ANDERSON REGIONAL
JOINT WATER SYSTEM

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

BOARD AGENDA

Board of Commissioners
November 2023

I. Minutes October 26, 2023

II. Informational Reports

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

Future planned Board meeting dates are:

- December 20, 2023
- February 28, 2024
- April 24, 2024

ANDERSON REGIONAL
JOINT WATER SYSTEM

Your Community-Owned and Operated System

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www.arjwater.com

MINUTES OF THE
ANDERSON REGIONAL JOINT WATER SYSTEM
October 26, 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; Matt Ruff, Big Creek-Hammond; Kevin Simpson, Broadway; Tracy Durham, Sandy Springs; Dyke Spencer, Powdersville; Scott Banks, City of Anderson; John Lollis, West Anderson; Phillip Mishoe, Town of Central; Mitch Ellenburg, Belton-Honea Path Water

OTHERS PRESENT: Scott Willett, ARJWS; Jeff Caldwell, ARJWS; Kendall Cleary, ARJWS; Christopher Weber, ARJWS; Jodi Logan, ARJWS; Lisa Evatt, ARJWS; Billy Peele, Starr-Iva; Billy Bolger, Clemson University; Brandon Good, ARJWS; Andy Blondeau, City of Clemson

Chairman Patrick Jackson called the Board meeting of Anderson Regional Joint Water System to order at 12:01 p.m. on October 26, 2023.

Chairman Patrick Jackson asked for any Commissioner comments. Mr. McGill introduced Clemson City Administrator Andy Blondeau to the Board as the City of Clemson alternate.

Mr. Spencer made a motion to approve the August 23, 2023, minutes, and Mr. Simpson seconded. Motion carried.

I. Consent Calendar (Old Business)

None

II. Items Requiring Immediate Action

1. Receive and Accept Annual Comprehensive Financial Report for years ending June 30, 2023 & 2022.

Mrs. Cleary introduced Mr. David Phillips, Independent Auditor of Greene Finney Cauley, LLP. Mr. Phillips was responsible for auditing the financial statements of ARJWS for the FYE June 30, 2023. Professional standards require that the independent auditors communicate with the Board any informative information and findings related to the audit. Mr. Phillips presented the Board of Commissioners with a Financial Audit Presentation and Management Letter. Mr. Phillips informed the Board of Commissioners that there were no findings, no disagreements with management, and nothing to disclose. A copy of the financial reports, presentation, and management letter is attached. Mr. McGill made a motion to accept and file the FYE 2023 Annual Comprehensive Financial Report and audit results. Mr. Mishoe seconded that motion. Motion carried

III. Discussion (New Business).

1. Executive Director's Report (Oral)

Mr. Willett thanked Mr. Phillips and the ARJWS staff for their hard work preparing the FYE 2023 audit report. Mr. Willett gave an update on PFAS. ARJWS is conducting additional sampling to identify sources of contamination of PFAS. Once the funds become available, ARJWS will use such funds from the settlement to remedy the source.

2. General Manager's Meeting

Mr. Caldwell and Clemson University's Risk and Resilience Assessment for the Army Corps of Engineers held a general manager's meeting on October 11, 2023, to discuss plans to evaluate infrastructure risk due to mass power outages or cyber-attacks. Mr. Caldwell encouraged input from member agencies regarding metrics related to water supply, transmission, and distribution.

3. Strategic Planning

Mr. Caldwell spoke on the ARJWS Strategic Plan. ARJWS looks to review and revise every five to six years as part of the annual strategic plan report. Staff will offer suggestions and comments that will be shared at the December meeting. Mr. Caldwell asked the Board to provide him with any questions or measurable goals they would like added.

IV. Informational Reports

1. Executive Committee Meeting Summary
2. Finance and Administration Report
3. Operations and Maintenance Report
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 of these minutes.

V. Closed Executive Session

None

VI. Adjournment

With no further business, Mr. Lollis made a motion to adjourn at 12:50 p.m., and Mr. Banks seconded. Motion carried.

Respectfully submitted,

Benjie McGill
Secretary/Treasurer

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COMMITTEE SUMMARY

Executive Committee
November 20, 2023
11:30 am

I. Discussion Summary

1. SCIIP Project Update

A. Clemson Pump Station Ground Storage Tank
This project includes the addition of a 5 MG ground storage tank. The benefits of this addition include redundancy for maintenance, expanding system capacity, potential energy savings, providing greater operational control, and includes security upgrades. Ardurra is our engineer for this project. Anderson Regional Water has reviewed and commented on the draft PER. Follow-up meeting with Ardurra is this afternoon. The project cost estimate is currently $7.26M (slightly under the original estimate sent to RIA) and the scheduled construction start date is August 2024 with completion in September 2025.

B. On-site Disinfection Generation Replacement
This project includes 2000# per day of generating equipment. GMC is the engineer on this project. Anderson Regional has conducted interview/presentations with three (3) manufacturers. The focus has been on the advantages and disadvantages of horizontal vs. vertical configuration, overall system redundancy, system requirements, power consumption, spare parts, and maintenance requirements. Our selection committee has tentatively selected Microchlor to evaluate further. We are scheduled to visit the City of Hickory, NC on Tuesday, November 21st to see this system in operation and discuss it with the Hickory operations staff. We are also evaluating the useful life of our chemical storage tanks which was not considered in the original project scope.

C. Raw Water Pump Improvements
This project includes the replacement of up to five (5) pumps and motors. Our engineer on this project is also GMC. Our plan is to maximize the project using available funds remaining from the other two projects. This project should not need a construction permit since pumps will be like for like, so we will discuss alternate delivery options with RIA.

2. PFAS Update

Anderson Regional Water communicated a full year's sampling results by email on November 10th. The results continue to show less than proposed MCL levels in

our finished water. Results also show increases well upstream of the intake. Continued sampling will focus on bracketing the section of Six & Twenty that shows increase levels. Anderson Regional Water continues to engage and provide information relative to the ongoing lawsuit.

3. **Continuous Improvement**

A. O & M Projects

Anderson Regional is evaluating cold water coagulants and installing pumping and piping to deliver the product when needed. We are piloting new mapping software to GPS locate lines and valves for maintenance and emergency needs. We are working with a vendor to pilot real time remote vibration and temperature monitoring on pumps and motors.

B. Staff Achievements

Recently Anderson Regional Water and our staff have been recognized for contributions in our community and in the state.

- Chris Weber – Graduated Leadership Anderson Class 38
- Kendall Cleary – Recognized as Anderson Chamber 20 Under 40
- Anderson Regional – Received the SCRWA Source Water Steward of the Year

Anderson Regional is very proud of our staff's commitment to this community and the people we serve.

C. New Staff

Anderson Regional Joint Water has offered Water Treatment Operator positions to two A licensed water treatment operators. Tyler Hendricks from Greenville Water and Jennifer Hadden currently with ReWa will join our staff officially on December 4th.

D. Strategic Plan

Anderson Regional Water's updated strategic plan process is ongoing. All members are welcome to provide input and ideas. Specific ideas so far include measurable asset management goals, manager/supervisor training, and expanding communication.

Prepared by: Jeff Caldwell, Deputy Director

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BOARD MEMORANDUM

November 8, 2023

Subject

Finance and Administration Report

Discussion

Billing

Meters were read on October 31, 2023, with usage down 6.82% from last month (for the same number of days) and up 2.88% from last year (for the same number of days).

AGENCY	PREV.YR SAME MONTH	LAST MONTH	CURRENT
# of Billing Days	**28**	**32**	**29**
Anderson	143,163,421	154,895,665	142,291,154
Big Creek	13,700,000	32,769,495	26,055,623
Broadway	20,077,714	29,866,069	26,845,331
Clemson	66,741,454	81,605,800	67,289,538
Clemson University	33,202,353	41,506,168	36,882,956
Hammond	60,992,473	89,675,775	61,690,596
Homeland Park	16,151,873	21,402,150	17,572,226
Pendleton	10,125,885	12,946,743	10,511,403
Powdersville	7,497,524	9,058,928	5,069,306
Sandy Springs	53,931,988	82,741,138	68,481,604
Starr-Iva	33,855,486	40,166,612	35,692,917
West Anderson	50,442,481	45,828,169	44,166,743
Williamston	13,835,403	18,417,007	15,513,132
TOTAL	**523,718,055**	**660,879,719**	**558,062,529**

Finance/Budget Summary

For the month ending October 31, 2023, ARJWS is trending appropriately for revenues and expenses for the first (4) four months of the fiscal year.

See the Profit & Loss report for additional information.

Safety Training

October
Subject: **Fire Extinguisher Training**
Training Date: **September 28, 2023**
Online Attendance
ARJWS Staff – 8

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 October 31, 2023

	Annual Budget	YTD Budget (4 month)	YTD Actual	4+8 Year End Projection	Ideal Percentage	% of Budget	YTD Variance	
Operating Revenue								
Operations and Maintenance	6,700,700	2,233,567	2,277,607	6,744,740	33%	34%	44,040	
Capital Charges	4,980,163	1,660,054	1,660,054	4,980,163	33%	33%	-	
Renewal and Replacement								
Water System	1,526,250	508,750	500,153	1,517,653	33%	33%	(8,597)	
Pump Station	69,828	23,276	22,609	69,161	33%	32%	(667)	
Miscellaneous	52,132	17,377	217,488	252,243	33%	417%	200,111	A
Total Operating Revenue	13,329,073	4,443,024	4,677,911	13,563,960				
Operating Expenses								
Salaries and Wages	1,800,800	600,267	570,068	1,770,601	33%	32%	(30,199)	
Payroll Taxes and Employee Benefits	782,000	260,667	270,355	791,688	33%	35%	9,688	
Operations and Maintenance								
Administrative Expenses	346,200	113,200	84,466	317,466	33%	24%	(28,734)	
Operations Expenses								
Lab Supplies/Uniforms/Safety Equipment	126,300	42,100	42,568	126,768	33%	34%	468	
Chemicals	1,069,500	356,500	337,260	1,050,260	33%	32%	(19,240)	
Sludge and Chemical Disposal	350,000	116,667	342,837	350,000	100%	98%	226,171	B
Utilities and Security	1,491,600	497,200	493,446	1,487,846	33%	33%	(3,754)	
Maintenance Expenses	390,800	130,267	143,738	404,271	33%	37%	13,471	
Professional Fees	85,500	28,500	26,438	83,438	33%	31%	(2,062)	
Insurance	97,200	32,400	6,515	97,200	33%	7%	(25,885)	
Debt Expenses	5,437,463	1,773,421	2,176,606	5,437,463	33%	40%	403,185	C
Source Water Protection	51,000	17,000	8,605	42,605	33%	17%	(8,395)	
Miscellaneous Expenses	104,800	34,933	23,127	92,994	33%	22%	(11,806)	
Total operating expenses before depreciati	12,133,163	4,003,121	4,526,032	12,052,603				
Net operating income	1,195,910	439,903	151,880	1,511,357				
Raw Water								
Raw Water Income	59,411	19,804	97,445	137,053				
Raw Water O&M Expenses	-	-	87,861	87,861				
Raw Water Operating Income	59,411	19,804	9,585	49,192	33%	16%	(10,219)	
Non-Budget Impacting Items								
Junior Lien Bond Payments	245,649	81,883	76,000	245,649	33%	31%	(5,883)	
Filter PLC Upgrade	100,000	33,333	95,452	100,000	100%	95%	62,119	
Transfer Manifold Project	300,000	100,000	130,000	300,000	100%	43%	30,000	
CBS Pump Rebuild	110,000	36,667	4,842	110,000	100%	4%	(31,825)	
High Service Pump #2	110,000	36,667	109,416	109,416	100%	99%	72,749	
Lagoon Pump Replacement	25,000	8,333	18,667	18,667	100%	75%	10,334	
SCIIP Grant Projects	540,000	180,000	22,048	22,048	100%	4%	(157,953)	
	890,649	296,883	301,452	645,649				

	Cash Balances	Days Cash on Hand
Operating Cash	2,030,422	61
Capital Project Fund	4,971,484	
System R&R Fund (Restricted)	412,381	
Pumped R&R Fund (Restricted)	615,364	
Raw Water O&M	187,795	
Raw Water R&R	250,124	
	8,467,570	

A: Over projected revenue due to approximately $115,000 in interest income earned, $40,000 from Pioneer Water, and $26,000 from SCDOT.

B: The sludge disposal project for FY 2023 was completed during August and September.

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

PUMPED REPAIR & REPLACEMENT ACCOUNT

October 31, 2023

DATE	TRANSACTION MEMO	CREDIT	DEBIT	BALANCE
10/01/2023	Balance Forward LGIP Investment			$606,634.88
10/27/2023	System Transfer for September 2023 Billing	$5,819.00		$612,453.88
10/31/2023	Interest Earned October 2023	$2,909.62		$615,363.50
10/31/2023	Ending Balance LGIP			**$615,363.50**

SYSTEMS REPAIR & REPLACEMENT ACCOUNT

October 31, 2023

DATE	TRANSACTION MEMO	CREDIT	DEBIT	BALANCE
10/01/2023	Balance Forward LGIP Investment			$283,736.15
10/27/2023	System Transfer for September 2023 Billing	$127,187.47		$410,923.62
10/31/2023	Interest Earned October 2023	$1,457.47		$412,381.09
10/31/2023	Ending Balance LGIP			**$412,381.09**

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BOARD MEMORANDUM

November 9, 2023

Subject

Operations and Maintenance Report

Discussion

As of November 9, 2023, Lake Hartwell's surface elevation was 653.21 ft, 6.79 ft. below full pool. Raw water is being drawn from the top gate of the intake structure. Water temperature at the top gate is 69.0°F. The Joint Water System reached 100% of its settled water turbidity goals for the month of October. Raw water pH levels are relatively constant. Settled and Finished water pH levels are normal. The maximum day for October water production was 50.4% of Finished water capacity.

Operations and Maintenance Highlights

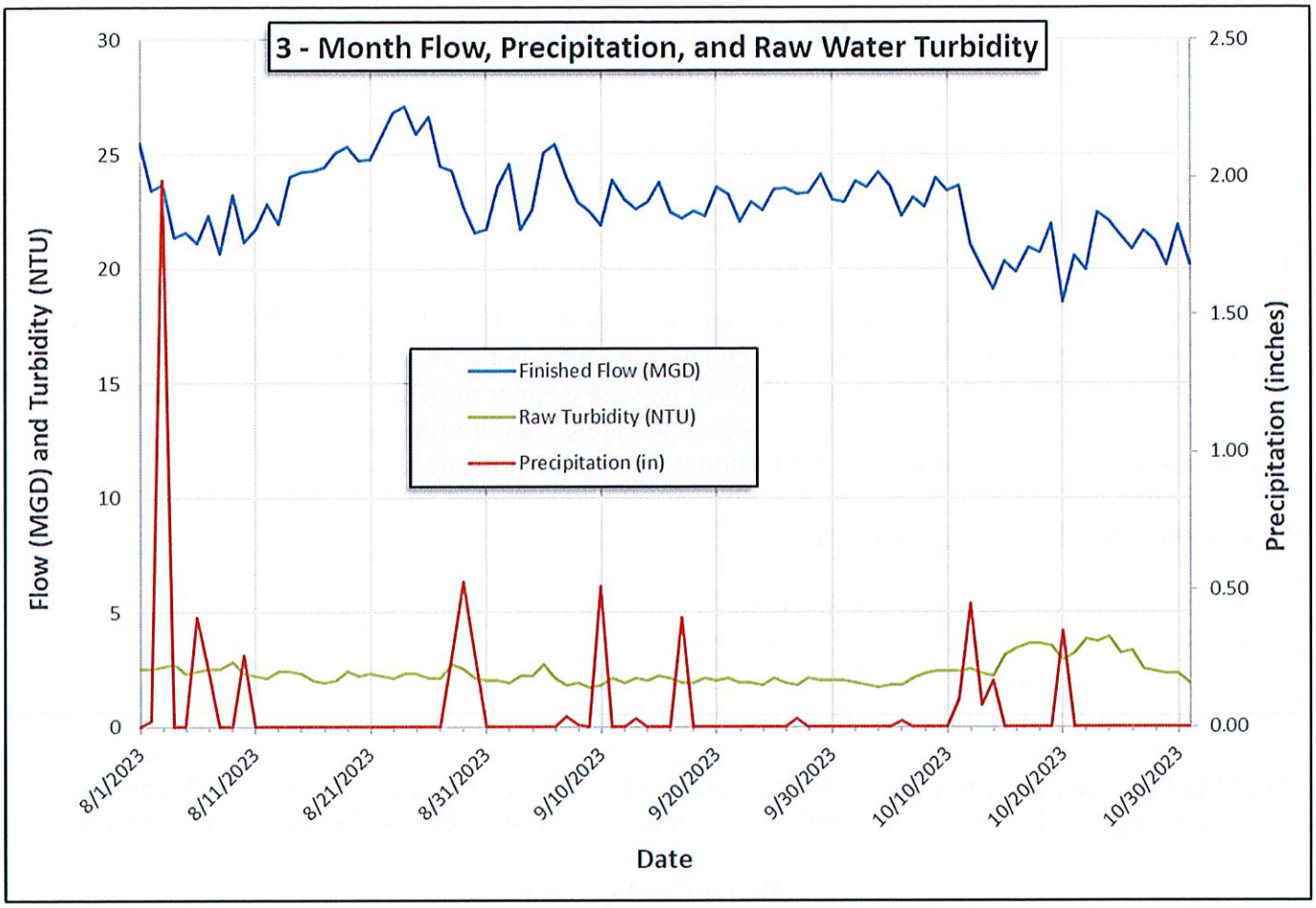
- Contractor completed rebuild of High Service Pump #5
- Replaced flow meter for Ozone Contractor #2
- Modifies wiring for battery backup on Ozone Destruct #1
- Installed repaired drive for Ozone injection pump #2

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 October.

Water Quality Data

	Raw	Settled	Finished
pH	6.98	6.67	7.16
Turbidity (NTU) Range	1.70 – 3.90	0.37 – 0.90	0.03 – 0.04
Turbidity (NTU) Average	2.65	0.59	0.03
Turbidity (NTU) Exceedance	-	0%	0%
Total Organic Carbon	1.77	-	1.13
Fluoride Average (ppm)	-	-	0.67
Phosphate Average (ppm)	-	-	0.51
Residual Disinfectant (ppm)	-	-	1.81
TTHM (DBP)	-	-	6.28 ppb
Methylisoborneol (MIB)	9.9 NG/L	-	<1.0 NG/L
Geosmin	6.8 NG/L	-	<1.0 NG/L

Weather Data



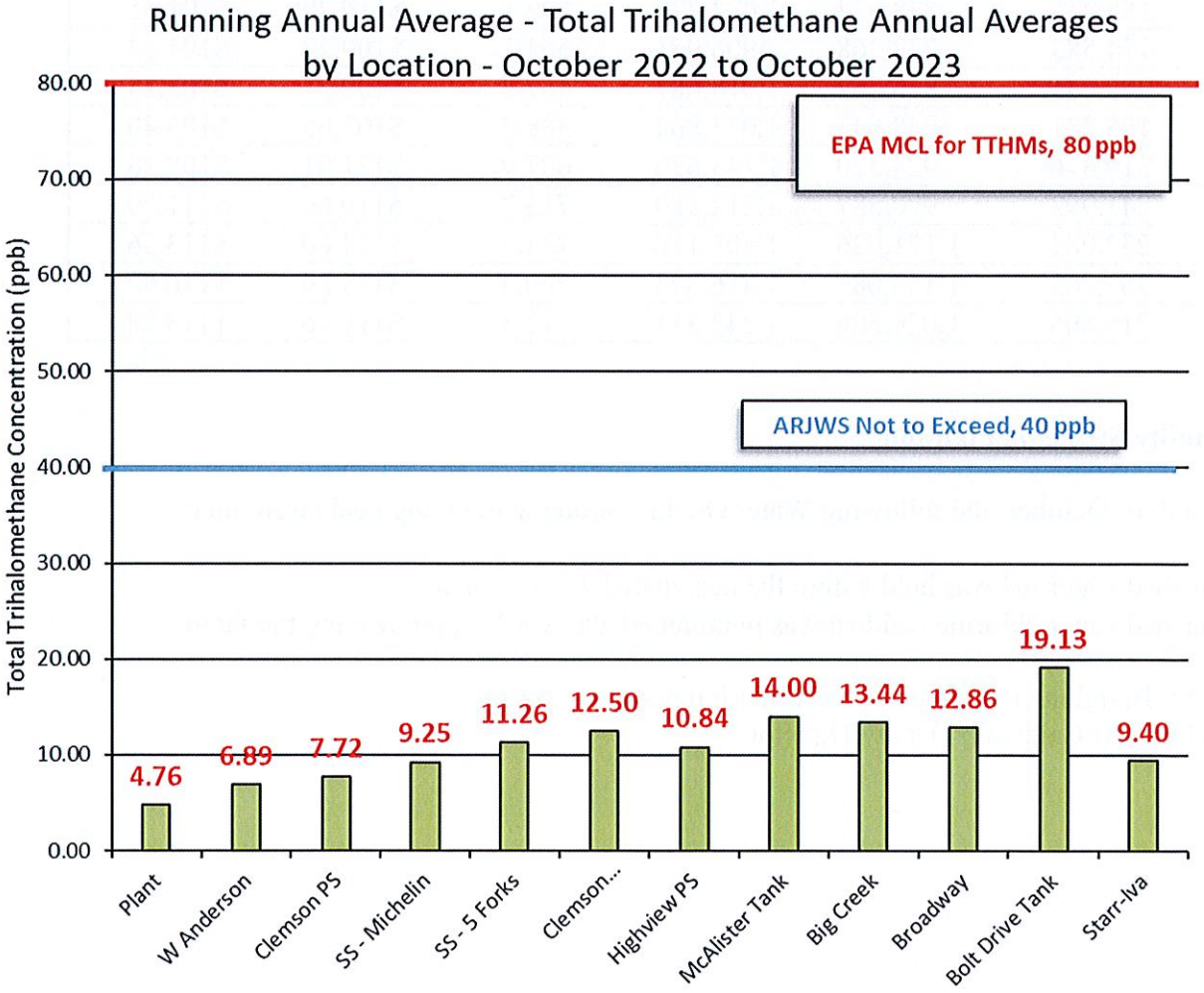
	Minimum	Maximum	Total
Rainfall	0.00 in.	0.45 in.	1.17 in.
Temperature	41.2° F	88.5° F	N/A
Humidity	25%	99%	N/A

Water Production Data

	Average	Minimum	Maximum	Total
Raw Water	21,627,000	17,965,000	26,785,000	670,439,000
Finished Water	21,688,000	18,538,000	24,214,000	672,338,000
Finished Max Capacity	45.2%	38.6%	50.4%	

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 October, ARJWS treated 672.338,000 gallons of water at a power cost of $111.46 per million gallons produced. The 12-month Running Annual Average is currently at $118.88.

Monthly Power Consumption Data

Month	On Peak kWh	Off Peak kWh	Total kWh	Finished Water MG	$/ MG	12 month Average
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
Sep – 23	263,763	1,153,081	1,416,844	700.3	$133.20	$116.80
Oct -23	215,805	1,026,506	1,242,311	672.3	$111.46	$118.88

Water Quality Strategic Planning

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

- Finished water pH was held within the designated 7.1-7.3 range.
- Finished water chlorine residual was maintained above a 1.2 ppm leaving the facility.

Prepared by: Brandon Good, Operations Superintendent
Reviewed by: Jeff Caldwell, Deputy Director