



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

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## BOARD AGENDA

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### Board of Commissioners' Meeting April 16, 2008

**Call to Order**

**Pledge of Allegiance**

**Additions to the Agenda**

**Commissioners' Comments**

**Public Comment**

**Approval of Minutes of February 20, 2007**

**I. Information**

1. Financial Report
2. Administration Report
3. Operations and Maintenance Report
4. Engineering Report

**II. Discussion and Possible Action**

1. Transmission System Improvements
  - a. *Report of Cities' Third Party Engineer*
  - b. *Peak day delivery guidelines*
2. Reauthorize the Seasonal Surplus Water Program
3. Adopt an unaccounted water rate percentage for unmetered service to City of Anderson

**III. Adjournment**

The Board meeting will be held in the Anderson Regional Joint Water System Headquarters building located at the 998 Hunters Trail (WTP).





ANDERSON REGIONAL

JOINT WATER SYSTEM

998 Hunters Trail Anderson, SC 29625  
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**BOARD MEMORANDUM**

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April 3, 2008

**Subject**

March 2007 Financial Report

**Discussion**

The attached tables identify March spending, encumbrances and deposits to the Pumped Repair and Replacement Account and the System Repair and Replacement Account. At the end of March, the Pumped R&R Account had an available balance of \$328,313.16 net of encumbrances. The System R&R Account had an available balance of \$458,858.55 net of encumbrances. Note that \$354,900 of the System R&R has been encumbered to advance the final design of the Phase 1A Transmission Improvements and will be reimbursed from loan proceeds. The Operating Fund had a balance of \$510,533.14. System reserves of \$200,000 are invested in secured notes. Total unrestricted cash available is \$1,601,978.32 corresponding to 85.31 days of cash based on the adopted Budget.

	Balance (2/29/2008)	Balance (3/31/2008)
Pumped R&R	\$321,052.61	\$328,313.16
System R&R	\$375,431.11	\$458,858.55
Operating Fund	\$502,649.96	\$510,533.14
Rate Stabilization fund	\$104,124.42	\$104,273.47
Reserves	\$200,000.00	\$200,000.00
TOTAL Cash	\$1,503,258.10	\$1,601,978.32
FY 2007 -08 Budget	\$6,854,183.00	\$6,854,183.00
Days of Cash	80.05	85.31

A review of the March Profit and Loss Statement shows that actual expenses were over budget projections for the month by \$17,119.03 primarily due to annual General Liability Insurance payment. Annual projections at this point are for a \$143,098 deficit due to higher variable pumping costs due to increased drought demands (Electricity \$103,917), conflict resolution (Professional Fees \$60,195) and lower interest earnings (Debt Service Payments \$56,171).

Approved by: Scott Willett, Executive Director

Attachments: Pumped Repair and Replacement Account Summary  
System Repair and Replacement Account Summary  
Profit and Loss Budget vs. Actual

**PUMPED REPAIR & REPLACEMENT ACCOUNT**

March 31, 2008

<u>DATE</u>	<u>PAYEE</u>	<u>DEPOSIT</u>	<u>AMOUNT</u>	<u>BALANCE</u>
3/1/08	BALANCE BROUGHT FORWARD			321,052.61
03/25/08	TRANSFER FROM O & M	6,799.33		327,851.94
03/31/08	DEPOSIT (INTEREST)	461.22		328,313.16
	LESS ENCUMBERED FUNDS			-
	BALANCE UNENCUMBERED FUNDS			<u>328,313.16</u>

# SYSTEMS REPAIR & REPLACEMENT ACCOUNT

March 31, 2008

<u>DATE</u>	<u>PAYEE</u>	<u>DEPOSIT</u>	<u>AMOUNT</u>	<u>BALANCE</u>
03/01/08	BALANCE BROUGHT FORWARD			981,890.71
03/03/08	CDM		6,590.00	975,300.71
03/03/08	DELL MARKETING L.P.		1,072.40	974,228.31
03/10/08	ESRI, INC		6,070.89	968,157.42
03/17/08	MTH NETWORKING SOLUTIONS, INC		262.50	967,894.92
03/17/08	M/R SYSTEMS, INC		10,458.93	957,435.99
03/24/08	OFFICE PANEL SYSTEMS		383.74	957,052.25
03/25/08	TRANSFER FROM O & M	100,303.81		1,057,356.06
03/31/08	DEPOSIT (INTEREST)	1,362.09		1,058,718.15
	<b>LESS ENCUMBERED FUNDS</b>			<b><u>599,859.60</u></b>
	<b>BALANCE UNENCUMBERED FUNDS</b>			<b><u>458,858.55</u></b>

<u>ENCUMBERENCES</u>	<u>BUDGET</u>	<u>BALANCE</u>
NEW OFFICE BUILDING	788,629.00	75,704.80
RAW WATER PUMP	124,350.00	80,958.68
CELLO METERS	83,500.00	1,791.52
HYDRAULIC MODELING PROJECT TASK #5	54,428.00	-
ELECTRICAL SERVICE TO RAW WATER PUMPS (DESIGN)	18,020.00	2,522.80
ELECTRICAL SERVICE TO RAW WATER PUMPS(CONSTRUCTION)	322,000.00	79,496.80
WTP ELECTRICAL SYS ENGINEERING REPORT	24,800.00	19,840.00
WTP TRACER STUDY	6,590.00	-
GIS STRATEGIC PLAN	12,000.00	2,400.00
FINAL DESIGN OF PHASE 1 TRANSMISSION IMPROVEMENTS	354,900.00	337,155.00
		<b><u>599,869.60</u></b>



**Profit & Loss Budget vs. Actual**  
July 2007 through March 2008

	MONTH		TOTAL		FORECAST	
	Mar 08	Budget	Year-to-Date	Budget	9+3	Budget
<b>Ordinary Income/Expense</b>						
<b>Income</b>						
6000 · FEES O & M + CAP						
6001 · FEES O & M -TOTAL						
6001.1 · Base O & M Subtotal	0.00	229,924.25	0.00	2,069,318.25		
6001.2 · Pumped O & M Subtotal	0.00	18,056.59	0.00	162,509.23		
<b>Total 6001 · FEES O &amp; M -TOTAL</b>	<b>0.00</b>	<b>247,980.84</b>	<b>0.00</b>	<b>2,231,827.48</b>		
6002 · FEES CAP	0.00	318,531.91	0.00	2,866,787.27		
6000 · FEES O & M + CAP - Other	563,962.60		5,183,532.65			
<b>Total 6000 · FEES O &amp; M + CAP</b>	<b>563,962.60</b>	<b>566,512.75</b>	<b>5,183,532.65</b>	<b>5,098,614.75</b>	<b>6,883,070.90</b>	<b>6,798,153.00</b>
6010 · FEES- MISC. INCOME	16,562.22	3,750.00	47,268.12	33,750.00	58,518.12	45,000.00
6015 · TRANSFERS FROM RSF	0.00	16,666.67	100,000.00	100,000.00	200,000.00	200,000.00
<b>Total Income</b>	<b>580,524.82</b>	<b>586,929.42</b>	<b>5,330,800.77</b>	<b>5,232,364.75</b>	<b>7,141,589.02</b>	<b>7,043,153.00</b>
<b>Expense</b>						
8010 · SALES TAX ACCRUAL	0.00	258.33	2,989.98	2,325.01	3,764.97	3,100.00
8050 · ADVERTISING -	0.00	208.33	632.22	1,875.01	1,257.21	2,500.00
8060 · OFFICE SUPPLIES/EXPENSES	604.02	708.34	12,350.56	6,374.99	14,475.58	8,500.00
8065 · DUES/SUBSCRIPTIONS	0.00	616.67	5,010.86	5,549.99	6,860.87	7,400.00
8070 · BANK SERVICE CHARGES	0.00	50.00	-1,757.71	450.00	-1,607.71	600.00
8080 · DEBT SVC 2002 Bond Series	310,827.08	310,027.08	2,846,414.35	2,790,243.76	3,776,495.59	3,720,325.00
8081 · DEBT SVC 2005 Bond Series	27,105.88	27,105.84	243,952.92	243,952.51	325,270.44	325,270.00
8090 · AUTO/TRUCK EXPENSE	2,098.07	2,166.66	21,164.60	19,499.99	27,664.58	26,000.00
8105 · RENT	0.00	333.33	2,162.87	3,000.01	3,162.86	4,000.00
8110 · LICENSES/PERMITS	50.00	84.84	37,054.00	37,245.51	37,308.52	35,018.00
8120 · Lease/Purchase Miox Gen. Equip	0.00	7,336.00	62,844.54	66,024.00	84,852.54	88,032.00
8130 · STATIONARY/PUBLICATIONS	77.02	25.00	184.52	225.00	259.52	300.00
8140 · SEMINARS & CONVENTIONS	0.00	450.00	3,296.00	4,050.00	4,646.00	5,400.00
8150 · POSTAGE/FREIGHT	150.30	200.00	2,004.92	1,800.00	2,604.92	2,400.00
8160 · FILM & PROCESSING	0.00	8.34	0.00	75.01	25.02	100.00
8175 · METER REPAIR	216.88	1,008.33	370.20	9,074.99	3,395.19	12,100.00
8180 · SECURITY	90.00	483.33	420.18	4,350.01	1,870.17	5,800.00
8200 · PUMP MAINT./REPAIR - Other	0.00		1,374.87		1,374.87	0.00
8200 · PUMP MAINT./REPAIR	82.26	3,224.98	31,537.63	29,025.06	41,212.57	38,700.00
8220 · PROFESSIONAL FEES	100.00	5,791.68	112,317.91	52,124.96	129,692.95	69,500.00
8300 · INSURANCE	62,058.07	7,562.09	78,665.28	68,058.73	101,351.55	90,745.00
8400 · LABORATORY	6,800.97	4,341.66	35,664.48	39,075.02	48,689.46	52,100.00
8500 · WATER TREATMENT	4,378.33	3,408.33	57,719.65	30,875.01	67,944.64	40,900.00
8600 · PAYROLL EXPENSES	94,472.30	100,962.99	904,703.01	908,667.00	1,207,591.98	1,211,556.00
8700 · TELEPHONE	4,587.48	3,466.67	27,083.86	31,199.99	37,483.87	41,600.00
8800 · MISCELLANEOUS	1,518.37	1,333.34	20,197.50	11,999.98	24,197.52	16,000.00
8820 · CUSTODIAL CARE	1,022.80	537.50	6,123.28	4,837.50	7,735.78	6,450.00
8830 · REPAIRS/MAINTENANCE	2,515.60	3,400.00	34,839.76	30,600.00	45,039.76	40,800.00
8840 · CHEMICAL SUPPLIES	27,565.57	26,500.00	222,137.73	238,499.97	301,637.73	318,000.00
8850 · TANKS/STANDPIPES/RESEVOIRS	157.03	433.33	9,778.92	3,900.01	11,078.91	5,200.00
8860 · UTILITIES	53,612.46	70,458.34	738,041.51	634,124.98	949,416.53	845,500.00
8870 · TRAVEL	483.28	300.00	4,987.86	2,700.00	5,887.86	3,600.00
8871 · MANAGER'S EXPENSE	162.81	100.00	714.79	900.00	1,014.79	1,200.00
8872 · BOARD EXPENSE	0.00	150.00	1,349.55	1,350.00	1,799.55	1,800.00
8873 · STAFF INCENTIVE PROGRAM	0.00	50.00	0.00	450.00	150.00	600.00
8874 · TRAINING & EDUCATION REIMBURSE	0.00	683.33	4,283.00	6,150.01	6,332.99	8,200.00
8875 · MEALS/ENTERTAINMENT	340.44	183.33	1,915.95	1,650.01	2,465.94	2,200.00
<b>Total Expense</b>	<b>601,077.02</b>	<b>583,957.99</b>	<b>5,531,156.68</b>	<b>5,292,104.02</b>	<b>7,283,030.65</b>	<b>7,041,496.00</b>
<b>Net Ordinary Income</b>	<b>-20,552.20</b>	<b>2,971.43</b>	<b>-200,355.91</b>	<b>-59,739.27</b>	<b>-141,441.63</b>	<b>1,657.00</b>

- 1 General Liability
- 2 Eq. Calibration/Ext. Testing Fees
- 3 Clarifier Repairs



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JOINT WATER SYSTEM

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**BOARD MEMORANDUM**

April 3, 2008

**Subject**

March Administration Report

**Discussion**

Billing

All payments for the month of February have been received (*except Pendleton*). Meters were read on March 31st, with usage down about 7% from last month (for the same number of days), and down 16% over the same period/same number of days last year. March bills were mailed on April 3rd.

AGENCY	PREV.YR SAME MONTH	LAST MONTH	CURRENT MONTH
<b># of Billing Days</b>	<b>28</b>	<b>30</b>	<b>32</b>
Anderson	141,226,477	124,767,657	124,414,631
Big Creek	24,600,000	23,500,000	23,200,000
Broadway	18,590,000	20,090,900	19,820,000
Clemson	38,900,000	49,100,000	46,000,000
Clemson Univ	27,600,000	25,400,000	27,900,000
Hammond	47,000,000	35,300,000	42,000,000
Homeland Park	17,574,000	16,510,000	18,104,100
Pendleton	10,790,000	8,060,000	9,370,000
Powersville	14,500,000	9,270,000	18,230,000
Sandy Springs	49,003,000	42,865,000	50,315,000
Starr-Iva	32,800,000	29,400,000	31,600,000
West Anderson	33,139,000	37,054,000	37,039,000
Williamston	23,300,000	21,600,000	23,700,000
<b>TOTALS:</b>	<b>479,022,477</b>	<b>442,917,557</b>	<b>471,692,731</b>

There were no Seasonal Surplus Charges for the month of March. Gallons-to-date remain at 171,753,000 and total dollars \$197,883.88.

### Plant Capacity

At the completion of the Joint Water System's Sanitary Survey last Thursday, the Lake Hartwell Water Treatment Plant received official notice of its capacity up-rating to 42.8 MGD. The member agency allocations based on this new total plant capacity (March 08 Total) are attached for your review. Any seasonal surplus water sales will reflect this new member agency allocation for all future billings. Note columns to the far right include an estimate of future capacity once the filter high-rating is satisfactorily completed (expected next spring).

### **Member Agency Allocated Treatment Plant Capacity**

<b>Agency</b>	<b>Initial</b>	<b>2005 Expansion</b>	<b>March 08 TOTAL</b>	<b>Filter Up-rating</b>	<b>2009 TOTAL</b>
<b>City of Anderson</b>	10.46	3.04	13.50	1.46	14.96
<b>Big Creek</b>	1.56	0.57	2.13	0.28	2.41
<b>Broadway</b>	1.08	0.76	1.84	0.36	2.20
<b>Town of Central</b>	-	-	-	-	-
<b>City of Clemson</b>	2.02	2.28	4.30	1.10	5.40
<b>Clemson Univ</b>	2.00	-	2.00	-	2.00
<b>Hammond</b>	2.78	1.52	4.30	0.73	5.03
<b>Homeland Park</b>	1.07	-	1.07	-	1.07
<b>Pendleton</b>	0.62	0.29	0.91	0.14	1.05
<b>Powersville</b>	0.58	0.17	0.75	0.09	0.84
<b>Sandy Springs</b>	4.06	1.23	5.29	0.59	5.88
<b>Starr Iva</b>	2.53	-	2.53	-	2.53
<b>West Anderson</b>	2.24	0.69	2.93	0.33	3.26
<b>Williamston</b>	1.00	0.25	1.25	0.12	1.37
<b>TOTAL</b>	32.00	10.80	42.80	5.20	48.00

### Outreach

On April 1<sup>st</sup>, ARJWS hosted the Anderson County LEPC (Local Emergency Planning Commission) monthly meeting/lunch, which consisted of approximately 20 attendees. After their meeting, Bryan Bates conducted a tour of our facilities to 8 of LEPC members.

Staff attended the SC Environmental Conference jointly sponsored by the AWWA and WEF. Jennifer Barrington made a presentation on the "Evolution of the Anderson Regional Joint Water System" where she highlighted the unusual nature of a public acquisition of a private water system, a brief system overview and a summary of projects completed and those in progress.

Prepared by: Connie Finger, Business Manager  
 Approved by: Scott Willett, Executive Director



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**BOARD MEMORANDUM**

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April 3, 2008

**Subject**

March 2008 Operations and Maintenance Report

**Discussion**

***Operations***

As of April 3, 2008 Lake Hartwell was at 651.24 ft above mean sea level. This is 8.76 feet below full pool. Raw water is being taken from the second gate of the intake structure. There is 16.24 feet of water above the middle intake gate. Water temperature at the second gate is fifty-eight degrees. The Joint Water System reached 100% settled water turbidity goal for the month of March. Raw water quality remains generally good. Raw water turbidity is slightly higher than normal due to recent precipitation. Raw water, settled water, and finished water pH levels are normal. The maximum day for March was 54.3% of finished water capacity.

In addition to quality sampling for the Lake Hartwell Water Treatment Plant, Joint Water System staff processed 152 total coliform samples for local entities. Two Member agencies, West Anderson and Williamston, have taken advantage of the offer to have DBP stage 2 samples taken by ARJWS laboratory staff.

**Water Production Data**

	Average	Minimum	Maximum	Total
Raw Water (MG)	16,465,000	13,832,000	20,269,000	509,966,000
Finished Water (MG)	15,532,000	13,258,000	17,373,000	481,666,000
Finished Max Capacity	36.30%	31.00%	40.06%	36.30%

NOTE: Percentages are finished water capacities based on 42.8 MGD total filter capacity.

### Water Quality Data

	Raw	Settled	Finished
pH	6.95	6.33	7.12
Turbidity (NTU) Range	3.5 to 7.2	0.56 to 1.00	0.05 to 0.08
Turbidity (NTU) Average	5.00	0.87	0.06
Turbidity (NTU) Exceedance	N/A	0.0%	0%
Residual Disinfectant (ppm)	N/A	0.82	1.21

NOTE: Area Wide Optimization Program Goal equals 1.0 NTU or less for settled water turbidity 95% of the time. Regulations require 1.0 NTU or less for finished water.

ARJWS has completed twenty months of Long Term 2 Enhanced Surface Water Treatment Rule testing. Results for the twentieth month are negative for Cryptosporidium and Giardia. The Long Term 2 testing period will encompass twenty four months.

### Weather Data

	Minimum	Maximum	Total
Rainfall	0.00	1.46in.	4.59 in.
Temperature	28 ° F	77 ° F	N/A
Humidity	15% Rh	100% Rh	N/A

Operations staff continues to optimize energy consumption at the Water Treatment Plant. Since the initiative began in March 2007, the on-peak energy consumption has dropped by 20.2%. The reduction in on-peak energy consumption, coupled with avoidance of peak demand related changes have allowed the Joint Water System staff to reduce the average energy cost to produce 1 million gallons of water from \$99.72 to \$85.50, a 14.3% reduction in cost all while producing 4.6% more water and reflecting Duke Energy's 1% fuel adjustment charge this year. Monthly energy consumption is detailed above.

### Power Consumption

Month	On Peak Kwh	Off Peak Kwh	Total Kwh	Finished Water Mg	Kwh Cost per Mg
Mar 2006	254,000	815,200	1,069,200	489,902,000	\$99.07
April 2006	242,000	822,800	1,064,800	527,595,000	\$90.49
May 2006	309,600	988,400	1,298,000	594,180,000	\$115.99
June 2006	368,000	1,390,400	1,390,400	662,386,000	\$120.72
July 2006	331,600	1,100,400	1,432,000	715,772,000	\$112.95
Aug 2006	323,200	907,600	1,230,800	683,980,000	\$101.22
Sept 2006	282,400	866,400	1,148,800	545,552,000	\$95.92
Oct 2006	226,800	786,400	1,013,200	578,078,000	\$78.01
Nov 2006	242,400	744,400	986,800	498,257,000	\$92.09
Dec 2006	198,400	721,600	920,000	481,292,000	\$87.71
Jan 2007	223,600	858,000	1,091,600	493,178,000	\$101.97

Feb 2007	194,400	751,600	946,000	423,803,000	\$100.48
Mar 2007	210,800	890,800	1,101,600	530,280,000	\$75.15
April 2007	191,600	1,001,600	1,793,200	555,513,000	\$75.90
May 2007	238,400	1,138,000	1,376,400	682,561,000	\$82.78
June 2007	236,800	979,200	1,216,000	644,839,000	\$87.41
July 2007	224,000	1,187,200	1,411,200	777,256,000	\$91.16
Aug 2007	226,800	1,717,200	1,438,000	684,117,000	\$95.83
Sept 2007	223,200	1,040,800	1,264,000	639,852,000	\$82.42
Oct 2007	208,800	984,400	1,193,200	582,206,000	\$78.86
Nov 2007	204,400	820,400	1,024,800	467,322,000	\$86.63
Dec 2007	191,600	841,200	1,032,800	499,389,000	\$79.90
Jan 2008	215,600	834,200	1,050,400	453,926,000	\$113.98
Feb 2008	178,400	735,400	914,000	481,666,000	\$75.94

### ***Maintenance***

- The Homeland Park meter at Uniflex has been rebuilt.
- The actuator on Filter # 3 effluent was replaced.
- Valve maintenance on the Clemson transmission line is in progress.
- The check valve on CBS pump #1 has been replaced
- Work is in progress on the outside lights power supply. Lighting power was supplied by the overhead raw water lines and will now have to be connected at other locations.
- Pump # 1 at Homeland Park pump station was rebuilt.
- A faulty breaker was the cause of power loss to tank instrumentation at CBS reservoir. It has been replaced.
- ARJWS crews spent 4 days gathering up poles and old wire from the raw water overhead power line recently removed. All wire was salvaged and the poles are stacked on site.
- Crew members also spent two days preparing for the sanitary survey. All facilities looked very good for the survey.

Prepared by: Eddie Makison, Maintenance Manager  
David Melton, WTP Superintendent

Approved by: Scott Willett, Executive Director





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## BOARD MEMORANDUM

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April 3, 2008

### **Subject**

March Engineering Update

### **Discussion**

#### ***Transmission System Improvements***

ARJWS continues to meet with property owners regarding the final routing of the transmission line. ARJWS is in the process of reviewing proposals from two ROW agents for assistance with acquiring easements across private property. A recommendation to the Board will be forthcoming.

#### ***Administrative/Maintenance Building***

ARJWS is awaiting final approval from the State Fire Marshall. A final certificate of occupancy has been requested.

#### ***Power to Raw Water Pumps #4 and #5***

On March 13, 2008 DHEC approved the tracer study and rerated the facility to 42.8 MGD. New allocated flows have been forwarded to all member agencies. Discussion has begun with DHEC about conducting a condensed high-rate filter study from October 2008 through March 2009. This will help us achieve a plant rerating of 47.5-48.0 MGD capacity at the plant.

#### ***Underground Power to Raw Water Pump Station***

The underground power and fiber optic installation is complete and in service. The overhead power poles have been removed. Cleanup, debris removal, and punchlist work are currently underway.

#### ***GIS Implementation***

Our co-op student has collected data points for 60 valves, 21 blowoffs, 9 air relief valves and 1 meter for the Williamston line. He has also collected data points for 58 valves, 11 blowoffs, 3 air relief valves and 2 saddles for the Clemson line. He will continue to focus on the remaining wholesale meters and outstanding valves along the Clemson line. They also assisted with creating as-builts documents for sample lines that feed the flash mix structure, clarifier no. 1 and clarifier no. 2. They continues to work on creating an updated brochure for the ARJWS.

***Reservoir No. 1***

Investigative work on Reservoir No. 1 was conducted March 12-13, 2008 to focus inside and around the pipe penetrations in the tank. We were able to video the inside of both the 4" pipe and 36" pipe and nothing was out of the ordinary. A plug was purchased and installed in the 4" pipe because there was concern that there may be a leak at that location. However the leak has continued even after the plug was installed. Now we are considering investigating any penetrations in the walls of the tank. Cables are installed with anchor bolts throughout the tank. This is an area that should be focused on next.

***Comprehensive Electrical Study***

A Draft Comprehensive Electrical Study was received April 2, 2008 and is currently under review. An upcoming meeting will be held with the Emergency Generator Committee to discuss the findings and recommendations of the report.

Prepared by: Jennifer H. Barrington, P.E., System Engineer  
Approved by: Scott Willett, Executive Director



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## BOARD MEMORANDUM

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April 3, 2008

### **Subject**

Reauthorize the Seasonal Surplus Water Program.

### **Recommendation**

Management recommends the reauthorization of the Seasonal Surplus Water Program.

#### *Alternatives:*

1. Do not reauthorize the Seasonal Surplus Water Program.

### **Fiscal impact**

Fiscal impacts to the Joint Water System results in increased revenue generation and is dependent on volume purchased by member agencies. Since inception, the Seasonal Surplus Water Program has provided 171,753,000 gallons to participating member agencies and generated \$197,884 in addition revenue for the Joint Water System.

### **Discussion**

Under the terms of the 2002 Water Sale and Purchase Agreement, the Joint Water System assumes a trustee position for treatment capacity to Clemson University. A 2002 Water Service Agreement with Clemson University provides the basis of the Joint Water System's obligation to serve the university. Examination of the demand profile of the university indicates that its demand for treated water is driven by on-campus population and as such declines during the summer months resulting in the seasonal availability of up to 0.70 mgd in treatment capacity.

A review of annual sales deliveries also indicates that several member agencies have seasonal demands in excess of purchased treatment plant capacity. To provide increased revenue to the Joint Water System, optimize the Joint Water System's load factor and provide additional treated water capacity to member agencies, management is proposing to make the seasonal surplus water available at the rate presently charged to Clemson University-- \$1.18 per thousand gallons though June 30, anticipated to increase to \$1.22 on July 1, 2008 (Based on the adopted FY 2007-08 Budget and subject to change with the adoption of the FY 2008-09 Budget).

Under this program, participating agencies that exceed allocated capacity would make regular payments up to the allocated capacity based on the terms of the Water Sale and Purchase Agreement. Additional water purchased under the Seasonal Surplus Water Program would not be factored into flows for allocating monthly O&M costs, but would be assessed the prevailing rate. Future availability and cost of seasonal surplus water will be made annually.

Approved by: Scott Willett, Executive Director



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## BOARD MEMORANDUM

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April 3, 2008

### **Subject**

Adopt an unaccounted water rate percentage for unmetered water service in the City of Anderson.

### **Recommendation**

Management recommends setting the unaccounted water percentage at 11.75% for FY 2008-09 unmetered water service in the City of Anderson.

#### *Alternatives:*

1. Select a different unaccounted water percentage.
2. Set unaccounted water percentage to 13% per the consulting engineer's report required under the Operating Agreement.

### **Fiscal impact**

Establishing an unaccounted water percentage at 11.75% would result in greater balancing water produced and billed water sold. Unaccounted rates greater than 11.75% result in significant over collection, based on available meter readings.

### **Discussion**

The City of Anderson does not presently have direct master metering for all service from the Joint Water System. Approximately 22% of the City of Anderson demands are read from retail meters, with an adjustment for estimated losses (unaccounted water percentage) added to provide the billable volume by the Joint Water System. Under the terms of the 2002 Water Sale and Purchase Agreement, the consulting engineer conducted a study and provided a schedule of unaccounted water percentages to be used until the completion of the City of Anderson metering program. For FY 2005-06, the unaccounted water percentage was 10%. Starting in FY 2006-07 the Joint Water system agreed to tie the unaccounted percentage to the previous year production totals resulting in an 11% unaccounted for the year rather than the scheduled 12%. Similarly, FY2007-08 the unaccounted percentage was set at 8%.

Analysis and comparison of water production data with total billed sales for the previous 12 months indicates that the use of an unaccounted water percentage of 11.75% for the City of Anderson would balance the total finished water pumped from the Lake Hartwell Water Treatment Plant and the total of all billed sales. Management is recommending that the observed

unaccounted water percentage needed to balance production and sales be used for FY 2008-09. Under the terms of the Water Sale and Purchase Agreement and the Operating Agreement, all City of Anderson service connections to the Joint Water System are to be metered in the immediate future. Until that time, unaccounted water is based on the findings of the consulting engineer unless an alternative unaccounted water percentage is agreed to by the City of Anderson and at least 60% of the votes of the remaining member agencies. Management has agreed to bring the level of unaccounted water before the Commission for annual reconsideration.

	Unaccounted %		
	11.75%		
	CY 2007		
	Metered Total	Unaccounted	Total Sales
<b>Anderson</b>	1,772,693,429	208,293,271	1,980,986,700
<b>Big Creek</b>	353,500,000		353,500,000
<b>Broadway</b>	278,074,700		278,074,700
<b>Clemson</b>	632,700,000		632,700,000
<b>Hammond</b>	818,233,000		818,233,000
<b>Homeland Park</b>	237,550,600		237,550,600
<b>Pendleton</b>	138,220,000		138,220,000
<b>Powersville</b>	265,490,000		265,490,000
<b>Sandy Springs</b>	730,785,000		730,785,000
<b>Starr-Iva</b>	430,900,000		430,900,000
<b>West Anderson</b>	536,121,000		536,121,000
<b>Williamston</b>	313,400,000		313,400,000
<b>Clemson University</b>	416,200,000		416,200,000
<b>Total Sales</b>	6,923,867,729		7,132,161,000
<b>Total Production</b>	7,132,161,000		7,132,161,000

Approved by: Scott Willett, Executive Director