ANDERSON REGIONAL
JOINT WATER SYSTEM

998 Hunters Trail Anderson, SC 29625 Phone: 864-332-6534 Fax: 864-224-6116

BOARD AGENDA

Board of Commissioners
September 2023

I. Minutes August 23, 2023

II. Informational Reports

1. Executive Committee Meeting Summary
2. Finance and Administration Report
3. Operations and Maintenance Report
4. Sustainability Report

Future planned Board meeting dates are:

- October 25, 2023
- December 20, 2023
- February 28, 2024

ANDERSON REGIONAL
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Your Community-Owned and Operated System

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www.arjwater.com

MINUTES OF THE
ANDERSON REGIONAL JOINT WATER SYSTEM
August 23, 2023

LET THE MINUTES SHOW THAT THE MEDIA WERE NOTIFIED OF THIS MEETING IN ACCORDANCE WITH THE SOUTH CAROLINA FREEDOM OF INFORMATION ACT.

A QUORUM OF THE BOARD IS PRESENT.

COMMISSIONERS PRESENT: Benjie McGill, City of Clemson; Patrick Jackson, Starr-Iva; David Rogers, Town of Williamston; Matt Ruff, Big Creek-Hammond; Kevin Simpson, Broadway; Tracy Durham, Sandy Springs; Dyke Spencer, Powdersville; Scott Banks, City of Anderson; Dennis Chastain, Homeland Park; John Lollis, West Anderson; Steve Miller, Town of Pendleton

OTHERS PRESENT: Scott Willett, ARJWS; Jeff Caldwell, ARJWS; Kendall Cleary, ARJWS; Christopher Weber, ARJWS; Jodi Logan, ARJWS; Lisa Evatt, ARJWS; Billy Peele, Starr-Iva; Tony Putnam, Clemson University; Don King, Homeland Park; David Hall, Homeland Park

Chairman Patrick Jackson called the Board meeting of Anderson Regional Joint Water System to order at 12:00 p.m. on August 23, 2023.

Chairman Patrick Jackson asked for any Commissioner comments. Mr. Chastain introduced Don King to the Board. Mr. Jackson presented Mr. Spencer with a plaque in appreciation for his commitment and dedicated services as Chairman of the Commission for years 2021-2023.

Mr. Spencer made a motion to approve the June 28, 2023, minutes and Mr. Miller seconded. Motion carried.

I. Consent Calendar (Old Business)

None

II. Items Requiring Immediate Action

None

III. Discussion (New Business).

1. Strategic Plan Annual Update FYE 2023

Mr. Caldwell presented the ARJWS Strategic Plan Update for FYE 2023. He discussed the Critical Objectives which included Brand, Operations and Asset Sustainability, Financial Viability, Staff Retention, and Communication and Partnership.

2. Executive Director's Report (Oral)

Mr. Willett shared the PFAS Litigation & Settlement overview handout with the Board. Mr. Willett discussed where the EPA has identified facilities that may expose people to PFAS, talked briefly on the 3M and DuPont Settlement, Class Members, Base Score, and the pros and cons of participating in the settlements.

IV. Informational Reports

1. Executive Committee Meeting Summary

Mr. Spencer made the suggestion to add the Executive Committee declined the RIA Grant.

2. Finance and Administration Report

Greene Finney, LLP has been on-site to conduct the Annual Audit for FYE 2023. A full report will be presented at the October Board meeting. Each Board member was given the board letter.

3. Operations and Maintenance Report

Mr. Spencer requested ARJWS share PFAS sample results with member agencies.

4. Sustainability Report

These reports are for information and for each Member to review as written. A copy of each report is attached to the file copy of these minutes.

V. Closed Executive Session

None

VI. Adjournment

With no further business, Mr. Lollis made a motion to adjourn at 1:03 p.m. and Mr. Rogers seconded. Motion carried.

Respectfully submitted,

Benjie McGill
Secretary/Treasurer

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COMMITTEE SUMMARY

Executive Committee
September 18, 2023
11:30 am

I. Discussion Summary

1. Continuous Improvement

A. Clemson University Risk and Resilience Assessment

Clemson University is performing an assessment for the Army Corps of Engineers to evaluate infrastructure risk and resilience in the Savannah River Watershed. ARJWS has scheduled a General Manager's meeting to allow member systems to understand the project and how to participate.

B. Ozone Operations

Over the past two years, ARJWS has had several electrical issues related to the operation of Ozone. This has been prevalent in the summer months when the ozone process is critical. The power supply units for the ozone generators are cooled using ozonated water which during the summer months is more than 90°F. This causes the temperature to exceed 95°F in the cabinet causing failure of the electrical components. To combat this issue, ARJWS is evaluating the addition of chiller(s) on the cooling water loop.

C. Cold Water Settling

In past years, ARJWS utilized a cold weather settling coagulant to help meet the settled water turbidity goals of less than 1 NTU. Since this is a performance goal and not a compliance goal, a budget decision was made to operate with our regular coagulant. During last year's extreme cold temperatures combined with abnormally high number of water main breaks, increasing settled water performance is critical to meeting higher demands. ARJWS is reviewing available chemicals to provide better flexibility during the cold weather months.

2. SCIIP/RIA Update

ARJWS received an RIA grant to offset costs to construct improvements to the Transfer Pump Station and operational control of the onsite reservoirs. The project received one bid well over budget. On previous direction, ARJWS asked RIA the rescind the grant with plans to reapply in September. ARJWS completed the grant application; however, with our priority to maintain sufficient reserves to fund our SCIIP grant match while maintaining our ability to respond to R&R needs, ARJWS decided to reapply in March 2024.

3. FYE 2023 Financial Report & Audit Update

ARJWS submitted all required materials along with a management letter. Greene Finney Cauley has issued an unqualified opinion and conducted an exit interview. GFC will present the audit at the October board meeting.

4. PFAS Update
ARJWS has reviewed the lawsuit documents. Defendants are separated into phase 1 and phase 2 participants. Individual settlements appear to be based more on volume than actual PFAS results.

Prepared by: Jeff Caldwell, Deputy Director

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BOARD MEMORANDUM

September 13, 2023

Subject

Finance and Administration Report

Discussion

Billing

Meters were read on August 31, 2023, with usage up 9.53% from last month (for the same number of days) and up 7.69% from last year (for the same number of days).

AGENCY	PREV.YR SAME MONTH	LAST MONTH	CURRENT
# of Billing Days	**34**	**32**	**31**
Anderson	155,459,734	132,652,455	158,043,696
Big Creek	33,800,000	32,225,823	33,113,790
Broadway	23,404,161	31,012,186	30,558,342
Clemson	80,757,904	67,199,567	76,161,941
Clemson University	36,482,384	35,276,444	46,202,483
Hammond	90,446,143	93,140,836	76,043,055
Homeland Park	21,007,016	20,568,990	21,197,320
Pendleton	14,531,176	13,063,654	11,992,861
Powdersville	11,266,373	11,143,607	10,222,593
Sandy Springs	86,256,143	78,595,023	86,244,590
Starr-Iva	40,275,146	37,025,021	38,090,635
West Anderson	57,119,519	50,737,502	53,251,547
Williamston	21,671,668	19,652,487	19,154,886
TOTAL	**672,477,367**	**622,293,595**	**660,277,739**

Finance/Budget Summary

For the month ending August 31, 2023, ARJWS is trending appropriately for revenues and expenses for the first month of the fiscal year.

See the Profit & Loss report for additional information.

Safety Training

September
Subject: **Compressed Gas Safety**
Training Date: **July 13, 2023**
Online Attendance
ARJWS Staff – 17

Prepared by: Jodi Logan, Billing/Purchasing Coordinator
Approved by: Kendall Cleary, Accounting Manager

Attachments: Profit & Loss Summary – Budget, Actual, and Forecast

ANDERSON REGIONAL
JOINT WATER SYSTEM

Profit & Loss
For the Month ending August 31, 2023

	Annual Budget	YTD Budget (2 month)	YTD Actual	2+10 Year End Projection	Ideal Percentage	% of Budget	YTD Variance	
Operating Revenue								
Operations and Maintenance	6,700,700	1,116,783	1,146,357	6,730,274	17%	17%	29,574	
Capital Charges	4,980,163	830,027	830,027	4,980,163	17%	17%	-	
Renewal and Replacement								
Water System	1,526,250	254,375	250,076	1,521,951	17%	16%	(4,299)	
Pump Station	69,828	11,638	11,305	69,495	17%	16%	(333)	
Miscellaneous	52,132	8,689	76,924	120,368	17%	148%	68,236	A
Total Operating Revenue	13,329,073	2,221,512	2,314,690	13,422,251				
Operating Expenses								
Salaries and Wages	1,800,800	300,133	317,712	1,818,379	17%	18%	17,579	
Payroll Taxes and Employee Benefits	782,000	130,333	165,096	816,762	17%	21%	34,762	
Operations and Maintenance								
Administrative Expenses	346,200	56,600	38,369	327,969	17%	11%	(18,231)	
Operations Expenses								
Lab Supplies/Uniforms/Safety Equipment	126,300	21,050	31,453	136,703	17%	25%	10,403	
Chemicals	1,069,500	178,250	151,090	1,042,340	17%	14%	(27,160)	
Sludge and Chemical Disposal	350,000	58,333	179,762	350,000	17%	51%	121,429	
Utilities and Security	1,491,600	248,600	249,867	1,492,867	17%	17%	1,267	
Maintenance Expenses	390,800	65,133	69,567	395,234	17%	18%	4,434	
Professional Fees	85,500	14,250	29,400	100,650	17%	34%	15,150	
Insurance	97,200	16,200	2,745	97,200	17%	3%	(13,455)	
Debt Expenses	5,437,463	886,711	1,306,120	5,437,463	17%	24%	419,410	B
Source Water Protection	51,000	8,500	834	43,334	17%	2%	(7,666)	
Miscellaneous Expenses	104,800	17,467	8,128	95,462	17%	8%	(9,338)	
Total operating expenses before depreciatic	12,133,163	2,001,561	2,550,143	12,154,362				
Net operating income	1,195,910	219,952	(235,453)	1,267,889				
Raw Water								
Raw Water Income	59,411	9,902	23,283	72,792				
Raw Water O&M Expenses	-	-	32,793	32,793				
Raw Water Operating Income	59,411	9,902	(9,510)	39,999	17%	-16%	(19,412)	
Non-Budget Impacting Items								
Junior Lien Bond Payments	245,649	40,942	38,000	245,649	17%	15%	(2,942)	
Filter PLC Upgrade	100,000	16,667	94,956	100,000	100%	95%	78,289	
Transfer Manifold Project	300,000	50,000	121,250	300,000	100%	40%	71,250	
CBS Pump Rebuild	110,000	18,333	4,842	110,000	100%	4%	(13,491)	
High Service Pump #2	110,000	18,333	109,416	109,416	100%	99%	91,083	
Lagoon Pump Replacement	25,000	4,167	18,667	18,667	100%	75%	14,501	
	890,649	148,442	254,206	645,649				

	Cash Balances	Days Cash on Hand
Operating Cash	2,225,611	67
Capital Project Fund	4,911,802	
System R&R Fund (Restricted)	155,772	
Pumped R&R Fund (Restricted)	598,058	
Raw Water O&M	163,746	
Raw Water R&R	243,015	
	8,298,004	

A: Over projected revenue due to approximately $29,000 in interest income earned on accounts held at LGIP this fiscal year-to-date.

B: Over budget due to transferring the debt payments for June to US Bank in July.

PUMPED REPAIR & REPLACEMENT ACCOUNT

August 31, 2023

DATE	TRANSACTION MEMO	CREDIT	DEBIT	BALANCE
08/01/2023	Balance Forward LGIP Investment			$589,438.80
08/30/2023	System Transfer for July 2023 Billing	$5,819.00		$595,257.80
08/31/2023	Interest Earned August 2023	$2,800.01		$598,057.81
08/31/2023	Ending Balance LGIP			**$598,057.81**

SYSTEMS REPAIR & REPLACEMENT ACCOUNT

August 31, 2023

DATE	TRANSACTION MEMO	CREDIT	DEBIT	BALANCE
08/01/2023	Balance Forward LGIP Investment			$278,410.66
08/01/2023	FYE 2023 Transfer (LGIP System R&R to LGIP CIP)		$ 250,000.00	$28,410.66
08/30/2023	System Transfer for July 2023 Billing	$127,187.47		$155,598.13
08/31/2023	Interest Earned August 2023	$174.03		$155,772.16
08/31/2023	Ending Balance LGIP			**$155,772.16**

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BOARD MEMORANDUM

September 14, 2023

Subject

Operations and Maintenance Report

Discussion

As of September 14, 2023, Lake Hartwell's surface elevation was 656.09 ft, 3.91 ft. below full pool. Raw water is being drawn from the top gate of the intake structure. Water temperature at the top gate is 83.5°F. The Joint Water System reached 100% of its settled water turbidity goals for the month of August. Raw water pH levels are relatively constant. Settled and Finished water pH levels are normal. The maximum day for August water production was 56.4% of Finished water capacity.

Operations and Maintenance Highlights

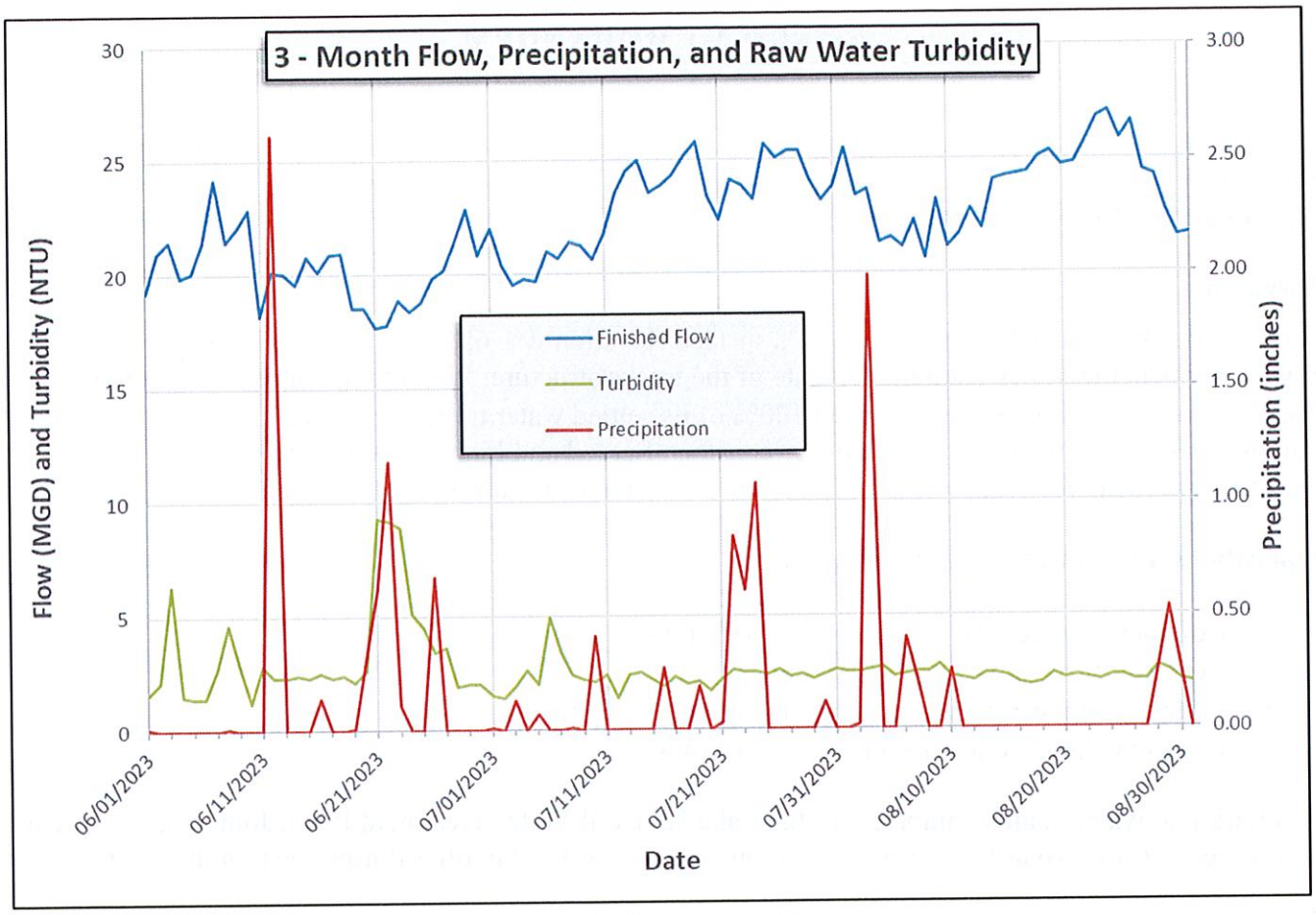
- Contractor processed 136.97 dry tons of sludge
- Replaced fuses in Ozone Power Supply Unit #1
- Performed maintenance on fleet vehicles and equipment
- Repaired chemical pumps and replaced fittings

In addition to water quality sampling for the Lake Hartwell Water Treatment Plant, Joint Water System staff processed 177 Total Coliform distribution samples for local entities during the month of August.

Water Quality Data

	Raw	Settled	Finished
pH	7.13	6.67	7.12
Turbidity (NTU) Range	1.90 – 2.30	0.22 – 0.71	0.03 – 0.04
Turbidity (NTU) Average	2.31	0.48	0.04
Turbidity (NTU) Exceedance	-	0%	0%
Total Organic Carbon	1.60	-	0.861
Fluoride Average (ppm)	-	-	0.40
Phosphate Average (ppm)	-	-	.4 (dry wt PO4)
Residual Disinfectant (ppm)	-	-	1.81
TTHM (DBP)	-	-	7.70 ppb
Methylisoborneol (MIB)	6.9 NG/L	-	<1.0 NG/L
Geosmin	9.6 NG/L	-	<1.0 NG/L

Weather Data



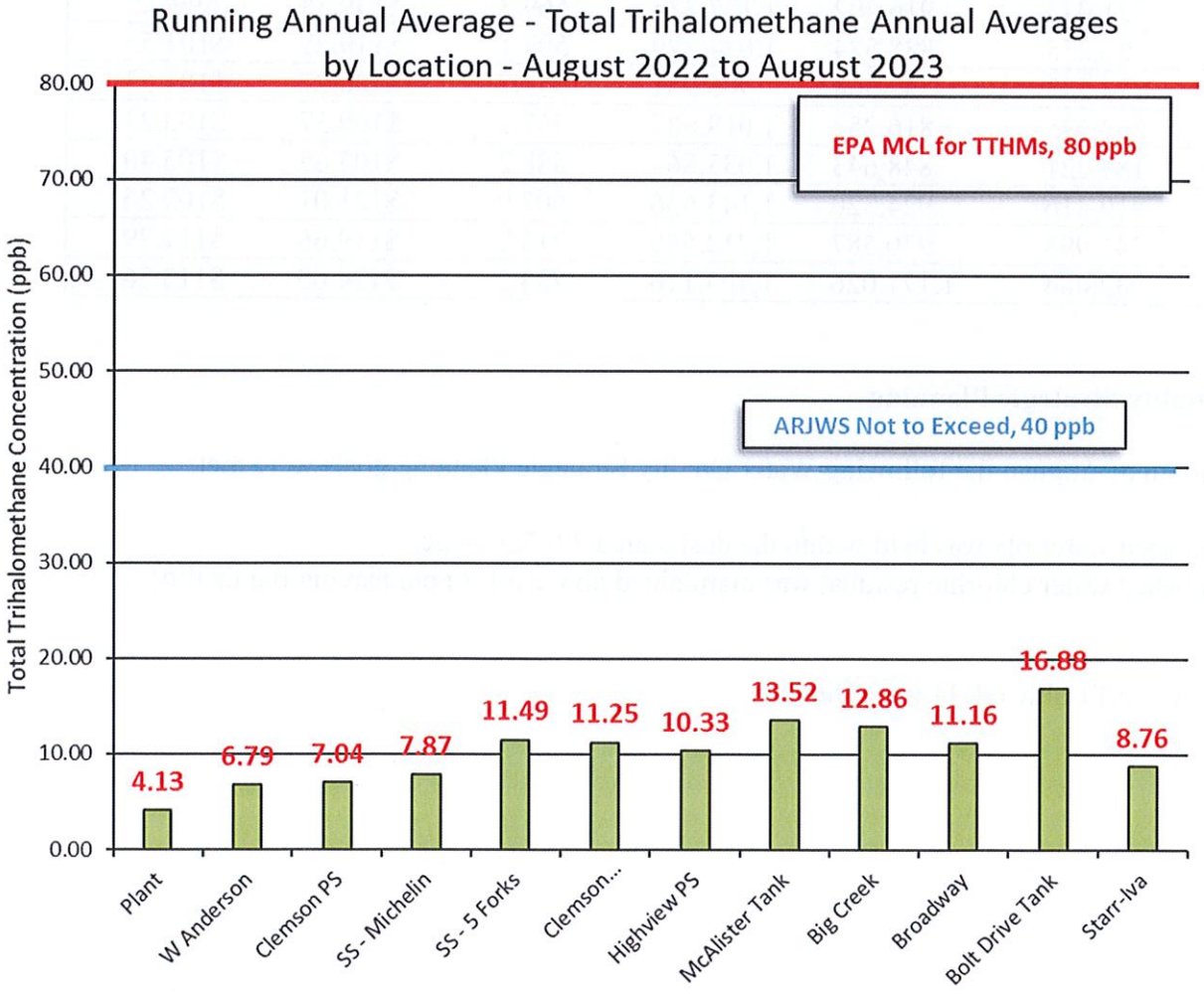
	Minimum	Maximum	Total
Rainfall	0.00 in.	1.99 in.	3.93 in.
Temperature	62° F	100° F	N/A
Humidity	37%	99%	N/A

Water Production Data

	Average	Minimum	Maximum	Total
Raw Water	23,614,000	19,776,000	28,863,000	732,045,000
Finished Water	23,678,000	20,654,000	27,079,000	734,022,000
Finished Max Capacity	49.3%	43.0%	56.4%	

Total Trihalomethane Discussion

Trihalomethanes (THMs) are one type of disinfection byproduct that can form during the treatment process and within the distribution system. THM concentrations vary primarily as a function of total organic carbon (TOC), temperature, disinfectant type, and residence time. THMs can have adverse health effects at high concentrations, and the EPA has established compliance criteria for these compounds in aggregate, termed Total Trihalomethanes (TTHMs). These criteria are established in Stage 2 of the Disinfection Byproduct Rule, which has a numerical MCL of 80 micrograms per liter (or parts per billion, ppb) based on a Locational Running Annual Average. ARJWS Operations Staff collects monthly, one-time samples, as a spot check for TTHM formation in the transmission system. The running annual averages of those results are shown in the figure below.



Monthly Power Consumption Update

For the month of August, ARJWS treated 734,022,000 gallons of water at a power cost of $119.66 per million gallons produced. The 12-month Running Annual Average is currently at $111.79.

Monthly Power Consumption Data

Month	On Peak kWh	Off Peak kWh	Total kWh	Finished Water MG	$/ MG	12 month Average
Aug – 22	240,141	1,135,948	1,376,089	706.0	$88.42	$93.74
Sep – 22	235,923	1,022,295	1,258,218	682.5	$101.86	$92.64
Oct – 22	212,428	980,990	1,193,418	663.2	$101.46	$92.39
Nov – 22	186,903	896,111	1,083,014	564.0	$111.30	$93.50
Dec – 22	194,312	808,284	1,002,597	616.5	$133.96	$95.68
Jan – 23	221,043	916,292	1,137,335	569.3	$139.38	$99.22
Feb – 23	186,255	838,524	1,024,779	507.1	$119.29	$101.55
Mar – 23	174,583	732,368	906,951	554.7	$100.27	$101.53
Apr – 23	202,435	816,252	1,018,687	557.2	$109.37	$103.23
May – 23	185,221	848,643	1,033,864	588.2	$103.65	$105.40
June – 23	219,316	924,320	1,143,636	607.9	$121.01	$109.26
July – 23	241,993	970,587	1,212,580	713.2	$119.66	$111.79
Aug -23	232,084	1,171,026	1,403,110	734.2	$124.00	$113.36

Water Quality Strategic Planning

For the month of August, the following Water Quality Strategic Planning goals were met:

- Finished water pH was held within the designated 7.0-7.3 range.
- Finished water chlorine residual was maintained above a 1.2 ppm leaving the facility.

Prepared by: Jeff Caldwell, Deputy Director

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BOARD MEMORANDUM

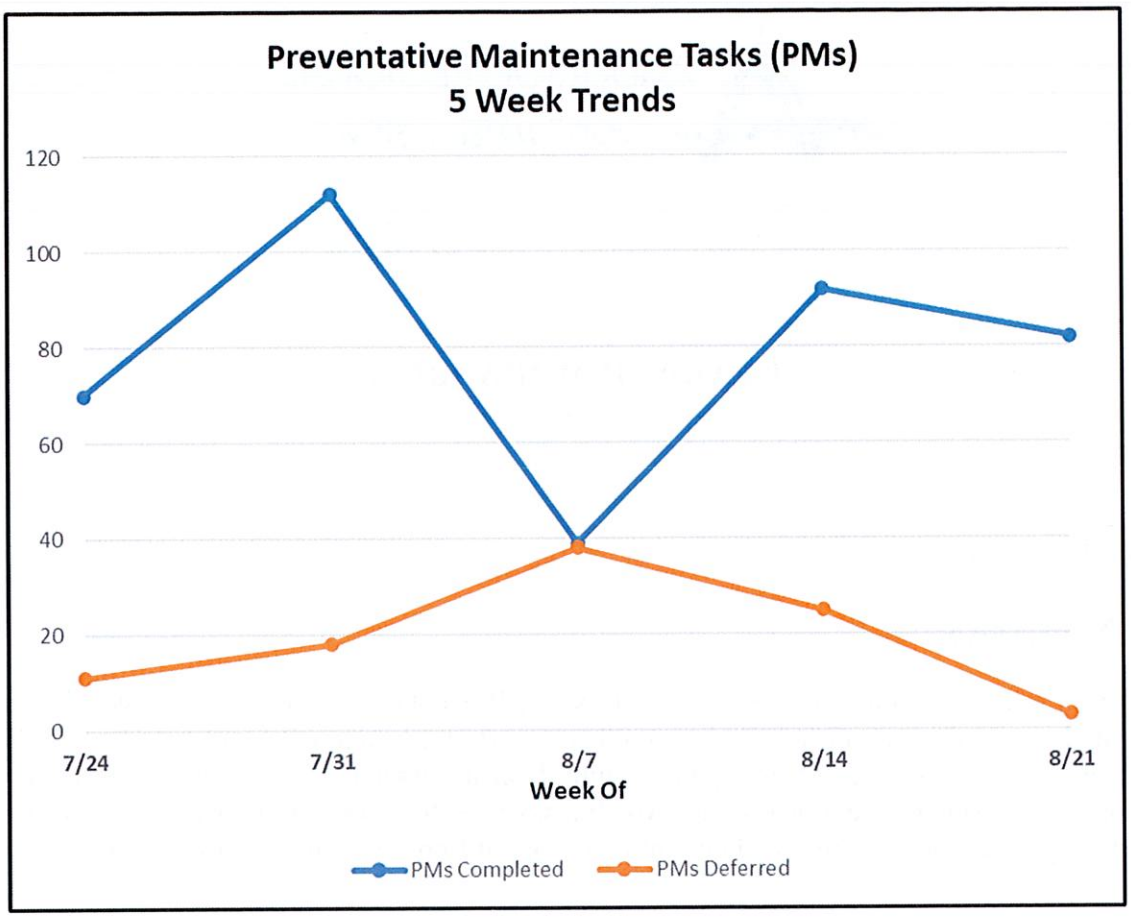
September 25, 2023

Subject
Sustainability Report

Asset Management

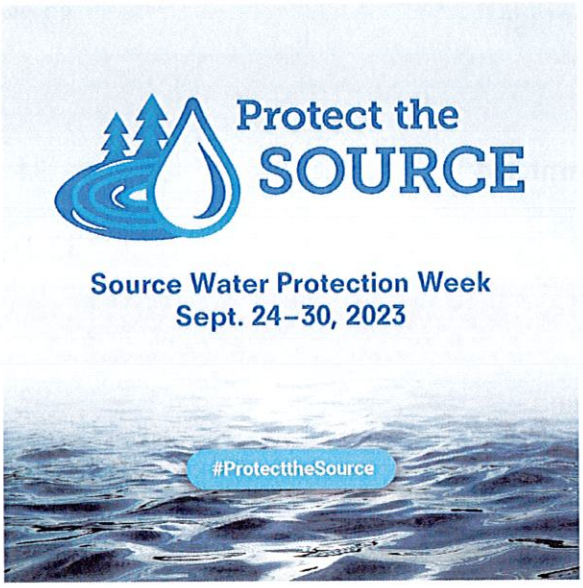
ARJWS is tracking maintenance tasks of all assets. Preventative Maintenance tasks (PMs) are performed on every asset on a weekly, monthly, quarterly, bi-annually, or annual basis. Work Orders consist of installations or repairs required on an asset that are separate from the PM schedule. Asset Management determines which tasks need to be performed by Maintenance staff and which projects need to be scheduled into the Capital Improvement Plan by Engineering staff.

PMs Completed	404
PMs Deferred	84
Completion Percentage	82.8%
Work Orders Completed	34
Avg Time to Close	32 days
Work Orders Open	33
Avg Time Open (Latency)	104 days



Communication and Partnership

Celebrate Source Water Protection Week is September 24-30, 2023.



Lake Hartwell Partners is hosting the 2023 Splash Away the Trash Weekend Event

- Sign-up on the website - https://www.lakehartwellpcw.com/events
- Saturday, September 30, 2023

August Tour(s)

- West Anderson Water Staff – 2

General Manager's Meeting

- Clemson University Risk and Resilience Assessment
- October 11, 2023, 11:30am, Fuddruckers
- Dr. Ladner and his project team from Clemson will discuss the project and how member systems can participate in understanding the potential risks of infrastructure failure and the resilience necessary to quickly recover.

Approved by: Jeff Caldwell, Deputy Director