ANDERSON REGIONAL
JOINT WATER SYSTEM

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

BOARD AGENDA

Board of Commissioners
March 2023

I. Minutes February 22, 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:

- April 26, 2023
- June 28, 2023
- August 23, 2023

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www.arjwater.com

MINUTES OF THE ANDERSON REGIONAL JOINT WATER SYSTEM February 22, 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

OTHERS PRESENT: Scott Willett, ARJWS; Jeff Caldwell, ARJWS; Christopher Weber, ARJWS; Jodi Logan, ARJWS; Billy Bolger, Clemson University; Lisa Evatt, ARJWS; David Gailey, ARJWS; Trey Burns, ARJWS

Chairman Dyke Spencer called the Board meeting of Anderson Regional Joint Water System to order at 12:00 p.m. on February 22, 2023.

Chairman Dyke Spencer asked for any Commissioner comments. Mr. Spencer welcomed back Kevin Simpson with Broadway Water District. Mr. Spencer spoke on the revision to the utility relocation plan. Mr. Jackson invited the Board to the Upstate Rural Water Meeting in Williamston this Thursday at 9:30 a.m.

There were no public comments.

Mr. Cortez made a motion to approve the October 26, 2022, minutes and Mr. Jackson seconded. Motion carried.

I. Consent Calendar (Old Business)

None

II. Items requiring immediate action

1. Approve Flow-Based Voting Recalculation for CY2023

Mr. Willett recommended the approval of the member agency flow-based vote allocation based on 2022 water deliveries to all member agencies except Clemson University. Mr. Willett reminded the Board that each Commissioner shall have one vote for each unit of flow measured by the immediate prior year's water purchase. The new vote totals will be effective with votes taken after March 1, 2023. Mr. McGill made a motion to approve the flow-based vote recalculation. Mrs. Durham seconded. The motion was unanimous.

III. Discussion (New Business).

1. Strategic Plan Update on Brand, Communication and Partnership, and Financial Viability

Mr. Caldwell gave a presentation on ARJWS Strategic Plan Update for December 2022 and February 2023. He outlined the Strategic Planning Cycle, Strategic Plan Critical Objectives, Strategic Plan Timeline, Brand, Communication and Partnership, Financial Viability KPIs, and FY2023 Budget Calendar. He discussed each briefly. Mr. Spencer asked if anyone from the Board would like to attend the draft budget review and discussion presented at the executive committee meeting in April.

2. Executive Director's Report (Oral)

Mr. Willett gave an update on the EPA Actions to Address PFAS, S.C. Surface Water Withdrawal, Permitting, Use and Reporting Act, and discussed items related to ARPA Grant.

IV. Informational Reports

1. Finance and Administration Report
2. Operations and Maintenance Report.
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. Jackson made a motion to adjourn at 1:07 p.m. and Mr. Cortez seconded. Motion carried.

Respectfully submitted,

Phillip Mishoe
Secretary/Treasurer

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COMMITTEE SUMMARY

Executive Committee

March 6, 2023

11:30 am

I. Discussion Summary

1. **Budget Drivers**
   Mrs. Cleary presented known budget drivers leading to 92% of the budget increases for FY24. The main drivers are chemicals and power. Others include wages, retirement system company match, and health insurance. The current revenue requirement increase is 7.46%.

2. **Draft Pro Forma and Annual Budget**
   Mrs. Cleary continued the presentation by discussing the proforma. Based on previous discussions, ARJWS has included rate stabilization and transfer to keep the FY24 proposed increases at 5.00% with payback of those funds in FY25. Mrs. Cleary noted the compounding affects on subsequent years. The committee discussed several including transfers to cap the proposed increase at 6.00% and no transfers and the proposed increase of 7.46%.

Prepared by: Jeff Caldwell, Deputy Director

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BOARD MEMORANDUM

March 7, 2023

Subject

Finance and Administration Report

Discussion

Billing

Meters were read on March 1, 2023, with usage down 5.33% from last month (for the same number of days) and down 1.45% from last year (for the same number of days).

AGENCY	PREV.YR SAME MONTH	LAST MONTH	CURRENT
# of Billing Days	**32**	**28**	**29**
Anderson	125,220,432	140,675,259	113,323,422
Big Creek	24,700,000	21,900,000	22,136,750
Broadway	20,583,816	17,032,276	18,365,915
Clemson	63,257,117	57,780,978	60,957,852
Clemson University	33,472,788	21,865,861	28,006,519
Hammond	53,039,456	48,047,996	45,626,050
Homeland Park	19,599,597	17,000,829	17,035,025
Pendleton	11,410,029	9,386,056	9,674,990
Powdersville	5,096,836	3,329,193	3,547,231
Sandy Springs	61,833,416	49,169,167	54,599,533
Starr-Iva	33,878,799	28,775,749	28,359,419
West Anderson	37,212,975	31,243,242	35,636,590
Williamston	14,927,995	13,057,356	13,062,320
TOTAL	**504,233,256**	**459,263,962**	**450,331,616**

Finance/Budget Summary

For the month ending February 28, 2023, ARJWS is trending appropriately for revenues and expenses for the first seven months of the fiscal year.

See the Profit & Loss report for additional information.

Safety Training

January
Subject: **Office Safety**
Training Date: **January 23, 2023**
Online Attendance
ARJ Staff – 20

February
Subject: **CPR/First Aid/ AED Certification Class**
Training Date: **February 16, 2023**
Onsite Attendance
ARJ Staff – 0
Member Agency – 8

Prepared by: Jodi Logan, Billing/Purchasing Coordinator
Approved by: Jeff Caldwell, Deputy Director

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

ANDERSON REGIONAL
JOINT WATER SYSTEM

Profit & Loss
For the Month ending February 28, 2023

	Annual Budget	YTD Budget (8 months)	YTD Actual	8+4 Year End Projection	Ideal Percentage	% of Budget	YTD Variance	
Operating Revenue								
Operations and Maintenance	5,729,325	3,819,550	3,791,944	5,701,719	67%	66%	(27,606)	
Capital Charges	5,331,369	3,554,246	3,554,246	5,331,369	67%	67%	-	
Renewal and Replacement								
Water System	1,499,760	999,840	1,000,305	1,500,225	67%	67%	465	
Pump Station	67,738	45,159	45,219	67,798	67%	67%	60	
Miscellaneous	51,616	34,411	229,173	246,378	67%	444%	194,762	A
Total Operating Revenue	12,679,808	8,453,205	8,620,887	12,847,490				
Operating Expenses								
Salaries and Wages	1,727,500	1,151,667	1,069,395	1,645,228	67%	62%	(82,272)	
Payroll Taxes and Employee Benefits	726,400	484,267	451,222	693,356	67%	62%	(33,044)	
Operations and Maintenance								
Administrative Expenses	310,790	207,193	200,643	304,240	67%	65%	(6,550)	
Operations Expenses								
Lab Supplies/Uniforms/Safety Equipment	118,900	79,267	58,314	97,947	67%	49%	(20,953)	
Chemicals	801,600	534,400	579,106	846,306	66%	72%	44,706	B
Sludge and Chemical Disposal	175,000	116,667	25,415	175,000	67%	15%	(91,252)	
Utilities and Security	1,113,300	742,200	790,374	1,161,474	69%	71%	48,174	C
Maintenance Expenses	372,135	248,090	220,726	344,771	67%	59%	(27,364)	
Professional Fees	98,000	65,333	18,505	51,172	67%	19%	(46,828)	
Insurance	111,800	74,533	48,416	111,800	67%	43%	(26,118)	
Debt Expenses	5,331,370	3,483,415	3,281,593	5,331,370	67%	62%	(201,822)	D
Source Water Protection	50,000	33,333	36,262	52,928	67%	73%	2,928	
Miscellaneous Expenses	123,900	82,600	43,065	84,365	67%	35%	(39,535)	
Total operating expenses before depreciati	11,060,695	7,302,965	6,823,036	10,899,958				
Net operating income	1,619,113	1,150,241	1,797,851	1,947,532				
Raw Water								
Raw Water Income	58,811	39,207	176,052	195,655				
Raw Water O&M Expenses	-	-	166,658	166,658				
Raw Water Operating Income	58,811	39,207	9,393	28,997	67%	16%	(29,814)	
Non-Budget Impacting Items								
Junior Lien Bond Payments	240,957	160,638	152,000	240,957	67%	63%	(8,638)	
Water Quality Monitoring Project	52,000	34,667	15,275	52,000	67%	29%	(19,392)	
Alum Pump Replacement	-	-	22,601	22,601	100%	100%	22,601	
Filter PLC Upgrade	140,400	93,600	94,956	140,400	100%	100%	1,356	
Lagoon Pump Replacement	-	-	54,520	54,520	100%	100%	54,520	
Transfer Manifold Project	100,000	66,667	42,500	100,000	100%	100%	(24,167)	
	533,357	355,571	381,852	610,478				

	Cash Balances	Days Cash on Hand
Operating Cash	2,133,709	70
Capital Project Fund	3,723,314	
System R&R Fund (Restricted)	1,122,710	
Pumped R&R Fund (Restricted)	548,847	
Raw Water O&M	181,077	
Raw Water R&R	249,127	
	7,958,784	

A: Over projected revenue due to $40,000 for the annual payment from Pioneer Water, $17,000 from the sale of capital assets, and $90,000 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

February 28, 2023

DATE	TRANSACTION MEMO	CREDIT	DEBIT	BALANCE
02/01/2023	Balance Forward LGIP Investment			$541,224.43
02/28/2023	System Transfer for January 2023 Billing	$5,648.06		$546,872.49
02/28/2023	Interest Earned February 2023	$1,974.01		$548,846.50
02/28/2023	Ending Balance LGIP			**$548,846.50**

SYSTEMS REPAIR & REPLACEMENT ACCOUNT

February 28, 2023

DATE	TRANSACTION MEMO	CREDIT	DEBIT	BALANCE
02/01/2023	Balance Forward LGIP Investment			$994,088.85
02/28/2023	System Transfer for January 2023 Billing	$124,979.97		$1,119,068.82
02/28/2023	Interest Earned February 2023	$3,640.70		$1,122,709.52
02/28/2023	Ending Balance LGIP			**$1,122,709.52**

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BOARD MEMORANDUM

March 13, 2023

Subject

Operations and Maintenance Report

Discussion

Operations

As of March 13, 2023 Lake Hartwell's surface elevation was 659.95 ft, 0.05 ft. below full pool. Raw water is being drawn from the top gate of the intake structure. Water temperature at the top gate is 59.3°F. The Joint Water System reached 11% of its settled water turbidity goals for the month of February. Raw water pH levels are relatively constant. Settled and Finished water pH levels are normal. The maximum day for February water production was 41% of Finished water capacity.

Operations and Maintenance Highlights

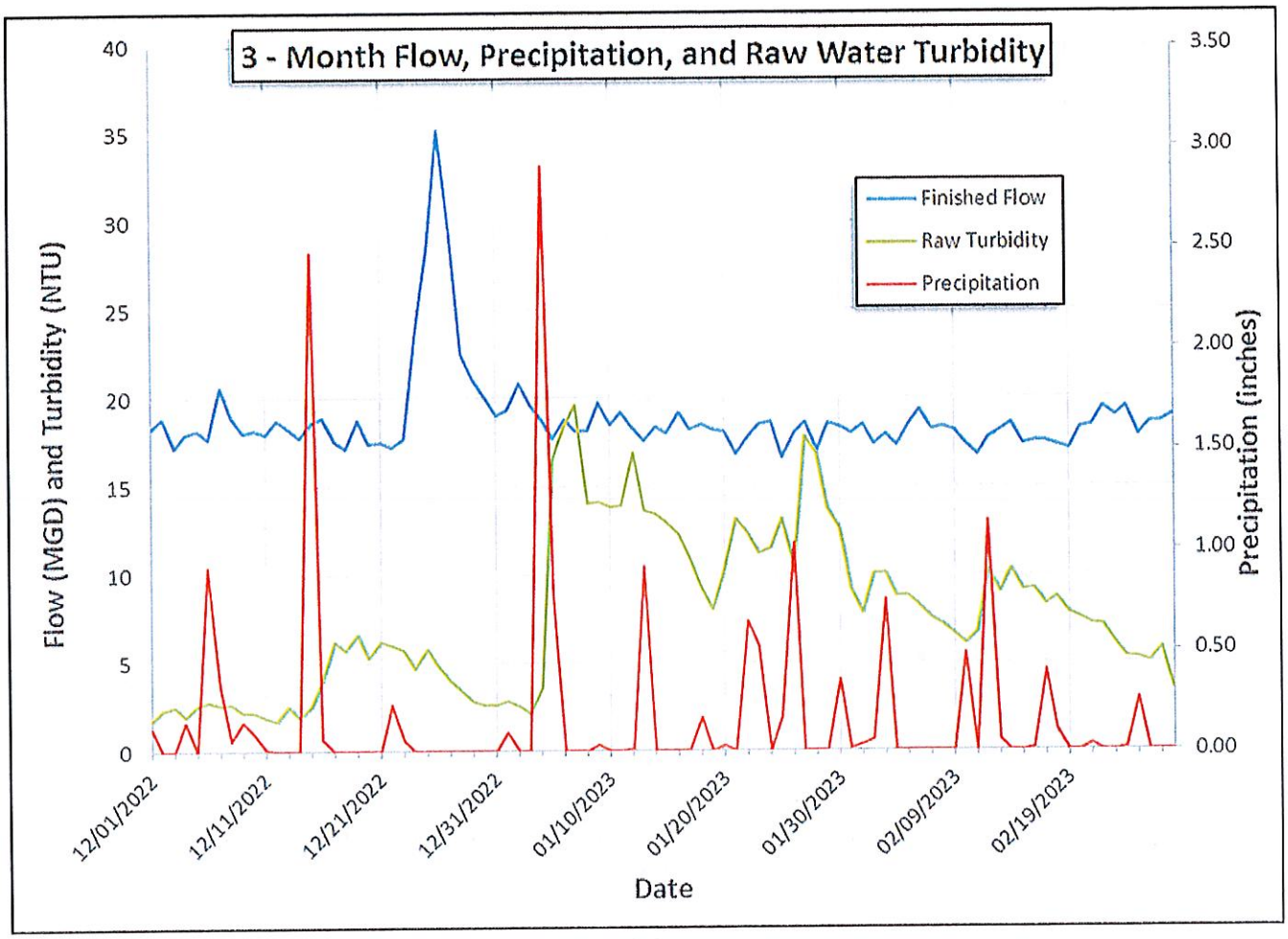
- Performed internal inspections of Reservoir #1 and #2. Completed Reservoir #1 cleaning.
- Installed two new lagoon pumps
- ARJWS hired Ethan Moore as an Operator Trainee.

In addition to water quality sampling for the Lake Hartwell Water Treatment Plant, Joint Water System staff processed 170 Total Coliform distribution samples for local entities during the month of February.

Water Quality Data

	Raw	Settled	Finished
pH	7.09	6.66	7.17
Turbidity (NTU) Range	3.50 – 10.30	0.81 – 4.30	0.03 – 0.48
Turbidity (NTU) Average	7.61	1.71	0.06
Turbidity (NTU) Exceedance	-	89%	0%
Total Organic Carbon	1.67	-	0.97
Fluoride Average (ppm)	-	-	0.69
Phosphate Average (ppm)	-	-	.57 (dry wt PO4)
Residual Disinfectant (ppm)	-	-	1.79
TTHM (DBP)	-	-	2.8 ppb
Methylisoborneol (MIB)	<1.0 NG/L	-	<1.0 NG/L
Geosmin	2.1 NG/L	-	<1.0 NG/L

Weather Data



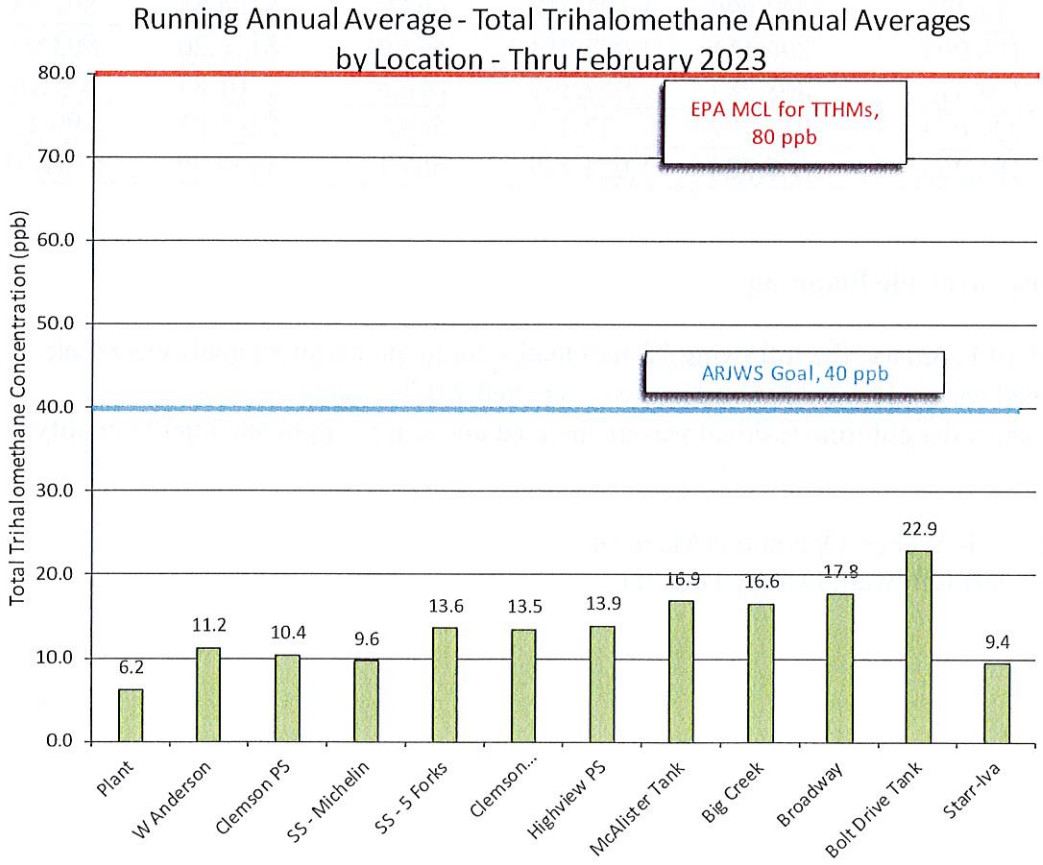
	Minimum	Maximum	Total
Rainfall	0.00 in.	1.14 in.	3.31 in.
Temperature	27° F	79° F	N/A
Humidity	12%	100%	N/A

Water Production Data

	Average	Minimum	Maximum	Total
Raw Water	18,103,000	14,800,000	22,160,000	506,877,000
Finished Water	18,110,000	16,720,000	19,448,000	507,071,000
Finished Max Capacity	37.7%	34.8%	40.5%	37.7%

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 February, ARJWS treated 507,100,000 gallons of water at a power cost of $124.99 per million gallons produced. The 12 month Running Annual Average is currently at $101.91. 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
Feb – 22	184,554	859,075	1,043,630	502.6	$95.57	$94.65
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

Water Quality Strategic Planning

For the month of February, 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

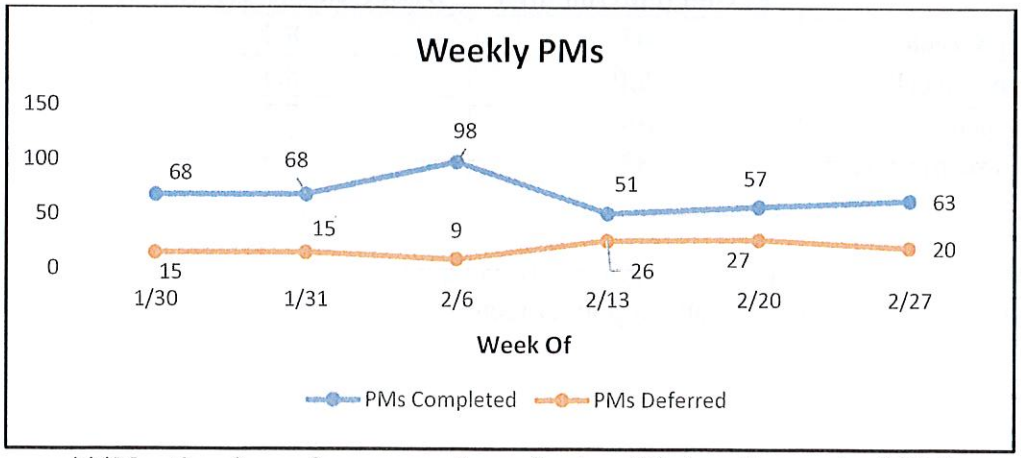
March 2023

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	269
PMs Deferred	75 (28%)
Work Orders Completed	14
Avg Time to Close	43 days 15 hrs
Work Orders Open	24
Avg Time Open (Latency)	168 days 6 hrs



***NextService software was down for two (2) days the week of 2/13

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	675	2,251	395	961	0	0	4,282
Engagement	9.24%	14.85%	26.74%				

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. Barrels & Beer 2023
    a. April 1st at Carolina Bauernhaus. Mattys Pattys food truck will be onsite.
    b. Partnering with Anderson Soil & Water Conservation District, Clemson Extension, Upstate Forever, and the Nature Conservancy to educate attendees on water quality.

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	67	8.3
Hurricane Creek	200	8.4
Town Creek	100	7.2
Six and Twenty Creek	33	8.3

Prepared by: Trey Burns, Sustainability Manager
Approved by: Jeff Caldwell, Deputy Director