



Treatment Plant Expansion Committee

Oconee County Administrative Building

October 14, 2026 8:30 a.m.

Minutes

Members Present

Marty Clark, Jackson County
John Daniell, Oconee County
Jim Dove, Chairman TPE Committee
Pat Graham, Barrow County
Adam Layfield, Oconee County
Bill Nash, Barrow County

Others Present

Mark Beatty, NEGRC
Jason Bodwell, Jacobs
Charles Ferguson, Attorney
Diana Jackson, Jacobs
Trace Jeffers, Jacobs
Tom Kelley, Jacobs
Rebecca Lindsay, UOBWA Owner's Representative
Annette Miller, NEGRC
Partiban Raja, Jacobs
David Singleton, Jacobs
Al Sosebee, Jacobs
Holly Stephenson, Oconee County

Call to Order

Chairman Jim Dove called the meeting to order.

Review of September 9, 2026 Meeting Minutes

Chairman Jim Dove asked members if they had a chance to review the minutes and if there were any comments.

Action: A motion to approve the minutes was made by Bill Nash and seconded by Marty Clark. The motion passed unanimously.



Jacobs Update

Tom Kelley gave an update on several items. Jacobs expects to have final comments addressed by the end of the week and will submit a signed and sealed bid set to GA EPD for preliminary review within one week.

The full project estimate has been adjusted for inflation and is now \$113M-\$144M (increased by \$10M from April 2025). The estimate does not include Lagoon #3 (estimated cost \$2.2M-\$3.5M), to be bid as an alternate. The server room is also not included in the bid.

Action: No action was necessary.

Jacobs Draft Amendment #6 (Proposed Credits)

Rebecca Lindsay expressed concern about the lack of documentation on credit line items within the estimate. Adam Layfield and John Daniell indicated they're comfortable moving forward with the amendment as proposed.

Action: Daniell made a motion to recommend UOBWA Board approval of Amendment #6 as presented, seconded by Clark. The motion carried unanimously.

Southern Flow Proposal

Daniell requested discussion be postponed to a future meeting.

Action: No action taken.

Owner's Representative Report

There were no additional items to report.

Other Business

There was no other business.

Adjourn

With no further business, Layfield motioned to adjourn, seconded by Clark. The meeting was adjourned at 8:56 a.m.

Eva Kennedy
Executive Director

Date of Approval

TASK ORDER NO. 01
AMENDMENT NO. 06

BEAR CREEK WATER TREATMENT PLANT
EXPANSION TO 42 MGD

UPPER OCONEE BASIN WATER AUTHORITY
AND
JACOBS ENGINEERING GROUP INC.

VERSION: FINAL00

Task Order No 01.
Amendment No. 06.

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**TASK ORDER NO. 01
AMENDMENT NO. 06**

**BEAR CREEK WATER TREATMENT PLANT
EXPANSION TO 42 MGD**

In accordance with Paragraph 1.01, Main Agreement, of the Agreement Between Owner and Engineer for Professional Services dated January 25, 2023, Owner and Engineer agree as follows:

1. TASK ORDER DATA

Effective Date of Task Order Amendment No. 06:	
Owner:	Upper Oconee Basin Water Authority
Engineer:	Jacobs Engineering Group Inc.
Specific Project (title)	Bear Creek Water Treatment Plant Expansion to 42 MGD – Design and Bidding Phase Services
Specific Project (description):	Engineering Design and Construction Contract Bidding Services for Expansion of the Existing 21 MGD Bear Creek Water Treatment Plant to 42 MGD
Related Task Orders	Task Order No. 1 Task Order No. 1, Amendments No. 01, 02, 03, 04, & 05 Superseded by this Task Order Amendment: none
Version	Final00

2. BASELINE INFORMATION

A. Background

The Upper Oconee Basin Water Authority (Owner) owns the Bear Creek Reservoir and Water Treatment Facilities located at 476 Savage Road in Bogart, Georgia. The facilities have been in operation since 2001 and includes the Middle Oconee River Pump Station, Bear Creek Reservoir, Reservoir Dam, Reservoir Pump Station, Water Treatment Plant (WTP) and High Service Pump Station (HSPS). The Facilities serve four Member Governments (MGs) that consist of Barrow County, Jackson County, Oconee County, and the Unified Government of Athens-Clarke County (ACC).

The WTP was designed for an initial treatment capacity of 21 million gallons per day (mgd) as permitted by the Georgia Environmental Protection Division Drinking Water Program (GA EPD), with provisions for future expansion. The current withdrawal limit of the reservoir is 79.0 mgd maximum day to all four MGs, including a combined allocation of 44.25 mgd to Barrow, Jackson, and Oconee Counties.

This Task Order No. 01, Amendment No. 06 modifies the original Task Order No. 01 and Task Order No. 01, Amendment No. 01 as described herein. The modifications contained in this Amendment are a result of discussions held between the Owner and the Engineer in multiple meetings over the course of the Initial Design Phase activities conducted to date under Task Order No. 1.

B. Project Understanding

This section of Task Order No. 1 remains unchanged except as follows. Expanding the Bear Creek WTP from 21 mgd to 42 mgd will include the following changes to the original Task Order No. 01 and to Task Order No. 01, Amendment No. 01:

- Rapid Mix, Flocculation, and Sedimentation (Credit) – Task Order No. 1, Amendment No. 01 added to the original Task Order No. 1 an evaluation of an alternative rapid mix system and raw water flow split system. The scope included development and evaluation of a concept design for this system and development of Class 5 Opinion of Construction Cost. Most of this work was completed, but because of the timing of the decision for this item—the decision was to leave the rapid mix/flow system as originally proposed—the work related to the cost estimating for the alternatives was not completed. Therefore, a credit is due for this item, and this credit is in the amount of \$8,660. This item was previously documented in a Memorandum dated December 2, 2024.
- Miscellaneous Scope Changes – From the original Task Order No. 1 and from Amendment No. 1, there are several items of work that will not be done. These items and the associated credit for each are shown in the following table. These items were previously documented in a Memorandum dated December 2, 2024.

Scope Item No.	Scope Items Not Done	Original Fee	% Credit	Fee Credit	Comments
5	Assist the UOBWA in obtaining funding for the project	\$2,000.00	100%	\$2,000.00	This effort not required since project construction funding will be by the issuance of revenue bonds by the Owner
15	Provide support for all necessary funding applications and state environmental review through Georgia Environmental Finance Authority (GEFA) loan and water financing programs	\$4,200.00	100%	\$4,200.00	This effort not required since project construction funding will be by the issuance of revenue bonds by the Owner
29	Prepare and manage all documents/requirements related to the State Revolving Fund process including the State Environmental Review Process.	\$2,100.00	100%	\$2,100.00	This effort not required since project construction funding will be by the issuance of revenue bonds by the Owner

Scope Item No.	Scope Items Not Done	Original Fee	% Credit	Fee Credit	Comments
Amendment No. 1	Include in the project's design the addition of a carbon dioxide storage and feed system. Bench scale testing, and follow-up full-scale testing done in January-February 2023, showed that carbon dioxide dosing to the raw water resulting in good floc formation with a significantly reduced alum dose. This addition would result in significant chemical cost savings and perhaps better pH control.	\$31,000.00	40%	\$12,400.00	Design was taken to 60%. At that point in the design, the Owner made the decision to delete this work from the Project. Credit is therefore prorated at 40% of the Original Fee Amount.
Total Credit Amount				\$20,700.00	

- SCADA System Scope Additions – The following items related to the WTP SCADA system design have been added to the current design scope. These items have been discussed with the Owner and the Owner has agreed that these should be added to the current design scope to be done by the construction contractor.
 - o Evaluate the requirements to repair the damaged, existing fiber optic loop and include the repair in the construction contract. Include in the work replacing existing network switches to create full system functionality. Work will include extending the fiber optic requirements to replace existing fiber (assumption is that existing fiber optic cable conduit and duct banks are in satisfactory condition for cable replacement). Ethernet switches will be unified to a common platform and specs and drawings updated for new and existing PLC panels. Impacted electrical routing drawings will need to be updated or created and the Network Block Diagram(s) will need to be updated.
 - o Conduct a site evaluation of the existing PLC system. Replace existing outdated PLCs. Work will include specifying the migration of legacy PLC hardware to current support PLC hardware platforms. Work will also include the conversion of the PLC programs to new software that will be compatible with the new PLC hardware.
 - o The additional fee for adding this work to the current design and the construction contract is \$35,000.

These items were previously documented in a Memorandum dated December 2, 2024, but have been modified herein to reflect work being done by Engineer in Task Order No 02. This work has already been incorporated into the design.

- Land Disturbance Permitting Review Fee – Jackson County – Engineer has submitted Erosion and Sedimentation Control Plan permit drawing set to Jackson County for review. Jackson County has required a payment of \$1,588. This payment has been made to initiate the review.

Fee Change Summary - A summary of these fee changes is presented in the following table:

Description of Service	
Rapid Mix, Flocculation, and Sedimentation (Credit)	(\$8,660.00)
Miscellaneous Scope Changes (Items From Original Task Order No. 01 Scope No Longer Needed - Credit)	(\$20,700.00)
SCADA System Scope Additions (12/2/2024 Memorandum)	\$35,000.00
Land Disturbance Permitting Review Fee – Jackson County	\$1,588.00
Net Change in Engineer's Compensation - Amendment No. 06	\$7,228.00

3. SERVICES OF ENGINEER (“SCOPE”)

This section is unchanged except as described herein.

4. DELIVERABLES SCHEDULE

This section is unchanged.

5. ADDITIONS TO OWNER'S RESPONSIBILITIES

This section is unchanged.

6. TASK ORDER SCHEDULE

The current schedule for completing the work under Task Order No. 01 is not affected by the changes outlined in this Task Order No. 01, Amendment No. 06.

7. ENGINEER'S COMPENSATION

This section is unchanged except as follows: Replace Paragraph B with the following table:

B. Owner shall pay Engineer for services rendered under this Task Order, including changes described in this Amendment No. 6, as follows:

Description of Service	Original Amount	Amendment No. 1 Changes	Amendment No. 2 Changes	Amendment No. 3 Changes (Work Item 3A)	Amendment No. 4 Changes	Amendment No. 5 Changes (excluding Additional Work)		Amendment No. 6 Changes	Revised Amount	Basis of Compensation
						Finalize VFD Control Plan	Change VFD Control Arrangement			
Task 1 – Project Management	\$122,000	\$59,680	\$14,500	\$47,064	\$4,132	\$3,300	\$3,300	\$0	\$253,976	Lump Sum
Task 2 – Survey and Geotechnical Services	\$95,000	\$0	\$0	\$33,800				\$0	\$128,800	Lump Sum
Task 3 – Design Phase Services										
3.1 – Initial Design (PER and 30 %)	\$785,132	\$136,480	\$0					\$0	\$921,612	Lump Sum
3.2 – Design Development (60%)	\$649,421	\$110,420	\$0					\$0	\$759,841	Lump Sum
3.3 – Contract Document Preparation (Final Review Set) and Bid Documents	\$600,984	\$181,920	\$74,800	\$88,919	\$70,857	\$9,300	\$43,275	\$15,528	\$1,085,583	Lump Sum
Task 4 – Permitting Assistance	\$9,200	\$0	\$0	\$0	\$0				\$9,200	Lump Sum
Task 5 – Funding Assistance	\$8,300	\$0	\$0	\$0	\$0			(\$8,300)	\$0	Lump Sum
Task 6 – Bid Phase Services	\$28,242	\$0	\$0	\$0	\$0				\$28,242	Lump Sum
TOTAL COMPENSATION (items 1 through 6)	\$2,298,279	\$488,500	\$89,300	\$169,783	\$74,989	\$12,600	\$46,575	\$7,228	\$3,187,254	Lump Sum

Task Order No 01.

Amendment No. 06.

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8. ENGINEER'S PRIMARY SUBCONSULTANTS FOR TASK ORDER, AS OF THE EFFECTIVE DATE OF THE TASK ORDER:

This section is unchanged.

9. EXHIBITS AND ATTACHMENTS:

- A. Exhibit A to Task Order Amendment No. 6 – Modifications to Engineer's Services Under Task Order No. 1.

EXHIBIT A, MODIFICATIONS TO ENGINEER'S SERVICES UNDER TASK ORDER NO. 1

This exhibit is unchanged except as described in the following table. This captures the changes to the Scope of Work Item Descriptions contained in the original Task Order No. 01.

Scope of Work Item Descriptions:

Item Number	Item Description	Change
5	Assist the UOBWA in obtaining funding for the project.	Delete this item
15	Provide support for all necessary funding applications and state environmental review through Georgia Environmental Finance Authority (GEFA) loan and water financing programs.	Delete this item
29	Prepare and manage all documents/requirements related to the State Revolving Fund process including the State Environmental Review Process.	Delete this item

Execution of this Task Order by Owner and Engineer makes it subject to the terms and conditions of the Main Agreement and its exhibits and appendices, which Main Agreement, exhibits, and appendices are incorporated by this reference.

Owner:

Upper Oconee Basin Water Authority

By: _____

Print Name: _____

Title: _____

Engineer:

Jacobs Engineering Group Inc.

By: _____

Print Name: _____

Title: _____

Engineer's License or Firm's
Certificate No. (if required): _____

State of: Georgia _____

DESIGNATED REPRESENTATIVE FOR TASK ORDER:

Name: Adam Layfield _____

Title: Chair, Engineering Committee _____

Address: _____

E-Mail alayfield@oconee.ga.us _____

Address: _____

Phone: _____

Date: _____

DESIGNATED REPRESENTATIVE FOR TASK ORDER:

Name: Tom Kelley _____

Title: Project Manager _____

Address: 1230 Peachtree Street, NE
Suite 2800
Atlanta, Georgia 30309 _____

E-Mail tom.kelley@jacobs.com _____

Address: _____

Phone: 678-898-2037 _____

Date: _____

Date: September 15, 2025

Project name: Bear Creek WTP Expansion to 42 MGD

Attention: Joey Leslie
Rebecca Lindsay
UOBWA Committee Members



The purpose of this letter is to formally respond to your Memorandum of Understanding regarding SCADA Integration and Operational Technology Services for the Bear Creek WTP Expansion Project, including the Authority's selection of Southern Flow, Inc. (SFI) to provide these services.

Upon completion of the 100% design documents, SFI will adjust its quotation for hardware and software services allowances accordingly. It is our understanding that, once our final proposal is reviewed and approved, it will be incorporated into the contract documents, most likely by addendum, for use by all bidding contractors.

SFI's adjusted final priced scope of supply will include the following:

1. SCADA Integration Services (Including ASP & PICS Services)
2. Cybersecurity/Operational Technology Procurement Services (OT)

Server Room configuration

SFI has reviewed the Jacobs server room design drawings and confirms that the equipment we are providing is compatible with the proposed configuration. To support finalization of the server room design, we are providing the following information regarding network rack requirements:

To enable you to finalize your server room conversion, here is the requested Server Room Network Rack information.

- 1. Quantity of network racks: Qty of Network Racks:** (2 Racks - Business and SCADA)
- 2. Dimensions and required clearance of the network racks:**

42U Network Rack Dimensions:
Width: 29.5" (750mm)
Height: 89.8" (2,280mm)
Depth: 47.2" (1,200mm)

Summary (Best Practice for Server Room Racks):

Front: 48"

Rear: 36"

Sides: 24" minimum

Ceiling: 9–10 ft preferred

Clearance	Minimum	Best Practice
Front (Access & Airflow)	36 inches (3 feet) clear in front of racks (per NEC 110.26(A)(1) working space).	48 inches (4 feet) or more in front aisles to allow for people, airflow, and equipment pull-out.
Rear (Cabling & Maintenance)	30 inches clearance behind the rack (enough to service connections)	36–42 inches for hot aisle/cold aisle containment and ease of cable management.
Side	At least 24 inches on one side, or the ability to move racks for access if installed against walls.	If racks are back-to-back, ensure both aisles (front and rear) maintain proper clearance.
Height	Maintain minimum 6.5–7 feet ceiling height for NEC compliance.	For modern server rooms: allow 9–10 feet clear height to handle overhead cabling, ladder racks, and cooling ducts.
Access/Egress	At least two means of egress for rooms with multiple racks (per fire/life safety codes).	Aisles should be at least 36 inches wide, but 48 inches is preferred in data centers.

3. Layout drawing of network rack components

A detailed rack layout drawing of network rack components will be provided prior to bid for inclusion in the contract documents.

4. Heat load calculation of network rack

Description	Part Number	Heat Dissipation (W)	Heat Dissipation (BTU/Hr)
Firewall	FG-101F	39	121
Firewall	FG-201F	118	405
Ethernet Switch	FS-1024E	176	600
Server	NX-1375S-G9	2200	7644
KVM	MCD-LED17116	39	121
NAS	RS822RP+	47	162
UPS	GXT5-20KMVRT11UXLN	1000	3412
Total		3619	12465

Here is the following heat load calculation for our proposed networking racks.

Calculation per Rack (Two Racks in total)

- Per NEC 80% continuous load rule: $30\text{ A} \times 208\text{ V} = 6,240\text{ W}$ (6.24 kW) theoretical max.
- Usable continuous load = 80% = 24 A.
- $24\text{ A} \times 208\text{ V} = 4,992\text{ W} \approx 5.0\text{ kW}$.
- So, a 30 A circuit really supports about 5 kW usable IT load.
- Convert kW to BTU/hr (1 kW = 3,412 BTU/hr.)
 $5.0\text{ kW} \times 3,412 = 17,060\text{ BTU/hr}$
- Summary for each Server Rack

A 208 V, 30 A, single-phase rack will load your cooling system by:

- Per Rack Loading $\approx 17,000\text{ BTU/hr}$ (usable/continuous load)
- Per Rack Absolute Max: Up to $\approx 21,000\text{ BTU/hr}$ (absolute max)

5. Voltage and amperage requirement of network rack.

The voltage and current requirements for our network rack is as follows:

- 208 V 30 A 1-phase

6. Number of service power requirements of network rack

Each rack typically requires one (1) 208 V, 30 A, 2-pole L-L-G branch circuit to the UPS. For zero-downtime service, a wrap-around maintenance bypass (3-breaker) is recommended adjacent to the UPS which we are planning on providing.

7. Any additional freestanding or wall mount equipment needs to be identified

At this time, SFI is not aware of any additional free-standing or wall-mounted equipment beyond what is shown in the provided drawings and specifications.

8. Clarifications and additional information

Telephony: SFI's current proposal does not include phones, phone service, or wiring. We can provide VOIP or traditional systems if desired.

Furniture: SFI's current proposal does not include desks or consoles for SCADA workstations. We are supportive of the proposed layout and can include desks/consoles upon request.

Fiber Optics: SFI's current scope does not include replacement of the existing multi-mode fiber between the maintenance and administration buildings. Given that the remaining plant fiber will be single-mode, we agree that upgrading this run would be beneficial and will include this item in our revised proposal.

We appreciate the opportunity to support the Authority on this project and look forward to continued collaboration with Jacobs and the project team. SFI is available this week for a coordination call if desired.

Sincerely,

Jim Bercik

Vice President Sales and Marketing

jbercik@southernflowinc.com

Direct: 470-443-9660