## **COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS**

## **POST OFFICE BOX 1529**

## **LAKE CITY, FLORIDA 32056-1529**

## TOWN OF FORT WHITE/COLUMBIA COUNTY UTILITY COMMITTEE

## **TDC Conference Room 971 West Duval Street**

## **AGENDA**

10/4/2023

#### 8:30 AM

- 1. Pledge of Allegiance
- 2. Approval of Minutes
- 3. Introduction Utility Director
- 4. Multi-County Utility Committee
- 5. Oct. 25, 2023 Joint Town of Fort White/ County Meeting 6:00 PM
- 6. Ichetucknee Utility Authority Agreement
- 7. Update on Water Treatment & Distribution Projects
- 8. Update on Wastewater Treatment & Collection Projects
- 9. Rate Increases

## Columbia County Joint Utility Committee

# Minutes of August 16, 2023

The Joint Utility Committee met in the auditorium of the Duval Place Building, 971 west Duval Street, in the executive conference room at 8:30 a.m. The meeting opened with the Pledge of Allegiance to the Flag of the United States of America.

Commissioners in Attendance: Rocky Ford

Ronald Williams
Timothy Murphy

Board Members in Attendance: Carl King

Tom Ottum Toby Witt

Others in Attendance: County Manager David Kraus ("CM")

Assistant County Manager Kevin Kirby ("ACM")

Stacy Cowart, Utility Director

Staz Guntek, Project Development Manager Greg Bailey, North Florida Professional Serv Brian Roche, North Florida Professional Serv Trevor Noryes, North Florida Professional Ser Connie Brecheen. Town of Fort White Clerk

Grady Williams, Utility Attorney

Deputy Clerk Tricia Carter

#### **New Chairman and Commissioner Selected**

Commissioner Rocky Ford recused himself from the Joint Utility Committee. He requested the committee members to select Commissioner Ronald Williams as the new chairman and Commissioner Timothy Murphy as a member of the committee.

## **Approval of Minutes**

MOTION by Tom Ottum to approve the minutes from the August 2<sup>nd</sup>, 2023 meeting. SECOND by Carl King. The motion carried unanimously.

#### **Public Comments**

None.

## North Florida Mega Industrial Plant ("NFMIP")

Stacy Cowart offered update on the progress at the North Florida Mega Industrial Plant. He showed aerial photos showing the latest progress at the plant. They are continuing to make good headway and work is progressing well. See attached.

#### Ellisville WWTP

Stacy Cowart gave an update on the Ellisville WWTP. They are continuing to work on the punch list items. Greg Bailey stated that there is a meeting scheduled for August 25, 2023 with the Florida Department of Transportation to discuss working together on this project. They are hopeful there may be short term solution involving FDOT's waste water facility at the rest area. They do have capacity available over what they are currently using. They will continue to look at long term options. ACM Kevin Kirby added that the county has enough property to take the project through phase three assuming the FDOT deal goes through.

Discussion by the committee.

## Ellisville WTP

Stacy Cowart stated he put in for a permit for peroxide conversion. The permit came back and they are updating the chemical and well pumps. Graham & Sons Electric, Inc. was the cheapest bid on updating the pumps and work should be completed in the next few weeks. Greg Bailey offered update on his meeting with the Suwannee Water River Management District on the Consumption Use Permit ("CUP") at Fort White. Greg stated the CUPs could be combined, but there is a process to go through in order to do so. Stacy Cowart stated the importance of that meeting was due to the current daily water usage permit being 92,000 gallons a day. Now that schools are back in session they are exceeding their capacity. CM David Kraus stated there is a need to start working on expanding the CUP in Fort White. Greg Bailey talked about the subject of recharging the aquifer. Stacy Cowart added that they would have enough capacity by combining the CUPs, however, the Ellisville CUP will need to be updated as well if it is combined with Fort White's CUP.

Discussion by the committee.

#### Ft. White WTP

Stacy Cowart advised staff that the pilot study permit he put in for was approved. Staff is now in the process of getting quotes for putting in the Greensand filters. He expects to have some results of the study in the next sixty to ninety days. Commissioner Williams would like confirmation on whether the Town of Fort White wants to continue with a joint utility by the Board meeting on August 30, 2023.

Discussion by the committee.

## Ichetucknee Water Utility Authority

Staz Gunteck offered a draft for an Interlocal Agreement creating the Ichetucknee Water Utility Authority between Columbia County and the Town of Fort White. He highlighted the major points of the agreement. The draft is subject to change prior to final approval of both parties. Connie Brecheen asked for a business model that she can take to the town council in Fort White to help them with making a decision.

Discussion by the committee. Stew Lilker offered comment.

## **Next Advertised Meeting**

The next meeting is scheduled for August 30th, 2023.

## Adjournment

There being no further business, the meeting adjourned at 10:10 a.m.

ATTEST:	Ronald Williams, Chairman
James M. Swisher, Jr. Clerk of Circuit Court	

## FLORIDA RURAL WATER ASSOCIATION

2970 Wellington Circle • Tallahassee, FL 32309-7813 (850) 668-2746

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EMAIL frwa@frwa.net

WEBSITE www.frwa.net

#### April 6, 2023 Revised August 23, 2023

Mayor Ronald R. Frazier, Jr.

Town of Fort White

118 SW Wilson Springs Rd, Suite 1

Fort White, FL 32038 Phone: (386) 497-2321

Email: town@fortwhitefl.com

Mr. Robert Domingue

Columbia County Utilities Superintendent 135 NE Hernando Avenue, Suite 203

Lake City, FL 32055 Phone: 386-984-5872

Email: rdomingue@columbiacountyfla.com

Re: Katalox Media & GAC Pilot Study Activated Alumina Filtration System ~

Permitting to Improve Water Quality and Reduce Disinfection By-Products,

Color, Taste and Odor

Town of Fort White, Columbia Co., PWS: 2124399

Dear Mayor Frazier, and Mr. Domingue:

You (Town of Fort White) have asked FRWA to modify the Katalox Media & GAC Pilot Study and change it to a permit for Activated Alumina Filtration System. The Activated Alumina Filters will be followed by the GAC Filters (the GAC media to be replaced).

Florida Rural Water Association (FRWA) would be pleased to assist Town of Fort White with actions to improve water quality and better reduce color, taste, odor and reduce the potential for producing Disinfection By-Products (DBPs).

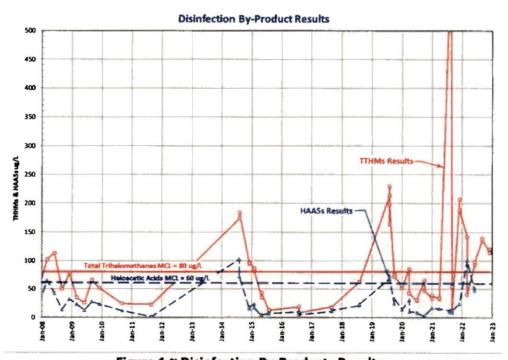


Figure 1 ~ Disinfection By-Products Results

**FDEP DBP Exceedance Warning Letter.** FDEP sent a warning letter dated November 22, 2022 stating possible violations of Stage 2 Disinfection By-Products as per Chapter 403, Florida Statutes, and Chapter 62-550.514, F.A.C. Locational Running Annual Average (LRAA) was exceeded for Total Trihalomethanes (TTHMs) and Haloacetic Acids Five (HAA5s), see Figure 1 ~ Disinfection By-Products Results.

**Disinfection By-Products (DBPs).** DBPs are formed when chlorine combines with naturally occurring organics in the raw water. Water age (time in storage and the distribution system), high chlorine feed rates, and heat all increase DBP formation. Impurities in raw water such as iron, sulfur, organics, tannins, color, odor, taste, hardness, etc. increase chlorine demands. High chlorine feed rates increase DBP formation, so improving water quality (and by extension reducing chorine demand) reduces DBPs. FRWA recommends a multi-pronged approach to DBP reduction – flushing, tank mixing, and treatment changes (such as preoxidation).

Table 1 ~ Factors Affecting DBP Formation & Possible Options1

Factors	Affects	Controllable?	Possible Actions	
Time	Higher water age → higher DBPs	Yes	<ul> <li>Lower residence time in tanks<sup>2</sup></li> <li>Install automatic flushing devices</li> </ul>	
Temperature	■ Higher temps → higher DBPs	No	N/A	
рН	<ul> <li>Higher pH → higher TTHMs</li> <li>Lower pH → higher HAA5s</li> </ul>	Marginally Yes	Lower pH only if TTHMs are high and HAASs are low	
Water Quality	<ul> <li>Poor water quality → higher chlorine demand → higher DBPs</li> <li>Higher Organics → higher DBPs</li> </ul>	Yes	<ul> <li>Remove impurities / TOC with treatment</li> <li>Oxidize TOCs, Fe &amp; H<sub>2</sub>S</li> </ul>	
Disinfectants  ■ More free chlorine available for reactions → higher DBPs		Yes	<ul> <li>Lower chlorine feed</li> <li>Use alternative preoxidant in WTP and move chlorine injection near point of entry</li> <li>Recommend AGAINST using chloramines</li> </ul>	

#### Begin with these proven actions to control and reduce DBPs:



- Clean and flush tanks / distribution system,
- Lower water age in the tanks / distribution system,
- ✓ Lower chlorine feed and minimize chlorine contact time, and
- ✓ Treat to improve water quality (remove or oxidize impurities).

Activated Alumina (Al<sub>2</sub>O<sub>3</sub>) Filtration (Adsorption and Oxidation). Activated alumina has been used as an adsorbent for drinking water defluoridation since the discovery of the cause of fluorosis in 1934.

<sup>&</sup>lt;sup>1</sup> USEPA. (2008). Stage 2 Disinfectants and Disinfection Byproducts Rule – Operational Evaluation Guidance Manual.

<sup>&</sup>lt;sup>2</sup> USEPA (2002). Effects of Water Age on Distribution System Water Quality.

Activated Alumina (Al<sub>2</sub>O<sub>3</sub>) is used for the removal of:

- Arsenic
- Iron
- Sulfur

- Coliform
- Lead
- Taste

- Color
- Odor
- Total Organic Carbon (TOC, NOMs, Tannins,

- Fluoride
- Selenium
- and 20 other metals and semi-metals

Activated alumina is manufactured by dehydroxylation of aluminum oxide hydroxide which produces a highly porous substance, surface area typically in the range of 150–380 m² per gram. The term "activated alumina" refers to the activation due to calcination. The pore structure is resistant to high temperatures and abrasion, which have been a reason for activated alumina being used as a thermochemical catalyst. It is prepared through the calcination of aluminum hydroxides at temperature that range between 300°C and 600°C.

Activated alumina creates no reject water -- back washing is not required. It can be easily added to existing systems or filters. The media has a strong / efficient anti-microbial capability and removes coliform, iron and sulfur reducing bacteria. No chlorine or dechlorination steps are required.

Aqueous Solutions Global manufactures a unique and superior oxidation product, AP Oxidization Media. The AP Oxidization Media meets the ANSI Standard NSF 61: Drinking Water System Components - Health Effects.

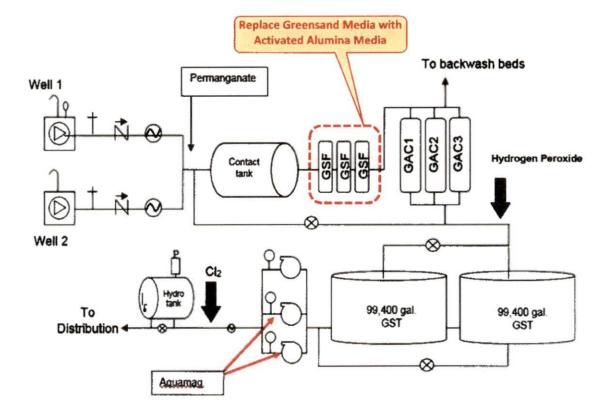


Figure 2" Existing Process Flow Diagram

**Existing System Demands and Capacities.** Based on the FDEP database the following is summarized and estimated, also see Figure 3 ~ Existing System Demands and Capacities

Permitted Design Capacity 216,000 gpd	150 gpm
Connections	FDEP database
Population	FDEP database
Average Daily Demand (ADD) 62,400 gpd	43.3 gpm
Maximum Daily Demand (MDD)203,000 gpd	141 gpm
Total Capacity (2) Wells (193 gpm each) 555,840 gpd	386 gpm

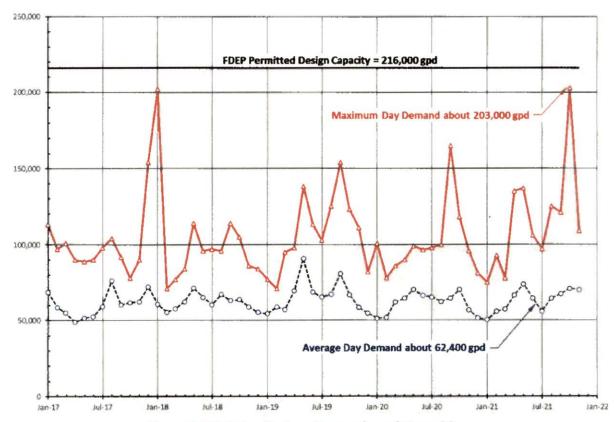


Figure 3 ~ Existing System Demands and Capacities

#### FRWA'S SCOPE OF WORK

In accordance with your request and as required by Florida Department of Environmental Protection FRWA will perform the following tasks: Preliminary Engineering Report, Engineering Drawings, Permit Application, Respond to FDEP Requests for Additional Information, and Final Certification Package.

## Task 1 ~ Withdraw the Katalox Media & GAC Pilot Study Request.

FRWA has already completed and submitted the Katalox Media & GAC Pilot Study Request to FDEP. FRWA will withdraw the request with FDEP.

Task 2 ~ Preliminary Engineering Report.

FRWA shall prepare the Preliminary Engineering Report for the Activated Alumina System.

#### Task 3 ~ Engineering Drawings.

FRWA shall prepare Engineering Drawings for FDEP depicting the Activated Alumina Filtration System.

#### Task 4 ~ Permit Application.

FRWA will prepare the Florida Department of Environmental Protection Permit Application for your signature. You will be responsible for paying all permit application fees directly to FDEP.

#### Task 5 ~ Respond to FDEP Requests for Additional Information.

FRWA will respond to FDEP Requests for Additional Information (RAI).

#### Task 6 ~ Final Certification Package.

FRWA will provide the Final Certification based on the redline markups, photographs, and bacteriological results. When work is complete, FRWA will send a Draft of the Final Certification along with a final invoice. Once final payment is received, FRWA will release the signed and sealed Final Certification to you and FDEP.

If this project description is inaccurate please let us know by return mail – we want to clearly understand your project and expectations.

#### PROJECT CONTRIBUTION.

For the Katalox Media & GAC Pilot Study we asked for that you provide a contribution of \$3,750 to FRWA in aid of engineering assistance. Since we have already completed and submitted the Katalox Media & GAC Pilot Study Request to FDEP, we are requesting an additional \$1,250 for the Activated Alumina Filtration System. A total \$5,000 contribution.

You have provided \$2,250 up front already, and will not ask for more up front, but will invoice the remainder as the project proceeds.

The FDEP permit fee will be your responsibility! The FDEP will let us know the actual fee amount.

#### PROJECT AUTHORIZATION.

Before we begin work please sign the Attached Agreement, and return.

Sincerely,

Sterling L. Carroll, P.E., FRWA State Engineer

Copy: Fred Handy, FRWA Water Circuit Rider

Peyton Piotrowski, FRWA Assistant State Engineer

Andrew Schoeneck, Coast Pump Water Technologies Inc., andycoastpump@yahoo.com

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#### Please review sign and return the acknowledgment below:

## **REVISED** FRWA Specific Assistance Agreement / Acknowledgment

Town of Fort White (hereafter referred to as "FRWA Member") requests FRWA's assistance and by doing so willingly and freely enters into this agreement for FRWA membership assistance with your Katalox Media & GAC Pilot Study Activated Alumina Filtration System Permitting to Improve Water Quality and Reduce Disinfection By-Products, Color, Taste and Odor

This agreement is made upon the express condition that the FRWA Member agrees to hold the Florida Rural Water Association, its agents, employees, and consultants harmless for any loss, damage, expense, cost, or legal liability. The FRWA Member understands it can hire a consulting firm to do the work at any time in lieu of making a \$3,750 total \$5,000 contribution to support FRWA's Engineering Program.

The FRWA Member is responsible for paying all FDEP permit application fees directly to the Agency (we will verify this amount with FDEP). Please send \$2,250 upfront. Already completed.

The FRWA Member acknowledges that FRWA is non-profit membership association dedicated to assisting water and wastewater systems provide Floridians with an ample affordable supply of high quality water.

Further the FRWA Member agrees to commit to gather the data, maps, and information about its own system; and recognizes the backlog of work and is willing to be patient until FRWA can get to its project; and appreciates this membership service.

The FRWA Member has the option to hire an engineering consultant at any time, if the project cannot wait for FRWA Engineers' availability – FRWA would be happy to provide a refund.

Signature:	AG	Date: 8/24/23	
	P by September 23, 2023! Because to this offer within 30-days.	se FRWA engineering services are in high demand we as	sk for

If you need more time for your decision-making process just let us know. We understand if you choose to proceed in another way and support you in that decision.

We're always here to assist water and wastewater systems. Please drop a quick line to let us know or sign the agreement and return it to us. If we have not heard from you within 30-days we will assume that this offer has expired and remove your system off our list of utilities desiring FRWA engineering services.

FRWA Member: Town of Fort White



Contact Person:

Named Covered Party:

Columbia County Board of County Commissioners

Term:

10/01/2023 to 10/01/2024

Coverage Provided by:

**Preferred Governmental Insurance Trust** 

Quote Number: WC FL1 0121012 23-22 01 - 1

## EMPLOYER WORKPLACE SAFETY PROGRAM PREMIUM CREDIT APPLICATION

Telephone Number:
I am submitting a copy of my workplace safety program which meets the requirements of Section 440.1025, Florida Statutes. I certify that this Safety Program has been implemented in the workplace and is being maintained as submitted to "Preferred (The Trust)".
This is to certify that the Workplace Safety program meets or exceeds the following provisions as provided for in Section 440.1025, Florida Statutes:  1. Written Safety Policy and Safety Rules 2. Safety Inspections 3. Preventive Maintenance 4. Safety Training 5. First Aid 6. Accident Investigation 7. Necessary Record Keeping
I am aware that we may be subject to on-site inspections by "The Trust", for the purpose of validation the accuracy of this information.
Any person who knowingly, and with intent to injure, defraud, or deceive any insurer, files a statement of claim or an application containing any false, incomplete or misleading information with the purpose of avoiding or reducing the amount of premiums for workers compensation coverage is guilty of a felony of the third degree, punishable as provided in Section 775.082, s.775.083 or s.775.084, Florida Statutes.
Under penalties of perjury, I declare that I have read the foregoing Certification or Employer Workplace Safety Program Premium Credit, and that the facts stated in it are true.
Employer Name: Date:
Officer/Owner Signature*:
Title:*Application must be signed by an officer or owner.

The brief description of coverage contained in this document is being provided as an accommodation only and is not intended to cover or describe all Coverage Agreement terms. For more complete and detailed information relating to the scope and limits of coverage, please refer directly to the Coverage Agreement documents. Specimen forms are available upon request.