

CLAYTON COUNTY WATER AUTHORITY  
Regular Board Meeting

Present at the meeting were: Chairman Robin Malone, Vice Chair Marie Barber, Secretary/Treasurer Rodney Givens, Board Member Mike Thomas, Board Member John Chafin, Board Member Dr. Cephus Jackson, General Manager H. Bernard Franks, Assistant General Manager Teresa Worley, Assistant General Manager Keisha Thorpe, Legal Counsel Winston Denmark, Executive Coordinator Rhonda Maxwell and other CCWA staff and visitors. Absent: Board Member Emma Godbee.

**Invocation**

Board Member Mike Thomas introduced Plant Service Manager Brent Taylor to perform the invocation.

**Adoption of Agenda**

UPON MOTION by Dr. Cephus Jackson and second by Marie Barber it was unanimously RESOLVED to approve the agenda as presented.

**Approval of Minutes**

Chairman Robin Malone called for any omissions or additions to the Minutes of the Regular Board Meeting held on August 4, 2022.

UPON MOTION by Dr. Cephus Jackson and second by Marie Barber, it was unanimously RESOLVED to approve the Minutes of the Regular Board Meeting held on August 4, 2022.

**Financial and Statistical Reports**

Finance Director Allison Halron reviewed the financial information distributed to the Board for the period ending July 31, 2022. Information only, no action taken.

**Recognition**

General Manager H. Bernard Franks introduced General Services Director Doug Thomas. Information only, no action taken.

Senior Conservationist Danielle Bunch shared information on a Clayton County Tourism Grant awarded to the Newman Wetland Center. Information only, no action taken.

Assistant General Manager Keisha Thorpe recognized Cornell Sims for his appointment as the 2022 – 2023 Chair of the Georgia Section of the American Water Works Association. Information only, no action taken.

**New Business**

**AMI Business Case and Recommendation:** Assistant General Manager Teresa Worley and Jacobs Engineering Joe Ball presented an Advanced Metering Infrastructure Business Case and Recommendation.

In February 2022, the CCWA Board of Directors approved a Task Order for Jacobs Engineering Group to assist CCWA with evaluating the potential upgrade of Automatic Meter Reading (AMR) water meters (which requires a CCWA staff member to physically drive by the water meter to gather water usage data) to Advanced Metering Infrastructure (AMI) water meters (which will allow staff to remotely read water meters and collect hourly usage information). The Task Order had the following five tasks, the first three of which have been completed and will be presented to the Board:

1. Existing Inventory Assessment
2. Evaluation of Advanced Metering Technologies
3. Business Cases Evaluation
4. Procurement Document Development
5. Draft Communications and Implementation Plan

**Task Order Progress to Date**

Jacobs has completed the first three Task Order tasks shown above. Task 1 involved evaluating all existing water meters to determine the number, location, age, and condition. Task 2 involved identifying the AMI system functional objectives most important to CCWA, through interviewing staff, and evaluating existing AMI technologies that meet these objectives. The results of Task 1 and Task 2 were used as inputs to a business case model that evaluated scenarios with varying parameters such as: duration of implementation, age of meters to replace, the use of static meters, and the implementation of remote disconnect devices.

**Business Cases Evaluation Results**

The business case model developed as part of this Task Order integrates CCWA-specific conditions and allows the user to evaluate various scenarios. The two scenarios that best represent the potential CCWA path forward for AMI implementation (one shown below) both demonstrate an excellent business case for CCWA to implement a full-scale AMI system. The excellent business case is based on the return on investment (ROI). In addition to ROI, the model estimates the project benefits and the lifecycle cost for the project (including capital cost for equipment such as meters, radios, lids, collectors, installation, project management, IT system integration, etc. and operations and maintenance costs for services such as software, licenses, hosting, backhaul, and

**Business Case Model Results (NaaS)**

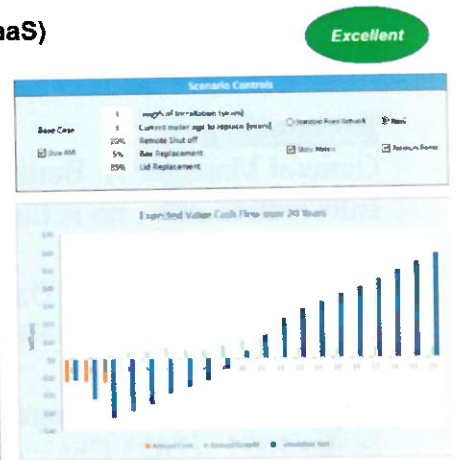
AMI Business Case Outputs:	Min	EV	Max
Initial Capital Cost	\$ 32,880,000	\$ 36,540,000	\$ 40,190,000
Average Annualized Benefit	\$ 3,900,000	\$ 4,690,000	\$ 5,490,000
Simple Payback (years)	9	9	9
Net Present Value	\$ 18,680,000	\$ 24,315,000	\$ 30,000,000
Return on Investment (ROI)	12.0%	12.8%	14.7%

POSITIVE BENEFITS			
Business Case Elements	Min	EV	Max
AMI Business Meter Replacement	\$ 19,220,000	\$ 21,790,000	\$ 24,400,000
AMI Business Meter Lids	\$ 1,710,000	\$ 1,700,000	\$ 1,700,000
AMI Business Meter Installation	\$ 11,540,000	\$ 10,240,000	\$ 9,100,000
AMI Business Meter Readings	\$ 14,440,000	\$ 17,930,000	\$ 19,420,000
AMI Business Meter Licenses	\$ 1,200,000	\$ 1,140,000	\$ 1,120,000
AMI Business Meter Software	\$ 2,190,000	\$ 2,100,000	\$ 2,000,000
AMI Business Meter Hardware	\$ 1,900,000	\$ 1,500,000	\$ 1,400,000

NEGATIVE IMPACTS			
Business Case Elements	Min	EV	Max
AMI Business Meter Replacement	\$ 21,800,000	\$ 25,490,000	\$ 28,400,000
AMI Business Meter Lids	\$ 1,400,000	\$ 1,700,000	\$ 4,500,000
AMI Business Meter Installation	\$ 3,110,000	\$ 3,450,000	\$ 3,800,000
AMI Business Meter Readings	\$ 4,940,000	\$ 4,600,000	\$ 4,200,000
AMI Business Meter Licenses	\$ 1,400,000	\$ 1,400,000	\$ 1,110,000
AMI Business Meter Software	\$ 1,540,000	\$ 1,310,000	\$ 1,000,000
AMI Business Meter Hardware	\$ 2,051,475	\$ 2,279,430	\$ 2,507,177



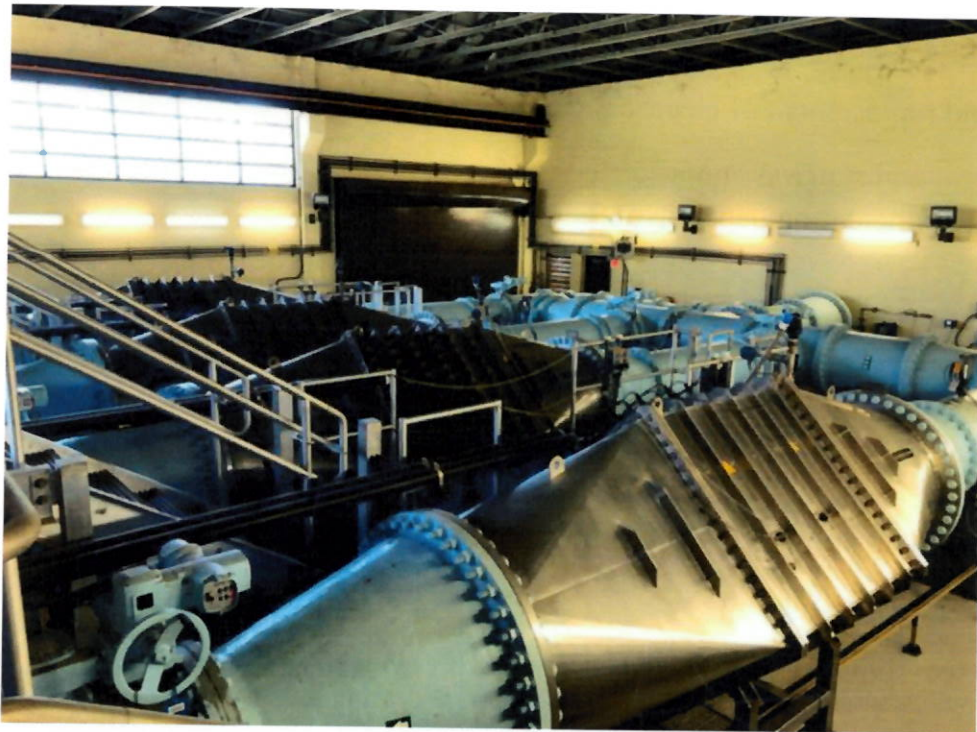
collector maintenance, etc.). The information provided by the model will help CCWA develop a Request for Proposals (Task 4) and Draft Communications and Implementation Plan (Task 5), if approved by the Board of Directors.

CCWA staff requests approval to develop a Request for Proposals (Task 4) and Draft Communications and Implementation Plan for Providing Advanced Metering Infrastructure, Meters, and System Installation for CCWA. Staff is currently evaluating funding opportunities for full-scale implementation and will present the recommendation prior to recommending award of a contract.

UPON MOTION by Dr. Cephus Jackson, second by Mike Thomas, it was unanimously

RESOLVED to approve the development of a Request for Proposals and Draft Communications and Implementation Plan for Providing Advanced Metering Infrastructure, Meters, and System Installation for CCWA.

**Hooper and Hicks UV Construction Bid and Services During Construction Task Order Recommendation:** Water Production Director Coty McDaniel presented a Hooper and Hicks UV Construction Bid and Services During Construction Task Order Recommendation.



Clayton County Water Authority owns and operates ultraviolet (UV) systems to provide enhanced disinfection at all three of Water Production Plants (WPPs). These UV disinfection systems were constructed in the early 2000's and are reaching the end of their useful life. Early in 2020, CCWA tasked Jacob's engineering to perform a UV Disinfection Assessment & Optimization Strategy on these UV Systems. CCWA decided to replace the UV disinfection systems at both the Hooper and Hicks WPPs to continue providing reliable multi-barrier enhanced disinfection. In August 2021, the Board approved Jacobs Engineering Group (Jacobs) to move forward with designing the UV Systems at the Terry R. Hicks and W.J. Hooper WPP's. Design was recently completed and CCWA has received bids for the construction of this work.

**The work to be performed under the construction contract generally includes:**

- Replacement of UV reactors with new Low-Pressure High Output (LPHO) UV reactors capable of conversion to UV-AOP in the future. This includes new lamps, sleeves, reactors, control panels, and other ancillary items.
- Modifications to piping within the UV building, to comply with EPA UV Design Guidance Manual
- New valves and flow meters
- New UV transmittance analyzer upstream of the UV reactors
- Demolition of the existing UV chemical cleaning system
- Demolition and replacement of electrical conduits and wiring
- Access platform and stairway modifications to accommodate new UV reactors, piping, and instrumentation panel layout

**BID SUMMARY**

- Legal Advertising in local paper for 4 weeks – June 7<sup>th</sup>- July 5<sup>th</sup>
- Non-mandatory pre-bid meeting – July 12<sup>th</sup>
- Mandatory site visit- July 12<sup>th</sup> (4 General Contractors attended)
- Bid opening – August 2<sup>nd</sup>
- Received (2) total bids – Reynolds Construction of Georgia, LLC and Lakeshore Engineering, LLC
- CCWA requested a 5% SLBE goal for this project

**BID PRICE BREAKDOWN**

COMPANY	TOTAL BID	SLBE Utilization
Reynolds Construction, LLC	\$5,985,000	0.82%
Lakeshore Engineering, LLC (SLBE)	\$5,497,508	100%

**SERVICES DURING CONSTRUCTION- TASK ORDER JA-RE-22-03**

Jacobs will provide services during construction for this project which will include the following key tasks:

- Task 1 – Field Services
- Task 2- Construction Phase Engineering Services
- Task 3- Owner Directed Contingency

The Task Order assumes a 21 Month project schedule with 15 months of construction to align with the contract durations.

Jacobs is offering a 6% SLBE utilization for this Task Order.

Task	Budget
Task 1: Field Services	\$581,856
Task 2: Construction Phase Engineering	\$193,350
<b>Sub Total</b>	<b>\$775,206</b>
Task 3: Owner Directed Contingency	\$97,994
<b>Total</b>	<b>\$873,200</b>

**CCWA RECOMMENDATION SUMMARY**

<b><u>Contractor / Outside Services</u></b>	<b><u>Recommendation</u></b>
<u>Lakeshore Engineering, LLC</u>	<u>\$5,497,508</u>
<u>Jacobs</u>	<u>\$873,200</u>
<b><u>Total Project Recommendation</u></b>	<b><u>\$6,370,708</u></b>

**Recommendation:**

CCWA staff recommends awarding the contract to Lakeshore engineering, LLC for the total bid amount of \$5,497,508. The award is contingent on requiring bonds and insurance as well as authorizing the General Manager to sign the contract.

CCWA staff also recommends awarding the Services During Construction Task Order to Jacobs in the amount not to exceed \$873,200.00, authorizing the General Manager to sign the Task Order.

UPON MOTION by John Chafin, second by Dr. Cephus Jackson, it was unanimously

RESOLVED to award the contract to Lakeshore engineering, LLC for the total bid amount of \$5,497,508 and the Services During Construction Task Order to Jacobs in the amount not to exceed \$873,200.00. The award is contingent on requiring bonds and insurance as well as authorizing the General Manager to sign the contract and Task Order.

**Reservoir Withdrawal Permit Support Task Order Recommendation:** Water Production Director Coty McDaniel presented a Reservoir Withdrawal Permit Support Task Order Recommendation.

CCWA has permitted raw water withdrawals from 3 reservoirs – W. J. Hooper (Hooper) and Edgar Blalock, Jr. (Blalock) Reservoirs, in the Ocmulgee River Basin, and J.W. Smith (Smith) Reservoir, in the Flint River Basin. The withdrawal permits for the Blalock and Smith Reservoirs expire on February 2, 2023, and the Georgia Environmental Protection Division (GAEPD) has recently added requirements for withdrawal permit renewals. In a letter dated July 20, 2022, the Georgia Environmental Protection Division (GAEPD) notified CCWA that the permit renewal applications must include the following:

- Water Conservation Plan
- Drought Contingency Plan
- Water Conservation Progress Report
- Updated Reservoir Safe Yield Analysis Report and Model

CCWA is required to submit all the above materials to GAEPD no later than February 1, 2023.

To support the permitting requirements, Hazen and Sawyer will develop an OASIS model of CCWA's entire water supply system. This model will provide the safe yield (i.e., the constant withdrawal rate that would lower the volume to a critical minimum volume) of each of CCWA's 3 reservoirs. The safe yield will be used to determine if an increase in withdrawal rate could be requested from the Hooper Reservoir when its permit expires in 2026.

The OASIS model will also be used to develop an updated Drought Contingency Plan with probability-based drought triggers. Replacing our current drought triggers (i.e., reservoir storage levels) with probability-based triggers will allow for proactive response in serious droughts and less reactive response in moderate droughts.

To support CCWA with the permit renewal application, the Task Order includes the following:

#### **Task 1 – OASIS Model Development**

Hazen will develop a mass balance model of CCWA's water system extending from the Flint River Basin headwaters downstream to the USGS Flint River gage at Griffin, and from the Ocmulgee River Basin downstream to the Hooper Reservoir. The model will capture inputs to reservoirs, water and wastewater treatment plants, relevant USGS gaging stations, and intakes/interconnections in the Flint and Ocmulgee River basins. The model will be verified using historical data.

#### **Task 2 – Drought Trigger Update**

CCWA's most recent Drought Contingency Plan was developed in 2015 and includes measures for water conservation with reservoirs reach critical levels. Using the OASIS model developed in Task 1, our existing triggers can be replaced with probability-based triggers, such as an *x% chance of reaching y% storage in z weeks*.

Updating our Drought Contingency Plan with these triggers will better balance system reliability and cost by allowing CCWA to be proactive before serious droughts. Hazen will assist CCWA with documenting actions (i.e., demand reduction, irrigation requirements, minimum release changes) that correspond to the new drought triggers.



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Hazen will develop the Drought Contingency Plan to be submitted with the permit application.

### Task 3 – Safe Yield Analysis

Hazen will utilize long-term USGS hydrologic data to determine the safe yields of CCWA's 3 reservoirs. A safe yield report will be developed for submittal to EPD with the permit application.

### Task 4 – Forecasting

Forecasts are needed to implement the probability-based triggers developed in Task 2. Hazen will develop a dashboard for CCWA's use in forecasting and real-time access to forecasts. This task also includes the development of the Water Conservation Plan to be submitted with the permit application.



### Recommendation:

CCWA staff recommends awarding Task Order HS-RE-22-04 to Hazen and Sawyer, in the amount of \$196,470.00, for Reservoir Withdrawal Permit Support, authorizing the General Manager to execute the Task Order.

UPON MOTION by Mike Thomas, second by Dr. Cephus Jackson, it was unanimously



RESOLVED to award Task Order HS-RE-22-04 to Hazen and Sawyer, in the amount of \$196,470.00, for Reservoir Withdrawal Permit Support, authorizing the General Manager to execute the Task Order.

**Northeast and Smith Raw Water Pump Purchase Recommendation:** Water Reclamation Director Kendra Stanciel presented a Northeast and Smith Raw Water Pump Purchase Recommendation.

Pumps are one of the major components used in the processing of all water within Clayton County Water Authority (CCWA). All submersible pumps used at CCWA are Xylem (Flygt) pumps and range in sizes from 20 horsepower (HP) up to 500 horsepower (HP). Northeast, which is our second largest wastewater treatment facility and is permitted to treat up to 10 MGD, relies heavily on the ability to pump that amount of raw water into the facility as well as handle peak flow when needed. The raw pumps at Northeast were placed into service in 2007 and has had numerous repairs performed on them over the years. Raw pump #3 has failed and is unrepairable and in need of replacing. Regarding J.W. Smith, it is our second largest water treatment plant and permitted to withdraw up to 40 MGD from the Flint River. The pump used to pump water from the Flint River to the Smith Reservoir which supplements the Smith Reservoir especially in times of droughts was installed in 1996 and needs replacing. Xylem Water Solutions USA, Inc., Flygt Products is our Sole Source vendor for these pumps due to uniformity with current pumps, quality of product & service as well as engineering of existing pumps based on original design that are specific to our application. The cost of both pumps is listed below:

Facility	Pumps	Cost
Northeast WRF	85 HP	\$100,757.70
J.W. Smith WTF	150 HP	\$ 191,783.50

**Recommendation:**

CCWA staff recommends due to uniformity, quality, relationship, and application of the pumps, that we purchase pumps from Xylem Water Solution USA. Inc., Flygt Products in the amount of \$100,757.00 for the Northeast WRF and in the amount of \$191,795.03 for the J W Smith (Flint River Pump).

UPON MOTION by Dr. Cephus Jackson, second by Marie Barber, it was unanimously

RESOLVED to approve the purchase of pumps from Xylem Water Solution USA. Inc., Flygt Products in the amount of \$100,757.00 for the Northeast WRF and in the amount of \$191,795.03 for the J W Smith (Flint River Pump).

**W.B Casey / Pelletizing Fiber Amendment Recommendation:** Water Reclamation Director Kendra Stanciel presented a W.B Casey / Pelletizing Fiber Amendment Recommendation.



Our W.B. Casey WRRF Pelletizing Department has been experiencing network instability for many years with interruptions at the facility that has and continues to limit employee's ability to perform normal daily duties, functions, and operational tasks. The current fiber network was installed over 20 years ago using an old standard of fiber that has limited distance and speed. Hence, with the addition of cameras, computers, phones, and a server being installed we have pushed connections to its limits. We priced this project at \$75,707.92 based on a similar project performed 5-6 years ago with the intention of having the project completed by our Sole Source fiber vendor company, Performance Communications. Unfortunately, after revisiting the project it was determined that the work could not be performed by a single vendor, additional material was required, and current workload of staff would prolong this project even farther, which continues to hinder operations in Pelletizing. Please see breakdown and current request for completion of project in the amount of \$63,739.78 below:

	Expenses	Funding needed
<b>Original Estimation of Project – Board approved April 2022</b>		<b>\$75,708.76</b>
<i>Actual Costs</i>		
Pelletizing breakroom conduit	\$6,982.78	
Materials (fiber adapters)	\$33,733.00	
Schefflet (Boring, laying of 4,000 ft of fiber, conduit & testing) - <b>lowest quote</b>	\$98,732.76	
<b>Total Actual Costs</b>		<b>\$139,448.54</b>
<b>Remaining Funds need to complete project</b>		<b>\$63,739.78</b>

Recommendation:

CCWA staff recommends funding the remaining \$63,739.78 for completion of the project.

UPON MOTION by Dr. Cephus Jackson, second by Marie Barber, it was unanimously RESOLVED to approve funding the remaining \$63,739.78 for completion of the project.

**Executive Session**

UPON MOTION by Marie Barber and second by Dr. Cephus Jackson, it was unanimously RESOLVED to enter an Executive Session to discuss Legal.

UPON MOTION by Dr. Cephus Jackson and second by John Chafin, it was

RESOLVED to exit Executive Session and return to open session. In favor: Robin Malone, Rodney Givens, John Chafin, Dr. Cephus Jackson, Mike Thomas. Absent: Marie Barber. Motion Passes.

**Approval of Executive Session Minutes**

UPON MOTION by Dr. Cephus Jackson, second by Rodney Givens, it was

RESOLVED to approve the minutes of the Executive Session. In favor: Robin Malone, Rodney Givens, John Chafin, Dr. Cephus Jackson, Mike Thomas. Absent: Marie Barber. Motion Passes.

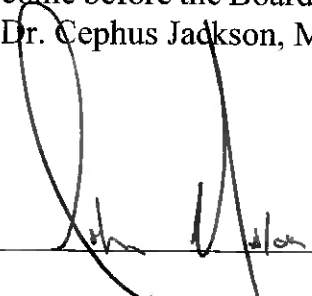
**Updates from the Board Members and General Manager**

General Manager H. Bernard Franks provided an update on upcoming events to include Valor Awards, Chairman Turner's International Ball, and the City Center Masquerade Ball. Information only, no action taken.

**Adjourn**

UPON MOTION by Mike Thomas, second by Dr. Cephus Jackson it was

RESOLVED to adjourn the Board Meeting at 3:54 p.m., there being no further business to come before the Board of Directors. In favor: Robin Malone, Rodney Givens, John Chafin, Dr. Cephus Jackson, Mike Thomas. Absent: Marie Barber. Motion Passes.

  
Robin Malone, Chairman

  
Rodney Givens, Secretary/Treasurer

