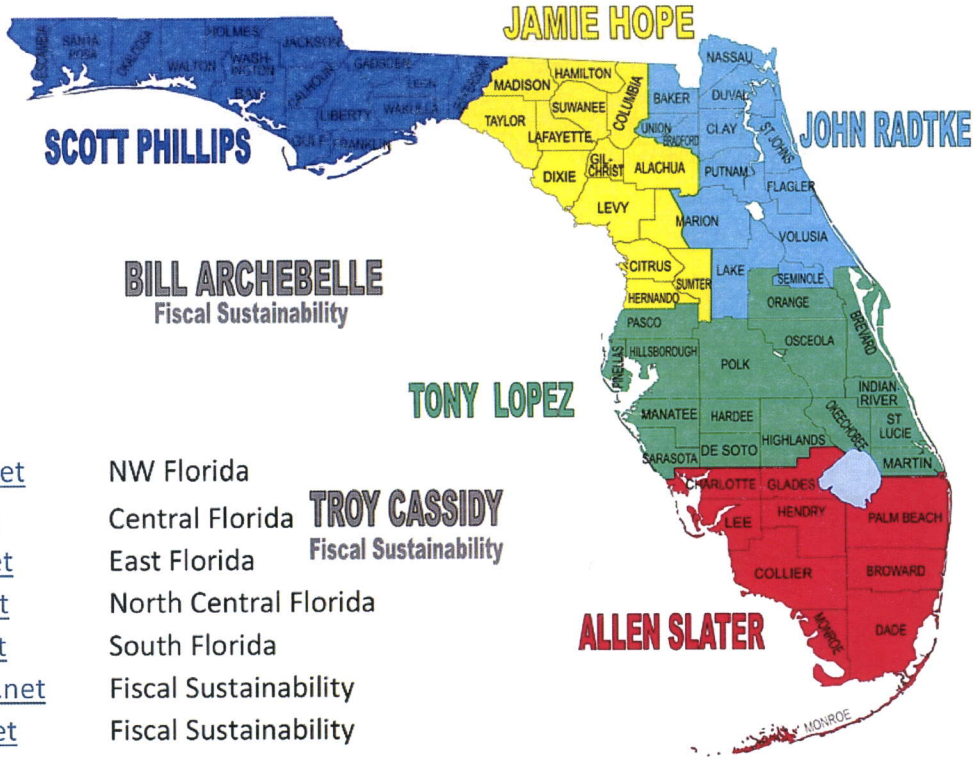
- Flow Meters – to measure the flow
- Portable Push Sewer Line Inspection System – to identify potential problems and piping integrity
- Ultrasonic and Doppler Flowmeters – used to perform flow meter calibration
- Ground Penetrating Radar (GPR) – to locate water and wastewater piping
- Leak Correlators – used to pinpoint leaks within the system

Membership Services

- ✓ Training Assistance to Water & Wastewater Operators;
- ✓ Training Discounts;
- ✓ Regulatory Representation;
- ✓ Monitoring Legislation at State and Federal Levels;
- ✓ Promotion of Funding for Water and Wastewater Projects;
- ✓ FRWA Annual Conference;
- ✓ On-Site Assistance at No Charge;
- ✓ Access to FRWA Equipment;
- ✓ Evaluation of wastewater plant and collection systems;
- ✓ Fiscal Sustainability;
- ✓ Professional Engineering;
- ✓ Training materials and wastewater information available on the FRWA website.
- ✓ Pharmaceuticals & Personal Care Products (PPCPs) treatment technologies, monitoring and removing
- ✓ Mercury reduction programs
- ✓ TMDLs, NNC, advice
- ✓ Bacterially compromised water bodies - proposed bacteria rule 62-302.530, FAC advice
- ✓ Starting a new wastewater system recommendations
- ✓ Handling / logging customer complaints proactively
- ✓ Contract Operations – checklist ,& whitepaper

FLORIDA RURAL WATER ASSOCIATON
2970 Wellington Circle
Tallahassee FL 32309

Wastewater Personnel by Region



Our Circuit Riders

The Wastewater Circuit Riders are available throughout the entire State of Florida and are able to provide technical assistance and evaluation of your wastewater treatment plant and collection systems, and disposal. There

Scott Phillips	scott.phillips@frwa.net	NW Florida
Tony Lopez	tony.lopez@frwa.net	Central Florida
John Radtke	john.radtke@frwa.net	East Florida
Jamie Hope	jamie.hope@frwa.net	North Central Florida
Allen Slater	allen.slater@frwa.net	South Florida
Bill Archebelle	bill.archebelle@frwa.net	Fiscal Sustainability
Troy Cassidy	troy.cassidy@frwa.net	Fiscal Sustainability

IV. Transcript

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

PROCEEDINGS:	INTERNAL AFFAIRS
COMMISSIONERS PARTICIPATING:	CHAIRMAN ART GRAHAM COMMISSIONER LISA POLAK EDGAR COMMISSIONER RONALD A. BRISÉ COMMISSIONER JULIE I. BROWN COMMISSIONER JIMMY PATRONIS
DATE:	Tuesday, September 15, 2015
TIME:	Commenced at 11:00 a.m. Concluded at 11:27 a.m.
PLACE:	Gerald L. Gunter Building Room 105 2540 Shumard Oak Boulevard Tallahassee, Florida
REPORTED BY:	LINDA BOLES, CRR, RPR Official FPSC Reporter (850) 413-6734

P R O C E E D I N G S

CHAIRMAN GRAHAM: Okay. It looks like it's about 11:00 on that clock back over there, so we will call this meeting to order. Let the record show it is Tuesday, September the 15th, and this is the Internal Affairs meeting.

Let's start off with Item No. 1, a presentation from Mr. Williams. Welcome.

MR. WILLIAMS: Good morning, Commissioners.

COMMISSIONER PATRONIS: Good morning.

MR. WILLIAMS: Gary Williams. I'm actually the Executive Director of the Florida Rural Water Association, and we are a trade association for water and wastewater utilities in the state of Florida, and provide a lot of different services. And I was asked to really speak about funding funders and the way to pay for projects for investor-owneds. So if it's okay, I'm just going to kind of go through a list of items. Interrupt me at any time if you've got questions, and we'll discuss it.

So probably the first option that many systems use would be, of course, private equity capital or stock, which are -- you know, we'd all be

familiar with. Another one would be short- and long-term debt typically through commercial paper like a bank or bonds. And one thing I'll say about bonds right now, probably the rate in the bonds is 3.7 probably plus closing costs or, you know, additional costs.

One thing I want to say about the bank stuff, we've got three banks in the State of Florida that have gotten pretty comfortable with water and wastewater utilities, and they understand that it's a revenue-producing unit that provides them some security and has abilities, you know, to generate revenue from rates to actually help cover costs, and they've gotten pretty comfortable with that.

About ten years ago we started contacting these banks. Florida Rural Water has an interim loan program, and what that is if you get money sometimes from the Drinking Water SRF or from the federal government, they actually will ask you to go out and get a loan, a construction loan. And then after the construction is done, they take the loan out. So we helped get some interim loan options.

At one time we were doing it through a group pooled revenue bonds, but then the bond market kind of went bad, and we went to banks and started

developing a relationship with them. And they've gotten very comfortable with the interim market. Of course, the interim market is very low risk for them because the systems are coming in with a commitment from the state government or from federal government that as soon as the project is built, it'll be taken out by the federal or state government. So there's very low risk to the banks.

But they've gotten comfortable with that, and now they're willing to do 10- or 15-year, you know, loans for water and wastewater utilities. Okay?

The three banks that we've developed a pretty good relationship with is SunTrust, BB&T, and Regions Bank. SunTrust and BB&T have been in this for ten years or so, and Regions just recently recognized the fact that maybe it was a good risk for them and a good business, you know, for them to be in and they've gotten involved.

So typically what happens when somebody comes to us and they're interested in talking to a bank, we actually just take them to those three banks and try to get bids from those three and let them decide.

So another option is contributed funds,

which would be, you know, money from a real estate developer, home builders, commercial that actually would be buying in capacity to that water and wastewater utility that might generate some -- some monies.

Okay. Now another one, the Drinking Water State Resolving Fund that is at the Florida Department of Environmental Protection, it's actually money that comes to the state from EPA, from the federal government. It's an 80 percent federal and a 20 percent state share. So the state legislature puts up 20 percent each year to be able to get the 80 percent.

Now on the investor-owned side, systems serving below 1,500 service connections qualify for those loans directly. Okay? So it's the smaller utilities that they're trying to help out, or if there's consolidation of two or more public water systems. So even if it was a larger system that was consolidating with a small one that was investor-owned, they would qualify for those funds.

Right now the rate on that, the loan rate is 2.2 percent. So you can see that that's a subsidized rate over that 3.7 if they go the bond way. So it has helped the systems considerably.

And you can get loans for up to 20 years on -- through that program.

One other one that I'll make you aware of is DEP, about three years ago, started an emergency grant program. And I'm not absolutely sure what caused them to start this, but they came to us with Florida Rural Water and said, hey, what we would like to do is to put up some money out of the State Revolving Fund that would be given to a small utility if they had a catastrophic failure of a component and couldn't provide water to their customers.

What would happen is they would ask us to go out and verify it, Florida Rural Water. They would ask us to find the vendor to fix it, like if it's a well pump that failed. We would find the vendor, they would fix it immediately, we would pay the vendor, and then we would submit to the state for reimbursement.

That program hasn't been used, and the main reason is because we're asked to go out and verify was it a catastrophic failure based upon an event or was it lack of operation and maintenance that caused the failure of a component? And DEP really doesn't want to reward lack of operation and

maintenance. So if it was lightning that hit a tank or lightning that hit a well, it would qualify and they could get grant money to do it.

The reason they came to us is going through the state procurement process, people would be out of water for a long time, and we can react in a day, you know, and pay the vendor and then -- typically when we do those types of things, it takes us three months to get reimbursed. But it is a good program because DEP understands that the people that are suffering from not having water, you know, shouldn't suffer just because the owner didn't have the reserves to go ahead and fix the component. So that one.

Department of Economic Opportunity has a thing called a Community Development Block Grant. Okay? It's up to a $750,000 grant. An investor-owned utility would not qualify for it directly, but if the investor-owned was able to get the county that they're in to sponsor the project, they would qualify through the county as a pass-through agency. Okay?

Normally that gives IOUs some pause because they get concerned about the control issue. Is the county, if they pass it through, going to

want to exert some kind of control over my operation?

USDA Rural Development. In their eligibility for systems are governmental entities or nonprofits, but we do help some systems once in a while that are investor-owned look at wouldn't it be better off to be a non-profit and qualify for this funding? As you all know, most really small systems, to say it's for profit or -- is a misnomer. They're probably losing money, so they're operating as a non-profit now. And if they reorganized and essentially let the customers take the system and own it as a cooperative, it might give them some additional financing options of low interest loans and grants. So we help some evaluate that as an option as they look and go forward.

Okay. Another one I'm sure you're aware of is the Small Business Administration. All of the investor-owneds would qualify for their various programs. I think they have five or six different loan programs, and you just essentially have to look at their loan programs and say, okay, that's one that meets the criteria that I'm in now. Some of it's disaster related, but a lot of it's just basic, you know, I have a need and go forward. It's a good

program. The Small Business Administration has people that help you through the process. But I will say, like many of the state and federal programs, it's not a quick process. There's quite a bit of applications and red tape and all that type of stuff to go through.

Another one I'm going to mention is springs monies, you know, that was discussed last year in the Legislature and monies were made available. There is no stipulation on who the eligible entities are to receive that. The reason I'm bringing it up is because DEP and Department of Health came to us related to the septage issue. As you know, the septage -- middle of next year the septage will no longer be able to be land applied. The problem is what's the alternative if you can't land apply it? And so they came to us and said, well, what about the wastewater facilities taking it? We looked at it and said, okay, they're probably not going to be able to take it unless they're of a certain size, .5 mgd and bigger. They also, even at that size, can't take it and dump it on the plant. They're going to have to take it and meter into the plant, you know, over a -- overnight, that type of thing, because it'll kill the plant.

So DEP is talking about giving springs grant money to facilities that are willing to consider taking septage. What does that probably mean? It probably means they're going to have to build some kind of surge tank, some tank so it's dumped into that tank so it can be fed over the plant over time. They're going to have to have some better screening because there's a lot of stuff that comes out of that septage that you don't want plugging the plant. And then other thing is some of the plants are going to have to be upgraded because what's coming in in septage is like 60 for nitrates and nitrogen, and we've got to get it down to 3. Well, some of these facilities are going to need some upgrading to be able to achieve that level. But it's all related to trying to discharge better quality water in the springs zones. So that's being discussed.

And we've just recently sent out a survey to all the systems in the state above .5 mgd asking if they were willing to consider this if funding was made available. So we got that information back to be able to give to DEP and DOH. It's something that needs to be considered, because the other option I see is building septage-only facilities, which is

going to be expensive. And at least with the wastewater facilities you already have permitting, you already have discharge, you know, permits and that type of thing. All that would have to be set up to have a septage-only treatment facility.

Also our concern is how far are these septage haulers going to be willing to haul, you know?

COMMISSIONER PATRONIS: Sure.

MR. WILLIAMS: And from my standpoint, I'd rather see it go to a plant and the plant knows it's coming than if the septage haulers go out at night and find the nearest manhole and just dump it in there and it comes into the plant and we don't know that it's coming. So I bring that one up, that there's probably going to be some springs grant money available for dealing with the septage that may help some of our wastewater utilities, you know, essentially increase their capacities.

Another one is water management districts. All of the water management districts now have some stuff going on related to water conservation initiatives and innovative projects. And most of them have up to $10 million a year that they're actually letting the people know, the water systems of all types, that if you

have innovative projects or things that you want to do to increase water conservation, they have grant funds to provide to systems.

Okay. Another thing I wanted to mention was funders meeting. I talked about funding different programs. Quarterly all of the funders in the state, some of them I didn't even mention because they only deal with, you know, governmental entities or economic development, they have, you know, specific things, every quarter the funders all get together and talk about projects and about how to fund them. Okay? And one of the things that they've set up and I have is they created this drinking water project request form and wastewater project request form. It's on our website and most all of the funders' websites. I have no problem if you guys wanted to put it on the PSC website.

Essentially what it does, it has a number of different questions. If you have a project, you fill out, it comes in front of the group, and the group looks at it and goes that's one that's in my wheelhouse. And some of the funders will take the lead as being a lead agency to talk to those systems and try to work it through the process.

Some of the very big projects, and we're seeing a lot of big projects, it's more than one funder

can fund. So we have a lot of discussions about partnership funding. Can you cover half of this, if I cover the other half? So those meetings go on and these forms come in, and we help, you know, find funding for those projects.

And that was pretty much what I was supposed to cover, and if you have any questions. The other thing I wanted to point out, and I will leave these here, just a little digression on Florida Rural Water. We have put together service brochures on Florida Rural Water in the drinking water area, the wastewater area, and groundwater source water area. And so it's really for systems so that they know what they can call and ask us to help them out with. And most all the services we provide are available to them at no charge. And like the drinking water service one is 16 pages long, so there's lots and lots of services and equipment that we have available to water and wastewater systems across the state. So I know that really wasn't under funding, but I wanted to leave that in case any of that will benefit your folks. Any questions?

CHAIRMAN GRAHAM: I was going to say, as always, we always appreciate everything that your company does, the Florida Rural Water Association does. I mean, there's a lot of small mom and pops

out there that kind of get lost in all of this regulatory stuff, and you guys, you know, do a pretty good job of helping them, you know, see the path and before staff has to help them see the path.

COMMISSIONER PATRONIS: Question?

CHAIRMAN GRAHAM: Yes.

COMMISSIONER PATRONIS: Thank you for your presentation.

How familiar are you with the City of Apalachicola's situation with their wastewater treatment facility and their revolving loan they've got with the state?

MR. WILLIAMS: Pretty familiar.

COMMISSIONER PATRONIS: What -- I'm just curious, what's the status of it? And I dealt with that years ago, and I wasn't quite sure, have they gotten their -- their balance sheet in order or are they still upside down?

MR. WILLIAMS: They're probably still upside down.

COMMISSIONER PATRONIS: Yeah.

MR. WILLIAMS: As you know, what happened was is they had a big project and they took out a loan for that project, but they tried to work out a situation where they would get grant money each

year, and not only would the grant money, but the interest that was collected by putting that grant money in the bank would help pay the loan payment. Well, investment rates went down --

COMMISSIONER PATRONIS: Right.

MR. WILLIAMS: -- and so they didn't have the revenue to pay the loan. They thought that they had gotten a commitment that they didn't have to pay the loan back. Okay? So they the weren't paying the loan, you know. What they were really --

COMMISSIONER PATRONIS: Right. That was the state's money.

MR. WILLIAMS: What they really did is they took the risk, you know, that they could make the investment to pay the loan. And they didn't want to raise their rates to pay the loan to make up the difference between what wasn't generated in the investment rate and the loan rate.

But I think the Governor's Office and various other groups might have educated them to the fact that they signed a loan agreement and had some obligations. So they are paying the loan, but to answer your question, they're probably still upside down. They probably haven't increased their rates to the point where they, you know -- so they're

probably taking money out of other, other state -- other city revenues to pay the loan payment.

COMMISSIONER PATRONIS: And -- because I remember they were using essentially government money to generate -- with the rate revenue and the interest they were generating off the government money, they were using that to pay back the bond. And, anyway, like I said, you nailed it. The interest rates collapsed and they were starting to eat into their own principal and try to take care of this.

MR. WILLIAMS: It was an innovative financing method when it was proposed. It just didn't end up being a --

COMMISSIONER PATRONIS: Another asterisk here is Apalachicola and then Key West are essentially like wards of the state. They're defined in statute different than any other municipality in the state. So Apalach kept on falling back on that. Well, at the end of the day, it's the state's responsibility because -- because how we've been defined by the Cabinet. I think that was also another way they were defending themselves.

MR. WILLIAMS: And the Keys are doing much better. You know, their problem at the time was

they had 285 package plants down there. You know, every Waffle House had its own little plant. And most of those are taken offline now because there's been enough money put in to regionalize these facilities to take those operations offline. So water quality has really improved down there based upon state, you know, investment into the -- protecting the Keys.

COMMISSIONER PATRONIS: Thank you.

CHAIRMAN GRAHAM: Earlier you mentioned the potential of an IOU going through the county to get CBG money. Has that ever happened?

MR. WILLIAMS: Yes, it has. I will be honest, though, it hasn't happened recently. And the reason being -- I mentioned the part about investor-owneds get nervous about, you know, the pass-through. But the other thing is, is that the counties can only have one project at a time, and so a lot of times you can't talk them into giving up their opportunity to get the grant to pass it through to somebody else.

CHAIRMAN GRAHAM: That's why I was kind of surprised.

MR. WILLIAMS: There was a time when that happened, you know, they looked at -- but now a lot

of these counties are in the water and wastewater business, and so they want to capitalize and get in the grant for themselves. Does that help answer the question?

CHAIRMAN GRAHAM: Uh-huh.

Commissioner Brown.

COMMISSIONER BROWN: Thank you. I was very excited to see you on the Internal Affairs. And thank you, Mr. Chairman, for getting Gary here. Your organization provides such a great service to the state.

Some of these I didn't know about. The water management district, you said that each water management district gets 10 million -- or gives out $10 million?

MR. WILLIAMS: They could have up to 10 million.

COMMISSIONER BROWN: So what type of projects would qualify?

MR. WILLIAMS: Water conservation, it would be any project that would help lower the amount of water that's withdrawn from the aquifer. So it might be fixing leaks, it might be dealing with inaccurate meters with the utility, that type of stuff. It also can be education for the

customers.

Not to get too far in the weeds, but with smart metering that we have going on now, you know, the actual customer can have access to their water usage information, which if they're given that, they have a lot more information to make choices about I'm using too much water. And so a lot of that is going on in the industry where actual folks are having access to information. And I will say that it's probably most effective in the most affluent areas, because you can have an increasing block rate structure, but if people have a high income, it doesn't have any effect on their water use. They'll just go ahead and pay it. But if you actually provide them information to say people in your area are only using this much water, you sometimes can get them to engage in conserving a little more.

COMMISSIONER BROWN: Uh-huh. Do you all help out utilities that are seeking grants through the water management district programs?

MR. WILLIAMS: Yes.

COMMISSIONER BROWN: Okay. Thanks.

MR. WILLIAMS: Yeah. We have engineers on staff, and so if we need to help write up stuff related to, you know, applications for funding and

it has to have some kind of engineering component, we do that to try to get them into the program.

COMMISSIONER BROWN: Great resource.

CHAIRMAN GRAHAM: Well, Gary, we want to thank you for coming down, for your presentation, and for taking time out of your day.

MR. WILLIAMS: And I'm sorry. I was told that I only had ten minutes, but I just went on --

(Laughter.)

CHAIRMAN GRAHAM: When we started asking questions, it's not your fault.

MR. WILLIAMS: Next time you'll tell me five minutes and you'll hold me to ten.

CHAIRMAN GRAHAM: It's not your fault once we start asking questions. Thank you very much.

MR. WILLIAMS: All right. Thank you. And I'll leave these here for you, if it will help you. Thank you.

CHAIRMAN GRAHAM: All right. No. 2.

MS. PAGE: Good morning, Commissioners. Pamela Page with the Office of General Counsel.

Staff is seeking approval for the Commission's 2015 regulatory plan reporting on rulemaking in the upcoming year. A certification by the Chairman and the General Counsel that they have

reviewed the plan and that the Commission regularly reviews its rules for correctness is required.

The plan must be posted on the Commission website, and the certification submitted to the Joint Administrative Procedures Committee by October 1st, 2015. For each rule implementing a new law, the plan must include the date by which a notice of rule development will be published. For the new laws -- for the new law 2015-129 enacted by the Legislature this year, page 1 of the plan identifies September 30th, 2015, as the date by which the Commission intends to publish a notice of rule development to implement the amendments to customer charges provisions in Chapter 366, *Florida Statutes*.

We ask for administrative authority, working with the Chairman's office, to update the draft plan and to include the actual date that the notice is published and to recover any scrivener's errors as necessary.

CHAIRMAN GRAHAM: Commissioners, any questions of staff? Comments?

COMMISSIONER EDGAR: Crickets.

CHAIRMAN GRAHAM: Okay. Remember, my name is on this bottom line here. They come knock on my door if this is not right.

COMMISSIONER EDGAR: Do you have any comments or questions?

CHAIRMAN GRAHAM: You guys are supposed to be looking -- watching may back.

(Laughter.)

Okay. So you just need -- we need an approval from us to move forward with this?

MS. PAGE: Yes, Commissioner.

COMMISSIONER BROWN: Move to approve.

COMMISSIONER EDGAR: Second.

CHAIRMAN GRAHAM: It's been moved and seconded to approve this draft. Any further discussion? Seeing none, all in favor, say aye.

(Vote taken.)

Any opposed? You've approved it.

Thank you very much.

MS. PAGE: Thank you.

CHAIRMAN GRAHAM: General Counsel, anything?

MR. BECK: No, sir.

CHAIRMAN GRAHAM: Executive Director, anything?

MR. BAEZ: No report, except a reminder that legislative committee meeting season is upon us. No substantive committee -- none of our

substantive committee meetings are scheduled to meet this week. But we're in season, and we'll keep you abreast of anything that comes up, as usual.

CHAIRMAN GRAHAM: Okay. Other matters?

Seeing no other matters, I think it's time to go to lunch. We're adjourned.

(Internal Affairs adjourned at 11:27 a.m.)

STATE OF FLORIDA)
: CERTIFICATE OF REPORTER
COUNTY OF LEON)

I, LINDA BOLES, CRR, RPR, Official Commission Reporter, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 21st day of September, 2015.

Linda Boles

LINDA BOLES, CRR, RPR
FPSC Official Hearings Reporter
(850) 413-6734