ANDERSON REGIONAL
JOINT WATER SYSTEM

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

BOARD AGENDA

Board of Commissioners
May 2023

I. Minutes April 26, 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:

- June 28, 2023
- August 23, 2023
- October 25, 2023

ANDERSON REGIONAL
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Your Community-Owned and Operated System

998 Hunters Trail Anderson, SC 29625
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www.arjwater.com

MINUTES OF THE ANDERSON REGIONAL JOINT WATER SYSTEM April 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; David Rogers, Town of Williamston; Chuck Cortez, Big Creek-Hammond; Kevin Simpson, Broadway; Tracy Durham, Sandy Springs; Dyke Spencer, Powdersville; Mitch Ellenburg, Belton-Honea Path Water; Scott Banks, City of Anderson; Dennis Chastain, Homeland Park; John Lollis, West Anderson; Phillip Mishoe, Town of Central

OTHERS PRESENT: Scott Willett, ARJWS; Jeff Caldwell, ARJWS; Kendall Cleary, ARJWS; Christopher Weber, ARJWS; Jodi Logan, ARJWS; Billy Bolger, Clemson University; Lisa Evatt, ARJWS; David Gailey, ARJWS; David Ladner, Clemson University, Randy Church, Broadway; Billy Peele, Starr-Iva

Chairman Dyke Spencer called the Board meeting of Anderson Regional Joint Water System to order at 12:02 p.m. on April 26, 2023.

Chairman Dyke Spencer asked for any Commissioner comments. Mr. Jackson introduced and welcomed back alternate, Billy Peele, with Starr-Iva Water District. Mr. Simpson introduced Randy Church to the Board. He will serve as alternate for Broadway Water. Mr. Spencer reminded the Board that the Nominating Committee will be accepting nominations for the FY 2023/2024 Board Officers. Mr. Spencer congratulated the recipients that receive a SCIIP/ARPA Grant award.

Mr. Spencer introduced Clemson University Professor, Dr. David Ladner. Dr. Ladner spoke on the collaboration with United States Army Engineer and Research Development Center (USACE ERDC) and Clemson University's South Carolina Institute for Sustainability and Resilience (SCISR) to build the USACE Dam Sector Regional Risk Resilience Program to assist low-capacity communities build capabilities, capacities, and resilience.

Mr. Jackson made a motion to approve the February 22, 2022, minutes and Mr. McGill seconded. Motion carried.

I. Consent Calendar (Old Business)

None

II. Items requiring immediate action

1. FY 2023/24 Budget – First Reading

Mrs. Cleary recommended the approval of the first reading of the proposed annual budget for the fiscal year 2023/24. The proposed annual budget is for $13.25 million. The budget will fund $6.64 million in annual operating expenses, $5.32 million in annual debt service, and $1.60 million in System R&R. The total funding requirement of $13.56 million is offset by $307k of rate stabilization funds held in reserves at ARJWS. Mrs. Cleary discussion included an increase in operations costs due to an increased chemical cost and increased industrial power rates. Maintenance costs increased mainly due to the cost of inflation. Total employee costs increased related to increase in salaries to keep up with market conditions and increased expenses related to State health insurance and pension benefits. Mr. Mishoe made a motion to approve the first reading of the proposed FY 2023/24 annual budget. Mr. Lollis seconded. The motion passed with eleven yay votes and the Town of Williamston opposed.

2. Clemson University Wholesale Rate – FY 2023/24

Mrs. Cleary recommended setting the water rate service for Clemson University at $2.12 per thousand gallons for FY 2023/24. Mrs. Cleary discussed the decrease for the University is the result of demand returning to pre-pandemic levels, allowing the total revenue requirement to be spread over a larger base compared to the prior year. Mrs. Cleary explained the "Wholesale Water Rate Schedule Applicable To Clemson University". Mr. Spencer asked for any comments, there were none. Mr. McGill made a motion to set the existing water rate for Clemson University to $2.12 per thousand gallons. Mr. Jackson seconded. The motion was unanimous.

III. Discussion (New Business).

1. SCDOT Property Appraisal Report

Mr. Caldwell showed the Board a plat provided by SCDOT of a piece of ARJWS property that SCDOT would like to purchase to complete the Welpine/Clemson Blvd improvement. ARJWS will collect $25,000 for the purchase. Mr. Cortez made a motion to sell the piece of parcel to SCDOT. Mr. Jackson seconded the motion. The motion passed with 11 yay votes and Powdersville Water opposed.

2. Executive Director's Report (Oral)

Mr. Willett discussed items including Savannah River Basin Study, proposed PFAS legislation, and the SCIIP/ARPA Grant.

IV. Informational Reports

1. Finance and Administration Report
2. Operations and Maintenance Report.

ARJWS hired Ethan Moore for the Water Treatment Operator Trainee position.

3. Sustainability Report
4. Engineering Report
5. Executive Committee Meeting Summary

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.

VI. Adjournment

With no further business, Mr. Banks made a motion to adjourn at 1:05 p.m. and Mr. Cortez seconded. Motion carried.

Respectfully submitted,

Phillip Mishoe
Secretary/Treasurer

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JOINT WATER SYSTEM

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COMMITTEE SUMMARY

Executive Committee

May 17, 2023

11:30 am

I. Discussion Summary

1. FY2023/24 Budget

There have been some changes to a few proposed budget line items and the proposed Capital Improvement Plan. Overall, the proposed budget still includes a rate stabilization in the amount of $282,300 from capital and interest earnings. The current revenue requirement increase is 5.00%.

2. Water Quality

A. PFAS

ARJWS presented the most recent PFAS results as communicated by email. These results are consistent with previous analysis. Staff plans to resample according to the quarterly plan in July. The July results will meet the regulatory requirements of UCMR5. At that time, ARJWS will perform additional sampling on Six & Twenty Creek which directly the ARJWS intake. Other sites may also be considered.

B. MIB/Geosmin

ARJWS sampled for MIB and Geosmin on 5/2/23 and 5/8/23. MIB results were <1.0ng/L and Geosmin was 10.5 and 8.3 ng/L respectively. ARJWS plans to resample every 2-3 weeks in the immediate future.

C. PFAS Litigation

Mr. Willett discussed the opportunities to join in potential litigation with NRWA which is working with State Associations which may be negatively impacted by PFAS contamination. ARJWS plans to join the NRWA Cost Recovery Program.

3. SCIIP

Staff updated the committee on the status of the Transfer Pump Station Project which received a $500,000 SCRIA grant. The design is 100% complete and SCRIA is currently reviewing the bid form, etc. The project will advertise for bid following RIA approval.

A. Projects

The committee was reminded of the three (3) projects approved for the SCIIP $10M grant. A Five (5) million-gallon ground storage tank at CPS, Onsite Disinfection Generation System Replacement, and Raw Water Pump Station Improvements.

B. RFQ for Engineering Services

ARJWS advertised for engineering services in March and received submittals from three (3) interested firms. Each submittal was reviewed for completeness and then reviewed according to the evaluation criteria in the RFQ.

C. Recommendation
Based on the scoring matrix, the review committee selected Ardurra for the Ground storage Tank project and GMC for the Disinfection Generation Replacement and Raw Water Pump Improvements. Next steps are to review engineering contracts and move the projects to the preliminary design phase.

4. **Compensation Study Review**
ARJWS requested and received an update compensation study from FGP. Generally, the salary data was as expected showing increases in market pay at approximately 8-9% over the 2021 survey (2 years). Current budgeted is adequate to support the new study results.

5. **Performance Review Process**
ARJWS has performed quarterly reviews and address discipline and feedback as issues arose over the past year. The annual review process is expected to begin in late June and continue into July. Salary adjustments should be in place by the first full pay period in July.

6. **Employee Satisfaction Survey**
ARJWS previously performed a survey in 2020. The committee requested an update to the survey with similar questions changed only to provide more detailed results.

7. **Closed Session**
The committee requested a closed session to discuss nominations to the FY24-25 Executive Committee.

Prepared by: Jeff Caldwell, Deputy Director

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BOARD MEMORANDUM

May 10, 2023

Subject

Finance and Administration Report

Discussion

Billing

Meters were read on April 27, 2023, with usage up 3.65% from last month (for the same number of days) and down 10.87% from last year (for the same number of days).

AGENCY	PREV.YR SAME MONTH	LAST MONTH	CURRENT
# of Billing Days	**28**	**29**	**29**
Anderson	132,969,649	105,453,645	109,698,913
Big Creek	24,000,000	23,779,606	18,932,951
Broadway	19,155,336	16,441,148	16,658,081
Clemson	57,319,101	55,652,178	55,182,200
Clemson University	30,422,991	27,715,048	30,084,810
Hammond	54,282,599	46,229,859	57,249,013
Homeland Park	17,168,294	16,830,334	15,401,859
Pendleton	9,582,640	9,755,739	8,842,062
Powdersville	5,970,191	3,785,182	4,488,182
Sandy Springs	54,877,317	53,976,139	55,889,472
Starr-Iva	29,312,410	28,792,217	27,752,345
West Anderson	37,039,053	30,963,613	35,056,050
Williamston	13,272,764	12,884,917	12,813,018
TOTAL	**485,372,345**	**432,259,625**	**448,048,956**

Finance/Budget Summary

For the month ending April 30, 2023, ARJWS is trending appropriately for revenues and expenses for the first ten months of the fiscal year.

See the Profit & Loss report for additional information.

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 April 30, 2023

	Annual Budget	YTD Budget (10 months)	YTD Actual	10+2 Year End Projection	Ideal Percentage	% of Budget	YTD Variance	
Operating Revenue								
Operations and Maintenance	5,729,325	4,774,438	4,711,825	5,666,713	83%	82%	(62,612)	
Capital Charges	5,331,369	4,442,808	4,442,808	5,331,369	83%	83%	-	
Renewal and Replacement								
Water System	1,499,760	1,249,800	1,250,382	1,500,342	83%	83%	582	
Pump Station	67,738	56,448	56,523	67,813	83%	83%	75	
Miscellaneous	51,616	43,013	288,251	296,853	83%	558%	245,237	A
Total Operating Revenue	12,679,808	10,566,507	10,749,788	12,863,090				
Operating Expenses								
Salaries and Wages	1,727,500	1,439,583	1,376,247	1,664,164	83%	80%	(63,336)	
Payroll Taxes and Employee Benefits	726,400	605,333	568,022	689,089	83%	78%	(37,311)	
Operations and Maintenance								
Administrative Expenses	274,890	229,075	242,088	287,903	83%	88%	13,013	
Operations Expenses								
Lab Supplies/Uniforms/Safety Equipment	118,900	99,083	71,336	91,152	83%	60%	(27,748)	
Chemicals	801,600	668,000	721,591	855,191	81%	90%	53,591	B
Sludge and Chemical Disposal	175,000	145,833	25,415	175,000	83%	15%	(120,419)	
Utilities and Security	1,113,300	927,750	962,111	1,147,661	83%	86%	34,361	C
Maintenance Expenses	372,135	310,113	337,281	399,303	83%	91%	27,168	
Professional Fees	98,000	81,667	24,080	40,413	83%	25%	(57,587)	
Insurance	111,800	93,167	52,416	111,800	83%	47%	(40,750)	
Debt Expenses	5,331,370	4,354,268	4,152,862	5,331,370	83%	78%	(201,406)	D
Source Water Protection	50,000	41,667	38,065	46,398	83%	76%	(3,602)	
Miscellaneous Expenses	159,800	133,167	92,405	119,038	83%	58%	(40,762)	
Total operating expenses before depreciati	11,060,695	9,128,706	8,663,918	10,958,482				
Net operating income	1,619,113	1,437,801	2,085,870	1,904,608				
Raw Water								
Raw Water Income	58,811	49,009	217,323	227,125				
Raw Water O&M Expenses	-	-	196,334	196,334				
Raw Water Operating Income	58,811	49,009	20,990	30,792	83%	36%	(28,019)	
Non-Budget Impacting Items								
Junior Lien Bond Payments	240,957	200,798	190,000	240,957	83%	79%	(10,798)	
Water Quality Monitoring Project	52,000	43,333	15,275	52,000	83%	29%	(28,058)	
Alum Pump Replacement	-	-	22,601	22,601	100%	100%	22,601	
Filter PLC Upgrade	140,400	117,000	94,956	140,400	100%	100%	(22,044)	
Lagoon Pump Replacement	-	-	55,555	55,555	100%	100%	55,555	
Transfer Manifold Project	100,000	83,333	77,500	100,000	100%	100%	(5,833)	
Clarifier #1 Repair	-	-	44,812	74,812	100%	100%	44,812	
SAWS HVAC Replacement	-	-	24,000	24,000	100%	100%	24,000	
	533,357	444,464	524,698	710,324				

	Cash Balances	Days Cash on Hand
Operating Cash	2,196,862	72
Capital Project Fund	3,620,253	
System R&R Fund (Restricted)	1,382,752	
Pumped R&R Fund (Restricted)	564,747	
Raw Water O&M	151,230	
Raw Water R&R	255,232	
	8,171,075	

A: Over projected revenue due to $40,000 for the annual payment from Pioneer Water, $17,000 from the sale of capital assets, and $150,000 in year-to-date interest earned on bank balances.

B: Chemicals are over budget primarily due to price increases in phosphate, alum, and sodium hypochlorite.

C: Over budget due to a mid-year increase in rates from Duke Energy.

D: Interest is earned on the Guaranteed Investment Contract (GIC) that was put into place during the original 2002 debt issuance, the money is then transferred to the 2017B account to offset payments. This credit was not applied during the prior year, and a credit was issued for the first quarter of FY 2023. Plus, current year credits for interest earned on accounts.

PUMPED REPAIR & REPLACEMENT ACCOUNT

April 30, 2023

DATE	TRANSACTION MEMO	CREDIT	DEBIT	BALANCE
04/01/2023	Balance Forward LGIP Investment			$556,764.14
04/27/2023	System Transfer for March 2023 Billing	$5,648.06		$562,412.20
04/30/2023	Interest Earned April 2023	$2,334.50		$564,746.70
04/30/2023	Ending Balance LGIP			**$564,746.70**

SYSTEMS REPAIR & REPLACEMENT ACCOUNT

April 30, 2023

DATE	TRANSACTION MEMO	CREDIT	DEBIT	BALANCE
04/01/2023	Balance Forward LGIP Investment			$1,252,473.33
04/27/2023	System Transfer for March 2023 Billing	$124,979.97		$1,377,453.30
04/30/2023	Interest Earned April 2023	$5,298.78		$1,382,752.08
04/30/2023	Ending Balance LGIP			**$1,382,752.08**

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BOARD MEMORANDUM

May 11, 2023

Subject
Operations and Maintenance Report

Discussion

Operations

As of May 11, 2023 Lake Hartwell's surface elevation was 661.61 ft, 1.61 ft. above full pool. Raw water is being drawn from the top gate of the intake structure. Water temperature at the top gate is 71.8°F. The Joint Water System reached 100% of its settled water turbidity goals for the month of April. Raw water pH levels are relatively constant. Settled and Finished water pH levels are normal. The maximum day for April water production was 44% of Finished water capacity.

Operations and Maintenance Highlights

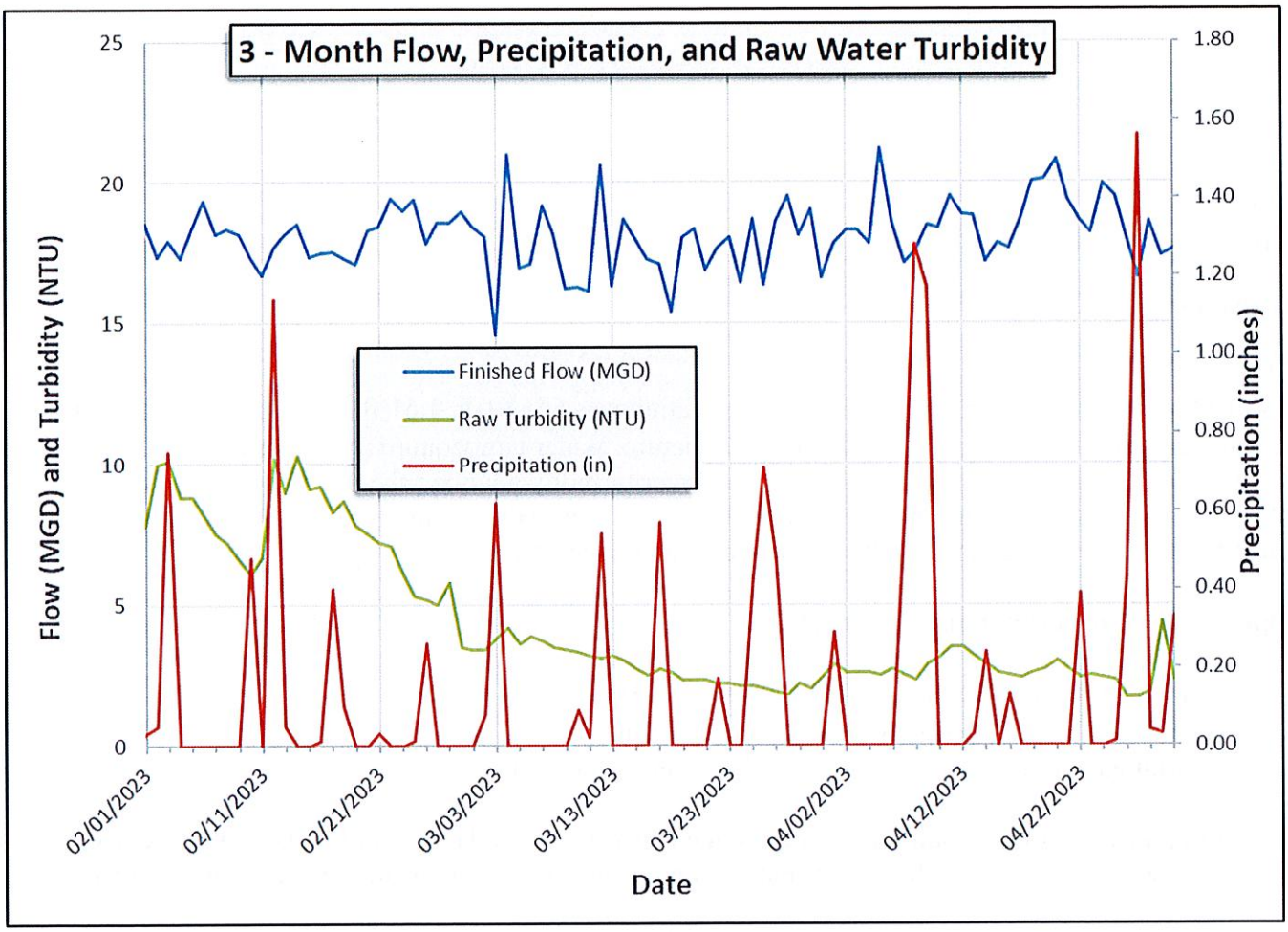
- Austin Satterfield earned his C Distribution license
- Performed PFAS sampling and distributed results
- Installed automatic level controls on lower lagoon pumps

In addition to water quality sampling for the Lake Hartwell Water Treatment Plant, Joint Water System staff processed 165 Total Coliform distribution samples for local entities during the month of April.

Water Quality Data

	Raw	Settled	Finished
pH	7.02	6.68	7.16
Turbidity (NTU) Range	1.70 – 4.40	0.42 – 1.10	0.03 – 0.04
Turbidity (NTU) Average	2.66	0.65	0.03
Turbidity (NTU) Exceedance	-	3%	0%
Total Organic Carbon	1.74	-	0.95
Fluoride Average (ppm)	-	-	0.68
Phosphate Average (ppm)	-	-	.62 (dry wt PO4)
Residual Disinfectant (ppm)	-	-	1.75
TTHM (DBP)	-	-	3.1 ppb
Methylisoborneol (MIB)	<1.0 NG/L	-	<1.0 NG/L
Geosmin	8.3 NG/L	-	<1.0 NG/L

Weather Data



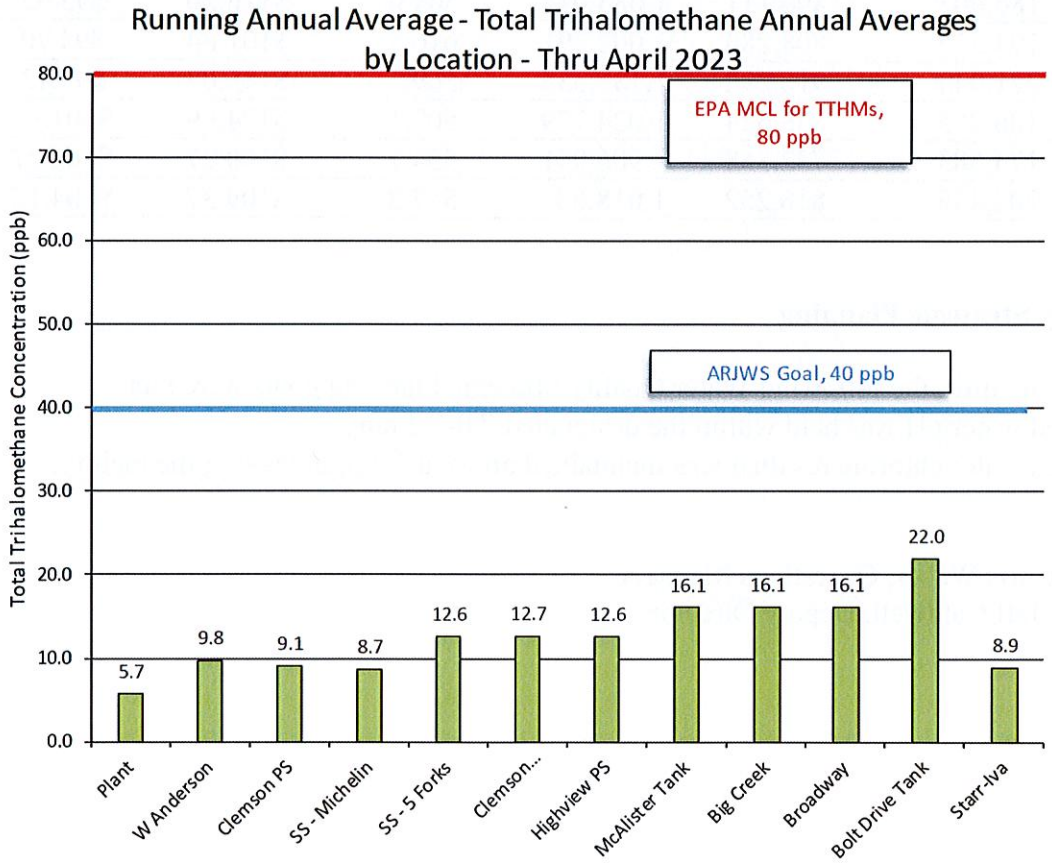
	Minimum	Maximum	Total
Rainfall	0.00 in.	1.56 in.	6.51 in.
Temperature	34° F	89° F	N/A
Humidity	16%	100%	N/A

Water Production Data

	Average	Minimum	Maximum	Total
Raw Water	17,811,000	15,029,000	22,236,000	534,324,000
Finished Water	18,573,000	16,608,000	21,194,000	557,185,000
Finished Max Capacity	37.1%	31.3%	46.3%	37.1%

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 April, ARJWS treated 557,200,000 gallons of water at a power cost of $109.37 per million gallons produced. The 12 month Running Annual Average is currently at $104.12. Energy costs increased approximately 19% in October 2022.

Monthly Power Consumption Data

Month	On Peak kWh	Off Peak kWh	Total kWh	Finished Water MG	$/ MG	12 month Average
Mar – 22	173,122	760,085	955,200	550.6	$85.31	$94.10
Apr – 22	197,139	837,209	1,034,348	587.8	$81.66	$94.56
May - 22	208,937	1,021,598	1,230,535	677.6	$84.09	$94.15
June - 22	217,719	1,143,497	1,361,216	761.8	$90.61	$95.35
Jul – 22	272,036	1,068,474	1,340,510	720.1	$102.01	$95.96
Aug – 22	240,141	1,135,948	1,376,089	706.0	$88.42	$93.34
Sep – 22	235,923	1,022,295	1,258,218	682.5	$104.18	$92.42
Oct – 22	212,428	980,990	1,193,418	663.2	$104.84	$92.43
Nov – 22	186,903	896,111	1,083,014	564.0	$116.20	$93.92
Dec – 22	194,312	808,284	1,002,597	616.5	$101.84	$94.70
Jan – 23	221,043	916,292	1,137,335	569.3	$145.07	$99.13
Feb – 23	186,255	838,524	1,024,779	507.1	$124.99	$101.91
Mar – 23	174,583	732,368	906,951	554.7	$100.27	$102.27
Apr – 23	202,435	816,252	1,018,687	557.2	$109.37	$104.12

Water Quality Strategic Planning

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

- Finished water pH was held within the designated 7.0-7.2 range.
- Finished water chlorine residual was maintained above a 1.2 ppm leaving the facility.

Prepared by: Chris Weber, Operations Manager
Approved by: Jeff Caldwell, Deputy Director

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BOARD MEMORANDUM

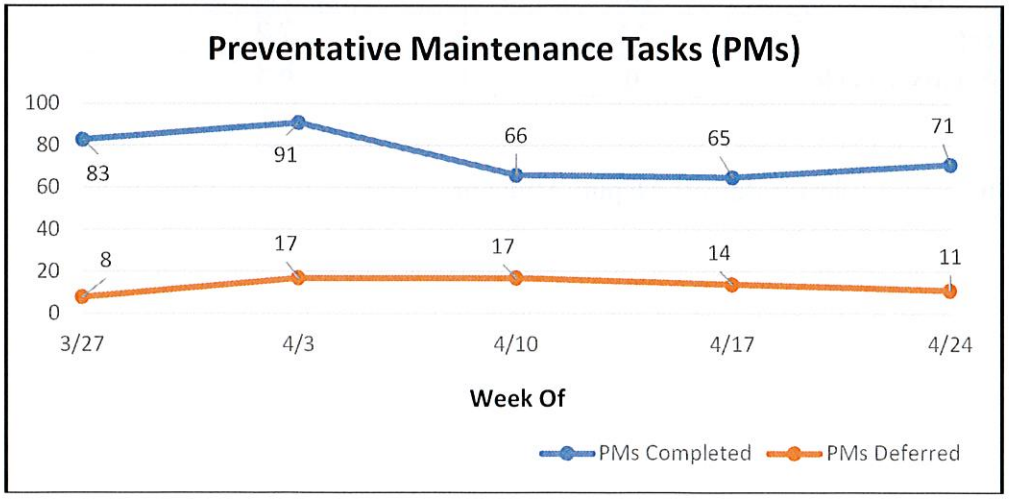
May 23, 2023

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	293
PMs Deferred	62 (21%)
Work Orders Completed	28
Avg Time to Close	79 days 9 hrs
Work Orders Open	25
Avg Time Open (Latency)	101 days 2 hrs



Brand

ARJWS uses many different platforms in order to engage with the public to bring awareness to the system as well as educate and inform about relevant topics of interest to water supply, water treatment, regulatory issues, etc.

Platform	Twitter	Facebook	Instagram	Websites	Events	Tours	Total
Reach	357	1,586	364	761	65	33	3,166
Engagement	7.82%	14.40%	12.10%				

Reach is the total amount of people impacted on each platform.
Engagement is the percentage of people reached who interacted with the content published (likes, shares, comments, website visits, etc.)

Communication and Partnership

ARJWS's goal is to strengthen regional presence, cooperation, and communication among ARJWS and communities.

1. Center for Watershed Protection
    a. Spoke at the annual conference in San Diego, CA.
2. Clemson Environmental Engineering
    a. Conducted a virtual tour with students.

Source Water Protection

The ARJWS has adopted the four creeks upstream of our intake and sample each once per month. These creeks account for approximately 80% of our source water supply.

	E. Coli (cfu/100 mL)	Dissolved Oxygen (ppm)
Hembree Creek	33	7.6
Hurricane Creek	167	7.8
Town Creek	33	7.2
Six and Twenty Creek	0	6.5

Approved by: Jeff Caldwell, Deputy Director