

**Onslow Water & Sewer Authority**  
**Board of Directors' Regular Meeting Jacksonville City Hall**  
**Thursday, June 15, 2023**  
**APPROVED MINUTES**

**CALL TO ORDER:** Having a quorum, Chairman Royce Bennett called the meeting to order at 6:00 pm. Board members present included Chairman Royce Bennett, Vice Chairman Paul Conner, Secretary/Treasurer Pat Turner and Directors Timothy Foster, Joann McDermon, Robert Warden, and Jeff Wenzel.

**PLEDGE OF ALLEGIANCE:** Director Jerry Bittner led the Board and audience in the Pledge of Allegiance.

**INVOCATION:** Chairman Royce Bennett provided the invocation.

**CHAIRMAN'S REMARKS** –Chairman Royce Bennett provided general guidance to the audience regarding the meeting.

**1. APPROVAL OF AGENDA** – Director Jeff Wenzel made a motion to approve the agenda as presented. Director Tim Foster made a second. All were in favor. The agenda was approved as presented.

**2. APPROVAL OF CONSENT AGENDA**

**[A COPY OF THE DIXON WATER TREATMENT PLANT EXPANSION PROJECT ORDINANCE AND BUDGET AMENDMENT MAY BE FOUND AT EXHIBIT A AND ARE FULLY INCORPORATED HEREIN BY REFERENCE]**

A motion was made by Secretary/Treasurer Pat Turner to approve the consent agenda. A second was made by Director Tim Foster. The motion passed unanimously. Therefore, the May 2023 Finance Reports and April 2023 Operations Reports were accepted, the April 20, 2023 Special Meeting Minutes and May 18, 2023 Regular Meeting Minutes were approved as presented, the Wednesday before Thanksgiving and one floating holiday to be determined annually by the CEO was added to the current holiday schedule, the Project Ordinance and Budget Amendment for the Dixon Water Treatment Plan Expansion Project was approved to be signed by the Chairman.

**3. BUSINESS**

**A. Discussion of the FY23-24 Proposed ONWASA Budget**

**[A COPY OF THE PROPOSED SYSTEM DEVELOPMENT FEE CALCULATIONS, RAFTELIS SYSTEM DEVELOPMENT FEE ANALYSIS DATED APRIL 21 2023, AND UPDATED PROPOSED FY2023-2024 RATE AND FEE SCHEDULE MAY BE FOUND AT EXHIBIT B AND ARE FULLY INCORPORATED HEREIN BY REFERENCE]**

Chairman Royce Bennett called on Mr. Franky Howard, CEO to present the item. Mr. Howard said the only thing that has changed since the Proposed Budget was presented at the last meeting is the Rate & Fee Schedule was updated to reflect the recommendations for the System Development Fees adding that we phased in the increase for the ¾ inch sewer system and removed the tampering fee because we can no longer charge that.

No action was taken.

**B. Public Hearing – System Development Fee**

Chairman Royce Bennett opened the Public Hearing on the System Development Fee. Mr. Howard said the System Development Fee Study is posted as it was presented by the consultant a couple of meetings ago adding we advertised it at the worst case scenario and since then we have fine tuned what we plan to do on the sewer side like we have discussed the Pluris option which we will be seeking Board approval for later this evening so we used that scenario amount for the sewer and split in half that fee increase and then we could spread the additional increases out over the next four years because it is a five year study.

Having no one signed up to speak during the Public Hearing Chairman Bennett called to the audience for anyone wishing to speak. No one indicated they wished to speak.

Chairman Bennett closed the Public Hearing.

**C. Public Hearing – FY 2023-2024 Budget**

**[A COPY OF THE PUBLIC COMMENT EMAIL RECEIVED JUNE 12 2023 AT 2:47 PM MAY BE FOUND AT EXHIBIT C AND ARE FULLY INCORPORATED HEREIN BY REFERENCE]**

Chairman Royce Bennett opened the Public Hearing. Chairman Bennett asked if there was anyone signed up to speak. Heather Norris, Clerk to the Board, stated there was no one signed up to speak. She also stated there was a Public Comment Email received on June 12, 2023 that was available for the public to read and added it was emailed to the Board and was placed at their seats in hard copy for the meeting.

Having no one wishing to speak Chairman Bennett closed the Public Hearing.

**D. Consideration of the Proposed 2023-2024 Budget**

**[A COPY OF THE 2023 BASE CIP UPDATE, PROPOSED SYSTEM DEVELOPMENT FEE CALCULATION RECOMMENDATION, PROPOSED FY 2023-2024 BUDGET ORDINANCE, PROPOSED FY 2023-2024 RATE AND FEE SCHEDULE MAY BE FOUND AT EXHIBIT D AND ARE FULLY INCORPORATED HEREIN BY REFERENCE]**

Chairman Royce Bennett called on Mr. Franky Howard, CEO, to present the item. Mr. Howard again stated that minor adjustments were made to the proposed rate and fee schedule since it was first proposed during the May meeting and added they were based on where he saw things headed with the System Development Fee. Chairman Royce Bennett called for the motions saying we have discussed all of the items at great length.

A motion was made by Director Jerry Bittner to adopt the 2023 Base CIP Update. A second was made by Vice Chairman Paul Conner. All were in favor, the motion passed unanimously.

A motion was made by Director Jerry Bittner to approve the Proposed System Development Fee calculations as of July 1, 2023. A second was made by Director Jeff Wenzel. All were in favor, the motion passed unanimously.

A motion was made by Director Joann McDermon to approve the ONWASA Budget Ordinance for fiscal year 2023-2024 along with the proposed rate schedule as presented. A second was made by Director Tim Foster. All were in favor, the motion passed unanimously.

Chairman Bennett said we have passed those three items and stated we had a lot of discussion including a workshop and that they have been on their desk for review for quite a while.

**E. Disaster Response Emergency Construction Services 2023 Contracts**

**[A COPY OF THE CERTIFIED BID TAB, AND DISASTER CONTRACTS PROJECT ORDINANCE MAY BE FOUND AT EXHIBIT E AND ARE FULLY INCORPORATED HEREIN BY REFERENCE]**

Chairman Bennett called on Mr. David Mohr, Chief Operations Officer, to present the item.

Mr. Mohr explained this item consists of a pair of single prime construction contracts that can be activated for the completion of emergency repairs to ONWASA water and wastewater utility infrastructure in the aftermath of a natural disaster or other catastrophic event. He said each contract establishes unit or lump sum pricing for multiple items of work that are often necessary immediately following a major storm event, including repair of water or sewer mains; placement of temporary fill at road washouts; installation of isolation valves, and operating bypass pumping equipment at manholes or sewage pumping stations. He went on to explain work is to be performed on an as-needed basis, determined solely by ONWASA, with payments to each contractor based on actual work assigned and the pricing for that work set within the contract. Mr. Mohr said two contracts are proposed, one designated as the primary contractor and one designated as the secondary contractor; the primary contractor shall be on a first contact basis for all disasters and emergencies that require a response and the secondary contractor will serve as a backup to the primary, if they are unable to respond within the stipulated 24 hours following a request or if the disaster is larger than one firm can address. Mr. Mohr said each contract has a duration of two years and a maximum value of \$500,000. He explained this is the third time ONWASA has done this contract saying it was started in 2019. He said after two rounds of bidding due to initial limited response a total of two bids were received and opened on May 19<sup>th</sup> with the low bidder being A C Shultes of Carolina and the second low bidder being State Utility Contractors.

Director Jerry Bittner asked what initiates the execution of these contracts a declaration of an emergency or by action of the Executive Officer, or what? Mr. Mohr said basically it would be the Executive Officer and Leadership Team after an event saying we would talk primarily to Matthew Padgett and Seth Brown with Field Operations and Treatment Facilities and see what the initial damage assessment was and whether we could handle it or there were multiple things that need to be done immediately. Mr. Mohr explained we have a contact tree for these contractors, and they have 24 hours to respond so it is really at our call to decide whether we need them or not. Mr. Mohr said the other thing he would like to mention is both contracts include a limited amount of funds an allowance of \$25,000 that at the end of the two year period the contractors are permitted to bill us for the cost of the bond and insurance they had to take out so if we don't use them they would have to eat that but at the end of the contract they submit and we pay it out. Mr. Mohr added for the three two year terms we have not used the contract yet. Chairman Royce Bennett asked what the cost was that we had to reimburse them. Mr. Mohr replied that one contract was \$15,000 and the other was around \$12,000 he believes. Chairman Bennett replied this is a result of lessons learned from Hurricane Florence and we know we need to be prepared in case of another situation. Mr. Mohr said we have had other utilities reach out to us to get a sample of our contract.

Director Robert Warden added that both companies have good reputations. Director Joann McDermon said to summarize if we do not have an event we are not engaging and we are not paying so its basically an hourly or event driven fee schedule with reimbursement at the end. Director Warden replied right and line item too if they work on a certain size line that rates is already locked in for that size line.

A motion was made by Director Tim Foster to proceed with two Disaster Response Emergency Construction Services Contracts in the amount of \$500,000 per contract with A.C. Schultes of Carolina, Incorporated as the Primary Contractor and State Utility Contractors, Incorporated as the Secondary Contractor and to authorize the Chief Executive Officer to execute these contracts and any additional documents as required in connection with this action. A second was made by Director Joann McDermon. All were in favor, the motion passed unanimously.

**F. State Water Infrastructure Grant Water System Master Plan Project  
[A COPY OF THE LETTER OF AWARD, FUNDING OFFER & ACCEPTANCE DOCUMENT,  
RESOLUTION, AND WATER SYSTEM MASTER PLAN PROJECT ORDINANCE CIP-039 AND  
BUDGET AMENDMENT MAY BE FOUND AT EXHIBIT F AND ARE FULLY INCORPORATED  
HEREIN BY REFERENCE]**

Chairman Bennett called on Mr. David Mohr, Chief Operations Officer, to present the item. Mr. Mohr said this item is for a State infrastructure grant. He said in April we received a similar grant for the Dixon Water Treatment Plant and the State was still processing this one so we weren't able to do both at the same time. He went on to say we received notification in August of 2022 that the NCDEQ Division of Water Infrastructure had awarded an Asset Inventory and Assessment study grant in the amount of \$150,000 for a proposed project to develop a Water System Master Plan. Mr. Mohr said work to be performed under this grant includes updating and calibrating our existing hydraulic water model to reflect the current system configuration and demands, using the updated model to run various scenarios to identify distribution system deficiencies and evaluate the impact of additional water sources and or storage on system performance and prioritizing needed improvements for future capital planning purposes. Mr. Mohr explained this grant was derived from the Federal American Rescue Plan Act and will cover 100% eligible expenses up to the total award amount of \$150,000 and all work must be completed by May 22, 2025. Mr. Mohr said there was an extended review and approval of a proposed scope of work by the State and they have submitted a funding offer and acceptance document along with the resolution that the Board needs to execute saying that we will accept the Grant and abide by the requirements of it as the grant supports ongoing efforts to increase treated water supply it can be completed by the requested deadline and requires no matching funds from ONWASA.

Chairman Royce Bennett asked if the study was done inhouse. Mr. Mohr said we have a professional engineering services firm that actually runs simulations on the water model for us and maintains it so we will work with them on identifying the areas we want to do modeling in and prioritize projects so it is kind of a hybrid thing adding we will get together internally and decide where we want to go with it and then use the consultant to actually run the simulations and come back with the results and summarize. Director Jeff Wenzel inquired about the name of the consulting firm. Mr. Mohr replied WK Dickson and he believes it is out of their Wilmington office. Director Robert Warden asked who owns the water model. Mr. Mohr replied we do. Vice Chairman Paul Conner asked if we don't finish this thing by May 22 2025 then we are out of the cash we pay. Mr. Mohr said yes but we actually have the draft contract ready to start work and we will go within the next month and he would imagine it will take roughly 12 months to finish it.

A motion was made by Director Tim Foster to approve the Resolution to accept the American Rescue Plan grant offer, and authorize the Chief Executive Officer to execute the Funding Offer and Acceptance document and any additional documents necessary

to complete this action. A second was made by Director Robert Warden. All were in favor, the motion passed unanimously.

**G. Summerhouse WWTP Interim Improvements Equipment Acquisition  
[A COPY OF THE KUBOTA MEMBRANE USA PACKAGE SYSTEM PROPOSAL AND  
TROJAN TECHNOLOGIES SYSTEM 3000 PLUS PROPOSAL MAY BE FOUND AT EXHIBIT G  
AND ARE FULLY INCORPORATED HEREIN BY REFERENCE]**

Chairman Bennett called on Mr. David Mohr, Chief Operations Officer, to present the item. Mr. Mohr said ONWASA has been working with an engineering consultant to develop short-term options to increase treatment and disposal capacities at the existing Summerhouse Wastewater Treatment Plant adding continuing operational problems with the existing treatment process have resulted in the inability to consistently reach more than 50% of its permitted capacity which is 180,000 GPD and even after completion of a recent membrane replacement project on one of the two active treatment trains. He said the efforts are now focused on modifications that would address this situation, as well as support future expansion up to the plant's original design maximum treatment capacity of 400,000 GPD.

Mr. Mohr explained that after review of several options and site visits with treatment equipment suppliers, it has been determined that the most time and cost-effective approach is to utilize the majority of the plant infrastructure but replace the two most problematic elements and that is the membrane filtration system and ultraviolet (UV) disinfection system. Mr. Mohr said we have a tough time processing an adequate volume of water through the plant and there are two sets of membranes and we have replaced one set we see an increase in performance then it rapidly tails off. Mr. Mohr said we have talked to the manufacturer and we have talked to the membrane supplier and we brought in a separate consulting firm and they have recommended replacing the membranes and actually installing an independent different type of membrane that is more amendable to the type of wastewater flow we see and that is Kubota membrane USA package system and the UV side we have converted all of our other facilities to an open channel UV system that is much simpler to operate and very easy to maintain and to do repairs on so the other item would be to replace the existing pressure UV system with an open channel.

Mr. Mohr explained this item includes a request to declare the two listed firms as sole source vendors for this project adding North Carolina General Statue 143-129(e)(6)(iii) exempts purchase of apparatus, supplies, materials or equipment from competitive bidding when standardization or compatibility is the overriding consideration. He said the Kubota Membrane Bioreactor System is currently in use at both the Pluris North Topsail and Webb Creek treatment plants and they have had very good results with it, and as we have discussed before we are moving towards their planned acquisition and this equipment would be totally compatible with theirs and actually the membranes could be utilized in either of those facilities as well as Summerhouse similarly the Trojan UV System that we specked which is the Trojan UV3000Plus system is already in use at multiple ONWASA and both Pluris facilities and would basically become the standard across the enterprise. He went on to explain the proposals attached to this request provide a list of the equipment to be provided by each vendor and the associated cost for informational purposes only; final purchase of these items will be handled through issuance of a purchase order to each vendor with appropriate terms and conditions included.

Mr. Mohr said it should also be noted that approval of the sole source designation is for the equipment purchase only, as installation is planned through the use of a separate competitive-bid construction contract. He said the goal is to purchase this equipment now under sole source and by the time the design is done and the contractors are on board this equipment will be on site to install. Mr. Mohr said this early approach also has the benefit of locking in prices before we see increases which we know are coming.

Director Joann McDermon said there is a lot of growth in Summerhouse and asked if this plan takes into account the additional growth. Mr. Mohr replied this is the first state and we are looking at some alternatives once we fix the membrane issue the disposal of the wastewater becomes the next challenge and it is kind of integrated into how we want to handle that versus the potential connection to Pluris adding there is a potential to utilize the spray field site to serve more than one facility. He went on to explain we have had a couple of meetings on it and there are a couple different directions we can go but the first step is this one to get the existing plant up and running right. He said right now we are seeing average flow in the the 60,000 gallons per day range so if we were at a solid 180,000 gallons a day we could take everything from Summerhouse plus growth plus even take some load off of the Holly Ridge facility in the interim.

Chairman Bennett said standardizing our systems and processes is certainly a good idea and noted he did not see any cost estimates does that come back to us at some point in the future when we know how much it is going to cost. Mr. Mohr said the Kubota Membrane all of the equipment for that is 1.39 million and the UV System is \$194,500 so the total is just over 1.5.

Director Jeff Wenzel asked if the things were are looking to purchase would affect the daily production. Mr. Mohr replied the new membrane setup actually comes in a separate tank so you get that set up and then basically plug it in and switch the flow to the new tank so the turnover should be pretty simple. Mr. Mohr said Kubota has been out a couple of times and we worked with them on the proposal, and they have seen the site and know what needs to be done and that it is an active plant and we can't just turn it off for six months while we hook up a bunch of pipes.

A motion was made by Director Jeff Wenzel to proceed with the acquisition of the referenced equipment from Kubota Membrane USA and Trojan Technologies as sole source vendors and to authorize the Chief Executive Officer to execute purchase agreements and any additional documents as required in connection with this action. A second was made by Vice Chairman Paul Conner. All were in favor, the motion passed unanimously.

#### **H. Administrative Service Agreement (3)**

**[A COPY OF THE ADMINISTRATIVE SERVICE AGREEMENTS MAY BE FOUND AT EXHIBIT H AND ARE FULLY INCORPORATED HEREIN BY REFERENCE]**

Chairman Bennett called on Ms. Tina Ryle, Chief Customer Service Officer, to present the item. Ms. Ryle explained that for the convenience of Authority customers located in or near the general vicinity of the Towns it was provided in the Water and Sewer Agreement with the Towns that the Authority shall maintain facilities in the Towns for the purpose of telephone communication and bill payment from customers. She stated ONWASA currently has agreements with the Towns of Holly Ridge, Richlands, and Swansboro. She said the agreements have been sent to and approved by each of the Town's respective Boards. Ms. Ryle said between April of 2022 and March of 2023 the Town Halls processed 8,610 transactions in total and of those transactions Richlands Town Hall processed 3,299, Holly Ridge processed 1,793, and Swansboro Town Hall processed

3,518. She said this partnership increases customer satisfaction and eliminates the need for a customer to travel to the main office for more routine tasks such as bill payment in person.

Director Robert Warden asked how we come up with the amount we pay roughly \$3,000 a month, what is that based on? Ms. Ryle said she did not know it had been in place for some time and said Mr. Howard might be able to say how long it has been in place. Mr. Howard said it was negotiated early on with the formation of ONWASA to offset the cost there and additional to that we do take care of some other things like equipment and internet. Secretary/Treasurer Pat Turner said she believes the customers who go into the Town Hall enjoy doing that adding we did talk one year about eliminating it and that would be the wrong decision. Mr. Howard added last year we did amend the agreement to add the option to do a kiosk if there was a need for that but so far it hasn't come back up in the past twelve months but yes the folks that do that, it is what they want to do.

A motion was made by Director Tim Foster to approve the FY24 Administrative Service Agreements as presented and authorize the Chairman of the Board to execute the agreements and any other documents as may be required by this action. A second was made by Secretary/Treasurer Pat Turner. All were in favor, the motion passed unanimously.

**I. Pluris System Purchase Agreement**  
**[A COPY OF THE AGREEMENTS MAY BE FOUND AT EXHIBIT I AND ARE FULLY INCORPORATED HEREIN BY REFERENCE]**

Chairman Royce Bennett called on Mr. Howard to present the item. Mr. Howard said this item is the Pluris System Purchase agreement that has been negotiated at the final hour. He said we have been working the past several weeks to prepare this final system purchase agreement for the Pluris LLC and Pluris Webb Creek Wastewater Treatment Systems. Mr. Howard explained what you will see in this agreement is it has options and details and what is expected from both parties and added he appreciates Mr. Kitchens time and the attorneys on the other side pretty much jumping on this at his request to get it done ahead of this meeting. He went on to say we had discussed bringing this before you in a special meeting later in the month but I was able to get this document for this evening. Mr. Howard said once the agreement is approved we will continue to work with the local government commission for their approval and then the private entity will have to go to the Utilities Commission for their approval so there are several things that are still in the process that will have to be done with that being said there may be some things that have to be amended after the local government commission reviews the final agreement.

Director Jerry Bittner asked if it was in the hands of the local government commission now. Mr. Howard said we have sent them some preliminary information through our financial consultant but after this approval process we will set up an official meeting with staff and we had a tentative sale date with them in October. Director Bittner asked if Mr. Kitchen was happy with it. Mr. Kitchen said happy is probably not the correct term but we have spent a lot of time negotiating it out and its the best agreement that we know that we can negotiate and the next thing is it will have to go to the LGC and most of the time they will come back with something they want to change. He added we will have to get a real estate attorney to do the title work and get title insurance provided it is not too expensive and we will have to look at that. He added he has talked with Kathy Blackburn about doing it so he thinks we are moving right along with it and we have to do it fairly quickly adding we are looking to bring back the final everything to you [Board] in September ahead of the October LGC meeting so we are trying to move this along

quickly. Mr. Howard said there might be a series of meetings in August and September ahead of the October LGC meeting. Director Warden asked whatever happened with the tax exchange that they were wanting. Mr. Kitchen replied we had a video conference call we got our bond counsel on the line and the bond counsel talked to the tax attorney who came up with language that we could put into the agreement and the 1031 attorneys for Pluris looked at it and said they were in agreement with us so it is all worked out now. Mr. Kitchen said we do still have a good bit of work to do for the schedules but he thinks we are in good shape as far as the overall deal goes. Director McDermon asked if Mr. Carter had seen this as well. Mr. Howard replied yes he was on the phone call with us. Director McDermon followed up by asking so he has blessed it in addition to Mr. Kitchen. Both Mr. Howard and Mr. Kitchen replied yes. Chairman Royce Bennett said this is an issue we have mulled over for many months now and asked if they were ready to make a motion. Director Joann McDermon said she does have a question because all of the schedules are blank so exactly what is being approved or requested to be approved tonight. Mr. Kitchen responded the form of the agreement and with that approval what we will do is move it forward. He went on to say the final agreement with all of the schedules with the exhibits will come back to you for final approval plus what we need to do is basically get your blessing on it so that we can send it to LGC because they are not going to want to deal with it until we say yes our Board has looked at it and they want to go forward. Director McDermon said so the blessing is to keep it moving forward but it will come back to us again.

A motion was made by Director Jeff Wenzel to approve the proposed and recommended final System Purchase Agreement for the Pluris LLC and Pluris Webb Creek LLC Systems and authorize the Chairman to sign and execute the final agreement and any additional documents as required in connection with this action. A second was made by Vice Chairman Paul Conner. All were in favor, the motion passed unanimously.

#### **4. PUBLIC COMMENT**

There were no members of the public wishing to comment.

#### **5. CHIEF EXECUTIVE OFFICER COMMENTS**

Chairman Bennett called on CEO, Franky Howard, to provide comments. Mr. Howard provided a brief overview on projects Staff has been working on. He said the Dixon test well drilling has been completed to 960 feet adding it is a very deep well in that particular area of Black Creek Aquifer. He said the foundations are complete at the Northwest Wastewater Treatment Plant. The Topsail Island Booster pump station is at 60% design so we are hopefully in the short rows to get some permitting done. He said that has been a hot topic this week as we have had quite a few pressure complaints or concerns out on the island in that area and that was the budget comment the Board received. He said staff did do a field trip out there yesterday and met with folks on site and feel like we've got a good communication going with that property and hopefully going to have some recommendations for them. Director Warden said there were some concerns that the customer relations group wasn't aware and asked what was done to address that issue. Mr. Howard said we have some further work to do there to make sure our messaging is consistent so when folks do call in that we are giving them good feedback on what they can do. He said he has talked with the mayor about what we are seeing with new construction and feel we are getting the messaging out good and they are getting boosters but there is definitely some work to be done in what we are telling folks that have existing structures and what they can do. He said we had a good audit kick off and expressed thanks to Dawn and her staff and said hopefully everything is in line to be on time this year for the October deadline.

## 6 BOARD OF DIRECTOR'S COMMENTS

Director Bob Warden said he is impressed with all the balls that you all are juggling adding he knows it has been tough for you at times with timelines and so forth but y'all are doing a great job and keep it up.

Director Tim Foster said ditto to Director Wardens comments and said they appreciate all of the work.

Director Jerry Bittner asked if the approvals from the local government commissions includes the financing mechanisms too. Mr. Kitchen said you have two different things going along on parallel tracks one is the purchase of the property of itself which also the purchase agreement would have to be approved by the local government commission even if you weren't financing it and the second part is we are going to be doing revenue bonds and the revenue bonds will be drawn up by our bond counsel and we will be having the LGC look at those at the appropriate time and those are simple to do since we have done several of them and it is basically the same thing over and over again. He said this document and what goes along with it is a little more complicated and unusual in North Carolina and they have new people at the LGC and he doesn't know if they have seen a deal like this before and that is the only thing that might slow things down. He went on to say they will both have to close on the same day.

Director Jeff Wenzel expressed appreciation and wished Chairman Bennett a Happy Birthday.

Director Joann McDermon thanked Mr. Howard and staff for talking with a condominium complex that was experiencing or vocally stated they were having pressure issues. She said she did also reach out to the two people that emailed in about pressure issues and she has not heard back from them. Director McDermon said we have also heard from an apartment complex in Sneads Ferry that is having a similar issue and inquired all of that growth that is so explosive right along the corridor coming over to the beach is that also causing an issue impacting the Island? Mr. Howard said it is very possible. He went on to say they met with that particular person as well and today she sent him video footage from last night of her tub lacking flow. Director McDermon replied that the customer has to set her alarm to 4 am to do laundry or dishes. Mr. Howard said it is two particular units in the complex having the issues and that the other ones are not so we think maybe there are some localized issue and Matt will be scheduling a meeting with the general manager of that facility. Director McDermon said while we have been waiting for the booster pump for a while now and this Board has planned for it and everything that goes with it but I am just wondering if there is not going to be enough water that gets to it to boost. Mr. Howard said good point and we are going to look at some scenarios.

Director Pat Turner said ditto for what everybody said that thanked you and your staff for the budget and she said she continues to be impressed with the way our meetings are run and detailed information and the knowledge we have before we are not sitting here debating everything so I appreciate that immensely.

Chairman Bennett said we have addressed a lot of issues here today and it is all because of the attentiveness of the CEO and Staff and the Board that has been willing to meet so that we could accomplish so much in a short period of time.

No other Directors wished to make comments.

A motion was made by Director Tim Foster to adjourn the meeting. The motion was seconded by Vice Chairman Paul Conner. All were in favor.

The meeting was adjourned at 6:47 pm.

The minutes were approved on September 21, 2023.



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Michael Royce Bennett, Chairman

ATTEST:

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Heather Norris, Clerk

**ONslow WATER & SEWER AUTHORITY  
DIXON WATER TREATMENT PLANT EXPANSION PROJECT  
PROJECT NUMBER CIP-038**

**PROJECT ORDINANCE**

**BE IT ORDAINED** by the Board of Directors of Onslow Water & Sewer Authority (ONWASA) that, pursuant to Section 13.2 of Chapter 159 of the General Statutes of North Carolina, the following Dixon Water Treatment Plant Expansion Project is hereby adopted:

**Section I.**

The Dixon Water Treatment Plant Expansion Project shall consist of: the review of prior studies and system information; evaluating the water quality of existing and proposed raw water sources; assessing existing plant treatment systems and determining suitable methods for expansion of treatment capacity from 4.0 to 6.0 MGD; and, investigating future plant modifications necessary to comply with pending PFAS regulations. The resulting information will be used to determine future capital improvement plan needs and apply for outside sources of funding to complete that work.

**Section II.**

The officers of Onslow Water & Sewer Authority are hereby directed to proceed with the Dixon Water Treatment Plant Expansion Project, Project Number CIP-038

**Section III.**

The following revenue is anticipated to be available to complete the project:

NCDEQ – ARPA Grant Proceeds	\$ 250,000
Total	<u>\$ 250,000</u>

**Section IV.**

The following amounts are appropriated for the project:

Professional Services, Admin.	\$ 250,000
Total	<u>\$ 250,000</u>

**Section V.**

The Finance Officer is hereby directed to maintain within the Water & Sewer Fund sufficient specific detailed accounting records to provide the accounting required by federal and state regulations and in accordance with generally accepted accounting procedures.

**Section VI.**

The Finance Officer is directed to report monthly on the financial status of the project and on the total revenues received.

**Section VII.**

The Budget Officer is directed to include an analysis of past and future cost and revenues on this project as a part of every budget submission made to this Board.

**Section VIII.**

Copies of this Dixon Water Treatment Plant Expansion Project Ordinance shall be made available to the Budget Officer for direction in carrying out these projects.

Adopted this 15<sup>th</sup> day of June 2023.

ONslow WATER & SEWER  
AUTHORITY BOARD OF  
DIRECTORS



  
\_\_\_\_\_  
Michael Royce Bennett, Chairman

  
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Heather Norris, Clerk to the Board

Project Ordinance  
Dixon Water Treatment Plant Expansion Project  
Project Number CIP-038  
Budget Amendment  
June 15, 2023

## Budget Amendment Fund 40

Department Number	General Ledger Name	General Ledger Number	Amount
	Revenue – NCDEQ Grant – DWTP Exp	3709993	\$ 250,000
8790	Expenditure – Professional Services	8890400	\$ 250,000



April 21, 2023

Mr. Franky Howard  
Chief Executive Officer  
Onslow Water and Sewer Authority  
228 Georgetown Road  
Jacksonville, NC 28540

**Subject: System Development Fee Study Update**

Dear Mr. Howard:

Raftelis Financial Consultants, Inc. (“Raftelis”) has completed an evaluation to develop cost-justified water and sewer system development fees for fiscal year (“FY”) 2024 for consideration by the Onslow Water and Sewer Authority (“Authority” or “ONWASA”). This report documents the results of the analysis, which was based on an approach for establishing system development fees set forth in North Carolina General Statute 162A Article 8 – “System Development Fees.” The purpose of this report is to summarize Raftelis’ conclusion related to cost justified water and sewer system development fees. It is not intended to address anything else associated with the system development fees, such as the administration of these fees, etc.

The preparation of this report was developed by Raftelis for ONWASA based on a specific scope of work agreed to by both parties. The scope of Raftelis’ work consisted of completing a calculation of cost justified water and sewer system development fees using common industry practices and industry standards. We provide no opinion on the legality of the system development fees implemented by the Authority. It is the responsibility of the Authority to ensure compliance of the system development fees with North Carolina General Statute 162A Article 8 – “System Development Fees.”. The scope of work does did not include any additional work other than the calculation associated with the system development fees, such as opinions or recommendations on the administration of these fees, the timing and use application of revenues from the collection of these fees, etc., as that is the responsibility of the Authority.

In developing the conclusions contained within this report, Raftelis has relied on certain assumptions and information provided by ONWASA, who is most knowledgeable of the water and sewer system, its finances, etc. Raftelis has not independently verified the accuracy of the information provided by the Authority. We believe such sources are reliable and the information obtained to be reasonable and appropriate for the analysis undertaken and the conclusions reached. The conclusions contained in this report are as of the stated date, for a specific use and purpose, and made under specific assumptions and limiting conditions. The reader is cautioned and reminded that the conclusions presented in this report apply only as to the effective date indicated. Raftelis makes no warranty, expressed or implied, with respect to the opinions and conclusions contained in this report. Any statement in this report involving estimates or matters of opinion, whether or not specifically designated, are intended as such, and not as representation of fact.

## Onslow Water and Sewer Authority

### Background

System development fees are one-time charges assessed to new water and/or sewer customers for their use of system capacity and serve as an equitable method by which to recover up-front system capacity costs from those using the capacity. North Carolina General Statute 162A Article 8 (“Article 8”) provides for the uniform authority to implement system development fees for public water and sewer systems in North Carolina and was passed by the North Carolina General Assembly and signed into law on July 20, 2017 and was modified by Session Law 2021-76 and House Bill 344, which was approved on July 2, 2021. According to the statute, system development fees are required to be adopted in accordance with the conditions and limitations of Article 8, and the fees are required to conform to the requirements set forth in the Article no later than July 1, 2018.<sup>1</sup> In addition, the system development fees must also be prepared by a financial professional or licensed professional engineer, qualified by experience and training or education, who, according to the Article, shall:

- Document in reasonable detail the facts and data used in the analysis and their sufficiency and reliability.
- Employ generally accepted accounting, engineering, and planning methodologies, including the buy-in, incremental cost or marginal cost, and combined cost methods for each service, setting forth appropriate analysis to the consideration and selection of an approach appropriate to the circumstances and adapted as necessary to satisfy all requirements of the Article.
- Document and demonstrate the reliable application of the methodologies to the facts and data, including all reasoning, analysis, and interim calculations underlying each identifiable component of the system development fee and the aggregate thereof.
- Identify all assumptions and limiting conditions affecting the analysis and demonstrate that they do not materially undermine the reliability of conclusions reached.
- Calculate a final system development fee per service unit of new development and include an equivalency or conversion table for use in determining the fees applicable for various categories of demand.
- Consider a planning horizon of not less than five years, nor more than 20 years.
- Use the gallons per day per service unit that the local government unit applies to its water or sewer system engineering for planning purposes for water or sewer, as appropriate, in calculating the system development fee.

This letter report documents the results of the calculation of water and sewer system development fees for FY 2024 in accordance with these requirements. In general, system development fees are calculated based on (1) a cost analysis of the existing or planned infrastructure that is in place, or will be constructed, to serve new capacity demands, and (2) the existing or additional capacity associated with these assets. Article 8 is relatively explicit in the identification of infrastructure assets that may be included as part of the system development fee calculation, as the Article defines allowable assets to include the following types, as provided in Section 201:

*“A water supply, treatment, storage, or distribution facility, or a wastewater collection, treatment, or disposal facility providing a general benefit to the area that facility serves and is owned or operated, or to be owned or*

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## Onslow Water and Sewer Authority

*operated, by a local governmental unit. This shall include facilities for the reuse or reclamation of water and any land associated with the facility.”*

Therefore, the method used to calculate system development fees for ONWASA included system facility assets that satisfied this definition.

Article 8 references three methodologies that could be used to calculate system development fees. These include the buy-in method, the incremental cost method, and the combined cost method. A description of each of these methods is included in the following paragraphs:

### Capacity Buy-In Method:

Under the Capacity Buy-In Method, a system development fee is calculated based on the proportional cost of each user's share of existing system capacity. This approach is typically used when existing facilities can provide adequate capacity to accommodate future growth. The cost of capacity is derived by dividing the estimated value of existing facilities by the current capacity provided by existing facilities. Adjustments to the value of existing facilities are made for developer contributed assets, grant funds, and outstanding debt.

### Incremental Cost Method:

Under the Incremental Cost (or Marginal Cost) Method, a system development fee is calculated based on a new customer's proportional share of the incremental future cost of system capacity. This approach is typically used when existing facilities have limited or no capacity to accommodate future growth. The cost of capacity is calculated by dividing the total cost of growth-related capital investments by the additional capacity provided as a result of the investments.

### Combined Method:

Under the Combined Method, a system development fee is calculated based on the blended value of both the existing and expanded system capacity. As such, it is a combination of the Capacity Buy-In and Incremental Cost methods. This method is typically used when existing facilities provide adequate capacity to accommodate a portion of the capacity needs of new customers, but where significant investment in new facilities to address a portion of the capacity needs of future growth is also anticipated, or where some capacity is available in parts of the existing system, but incremental capacity will be needed for other parts of the system to serve new customers at some point in the future.

The Combined method was used to calculate the water and sewer system development fees for ONWASA, since in general, the Authority's existing water and sewer treatment facilities have some capacity to accommodate anticipated future growth over the near term, and the capital improvements projects are adding additional capacity to serve new customers. The following steps were completed to calculate the fees under the Combined Method:

1. The replacement value of existing system facilities was calculated, and adjustments were made to derive a net replacement value estimate in accordance with Article 8. Adjustments to the calculated replacement value included deducting accumulated depreciation, developer contributions, and a portion of outstanding debt. The growth-related capital improvement projects were incorporated into the total system value, making adjustments to the calculated value to account for future debt to fund the projects. A combined net system value was calculated by adding together the net system asset replacement value (net of contributions) and the growth-related capital spending (net of grants), and subtracting the current outstanding principal and the future borrowing net present value.

## Onslow Water and Sewer Authority

2. The unit cost of system capacity was estimated by dividing the calculated system value from step 3 by the total capacity of the system. This includes the current capacity of the system (minus any capacity reserved for others by contract) plus any capacity added by the capital projects.
3. The amount of capacity assumed to be demanded by one service unit of new development was identified. One equivalent residential unit (“ERU”) was defined as the smallest service unit of new development.
4. The system development fee for one service unit of development was calculated by multiplying the cost per unit of system capacity by the capacity associated with one ERU, as defined below.
5. The calculated system development fee for one ERU was scaled for different categories of demand. Meter capacity ratios were used to scale system development fees from a base meter size, or the smallest unit of new development (one ERU), to different categories of demand, as defined by the different customer meter sizes.

## Calculation of System Development Fees

### *Step 1 – Estimate the System Value and Apply Adjustments*

A listing of fixed assets provided by ONWASA, as of June 30, 2022, was reviewed and each individual asset was categorized into one of the categories shown in Table 1. General assets, such as those related to administrative buildings, certain rolling stock, and certain equipment items were not directly attributable to a specific category. As a result, these assets were categorized as “Other Non-Core Assets.” These assets were excluded from the calculation of system value as these assets were not specifically identified as allowable under Article 8. Excluded assets included those relating to administrative and miscellaneous type buildings, rolling stock, and various types of equipment.

**Table 1. Fixed Asset Categories by System**

<b>Water System</b>	<b>Sewer System</b>
Treatment	Treatment
Land	Land
Distribution	Collection
Meters	
Vehicles	Vehicles
Easements	Easements
Other Non-Core Assets	Other Non-Core Assets

Next, the replacement value of existing assets in allowable categories was estimated. Each asset’s original cost, as contained in the fixed asset listing provided by the Authority, was escalated to 2023 dollars based on the year the asset was purchased and the corresponding escalation factor for that year. Escalation factors for each year were developed using the Handy-Whitman Index (“HWI”) for the South Atlantic Region, which provides an annual index value representing the relative change in costs for each year from 1908 to 2023. Using the HWI to estimate an asset’s current replacement cost is an industry accepted method by which to value system facilities.

## Onslow Water and Sewer Authority

The replacement costs of the assets were adjusted by their indexed accumulated depreciation to derive the replacement cost new less accumulated depreciation (“RCNLD”) amounts. The estimated RCNLD values for water and sewer system assets allowable under Article 8 are summarized in Table 2.

As shown in Table 2, the RCNLD value of the water system was estimated to be approximately \$135 million, and the RCNLD value of the sewer system was estimated to be approximately \$190 million. Several additional adjustments were made to the estimated water and sewer system RCNLD values in accordance with Article 8, which included adjustments for meters, vehicles, other non-core assets, developer contributed assets, and a portion of outstanding debt, as described below.

### Non-Core and Developer Contributed Assets:

Assets such as meters, vehicles and easements are not allowable under Article 8, and as such are excluded from the total system value used in the fee calculation. Additionally, the listing of fixed assets was reviewed to identify assets that were contributed, or paid for, by developers. ONWASA tracks assets that were contributed by developers and identifies them in the fixed asset register as such. These assets were subtracted from the RCNLD value, as these assets do not represent an investment in system capacity by the Authority. The total RCNLD value of the non-core and contributed water and sewer system assets was estimated to be approximately \$42 million and \$64 million, respectively.

### Growth Related Capital Spending

The other component of the system value when utilizing the Combined Method is the growth-related capital spending. ONWASA staff provided us with the capital improvements plan for the next 10 years, as well as which projects are growth related, capacity added, and funding sources for each project. The growth-related portion of the spending is incorporated into the system value, with revenue credit given for future borrowing, as discussed below. For the Authority, \$177 million of growth-related water capital spending, and approximately \$47 million of growth-related sewer capital spending were added to the system value. The total system value used in the fee calculation including capital spending is shown in Table 2 below.

**Table 2. Water and Sewer System Value**

<b>Description</b>	<b>Water</b>	<b>Sewer</b>
Assets (RCNLD)	\$135,030,983	\$189,874,597
Less: Non-Core Assets/ Contributed Capital	-\$41,981,580	-\$64,212,467
Total Net Assets RCNLD	\$93,049,403	\$125,662,130
Plus: Growth Related CIP	\$177,263,425	\$46,610,810
Total System Value Before Credits	\$270,312,828	\$172,272,940

### Debt Credit

Article 8 specifies that the buy-in calculation should be determined using generally accepted methods, including the consideration of debt credits and other generally accepted valuation adjustments. Article 8 also states that in applying the incremental cost or the combined cost methods to calculate a system development fee, the analysis must include a credit against the projected aggregate cost of capital improvements and that in no case shall the credit be less than 25 percent of the aggregate cost of capital

## Onslow Water and Sewer Authority

improvements. In calculating the system development fees for ONWASA, a debt credit was included in the calculation as described below.

The debt credit is applied to reflect that a portion of the outstanding debt associated with the system facilities will be repaid with water and sewer user charges and a portion will be repaid with system development fee revenues. An adjustment was made to prevent recovering the cost of the assets twice, once when assessing system development fees to new customers, and then again when these customers pay user charges.

The amount of the credit was calculated by first identifying the amount of existing outstanding debt attributable to both the water and sewer systems that funded qualifying assets. Then, the debt identified as funding growth-related projects was estimated over 30 years with an interest of 4.5%. The net present value (NPV) was then calculated on the projected principal of each issue, using the current weighted average cost of debt of 4.1%. A summary of the debt credits is provided in Table 3.

**Table 3. Debt Credit**

<b>Description</b>	<b>Water</b>	<b>Sewer</b>
Outstanding Principal	-\$17,482,362	-\$39,687,417
NPV Of Future Debt	-\$79,421,991	-\$18,731,548
Total Credit	-\$96,904,352	-\$58,418,964

The resulting adjustments to the water and sewer system values are shown in Table 4.

**Table 4. Calculation of Net Water and Sewer System Value**

<b>Description</b>	<b>Water</b>	<b>Sewer</b>
System Facilities RCNLD	\$135,030,983	\$189,874,597
Less: Non-Core/Contributed Assets	-41,981,580	-64,212,467
Plus: Growth CIP	+177,263,425	+46,610,810
Less: Debt Credit/Revenue Credit	<u>-96,904,352</u>	<u>-58,418,964</u>
Net System Value	\$173,408,475	\$113,853,976

### *Step 2 – Calculate the Unit Cost of System Capacity*

The cost per unit of system capacity was calculated by dividing the adjusted system values (derived in Step 1) by the water and sewer system capacities. The treatment capacity of the water system is currently 11.44 million gallons per day (“MGD”). Additionally, the Authority will be adding 6 MGD of capacity with the capital expansion projects, for a total water system capacity of 17.44 MGD. Therefore, the cost per unit of system capacity for the water system was calculated to be \$9.94 per gallon per day ( $\$173,408,475 \div 17.44 \text{ MGD}$ ).

The treatment capacity of the sewer system is 3.754MGD, but the capital expansion projects are necessary to access the full treatment capacity of the existing system for future growth. Therefore, the cost per unit of system capacity for the sewer system was calculated to be \$30.33 per gallon per day ( $\$113,853,976 \div 3.754 \text{ MGD}$ ).

## Onslow Water and Sewer Authority

### *Step 3 – Estimate the Amount of Capacity Per Service Unit of New Development*

Section 205 of Article 8 states that the system development fee calculation “...use the gallons per day per service unit that the local governmental unit applies to its water or sewer system engineering for planning purposes for water or sewer, as appropriate, in calculating the system development fee.” For the water and sewer system, one ERU of peak day capacity was defined to be 300 gallons per day (“GPD”) for single-family customers. This information was provided by staff and is based on data from the NCDHEC planning estimates which assigns 120 gallons per day per bedroom. The ERU of 300 gallons is derived assuming the average gallons per day per bedroom for a 2 and 3 bedroom house.

### *Step 4 – Calculate the System Development Fee for One ERU*

The system development fee for one ERU was calculated by multiplying the unit cost of capacity from Step 2 by the capacity demanded by one ERU from Step 3. The calculations are provided in Table 5.

**Table 5. Calculation of Water and Sewer System Development Fees for One ERU – Single-Family**

<b>Description</b>	<b>Water</b>	<b>Sewer</b>
Net System Value	\$173,408,475	\$113,853,976
System Capacity (MGD)	17.44	3.75
Unit Cost of Capacity (\$ / gallon per day)	\$9.94	\$30.33
Capacity Required for 1 ERU (gallons per day)	300	300
System Development Fee per ERU	\$2,983	\$9,099

### *Step 5 – Scale the System Development Fees for Various Categories of Demand*

The system development fees for various categories of demand (for non-residential customers) were scaled using water meter capacity ratios. The scaling factors were based on rated meter capacities for each meter size, as published by the American Water Works Association in Principles of Water Rates, Fees, and Charges.<sup>2</sup> The meter scaling factors are shown in

<sup>2</sup> Manual of Water Supply Practices (M1), Principles of Water Rates, Fees, and Charges, American Water Works Association, 7th Edition, Table VII.2-5 on p. 338.

**Onslow Water and Sewer Authority**

Table 6 and the resulting system development fees scaled by meter size are shown in Table 7.

## Onslow Water and Sewer Authority

**Table 6. Meter Capacities and Scaling Factors by Meter Size**

Meter Size	Scaling Factor
3/4"	1.0
1"	1.7
1.5"	3.3
2"	5.3
3"	10.7
4"	16.7
6"	33.3
8"	53.3
10"	80.0

**Table 7. Maximum Cost-Justified Water and Sewer System Development Fees by Meter Size for Single-Family Residential Customers and Non-Residential Customers**

Meter Size	Water Fee	Sewer Fee
3/4"	\$ 2,983	\$ 9,099
1"	\$ 4,971	\$ 15,165
1.5"	\$ 9,943	\$ 30,328
2"	\$ 15,907	\$ 48,525
3"	\$ 31,814	\$ 97,053
4"	\$ 49,710	\$ 151,644
6"	\$ 99,419	\$ 303,286
8"	\$ 159,071	\$ 485,259
10"	\$ 238,606	\$ 697,561

The water and sewer system development fees shown in Table 7 represent the maximum cost-justified level of system development fees that can be assessed by ONWASA per Article 8. If the Authority chooses to assess fees that are less than those shown in the tables, the adjustments need to be reflected consistently across all categories of demand.

We appreciate the opportunity to assist the Onslow Water and Sewer Authority with this important engagement. Should you have questions, please do not hesitate to contact me at (704) 373-1199.

Very truly yours,

RAFTELIS FINANCIAL CONSULTANTS, INC.



**Elaine Conti**

*Executive Vice President*



Fiscal Year 2023 - 2024  
Proposed Rate and Fee Schedule

**Water**

I. Residential & Commercial Customers

Base Water Charges*		
Meter Size	<del>Base Charge</del>	Base Charge
3/4"	<del>\$16.00</del>	\$17.28
1"	<del>\$39.96</del>	\$43.16
1.5"	<del>\$79.86</del>	\$86.26
2"	<del>\$127.72</del>	\$137.94
2.5"	<del>\$191.64</del>	\$206.97
3"	<del>\$255.50</del>	\$275.94
4"	<del>\$399.22</del>	\$431.16
6"	<del>\$798.44</del>	\$862.31

\*For service through a Master Meter (including Multi Users) the fixed charges per unit shall assume a 3/4 inch meter; 3/4" meter charges apply to all residential meters.

Note - NC GS 2008-143 states all water to an irrigation system must be provided through an individually metered connection unless the requirements are met under NC GS 143-355.4.

II. User Fees

Usage(Gallons)	<del>Water Meters 1,000 Gallons</del>	Water Meters 1,000 Gallons	<del>Irrigation Meters 1,000 Gallons</del>	Irrigation Meters 1,000 Gallons
First 3,000	<del>\$3.70</del>	\$3.99	<del>\$5.54</del>	\$5.98
Next 4,500	<del>\$3.83</del>	\$4.13	<del>\$5.73</del>	\$6.18
Next 7,500	<del>\$4.95</del>	\$5.34	<del>\$7.44</del>	\$8.04
Next 10,000	<del>\$6.46</del>	\$6.98	<del>\$9.70</del>	\$10.49
Over 25,000	<del>\$7.58</del>	\$8.19	<del>\$11.41</del>	\$12.32

**Bulk Meter** ~~\$4.95 per 1,000 gallons~~ \$5.35 per 1,000 gallons

**Master Meter (including Multi Users):** ~~\$4.95 per 1,000 gallons~~ \$5.35 per 1,000 gallons

**Sewer Bulk Fee** ~~\$5.25 per 1,000 gallons~~ \$5.67 per 1,000 gallons

**Volunteer Fire & Rescue Squads Primary Operations Building (water & sewer each):**

0-20,000 gallons \$1.00 Flat Rate  
Over 20,000 gallons Follow the applicable rates above

**Sewer**

III. Residential & Commercial Customers

User Fees**		Base Sewer Charges*		
<del>Rate per 1,000 Gallons</del>	Rate per 1,000 Gallons	Meter Size	<del>Base Charge</del>	Base Charge
<del>\$7.38</del>	\$7.97	3/4"	<del>\$26.00</del>	\$28.08
<del>\$7.38</del>	\$7.97	1"	<del>\$65.18</del>	\$70.39
<del>\$7.38</del>	\$7.97	1.5"	<del>\$130.02</del>	\$140.42
<del>\$7.38</del>	\$7.97	2"	<del>\$208.04</del>	\$224.68
<del>\$7.38</del>	\$7.97	3"	<del>\$415.09</del>	\$448.30
<del>\$7.38</del>	\$7.97	4"	<del>\$647.48</del>	\$699.28

\*For service through a Master Meter (including Multi Users) the fixed charges per unit shall assume a 3/4 inch meter; 3/4" meter charges apply to all residential meters.

\*\*No sewer charges are billed for meters exclusively used for irrigation.

**Water & Sewer**

IV. Tap Installation Fees

Water	
Tap Size	Fee
3/4 x 5/8 tap	\$1,620.00
1"	\$1,910.00
1-1/2" & above	\$1,100 + Materials
Sewer	
Tap Size	Fee
4" Residential Only	\$1,190 + Materials

Fee
Cost + 10%

V. System Development Fees

Meter Size	Water	Water*	Sewer	Sewer*
3/4"	<del>\$2,032</del>	\$2,983	<del>\$3,700</del>	\$4,823
1"	<del>\$3,386</del>	\$4,971	<del>\$6,167</del>	\$9,912
1.5"	<del>\$6,773</del>	\$9,943	<del>\$12,333</del>	\$19,823
2"	<del>\$10,836</del>	\$15,907	<del>\$19,733</del>	\$31,717
3"	<del>\$21,672</del>	\$31,814	<del>\$39,467</del>	\$63,435
4"	<del>\$33,863</del>	\$49,710	<del>\$61,667</del>	\$99,117
6"	<del>\$67,725</del>	\$99,419	<del>\$123,333</del>	\$198,232
8"	<del>\$108,360</del>	\$159,071	<del>\$197,333</del>	\$317,172
10"	<del>\$162,540</del>	\$238,606	<del>\$283,667</del>	\$455,936

\* subject to change based on final CIP approval

VI. Water or Sewer Tap Inspection Fees

On site less than 4 hours during a work day	\$150.00	Per Site Per Customer
On site more than 4 hours during a work day	\$300.00	Per Site Per Customer

VII. Private Utility Billing (Water/Wastewater)

Administrative Set Up Fee	\$1,000.00
Per Account	\$3.00
Administrative Fee- Rate Changes & Mailings	\$250.00 Plus Cost
Private Utility Listing	\$.10 per Account

VIII. Deposits

Meter Size	Deposit for Water	Deposit for Sewer
3/4"	\$100	\$100
1"	\$200	\$200
1.5"	\$340	\$340
2"	\$490	\$490
3"	\$1,080	\$1,080
4"	\$1,370	\$1,370
6"	\$2,740	\$2,740
8"	\$4,925	\$4,925
10"	\$7,685	\$7,685
12"	\$9,680	\$9,680

Standing Deposits(Contractors & Realtors)	\$500.00
3/4" Hydrant Meter Assembly	\$500.00
3" Hydrant Meter Assembly	\$2,000.00

## Water & Sewer - Continued

### IX. Miscellaneous Charges

Administrative Service Fee	\$40.00
Service Call Fee	\$50.00 per account (1st visit per account per year is at no charge - Does not apply to reconnect after disconnection)
Manual Meter-Read Fee	\$50.00 per manual read
Credit Letters/Property	\$5.00
Connect Fee	\$35.00
Non-Payment Fee	\$60.00
Late Fee	\$6.00 up to \$120.00 balance due \$6.00 + 5% of balance due >\$120.00 assessed 25th day from statement date
Lock Replacement Fee	\$6.00
Meter Test	\$65.00
After Hours, <del>Weekends and Holidays Service Call</del> Monday-Friday(except for Holidays)	
After 4:00 pm until 7:00 pm	\$55.00
After 7:00 pm	\$175.00
After Hours, <del>Weekends and Holidays Service Call</del>	
8:00 am until 7:00 pm	\$55.00
After 7:00 pm	\$175.00
Landlord Transfer Fee	\$20.00
Inspection fee prior to start of service:	
1st Visit	No Charge (Residential & Commercial)
Every visit after the 1st	\$60.00
Plan Review Fee of Developer's Project Plans	
Plans with main extension(s)	\$150.00 more than 100 lots
Plans with main extension(s)	\$100.00 less than 100 lots
Plans with no main extension(s)	\$50.00
Hydrant Flow Test Data	\$75.00 per test
Flush/Fill/Chlorinate	\$3.75 per 1,000 gallons
Plat Review Fee of Developer's Project Plans	
1st Review	No Charge
Every review after the 1st	\$50.00
<del>Tampering Fees—Meters, Water and Sewer Lines, Backflow Devices, Cross Connections, Water and Sewer Mains, Hydrants, Manholes and Unauthorized Sewer Dumping</del>	
<del>—Residential</del>	<del>\$150.00 per occurrence</del>
<del>—Commercial</del>	<del>\$525.00 per occurrence</del>
<del>—Mains, Hydrants &amp; Unauthorized Dumping</del>	<del>\$1,050.00 per occurrence</del>
Backflow Inspection Fee	
1st Visit	No Charge (Residential & Commercial)
Every visit after the 1st	\$60.00 (each time Residential & Commercial)
Hydrant Meter Test for damaged meters	\$100.00 plus cost of replacement parts
Meter Relocation Fee	
No new tap required	\$325.00 plus cost of materials
New tap required	See Tap Fees

## Water & Sewer - Continued

### X. Administrative Fees

Returned Payment	\$25.00 each
Copies (8 1/2 x 11)	\$0.10 per page

### XI. Administrative Fees - Continued

#### Monthly Fire Connection Charge (Sprinkler Head)

1" sprinkler connection	\$40.00 per month
1 1/2" sprinkler connection	\$45.00 per month
2" sprinkler connection	\$50.00 per month
4" sprinkler connection	\$60.00 per month
6" sprinkler connection	\$80.00 per month
8" sprinkler connection	\$150.00 per month
10" sprinkler connection	\$300.00 per month
12" sprinkler connection	\$450.00 per month

### XII. Map Fees

Map File Preparation \$35.00

Size	Color/Ortho	B/W/TOPO	Property Lines
8.5 x 11	\$5.00	\$3.00	\$2.00
11 x 17	\$8.00	\$5.00	\$2.00
24 x 36	\$20.00	\$10.00	\$6.00
36 x 48	\$25.00	\$15.00	\$8.00

### XIII. Service/Repair Fees

#### Materials:

Pipe and accessories will be charged out at the cost listed on the most current Onslow Water and Sewer Authority Inventory Sheet on file plus a 2% administrative fee.

#### Equipment Cost Per Hour:

Excavator	\$39.07
Trailer Equipment	\$16.99
Dump Truck (325 HP) (320HP)	\$73.31
Trencher (>85 HP)	\$29.85
Backhoe (>95 HP)	\$43.91
Line Truck (210 HP)	\$25.53
Pickup (130 HP)	\$11.75
Pump (>60 HP)	\$26.88
Light Tower	\$10.56
Asphalt Roller	\$12.84
Sewer Vac-Tron	\$86.29
Sewer Jetter (>100 HP)	\$60.00
Sewer Jet/Vac Combo Truck	\$88.16
Main Line Camera Equipment	\$14.00 per hour
Sewer Lateral Camera Equipment	\$3.00 per foot

Surface restorations-gravel, soil/erosion control \$200.00

Sewer Boring Charge-based on contract price per foot

Rental charges for additional equipment (if needed) will be charged at the rate ONWASA is paying to rent the equipment plus a 2% administrative fee.

**Water & Sewer - Continued**

**XIV. Service/Repair Fees - Continued**

**Labor and Benefits:**

Hourly Rate  
Average hourly rate + 30%

Overtime Rate  
Average hourly rate by 1.5 + 30%

**Water Loss Charges:**

Water charges are based on the following formula:

$Q(\text{GPM}) \times \text{time} = \text{Total Gallons}$

$\text{TGL} \times \$\text{Bulk Rate}/1,000 = \text{Total Water Loss Charges}$

\_\_\_\_\_  
Michael R. Bennett, Chairman

Adopted the \_\_\_\_ day of June 2023.

Attest:

\_\_\_\_\_  
Heather Norris, Clerk to the Board



onwasa.com

228 Georgetown Rd  
Jacksonville, NC 28540  
(910) 455-0722

### **PROPOSED SYSTEM DEVELOPMENT FEE CALCULATION**

Based on the System Development Fee Study and the Proposed CIP for 2023 the following is our Proposed System Development Fee Calculations:

<b>Meter Size</b>	<b>Water</b>	<b>Sewer</b>
3/4"	\$2,983	\$4,823
1"	\$4,971	\$9,912
1.5"	\$9,943	\$19,823
2"	\$15,907	\$31,717
3"	\$31,814	\$63,435
4"	\$49,710	\$99,117
6"	\$99,419	\$198,232
8"	\$159,071	\$317,172
10"	\$238,606	\$455,936

The water fee calculations remain the same as what was previously presented and advertised based on our updated 2023 CIP as it relates to our Water Infrastructure needs over the next 5-10 years.

For the sewer fee calculations, we are using the lower of the three scenarios presented to the Board since we are currently proceeding with the Pluris Acquisition Project. In addition to that we are recommending that we phase in the 3/4" increase over five years. For this year we reflected half of the total increase which was \$1023 for a new fee of \$4823. We will be recommending that the remaining increase be spread over the next four years at a rate of \$255 per year. For the remaining water meter sizes, we left them in as calculated. If for some reason ONWASA proceeds with a different sewer scenario, we can update the rate increase plan next year, so long as we remain lower than the Base CIP Scenario that we advertised.



April 21, 2023

Mr. Franky Howard  
Chief Executive Officer  
Onslow Water and Sewer Authority  
228 Georgetown Road  
Jacksonville, NC 28540

**Subject: System Development Fee Study Update**

Dear Mr. Howard:

Raftelis Financial Consultants, Inc. (“Raftelis”) has completed an evaluation to develop cost-justified water and sewer system development fees for fiscal year (“FY”) 2024 for consideration by the Onslow Water and Sewer Authority (“Authority” or “ONWASA”). This report documents the results of the analysis, which was based on an approach for establishing system development fees set forth in North Carolina General Statute 162A Article 8 – “System Development Fees.” The purpose of this report is to summarize Raftelis’ conclusion related to cost justified water and sewer system development fees. It is not intended to address anything else associated with the system development fees, such as the administration of these fees, etc.

The preparation of this report was developed by Raftelis for ONWASA based on a specific scope of work agreed to by both parties. The scope of Raftelis’ work consisted of completing a calculation of cost justified water and sewer system development fees using common industry practices and industry standards. We provide no opinion on the legality of the system development fees implemented by the Authority. It is the responsibility of the Authority to ensure compliance of the system development fees with North Carolina General Statute 162A Article 8 – “System Development Fees.”. The scope of work does did not include any additional work other than the calculation associated with the system development fees, such as opinions or recommendations on the administration of these fees, the timing and use application of revenues from the collection of these fees, etc., as that is the responsibility of the Authority.

In developing the conclusions contained within this report, Raftelis has relied on certain assumptions and information provided by ONWASA, who is most knowledgeable of the water and sewer system, its finances, etc. Raftelis has not independently verified the accuracy of the information provided by the Authority. We believe such sources are reliable and the information obtained to be reasonable and appropriate for the analysis undertaken and the conclusions reached. The conclusions contained in this report are as of the stated date, for a specific use and purpose, and made under specific assumptions and limiting conditions. The reader is cautioned and reminded that the conclusions presented in this report apply only as to the effective date indicated. Raftelis makes no warranty, expressed or implied, with respect to the opinions and conclusions contained in this report. Any statement in this report involving estimates or matters of opinion, whether or not specifically designated, are intended as such, and not as representation of fact.

## Onslow Water and Sewer Authority

### Background

System development fees are one-time charges assessed to new water and/or sewer customers for their use of system capacity and serve as an equitable method by which to recover up-front system capacity costs from those using the capacity. North Carolina General Statute 162A Article 8 (“Article 8”) provides for the uniform authority to implement system development fees for public water and sewer systems in North Carolina and was passed by the North Carolina General Assembly and signed into law on July 20, 2017 and was modified by Session Law 2021-76 and House Bill 344, which was approved on July 2, 2021. According to the statute, system development fees are required to be adopted in accordance with the conditions and limitations of Article 8, and the fees are required to conform to the requirements set forth in the Article no later than July 1, 2018.<sup>1</sup> In addition, the system development fees must also be prepared by a financial professional or licensed professional engineer, qualified by experience and training or education, who, according to the Article, shall:

- Document in reasonable detail the facts and data used in the analysis and their sufficiency and reliability.
- Employ generally accepted accounting, engineering, and planning methodologies, including the buy-in, incremental cost or marginal cost, and combined cost methods for each service, setting forth appropriate analysis to the consideration and selection of an approach appropriate to the circumstances and adapted as necessary to satisfy all requirements of the Article.
- Document and demonstrate the reliable application of the methodologies to the facts and data, including all reasoning, analysis, and interim calculations underlying each identifiable component of the system development fee and the aggregate thereof.
- Identify all assumptions and limiting conditions affecting the analysis and demonstrate that they do not materially undermine the reliability of conclusions reached.
- Calculate a final system development fee per service unit of new development and include an equivalency or conversion table for use in determining the fees applicable for various categories of demand.
- Consider a planning horizon of not less than five years, nor more than 20 years.
- Use the gallons per day per service unit that the local government unit applies to its water or sewer system engineering for planning purposes for water or sewer, as appropriate, in calculating the system development fee.

This letter report documents the results of the calculation of water and sewer system development fees for FY 2024 in accordance with these requirements. In general, system development fees are calculated based on (1) a cost analysis of the existing or planned infrastructure that is in place, or will be constructed, to serve new capacity demands, and (2) the existing or additional capacity associated with these assets. Article 8 is relatively explicit in the identification of infrastructure assets that may be included as part of the system development fee calculation, as the Article defines allowable assets to include the following types, as provided in Section 201:

*“A water supply, treatment, storage, or distribution facility, or a wastewater collection, treatment, or disposal facility providing a general benefit to the area that facility serves and is owned or operated, or to be owned or*

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## Onslow Water and Sewer Authority

*operated, by a local governmental unit. This shall include facilities for the reuse or reclamation of water and any land associated with the facility.”*

Therefore, the method used to calculate system development fees for ONWASA included system facility assets that satisfied this definition.

Article 8 references three methodologies that could be used to calculate system development fees. These include the buy-in method, the incremental cost method, and the combined cost method. A description of each of these methods is included in the following paragraphs:

### Capacity Buy-In Method:

Under the Capacity Buy-In Method, a system development fee is calculated based on the proportional cost of each user's share of existing system capacity. This approach is typically used when existing facilities can provide adequate capacity to accommodate future growth. The cost of capacity is derived by dividing the estimated value of existing facilities by the current capacity provided by existing facilities. Adjustments to the value of existing facilities are made for developer contributed assets, grant funds, and outstanding debt.

### Incremental Cost Method:

Under the Incremental Cost (or Marginal Cost) Method, a system development fee is calculated based on a new customer's proportional share of the incremental future cost of system capacity. This approach is typically used when existing facilities have limited or no capacity to accommodate future growth. The cost of capacity is calculated by dividing the total cost of growth-related capital investments by the additional capacity provided as a result of the investments.

### Combined Method:

Under the Combined Method, a system development fee is calculated based on the blended value of both the existing and expanded system capacity. As such, it is a combination of the Capacity Buy-In and Incremental Cost methods. This method is typically used when existing facilities provide adequate capacity to accommodate a portion of the capacity needs of new customers, but where significant investment in new facilities to address a portion of the capacity needs of future growth is also anticipated, or where some capacity is available in parts of the existing system, but incremental capacity will be needed for other parts of the system to serve new customers at some point in the future.

The Combined method was used to calculate the water and sewer system development fees for ONWASA, since in general, the Authority's existing water and sewer treatment facilities have some capacity to accommodate anticipated future growth over the near term, and the capital improvements projects are adding additional capacity to serve new customers. The following steps were completed to calculate the fees under the Combined Method:

1. The replacement value of existing system facilities was calculated, and adjustments were made to derive a net replacement value estimate in accordance with Article 8. Adjustments to the calculated replacement value included deducting accumulated depreciation, developer contributions, and a portion of outstanding debt. The growth-related capital improvement projects were incorporated into the total system value, making adjustments to the calculated value to account for future debt to fund the projects. A combined net system value was calculated by adding together the net system asset replacement value (net of contributions) and the growth-related capital spending (net of grants), and subtracting the current outstanding principal and the future borrowing net present value.

## Onslow Water and Sewer Authority

2. The unit cost of system capacity was estimated by dividing the calculated system value from step 3 by the total capacity of the system. This includes the current capacity of the system (minus any capacity reserved for others by contract) plus any capacity added by the capital projects.
3. The amount of capacity assumed to be demanded by one service unit of new development was identified. One equivalent residential unit (“ERU”) was defined as the smallest service unit of new development.
4. The system development fee for one service unit of development was calculated by multiplying the cost per unit of system capacity by the capacity associated with one ERU, as defined below.
5. The calculated system development fee for one ERU was scaled for different categories of demand. Meter capacity ratios were used to scale system development fees from a base meter size, or the smallest unit of new development (one ERU), to different categories of demand, as defined by the different customer meter sizes.

## Calculation of System Development Fees

### *Step 1 – Estimate the System Value and Apply Adjustments*

A listing of fixed assets provided by ONWASA, as of June 30, 2022, was reviewed and each individual asset was categorized into one of the categories shown in Table 1. General assets, such as those related to administrative buildings, certain rolling stock, and certain equipment items were not directly attributable to a specific category. As a result, these assets were categorized as “Other Non-Core Assets.” These assets were excluded from the calculation of system value as these assets were not specifically identified as allowable under Article 8. Excluded assets included those relating to administrative and miscellaneous type buildings, rolling stock, and various types of equipment.

**Table 1. Fixed Asset Categories by System**

<b>Water System</b>	<b>Sewer System</b>
Treatment	Treatment
Land	Land
Distribution	Collection
Meters	
Vehicles	Vehicles
Easements	Easements
Other Non-Core Assets	Other Non-Core Assets

Next, the replacement value of existing assets in allowable categories was estimated. Each asset’s original cost, as contained in the fixed asset listing provided by the Authority, was escalated to 2023 dollars based on the year the asset was purchased and the corresponding escalation factor for that year. Escalation factors for each year were developed using the Handy-Whitman Index (“HWI”) for the South Atlantic Region, which provides an annual index value representing the relative change in costs for each year from 1908 to 2023. Using the HWI to estimate an asset’s current replacement cost is an industry accepted method by which to value system facilities.

## Onslow Water and Sewer Authority

The replacement costs of the assets were adjusted by their indexed accumulated depreciation to derive the replacement cost new less accumulated depreciation (“RCNLD”) amounts. The estimated RCNLD values for water and sewer system assets allowable under Article 8 are summarized in Table 2.

As shown in Table 2, the RCNLD value of the water system was estimated to be approximately \$135 million, and the RCNLD value of the sewer system was estimated to be approximately \$190 million. Several additional adjustments were made to the estimated water and sewer system RCNLD values in accordance with Article 8, which included adjustments for meters, vehicles, other non-core assets, developer contributed assets, and a portion of outstanding debt, as described below.

### Non-Core and Developer Contributed Assets:

Assets such as meters, vehicles and easements are not allowable under Article 8, and as such are excluded from the total system value used in the fee calculation. Additionally, the listing of fixed assets was reviewed to identify assets that were contributed, or paid for, by developers. ONWASA tracks assets that were contributed by developers and identifies them in the fixed asset register as such. These assets were subtracted from the RCNLD value, as these assets do not represent an investment in system capacity by the Authority. The total RCNLD value of the non-core and contributed water and sewer system assets was estimated to be approximately \$42 million and \$64 million, respectively.

### Growth Related Capital Spending

The other component of the system value when utilizing the Combined Method is the growth-related capital spending. ONWASA staff provided us with the capital improvements plan for the next 10 years, as well as which projects are growth related, capacity added, and funding sources for each project. The growth-related portion of the spending is incorporated into the system value, with revenue credit given for future borrowing, as discussed below. For the Authority, \$177 million of growth-related water capital spending, and approximately \$47 million of growth-related sewer capital spending were added to the system value. The total system value used in the fee calculation including capital spending is shown in Table 2 below.

**Table 2. Water and Sewer System Value**

<b>Description</b>	<b>Water</b>	<b>Sewer</b>
Assets (RCNLD)	\$135,030,983	\$189,874,597
Less: Non-Core Assets/ Contributed Capital	-\$41,981,580	-\$64,212,467
Total Net Assets RCNLD	\$93,049,403	\$125,662,130
Plus: Growth Related CIP	\$177,263,425	\$46,610,810
Total System Value Before Credits	\$270,312,828	\$172,272,940

### Debt Credit

Article 8 specifies that the buy-in calculation should be determined using generally accepted methods, including the consideration of debt credits and other generally accepted valuation adjustments. Article 8 also states that in applying the incremental cost or the combined cost methods to calculate a system development fee, the analysis must include a credit against the projected aggregate cost of capital improvements and that in no case shall the credit be less than 25 percent of the aggregate cost of capital

## Onslow Water and Sewer Authority

improvements. In calculating the system development fees for ONWASA, a debt credit was included in the calculation as described below.

The debt credit is applied to reflect that a portion of the outstanding debt associated with the system facilities will be repaid with water and sewer user charges and a portion will be repaid with system development fee revenues. An adjustment was made to prevent recovering the cost of the assets twice, once when assessing system development fees to new customers, and then again when these customers pay user charges.

The amount of the credit was calculated by first identifying the amount of existing outstanding debt attributable to both the water and sewer systems that funded qualifying assets. Then, the debt identified as funding growth-related projects was estimated over 30 years with an interest of 4.5%. The net present value (NPV) was then calculated on the projected principal of each issue, using the current weighted average cost of debt of 4.1%. A summary of the debt credits is provided in Table 3.

**Table 3. Debt Credit**

<b>Description</b>	<b>Water</b>	<b>Sewer</b>
Outstanding Principal	-\$17,482,362	-\$39,687,417
NPV Of Future Debt	-\$79,421,991	-\$18,731,548
Total Credit	-\$96,904,352	-\$58,418,964

The resulting adjustments to the water and sewer system values are shown in Table 4.

**Table 4. Calculation of Net Water and Sewer System Value**

<b>Description</b>	<b>Water</b>	<b>Sewer</b>
System Facilities RCNLD	\$135,030,983	\$189,874,597
Less: Non-Core/Contributed Assets	-41,981,580	-64,212,467
Plus: Growth CIP	+177,263,425	+46,610,810
Less: Debt Credit/Revenue Credit	<u>-96,904,352</u>	<u>-58,418,964</u>
Net System Value	\$173,408,475	\$113,853,976

### *Step 2 – Calculate the Unit Cost of System Capacity*

The cost per unit of system capacity was calculated by dividing the adjusted system values (derived in Step 1) by the water and sewer system capacities. The treatment capacity of the water system is currently 11.44 million gallons per day (“MGD”). Additionally, the Authority will be adding 6 MGD of capacity with the capital expansion projects, for a total water system capacity of 17.44 MGD. Therefore, the cost per unit of system capacity for the water system was calculated to be \$9.94 per gallon per day ( $\$173,408,475 \div 17.44 \text{ MGD}$ ).

The treatment capacity of the sewer system is 3.754MGD, but the capital expansion projects are necessary to access the full treatment capacity of the existing system for future growth. Therefore, the cost per unit of system capacity for the sewer system was calculated to be \$30.33 per gallon per day ( $\$113,853,976 \div 3.754 \text{ MGD}$ ).

## Onslow Water and Sewer Authority

### *Step 3 – Estimate the Amount of Capacity Per Service Unit of New Development*

Section 205 of Article 8 states that the system development fee calculation “...use the gallons per day per service unit that the local governmental unit applies to its water or sewer system engineering for planning purposes for water or sewer, as appropriate, in calculating the system development fee.” For the water and sewer system, one ERU of peak day capacity was defined to be 300 gallons per day (“GPD”) for single-family customers. This information was provided by staff and is based on data from the NCDHEC planning estimates which assigns 120 gallons per day per bedroom. The ERU of 300 gallons is derived assuming the average gallons per day per bedroom for a 2 and 3 bedroom house.

### *Step 4 – Calculate the System Development Fee for One ERU*

The system development fee for one ERU was calculated by multiplying the unit cost of capacity from Step 2 by the capacity demanded by one ERU from Step 3. The calculations are provided in Table 5.

**Table 5. Calculation of Water and Sewer System Development Fees for One ERU – Single-Family**

<b>Description</b>	<b>Water</b>	<b>Sewer</b>
Net System Value	\$173,408,475	\$113,853,976
System Capacity (MGD)	17.44	3.75
Unit Cost of Capacity (\$ / gallon per day)	\$9.94	\$30.33
Capacity Required for 1 ERU (gallons per day)	300	300
System Development Fee per ERU	\$2,983	\$9,099

### *Step 5 – Scale the System Development Fees for Various Categories of Demand*

The system development fees for various categories of demand (for non-residential customers) were scaled using water meter capacity ratios. The scaling factors were based on rated meter capacities for each meter size, as published by the American Water Works Association in Principles of Water Rates, Fees, and Charges.<sup>2</sup> The meter scaling factors are shown in

<sup>2</sup> Manual of Water Supply Practices (M1), Principles of Water Rates, Fees, and Charges, American Water Works Association, 7th Edition, Table VII.2-5 on p. 338.

**Onslow Water and Sewer Authority**

Table 6 and the resulting system development fees scaled by meter size are shown in Table 7.

## Onslow Water and Sewer Authority

**Table 6. Meter Capacities and Scaling Factors by Meter Size**

Meter Size	Scaling Factor
3/4"	1.0
1"	1.7
1.5"	3.3
2"	5.3
3"	10.7
4"	16.7
6"	33.3
8"	53.3
10"	80.0

**Table 7. Maximum Cost-Justified Water and Sewer System Development Fees by Meter Size for Single-Family Residential Customers and Non-Residential Customers**

Meter Size	Water Fee	Sewer Fee
3/4"	\$ 2,983	\$ 9,099
1"	\$ 4,971	\$ 15,165
1.5"	\$ 9,943	\$ 30,328
2"	\$ 15,907	\$ 48,525
3"	\$ 31,814	\$ 97,053
4"	\$ 49,710	\$ 151,644
6"	\$ 99,419	\$ 303,286
8"	\$ 159,071	\$ 485,259
10"	\$ 238,606	\$ 697,561

The water and sewer system development fees shown in Table 7 represent the maximum cost-justified level of system development fees that can be assessed by ONWASA per Article 8. If the Authority chooses to assess fees that are less than those shown in the tables, the adjustments need to be reflected consistently across all categories of demand.

We appreciate the opportunity to assist the Onslow Water and Sewer Authority with this important engagement. Should you have questions, please do not hesitate to contact me at (704) 373-1199.

Very truly yours,

RAFTELIS FINANCIAL CONSULTANTS, INC.



**Elaine Conti**

*Executive Vice President*



Fiscal Year 2023 - 2024  
Proposed Rate and Fee Schedule

**Water**

**I. Residential & Commercial Customers**

Base Water Charges*		
Meter Size	<del>Base Charge</del>	Base Charge
3/4"	<del>\$16.00</del>	\$17.28
1"	<del>\$39.96</del>	\$43.16
1.5"	<del>\$79.86</del>	\$86.26
2"	<del>\$127.72</del>	\$137.94
2.5"	<del>\$191.64</del>	\$206.97
3"	<del>\$255.50</del>	\$275.94
4"	<del>\$399.22</del>	\$431.16
6"	<del>\$798.44</del>	\$862.31

\*For service through a Master Meter (including Multi Users) the fixed charges per unit shall assume a 3/4 inch meter; 3/4" meter charges apply to all residential meters.

Note - NC GS 2008-143 states all water to an irrigation system must be provided through an individually metered connection unless the requirements are met under NC GS 143-355.4.

**II. User Fees**

Usage(Gallons)	<del>Water Meters 1,000 Gallons</del>	Water Meters 1,000 Gallons	<del>Irrigation Meters 1,000 Gallons</del>	Irrigation Meters 1,000 Gallons
First 3,000	<del>\$3.70</del>	\$3.99	<del>\$5.54</del>	\$5.98
Next 4,500	<del>\$3.83</del>	\$4.13	<del>\$5.73</del>	\$6.18
Next 7,500	<del>\$4.95</del>	\$5.34	<del>\$7.44</del>	\$8.04
Next 10,000	<del>\$6.46</del>	\$6.98	<del>\$9.70</del>	\$10.49
Over 25,000	<del>\$7.58</del>	\$8.19	<del>\$11.41</del>	\$12.32

**Bulk Meter** ~~\$4.95 per 1,000 gallons~~ \$5.35 per 1,000 gallons

**Master Meter (including Multi Users):** ~~\$4.95 per 1,000 gallons~~ \$5.35 per 1,000 gallons

**Sewer Bulk Fee** ~~\$5.25 per 1,000 gallons~~ \$5.67 per 1,000 gallons

**Volunteer Fire & Rescue Squads Primary Operations Building (water & sewer each):**

0-20,000 gallons \$1.00 Flat Rate  
Over 20,000 gallons Follow the applicable rates above

**Sewer**

**III. Residential & Commercial Customers**

User Fees**		Base Sewer Charges*		
<del>Rate per 1,000 Gallons</del>	Rate per 1,000 Gallons	Meter Size	<del>Base Charge</del>	Base Charge
<del>\$7.38</del>	\$7.97	3/4"	<del>\$26.00</del>	\$28.08
<del>\$7.38</del>	\$7.97	1"	<del>\$65.18</del>	\$70.39
<del>\$7.38</del>	\$7.97	1.5"	<del>\$130.02</del>	\$140.42
<del>\$7.38</del>	\$7.97	2"	<del>\$208.04</del>	\$224.68
<del>\$7.38</del>	\$7.97	3"	<del>\$415.09</del>	\$448.30
<del>\$7.38</del>	\$7.97	4"	<del>\$647.48</del>	\$699.28

\*For service through a Master Meter (including Multi Users) the fixed charges per unit shall assume a 3/4 inch meter; 3/4" meter charges apply to all residential meters.

\*\*No sewer charges are billed for meters exclusively used for irrigation.

**Water & Sewer**

**IV. Tap Installation Fees**

Water		
Tap Size	Fee	
3/4 x 5/8 tap	\$1,620.00	
1"	\$1,910.00	
1-1/2" & above	\$1,100 + Materials	
Sewer		
Tap Size	Fee	Fee
4" Residential Only	\$1,190 + Materials	Cost + 10%

**V. System Development Fees**

Meter Size	Water	Water*	Sewer	Sewer*
3/4"	<del>\$2,032</del>	\$2,983	<del>\$3,700</del>	\$4,823
1"	<del>\$3,386</del>	\$4,971	<del>\$6,167</del>	\$9,912
1.5"	<del>\$6,773</del>	\$9,943	<del>\$12,333</del>	\$19,823
2"	<del>\$10,836</del>	\$15,907	<del>\$19,733</del>	\$31,717
3"	<del>\$21,672</del>	\$31,814	<del>\$39,467</del>	\$63,435
4"	<del>\$33,863</del>	\$49,710	<del>\$61,667</del>	\$99,117
6"	<del>\$67,725</del>	\$99,419	<del>\$123,333</del>	\$198,232
8"	<del>\$108,360</del>	\$159,071	<del>\$197,333</del>	\$317,172
10"	<del>\$162,540</del>	\$238,606	<del>\$283,667</del>	\$455,936

\* subject to change based on final CIP approval

**VI. Water or Sewer Tap Inspection Fees**

On site less than 4 hours during a work day	\$150.00	Per Site Per Customer
On site more than 4 hours during a work day	\$300.00	Per Site Per Customer

**VII. Private Utility Billing (Water/Wastewater)**

Administrative Set Up Fee	\$1,000.00
Per Account	\$3.00
Administrative Fee- Rate Changes & Mailings	\$250.00 Plus Cost
Private Utility Listing	\$.10 per Account

**VIII. Deposits**

Meter Size	Deposit for Water	Deposit for Sewer
3/4"	\$100	\$100
1"	\$200	\$200
1.5"	\$340	\$340
2"	\$490	\$490
3"	\$1,080	\$1,080
4"	\$1,370	\$1,370
6"	\$2,740	\$2,740
8"	\$4,925	\$4,925
10"	\$7,685	\$7,685
12"	\$9,680	\$9,680

Standing Deposits(Contractors & Realtors)	\$500.00
3/4" Hydrant Meter Assembly	\$500.00
3" Hydrant Meter Assembly	\$2,000.00

## Water & Sewer - Continued

### IX. Miscellaneous Charges

Administrative Service Fee	\$40.00
Service Call Fee	\$50.00 per account (1st visit per account per year is at no charge - Does not apply to reconnect after disconnection)
Manual Meter-Read Fee	\$50.00 per manual read
Credit Letters/Property	\$5.00
Connect Fee	\$35.00
Non-Payment Fee	\$60.00
Late Fee	\$6.00 up to \$120.00 balance due \$6.00 + 5% of balance due >\$120.00 assessed 25th day from statement date
Lock Replacement Fee	\$6.00
Meter Test	\$65.00
After Hours, <del>Weekends and Holidays Service Call</del> Monday-Friday(except for Holidays)	
After 4:00 pm until 7:00 pm	\$55.00
After 7:00 pm	\$175.00
After Hours, <del>Weekends and Holidays Service Call</del>	
8:00 am until 7:00 pm	\$55.00
After 7:00 pm	\$175.00
Landlord Transfer Fee	\$20.00
Inspection fee prior to start of service:	
1st Visit	No Charge (Residential & Commercial)
Every visit after the 1st	\$60.00
Plan Review Fee of Developer's Project Plans	
Plans with main extension(s)	\$150.00 more than 100 lots
Plans with main extension(s)	\$100.00 less than 100 lots
Plans with no main extension(s)	\$50.00
Hydrant Flow Test Data	\$75.00 per test
Flush/Fill/Chlorinate	\$3.75 per 1,000 gallons
Plat Review Fee of Developer's Project Plans	
1st Review	No Charge
Every review after the 1st	\$50.00
<del>Tampering Fees—Meters, Water and Sewer Lines, Backflow Devices, Cross Connections, Water and Sewer Mains, Hydrants, Manholes and Unauthorized Sewer Dumping</del>	
<del>—Residential</del>	<del>\$150.00 per occurrence</del>
<del>—Commercial</del>	<del>\$525.00 per occurrence</del>
<del>—Mains, Hydrants &amp; Unauthorized Dumping</del>	<del>\$1,050.00 per occurrence</del>
Backflow Inspection Fee	
1st Visit	No Charge (Residential & Commercial)
Every visit after the 1st	\$60.00 (each time Residential & Commercial)
Hydrant Meter Test for damaged meters	\$100.00 plus cost of replacement parts
Meter Relocation Fee	
No new tap required	\$325.00 plus cost of materials
New tap required	See Tap Fees

## Water & Sewer - Continued

### X. Administrative Fees

Returned Payment	\$25.00 each
Copies (8 1/2 x 11)	\$0.10 per page

### XI. Administrative Fees - Continued

#### Monthly Fire Connection Charge (Sprinkler Head)

1" sprinkler connection	\$40.00 per month
1 1/2" sprinkler connection	\$45.00 per month
2" sprinkler connection	\$50.00 per month
4" sprinkler connection	\$60.00 per month
6" sprinkler connection	\$80.00 per month
8" sprinkler connection	\$150.00 per month
10" sprinkler connection	\$300.00 per month
12" sprinkler connection	\$450.00 per month

### XII. Map Fees

Map File Preparation \$35.00

Size	Color/Ortho	B/W/TOPO	Property Lines
8.5 x 11	\$5.00	\$3.00	\$2.00
11 x 17	\$8.00	\$5.00	\$2.00
24 x 36	\$20.00	\$10.00	\$6.00
36 x 48	\$25.00	\$15.00	\$8.00

### XIII. Service/Repair Fees

#### Materials:

Pipe and accessories will be charged out at the cost listed on the most current Onslow Water and Sewer Authority Inventory Sheet on file plus a 2% administrative fee.

#### Equipment Cost Per Hour:

Excavator	\$39.07
Trailer Equipment	\$16.99
Dump Truck (325 HP) (320HP)	\$73.31
Trencher (>85 HP)	\$29.85
Backhoe (>95 HP)	\$43.91
Line Truck (210 HP)	\$25.53
Pickup (130 HP)	\$11.75
Pump (>60 HP)	\$26.88
Light Tower	\$10.56
Asphalt Roller	\$12.84
Sewer Vac-Tron	\$86.29
Sewer Jetter (>100 HP)	\$60.00
Sewer Jet/Vac Combo Truck	\$88.16
Main Line Camera Equipment	\$14.00 per hour
Sewer Lateral Camera Equipment	\$3.00 per foot

Surface restorations-gravel, soil/erosion control \$200.00

Sewer Boring Charge-based on contract price per foot

Rental charges for additional equipment (if needed) will be charged at the rate ONWASA is paying to rent the equipment plus a 2% administrative fee.

**Water & Sewer - Continued****XIV. Service/Repair Fees - Continued****Labor and Benefits:****Hourly Rate**

---

Average hourly rate + 30%**Overtime Rate**

---

Average hourly rate by 1.5 + 30%**Water Loss Charges:**

Water charges are based on the following formula:

$Q(\text{GPM}) \times \text{time} = \text{Total Gallons}$

$\text{TGL} \times \$\text{Bulk Rate}/1,000 = \text{Total Water Loss Charges}$

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Michael R. Bennett, Chairman

Adopted the \_\_\_\_ day of June 2023.

Attest:

---

Heather Norris, Clerk to the Board

No.	Project Description	Type	Service Area	YEARS 1-5 CAPITAL IMPROVEMENT NEEDS					YEARS 6 - 10	Project Total
				FY23	FY24	FY25	FY26	FY27	FY28-32	
<b>Buildings/Misc. Operational Projects</b>										
CIP-002A	Laboratory Addition (C only)	R	Central Office	300,000						300,000
CIP-002B	Parts and Equipment Warehouse (C only)	R	Central Office	50,000						50,000
CIP-035	Water & Sewer Operational Improvements (D+C)	R	Various	600,000	1,500,000		1,500,000		4,500,000	8,100,000
N/A	Disaster Recovery Response Contracts (C only)	R	Various		1,000,000		1,000,000		3,000,000	5,000,000
CIP-001	Building Roof Replacements (D+C)	R	Various		\$357,157	\$250,000	\$250,000	\$250,000	\$500,000	\$1,607,157
CIP-011	Emergency Power Systems Upgrades (D+C)	R	Various		982,911	1,482,911	500,000	500,000	1,500,000	4,965,822
<b>WATER SYSTEM</b>										
<b>Raw Water and Monitoring Wells</b>										
CIP-010	ORWRG Aquifer Study Monitoring Wells (D+C)	R	Various			175,000		150,000	300,000	625,000
<b>Union Chapel WTP</b>										
CIP-025A	Union Chapel WTP Feasibility and New Well Sites (D+C)	E	Southwest	206,815	75,000	1,000,000	1,500,000	3,000,000	11,250,000	17,031,815
CIP-025B	Union Chapel Water Treatment Facility (D+C)	E	Southwest					36,000,000	96,000,000	132,000,000
<b>Water Distribution System - Renovation</b>										
CIP-032	Topsail Island Booster Pumping Station (D+C)	R	Stump Sound	50,000	1,683,180					1,733,180
CIP-017	Highway 24 Regional Trunk Water Main (D+C)	R	Swansboro	50,000	1,500,000	10,250,000	10,250,000			22,050,000
CIP-003	Water Main Interconnections, Phases 3 - 7 (D+C)	R	Various		300,000		500,000		1,500,000	2,300,000
CIP-037	Water Main Aerial Crossing Replacements, Phase 1 (D+C)	R	Various			1,238,741				1,238,741
CIP-004	SW Service Area Upgrades, Project 2 - Hwy 17 Trunk Main (D+C)	R	Southwest			250,000	500,000	5,100,000	16,200,000	22,050,000
CIP-018	Queens Creek Road Water Main Upgrades (D+C)	R	Swansboro						5,400,000	5,400,000
CIP-019	Rocky Run Road Water Main Upgrades (D+C)	R	White Oak						6,500,000	6,500,000
<b>WASTEWATER SYSTEM</b>										
<b>Northwest Regional Water Reclamation Facility</b>										
N/A	Hurricane Florence Recovery (C only)	R	Richlands		1,963,807					1,963,807
<b>Southeast Regional WWTPs</b>										
CIP-005	Summerhouse Interim Capacity Improvements (D+C)	R	Stump Sound	8,200	3,082,900					3,091,100
CIP-028	Capacity Improvements (Project To Be Determined)	E	Stump Sound							0
<b>Swansboro WWTP</b>										
CIP-006A	Hwy 24 Utility Improvements - Wastewater Force Main (D+C)	E	Swansboro	300,000	8,000,000	18,000,000	4,130,000			30,430,000

No.	Project Description	Type	Service Area	YEARS 1-5 CAPITAL IMPROVEMENT NEEDS					YEARS 6 - 10	Project Total
				FY23	FY24	FY25	FY26	FY27	FY28-32	
	<b>WASTEWATER SYSTEM (cont.)</b>									
	<b>Wastewater Collection System - Renovation</b>									
CIP-007	Heather Loop Road Gravity Sewer Improvements (C only)	R	White Oak	226,104						226,104
CIP-016	Pumping Station Assessments/Rehabilitation (D+C)	R	Various	132,200	500,000		1,000,000		3,000,000	4,632,200
CIP-033	Hargett Street & Shore Drive Pump Stations Rehabilitation (D+C)	R	Various		500,000	500,000				1,000,000
CIP-034	Piney Green Sewer Phase 2 - Hickory Grove Closure (C only)	R	White Oak		227,927					227,927
CIP-036	Mount Pleasant Road Pump Station Relocation (D+C)	R	Swansboro		178,030	1,000,000				1,178,030
	<b>Wastewater Collection System - Expansion</b>									
CIP-008	NW Plant - Kenwood/Bishops Ridge Service Extension (D+C)	E	Southwest						5,800,000	5,800,000
CIP-020	NW Plant - Liberty Park Road Service Extension (D+C)	E	Southwest						2,700,000	2,700,000
CIP-021	NW Plant - Hill Farms Service Extension (D+C)	E	Richlands						4,600,000	4,600,000
CIP-022	NW Plant - Denise Dr/Greystone Dr Service Extension (D+C)	E	Southwest						4,000,000	4,000,000
CIP-029	NW Plant - Plum Point Sewer Extension (D+C)	E	Southwest						4,400,000	4,400,000
CIP-030	Piney Green FM - Birchwood Park Service Extension (D+C)	E	White Oak						1,400,000	1,400,000
			<b>Totals</b>	\$1,923,319	\$21,850,912	\$34,146,652	\$21,130,000	\$45,000,000	\$172,550,000	\$296,600,883
							<b>Total: Years 1-5</b>	\$124,050,883		

Notes:

Chart does not reflect active projects funded in previous budget years.

All cost estimates are based on project information available at the time this report was prepared.

Actual costs for individual projects will not be final until contracts are awarded; estimated costs are for planning purposes only.

Type Codes: E - System Expansion Project R - Repair/Rehabilitation Project

D - Design, C - Construction



onwasa.com

228 Georgetown Rd  
 Jacksonville, NC 28540  
 (910) 455-0722

### **PROPOSED SYSTEM DEVELOPMENT FEE CALCULATION**

Based on the System Development Fee Study and the Proposed CIP for 2023 the following is our Proposed System Development Fee Calculations:

<b>Meter Size</b>	<b>Water</b>	<b>Sewer</b>
3/4"	\$2,983	\$4,823
1"	\$4,971	\$9,912
1.5"	\$9,943	\$19,823
2"	\$15,907	\$31,717
3"	\$31,814	\$63,435
4"	\$49,710	\$99,117
6"	\$99,419	\$198,232
8"	\$159,071	\$317,172
10"	\$238,606	\$455,936

The water fee calculations remain the same as what was previously presented and advertised based on our updated 2023 CIP as it relates to our Water Infrastructure needs over the next 5-10 years.

For the sewer fee calculations, we are using the lower of the three scenarios presented to the Board since we are currently proceeding with the Pluris Acquisition Project. In addition to that we are recommending that we phase in the 3/4" increase over five years. For this year we reflected half of the total increase which was \$1023 for a new fee of \$4823. We will be recommending that the remaining increase be spread over the next four years at a rate of \$255 per year. For the remaining water meter sizes, we left them in as calculated. If for some reason ONWASA proceeds with a different sewer scenario, we can update the rate increase plan next year, so long as we remain lower than the Base CIP Scenario that we advertised.

## EXHIBIT C

**From:** [Marc Rullo](#)  
**To:** [budgetcomment](#)  
**Subject:** Fw: Municipal Water Supply Challenges Norh Topsail Beach  
**Date:** Monday, June 12, 2023 2:47:27 PM

---

### Caution

**This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Marc

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**From:** Marc Rullo  
**Sent:** Monday, June 12, 2023 2:43 PM  
**To:** fhoward@onwasa.com <fhoward@onwasa.com>  
**Cc:** dmohr@onwasa.com <dmohr@onwasa.com>; dtaylor@onwasa.com <dtaylor@onwasa.com>  
**Subject:** Municipal Water Supply Challenges Norh Topsail Beach

Mr. Howard,

I am reaching out as a concerned citizen of the southeastern water supply area in North Topsail Beach.

As you prepare to present and push through your 2024 budget, you need to be prepared to work with the county on the municipal water infrastructure.

In the last two years there has been a explosion of construction of single and multiple unit homes being built on North Topsail Beach tapping into the existing municipal water supply. The ongoing population growth is outpacing the infrastructure capabilities of ONWASA by a significant measure! The existing water pressure has been lacking for more than 2 years prior to this explosive growth. I doubt that ONWASA is maintaining the legally required minimum pressure levels mandated by a public water supply.

When we reach out to your ONWASA customer relations group, they blame the seasonality of beach rentals and that the owners need to create their own solutions by installing booster pumps, etc. WHAT? This is unacceptable that the county is supporting runaway growth with massive property tax increases and no improvement to infrastructure or service, this is ridiculous. We understand there is a southeast pumpstation on the books for the area, but no online activation date is published.

We need accountable, proactive leadership in supporting the community with responsible infrastructure planning between the county and ONWASA budget for the next 3-5 years. The current situation is unacceptable and needs to be addressed.

Sent from [Mail](#) for Windows

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				FY23	FY24	FY25	FY26	FY27	FY28-32	
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CIP-036	Mount Pleasant Road Pump Station Relocation (D+C)	R	Swansboro		178,030	1,000,000				1,178,030
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			<b>Totals</b>	\$1,923,319	\$21,850,912	\$34,146,652	\$21,130,000	\$45,000,000	\$172,550,000	\$296,600,883
							<b>Total: Years 1-5</b>	\$124,050,883		

Notes:

Chart does not reflect active projects funded in previous budget years.

All cost estimates are based on project information available at the time this report was prepared.

Actual costs for individual projects will not be final until contracts are awarded; estimated costs are for planning purposes only.

Type Codes: E - System Expansion Project R - Repair/Rehabilitation Project

D - Design, C - Construction

**Onslow Water & Sewer Authority  
Budget Ordinance  
Fiscal Year 2023-2024**

**BE IT ORDAINED** by the Board of Directors of the Onslow Water & Sewer Authority, Jacksonville, North Carolina:

**SECTION I.** The following revenues are estimated to be available for the appropriations made for the Fiscal Year beginning July 1, 2023 and ending June 30, 2024:

<b>Revenue</b>	
Water Revenue	-
Sewer Revenue	\$26,103,100
System Development Fees - Water	6,227,491
System Development Fees - Wastewater	2,000,000
Operating Fees and Charges	1,500,000
Fund Balance Appropriated	2,758,073
Interest Income	4,936,780
Miscellaneous Income	750,000
<b>Total Revenue</b>	<u><u>\$44,323,444</u></u>
<b>Appropriations</b>	
Administrative Departments	\$11,393,819
Operations Departments	25,052,826
Transfer to Capital Projects	2,500,623
Debt Service	5,376,176
<b>Total Appropriations</b>	<u><u>\$44,323,444</u></u>

**SECTION II.** Pursuant to NCGS 159-13.2, the following appropriations are hereby made. Expenditures authorized by these appropriations may occur over multiple fiscal years. The following revenue is estimated to be available in the fiscal year the expenditures occur.

<b>Revenue</b>	
Fund 40 Capital Projects	-
Fund 42 Capital Projects	\$23,054,876
<b>Total Revenue</b>	<u><u>77,053,715</u></u>
<b>Appropriations</b>	
Building Roof Replacements	760,000
Disaster Recovery	1,000,000
Emergency Power Systems Upgrades	850,000
Hargett Street & Shore Drive Pump Station Rehabilitation	390,000
Heather Loop Road Gravity Sewer Improvements	288,715
Holly Ridge & Summerhouse WWTPs Capacity Assessment	31,750,000
HWY 24 Regional Trunk Main Replacement	15,000,000
Kenwood/Bishop's Ridge Sewer Service Extension	2,325,000
Laboratory	2,711,750
Northwest Regional WRF Hurricane Florence	11,724,839
Piney Green Sewer Phase II – Hickory Grove Lagoon closure	1,234,790
Pumping Station Assessment/Rehabilitation	850,000
Regional Aquifer Study	175,000
Southwest Service Area Upgrades Project II	3,500,000
Summerhouse WRF Interim Capacity Projects	1,132,000

Water and Sewer Operational Improvements	2,000,000
Swansboro WWTP Renovation or Replacement	19,450,000
Topsail Island Booster Station	1,500,000
Water Supply Planning and Development	1,988,247
Warehouse	1,178,250
Water Main Interconnections Phase II	300,000
<b>Total Appropriations</b>	<b><u>\$100,108,591</u></b>

**SECTION III.** The CEO/Executive Director (Budget Officer) is hereby authorized to transfer appropriations as contained in the line-item budget accounts under the following conditions:

- A. Budget Officer may transfer funds between line-item expenditures within a division or department as long as the original operating or capital project fund appropriation amount is not changed.
- B. Budget Officer may transfer funds between divisions as long as the original fund appropriation amount is not changed. An official report of any transfers must be made to the Board of Directors at its next regular meeting following any transfers.
- C. Budget Officer may not transfer any amounts between funds, except as approved by the Board of Directors by an amendment to the Budget Ordinance.
- D. Budget Officer shall at each regular Board Meeting provide a line-item Budget Revenue and Summary Expenditure report showing the prior month's fiscal activity and, in a form, so prescribed and accepted by the Board of Directors.
- E. Budget Officer may authorize and execute purchases, contract change orders and contracts for services not to exceed the dollar thresholds for formal bids set forth in the North Carolina Public Contracting Statutes for any one purchase, change order or service contract without the prior approval of the Board of Directors.
- F. Budget Officer shall authorize an ONWASA funded 401K match, not to exceed 3% for each contributing employee.
- G. Budget Officer shall implement a 4% COLA to the Pay Plan to include all active employees effective the first full pay period in July 2023.
- H. Budget Officer shall update the ONWASA Pay Plan to include 2.5% steps to facilitate the new structured employee merit program.

**SECTION IV.** Copies of the Budget Ordinance, the line-item chart of accounts, and the Organizational Chart shall be furnished to the CEO/Executive Director and Finance staff to be kept on file by them for their direction in the disbursement of funds in the name of the Onslow Water and Sewer Authority.

Adopted the 15<sup>th</sup> day of June 2023.

Attest:

*Heather Norris*

Heather Norris, Clerk to the Board



*Michael R Bennett*

Michael R Bennett, Chairman

# EXHIBIT D



## Fiscal Year 2023 - 2024 Rate and Fee Schedule

### Water

#### I. Residential & Commercial Customers

Base Water Charges*	
Meter Size	Base Charge
3/4"	\$17.28
1"	\$43.16
1.5"	\$86.26
2"	\$137.94
2.5"	\$206.97
3"	\$275.94
4"	\$431.16
6"	\$862.31

*\*For service through a Master Meter (including Multi Users) the fixed charges per unit shall assume a 3/4 inch meter; 3/4" meter charges apply to all residential meters.*

**Note** - NC GS 2008-143 states all water to an irrigation system must be provided through an individually metered connection unless the requirements are met under NC GS 143-355.4.

#### II. User Fees

Usage(Gallons)	Water Meters 1,000 Gallons	Irrigation Meters 1,000 Gallons
First 3,000	\$3.99	\$5.98
Next 4,500	\$4.13	\$6.18
Next 7,500	\$5.34	\$8.04
Next 10,000	\$6.98	\$10.49
Over 25,000	\$8.19	\$12.32

**Bulk Meter** \$5.35 per 1,000 gallons

**Master Meter (including Multi Users):** \$5.35 per 1,000 gallons

**Sewer Bulk Fee** \$5.67 per 1,000 gallons

**Volunteer Fire & Rescue Squads Primary Operations Building (water & sewer each):**

0-20,000 gallons \$1.00 Flat Rate

Over 20,000 gallons Follow the applicable rates above

### Sewer

#### III. Residential & Commercial Customers

User Fees**	Base Sewer Charges*	
Rate per 1,000 Gallons	Meter Size	Base Charge
\$7.97	3/4"	\$28.08
\$7.97	1"	\$70.39
\$7.97	1.5"	\$140.42
\$7.97	2"	\$224.68
\$7.97	3"	\$448.30
\$7.97	4"	\$699.28

*\*For service through a Master Meter (including Multi Users) the fixed charges per unit shall assume a 3/4 inch meter; 3/4" meter charges apply to all residential meters.*

**\*\*No sewer charges are billed for meters exclusively used for irrigation.**

## Water & Sewer

### IV. Tap Installation Fees

Water	
Tap Size	Fee
3/4 x 5/8 tap	\$1,620.00
1"	\$1,910.00
1-1/2" & above	\$1,100 + Materials
Sewer	
Tap Size	Fee
4" Residential Only	Cost + 10%

### V. System Development Fees

Meter Size	Water*	Sewer
3/4"	\$2,983	\$4,823
1"	\$4,971	\$9,912
1.5"	\$9,943	\$19,823
2"	\$15,907	\$31,717
3"	\$31,814	\$63,435
4"	\$49,710	\$99,117
6"	\$99,419	\$198,232
8"	\$159,071	\$317,172
10"	\$238,606	\$455,936

*\* subject to change based on final CIP approval*

### VI. Water or Sewer Tap Inspection Fees

On site less than 4 hours during a work day	\$150.00	Per Site Per Customer
On site more than 4 hours during a work day	\$300.00	Per Site Per Customer

### VII. Private Utility Billing (Water/Wastewater)

Administrative Set Up Fee	\$1,000.00
Per Account	\$3.00
Administrative Fee- Rate Changes & Mailings	\$250.00 Plus Cost
Private Utility Listing	\$.10 per Account

### VIII. Deposits

Meter Size	Deposit for Water	Deposit for Sewer
3/4"	\$100	\$100
1"	\$200	\$200
1.5"	\$340	\$340
2"	\$490	\$490
3"	\$1,080	\$1,080
4"	\$1,370	\$1,370
6"	\$2,740	\$2,740
8"	\$4,925	\$4,925
10"	\$7,685	\$7,685
12"	\$9,680	\$9,680

Standing Deposits(Contractors & Realtors)	\$500.00
3/4" Hydrant Meter Assembly	\$500.00
3" Hydrant Meter Assembly	\$2,000.00

### Water & Sewer - Continued

**IX. Miscellaneous Charges**

Administrative Service Fee	\$40.00
Service Call Fee	\$50.00 per account (1st visit per account per year is at no charge - Does not apply to reconnect after disconnection)
Manual Meter-Read Fee	\$50.00 per manual read
Credit Letters/Property	\$5.00
Connect Fee	\$35.00
Non-Payment Fee	\$60.00
Late Fee	\$6.00 up to \$120.00 balance due \$6.00 + 5% of balance due >\$120.00 assessed 25th day from statement date
Lock Replacement Fee	\$6.00
Meter Test	\$65.00
After Hours, Monday-Friday(except for Holidays)	
After 4:00 pm until 7:00 pm	\$55.00
After 7:00 pm	\$175.00
After Hours, Weekends and Holidays Service Call	
8:00 am until 7:00 pm	\$55.00
After 7:00 pm	\$175.00
Landlord Transfer Fee	\$20.00
Inspection fee prior to start of service:	
1st Visit	No Charge (Residential & Commercial)
Every visit after the 1st	\$60.00
Plan Review Fee of Developer's Project Plans	
Plans with main extension(s)	\$150.00 more than 100 lots
Plans with main extension(s)	\$100.00 less than 100 lots
Plans with no main extension(s)	\$50.00
Hydrant Flow Test Data	\$75.00 per test
Flush/Fill/Chlorinate	\$3.75 per 1,000 gallons
Plat Review Fee of Developer's Project Plans	
1st Review	No Charge
Every review after the 1st	\$50.00
Backflow Inspection Fee	
1st Visit	No Charge (Residential & Commercial)
Every visit after the 1st	\$60.00 (each time Residential & Commercial)
Hydrant Meter Test for damaged meters	\$100.00 plus cost of replacement parts
Meter Relocation Fee	
No new tap required	\$325.00 plus cost of materials
New tap required	See Tap Fees

## Water & Sewer - Continued

**X. Administrative Fees**

Returned Payment	\$25.00 each
Copies (8 1/2 x 11)	\$0.10 per page

**XI. Administrative Fees - Continued**

Monthly Fire Connection Charge (Sprinkler Head)	
1" sprinkler connection	\$40.00 per month
1 1/2" sprinkler connection	\$45.00 per month
2" sprinkler connection	\$50.00 per month
4" sprinkler connection	\$60.00 per month
6" sprinkler connection	\$80.00 per month
8" sprinkler connection	\$150.00 per month
10" sprinkler connection	\$300.00 per month
12" sprinkler connection	\$450.00 per month

**XII. Map Fees**

Map File Preparation \$35.00

Size	Color/Ortho	B/W/TOPO	Property Lines
8.5 x 11	\$5.00	\$3.00	\$2.00
11 x 17	\$8.00	\$5.00	\$2.00
24 x 36	\$20.00	\$10.00	\$6.00
36 x 48	\$25.00	\$15.00	\$8.00

**XIII. Service/Repair Fees****Materials:**

Pipe and accessories will be charged out at the cost listed on the most current Onslow Water and Sewer Authority Inventory Sheet on file plus a 2% administrative fee.

**Equipment Cost Per Hour:**

Excavator	\$39.07
Trailer Equipment	\$16.99
Dump Truck (325 HP) (320HP)	\$73.31
Trencher (>85 HP)	\$29.85
Backhoe (>95 HP)	\$43.91
Line Truck (210 HP)	\$25.53
Pickup (130 HP)	\$11.75
Pump (>60 HP)	\$26.88
Light Tower	\$10.56
Asphalt Roller	\$12.84
Sewer Vac-Tron	\$86.29
Sewer Jetter (>100 HP)	\$60.00
Sewer Jet/Vac Combo Truck	\$88.16
Main Line Camera Equipment	\$14.00 per hour
Sewer Lateral Camera Equipment	\$3.00 per foot

Surface restorations-gravel, soil/erosion control \$200.00

Sewer Boring Charge-based on contract price per foot

Rental charges for additional equipment (if needed) will be charged at the rate ONWASA is paying to rent the equipment plus a 2% administrative fee.

**Water & Sewer - Continued**

**XIV. Service/Repair Fees - Continued**

**Labor and Benefits:**

Hourly Rate  
Average hourly rate + 30%

Overtime Rate  
Average hourly rate by 1.5 + 30%

**Water Loss Charges:**

Water charges are based on the following formula:

$Q(\text{GPM}) \times \text{time} = \text{Total Gallons}$

$\text{TGL} \times \$\text{Bulk Rate}/1,000 = \text{Total Water Loss Charges}$

  
\_\_\_\_\_  
Michael R. Bennett, Chairman



Adopted the 15 day of June 2023.

Attest:

  
\_\_\_\_\_  
Heather Norris, Clerk to the Board

**BID TABULATION**  
**Disaster Response - Emergency Construction Services, 2023 Contracts**  
**Onslow Water and Sewer Authority**  
**BID DATE: May 19, 2023      TIME: 2:00 pm**

	A. C. Schultes of Carolina, Inc	State Utility Contractors, Inc
	354 Sawdust Rd	PO Box 5019
	Rocky Point, NC 28457	Monroe, NC 28111-5019
	License No. 48474	License No. 17793
<b>Total Base Bid (No Alternates)</b>	<b>\$533,505.00</b>	<b>\$830,300.00</b>

I hereby certify that the above is true and correct (to the best of my knowledge),  
tabulation of bids received on May 19, 2023.

  
\_\_\_\_\_  
Jeffrey T. Lohr, P.E. Engineering Manager  
Onslow Water and Sewer Authority



**ONSLow WATER & SEWER AUTHORITY  
DISASTER RESPONSE EMERGENCY CONSTRUCTION SERVICES**

**PROJECT ORDINANCE**

**BE IT ORDAINED** by the Board of Directors of Onslow Water & Sewer Authority (ONWASA) that, pursuant to Section 13.2 of Chapter 159 of the General Statutes of North Carolina, the following Disaster Response Emergency Construction Services Project is hereby adopted:

**Section I.**

The Disaster Response Emergency Construction Services Project shall consist of two single prime construction contracts that will be activated on an as-needed basis for the completion of emergency repairs to water and wastewater utility systems, in the event of a natural disaster or other catastrophic event within the ONWASA service area.

**Section II.**

The officers of Onslow Water & Sewer Authority are hereby directed to proceed with the Disaster Response Emergency Construction Services Project.

**Section III.**

The following revenue is anticipated to be available to complete the project:

Fund Balance	\$ 1,000,000
Total	<u>\$ 1,000,000</u>

**Section IV.**

The following amounts are appropriated for the project:

Construction	\$ 1,000,000
Total	<u>\$ 1,000,000</u>

**Section V.**

The Finance Officer is hereby directed to maintain within the Water & Sewer Fund sufficient specific detailed accounting records to provide the accounting required by federal and state regulations and in accordance with generally accepted accounting procedures.

**Section VI.**

The Finance Officer is directed to report monthly on the financial status of the project and on the total revenues received.

**Section VII.**

The Budget Officer is directed to include an analysis of past and future cost and revenues on this project as a part of every budget submission made to this Board.

**Section VIII.**

Copies of this Disaster Response Emergency Construction Services Project Ordinance shall be made available to the Budget Officer for direction in carrying out these projects.

Adopted this 16th day of May, 2019.



ON SLOW WATER & SEWER  
AUTHORITY BOARD OF  
DIRECTORS

---

Gregory Hines, Chairman

---

Heather Norris, Clerk to the Board

Project Ordinance  
Disaster Response Emergency Construction Services Project  
Budget Amendment  
May 16, 2019

## Budget Amendment – Fund 61 and 40

Department Number	General Ledger Name	General Ledger Number	Amount
	Revenue – Fund Balance Appropriated	3919940	\$ 1,000,000
9910	Transfer to Capital Projects	8000040	\$ 1,000,000
	Revenue – Transfer from Operating	3709981	\$ 1,000,000
8785	Expenditure - Construction	8855800	\$ 1,000,000

**STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
DIVISION OF WATER INFRASTRUCTURE**

**Funding Offer and Acceptance**

<b>Legal Name and Address of Award Recipient</b>	<b>Project Number:</b>	AIA-D-ARP-0111
Onslow Sewer and Water Authority 228 Georgetown Road Jacksonville, NC 28540	<b>Recipient's UEID#:</b>	J47ELEAMLTK1

<b>Drinking Water</b> <input checked="" type="checkbox"/>	<b>Wastewater</b> <input type="checkbox"/>	<b>Both</b> <input type="checkbox"/>	<b>Total Grant Offered</b>
<b>Distressed</b> <input type="checkbox"/>	<b>Not Distressed</b> <input checked="" type="checkbox"/>		
ARP Training Grant	<input type="checkbox"/>		
ARP Asset Inventory & Assessment Grant (AIA)	<input checked="" type="checkbox"/>		\$150,000
ARP Merger/Regionalization Feasibility Grant (MRF)	<input type="checkbox"/>		

<b>Project Description:</b>	<b>Total Financial Assistance Offer:</b>	<b>\$ 150,000</b>
Onslow Water System Master Plan		

*\*ARP-funded projects are exempt from both the grant fee and match requirements.*

Pursuant to North Carolina General Statute 159G:

- The applicant is eligible under Federal and State law,
- The project is eligible under Federal and State law, and
- The project has been approved by the Department of Environmental Quality as having sufficient priority to receive financial assistance,

The Department of Environmental Quality, acting on behalf of the State of North Carolina, hereby offers the financial assistance described in this document.

For The State of North Carolina: **Shadi Eskaf, Director, Division of Water Infrastructure  
North Carolina Department of Environmental Quality**

<i>Stephanie Suter for Shadi Eskaf</i>	5/10/2023
Signature	Date

On Behalf of:	<u>Onslow Water and sewer Authority</u>
Name of Representative in Resolution:	<u>Mr. Franky J. Howard</u>
Title (Type or Print):	<u>Chief Executive Officer</u>

I, the undersigned, being duly authorized to take such action, as evidenced by the attached CERTIFIED COPY OF AUTHORIZATION BY THE APPLICANT'S GOVERNING BODY, do hereby accept this Financial Award Offer and will comply with the Assurances and the Standard Conditions.

.....	.....
Signature	Date

**STANDARD CONDITIONS FOR ARP GRANTS**

1. Acceptance of this Funding Offer does not exempt the Recipient from complying with requirements stated in the U.S. Treasury's [Final Rule](#) for the Coronavirus State and Local Fiscal Recovery Funds (SLFRF) and the [SLFRF Compliance and Reporting Guidance](#) not explicitly referred to in this document and any future requirements implemented by the U.S Treasury.
2. Acquisition of Real Property must comply with all applicable provisions of the Uniform Relocation and Real Property Acquisition Policies Act of 1970 (PL 92-646), as amended. The Recipient shall certify that it has or will have a fee simple or such other estate or interest in the site of the project, including necessary easements and rights-of-way, to assure undisturbed use and possession for the purpose of construction and operation for the estimated life of the project using a certification form provided by DEQ.
3. Specific MBE/WBE (DBE) forms and instructions are provided that are to be included in the contract specifications. These forms will assist with documenting positive efforts made by recipients, their consultants, and contractors to utilize disadvantaged businesses enterprises. Such efforts should allow DBEs the maximum feasible opportunity to compete for subagreements and subcontracts to be performed. Documentation of efforts made to utilize DBE firms must be maintained by all recipients, and construction contractors, and made available upon request.
4. Subrecipients shall fully comply with Subpart C of 2 CFR Part 180 entitled, "Responsibilities of Participants Regarding Transactions Doing Business with Other Persons," as implemented and supplemented by 2 CFR Part 1532. Recipient is responsible for ensuring that any lower tier covered transaction, as described in Subpart B of 2 CFR Part 180, entitled "Covered Transactions," includes a term or condition requiring compliance with Subpart C. Recipient is responsible for further requiring the inclusion of a similar term or condition in any subsequent lower tier covered transactions. Subrecipients may access suspension and debarment information at: <http://www.sam.gov>. This system allows subrecipients to perform searches determining whether an entity or individual is excluded from receiving Federal assistance.
5. Projects with a total cost of \$10,000,000 or more must meet U.S. Treasury requirements for prevailing wage rates, project labor agreements, and related requirements. Recipients can either certify meeting the requirements or provide plans and reports as the [SLFRF Compliance and Reporting Guidance](#) specifies.
6. The Uniform Guidance 2 CFR 200.317 through 2 CFR 200.327 gives minimum requirements for procurement, with 2 CFR 200.319(b) addressing engineering services procurement guidelines. ARP-funded projects must also adhere to North Carolina State law, specifically NC General Statute 143-64.31, Article 3D Procurement of Architectural, Engineering, and Surveying (A/E) Services. NCGS 143-64.32 cannot be used to exempt Recipients from a qualification-based selection for A/E. The State provides applicable certification forms that must be completed prior to receiving funds for any engineering services covered under this funding offer.
7. Local government units designated as distressed must complete associated requirements of statute §159G-45(b).
8. Funds made available by the ARP that are not disbursed to the entity accepting the funds in this document by December 31<sup>st</sup>, 2026, will no longer be available for the project. Unused Federal funds will revert from the State of North Carolina to the U.S. Treasury.

<b>STANDARD ASSURANCES FOR AIA GRANTS</b>
---

1. The Recipient acknowledges that no disbursements will be made until applicable service agreements or contracts are submitted. The description of work listed on invoices must be included in the scope of work shown on the agreements or contracts.
2. The Recipient is responsible for paying for ineligible project costs as determined by the Division.
3. The Recipient agrees to establish and maintain a financial management system that adequately accounts for revenues and expenditures. Adequate accounting and fiscal records will be maintained during the construction of the project and these records will be retained and made available for a period of at least three (3) years following completion of the project.
4. All ARP funds shall be expended solely for carrying out the approved project, and an audit shall be performed in accordance with G.S. 159-34. Partial disbursements will be made promptly upon request, subject to adequate documentation of incurred eligible costs, and subject to the Recipient's compliance with the Standard Conditions and Assurances of this Award. The Recipient agrees to make prompt payment to its contractor, and to retain only such amount as allowed by North Carolina General Statute. Requests for reimbursement must be made using the Division's reimbursement form.
5. All funds provided pursuant to North Carolina General Statute 159G must be expended solely for carrying out the approved project, and an audit shall be performed in accordance with G.S. 159-34, as amended. **The Recipient must expend all of the requisitioned funds for the purpose of paying the costs of the project within three (3) banking days following the receipt of the funds from the State.** Please note that the State is not a party to any contract(s) and the Recipient is expected to uphold its contract obligations regarding timely payment.
6. The Recipient must provide summaries of project progress every other month during the project or as otherwise directed by the Division.
7. The Recipient must provide a digital copy of the final report in a universally readable format including GIS shape files as applicable.
8. The Recipient must provide an executive level summary of the work performed, any conclusions made, and the next steps to be taken as a result of this work.
9. The Recipient must provide approved minutes or a resolution confirming the final report has been presented to the recipient's governing board.
10. A maximum of 95% of the grant will be paid prior to receipt of the documentation described in Standard Assurance Nos. 7, 8, and 9. After receipt of this documentation, the final reimbursement request will be processed.

**Acknowledgement of Standard Conditions and Assurances**

The Recipient hereby gives assurance to the Department of Environmental Quality that the declarations, assurances, representations, and statements made by the Applicant in the Application; and all documents, amendments, and communications filed with the Department of Environmental Quality by the Applicant in support of its request for financial assistance will be fulfilled.

.....  
Signature

.....  
Date

ROY COOPER  
Governor  
ELIZABETH S. BISER  
Secretary  
SHADIESKAF  
Director



NORTH CAROLINA  
Environmental Quality

May 22, 2023

Mr. Franky J. Howard, Chief Executive Officer  
Onslow Water and Sewer Authority  
228 Georgetown Road  
Jacksonville, NC 28540

SUBJECT: Offer & Acceptance for American Rescue  
Plan Funding  
Onslow Water and Sewer Authority  
Onslow Water System Master Plan  
Project No. AIA-D-ARP-0111  
UEID No. J47ELEAMLTK1

Dear Mr. Howard:

The Onslow Water and Sewer Authority has been approved for American Rescue Plan (ARP) funding from the State Fiscal Recovery Fund in the amount of **\$150,000** for an Asset Inventory and Assessment (AIA) study. Projects funded from the State Fiscal Recovery Funds established in S.L. 2021-180/S.L. 2022-74 must meet applicable federal law and guidance for the ARP funds.

Enclosed are two (2) copies of an offer-and-acceptance document, extending ARP funding in the amount of \$150,000. This offer is made by the Division of Water Infrastructure (DWI), subject to the assurances and conditions set forth in the enclosed offer-and-acceptance document. Funds will not be disbursed unless this offer is accepted.

Upon your acceptance, please submit the following items to Pam Whitley, Division of Water Infrastructure (DWI), 1633 Mail Service Center, Raleigh, North Carolina 27699-1633:

1. A resolution (sample copy attached), adopted by the governing body, accepting the offer, and making the applicable assurances contained therein;
2. One (1) copy of the original offer-and-acceptance document, executed by the Authorized Representative for the project, along with the signed "Standard Conditions and Assurances" for ARP Projects. **Please retain the second copy for your files.**
3. Sales Tax Certification, if applicable (attached)
4. ARPA Engineering Services Procurement Certification (attached)



North Carolina Department of Environmental Quality | Division of Water Infrastructure  
512 N. Salisbury Street | 1633 Mail Service Center | Raleigh, North Carolina 27699-1633  
919.707.9160

EXHIBIT F

All work associated with this project must be completed within 24 months of the date of this letter. Once the subject project has commenced, the enclosed "reimbursement request form" must be completed and submitted with all reimbursement requests. You are free to reproduce this form should additional copies be needed.

In addition, a memorandum requesting your federal identification number was included with the Letter of Intent to Fund. You must complete and submit this form and all executed contracts or service agreements no later than the time when you choose to submit your first request for reimbursement. Reimbursement requests and executed contracts or agreements should be sent to Tony Dongarra, your Viable Utility Unit Project Manager, at the address noted.

On behalf of the Department of Environmental Quality, I am pleased to extend this offer of ARP funds, made available by the North Carolina Fiscal Recovery Fund. Should you have any questions concerning this offer of funding, or any of the stipulations outlined in this letter, please contact Tony Dongarra at [tony.dongarra@deq.nc.gov](mailto:tony.dongarra@deq.nc.gov) or 919-707-3632.

Sincerely,

DocuSigned by:  
  
99AEF363909A40E...  
for Shadi Eskaf, Director  
Division of Water Infrastructure, NCDEQ

Enclosures: Offer-and-Acceptance Document (2 copies)  
Resolution by Applicant's Governing Body to Accept an Offer of Funding  
Sales-Tax Certification Form  
Reimbursement Request Form  
ARPA Engineering Services Procurement Certification

CC: Carter Hubbard, WK Dickson & Co., Inc [[tchubard@wkdickson.com](mailto:tchubard@wkdickson.com)]  
Jennifer House (via email)  
Victor D'Amato, PE (via email)  
Corey Basinger (via email)  
Tony Dongarra (via email)  
FILE: ARP Project File (COM\_LOX)



**ONSLow WATER & SEWER AUTHORITY  
WATER SYSTEM MASTER PLAN PROJECT  
PROJECT NUMBER CIP-039**

**PROJECT ORDINANCE**

**BE IT ORDAINED** by the Board of Directors of Onslow Water & Sewer Authority (ONWASA) that, pursuant to Section 13.2 of Chapter 159 of the General Statutes of North Carolina, the following Water System Master Plan Project is hereby adopted:

**Section I.**

The Water System Master Plan Project shall consist of: the review of prior studies and system information; updates to the existing ONWASA Hydraulic Model and GIS systems; use of the updated model to identify water distribution system deficiencies and determine the impact of proposed additional water supply and storage facilities; and, prioritizing of needed improvements for use in future capital improvement planning.

**Section II.**

The officers of Onslow Water & Sewer Authority are hereby directed to proceed with the Water System Master Plan Project, Project Number CIP-039

**Section III.**

The following revenue is anticipated to be available to complete the project:

NCDEQ – ARPA Grant Proceeds	\$ 150,000
Total	<u>\$ 150,000</u>

**Section IV.**

The following amounts are appropriated for the project:

Professional Services, Admin.	\$ 150,000
Total	<u>\$ 150,000</u>

**Section V.**

The Finance Officer is hereby directed to maintain within the Water & Sewer Fund sufficient specific detailed accounting records to provide the accounting required by federal and state regulations and in accordance with generally accepted accounting procedures.

**Section VI.**

The Finance Officer is directed to report monthly on the financial status of the project and on the total revenues received.

**Section VII.**

The Budget Officer is directed to include an analysis of past and future cost and revenues on this project as a part of every budget submission made to this Board.

**Section VIII.**

Copies of this Water System Master Plan Project Ordinance shall be made available to the Budget Officer for direction in carrying out these projects.

Adopted this 15<sup>th</sup> day of June 2023.

ONslow WATER & SEWER  
AUTHORITY BOARD OF  
DIRECTORS

---

Michael Royce Bennett, Chairman

---

Heather Norris, Clerk to the Board

EXHIBIT F

Project Ordinance  
 Water System Master Plan Project  
 Project Number CIP-039  
 Budget Amendment  
 June 15, 2023

Budget Amendment Fund 40

Department Number	General Ledger Name	General Ledger Number	Amount
	Revenue – NCDEQ Grant – Wtr Sup	3709994	\$ 150,000
8791	Expenditure – Professional Services	8900400	\$ 150,000

**RESOLUTION BY ONSLOW WATER & SEWER AUTHORITY  
BOARD OF DIRECTORS**

**WHEREAS**, the American Rescue Plan (ARP) funded from the State Fiscal Recovery Fund was established in S.L. 2021-180 to assist eligible units of government with meeting their water/wastewater infrastructure needs, and

**WHEREAS**, the North Carolina Department of Environmental Quality has offered American Rescue Plan (ARP) funding in the amount of \$150,000 to perform an Asset Inventory and Assessment study detailed in the submitted application, and

**WHEREAS**, The Onslow Water and Sewer Authority (ONWASA) intends to perform said project in accordance with the agreed scope of work,

**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE  
ONSLow WATER AND SEWER AUTHORITY:**

That the Onslow Water and Sewer Authority does hereby accept the American Rescue Plan Grant offer of \$150,000.

That the Onslow Water and Sewer Authority does hereby give assurance to the North Carolina Department of Environmental Quality that any Conditions or Assurances contained in the Award Offer will be adhered to.

That Franky J. Howard, Chief Executive Officer, and successors so titled, is hereby authorized and directed to furnish such information as appropriate State agency may request in connection with this project; to make the assurances as contained above; and to execute such other documents as may be required by the Division of Water Infrastructure.

Adopted this the 15<sup>th</sup> of June, 2023 at Jacksonville, North Carolina.

\_\_\_\_\_  
Michael Royce Bennett, Chairman

\_\_\_\_\_  
Date

Attest:

\_\_\_\_\_  
Heather W. Norris, Clerk to the Board

# For Earth, For Life



Firm Proposal for  
Summerhouse, NC  
Membrane Package System



Membrane Bioreactor System

May 8th, 2023



Prepared By:

Kubota Membrane USA  
Damone Supica, PE  
[damone.supica@kubota.com](mailto:damone.supica@kubota.com)

425-248-7897

Local Representative

Premier Water  
Steven Young  
704-231- 9964

May 8th, 2023

Jeffrey Lohr, PE  
Engineering Manager  
Onwasa  
228 Georgetown Rd  
Jacksonville, NC 28540

Subject: Proposal for increasing capacity of the existing Summerhouse, NC MBR system.

Dear Jeff,

Thank you again for your interest in Kubota membranes for your MBR system at Summerhouse, NC. Attached is our firm proposal for your review and consideration. Generally speaking, we are providing a new epoxy coated painted steel tank with two membrane compartments, new permeate pumps and scour blowers, membrane zone related controls and instruments, along with design support and commissioning services.

I firmly believe Kubota can assist your team to make the Summerhouse MBR facility the best that it can be and certainly one that can process your hydraulic flow requirements.

#### **Why Kubota?**

- Proven membrane with over 6,500 installations worldwide and close to 500 in the USA. We have many great references and can provide you with additional contact information as needed. The Hampstead and North Topsail projects (local to you) are great examples of how the right membranes can completely turn around a previously poor performing MBR.
- Optimized porosity/pore size/permeability ensures that both average and peak day flow requirement are consistently met. Our system operates at very low pressure (typically <1psi) and this eliminates the need for complicated cleaning systems. As you know, membranes are dead end filtration and only flow that can physically pass through the membrane
- Minimal operator O&M as compared to competing membrane systems. Complicated cleaning systems (such as backpulsing) are eliminated. Membranes are cleaned in the MLSS and draining of the membrane tank is not required. Our membrane is designed for wastewater and allowed to co-exist with the bacteria with minimal operator attention required.
- Kubota support is second to none. We WILL make this project work well for you.

If you have any questions regarding our proposal, please feel free to contact me or our local representative, **Steven Young with Premier Water at 704.231.9964.**

Regards,

**Damone Supica, PE**  
Product Engineer | Kubota Membrane USA Corporation  
Cell: 425-686-2727  
Email: [damone.supica@kubota.com](mailto:damone.supica@kubota.com)

Summerhouse, NC

PAGE 1 of 1

Kubota Membrane USA Corporation 2016

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## 1 Introduction

KUBOTA Membrane USA (KMU) appreciates the opportunity to present the enclosed budgetary proposal to supply a packaged membrane system for the project in Summerhouse, North Carolina. Included below is a brief background of the Kubota Corporation and Kubota's Submerged Membrane Unit. This is followed by a description of the proposed system, along with a scope of supply and budgetary price.

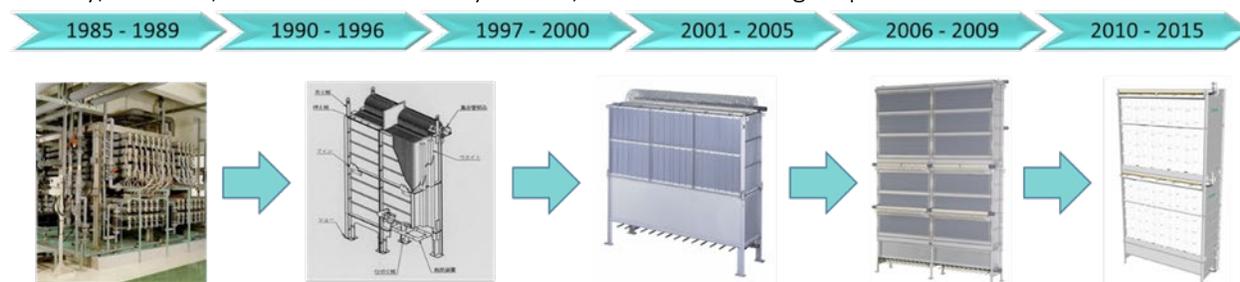
## 2 Company Background

### 2.1 History

Kubota Corporation has been designing and building wastewater treatment plants since the early 1960s. Long before building wastewater treatment plants, the company became involved with water engineering projects in 1893 as a manufacturer of iron piping, which was used for clean water distribution. As the largest engineering contractor for wastewater treatment plants in Japan, Kubota has the capability to design, build and operate municipal and industrial wastewater treatment plants.

In the 1980s, Kubota developed its own MBR technology using an external tubular type of ultrafiltration membrane. After the initial installation of these membranes in a soil treatment plant in Japan, Kubota realized these membranes lacked energy efficiency, had short life spans, and required frequent maintenance. This prompted Kubota to find an alternative to the external tubular membranes. In 1989, Kubota pioneered the energy-efficient, long-lasting, and easy-to-use flat sheet membrane with its Submerged Membrane Unit. Kubota's Submerged Membrane Unit was designed specifically for wastewater treatment applications, and is currently installed in wastewater treatment plants around the world, making Kubota a leader in the flat sheet MBR technology market.

The first installation of the Kubota flat sheet Submerged Membrane Unit was for a mechanical tool equipment manufacturer in Hiroshima in 1990. Kubota has refined and improved the membrane product for over 25 years (*Figure 1*). Kubota membranes were first introduced to the U.S. in 2002. Today, MBR systems using the Kubota membrane have been installed all over the world for numerous applications in addition to sewage treatment, such as brewery, dairy, food processing, pharmaceutical and chemical, laundry, leachate, and electrical industry wastes, as well as for sludge liquor treatment and water reuse.



*Figure 1: Progression of the Kubota Membrane*

## 2.2 Design Support and After-Sales Service

Kubota Membrane USA has technical staff in Bothell, Washington and Canton, Ohio who can help the customer with any design or operational needs of this project. Kubota staff members are available to provide technical support to consulting engineers, WWTP operators, and WWTP owners. Additionally, Kubota has a Research and Development Center in Canton, OH, which focuses on optimizing the design and performance of Kubota membrane systems for the North American market.

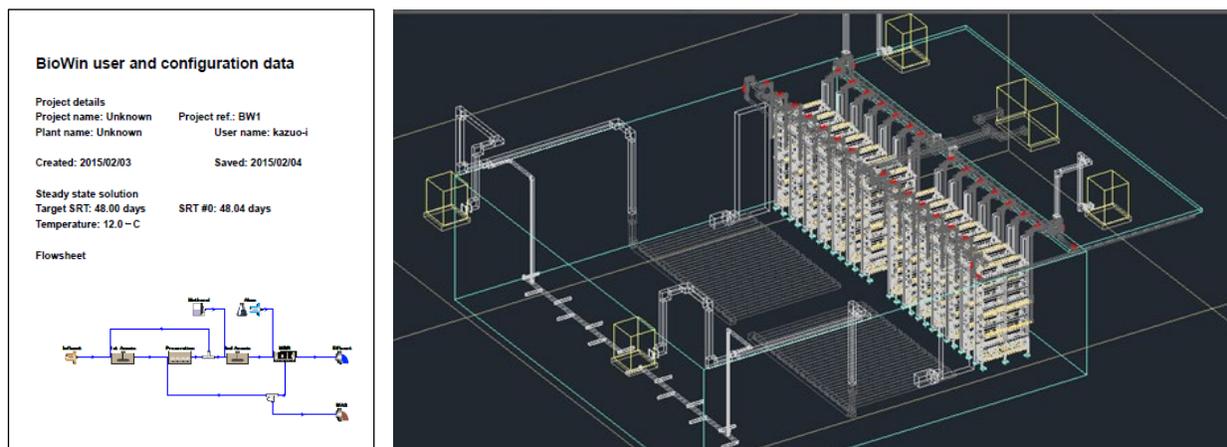


Figure 2: Kubota Design Support

Kubota provides staff on a regular basis for service and support of construction activities and throughout the warranty period. The service provided includes delivery inspection, installation certification, training, commissioning and ongoing technical support. Kubota will also provide operation and maintenance (O&M) manuals and 24/7 customer support.



Figure 3: Kubota's Service and Well-Trained Support Team

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### 2.3 Kubota's Experience

Kubota has extensive experience in all facets of MBR system projects including designing, building, and operating MBR systems. Kubota has executed over 300 Design-Build projects, operates over 30 plants, and has over 150 maintenance contracts. Kubota also designed, operates, and maintains the 80,000 GPD MBR treatment facility for the Kubota Tractor Factory in Georgia, USA.

As of 2020, Kubota MBR systems have been installed at over 6,600 facilities worldwide, making Kubota the top supplier in the world. Even prior to the first U.S. MBR installations, Kubota had already been designing, building, and operating MBR systems around the world for many years.

*Table 1: Kubota Submerged Membrane Unit Installations Worldwide as of December 2020*

<b>Region</b>	<b>Number of Installations</b>
North America	481
Europe & Africa	706
Middle East	134
Asia (Except Japan) & Oceania	767
Japan	4,593
<b>Total MBR Plants</b>	<b>6,681</b>

### 3 Technology Description

#### 3.1 Membrane Product Information

For this project, we have prepared a preliminary design based around the SP337 Submerged Membrane Unit (SMU). Kubota's SP series of SMUs offer state-of-the-art technology. The SP series was developed in 2011 to create a Submerged Membrane Unit which is more energy efficient and faster to assemble on-site than the preceding RM/RW series, while still maintaining the reliable and simple operation that is characteristic of Kubota's MBR systems. Kubota's philosophy of learning from our extensive experience is one of our greatest advantages, setting us apart from more newly developed membrane manufacturers. An overview of the structure of the SP series is provided below.

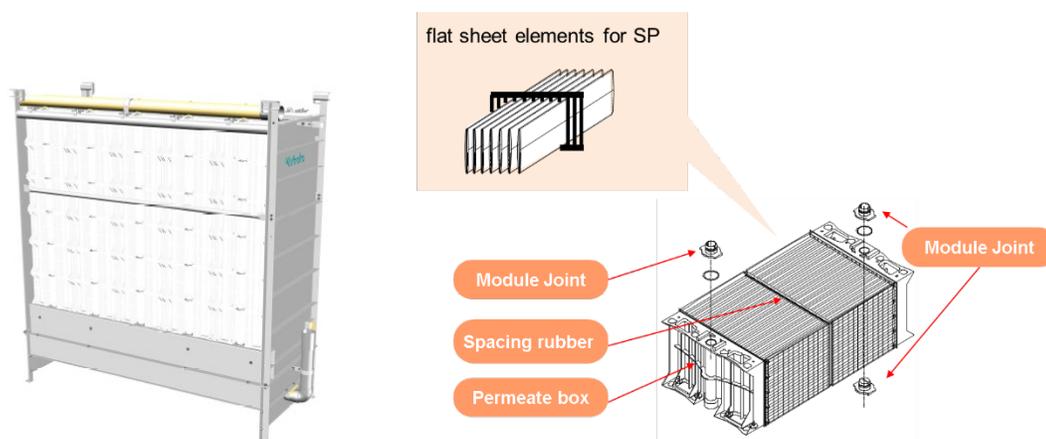


Figure 4: SP Series Unit Structure (left) and Module Structure (right)

The cartridge structure of the SP series units differs from previous Kubota products. Individual membrane sheets are permanently fixed to each membrane module. Each module has a permeate box and module joint on both ends. These modules are connected in a tubeless configuration by the integrated module joints to form a single cassette. Built-in retainers connect the assembled cassette to a permeate manifold which is connected to the permeate header. The SP series is ideally suited for large installations, offering fast assembly, easy maintenance, and up to 15% lower energy use for air scour in the MBR than other Kubota systems.

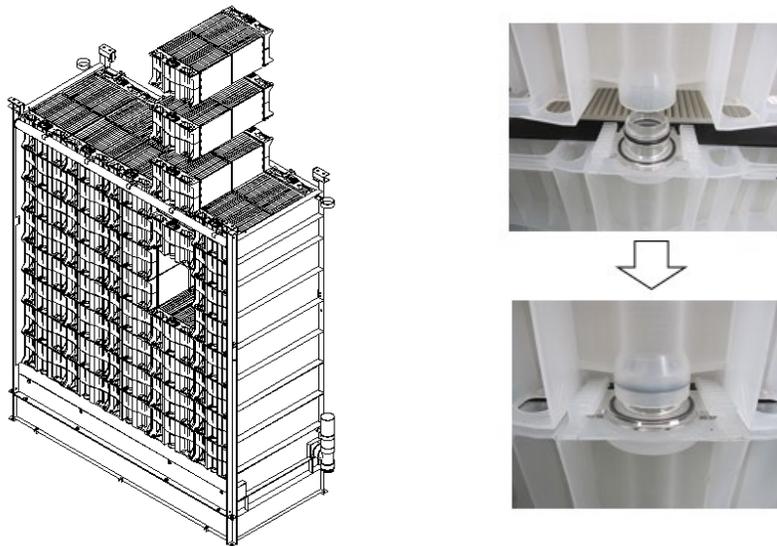


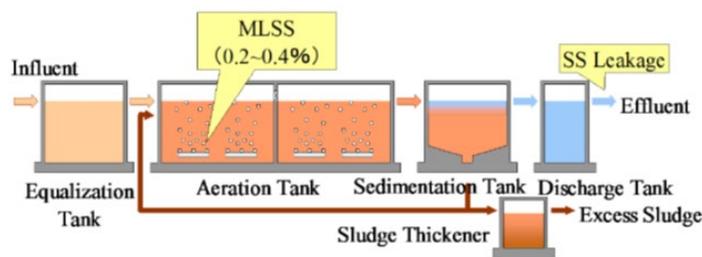
Figure 5: SP Series Module Assembly (left) and Module Connection Detail (right)

Kubota’s membrane sheet is made from chlorinated polyethylene, has an average pore size of 0.2 micron (maximum 0.4 micron). This membrane is much thicker than other membranes to provide long-lasting durability and features high porosity to enable high flows. This pore size has been designed as the optimum balance between water quality and quantity and has Title 22 approval for water reuse in California. The SP series utilizes the same membrane material used by Kubota worldwide for over 25 years.

### 3.2 MBR Process Description

The MBR treatment process is capable of meeting strict nutrient removal requirements while still maintaining a small footprint. Each MBR is the combined process of activated sludge (secondary treatment)

#### Conventional Activated Sludge (CAS)



#### Kubota MBR

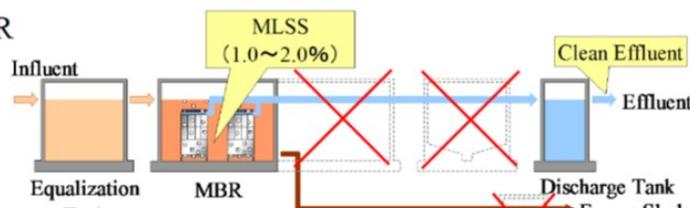


Figure 6: Typical CAS Process (top) vs. Kubota MBR Process (bottom)

and membrane filtration (tertiary treatment). Membrane units are installed in the activated sludge reactor, where sludge and treated water are separated by means of physical filtration. Other treatment processes, such as conventional activated sludge, require gravity sedimentation through the use of final clarifiers. MBRs eliminate the need for gravity sedimentation, thereby eliminating the need for final clarifiers.

Additionally, the Kubota SP series can operate at mixed liquor concentrations ranging from 5,000 mg/L to 14,000 mg/L, which is much higher than that of a conventional activated sludge basin or that of hollow fiber MBR systems. This not only reduces the required aeration volume and the volume of waste sludge produced, but also gives the system increased ability to withstand influent load fluctuations.

The Kubota MBR tank works as both a solid-liquid separation tank and an aeration tank to support the biological process. Because of Kubota's stable air scour and infrequent in-situ chemical cleaning, aeration from the air scour can be considered as oxygen supply for biological treatment. This helps to reduce the oxygen requirement in the aeration tank and thus helps decrease the total operational energy cost of the treatment process.

### 3.3 Operation and Maintenance

Simplicity is a core tenet of the Kubota MBR system. The Kubota MBR system offers a simple design, simple operation, and simple maintenance. The primary method of membrane cleaning for the Kubota MBR system is the air scour provided by the diffusers at the base of the membrane units. The chemical cleaning system is extremely simple and eliminates the need for separate tanks or tank linings for immersive cleaning. The system consists of a venturi injector which feeds the cleaning solution through the permeate piping using municipal utility water. The venturi system can be skid-mounted on a wall, as shown in the figure below.

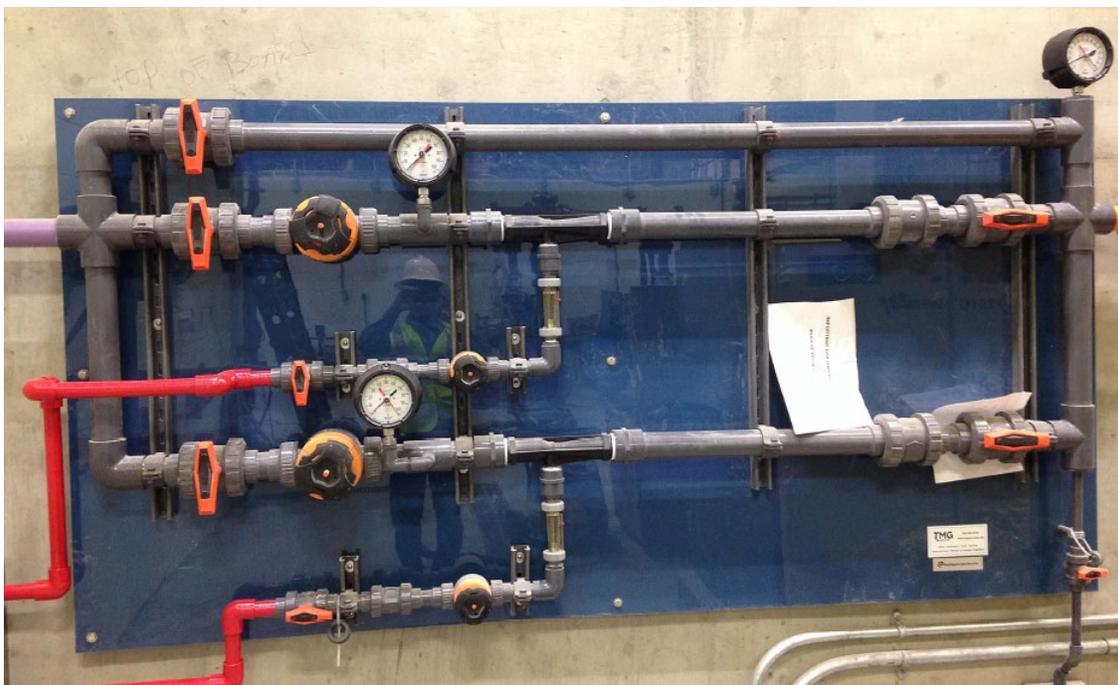


Figure 7: Skid-Mounted Clean-In-Place System

There is no need to drain the tanks or remove the membrane units to perform chemical cleaning. All that is required is stopping the operation, opening a vent, injecting a chemical solution, and allowing that solution to soak in the membrane units for 2 to 4 hours.

Organic fouling can be cleaned with a 0.5% sodium hypochlorite (NaClO) solution. This is typically done two to four times per year. Inorganic fouling such as iron or aluminum can be cleaned by a 1% oxalic or citric acid solution and is typically needed once a year or less. If the residual chemical cannot be discharged from the system, it can be sent back to the raw water inlet or to the bioreactor in order to neutralize the chemical.

This simple and infrequent maintenance cleaning is the only chemical cleaning required; no recovery cleaning is necessary for operation of the Kubota MBR system. Moreover, the Kubota MBR system does not use the backpulse cleaning that is frequently used in hollow fiber MBR systems. This helps reduce the energy requirements and simplifies the piping and operation of the Kubota MBR system when compared with hollow fiber systems.

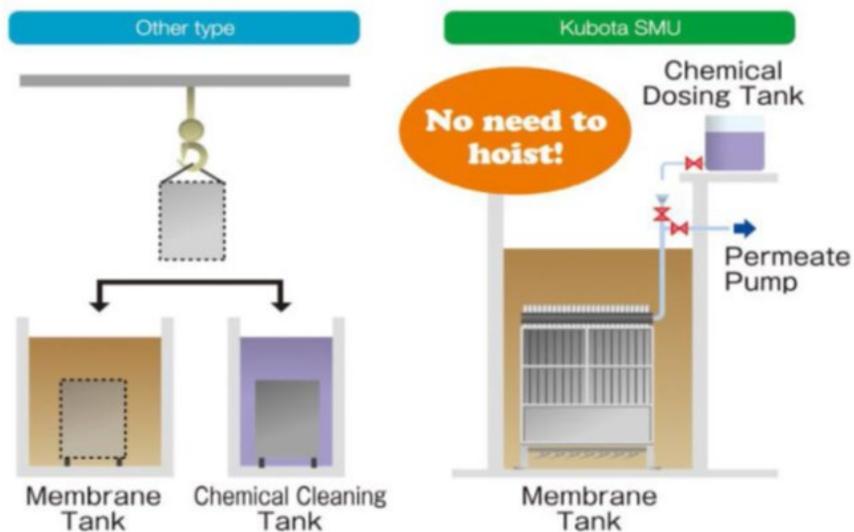


Figure 8: Chemical Cleaning for Other Manufacturers (left) vs. Kubota Membrane Units (right)

## 4 Design Overview

The proposed packaged membrane system is designed to replace the membrane filtration portion of two existing packaged treatment systems (existing Train 1 and Train 2) which were installed as part of the original construction of the Summerhouse WWTP in 2008. KMU is proposing that the membrane systems be removed from these trains, and pumps installed to convey activated sludge to new membrane tanks. Return activated sludge (RAS) will flow by gravity back to the existing treatment trains. Biological treatment will be performed by the existing treatment trains. KMU will supply a packaged membrane system consisting of one painted, carbon steel tank containing two independent membrane zones. These, along with other equipment detailed in Section 5 below, will provide solid-liquid separation of the biologically treated wastewater.

The design criteria used to size the proposed system are presented below.

### 4.1 Influent Design Flow

The flow conditions used for the preliminary design are shown in the table below.

Table 2: Design Flow Conditions

Condition	Design Flow Total (2 trains)	Unit
Average Day Flow (ADF)	200,000	GPD
Peak Day Flow (PDF)	400,000	GPD
Peak Hour Flow (PHF)	400,000	GPD

The design is based on the following wastewater characteristics.

Table 3: Influent and Effluent Characteristics

Constituent	Influent Concentration	Anticipated Effluent Limitation
BOD	225 mg/L	< 5 mg/L
TSS	240 mg/L	< 5 mg/L
TKN	41 mg/L	--
Total Nitrogen	--	< 10 mg/L
NH <sub>3</sub>	--	<1 mg/L
Turbidity	--	< 0.2 NTU

Note: Kubota assumes all process equipment is in good condition and properly operating to meet BOD, TotalN, and Nh<sub>3</sub>-N limits. Kubota membranes will guarantee effluent TSS, Turbidity and flow only.

## 4.2 Membrane Specifications

The proposed MBR system was designed with the capacity of treating the Max Month Flow for up to 3 months and the Peak Day Flow for up to 24 hours.

Table 4: Membrane Equipment Specifications

Component	MBR Specifications
Membrane Model	SP337
Membrane Surface Area per Unit	3,627 ft <sup>2</sup>
Design MLSS at MBR	12,000 mg/L
Number of Membrane Tanks	2 Tanks
Total Number of Submerged Membrane Units	6 units (3 unit per tank)
Minimum Wastewater Temperature	10°C

## 4.3 Preliminary Layout

The existing treatment system is designed following an MLE process flow. The system consists of two existing biological trains in parallel each containing an anoxic tank, a pre-aeration tank, and a membrane tank. The basic process flow diagram is shown below.

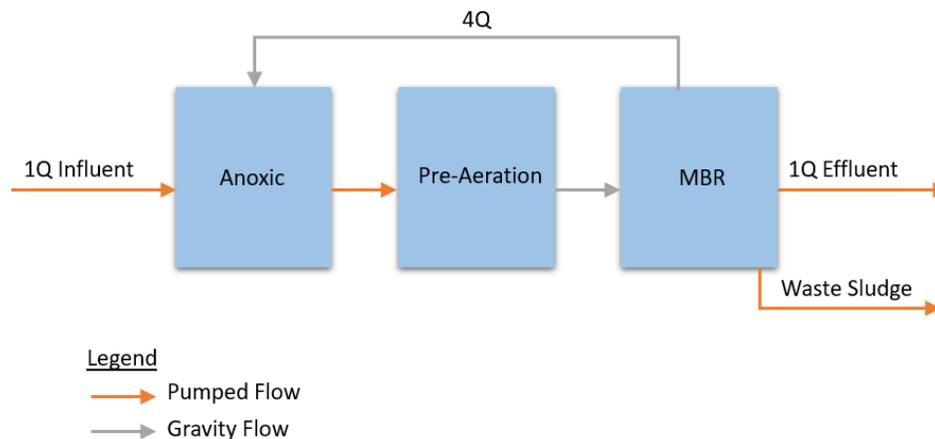


Figure 9: Process Flow Schematic

Preliminary tank sizing was performed using Kubota standard design parameters. Sizing was based on the minimum temperature, and the maximum monthly flow and loading. Biological treatment is assumed to be by others, and sizing of anoxic and pre-aeration tanks is based on the existing facility. KMU's initial process calculations indicate the treatment process is anticipated to meet the effluent criteria.

Table 5: Tank Dimensions and Hydraulic Retention Times

Tank Name	Appx. Dimensions (L' x W')	SWD (feet)	Tank Vol. (gallons)	Number of Tanks	Total Volume (gallons)	HRT at MMF (hours)
Anoxic	NA	NA	13,300 gal	2	26,600 gal	3.2 hours
Pre-Aeration	NA	NA	32,200 gal	2	64,400 gal	7.7 hours
MBR	13'10" x 10'	10'	10,500 gal	2	21,000 gal	3.2 hours
<b>TOTAL</b>	-		-	-	<b>75,600 gal</b>	<b>14.1 hours</b>

#### 4.4 Layout

KMU is proposing to supply a packaged membrane system consisting of 28'8" L x 10' wide membrane tank and a 10'W x 10'L equipment skid. The membrane tank will be divided into two zones. Each zone will be capable of hydraulically processing 100,000 gpd ADF and 200,000 gpd PDF. A detailed layout drawing is included in Attachment 1.

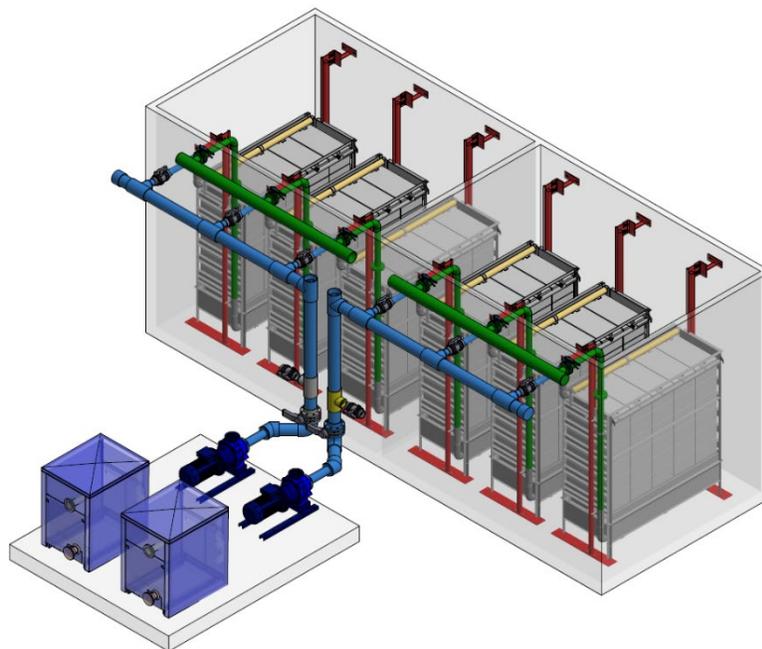


Figure 10: Proposed System Layout

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# For Earth, For Life



## 5 Scope of Supply

KMU's scope of supply is limited to the equipment and services outlined in this proposal. The equipment will be supplied by KUBOTA Membrane USA and is included in the proposal price as listed in Section 7.

### 5.1 Major Equipment and Instrumentation

Table 6: Major Equipment and Instrumentation in KMU's Scope of Supply

Name	Type	Anticipated Size	HP	Quantity
Package Tanks				
MBR System Tank	KUBOTA SMU Package Painted, Carbon Steel	28'8" x10'x12'	-	1
Equipment Skid	KUBOTA Package Painted, Carbon Steel	10' x 10'	-	1
Headworks Equipment				
Fine Screen	Internally Fed Drum	278 gpm	0.33	1
Feed Forward Equipment				
Feed Forward Pump	Submersible	278 gpm	3	2 duty + 2 standby
Feed Forward Flow Meter	Electromagnetic	4-inch	-	2
Level Switch	Float	-	-	2
Level Transmitter	Diaphragm	-	-	1
Membrane Equipment				
Kubota Submerged Membrane Unit	Flat Plate	SP337	-	6
Guide and Stabilizer	Submerged Membrane Unit Guide and Stabilizer	-	-	6 sets
Kubota Lifting Tool	Lifting Tool for Submerged Membrane Unit	-	-	1
Level Switch	Float	-	-	2
Permeate Equipment				

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Name	Type	Anticipated Size	HP	Quantity
Permeate Pumps	Self-Priming Centrifugal	155 gpm	7.5	3 (2 duty + 1 standby)
Permeate Flow Meter	Electromagnetic	6-Inch	-	2
Permeate Flow Control Valve	Modulating Butterfly	6-Inch	-	2
Permeate Pressure Transmitter	Diaphragm	-	-	2
Permeate Turbidity Meter	Laser Meter and Transmitter	--	--	1
Membrane Blower Equipment				
Membrane Scour Blower	Positive Displacement	588 scfm (peak)	30	2 (duty + standby)
Membrane Air Flow Meter	Thermal Mass	-	-	2
Chemical Cleaning Equipment				
Chemical Solution Tank	Round Plastic	1,000 gal	-	1
Chemical Solution Pump	Centrifugal	67 gpm	-	1
Cleaning Equipment				
Control System	PLC Panel HMI	-	-	1

## 5.2 Direct Services Information

The following services are included in Kubota's scope of supply:

### *Design and Installation Support*

- Design support including submittal drawings and P&IDs.
- Delivery coordination with the site contractor.
- 10 days of on-site support during system installation including final equipment placement, and dry/wet mechanical checks.

### *Commissioning and Operating Support*

- Preparation and submittal of a system O&M manual for Kubota supplied systems and equipment.
- 10 days of on-site support during system start-up and commissioning including clean water testing and support during seeding.
- Additional days are available as needed at an additional cost.

### *Training*

- 3 days of on-site, hands-on operator training using a mix of classroom and field time. See Table 7 below for list of training topics.

Table 7: Training and Workshops included in Kubota's Scope of Supply

Training/workshop	Brief summary
HMI	<ol style="list-style-type: none"> <li>1. Navigation of all HMI screens and menus.</li> <li>2. Review of automatic operations and controls.</li> <li>3. Changing process set points.</li> <li>4. Overriding controls from the HMI.</li> <li>5. Manual operation of the system in the event of a power failure.</li> </ol>
CIP training	<ol style="list-style-type: none"> <li>1. Navigation of CIP (Clean-In-Place), in-situ chemical cleaning (maintenance cleaning).</li> <li>2. Control from HMI and operation of manual valve.</li> <li>3. Adjust set points of chemical flow.</li> </ol>
Troubleshooting	<ol style="list-style-type: none"> <li>1. Case study of troubleshooting</li> <li>2. Recovery from trouble</li> <li>3. "Fish bone" approach</li> </ol>
Daily testing	<ol style="list-style-type: none"> <li>1. Filterability test</li> <li>2. Viscosity measurement</li> </ol>

### *Workshop/Additional Training Available (No Charge)*

- In addition to our standard training at commissioning, KUBOTA Membrane USA will host an annual regional operator workshop in which operators meet to exchange ideas and learn about the latest developments in MBR technology.
- Customized individual training, such as membrane disassembling training, is also available upon request.

## Remote Monitoring Available (No Charge for First Year)

### ○ Support by Remote Monitoring

The Kubota membrane system as proposed includes an HMI system that can be remotely monitored and controlled, provided wireless connectivity is available. Technical support staff can monitor the status of your system to proactively address potential problems. Whenever a call is placed to our service staff, that person will be able to log in to the HMI system and easily see what is happening at the plant.

## 5.3 Exclusions to KMU's Scope of Supply

The following items are not currently included in the KMU scope of supply:

- Performance and payment bond costs.
- Site preparation including preparation of a suitable foundation for the package treatment system.
- Heat tracing and/or freeze protection.
- Equipment unloading and installation at the site.
- Electrical site work and piping outside of the skid (i.e., connecting to main power, backup power, influent and effluent connections, etc.)
- Installation, piping, and wiring of items shipped loose including the fine screen.
- Coarse screening, grit removal, oil and grease removal (if needed).
- Equalization system (pump, mixer, level transmitters, etc.).
  - ✓ Compatible equalization system equipment can typically be controlled by the main Kubota control panel. Kubota can provide equalization system equipment at an additional cost.
- Biological process equipment.
- Building construction.
- Treated water holding tank.
- Sludge holding tank and sludge treatment (dewatering, etc.).
- Effluent disinfection system (A separate power supply and control panel will also be required.)
- Carbon addition and alkalinity addition systems (if needed).
- Alum storage facilities, instrumentation and piping.
- Covers on the package plant tanks or overhead walkways and stairs (available at an additional cost)
- Odor control.
- Seismic bracing for equipment, if needed.
- Any civil engineering (including seismic), permits, or inspection required.
- HVAC systems, fire protection, or other building systems.
- Cranes or overhead lifting equipment for the MBR basin.
- Any systems for operation in a classified area. All supplied systems will be "unclassified" in accordance NFPA Standard 820.

## 6 Warranty

Kubota's optional 10-year membrane warranty, and 1-year mechanical equipment warranty is included in the firm price proposed (Table 8) and goes into effect at the commencement date of commissioning. The warranty included is a guarantee that the products supplied by Kubota are free from defect in material or workmanship.

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## 7 Firm Price

The firm price for the package treatment system described herein is shown below in Table 8.

Local, State, and Federal Taxes (if required) are not included and must be added to p.o. amount if required. Performance/payment bonds are not included, but may be supplied for a cost adder based on amount/duration required.

Payment Terms:

10% with Purchase Order

30% upon completion of project submittals

50% due net 30 days after equipment delivery

10% upon completion of startup and commissioning services

*Table 8: Firm Price*

Budgetary Price	
<u>Firm Price</u>	<b>\$1,390,000</b>

## Submittal and Equipment Delivery Schedule

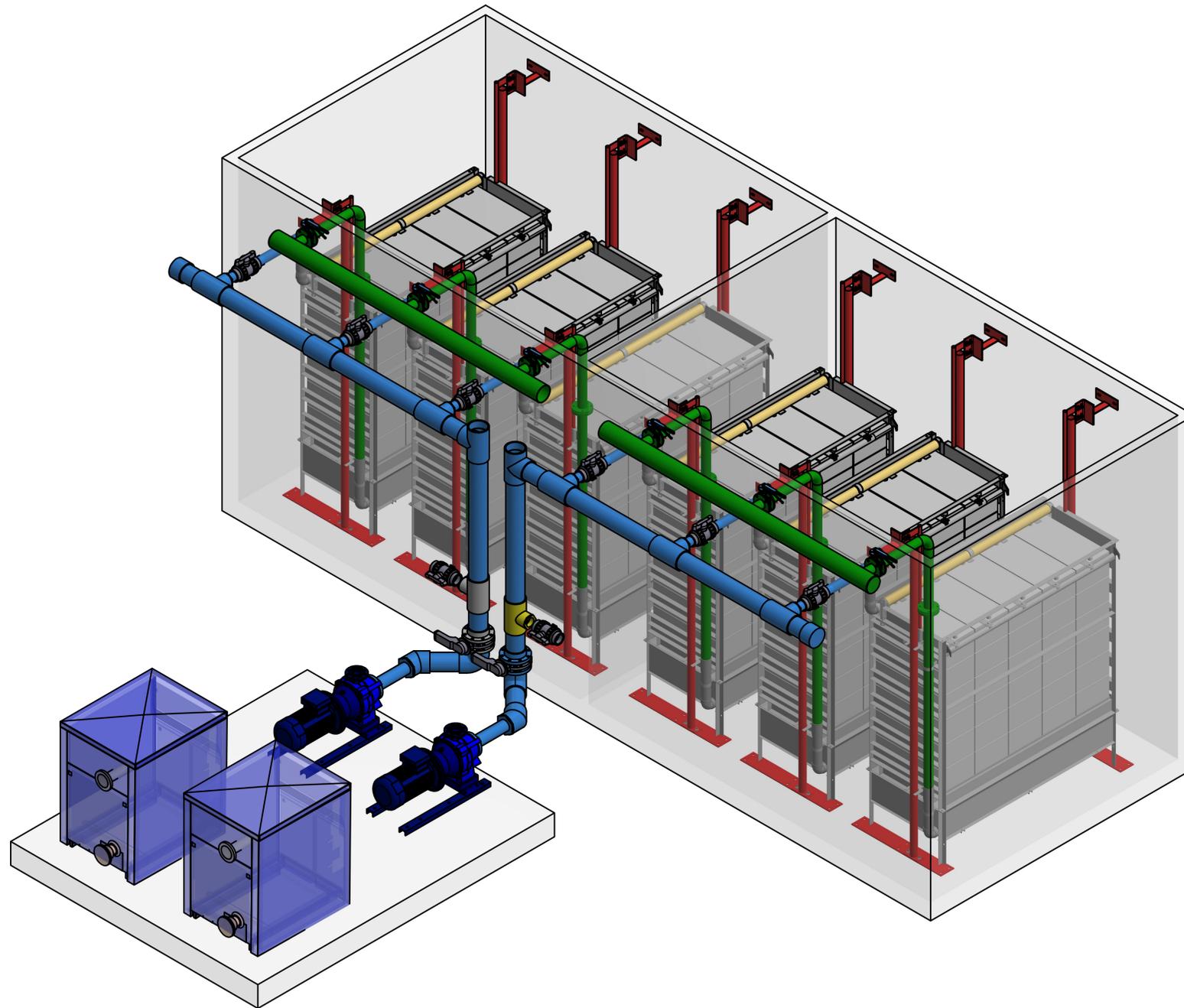
Kubota understands the urgent need for the equipment proposed and we are committed to accelerating the delivery of the equipment package. Following is our best estimate for delivery, but we believe this will require quick approval of some items to stay within the overall schedule.

Submittal Lead Time: 4-6 weeks from accepted purchase order.

Equipment Delivery: 24 weeks from approved submittal and equipment release date.

Note: Over the last 18 months, delivery times on some items (particularly electrical ones) has been much longer than what we previously experienced. We will do our best to insure we are not delayed, certain items may be out of our control. If we go with Kubota standard electrical control system (as currently proposed), I believe we have the inventory in stock to assure no delays on the control panel.

Attachment 1 – Preliminary Drawings

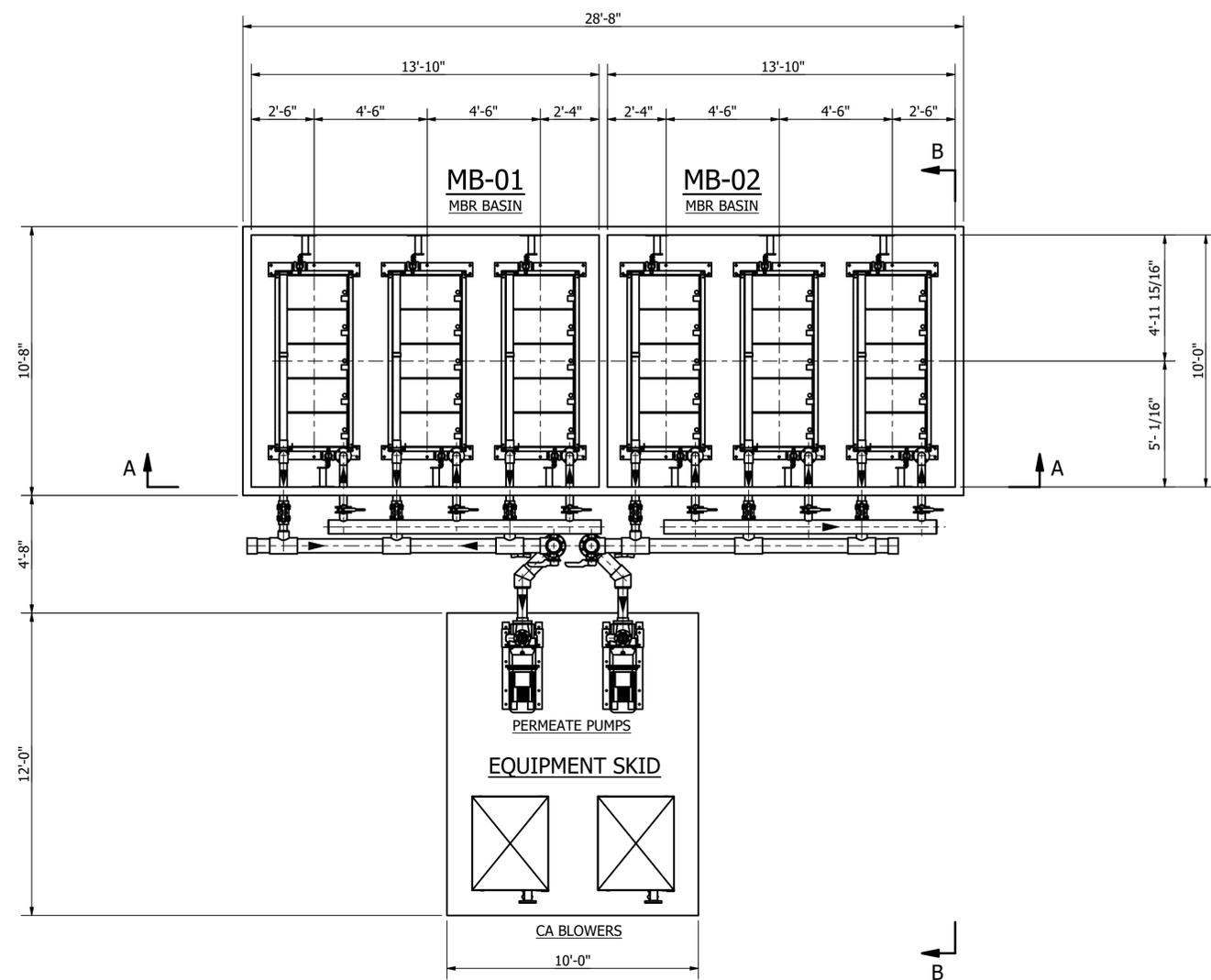


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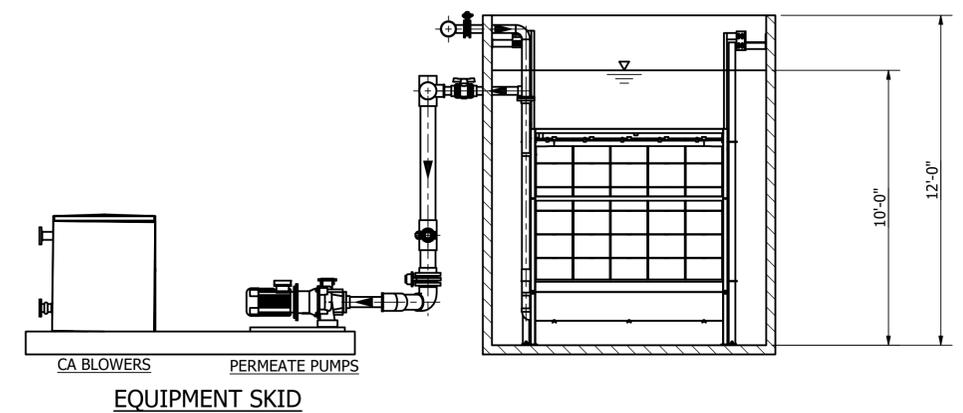
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DESIGNED BY:	JAT		△				△					SHEET 1 OF 2
CHECKED BY:			△				△				TITLE	DWG NO
APPROVED BY:			△				△				ISOMETRIC VIEW	PROPOSAL
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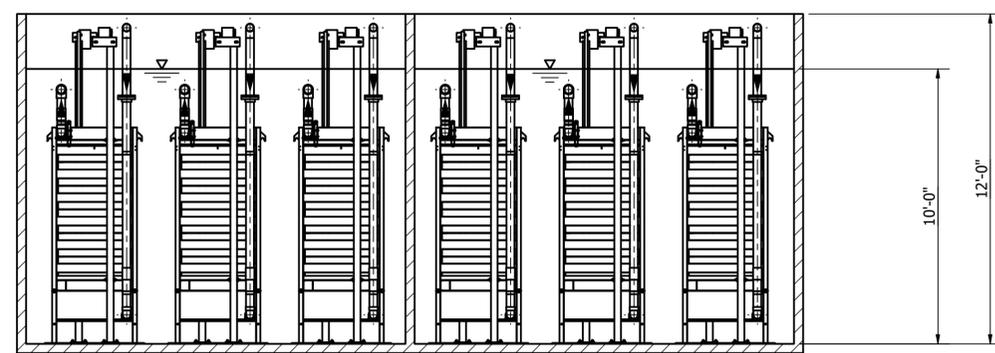


PLAN



EQUIPMENT SKID

SECTION 'B'



SECTION 'A'

**For Earth, For Life**  
**Kubota**  
 Kubota Membrane USA Corp. 11807 North Creek Parkway S. Suite B109  
 Bothell, WA 98011 USA Tel: +1 425 838 2853

DATE	REVISION	DATE	BY	REVISION	DATE	BY
3/27/2023						

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PROJECT NAME / NUMBER	SCALE
SUMMERHOUSE NC 01	1 / 40
	SHEET 2 OF 2
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1. **Precedence of Terms.** These general terms and conditions shall apply to this Contract, except that provisions set forth on the face hereof shall take precedence over any inconsistent or contrary provisions set forth in these General Terms and Conditions. No conditions contrary to or in addition to those set forth in this General Terms and Conditions shall be binding upon the Seller unless expressly approved in writing by Seller. Performance by Seller shall not be construed as accepting any different or additional terms.
2. **Quality and Quantity.** Seller shall not be responsible for any damage to or deterioration in the quality or loss in weight or units of the Goods during transit or due to natural causes.
3. **Shipment.** Shipment within the time stipulated on the face hereto shall be subject to the availability of vessel's space. In case FCA or FOB INCOTERMS apply to this Contract and Buyer fails to obtain space in time to fulfill the stipulated shipment date, Buyer shall be responsible for all costs, expenses and damages resulting directly or indirectly therefrom, including, without limitation, all increases in freight and insurance charges, losses, and other damages incurred by Seller prior to or after such failure by Buyer. The date of the Bill of Lading or the Waybill shall be conclusive evidence of the shipment date.
4. **Risk of Loss and Transfer of Title.** Risk of loss or damage to the Goods shall pass from Seller to Buyer in accordance with the INCOTERMS set forth on face hereof. Title to and the right to possess the Goods shall pass from the Seller to the Buyer at the same time when the risk of loss or damage to the Goods is passed to the Buyer as stipulated above, however, that the title to and the right to repossess the Goods are to be retained by Seller until Seller has received the full contract amount due to Seller pursuant to this Contract.
5. **Payment.** Payment by Buyer to Seller under this Contract shall be made by means of telegraphic transfer in immediately available funds to such bank account as designated by Seller or a confirmed, irrevocable, without recourse documentary letter of credit, in favor of Seller and with terms any satisfactory to Seller. If Buyer desires to pay Seller by means of a letter of credit, the letter of credit shall (i) cover the full contract amount (ii) be established through a prime-bank immediately after the date of this Contract, (iii) be negotiable on sight draft, and (iv) be valid for negotiation against the relative draft for at least fifteen (15) days after the end of the last month in which the Goods are shipped.
6. **Increased Costs.** Any new, additional or increased freight rates, surcharges (bunker, currency, congestion or other surcharges), taxes, customs duties, export or import surcharges or other governmental charges, or insurance premiums, which may be incurred by Seller with respect to the Goods after the date of this Contract, shall be for the account of Buyer and shall be reimbursed to Seller by Buyer within a reasonable time on demand.
7. **Force Majeure.** Seller shall not be liable for failure or delay to perform its obligations hereunder due to any reason including, but not limited to, acts of God, earthquake, fire, flood, prohibition of exportation, refusal to issue export license, war, blockade, revolution, insurrection, sub vendor manufacturing delays, civil commotion, riots, mobilization, strikes, lockout, plague, other epidemics, pandemics, or any other causes beyond the control of Seller, and may, at its option, extend the time of shipment or delivery of the Goods or terminate unconditionally and without liability of this Contract to the extent so affected or prevented.
8. **Cancellation.** If Buyer fails to carry out any of the terms of this and/or any other contract with Seller, or in the event of the death, bankruptcy or insolvency of Buyer, liquidation, modification or reorganization of the corporate structure of Buyer, or nonpayment for any shipment, Seller shall have the right to cancel this and/or any other contract with Buyer or to postpone the shipment, or to stop the Goods in transit, and Buyer shall indemnify, defend and hold Seller harmless from all losses, costs, and expenses resulting from Seller taking any such actions.
9. **Intellectual Property Rights.** Buyer shall defend, indemnify and hold Seller harmless from any and all liability, loss or expense (including reasonable attorney's fees) arising from or in connection with any actual or alleged infringement of any patent, trademark, copyright, industrial design, registered pattern, trade secret or other similar intellectual property rights used or owned by Seller.
10. **Liability of Agent.** If this Contract is signed by an agent or on behalf of a principal as Buyer hereunder, whether the principal is disclosed or otherwise, the agent shall be liable not only as agent but also as principal for the performance of the obligations of Buyer under this Contract. This provision shall not affect Buyer's obligation as principal under this Contract.
11. **Construction.** The meanings of the terms UCPDC or INCOTERMS, when used in this Contract shall be determined in accordance with the Uniform Customs and Practice for Documentary Credit ("UCPDC") and Incoterms® ("INCOTERMS") adopted by the International Chamber of Commerce in effect on the date of this Contract. This Contract shall be governed by the laws of the state of Washington, USA without giving effect to any conflicts of laws principles. This Contract shall not be governed by the United Nations Contracts for the International Sales of Goods, the application of which is expressly excluded.

The letter of credit shall authorize reimbursement to Seller for any expenses incurred by Seller on account of Buyer pursuant hereto, and shall authorize partial payment against partial delivery. Any bank charges arising in connection with payment hereunder shall be borne by Buyer. If Buyer fails to satisfy any payment terms of this Contract, Seller at its sole discretion and at Buyer's expense and risk may resell all or any part of the Goods on account of Buyer, hold all or any part of the Goods on account of Buyer, cancel all or any part of this Contract and/or claim any damages resulting from such breach.

In the event of late payment of any amount due hereunder, Seller shall, in addition to any other remedy it may have hereunder or pursuant to applicable law, be entitled to receive interest at the maximum rate allowed by law in the country/state of Buyer or eighteen percent (18%) per annum, whichever is greater, on such late payment until payment is received in full.

## EXHIBIT G

12. **Inspection.** Unless otherwise stated on the face of this Contract, any export inspections by Japanese authorities, Seller's suppliers or Seller shall be considered as final. When Buyer requires special inspection by an independently appointed inspector, Buyer shall inform Seller in writing the details of such special inspection including without limitation the name of such inspector at the time of this Contract. Such especial inspection shall be made promptly upon delivery of the Goods but in any event within two (2) weeks after delivery of the Goods, and all inspection fees and costs therefor shall be borne by Buyer.
13. **Warranty.** Seller warrants that any Goods delivered hereunder are free from defects in material and workmanship and, if Seller's specifications are set forth or incorporated by reference on the face hereof, or separately provided to Buyer, will meet such Seller's specifications.

Unless otherwise specified in Seller's warranty statement set forth or incorporated by reference on the face hereof, or separately provided to Buyer, Seller's liability under this warranty is limited to repair or replacement of any Goods delivered hereunder that do not conform to this warranty.

Buyer shall not be entitled to any remedy for lack of conformity of the Goods, including latent defects, under this warranty if he fails to notify Seller thereof within a six months period commencing on the shipment date of the Goods (and if there are more than one shipment dates, the first shipment date). Such notification shall contain full particulars of such lack of conformity of the Goods to the Seller's reasonable satisfaction.

Notwithstanding anything herein contained to the contrary, Seller shall have no liability under this warranty i) for minor deviations from Seller's specifications (if applicable) that do not affect the performance of the Goods, or ii) for any lack of conformity of the Goods caused by misuse, neglect, improper installation, handling, operation, or maintenance, repair, alteration, fair wear and tear, erosion or corrosion, or accident, including any damage or loss of the whole or a part of the Goods that occurs after the shipment date.

14. **Limitation of Liability.** EXCEPT AS EXPRESSLY STATED IN SECTION 13, SELLER HEREBY DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES WITH RESPECT TO THE GOODS, WHETHER EXPRESS, IMPLIED OR STATUTORY (EXCEPT AS TO TITLE) INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT AND OTHER IMPLIED WARRANTIES UNDER ANY APPLICABLE LAWS, RULES OR REGULATIONS. SECTION 13 SETS FORTH THE FULL EXTENT OF SELLER'S LIABILITY TO BUYER OR ANY OTHER PARTY FOR ANY BREACH OF WARRANTY WITH RESPECT TO THE GOODS.

NOTWITHSTANDING ANY OTHER PROVISION OF THIS CONTRACT, SELLER'S AGGREGATE AND CUMULATIVE LIABILITY ARISING OUT OF OR RELATING TO THIS CONTRACT, INCLUDING WITHOUT LIMITATION ON ACCOUNT OF PERFORMANCE OR NON-PERFORMANCE OF OBLIGATIONS, REGARDLESS OF THE FORM OF THE CAUSE OF ACTION, WHETHER IN CONTRACT, TORT (INCLUDING WITHOUT LIMITATION NEGLIGENCE), STATUTORY OR OTHERWISE WILL BE LIMITED TO DIRECT DAMAGES AND SHALL NOT EXCEED THE FULL CONTRACT AMOUNT OF GOODS STATED ON THE FACE HEREOF.

SELLER SHALL HAVE NO LIABILITY FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL OR SIMILAR DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE SALE, DELIVERY, NONDELIVERY, STORAGE, USE, MAINTENANCE, CONDITION OR POSSESSION OF THE GOODS.

15. **Arbitration.** All disputes or controversies which may arise between the parties hereto, out of or in relation to or in connection with this Contract, shall be negotiated in good faith and settled by agreement between both parties as promptly as possible. If not amicably settled within 14 days after the first negotiation day, such disputes or controversies shall be settled by arbitration in Seattle, Washington by arbitration administered by the American Arbitration Association in accordance with its Commercial Arbitration Rules including the Optional Rules for Emergency Measures of Protection, and judgment on the award rendered by the arbitrators shall be final and binding and may be entered in any court having jurisdiction thereof. All arbitration proceedings shall be held in the English language.

16. **Governing Law.** These Terms and Conditions shall be governed by and construed in accordance with the laws of the State of Washington, USA, for both domestic and international sales contract. All buyers agree that jurisdiction and venue shall be Seattle, Washington State.

17. **Liability for Delays and Return Trips.** Buyer agrees that if Seller or any of its representative's must make an additional service trip due to the site conditions not being ready for installation check, start up, or training to compensate them for their cost for additional travel expenses and pay for additional labor at their published labor rates. Additionally, should Buyer (or any of its representative's) cancel an installation check, start up, or training trip with less than 72 hours' notice, that Buyer will be liable for any additional travel costs and that the cancelling party will be liable for unused labor at their published labor rates.

18. **Change Orders.** If it is determined that the Seller needs to supply any other equipment or services not specified in the Sellers Project Proposal, shall warrant a change order.



**SCOPE OF SUPPLY FOR SUMMERHOUSE WASTEWATER TREATMENT PLANT  
ULTRAVIOLET DISINFECTION EQUIPMENT – TROJAN SYSTEM UV3000Plus™**

**Prepared for:** Summerhouse WRF, NC and McKim & Creed

**Project Name:** Summerhouse WRF UV System

**Consulting Engineer:** McKim & Creed

**Specification Section:** N/A

**Trojan Quote:** 238586 (May 12, 2023)

<b><u>Design Criteria:</u></b>	Peak Design Flow:	0.50 MGD
	Average Flow:	0.20 MGD
	UV Transmission:	65 % minimum
	Total Suspended Solids:	5 mg/l (maximum)
	UV Dose:	60 mJ/cm <sup>2</sup> MS2 RED
	Discharge Limit:	14 Fecal Coliform/100mL (30 Day Monthly Average) 25 Fecal Coliform/100mL (1 Day Maximum)

We are pleased to submit the following scope of equipment based on the above criteria.

**The purchaser is responsible for reading all information contained in this Supply Contract. Trojan will not be held accountable for the supply of equipment not specifically detailed in this document. Supplemental Terms and Conditions are attached to this document. Detailed installation instructions are provided with the shop drawings and are available earlier upon request. Changes to this Scope of Supply that affect selling price will be handled through a change order.**

**Please refer all inquiries to Trojan Manufacturer's Representative:**

Shane Eckley  
EW2 ENVIRONMENTAL, INC.  
Phone: (704) 542-2444

This proposal has been respectfully submitted by,  
**Trojan Technologies**

Mike Shortt  
Regional Manager  
Trojan Technologies

Unless otherwise indicated in this proposal all conduit, conductors, local disconnects and transformers (if required) are the responsibility of the CONTRACTOR and are not included in this Scope of Supply.

### **ULTRAVIOLET MODULES**

#### ***Trojan's Responsibility:***

Each module supplied shall be completely assembled containing lamps, quartz sleeves and be electrically wired to each electronic ballast. Modules are shipped in a support rack and crated.

<b>Model and Make:</b>	Standard System TrojanUV3000Plus™
<b>Quantity:</b>	8 UV modules will be supplied each containing 4 Lamps
<b>Material of Construction:</b>	316 stainless steel frame
<b>Approximate Weight:</b>	84 lbs

### **SYSTEM CONTROL CENTER**

#### ***Trojan's Responsibility:***

One (1) System Control Center (SCC) shall be supplied to monitor and control the UV System. Trojan will provide a PLC I/O and soft address map to aid the Contractor with integration of the UV PLC and WWTP SCADA system. The UV SCC shall consist of the following:

<b>Quantity Supplied</b>	One (1) SCC will be supplied
<b>Location:</b>	Wall mounted
<b>Controller Type:</b>	PLC (2022) Allen-Bradley
<b>Operator Interface:</b>	PLC (2022) HMI -Beijer -Type 4X (12")
<b>Panel UPS:</b>	40 Min on 24VDC
<b>Material of Construction:</b>	304 Stainless Steel - Type 4X (IP66)
<b>Enclosure Rating:</b>	Type 4X
<b>Approximate Weight:</b>	200 pounds

#### ***Installation Contractor's Responsibility:***

The Installation Contractor to be responsible for mounting the SCC as indicated on the drawings. The Installation Contractor to be responsible for the supply, installation and connection of the following at the SCC:

1. One (1) 120V 1 Ph, 2 Wire + Gnd, 60 Hz power supply
2. One (1) 4 – 20 mA DC analog signal from plant flow meter
3. One (1) Ground Link , 14 gauge minimum type TWH stranded, daisy chained to the HSC and PDCs.
4. One (1) serial communication link consisting of one (1) shielded twisted pair, 18 gauge (1mm<sup>2</sup>) maximum from the HSC and other PDCs (daisy chained).
5. One (1) 4 – 20 mA DC analog signal from the On-Line UVT Monitor (if specified)
6. Discrete signals from Plant SCADA for remote monitoring (or serial communication link to SCADA – describe protocol, Modbus, Ethernet, DH+ etc.)

### **POWER DISTRIBUTION CENTERS**

#### ***Trojan's Responsibility:***

The Power Distribution Center (PDC) distributes power to the UV Modules and shall consist of the following:

<b>Quantity Supplied:</b>	Total of 2 PDC(s) will be supplied
<b>Material of Construction:</b>	304 Stainless Steel - Type 4X (IP66)
<b>Enclosure Rating:</b>	Type 4X
<b>Approximate Weight:</b>	220 pounds

#### ***Installation Contractor's Responsibility:***

The Installation Contractor to be responsible for setting in place and bolting the Power Distribution Centers to the top of channel. The Installation Contractor to be responsible for the supply, installation and connection of the following at the Power Distribution Center(s):

1. One (1) 480/277V 60Hz, 4.10 kVA power feed with local disconnect to each of 2 PDC(s)
2. One (1) Ground Link, 14 gauge minimum, TWH stranded single wire from the HSC.
3. One (1) communication link consisting of one (1) shielded twisted pair from the SCC and daisy chained to other PDC's.
4. One (1) pair 24Volt DC, 18 gauge minimum power feed to the Level Control Panel from 2 PDCs in the channel, or a single PDC if only 1 per channel
5. One (1) pair of 24Volt DC, 18 gauge minimum discrete signal to the water Level Control Panel to each PDC(s).
6. Connection of communication, power cables and hydraulic lines from the UV Modules

### **HYDRAULIC SYSTEM CENTER**

#### ***Trojan's Responsibility:***

The Hydraulic System Center (HSC) houses the ancillary equipment required to operate the quartz sleeve cleaning system.

<b>Quantity Supplied:</b>	1 HSC will be supplied
<b>Materials of Construction:</b>	304 Stainless Steel - Type 4X (IP66)
<b>Enclosure Rating:</b>	Type 4X
<b>Approximate Weight:</b>	300 Pounds

#### ***Installation Contractor's Responsibility:***

The Installation Contractor to be responsible for setting in place and bolting the HSC and manifold as shown on the contract drawings. The HSC should be located within 50 feet (15 meters) from the farthest PDC. The Installation Contractor shall be responsible for the supply, connection and installation of the following at the HSC:

1. One (1) 480V 60Hz, 5 Amp power feed with local disconnect
2. One (1) ground link of, 14 gauge minimum, TWH stranded from the PDC(s).
3. Connection of the hydraulic hoses from PDC(s). Hoses and connections will be supplied by Trojan.
4. One (1) serial communication link of one (1) twisted, shielded pairs, 18 gauge (1mm<sup>2</sup>) maximum cable from the SCC and daisy chained to the PDC's.

### **SUPPORT RACKS**

#### ***Trojan's Responsibility:***

Support racks are provided to support UV modules in the effluent channel.

<b>Quantity Supplied:</b>	2 racks will be supplied
<b>Material of Construction:</b>	304 Stainless Steel
<b>Approximate Weight:</b>	< 100 pounds each

#### ***Installation Contractor's Responsibility:***

The Installation Contractor to be responsible for setting in place and bolting the support racks to the channel walls. The Contractor will be required to supply eight (8) 1/2" Diameter x 5 1/2" Long expansion anchor bolts per rack.

Install approved (engineered) anchor points for personnel to use as part of their fall restraint system around the open channels. The anchor points must be positioned so that the preferred retractable lifeline of 8 feet is of sufficient length to access the work at the channel. Refer to local safety regulation.

**LEVEL CONTROLLER*****Trojan's Responsibility***

A level control device is required per channel to maintain and control the effluent level, regardless of flow rate.

<b>Description:</b>	Weir
<b>Quantity Supplied:</b>	1 level controller
<b>Material of Construction:</b>	304 stainless steel
<b>Weir Length Required:</b>	128 inches per weir

***Installation Contractor's Responsibility:***

The Installation Contractor to be responsible for setting in place, grouting and sealing the level control device.

**WATER LEVEL SENSOR KIT*****Trojan's Responsibility:***

The water level sensor is located downstream of the UV System and provides a digital signal to shut down & protect the UV System if the water level is too low. The Water Level Sensor Kit includes the water level sensor probes as well as a Level Control Panel (LCP). Optionally there are high water level probes that provide a digital signal to the System Control Center.

<b>Quantity Supplied:</b>	1 Water Level Sensor with Level Control Panel (LCP)
<b>Enclosure Rating:</b>	Type 4X
<b>Approximate LCP Weight:</b>	25 pounds
<b>Approximate Probe Weight:</b>	10 pounds

***Installation Contractor's Responsibility:***

The Installation Contractor to be responsible for setting in place and bolting the water level probes assembly to the effluent channel wall and mounting the Level Control Panel as indicated on the drawings. The Installation Contractor shall also be responsible for the supply of mounting hardware, watertight conduit and supply and connection of one discrete signal (pair of 12V DC, 14 gauge (2.5mm<sup>2</sup>)) from the water level sensor probe to each LCP.

1. One (1) pair of 24Volt DC, 18 gauge minimum discrete signal to the water Level Control Panel to each PDC(s).
2. One (1) pair of 24Volt DC and 18 gauge minimum to the water Level Control Panel from 2 PDCs in the channel, or a single PDC if only 1 per channel.
3. One (1) pair of 12Volt DC, 18 gauge minimum discrete signal to the low water level probes from the Level Control Panel
4. One (1) pair of 24Volt DC, 18 gauge minimum discrete signal to the water Level Control Panel to the SCC for high water level [if required].
5. One (1) pair of 12Volt DC, 18 gauge minimum discrete signal to the high water level probes from the Level Control Panel [if required]

**SPARE PARTS AND SAFETY EQUIPMENT*****Trojan's Responsibility:***

The following spare parts and safety equipment will be supplied with the UV system:

- 4 UV lamp/Sleeve Assembly
- 1 Ballast
- 4 Wipers
- 1 Operators Kit (including face shield, gloves and cleaning solution)

**DAVIT CRANE*****Trojan's Responsibility***

In order to facilitate easy removal of the UV Modules from the Channel lifting devices will be supplied.

<b>Quantity Supplied:</b>	One (1) Davit Crane to be supplied
<b>Description:</b>	Thern Model # 5122M1-S19
<b>Material of Construction:</b>	Painted Mild Steel
<b>Approximate Weight:</b>	110 pounds each

***Installation Contractor's Responsibility:***

The Installation Contractor to be responsible for the installation and integrity of the crane base.

**INDIVIDUAL UV MODULE LIFTING SLING WITH FRAME*****Trojan's Responsibility:***

In order to remove individual modules, by mechanical means, a 2 rope sling with frame shall be supplied to interface with the existing overhead crane.

<b>Quantity:</b>	One (1) Sling Kit
<b>Materials of Construction:</b>	304 SST
<b>Approximate Weight:</b>	5 lbs

**DOCUMENTATION (SHOP DRAWINGS AND O & M MANUALS)*****Trojan's Responsibility:***

The following documentation will be supplied to the contractor by Trojan per the following schedule:

- One (1) electronic copy of Trojan Shop Drawing 5 – 6 weeks after acceptance of written purchase order
- One (1) electronic copy of Trojan Standard O&M manuals at time of equipment delivery

**DELIVERY, START-UP AND TRAINING**

Equipment shipped **26 – 28** weeks after approval of Shop Drawings.

***Trojan's Responsibility***

The following start-up services will be provided by Trojan-certified technicians:

- Installation assistance as required by phone or fax. Technical Assistance Center 1-866-388-0488 or [tac@trojanuv.com](mailto:tac@trojanuv.com)
- Start-up and testing of the installed UV equipment.

- If the Trojan's Certified Service Technician determines the Contractor work is not complete and the start-up cannot be completed in the allotted time a return visit will be scheduled at the Contractors expense.
- If trainees are not available a return visit will be scheduled at the Contractors expense.

***Installation Contractor's Responsibility:***

The Contractor is responsible for:

- Un loading of the components supplied by Trojan, storage of all components, if required in a clean dry environment
- Installing the equipment outlined in the scope of Supply in accordance with contract drawings, Trojan's shop drawings, instructions and installation checklist.
- Supplying all conduits and conductors and components per the sites state regulations and components indicated as supplied by others,
- Completing the Checklist and returned at least two (2) weeks prior to date requested for commissioning.

**WARRANTY*****Trojan's Responsibility:***

Trojan Technologies will warrant the equipment and parts for 12 months after start-up or 18 months after shipment, whichever comes first. Refer to attached Terms and Conditions for additional details.

**SELLING PRICE**

**\$ 194,500      USD**

- Selling price does not include any duties or taxes that may be applicable.
- Freight included if destination is within North America.
- Incoterms 2002: Ex Works (EXW) or Cost, Insurance and Freight (CIF) to destination or port will apply for all other destinations.

**PAYMENT TERMS & INVOICING MILESTONES****Net 30 Days**

- 30% upon Submittal Approval
- 60% upon Equipment Delivery to job site
- 5% upon Equipment Installation or 90 days after Delivery (whichever occurs first)
- 5% upon Equipment Acceptance

If UV System Start-up is required within 30 days of shipment, Trojan requires 95% payment unless agreed upon in writing before authorizing system Start-up.

**TERMS AND CONDITIONS**

Trojan appreciates the opportunity to submit this proposal. Our proposal is submitted subject to and based on Trojan's standard terms and conditions, which we have attached as part of our proposal. We believe these terms and conditions are customary in the trade and respectfully reserve the opportunity to negotiate, fair and reasonable contract terms acceptable to both parties, if Trojan is selected for this project



## Terms and Conditions of Sale

This document sets forth the Terms & Conditions of Sale for goods manufactured and/or supplied, and services provided, by the seller entity identified on the purchase order ("SELLER") and sold to the original purchaser thereof ("BUYER"). The term "SELLER" includes only SELLER, and none of its affiliates. Unless otherwise specifically stated in a previously-executed written purchase agreement signed by authorized representatives of SELLER and BUYER, these Terms & Conditions of Sale establish the rights, obligations and remedies of SELLER and BUYER which apply to this offer and any resulting order or contract for the sale of SELLER's goods and/or services ("Products").

**1. APPLICABLE TERMS & CONDITIONS:** These Terms & Conditions of Sale are contained directly and/or by reference in SELLER's proposal, offer, order acknowledgment, packing slip, and/or invoice documents. The first of the following acts constitutes an acceptance of SELLER's offer and not a counteroffer and creates a contract of sale ("Contract") in accordance with these Terms & Conditions of Sale: (i) BUYER's issuance of a purchase order document against SELLER's offer; (ii) acknowledgement of BUYER's order by SELLER; or (iii) commencement of any performance by SELLER pursuant to BUYER's order. Provisions contained in BUYER's purchase documents (including electronic commerce interfaces) that materially alter, add to, or subtract from the provisions of these Terms & Conditions of Sale are not a part of the Contract.

**2. CANCELLATION AND RETURN:** The whole or any part of this order may be cancelled only with the prior written consent of SELLER. If SELLER does consent to a cancellation, such consent will be given only upon payment of reasonable cancellation charges in an amount determined by SELLER. In addition, with respect to any Products returned on cancellation, BUYER will pay SELLER's cost of placing the returned Products in a saleable condition, sales expenses incurred by SELLER in connection with such returned Products, a reasonable restocking charge and freight costs incurred in connection with the original shipment and in connection with returning such Products to SELLER, all in such amounts as are advised to the BUYER by SELLER.

**3. DELIVERY:** Delivery will be accomplished EXW or CIP at the point of shipment (Incoterms 2020), unless otherwise expressly agreed between the parties. Legal title and risk of loss or damage pass to BUYER upon transfer to the first carrier, regardless of final destination and mode of transit. SELLER will use commercially reasonable efforts to deliver the Products ordered herein within SELLER's normal lead-time necessary for SELLER to deliver the Products sold hereunder. Products will be boxed or crated as determined appropriate by SELLER for protection against normal handling and there will be an extra charge to the BUYER for additional packaging required by the BUYER with respect to waterproofing or other added protection. BUYER has sole responsibility for off-loading, storage and handling of the Products at the site. Where Buyer is responsible for any delay in the delivery date or installation date, the earlier of the date of delivery or the date on which the Products are ready for shipment by SELLER may be treated as the delivery date for purposes of determining the time of payment of the purchase price. Moreover, BUYER will be responsible for reasonable storage and insurance expenses with respect to such Products. Should BUYER fail to effect pick-up of Product as previously agreed in a timely manner, SELLER may, at its discretion, assess reasonable storage charges to the account of BUYER.

**4. INSPECTION:** BUYER will promptly inspect and accept any Products delivered pursuant to this Contract after receipt of such Products. In the event the Products do not conform to any applicable specifications, BUYER will promptly notify SELLER of such nonconformance in writing. SELLER will have a reasonable opportunity to repair or replace the nonconforming Product at its option. BUYER will be deemed to have accepted any Products delivered hereunder and to have waived any such nonconformance for such Products unless a written notification pursuant to this paragraph is received by SELLER within thirty (30) days of delivery to BUYER destination on order.

**5. PRICES & ORDER SIZES:** Prices do not include any charges for services such as insurance; brokerage fees; sales, use, inventory, or excise taxes; import or export duties; special financing fees; value added tax, income, or royalty taxes imposed outside the U.S. or Canada; consular fees; special permits or licenses; or other charges imposed upon the production, sale, distribution, or delivery of Products. BUYER will either pay any and all such charges or provide SELLER with acceptable exemption certificates, which obligation survives performance under this Contract. Installation, maintenance and any other services which relate to the Products are not included unless specifically set forth in the quotation. SELLER reserves the right to establish minimum order sizes and will advise BUYER accordingly. Any orders below the minimum order size are subject to a fee as set out by SELLER. If SELLER's delivery of Products surpasses one (1) year in length, then at least on an annual basis, or if changes to the Products are requested or needed, the parties shall conduct good faith discussions regarding changes to the prices for the Products, to reflect SELLER's increased costs for which SELLER shall be entitled to additional fair and appropriate compensation.

**6. PAYMENTS:** All payments must be made in agreed-to currency, normally Canadian or U.S. Dollars. Unless other payment terms are expressly set forth in the purchase order or otherwise required by the Seller, invoices are due and payable NET 30 DAYS from date of the invoice, without regard to delays for inspection or transportation, with payments to be made by check to SELLER at the address listed in the purchase order or by bank transfer to the account obtainable from SELLER's Accounts Receivable Manager. In the event payments are not made or not made in a timely manner, SELLER may, in addition to all other remedies provided at law, either: (a) declare BUYER's performance in breach and terminate this Contract for default; (b) withhold future shipments until delinquent payments are made; (c) deliver future shipments on a cash-with-order or cash-in-advance basis even after the delinquency is cured; (d) charge interest on the outstanding balance at a rate of 1.5% per month or the maximum rate permitted by law, if lower, for each month or part thereof that there is an outstanding balance plus applicable storage charges and/or inventory carrying charges; (e) repossess the Products for which payment has not been made; (f) pursue other collection efforts and recover all associated costs including reasonable attorney's fees; or (g) combine any of the above rights and remedies as is practicable and permitted by law. BUYER is prohibited from setting off any and all monies owed under this Contract from any other sums, whether liquidated or not, that are or may be due to the BUYER, which arise out of a different transaction with SELLER or any of its affiliates. Should BUYER's financial condition become unsatisfactory to SELLER in its discretion, SELLER may require payment in advance or other security. If BUYER fails to meet these requirements, SELLER may treat such failure as reasonable grounds for repudiation of this Contract, in which case reasonable cancellation charges shall be due to SELLER. BUYER hereby grants SELLER a security interest in the Products, wherever located, and whether now existing or hereafter arising or acquired from time to time, and in all accessions thereto and replacements or modifications thereof, as well as all proceeds of the foregoing, to secure payment in full of all amounts to Seller, which payment releases the security interest but only if such payment could not be considered an avoidable transfer under applicable laws. The security interest granted hereby constitutes a purchase money security interest under the applicable Uniform Commercial Code or Personal Property Security Act or other applicable law, and SELLER is authorized to make whatever registration or notification or take such other action as SELLER deems necessary or desirable to perfect such security interest. BUYER's insolvency, bankruptcy, assignment for the benefit of creditors, or dissolution or termination of the existence of BUYER, constitutes a default under this Contract and affords SELLER all of the remedies of a secured creditor under applicable law, as well as the remedies stated above for late payment or non-payment.

**7. LIMITED WARRANTY:** Unless specifically provided otherwise in SELLER's quotation, SELLER provides the following Limited Warranty. SELLER warrants that Products sold hereunder will be free from defects in material and workmanship and will, when used in accordance with the manufacturer's operating and maintenance instructions, conform to any express written warranty pertaining to the specific goods purchased, which for Products is for a period of twelve (12) months from delivery. SELLER warrants that services furnished hereunder will be free from defects in workmanship for a period of ninety (90) days from the completion of the services. Products repaired or replaced are not covered by any warranty except to the extent repaired or replaced by SELLER, an authorized representative of SELLER, or under specific instructions by SELLER, in which cases, the Products will be covered under warranty up to the end of the warranty period applicable to the original Products. The above warranties do not include the cost of shipping and handling of returned items. Parts provided by SELLER in the performance of services may be new or refurbished parts functioning equivalent to new parts. Any non-functioning parts that are repaired by SELLER shall become the property of SELLER. No warranties are extended to consumable items such as, without limitation, light bulbs, and for normal wear and tear. All other guarantees, warranties, conditions and representations, either express or implied, whether arising under any statute, law, commercial usage or otherwise, including implied warranties of merchantability and fitness for a particular purpose, are hereby excluded. The sole remedy for Products not meeting this Limited Warranty is replacement, credit or refund of the purchase price, as determined by SELLER in its sole discretion. This remedy will not be deemed to have failed of its essential purpose so long as SELLER is willing to provide such replacement, credit or refund. To make a warranty claim, BUYER must notify SELLER in writing within 5 days of discovery of the defect in question. This notification must include a description of the problem, a copy of the applicable operator's log, a copy of BUYER's maintenance record and any analytical results detailing the problem. Any warranty hereunder or performance guarantees shall only be enforceable if (a) all equipment is properly installed, inspected regularly, and is in good working order, (b) all operations are consistent with SELLER recommendations, (c) operating conditions at the installation site have not materially changed and remain within anticipated specifications, and (d) no reasonably unforeseeable circumstances exist or arise.

**8. INDEMNIFICATION:** Indemnification applies to a party and to such party's successors-in-interest, assignees, affiliates, directors, officers, and employees ("Indemnified Parties"). SELLER is responsible for and will defend, indemnify and hold harmless the BUYER Indemnified Parties against all losses, claims, expenses or damages which may result from accident, injury, damage, or death due to SELLER's breach of the Limited Warranty. BUYER is responsible for and will defend, indemnify and hold harmless SELLER Indemnified Parties against all losses, claims, expenses, or damages which may result from accident, injury, damage, or death due to the negligence or misuse or misapplication of any Products or the breach of any provision of this Contract by the BUYER or any third party affiliated or in privity with BUYER.

**9. PATENT PROTECTION:** Subject to all limitations of liability provided herein, SELLER will, with respect to any Products of SELLER's design or manufacture, indemnify BUYER from any and all damages and costs as finally determined by a court of competent jurisdiction in any suit for infringement of any U.S. or Canadian patent (or European patent for Products that SELLER sells to BUYER for end use in a member state of the E.U. or the U.K.) that has issued as of the delivery date, solely by reason of the sale or normal use of any Products sold to BUYER hereunder and from reasonable expenses incurred by BUYER in defense of such suit if SELLER does not undertake the defense thereof, provided that BUYER promptly notifies SELLER of such suit and offers SELLER either (i) full and exclusive control of the defense of such suit when Products of SELLER only are involved, or (ii) the right to participate in the defense of such suit when products other than those of SELLER are also involved. SELLER's warranty as to use patents only applies to infringement arising solely out of the inherent operation of the Products according to their applications as envisioned by SELLER's specifications. In case the Products are in such suit held to constitute infringement and the use of the Products is enjoined, SELLER will, at its own expense and at its option, either procure for BUYER the right to continue using such Products or replace them with non-infringing products, or modify them so they become non-infringing, or remove the Products and refund the purchase price (prorated for depreciation) and the transportation costs thereof. The foregoing states the entire liability of SELLER for patent

infringement by the Products. Further, to the same extent as set forth in SELLER's above obligation to BUYER, BUYER agrees to defend, indemnify and hold harmless SELLER for patent infringement related to (x) any goods manufactured to the BUYER's design, (y) services provided in accordance with the BUYER's instructions, or (z) SELLER's Products when used in combination with any other devices, parts or software not provided by SELLER hereunder.

**10. TRADEMARKS AND OTHER LABELS:** BUYER agrees not to remove or alter any indicia of manufacturing origin or patent numbers contained on or within the Products, including without limitation the serial numbers or trademarks on nameplates or cast, molded or machined components.

**11. SOFTWARE AND INTELLECTUAL PROPERTY:** All licenses to SELLER's separately provided software products are subject to the separate software license agreement(s) accompanying the software media. In the absence of such express licenses and for all other software, SELLER grants BUYER only a personal, non-exclusive license to access and use the software provided by SELLER with Products purchased hereunder solely as necessary for BUYER to enjoy the benefit of the Products. A portion of the software may contain or consist of open source software, which BUYER may use under the terms and conditions of the specific license under which the open source software is distributed. BUYER agrees that it will be bound by all such license agreements. Title to software remains with the applicable licensor(s). All SELLER contributions to the Products, the results of the services, and any other work designed or provided by SELLER hereunder may contain or result in statutory and non-statutory Intellectual Property, including but not limited to patentable subject matter or trade secrets; and all such Intellectual Property remains the sole property of SELLER; and BUYER shall not disclose (except to the extent inherently necessary during any resale of Product sold hereunder), disassemble, decompile, or any results of the Services, or any Products, or otherwise attempt to learn the underlying processes, source code, structure, algorithms, or ideas.

**12. PROPRIETARY INFORMATION AND PRIVACY:** "Proprietary Information" means any information, technical data, or know-how in whatever form, whether documented, contained in machine readable or physical components, mask works or artwork, or otherwise, which SELLER considers proprietary, including but not limited to service and maintenance manuals. BUYER and its customers, employees, and agents will keep confidential all such Proprietary Information obtained directly or indirectly from SELLER and will not transfer or disclose it without SELLER's prior written consent, or use it for the manufacture, procurement, servicing, or calibration of Products or any similar products, or cause such products to be manufactured, serviced, or calibrated by or procured from any other source, or reproduce or otherwise appropriate it. All such Proprietary Information remains SELLER's property. No right or license is granted to BUYER or its customers, employees or agents, expressly or by implication, with respect to the Proprietary Information or any patent right or other proprietary right of SELLER, except for the limited use licenses implied by law. In respect of personal data supplied by BUYER to SELLER, BUYER warrants that is duly authorized to submit and disclose these data, including but not limited to obtaining data subjects' informed consent. SELLER will manage BUYER's information and personal data in accordance with its Privacy Policy, a copy of which is available to Buyer upon request. In respect of other data and information that SELLER may receive in connection with BUYER's use of the Products including without limitation data that are captured by the Products and transmitted to SELLER, BUYER hereby grants SELLER a non-exclusive, worldwide, royalty-free, perpetual, non-revocable license to use, compile, distribute, display, store, process, reproduce, or create derivative works of such data as needed for Product operation and maintenance, and to aggregate such data for use in an anonymous manner, solely to facilitate marketing, sales and R&D activities of SELLER and its affiliates.

**13. SPECIAL TOOLS, DIES, JIGS, FIXTURES AND PATTERNS:** Any tools, dies, jigs, fixtures, patterns and similar items which are included or required in connection with the manufacture and/or supply of the Products will remain the property of SELLER without credit to the BUYER. SELLER assumes the cost for maintenance and replacement of such items and shall have the right to discard and scrap any such item after it has been inactive for a minimum of one year, without credit to the BUYER.

**14. CHANGES AND ADDITIONAL CHARGES:** SELLER reserves the right to make design changes or improvements to any products of the same general class as Products being delivered hereunder without liability or obligation to incorporate such changes or improvements to Products ordered by BUYER unless agreed upon in writing before the Products' delivery date.

**15. SITE ACCESS / PREPARATION / WORKER SAFETY / ENVIRONMENTAL COMPLIANCE:** In connection with services provided by SELLER, BUYER agrees to permit prompt access to equipment. BUYER assumes full responsibility to back-up or otherwise protect its data against loss, damage or destruction before services are performed. BUYER is the operator and in full control of its premises, including those areas where SELLER employees or contractors are performing service, repair, and maintenance activities. BUYER will ensure that all necessary measures are taken for safety and security of working conditions, sites, and installations during the performance of any services. BUYER is the generator of any resulting wastes, including without limitation hazardous wastes. BUYER is solely responsible to arrange for the disposal of any wastes at its own expense. BUYER will, at its own expense, provide SELLER employees and contractors working on BUYER's premises with all information and training required under applicable safety compliance regulations and BUYER's policies. SELLER has no responsibility for the supervision or actions of BUYER's employees or contractors or for non-SELLER items (e.g., chemicals, equipment) and disclaims all liability and responsibility for any loss or damage that may be suffered as a result of such actions or items, or any other actions or items not under SELLER's control.

**16. LIMITATIONS ON USE:** BUYER will not use any Products for any purpose other than those identified in SELLER's catalogs and literature as intended uses. Unless SELLER has advised the BUYER in writing, in no event will BUYER use any Products in drugs, food additives, food, or cosmetics, or medical applications for humans or animals. In no event will BUYER use in any application any Product that requires FDA 510(k) clearance unless and only to the extent the Product has such clearance. BUYER will not sell, transfer, export, or re-export any SELLER Products or technology for use in activities which involve the design, development, production, use, or stockpiling of nuclear, chemical, or biological weapons or missiles, nor use SELLER Products or technology in any facility which engages in activities relating to such weapons. Unless the "ship-to" address is in California, U.S.A., the Products are not intended for sale in California and may lack markings required by California Proposition 65; accordingly, unless BUYER has ordered Products specifying a California ship-to address, BUYER will not sell or deliver any SELLER Products for use in California. Any warranty granted by SELLER is void if any goods covered by such warranty are used for any purpose not permitted hereunder.

**17. EXPORT AND IMPORT LICENSES AND COMPLIANCE WITH LAWS:** Unless otherwise expressly agreed, BUYER is responsible for obtaining any required export or import licenses necessary for Product delivery. BUYER will comply with all laws and regulations applicable to the installation or use of all Product, including applicable import and export control laws and regulations of the U.S., E.U., and any other country having proper jurisdiction, and will obtain all necessary export or import licenses in connection with any subsequent export, re-export, transfer, and use of all Product and technology delivered hereunder. BUYER will not sell, transfer, export, or re-export any SELLER Product or technology for use in activities which involve the design, development, production, use or stockpiling of nuclear, chemical, or biological weapons or missiles, nor use SELLER Product or technology in any facility which engages in activities relating to such weapons. BUYER will comply with all local, national, and other laws of all jurisdictions globally relating to anti-corruption, bribery, extortion, kickbacks, or similar matters which are applicable to BUYER's business activities in connection with this Contract, including but not limited to the U.S. Foreign Corrupt Practices Act of 1977, as amended (the "FCPA"). BUYER agrees that no payment of money or provision of anything of value will be offered, promised, paid, or transferred, directly or indirectly, by any person or entity, to any government official, government employee, or employee of any company owned in part by a government, political party, political party official, or candidate for any government office or political party office to induce such organizations or persons to use their authority or influence to obtain or retain an improper business advantage for BUYER or for SELLER, or which otherwise constitute or have the purpose or effect of public or commercial bribery, acceptance of or acquiescence in extortion, kickbacks, or other unlawful or improper means of

obtaining business or any improper advantage, with respect to any of BUYER's activities related to this Contract. SELLER asks BUYER to "Speak Up!" if aware of any violation of law, regulation, or our Code of Conduct ("CoC") in relation to this Contract. See [www.danaherintegrity.com](http://www.danaherintegrity.com) and [www.danaher.com/how-we-work/integrity-and-compliance](http://www.danaher.com/how-we-work/integrity-and-compliance) for a copy of the CoC and for access to our Helpline portal.

**18. RELATIONSHIP OF PARTIES:** BUYER is not an agent or representative of SELLER and will not present itself as such under any circumstances, unless and to the extent it has been formally screened by SELLER's compliance department and received a separate duly-authorized letter from SELLER setting forth the scope and limitations of such authorization.

**19. FORCE MAJEURE:** SELLER is excused from performance of its obligations under this Contract to the extent caused by acts or omissions that are beyond its control, including but not limited to Government embargoes, blockages, seizures or freezing of assets, delays, or refusals to grant an export or import license, or the suspension or revocation thereof, or any other acts of any Government; fires, floods, severe weather conditions, or any other acts of God; quarantines; epidemics and pandemics; labor strikes or lockouts; riots; strife; insurrections; civil disobedience or acts of criminals or terrorists; war; material shortages or delays in deliveries to SELLER by third parties. In the event of the existence of any force majeure circumstances, the period of time for delivery, payment terms, and payments under any letters of credit will be extended for a period of time equal to the period of delay. If the force majeure circumstances extend for six months, SELLER may, at its option, terminate this Contract without penalty and without being deemed in default or in breach thereof.

**20. NON-ASSIGNMENT AND WAIVER:** BUYER will not transfer or assign this Contract or any rights or interests hereunder without SELLER's prior written consent. Failure of either party to insist upon strict performance of any provision of this Contract, or to exercise any right or privilege contained herein, or the waiver of any breach of the terms or conditions of this Contract, will not be construed as thereafter waiving any such terms, conditions, rights, or privileges, and the same will continue and remain in force and effect as if no waiver had occurred.

**21. FUNDS TRANSFERS:** BUYER and SELLER both recognize that there is a risk of banking fraud when individuals impersonating a business demand payment under new mailing or banking transfer instructions. To avoid this risk, BUYER must verbally confirm any new or changed mailing or banking transfer instructions by calling SELLER and speaking with SELLER's Accounts Receivable Manager before transferring any monies using the new instructions. Both parties agree that they will not institute mailing or banking transfer instruction changes and require immediate payment under the new instructions, but will instead provide a ten (10) day grace period to verify any mailing or banking transfer instruction changes before any new or outstanding payments are due using the new instructions.

**22. LIMITATION OF LIABILITY:** None of SELLER, its successors-in-interest, assignees, affiliates, directors, officers, and employees will be liable to any BUYER Indemnified Parties under any circumstances for any special, treble, incidental, or consequential damages, including without limitation, damage to or loss of property other than for the Products purchased hereunder; damages incurred in installation, repair, or replacement; lost profits, revenue, or opportunity; loss of use; losses resulting from or related to downtime of the Products or inaccurate measurements or reporting; the cost of substitute products; or claims of any BUYER's Indemnified Parties' customers for such damages, howsoever caused, and whether based on warranty, contract, and/or tort (including negligence, strict liability or otherwise). The total liability of SELLER, its successors-in-interest, assignees, affiliates, directors, officers, and employees arising out of the performance or nonperformance hereunder, or SELLER's obligations in connection with the design, manufacture, sale, delivery, and/or use of Products, will in no circumstance exceed the amount actually paid to SELLER for Products delivered hereunder.

**23. APPLICABLE LAW AND DISPUTE RESOLUTION:** All issues relating to the construction, validity, interpretation, enforcement, and performance of this agreement and the rights and obligations of SELLER and the BUYER hereunder shall be governed by the laws of the Province of Ontario and the federal laws of Canada applicable therein. Any provisions of the International Sale of Goods Act or any convention on contracts for the international sale of goods shall not be applicable to this agreement. The parties submit to and consent to the non-exclusive jurisdiction of courts located in the Province of Ontario.

**24. ENTIRE AGREEMENT, TERM & MODIFICATION:** These Terms & Conditions of Sale constitute the entire agreement between the parties and supersede any prior agreements or representations, whether oral or written. Upon thirty (30) days prior written notice, SELLER may, in its sole discretion, elect to terminate any order for the sale of Products and provide a pro-rated refund for any pre-payment of undelivered Products. No change to or modification of these Terms & Conditions shall be binding upon SELLER unless in a written instrument specifically referencing that it is amending these Terms & Conditions of Sale and signed by an authorized representative of SELLER. SELLER rejects any additional or inconsistent Terms & Conditions of Sale offered by BUYER at any time, whether or not such terms or conditions materially alter the Terms & Conditions herein and irrespective of SELLER's acceptance of BUYER's order for the described goods and services.

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Terms and Conditions Covering Sales of Configured-to-Order Projects and Systems

In addition to all terms and conditions above, the following sections apply to sales of Configured-to-Order Projects, Systems, and the like:

**101. PAYMENT.**

**101.1** Payments will be made per the schedule of payment events set forth in Seller's Quotation; provided that if the Start-Up Date (as defined below) is less than 30 days after the Acceptance Date, 90% of the purchase price is due on or before the Start-Up Date.

**101.2.** In the event that achievement of a scheduled payment event is delayed or suspended due to the Buyer's convenience or other reasons for which the Buyer or its representatives is responsible, such payment event will be deemed to have occurred and Seller shall be entitled to invoice Buyer as if achievement of such payment event had been achieved. In such circumstances, Buyer must notify Seller in writing of the reasons for the delay and anticipated duration of the delay. Seller will mark the Products (or parts thereof) as the Buyer's property and shall store the Products (or parts thereof) in a segregated area until actual delivery.

**102. DELIVERY**

**102.1** SELLER will request the BUYER to provide a firm date for delivery of the Products to the project site (the "Delivery Date") which SELLER will then use to establish the production schedule for the Products. The Delivery Date will then be binding on the BUYER except for any changes made in accordance with the provisions below.

**102.2** The BUYER can request a rescheduling of the Delivery Date on one occasion only by notifying SELLER in writing not less than four weeks prior to the scheduled Delivery Date. The BUYER may request that the Delivery Date be extended by a period up to six weeks, without penalty, but may not request that the Delivery Date be moved forward. The BUYER may also request that the Delivery Date be extended beyond a six-week period but, SELLER may not agree to such extension, beyond the maximum six-week extension period

**102.3** SELLER may, in its sole discretion, agree to change the Delivery Date on more than one occasion or if less than four weeks' prior notice is provided of a requested change, but is under no obligation to do so.

**102.4** SELLER reserves the right to reschedule the Delivery Date to a date prior to or subsequent to the scheduled Delivery Date in order to accommodate its shipping, production or other requirements. This right to reschedule will be applicable unless otherwise agreed in writing by an authorized officer of SELLER. SELLER will provide the BUYER or its representative with a minimum of 24 hours' notice of any such rescheduling.

**102.5** Where any change to the Delivery Date is made at BUYER's request, for all purposes with respect to the warranty and payment provided by SELLER in connection with the Products, the initial Delivery Date will be considered to be the Delivery Date regardless of any change later made to the Delivery Date.

### **103. ACCEPTANCE**

**103.1** During the period between the Delivery Date and the Start-up Date, the BUYER shall prepare the Products and the project site for installation and start-up and, unless otherwise agreed in writing by an authorized representative of SELLER, shall complete acceptance testing with respect to the Products. The Products shall be deemed to be accepted on the earliest to occur of the following dates (the "Acceptance Date"): (a) that date on which the Products can function in either manual or automatic operation and provide disinfection in accordance with criteria specified in the Quotation, or (b) 60 days after the Delivery Date.

**103.2** All amounts which remain owing by the BUYER for the Products, including any amount which is specified to be payable on the Acceptance Date, will be paid by the BUYER to SELLER within 30 days after the Acceptance Date, unless otherwise agreed in writing by an authorized representative of SELLER.

**103.3** Written notification must be given by the BUYER to SELLER within seven days after the Acceptance Date listing any outstanding deficiencies with respect to the Products and SELLER will use all reasonable efforts to correct such deficiencies promptly.

### **104. START-UP**

**104.1** SELLER will request a firm date for start-up of the Equipment (the "Start-Up Date"). Trojan will then schedule its technician to be on-site for the Start-up Date. The Start-up Date is binding except for any changes made in accordance with the provisions below.

**104.2** On the Start-up Date, BUYER must have the Equipment and site ready as provided in the Installation Preparation Checklist contained in the Contractor Installation Package sent to BUYER and must have paid all amounts then due and payable to SELLER.

**104.3** BUYER can request a rescheduling of the Start-up Date by notifying SELLER in writing not less than three weeks prior to the Start-up Date. BUYER may request that the Start-up Date be extended but may not request that the Start-up Date be moved forward. SELLER requires a minimum extension period of two weeks between the existing Start-up Date and the requested new Start-up Date in order to reschedule its technician.

**104.4** SELLER may, in its sole discretion, agree to reschedule the Start-up Date where a BUYER requests less than a two-week extension but is under no obligation to do so. In the event that SELLER does agree to less than a two-week extension or that BUYER requests more than two changes to the Start-up Date, BUYER will be charged an administration fee in an amount determined by SELLER.

**104.5** SELLER reserves the right to reschedule the Start-up Date to a date which is prior to or subsequent to the scheduled Start-up Date in order to accommodate its resource availability. This right to reschedule will be applicable unless otherwise agreed in writing by an authorized officer of SELLER. SELLER will provide BUYER or its representative with a minimum of 72 hours' notice of any such change to the Start-up Date.

**104.6** In the event that SELLER'S technician arrives at the project site and finds that the Equipment or the project site is not ready for start-up as defined in the Contractor Installation Package, or any amounts then due and payable to SELLER remain unpaid, BUYER may either:

(a) provided all amounts then due and payable to SELLER have been paid, issue a purchase order for all costs involved in having SELLER correct the deficiencies, or

(b) have SELLER'S technician leave the site and then reschedule the Start-up Date to a date when all deficiencies will be corrected, and the Equipment will be ready for start-up as defined in the Contractor Installation Package. If BUYER selects this option, the cost of rescheduling will be not less than a minimum amount specified by SELLER, with the final cost being determined by SELLER based on its costs and expenses incurred in connection with the rescheduling.

**ADMINISTRATIVE SERVICE AGREEMENT**

**AGREEMENT** made this 9 day of May, 2023, by and between **ONSLow WATER AND SEWER AUTHORITY** (the "Authority") a body politic and corporate of the State of North Carolina, and the **TOWN of HOLLY RIDGE** (the "TOWN"), a municipal corporation of the State of North Carolina;

WITNESSETH:

**WHEREAS**, the County of Onslow (the "County") the City of Jacksonville, and the Towns of Swansboro, Richlands, North Topsail Beach and Holly Ridge, acting through their respective governing bodies, pursuant to the provisions of Article 1, Chapter 162A of the General Statutes of North Carolina, organized and incorporated the Authority as a vehicle to assist in providing a satisfactory supply of potable water and sewer collection/treatment for citizens of the member governments of the Authority; and,

**WHEREAS**, in furtherance of the purposes for which the Authority was created, the County and above referenced municipalities, with the exception of Jacksonville, leased to the Authority their water and sewer systems pursuant to long term Capital Lease Agreements and the Authority pursuant to Water and Sewer Service Agreements having terms concurrent with the Capital Lease Agreements, agreed with each such member government to meet the water and sewer needs of their citizens within the limitations of available supply; and

**WHEREAS**, the Authority's main offices are on Georgetown Road in the City of Jacksonville; and

**WHEREAS**, for the convenience of customers of the Authority located in or in the general vicinity of the Town, it was provided in the Water and Sewer Service Agreement with the Town that the Authority shall maintain facilities in the Town for the purpose of the bill payment and telephone communication from customers; and

**WHEREAS**, pursuant to N.C. Gen. Stat. § 162A-6 the Authority is authorized to enter into agreements with units of government relating to the operation of the Authority's utility systems; and

**NOW, THEREFORE**, in consideration of the mutual covenants and conditions herein contained, the parties hereto agree as follows:

1. The Town shall, at its sole cost and expense, perform certain duties on behalf of the Authority, such as collecting payment for services provided by the Authority. The exact functions to be performed by the Town are described on **EXHIBIT A** attached hereto and made a part hereof. The Town shall prominently display ONWASA's name on office doors and in other suitable locations on the exterior of the Town Hall premises as is reasonably necessary to advise the public that Authority administrative services are available at the Town Hall. The Authority shall be responsible for providing the Town with such computer, internet, technical support and supplies as necessary at the discretion of the Authority for the Town to perform its duties under this Agreement.
2. The Authority shall pay to the Town for services performed pursuant to this Agreement the sum of \$2,916.67 per month, payable on or before the 10<sup>th</sup> day of each month; provided, however the Authority may deduct from any monthly payment an amount equal to \$16.83 (35,000/2,080) for each hour in the previous month worked by Authority personnel in

performing any administrative services which the Town was obligated to perform pursuant to this Agreement.

3. In lieu of providing the services to the Authority set forth in paragraph 1 above, the Town may at time during the term of this Agreement request the Authority to set up a kiosk in the Town to provide services to the citizens. Should this request be made, the Authority shall, as soon as practicable, establish a kiosk in the Town to provide services. Beginning at the end of the month in which a kiosk is established in the Town, all payments provided in paragraph 2 above shall cease, and the Town shall have no further obligation to provide those services set forth in paragraph 1 above.
4. This Agreement shall continue in effect through June 2024. Either party may terminate this Agreement as of the end of any month by giving the other party at least 60 days notice in advance of the termination date. If a Town is providing services as set forth in paragraph 1 above, a decision to reduce operating hours would be at the discretion of the Authority's Member Governments hosting these satellite offices if Town Facilities are being utilized.
5. The Authority agrees on behalf of the Town to bill to any Authority customers any solid waste fees which such customers may also owe the Town. The Authority will collect such fees in the routine course and remit all payments to the Town. The Authority shall not be responsible for bringing any legal action or taking any extraordinary steps to collect amounts due the Town, other than billing for such charges and remitting any collections to the Town. All claims on account of the Authority billing for and collecting sewer and solid waste fees on behalf of the Town shall be made against the Town, and shall be the sole liability of the Town.
6. The Town and the Authority, in the performance of this Agreement, will be acting in an individual capacity and not as the employee, partner, joint venture, agent or associate of one another, except as may be expressly otherwise provided herein.
7. This Agreement may be modified only by a written agreement executed by both parties hereto.
8. This Agreement is not assignable by either party, by operation of law or otherwise.
9. This Agreement sets forth the entire agreement between the Authority and the Town and supersedes any and all other agreements on this subject between the parties.
10. In the event of any noncompliance of any term or terms of this Agreement by the Town, the Authority may, at its sole option, declare the Town in default and immediately terminate this Agreement.
11. The laws of the State of North Carolina shall control and govern this Agreement.
12. Any claims, disputes, or other controversies arising out of, and between parties to this Agreement which may ensue shall be subject to and decided by the appropriate division of the General Court of Justice in Onslow County, North Carolina.

**IN WITNESS WHEREOF**, the parties hereto, acting by and through their duly authorized representatives pursuant to the resolutions of their respective governing bodies, have caused this instrument to be executed as of the day and year first above written.

**ONSWLOW WATER & SEWER AUTHORITY**

**TOWN OF HOLLY RIDGE**

By: Michael Royce Bennett  
(PRINT NAME/TITLE)

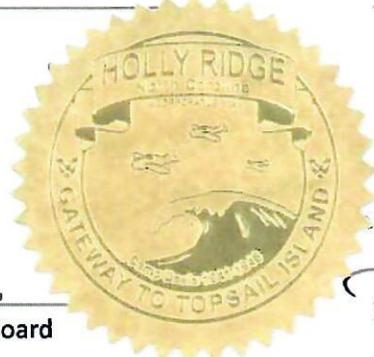
By: Jeff Wenzel, Mayor  
(PRINT NAME/TITLE)

*[Handwritten Signature]*

*[Handwritten Signature]*

(SIGNATURE)

(SIGNATURE)



*[Handwritten Signature]*  
ONWASA Clerk to the Board

ATTEST:  
*[Handwritten Signature]*  
Town Clerk

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

*[Handwritten Signature]*  
Chief Financial Officer

**Exhibit A**

**DUTIES**

- Collection of payments from customers
- Post payments to customers' accounts
- Process payments received in drop box
- Balance cash and make bank deposit daily
- Process applications for service at existing properties which includes collecting deposit and associated fees
- Process payments for reconnection of service terminated for non-payment and generate adjustment journal
- Generate service orders for termination of service requested by customer

## ADMINISTRATIVE SERVICE AGREEMENT

**AGREEMENT** made this 9th day of May, 2023, by and between **ONSLOW WATER AND SEWER AUTHORITY** (the "Authority") a body politic and corporate of the State of North Carolina, and the **TOWN of RICHLANDS** (the "TOWN"), a municipal corporation of the State of North Carolina;

WITNESSETH:

**WHEREAS**, the County of Onslow (the "County") the City of Jacksonville, and the Towns of Swansboro, Richlands, North Topsail Beach and Holly Ridge, acting through their respective governing bodies, pursuant to the provisions of Article 1, Chapter 162A of the General Statutes of North Carolina, organized and incorporated the Authority as a vehicle to assist in providing a satisfactory supply of potable water and sewer collection/treatment for citizens of the member governments of the Authority; and,

**WHEREAS**, in furtherance of the purposes for which the Authority was created, the County and above referenced municipalities, with the exception of Jacksonville, leased to the Authority their water and sewer systems pursuant to long term Capital Lease Agreements and the Authority pursuant to Water and Sewer Service Agreements having terms concurrent with the Capital Lease Agreements, agreed with each such member government to meet the water and sewer needs of their citizens within the limitations of available supply; and

**WHEREAS**, the Authority's main offices are on Georgetown Road in the City of Jacksonville; and

**WHEREAS**, for the convenience of customers of the Authority located in or in the general vicinity of the Town, it was provided in the Water and Sewer Service Agreement with the Town that the Authority shall maintain facilities in the Town for the purpose of the bill payment and telephone communication from customers; and

**WHEREAS**, pursuant to N.C. Gen. Stat. § 162A-6 the Authority is authorized to enter into agreements with units of government relating to the operation of the Authority's utility systems; and

**NOW, THEREFORE**, in consideration of the mutual covenants and conditions herein contained, the parties hereto agree as follows:

1. The Town shall, at its sole cost and expense, perform certain duties on behalf of the Authority, such as collecting payment for services provided by the Authority. The exact functions to be performed by the Town are described on **EXHIBIT A** attached hereto and made a part hereof. The Town shall prominently display ONWASA's name on office doors and in other suitable locations on the exterior of the Town Hall premises as is reasonably necessary to advise the public that Authority administrative services are available at the Town Hall. The Authority shall be responsible for providing the Town with such computer, internet, technical support and supplies as necessary at the discretion of the Authority for the Town to perform its duties under this Agreement.
2. The Authority shall pay to the Town for services performed pursuant to this Agreement the sum of \$2,916.67 per month, payable on or before the 10<sup>th</sup> day of each month; provided, however the Authority may deduct from any monthly payment an amount equal to \$16.83 (35,000/2,080) for each hour in the previous month worked by Authority personnel in

performing any administrative services which the Town was obligated to perform pursuant to this Agreement.

3. In lieu of providing the services to the Authority set forth in paragraph 1 above, the Town may at time during the term of this Agreement request the Authority to set up a kiosk in the Town to provide services to the citizens. Should this request be made, the Authority shall, as soon as practicable, establish a kiosk in the Town to provide services. Beginning at the end of the month in which a kiosk is established in the Town, all payments provided in paragraph 2 above shall cease, and the Town shall have no further obligation to provide those services set forth in paragraph 1 above.
4. This Agreement shall continue in effect through June 2024. Either party may terminate this Agreement as of the end of any month by giving the other party at least 60 days notice in advance of the termination date. If a Town is providing services as set forth in paragraph 1 above, a decision to reduce operating hours would be at the discretion of the Authority's Member Governments hosting these satellite offices if Town Facilities are being utilized.
5. The Authority agrees on behalf of the Town to bill to any Authority customers any solid waste fees which such customers may also owe the Town. The Authority will collect such fees in the routine course and remit all payments to the Town. The Authority shall not be responsible for bringing any legal action or taking any extraordinary steps to collect amounts due the Town, other than billing for such charges and remitting any collections to the Town. All claims on account of the Authority billing for and collecting sewer and solid waste fees on behalf of the Town shall be made against the Town, and shall be the sole liability of the Town.
6. The Town and the Authority, in the performance of this Agreement, will be acting in an individual capacity and not as the employee, partner, joint venture, agent or associate of one another, except as may be expressly otherwise provided herein.
7. This Agreement may be modified only by a written agreement executed by both parties hereto.
8. This Agreement is not assignable by either party, by operation of law or otherwise.
9. This Agreement sets forth the entire agreement between the Authority and the Town and supersedes any and all other agreements on this subject between the parties.
10. In the event of any noncompliance of any term or terms of this Agreement by the Town, the Authority may, at its sole option, declare the Town in default and immediately terminate this Agreement.
11. The laws of the State of North Carolina shall control and govern this Agreement.
12. Any claims, disputes, or other controversies arising out of, and between parties to this Agreement which may ensue shall be subject to and decided by the appropriate division of the General Court of Justice in Onslow County, North Carolina.

**IN WITNESS WHEREOF**, the parties hereto, acting by and through their duly authorized representatives pursuant to the resolutions of their respective governing bodies, have caused this instrument to be executed as of the day and year first above written.

**ONWSLOW WATER & SEWER AUTHORITY**

By: Michael Royce Bennett  
(PRINT NAME/TITLE)

[Signature]  
(SIGNATURE)



ATTEST:

[Signature]  
ONWSA Clerk to the Board

**TOWN OF RICHLANDS**

By: McKinley D. Smith, Mayor  
(PRINT NAME/TITLE)

[Signature]  
(SIGNATURE)

ATTEST:

[Signature]  
Town Clerk

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

[Signature]  
Chief Financial Officer

**Exhibit A**

**DUTIES**

- Collection of payments from customers
- Post payments to customers' accounts
- Process payments received in drop box
- Balance cash and make bank deposit daily
- Process applications for service at existing properties which includes collecting deposit and associated fees
- Process payments for reconnection of service terminated for non-payment and generate adjustment journal
- Generate service orders for termination of service requested by customer

## ADMINISTRATIVE SERVICE AGREEMENT

**AGREEMENT** made this 2nd day of May, 2023, by and between **ONSLow WATER AND SEWER AUTHORITY** (the "Authority") a body politic and corporate of the State of North Carolina, and the **TOWN of SWANSBORO** (the "TOWN"), a municipal corporation of the State of North Carolina;

WITNESSETH:

**WHEREAS**, the County of Onslow (the "County") the City of Jacksonville, and the Towns of Swansboro, Richlands, North Topsail Beach and Holly Ridge, acting through their respective governing bodies, pursuant to the provisions of Article 1, Chapter 162A of the General Statutes of North Carolina, organized and incorporated the Authority as a vehicle to assist in providing a satisfactory supply of potable water and sewer collection/treatment for citizens of the member governments of the Authority; and,

**WHEREAS**, in furtherance of the purposes for which the Authority was created, the County and above referenced municipalities, with the exception of Jacksonville, leased to the Authority their water and sewer systems pursuant to long term Capital Lease Agreements and the Authority pursuant to Water and Sewer Service Agreements having terms concurrent with the Capital Lease Agreements, agreed with each such member government to meet the water and sewer needs of their citizens within the limitations of available supply; and

**WHEREAS**, the Authority's main offices are on Georgetown Road in the City of Jacksonville; and

**WHEREAS**, for the convenience of customers of the Authority located in or in the general vicinity of the Town, it was provided in the Water and Sewer Service Agreement with the Town that the Authority shall maintain facilities in the Town for the purpose of the bill payment and telephone communication from customers; and

**WHEREAS**, pursuant to N.C. Gen. Stat. § 162A-6 the Authority is authorized to enter into agreements with units of government relating to the operation of the Authority's utility systems; and

**NOW, THEREFORE**, in consideration of the mutual covenants and conditions herein contained, the parties hereto agree as follows:

1. The Town shall, at its sole cost and expense, perform certain duties on behalf of the Authority, such as collecting payment for services provided by the Authority. The exact functions to be performed by the Town are described on **EXHIBIT A** attached hereto and made a part hereof. The Town shall prominently display ONWASA's name on office doors and in other suitable locations on the exterior of the Town Hall premises as is reasonably necessary to advise the public that Authority administrative services are available at the Town Hall. The Authority shall be responsible for providing the Town with such computer, internet, technical support and supplies as necessary at the discretion of the Authority for the Town to perform its duties under this Agreement.
2. The Authority shall pay to the Town for services performed pursuant to this Agreement the sum of \$2,916.67 per month, payable on or before the 10<sup>th</sup> day of each month; provided, however the Authority may deduct from any monthly payment an amount equal to \$16.83 (35,000/2,080) for each hour in the previous month worked by Authority personnel in

## EXHIBIT H

- performing any administrative services which the Town was obligated to perform pursuant to this Agreement.
3. In lieu of providing the services to the Authority set forth in paragraph 1 above, the Town may at time during the term of this Agreement request the Authority to set up a kiosk in the Town to provide services to the citizens. Should this request be made, the Authority shall, as soon as practicable, establish a kiosk in the Town to provide services. Beginning at the end of the month in which a kiosk is established in the Town, all payments provided in paragraph 2 above shall cease, and the Town shall have no further obligation to provide those services set forth in paragraph 1 above.
  4. This Agreement shall continue in effect through June 2024. Either party may terminate this Agreement as of the end of any month by giving the other party at least 60 days notice in advance of the termination date. If a Town is providing services as set forth in paragraph 1 above, a decision to reduce operating hours would be at the discretion of the Authority's Member Governments hosting these satellite offices if Town Facilities are being utilized.
  5. The Authority agrees on behalf of the Town to bill to any Authority customers any solid waste fees which such customers may also owe the Town. The Authority will collect such fees in the routine course and remit all payments to the Town. The Authority shall not be responsible for bringing any legal action or taking any extraordinary steps to collect amounts due the Town, other than billing for such charges and remitting any collections to the Town. All claims on account of the Authority billing for and collecting sewer and solid waste fees on behalf of the Town shall be made against the Town, and shall be the sole liability of the Town.
  6. The Town and the Authority, in the performance of this Agreement, will be acting in an individual capacity and not as the employee, partner, joint venture, agent or associate of one another, except as may be expressly otherwise provided herein.
  7. This Agreement may be modified only by a written agreement executed by both parties hereto.
  8. This Agreement is not assignable by either party, by operation of law or otherwise.
  9. This Agreement sets forth the entire agreement between the Authority and the Town and supersedes any and all other agreements on this subject between the parties.
  10. In the event of any noncompliance of any term or terms of this Agreement by the Town, the Authority may, at its sole option, declare the Town in default and immediately terminate this Agreement.
  11. The laws of the State of North Carolina shall control and govern this Agreement.
  12. Any claims, disputes, or other controversies arising out of, and between parties to this Agreement which may ensue shall be subject to and decided by the appropriate division of the General Court of Justice in Onslow County, North Carolina.

**IN WITNESS WHEREOF**, the parties hereto, acting by and through their duly authorized representatives pursuant to the resolutions of their respective governing bodies, have caused this instrument to be executed as of the day and year first above written.

ONSLOW WATER & SEWER AUTHORITY

By: Michael Royce Bennett Chairman  
(PRINT NAME/TITLE)

[Signature]  
(SIGNATURE)



ATTEST:

[Signature]  
ONWASA Clerk to the Board

TOWN OF SWANSBORO

By: John Davis Mayor  
(PRINT NAME/TITLE)

[Signature]  
(SIGNATURE)

ATTEST:

[Signature]  
Town Clerk



This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

[Signature]  
Chief Financial Officer

Exhibit A

**DUTIES**

- Collection of payments from customers
- Post payments to customers' accounts
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- Balance cash and make bank deposit daily
- Process applications for service at existing properties which includes collecting deposit and associated fees
- Process payments for reconnection of service terminated for non-payment and generate adjustment journal
- Generate service orders for termination of service requested by customer

THIS DOCUMENT, IN ITS PRESENT FORM OR AS IT MAY BE REVISED BY ANY PARTY, WILL NOT BECOME A BINDING AGREEMENT OF ANY PARTY UNLESS AND UNTIL IT HAS BEEN SIGNED BY ALL PARTIES AND FULLY SIGNED COPIES HAVE BEEN EXCHANGED. THE EFFECT OF THIS LEGEND MAY NOT BE CHANGED BY ANY ACTION OF THE PARTIES.

SYSTEMS PURCHASE AGREEMENT

by and among

PLURIS, LLC and PLURIS WEBB CREEK, LLC

and

ONslow WATER AND SEWER AUTHORITY

## SYSTEMS PURCHASE AGREEMENT

THIS SYSTEMS PURCHASE AGREEMENT is made and entered into as of \_\_\_\_\_, 2023 (the “**Effective Date**”) by and between **PLURIS WEBB CREEK, LLC**, and **PLURIS, LLC**, validly existing limited liability companies under the laws of the State of North Carolina (collectively “**Pluris**”), and the **ONSWLOW WATER AND SEWER AUTHORITY**, an authority created and validly existing under the laws of the State of North Carolina (“**ONWASA**”). Pluris and ONWASA are from time to time referred to herein individually as a “**Party**” and collectively as the “**Parties**”.

RECITALS

**WHEREAS**, Pluris is engaged in providing sanitary sewer collection and utility services, serving residents and businesses in or near Hubert and Sneads Ferry, North Carolina (the “**Systems**”); and

**WHEREAS**, as contemplated by that certain Memorandum of Intent between the Parties, Pluris desires to transfer all of the Systems Assets (as defined below) and ONWASA desires to acquire all of the Systems Assets; and

**WHEREAS**, this Systems Purchase Agreement is authorized by N.C. Gen. Stat. § 162A-6(a)(5); and

**WHEREAS**, the governing bodies of Pluris and ONWASA have approved, and deem it advisable to consummate, the acquisition of the Systems Assets by ONWASA, upon the terms and subject to the conditions set forth herein.

**NOW, THEREFORE**, in consideration of the premises, and the mutual promises, covenants and agreements contained herein, and for other good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound, hereby agree as follows:

**ARTICLE 1**  
**SALE OF ASSETS**1.1 Sale of Systems Assets.

(a) Systems Assets. Upon the terms and subject to the conditions of this Agreement and in reliance upon the covenants, agreements, representations and warranties set forth in this Agreement, at the Closing, Pluris shall transfer to ONWASA, free and clear of any encumbrances other than Permitted Encumbrances, and ONWASA shall purchase from Pluris, all of Pluris’ rights, title and interest in and to, the following assets (collectively, the “**Systems Assets**”):

- (i) The Real Property as set forth on Schedule 1.1(a)(i).
  - (ii) All sewer lift station equipment, booster pump station equipment, and all trunk, collection and other pipes, drains and lines used or held for use by Pluris in connection with the Systems as set forth on Schedule 1.1(a)(ii).
  - (iii) The equipment, machinery, furniture, computer hardware and software and related peripheral equipment and other tangible personal property set forth on Schedule 1.1(a)(iii);
  - (iv) All supplies, tools, raw materials, parts, work in process and inventories used or held for use by Pluris in connection with the Systems as set forth on Schedule 1.1(a)(iv);
  - (v) All Permits to the extent transferable as set forth on Schedule 1.1(a)(v);
  - (vi) The Assumed Contracts, including any “Will Serve” letters, as set forth on Schedule 1.1(a)(vi);
  - (vii) Originals, or where not available, copies, of all books and records relating to the Systems, including all accounting records, quality control records and procedures, customer lists, service and warranty records, equipment logs, operating guides and manuals, documents, data and other materials and information, in each case to the extent relating to the Systems;
  - (viii) All prepaid expenses, advance payments, claims, refunds and Customer Deposits to the extent related to the Systems;
  - (ix) All rights and claims under warranties, indemnities and similar rights against third parties to the extent related to any Systems Assets or Assumed Liabilities;
  - (x) All equitable claims and rights, including all claims and rights arising under operation of Law, with respect to any and all Systems Assets; and
  - (xi) All other assets and properties of every kind and nature, whether real, personal, or mixed, tangible or intangible, used or held for use exclusively in connection with the Systems Assets.
- (b) Excluded Assets. Notwithstanding Section 1.1(a) to the contrary, the “**Systems Assets**” shall specifically exclude these assets owned by Pluris, which will remain the property of Pluris after Closing:
- (i) All cash, cash equivalents, securities, bank, and other financial institution deposits and accounts, instruments, notes, and any other liquid or current assets (including Pluris Revenues but excluding ONWASA Revenues), other than items described in Section 1.1(a)(viii);
  - (ii) All insurance policies and related rights;

- (iii) All membership interests or other equities or rights;
  - (iv) All personnel records, compliance books and records, and any other records that Pluris is required by applicable Law to keep in its possession;
  - (v) Pluris' organizational documents and related records of member/manager/officer communications and tax return; and
  - (vi) All of the assets listed on Schedule 1.1(b)(vi), which assets are owned by Pluris and not currently used for operation of the Systems.
- (c) Assumed Liabilities. ONWASA shall assume all liabilities and obligations of Pluris accruing or to be provided on and after the Closing Date under the Assumed Contracts as provided in the Assumption Agreement (collectively, the “**Assumed Liabilities**”).
- (d) Consideration for Systems Assets. Upon the terms and subject to the conditions of this Agreement, in consideration for the conveyance, assignment, sale, transfer and delivery by Pluris to ONWASA of the Systems Assets, ONWASA shall pay to Pluris at Closing, by wire transfer, the sum of thirty-seven and one-half million dollars (\$37,500,000.00) for the Systems Assets at Sneads Ferry and eleven million dollars (\$11,000,000.00) for the Systems Assets at Webb Creek in Hubert. At Closing, ONWASA shall be given credit for the two hundred thousand dollar deposit paid by ONWASA (“**Deposit**”) and at Closing the amount paid to Pluris by ONWASA shall be forty-eight million three hundred thousand dollars (\$48,300,000.00). The consideration to be paid by ONWASA to Pluris for the Systems Assets shall be allocated among the Systems Assets as provided in Schedule 1.1(d).
- (e) Contribution in aid of Construction.

As of the Effective Date and until the time of Closing, Pluris will cease reserving additional sewer treatment capacity from either or both Systems, and shall cease collecting associated connection fees, also known as Contribution in Aid of Construction (“**CIAC**” or “**System Development Fees**”).

During that interim period, Pluris may receive inquiries from property owners and/or developers seeking sewer service through the Systems. All such requests shall be forwarded to ONWASA for review and approval/denial prior to any action by Pluris. If such a request is approved by both Parties, a “Will Serve” letter will be jointly issued by the Parties and will require that property owners pay associated fees in the future to ONWASA in accordance with ONWASA's then-approved rates and charges following closing of the sale of the Systems to ONWASA. Such Will Serve letters shall be in form and substance reasonably satisfactory to ONWASA and Pluris. Pluris shall keep accurate information on such properties and make that information available to ONWASA monthly until Closing. Pluris shall also provide monthly

flow data showing average daily flow in gallons per day of treatment and remaining available capacity to ONWASA as part of its monthly reporting to the DEQ.

At Closing, the permitted sewer treatment capacity at the Pluris plant in Sneads Ferry shall be no less than one million five hundred forty-two thousand six hundred thirty five gallons per day (1,542,635 gpd) and the permitted sewer treatment capacity at the Webb Creek plant in Hubert shall be no less than three hundred fifty thousand gallons per day (350,000 gpd).

1.2 Closing. Upon the terms and subject to the conditions of this Agreement, and provided that all of the conditions set forth in Article 5 (other than those conditions that by their terms cannot be satisfied until the Closing) have been satisfied or waived, the Closing shall take place at such time and date the Parties shall agree by the exchange of signed, copies of the Transaction Documents, including real estate documents no later than November 30, 2023 (the “**Closing Deadline**”). If all such conditions have not been satisfied or waived by the Closing Deadline, the Party not responsible for satisfying the outstanding condition shall have the option, in its sole discretion, of notifying the responsible Party of such in writing and either: (i) extending the Closing Deadline for so long as the responsible Party is diligently pursuing satisfaction of that condition; provided that the Closing Deadline shall not be extended over thirty (30) days without the written consent of both parties; (ii) waiving that condition and proceeding with Closing; or (iii) terminating this Agreement. The election of (i) above shall not prohibit a subsequent election of (ii) or (iii). The “**Closing Date**” means the date upon which the Closing actually occurs. For economic and accounting purposes, the Closing shall be deemed to take effect at 11:59 PM ET on the Closing Date.

## **ARTICLE 2** **REPRESENTATIONS AND WARRANTIES OF PLURIS**

Pluris represents and warrants to ONWASA as follows:

2.1 Organization of Pluris. Pluris Webb Creek, LLC, and Pluris, LLC are validly existing companies, existing as such under and by virtue of the Laws of the State. Pluris has all requisite power and authority to carry on the Systems as now being conducted and to own, use and hold for use the Systems Assets.

2.2 Authorization. The execution, delivery and performance by Pluris of each of the Transaction Documents to which it is or will be a party and the consummation by it of the Contemplated Transactions have been duly authorized by Pluris’ Manager, and no other action on the part of Pluris is necessary to authorize the execution, delivery and performance by Pluris of such Transaction Documents or the consummation by it of the Contemplated Transactions. Pluris has duly executed and delivered this Agreement.

2.3 Consents and Approvals; No Violations.

(a) The execution, delivery and performance of the Transaction Documents to which Pluris is or will be a party, and the consummation by Pluris of the Contemplated Transactions, do not and will not, with or without notice or passage of time or both: (i) subject to the receipt of Regulatory Approvals as described in Section 2.3, after giving effect to all third party consents obtained by Pluris on or before Closing, result in a violation or breach of, or constitute a default (or give rise to any right of termination, amendment or acceleration) under, or require any consent, approval or waiver under, any Assumed Contract or, any other agreement, contract or instrument to which Pluris is a party to the extent such violation or default would prevent the consummation of the Contemplated Transactions or otherwise materially interfere with ONWASA's use of the Systems Assets or the (ii) subject to the receipt of Regulatory Approvals as described in Section 2.3, violate any Order applicable to Pluris, the Systems or any of the Systems Assets, or (iii) result in the creation or imposition of any Encumbrance on any Systems Assets.

(b) The Transaction Documents including the permits listed in paragraph 2.10 to operate the Systems require the approval of the North Carolina Department of Environmental Quality (“**DEQ**”) for the transfer to ONWASA.

(c) This Agreement together with its Schedules, and the transfer of the Systems as contemplated by this Agreement, requires the approval of the North Carolina Utilities Commission (“**NCUC**”). Pluris' obligation to close the transaction that is the subject of this Agreement is contingent upon Pluris receiving an Order from the NCUC approving the transfer of the Systems to ONWASA which is satisfactory in form and substance to Pluris, in its sole discretion. Pluris shall make this determination within ten business days of the issuance of the Order from NCUC, and provide notice of its decision to ONWASA.

2.4 Financial Statements. To the Knowledge of Pluris, the financial statements described on Schedule 2.4 (collectively, the “**Financial Statements**”) fairly present in all material respects the financial condition and the results of operations and cash flows of Pluris related to the Systems as at the respective dates of and for the periods referred to in the Financial Statements, all in accordance with generally accepted accounting principles. The Financial Statements reflect the consistent application of such accounting principles throughout the periods involved, except as disclosed in the notes to such Financial Statements. The Financial Statements have been prepared from and are in accordance with the accounting records of Pluris. There are no outstanding claims, liabilities, obligations or indebtedness in connection with the Systems of any kind or nature, whether fixed or contingent, except as set forth in the Financial Statements, and except for liabilities incurred in the Ordinary Course of Business since the date of the Financial Statements and of the kind and type reflected in the Financial Statements which are not, individually or in the aggregate, material in amount.

2.5 Title. Pluris has (and at the Closing Pluris will transfer to ONWASA) good and valid title to all the Systems Assets free and clear of all Encumbrances other than Permitted Encumbrances.

2.6 Tax Matters. All Tax Returns required to be filed by or on behalf of Pluris in connection with the Systems have been timely filed, and such Tax Returns are accurate and complete in all material respects. All Taxes due and payable by Pluris in connection with the Systems have been paid in full on a timely basis, and no other material Taxes (whether or not shown on or reportable on such Tax Returns) are payable by Pluris in connection with the Systems. Pluris has withheld all amounts required to be withheld or collected in connection with any amount paid or owing to any employee, independent contractor, creditor, shareholder or other Person in connection with the Systems, has remitted such amounts to the appropriate taxing authorities in accordance with applicable Laws and has complied with all information reporting and backup withholding requirements, including maintenance of required records, with respect thereto. There are no Encumbrances on any of the purchased Systems Assets with respect to Taxes, other than Encumbrances for Taxes not yet due and payable. No federal, state or local audits, examinations, investigations or other Actions are pending with regard to any Taxes or Tax Returns of Pluris in connection with the Systems. Pluris is not a party to any Action for assessment or collection of Taxes in connection with the Systems, nor has any such Action been asserted or, to Pluris' Knowledge, threatened. Pluris is not a United States real property holding corporation within the meaning of Section 897(c)(2) of the Code during the applicable period specified in Section 897(c)(1)(A)(ii) of the Code, and ONWASA is not required to withhold Tax in connection with the Closing by reason of Section 1445 of the Code.

2.7 Absence of Certain Changes. Since February 21, 2023, Pluris has operated the Systems only in the Ordinary Course of Business consistent with past practice. Without limiting the generality of the foregoing, Pluris has not since February 21, 2023:

- (a) permitted or allowed any of the Systems Assets to be subjected to any Encumbrances of any kind other than Permitted Encumbrances;
- (b) sold, transferred, leased or otherwise disposed of any of the Systems Assets or any other properties or assets (real, personal or mixed, tangible or intangible) used or held for use in connection with the Systems, except in the Ordinary Course of Business, consistent with past practice;
- (c) entered into any contract or agreement in connection with the Systems outside the Ordinary Course of Business;
- (d) amended, modified or terminated, or waived any right or claim under, any Assumed Contract;
- (e) except for agreements with property owners or developers entered into as provided for in Section 1.1(e), entered into any contract or agreement in connection with the Systems that provides for payments to or from Pluris in excess of \$25,000 and is not terminable in thirty (30) days or less without penalty;
- (f) failed to maintain the purchased Systems Assets in good operating condition and

repair, subject to ordinary wear and tear;

(g) experienced any material damage, destruction or loss (whether or not covered by insurance) to the Systems Assets incurred or assumed any liabilities in connection with the Systems, or paid, discharged, waived or released any liabilities or obligations of the Systems, in each case except in the Ordinary Course of Business;

(h) changed its cash management practices and policies or its practices and procedures with respect to the collection of customer accounts receivable, in each case with respect to the Systems; or

(i) agreed, whether in writing or otherwise, to take any action described in this Section 2.7.

## 2.8 Customers.

(a) Maps. Schedule 2.8(a) contains maps which set forth the location of all of Pluris' known distribution, trunk, collection and other pipes, drains and lines used or held for use in connection with the Systems. Pluris does not provide Systems services to any Person other than those customers set forth on the Customer Lists to be provided in accordance with Section 4.9.

(b) Upon the consummation of the Contemplated Transactions, all Pluris customers will become ONWASA customers and Pluris relinquishes all claims or rights to provide utility services in Pluris' existing service areas served by the Systems in Onslow County.

(c) Customer Deposits List. Schedule 2.8(b) contains an accurate and complete list (the "**Customer Deposits List**") of all lots and units from which Pluris has collected and currently retains Customer Deposits, including a description of the fee or deposit, the account name and number, and the amount and date paid.

## 2.9 Real Property.

(a) Real Property - Generally.

(i) As used herein, "Real Property" means all real property, including all land described on Schedule 1.1(a)(i), all Easements, in which Pluris has any right, title or interest and which is used or held for use in connection with the Systems, together with the use of all buildings, structures, improvements and fixtures located thereon or attached or appurtenant thereto. The Owned Real Property, the Easements and all real property listed on Schedule 1.1(a)(i) are included in the "Real Property."

(ii) Within five business days after the Effective Date, Pluris shall deliver to ONWASA true and complete copies of all deeds, title insurance policies and surveys relating to the Real Property, including all documents evidencing Encumbrances upon the Real Property,

that are in Pluris' records or control. Other than the Permitted Encumbrances, there are no Encumbrances or disputes or conditions affecting any Real Property that might curtail or interfere with the use of such property by ONWASA, and there are no pending or to Pluris' Knowledge threatened Actions, or outstanding Orders, relating to any Real Property, including Pluris' use of the Real Property.

(b) **Owned Real Property.** As used herein, "Owned Real Property" means every parcel of Real Property owned in fee simple by Pluris and used solely in connection with the operation of the Systems, including the Lagoon. Schedule 1.1(a)(i) sets forth each parcel of Owned Real Property, including with respect to each parcel, the address location and use. With respect to each parcel of Owned Real Property, (i) Pluris has not leased or otherwise granted to any Person the right to use or occupy such parcel of Owned Real Property or any portion thereof; and (ii) to the Knowledge of Pluris, there are no unrecorded outstanding options, rights of first offer or rights of first refusal to purchase such parcel of Owned Real Property or any portion thereof or interest therein.

(c) **Easement & Rights of Way.**

(i) Set forth on Schedule 1.1(a)(i) is a list of certain easements, rights of way, rights, privileges and appurtenances, including proofs of dedication, in which Pluris has any right, title or interest and which are used or held solely for use by Pluris in connection with the Systems.

(ii) Pluris may not have all Required Easements, each duly executed and recorded. To the Knowledge of Pluris, any failure by Pluris to have all such duly executed and recorded Required Easements would not have a material adverse effect on the operation of the Systems, except as otherwise set forth on Schedule 2.9(c)(ii).

(iii) To the Knowledge of Pluris, (A) Pluris and its Systems operations are in compliance with all Easements and (B) no event has occurred or circumstance exists that may (with or without notice, the passage of time or both) constitute or result directly or indirectly in a violation of or a failure to comply with any term of, or result directly or indirectly in the revocation, withdrawal, suspension or termination of, or any modification to, any such Easement.

(j) **Leased Property.** Pluris does not lease or license any real property in connection with its operation of the Systems. Pluris is not a party to any lease, assignment or similar arrangement under which Pluris is a lessor, assignor or otherwise makes available for use by any third party any portion of the Real Property.

**2.10 Permits.** All Permits required for Pluris to own and operate the Systems and the Systems Assets as currently conducted have been obtained by Pluris, are valid and in full force and effect and are set forth on Schedule 2.10. True and complete copies of all such Permits have heretofore been, or will be prior to Closing, furnished to ONWASA. Pluris is in substantial compliance with all such Permits. No event has occurred or circumstance exists that may (with

or without notice, the passage of time or both) (a) constitute or result directly or indirectly in a violation of or a failure to comply with any term or requirement of any such Permit except where failing to comply would not have a material adverse effect on the Systems Assets or Pluris or (b) result directly or indirectly in the revocation, withdrawal, suspension or termination of, or any modification to, any such Permit.

#### 2.11 Plant, Equipment, and Inventory.

(a) **Sufficiency of Assets.** The Systems Assets, including the Lagoon, are sufficient for the continued operation of the Systems after the Closing in substantially the same manner as conducted by Pluris prior to the Closing and constitute all of the rights, properties and assets necessary to operate the Systems as currently operated.

(b) **Condition of Assets.** The buildings, structures, improvements, fixtures located on or attached or appurtenant to the Owned Real Property, and all other equipment, machinery, furniture, fixtures, tanks, structures, computer hardware and other tangible personal property included in the Systems Assets, are structurally sound, in good operating condition and repair, are adequate for the uses to which they are being put and are not in need of maintenance or repairs except for ordinary, routine maintenance and repairs which are not material in nature or cost. Pluris has operated and maintained the Systems Assets in accordance with established operating practices. Pluris has a valid license and right to use all software installed in or used in connection with any personal computer or other computing device included in the Systems Assets and has the right to assign such license and right to ONWASA in accordance with this Agreement.

#### 2.12 Environmental Matters.

(a) **Compliance.** To the best of Pluris' Knowledge, Pluris is in full compliance with all Environmental Laws relating to the Systems, including the possession by Pluris of all Permits required under all applicable Environmental Laws and compliance with the terms and conditions thereof. Each Permit currently held by Pluris relating to the Systems pursuant to the Environmental Laws is identified in Schedule 2.10.

(b) **Notice of Violation.** Since February 21, 2023, Pluris has not received any communication (written or oral), whether from a Governmental Authority, citizens group, employee or otherwise, that states, claims or alleges that Pluris is not in full compliance with any Environmental Laws relating to the Systems, and, to the best of Pluris' Knowledge, there are no circumstances that may prevent or interfere with such full compliance in the future. Pluris shall deliver to ONWASA within five business days after the Effective Date all information that is in the possession of or reasonably available to Pluris regarding Environmental Claims, and environmental matters pertaining to, or the environmental condition of, the Systems or the compliance (or non-compliance) by Pluris with any Environmental Laws relating to the Systems.

(c) Pending Claims. There is no Environmental Claim by any Person that is pending or, to Pluris' Knowledge, threatened against the Systems, or against any Person whose liability for any Environmental Claim Pluris has retained or assumed either contractually or by operation of law relating to the Systems. There has been no past Environmental Claim by any Person against Pluris related to the Systems.

(d) Hazardous Materials. To the best of Pluris' Knowledge, there are no past or present actions, activities, circumstances, conditions, events or incidents, including the release, threatened release, emission, discharge, presence or disposal of any Hazardous Materials, that could form the basis of any Environmental Claim against Pluris relating to the Systems or, to the Knowledge of Pluris, against any Person whose liability for any Environmental Claim relating to the Systems Pluris has retained or assumed either contractually or by operation of law.

(e) Hazardous Conditions. Without in any way limiting the generality of the foregoing, to the best of Pluris' Knowledge, (i) all Owned Real Property locations where Pluris has (previously or currently) stored, disposed of or arranged for the disposal of Hazardous Materials relating to the Systems are identified in Schedule 2.12(e)(i), (ii) all underground storage tanks, and the capacity and contents of such tanks, located on any property owned, leased, operated or controlled to be transferred by Pluris pursuant to this Agreement relating to the Systems are specifically identified in Schedule 2.12(e)(ii), (iii) there is no asbestos contained in or forming part of any building, building component, structure or office space owned, leased, operated or controlled by Pluris used or held for use in the Systems, and (iv) no PCBs or PCB-containing items are or ever have been used or stored at any property owned, leased, operated or controlled by Pluris used or held for use in the Systems.

## 2.13 Contracts.

(a) Pluris nor, to Pluris' Knowledge, any other party thereto is in breach of or default under (or is alleged to be in breach of or default under), or has provided or received any notice of any intention to terminate, any Assumed Contract. To Pluris' Knowledge, no event or circumstance has occurred that, with notice or the passage of time or both, would constitute an event of default under any Assumed Contract or result in a termination thereof or would cause or permit the acceleration or other changes of any right or obligation or the loss of any benefit thereunder. Complete and correct copies of each Assumed Contract (including all modifications, amendments and supplements thereto and waivers thereunder) have been, or will be prior to Closing, delivered to ONWASA. There are no disputes pending or threatened under any Assumed Contract.

(b) Except for any contracts and agreements with or for the benefit of Pluris employees (none of which will be assumed by ONWASA), and except for the Assumed Contracts, there are no other contracts or agreements (i) by which any of the Systems Assets are bound or affected or (ii) to which Pluris is a party or by which it is bound in connection with the Systems or the Systems Assets.

2.14 Insurance. Schedule 2.14 sets forth a true and complete list and description of all insurance policies maintained by Pluris with respect to the Systems Assets (collectively, the “**Policies**”) and sets forth a list of all pending claims and the claims history for Pluris under the Policies since February 21, 2023. There are no claims related to the Systems or the Systems Assets pending under any Policies as to which coverage has been questioned, denied or disputed or in respect of which there is an outstanding reservation of rights. All Policies are in full force and effect, all premiums due thereon have been paid by Pluris, and Pluris is otherwise in compliance with the terms of the Policies. Pluris has received no notice of cancellation or non-renewal of any Policy nor is the termination of any Policy threatened. Pluris has not received any notice from any insurance company that has issued a Policy, requiring or recommending any repairs or work to be done on any part of the Systems Assets, other than repairs or other work that has been completed.

2.15 Litigation. There is no Action pending or threatened relating to or involving the Systems or the Systems Assets or which challenges or seeks to restrain, enjoin or otherwise prohibit the consummation of the Contemplated Transactions, and, to the Knowledge of Pluris, there is no valid basis for any such Action. Other than Orders issued by the NCUC authorizing Pluris to provide service, setting rates, etc., there are no outstanding Orders relating to or involving the Systems or the Systems Assets. The operation of the Systems does not infringe upon, misappropriate or otherwise violate the patents, trademarks, trade names, copyrights, trade secrets or other intellectual property rights of any other Person.

2.16 Compliance with Laws. Except as set forth on Schedule 2.16, Pluris has complied in all material respects with all applicable Laws with respect to the Systems since February 21, 2020. Since February 21, 2023, Pluris has not received any notice that it is in violation of any applicable building, zoning, health or other Law in respect of the Systems or the Systems Assets.

2.17 Brokers or Finders. To the extent either Party has utilized or will utilize an agent, broker, banker, advisor, consultant or other Person on its behalf in connection with the Contemplated Transaction, that Party shall be responsible for any fee or any other commission or similar fee due such Person in connection with any of the Contemplated Transactions.

2.18 Full Disclosure. , no representation or warranty by Pluris contained in this Agreement or any other Transaction Document contains or will contain any untrue statement of material fact or omits or will omit to state any material fact necessary to make the statements herein or therein, in light of the circumstances under which they were made, not misleading.

2.19 No Other Representations or Warranties. Except for the representations and warranties contained in this Agreement, the other Transaction Documents, and the Other Contracts, Pluris does not make any other express or implied representation or warranty, either written or oral.

**ARTICLE 3**  
**REPRESENTATIONS AND WARRANTIES OF ONWASA**

ONWASA represents and warrants to Pluris that:

3.1 Organization. ONWASA is an authority created and validly existing under the Laws of the State of North Carolina. ONWASA has all requisite power and authority to carry on its business as now being conducted and to own, use and hold for use the assets used in its business.

3.2 Authorization; Validity of Agreement. ONWASA has all requisite power and authority to execute and deliver all Transaction Documents to which it is or will be a party, to perform its obligations thereunder and to consummate the Contemplated Transactions. The execution, delivery and performance by ONWASA of each of the Transaction Documents to which it is or will be a party and the consummation by it of the Contemplated Transactions have been duly authorized by ONWASA's Board of Directors, and no other action on the part of ONWASA is necessary to authorize the execution, delivery and performance by ONWASA of such Transaction Documents or the consummation by it of the Contemplated Transactions. ONWASA has duly executed and delivered this Agreement. This Agreement constitutes, together with the other Transaction Documents to which ONWASA is or will be a party will constitute (upon execution and delivery by ONWASA and the other parties thereto), the legal, valid and binding obligation of ONWASA, enforceable against ONWASA in accordance with its terms, except as enforcement thereof may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the enforcement of creditors' rights generally and by general equitable principles.

3.3 Consents and Approvals; No Violations. This Agreement is subject to approval by DEQ, the North Carolina Local Government Commission, and the NCUC. The approval by the Local Government Commission includes both this document and the issuance of revenue bonds for the Cash Payment. The transfer of the Systems by Pluris is subject to approval by the NCUC on terms satisfactory to Pluris, as set forth in Section 2.3(c). Except for the foregoing approvals, the execution, delivery and performance of the Transaction Documents to which ONWASA is or will be a party, and the consummation by ONWASA of the Contemplated Transactions, do not and will not, with or without notice or passage of time or both: (a) require any filing with, or permit, authorization, consent or approval of, any Governmental Authority or any other Person, (b) result in a violation or breach of, or constitute a default (or give rise to any right of termination, amendment or acceleration) under, or require any consent, approval or waiver under, any agreement, contract or instrument to which ONWASA is a party, or (c) violate any Order or Law applicable to ONWASA.

3.4 Brokers or Finders. To the extent either Party has utilized or will utilize an agent, broker, banker, advisor, consultant or other Person on its behalf in connection with the Contemplated Transaction, that Party shall be responsible for any fee or any other commission or similar fee due such Person in connection with any of the Contemplated Transactions.

**ARTICLE 4**  
**COVENANTS**

4.1 Interim Systems Operations. Except as required by this Agreement, prior to Closing, Pluris shall operate the Systems in the Ordinary Course of Business.

4.2 Access. Prior to Closing, Pluris shall afford ONWASA and its representatives reasonable access to all facilities of Pluris used or held for use in connection with the Systems and permit ONWASA to make such inspections as it may reasonably require. In addition, Pluris shall furnish ONWASA with such operating data, books, records and other information relating to the Systems as ONWASA may from time to time reasonably request. ONWASA and its representatives may, with reasonable prior notice and without unreasonably interfering with Pluris' operations, at ONWASA's sole expense, conduct such diligence and investigations of the Systems as ONWASA deems reasonably necessary or appropriate, including (a) conducting one or more surveys of certain parcels of the Owned Real Property and of all tracts subject to any new easements, (b) performing water system sampling, (c) performing soil, surface and ground water sampling, monitoring, borings and testing and any other tests, investigations, audits, assessments, studies, inspections or other procedures relating to environmental conditions or Hazardous Materials and (d) conducting financial analyses with respect to the Systems or Systems Assets. Pluris shall cooperate with ONWASA and its representatives in conducting such diligence and investigations (collectively, the "**Tests**"). ONWASA shall give reasonable written or telephonic advance notice to Pluris of any Tests it or its agents will perform. This notice shall specify the nature of the Tests to be performed, the approximate time the Tests will be performed, and the entity performing the Tests. ONWASA shall not be liable for the removal of or damage to any small trees or other vegetation which may reasonably occur in connection with the Tests. ONWASA shall otherwise repair any damage to the Real Property to materially the same condition as prior to such Tests caused by its exercise of the rights granted under this Section. This obligation shall survive any termination of this Agreement. ONWASA and its representatives agree to keep the results of such access, diligence, and investigations, and all materials delivered by Pluris to ONWASA, confidential in accordance with that "*Confidentiality Agreement*" dated October 4, 2022 between the Parties (the "**Confidentiality Agreement**").

4.3 Pre-Closing Actions.

(a) Efforts to Close. Prior to Closing, upon the terms and subject to the conditions of this Agreement, ONWASA and Pluris shall use their respective reasonable best efforts to take, or cause to be taken, all actions, and to do, or cause to be done and cooperate with each other in order to do, all things necessary, proper or advisable to consummate the Contemplated Transactions promptly, including the preparation and filing of all forms, documents, filings and notices required to be filed to consummate the Contemplated Transactions and the taking of such actions as are necessary to obtain any approvals, authorizations, consents, or waivers of any third party or Governmental Authority.

(b) **Material Adverse Change.** Prior to the earlier of Closing and a termination of this Agreement, Pluris shall promptly notify ONWASA in writing of any fact, circumstance, event or action the existence or occurrence of which (i) has had, or could reasonably be expected to result in, individually or in the aggregate, with or without the passage of time, a material adverse change in the business, condition (financial or otherwise), assets or results of operations of the Systems, taken as a whole, or (ii) has resulted in, or could reasonably be expected to result in, any representation or warranty made by Pluris hereunder not being: (x) for those representations and warranties qualified by materiality, material adverse effect, or similar qualification, true and correct in all respects as of the Closing Date; and (y) for all other representations and warranties, true and correct in all material respects as of the Closing Date; or the failure of any of the conditions set forth in Section 5.2 to be satisfied on or before the Closing Date. In addition, Pluris shall promptly notify ONWASA of any Action commenced or threatened against or relating to the Systems, the Systems Assets, or the consummation of the Contemplated Transactions.

(b) **Material Adverse Change.** Prior to the earlier of the Closing and the termination of this Agreement, ONWASA shall promptly notify Pluris in writing of any fact, circumstance, event or action the existence or occurrence of which (i) has had, or could reasonably be expected to result in, individually or in the aggregate, with or without the passage of time, a material adverse change in the business, condition (financial or otherwise), assets or results of operations of ONWASA, or (ii) has resulted in, or could reasonably be expected to result in, any representation or warranty made by ONWASA hereunder not being: (x) for those representations and warranties qualified by materiality, material adverse effect, or similar qualification, true and correct in all respects as of the Closing Date; and (y) for all other representations and warranties, true and correct in all material respects as of the Closing Date; or the failure of any of the conditions set forth in Section 5.3 to be satisfied on or before the Closing Date. In addition, ONWASA shall promptly notify Pluris of any Action commenced or, threatened against or relating to the consummation of the Contemplated Transactions.

(c) **Acquisition Proposals.** Prior to the earlier of Closing and a termination of this Agreement, Pluris shall not, directly or indirectly, accept, solicit, initiate or facilitate any Acquisition Proposal relating to the Systems or discuss or negotiate with, or provide any information to, any Person concerning a possible acquisition of the Systems Assets and Owned Real Property (an “**Acquisition Proposal**”). If Pluris receives an Acquisition Proposal, Pluris shall promptly provide written notice thereof to ONWASA, inform the Person making the Acquisition Proposal that it is subject to the provisions of this Section 4.3(d), and thereafter have no further contact with such Person regarding the Acquisition Proposal.

4.4 **Closing Deliverables.** At Closing, and upon the terms and subject to the conditions contained herein:

(a) **Pluris Deliveries.** Pluris shall deliver or cause to be delivered to ONWASA the following:

- (i) a bill of sale in the form attached as Exhibit A, executed by Pluris;
  - (ii) a special warranty deed in recordable form with respect to the Real Property in the form of Exhibit B attached hereto, executed by Pluris;
  - (iii) a certificate pursuant to Treasury Regulations Section 1.1445-2(b) that Pluris is not a foreign person within the meaning of Section 1445 of the Code, executed by Pluris;
  - (iv) an assignment and assumption agreement (the “**Assumption Agreement**”), in the form attached hereto as Exhibit C, with respect to all Assumed Contracts, executed by Pluris;
  - (v) a certificate, certifying: (A) as complete and accurate all requisite resolutions or actions of Pluris’ Manager approving the execution and delivery of each of the Transaction Documents and the consummation of the Contemplated Transactions and (B) the incumbency and signatures of the Manager and any other officers of Pluris executing this Agreement and the other Transaction Documents executed by Pluris’ Manager and such other officers;
  - (vi) all other assignments and other instruments as are necessary, or reasonably requested by ONWASA, to vest in ONWASA title to the Systems Assets, executed by Pluris;
  - (vii) an opinion of Pluris’ counsel that (a) all Transaction Documents have been authorized, executed and delivered by Pluris and constitute valid, binding and enforceable obligations of Pluris, (b) Pluris has taken all corporate action required to carry out the Contemplated Transactions, (c) Pluris has obtained all regulatory approvals required to carry out the Contemplated Transactions as set forth in the Transaction Documents, (d) the Contemplated Transactions and their consummation will not violate any order, decree, law or administrative regulation to which Pluris is subject, and (e) no litigation is pending or, to counsel’s knowledge, overtly threatened in writing, that would prevent Pluris from carrying out its obligations under the Transaction Documents; and
  - (viii) such other documents or instruments as are necessary to consummate the Contemplated Transactions.
- (b) ONWASA Deliveries. ONWASA shall deliver or cause to be delivered to Pluris the following:
- (i) the Assumption Agreement, executed by ONWASA;
  - (ii) a certificate, certifying: (A) as complete and accurate all requisite resolutions or actions of ONWASA’s Board of Directors approving the execution and delivery of each of the Transaction Documents and the consummation of the Contemplated Transactions and (B) the

incumbency and signatures of ONWASA's Chairman and other officers of ONWASA executing this Agreement and the other Transaction Documents executed by ONWASA's Chairman and such other officers;

(iii) a cash payment (the "**Cash Payment**") in an aggregate amount of forty-eight million three hundred thousand dollars (\$48,300,000.00), by wire transfer of immediately available funds to an account designated by Pluris in writing; and

(iv) such other documents or instruments as are necessary, or reasonably requested by Pluris, to consummate the Contemplated Transactions.

4.5 Property Tax. All local property taxes on the Systems Assets shall be paid at or before Closing by Pluris. There shall be no proration of the property taxes between the parties on a calendar year basis as of the Closing Date. Such property taxes are and shall be the responsibility of Pluris. If paid at Closing, the property taxes shall be deducted from the consideration otherwise to be received by Pluris for the Systems Assets under Section 1.1(d).

4.6 Public Announcement. After the Closing, the Parties shall prepare and issue a joint public announcement with respect to the Contemplated Transactions, the form and content of which shall be mutually agreed by the Parties.

4.7 Employee Matters. The Parties acknowledge that, following the Closing, ONWASA agrees to interview and consider employment of the Operators in Responsible Charge of the Systems as well as other Pluris personnel that ONWASA may deem necessary. ONWASA is under no obligation to hire such individuals. Pluris has made ONWASA aware of those employees that Pluris intends to retain, and ONWASA agrees to neither interview nor offer employment to those Pluris employees within six months of Closing. Accordingly, Pluris shall be solely responsible and liable for the following obligations and liabilities (collectively, the "**Employee Liabilities**"): (a) all compensation and other amounts payable to any current or former employee, officer, independent contractor or consultant of Pluris, including wages, hourly pay, commission, bonus, salary, accrued vacation, fringe, pension and profit sharing benefits, severance and retention pay, reimbursement payments and any other employee benefits for any period relating to service with Pluris at any time (whether prior to or after the Closing); (b) the satisfaction of all claims for medical, dental, life insurance, health accident or disability benefits brought by or in respect of current or former employees, officers, independent contractors or consultants of Pluris or the spouses, dependents or beneficiaries thereof (whether such claims relate to events occurring on or after the Closing); and (c) all indemnity obligations owed to, reimbursement payments payable to, and all worker's compensation claims of, any current or former employee, officer, independent contractor or consultant of Pluris (whether relating to events occurring prior to or after the Closing).

4.8 Post-Closing Matters.

(a) **Delivery of Systems Assets**. Simultaneously with the Closing, the Parties shall

execute and deliver all deeds, bills of sale, instruments of conveyance, assignments and other documents and take and do all such other actions and things as necessary, or reasonably requested by ONWASA, to assign and transfer to ONWASA all of Pluris' rights, title and interest in and to the Systems Assets. Furthermore, each Party will cooperate with the other Party and execute and deliver to the other Party such other instruments and documents and take such other actions as may be reasonably requested from time to time by the other Party as necessary or advisable to carry out the purposes of this Agreement and to properly transition the Systems to ONWASA.

(b) **Post-Closing Possession.** ONWASA agrees to grant to Pluris a period of three (3) months post-closing to vacate the office building at the site of the Pluris, LLC Sneads Ferry Plant, during such time no rent shall be charged to Pluris. Pluris shall be responsible for any/all utilities and building maintenance during this time. This period may be shortened at the discretion of Pluris upon written notice to ONWASA.

(c) **Mail and Records.** After the Closing, Pluris shall forward and deliver to ONWASA all mail, notices and other correspondence received by Pluris relating to the Systems or the Systems Assets. After the Closing, during normal business hours and subject to the Confidentiality Agreement, Pluris will permit ONWASA's representatives to have reasonable access to and examine any books and records of Pluris relating to the Systems that are not delivered to ONWASA pursuant to this Agreement. Pluris agrees not to destroy any such books and records except in accordance with applicable Law and its internal document retention policies.

(d) **Cooperation.** After the Closing, Pluris shall cooperate with ONWASA as reasonably requested in order to facilitate the transition of the Systems to ONWASA. To the extent that Pluris' rights under any Assumed Contract, or any other Systems Assets, may not be assigned to ONWASA without the consent of another Person which has not been obtained, this Agreement shall not constitute an agreement to assign the same if an attempted assignment would constitute a breach thereof or be unlawful.

#### 4.9 Customer List, Deposits, and Payments.

(a) **Customer List.** At least sixty (60) days prior to the Closing, Pluris shall provide ONWASA with a complete and accurate list in all material respects (the "**Customer List**") of the following information with respect to each Systems' customer, including all active Systems' accounts (collectively, the "**Customer Information**"): name; address; account number; the date and amount of the most recent invoice issued to such customer (whether or not such invoice has been paid); the meter reading applicable to such recent invoice; the date and amount of all other outstanding invoices due from such customer; the most recent meter reading (and date thereof); and, to the extent available, email address and phone number.

(b) **Customer Deposits.** Pluris shall transfer Customer Deposits held by it as of Closing to ONWASA. Within ten (10) business days after the Closing, Pluris shall provide to

ONWASA an updated Customer List with respect to each Systems customer as of the Closing, and such updated Customer List shall reflect the amount of all Customer Deposits held by Pluris as of Closing.

(c) **Customer Invoicing.** After the Closing, ONWASA shall issue all invoices to Systems customers for Systems services. Pluris shall be entitled to all amounts due from Systems customers for Systems services with respect to periods ending on or before the Closing Date (collectively, the “**Pluris Revenues**”). ONWASA shall be entitled to all amounts due from Systems customers for Systems services with respect to all periods after the Closing Date (collectively, the “**ONWASA Revenues**”). With respect to any payment received from a Systems customer for Systems services for a period which begins on or before the Closing Date and ends after the Closing Date, the payment shall be prorated on a per diem basis for such period using the pre-Closing meter reading provided by Pluris and the post-Closing meter reading by ONWASA and apportioned between the Parties as contemplated above in this Section 4.9(c). After the Closing, if a Party receives any amount to which the other Party is entitled under this Section 4.9, the receiving Party shall remit such amount to such other Party within thirty (30) days of receipt.

(d) **New Lines.** Prior to the Closing, Pluris shall continue to install lines and facilities in accordance with its existing standards and specifications as necessary to provide Systems services, comply with existing development agreements, or comply with applicable Laws, which may include the installation or construction of any mains, collection lines, pipes, lift stations; or other facilities. Pluris will provide a quarterly update to ONWASA describing any such new facilities installed or constructed after the Effective Date and prior to Closing.

## **ARTICLE 5** **CONDITIONS TO CLOSING**

5.1 **Conditions to the Obligations of All Parties.** The obligation of each Party to consummate the Contemplated Transactions is subject to the fulfillment or satisfaction, on or prior to the Closing Date, of each of the following conditions:

(a) **Government Action.** No Governmental Authority (other than the Parties) shall have issued or entered any Order or taken any other action, which has not been rescinded and which has the effect of making the Contemplated Transactions illegal or otherwise restrains, enjoins or otherwise prohibits the consummation of the Contemplated Transactions.

(b) **Consents.** All consents, authorizations and approvals of any Governmental Authority (other than the Parties) (collectively “**Regulatory Approvals**”) required to be obtained before consummation of the Contemplated Transactions shall have been obtained.

5.2 **Conditions to Obligation of ONWASA to Effect the Closing.** The obligation of ONWASA to consummate the Contemplated Transactions is subject to the fulfillment or

satisfaction, on or prior to the Closing Date, of each of the following conditions:

(a) **Representations and Warranties.** All of the representations and warranties of Pluris set forth in this Agreement that are qualified as to materiality shall be true and correct and all such representations and warranties that are not so qualified shall be true and correct in all material respects, in each case as of the date of this Agreement and as of the Closing Date.

(b) **Pluris Covenants.** Pluris shall have in all material respects performed and complied with the obligations and covenants required by this Agreement to be performed or complied with by Pluris on or prior to the Closing Date.

(c) **Closing Deliveries.** Pluris shall have delivered, and duly executed where appropriate, to ONWASA each of the items set forth in Section 4.4(a).

(d) **Litigation.** There shall not have been commenced or threatened against ONWASA any Action by any third party (i) involving any challenge to, or seeking damages or other relief in connection with, Pluris' ability to perform any of the Contemplated Transactions or (ii) that may have the effect of preventing, delaying, making illegal, imposing limitations or conditions on or otherwise interfering with Pluris' ability to perform any of the Contemplated Transactions.

(e) **Releases.** Pluris shall have obtained releases of, or shall otherwise have made provision satisfactory to the ONWASA for the release of, all Encumbrances upon the Systems Assets other than Permitted Encumbrances.

(f) **Third Party Consents.** All consents, authorizations and approvals of any third party required to be obtained before consummation of the Contemplated Transactions (including those consents and approvals listed in Sections 2.3 and 3.3) shall have been obtained.

(g) **Revenue bonds** have been issued by ONWASA to secure the payment of the Cash Payment.

(h) **Material Adverse Change.** There shall not have occurred any material adverse change (or any event or events that, individually or in the aggregate, with or without the passage of time, could reasonably be expected to result in a material adverse change) in the business, condition (financial or otherwise), assets or results of operations of the Systems, taken as a whole.

The foregoing conditions are for the sole benefit of ONWASA and may be waived by ONWASA, in whole or in part, at any time in the sole discretion of ONWASA.

5.3 **Conditions to Obligation of Pluris to Effect the Closing.** The obligation of Pluris to consummate the Contemplated Transactions is subject to the fulfillment or satisfaction, on or prior to the Closing Date, of each of the following conditions:

(a) **Representations and Warranties.** All of the representations and warranties of ONWASA set forth in this Agreement that are qualified as to materiality shall be true and correct and all such representations and warranties that are not so qualified shall be true and correct in all material respects, in each case as of the date of this Agreement and as of the Closing Date.

(b) **ONWASA Covenants.** ONWASA shall have in all material respects performed and complied with the obligations and covenants required by this Agreement to be performed or complied with by ONWASA on or prior to the Closing Date.

(c) **Closing Deliveries.** ONWASA shall have delivered, and duly executed where appropriate, to Pluris each of the items set forth in Section 4.4(b).

(d) **Litigation.** There shall not have been commenced or threatened against Pluris any Action by any third party (i) involving any challenge to, or seeking damages or other relief in connection with, ONWASA's ability to perform any of the Contemplated Transactions or (ii) that may have the effect of preventing, delaying, making illegal, imposing limitations or conditions on or otherwise interfering with ONWASA's ability to perform any of the Contemplated Transactions.

(e) **Third Party Consents.** All consents, authorizations and Regulatory Approvals listed in Section 2.3 shall have been obtained.

(f) ONWASA shall have paid the Cash Payment to Pluris.

The foregoing conditions are for the sole benefit of Pluris and may be waived by Pluris, in whole or in part, at any time in the sole discretion of Pluris.

## **ARTICLE 6** **TERMINATION**

6.1 **Termination.** This Agreement may be terminated at any time prior to the Closing:

(a) By the mutual written consent of ONWASA and Pluris;

(b) By ONWASA or Pluris, by written notice to the other Party, if any Governmental Authority (other than ONWASA) shall have issued or entered any Order or taken any other action, which has the effect of making the Contemplated Transactions illegal or otherwise permanently restrains, enjoins or otherwise prohibits the Contemplated Transactions;

(c) By Pluris, by written notice to ONWASA, if ONWASA shall have breached in any material respect any of its representations, warranties, covenants or agreements contained in this Agreement, and such breach has not been cured by ONWASA within ten (10) days after its receipt of written notice of such breach from Pluris;

(d) By ONWASA by written notice to Pluris if Pluris shall have breached in any material respect any of its representations, warranties, covenants or agreements contained in this Agreement, and such breach has not been cured by Pluris within ten (10) days after its receipt of written notice of such breach from ONWASA;

(e) By ONWASA, by written notice to Pluris, if ONWASA is not satisfied with its due diligence investigation of the Systems Assets, the Assumed Liabilities and the business, condition (financial or otherwise), assets and results of operations of the Systems; or

(f) Subject to Section 1.2, by ONWASA or Pluris, by written notice to the other Party, in the event the Closing has not taken place by the Closing Deadline.

6.2 Effect of Termination. Upon the termination of this Agreement in accordance with Section 6.1, the Parties shall have no further liability or obligation under this Agreement except (a) that no such termination shall relieve any Party from liability for any material breach of this Agreement by such Party prior to such termination and (b) that the obligations and liabilities arising under this Section 6.2 and any obligation expressly provided to survive a termination of this Agreement shall remain in full force and survive such termination of this Agreement. Further, the two hundred thousand dollar (\$200,000.00) Deposit paid on the signing of the Memorandum of Intent shall be repaid to ONWASA by Pluris if the termination was due to, the failure to approve the transaction by the Local Government Commission, or the inability of ONWASA to issue revenue bonds or otherwise obtain financing to secure the Cash Payment. In the event of a termination under any other circumstance, Pluris shall retain the Deposit.

**ARTICLE 7**  
**RESERVED**

**ARTICLE 8**  
**MISCELLANEOUS**

8.1 Expenses. Except as otherwise expressly provided in this Agreement, each Party shall bear its expenses incurred in connection with the preparation and performance of the Transaction Documents and the Contemplated Transactions.

8.2 Notices. All notices, consents, waivers and other communications under this Agreement must be in writing and will be deemed to have been duly delivered and received (a) when delivered personally (deemed received on receipt or refusal of delivery) or (b) one business day after being sent by a nationally recognized overnight delivery service (charges prepaid), in each case to the appropriate physical addresses set forth below (or to such other physical addresses as a Party may designate by notice in writing to the other Parties):



obligations under this Agreement, without the prior written consent of Pluris; and (ii) Pluris may assign this Agreement without the prior written consent of ONWASA as part of a Section 1031 like-kind exchange under the Code under the terms set forth in this Section. If Pluris elects to sell the Real Property by means of a Section 1031 like-kind exchange, ONWASA shall cooperate with Pluris in effecting that 1031 exchange; provided, however, that such 1031 exchange shall not: (i) delay the Closing; (ii) change the consideration otherwise to be paid for the Real Property or the Systems Assets under this Agreement; (iii) expose ONWASA to any obligation, liability, or cost whatsoever (including, without limitation, any responsibility or liability of any kind for the failure of such exchange to be consummated or to qualify for tax-deferred status under any federal or State law or rule and any damage calculated or related in any fashion to Pluris' lost tax benefits), (iv) require ONWASA to hold title to any property; or (v) relieve Pluris of any of its agreements or other obligations under this Agreement. This Agreement shall be binding upon, inure to the benefit of and be enforceable by the Parties and their respective successors and permitted assigns. No such assignment shall release the assigning Party from any liability or obligation under this Agreement without the prior written consent of the other Party. Any such assignment made in breach of this Section 8.5 will be void and of no force or effect. Nothing expressed or referred to in this Agreement will be construed to give any Person other than the Parties any legal or equitable right, remedy or claim under or with respect to this Agreement. This Agreement and all of its terms and conditions are for the sole and exclusive benefit of the Parties and their successors and permitted assigns.

8.6 Severability. If any provision of this Agreement is held invalid or unenforceable by any court of competent jurisdiction, the other provisions of this Agreement will remain in full force and effect. Any provision of this Agreement held invalid or unenforceable only in part or degree will remain in full force and effect to the extent not held invalid or unenforceable.

8.7 Governing Law. This Agreement and all matters arising out of or in connection with this Agreement and its Exhibits and Schedules (whether arising in contract, tort, equity or otherwise), including the construction and interpretation thereof, shall be governed by the Laws of the State of North Carolina (including its statutes of limitations) without regard to conflicts of laws principles.

8.8 Electronic Signature. This Agreement may be executed in two or more counterparts, each of which will be deemed to be an original copy of this Agreement and all of which, when taken together, will be deemed to constitute one and the same agreement. This Agreement may be executed by one or more facsimile signatures, or signatures transmitted by other electronic means (including via e-mail in a .pdf copy). The Parties agree that any signature, whether it be electronic, digital or a .pdf copy of a manual signature, is intended to authenticate this Agreement and shall have the same effect as a manual or original signature.

8.9 Construction and Interpretation. The headings of Sections and Articles in this Agreement are provided for convenience only and will not affect its construction or interpretation. All references to a "Section" or "Article" refer to the corresponding Section or Article of this Agreement, except as otherwise expressly set forth in this Agreement. The Parties

have participated jointly in the negotiation and drafting of this Agreement. If an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the Parties, and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any of the provisions of this Agreement. In this Agreement unless a clear contrary intention appears: (a) reference to any agreement or instrument means such agreement or instrument as amended or modified and in effect from time to time in accordance with the terms thereof; (b) "hereunder," "hereof," "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Article, Section or other provision thereof; (c) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (d) the terms "dollars" and "\$" mean United States Dollars. Neither the specification of any amount nor the inclusion of any specific item or matter in any provision of this Agreement or in any Schedule or Exhibit is intended to imply that such amount, or higher or lower amount, or such item or matter, is or is not material. No remedy conferred herein upon or reserved to a Party is intended to be exclusive and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or equity.

8.10 Schedules and Exhibits. The Schedules and Exhibits identified in this Agreement are incorporated herein by reference and made a part hereof. Any fact or item which is disclosed on any Schedule shall be deemed disclosed on each other Schedule to the extent that its relevance or applicability to information called for by such other Schedule is reasonably apparent in the disclosure on the face of such first Schedule, notwithstanding the omission of a reference or cross-reference to such. The disclosures made in any Schedule will be deemed disclosed for purposes of the Section or subsection of this Agreement that corresponds in number to the relevant Section or subsection of such Schedule and, except as expressly set forth in such Schedule or as provided in the preceding sentence, will not be deemed or construed as a disclosure or exception with respect to any other provision of this Agreement. No disclosure in the Schedules relating to any possible breach or violation of any agreement or Law shall be construed as an admission or indication that any such breach or violation exists or has actually occurred. In the event of any inconsistency between the statements in the body of this Agreement and those in any Schedule (other than an exception expressly set forth as such in a Schedule), the statements in the body of this Agreement will control.

8.11 Dispute Resolution. Any dispute involving this Agreement shall be determined by the appropriate division of the General Court of Justice in Onslow County, North Carolina.

8.12. Conflicting Terms. To the extent the provisions of this Agreement conflict with the terms of that "*Memorandum of Intent*" dated February 16, 2023 executed by the Parties, the provisions of this Agreement shall control.

8.13. Surviving Obligations. Any obligations which are expressly provided to survive the Closing (including Articles 2 and 3) or any provision which by its nature and effect must be observed, kept, or performed after the Closing (including Article 8) shall survive the Closing and shall remain binding upon and for the benefit of the Parties until fully observed, kept, or

performed in accordance with its terms.

8.14. Definitions. For all purposes of this Agreement, except as otherwise expressly provided or unless the context clearly requires otherwise:

“Action” means any claim, demand, action, cause of action, lawsuit, litigation, arbitration, inquiry, notice of violation, audit, proceeding, summons, subpoena or investigation of any kind or nature, whether at law or in equity and whether civil, criminal, administrative, regulatory or otherwise.

“Agreement” means this Systems Purchase Agreement, together with the Exhibits and the Schedules attached hereto, as amended from time to time.

“Assumed Contracts” means the contracts listed on Schedule 1.1(a)(vi).

“Assumption Agreement” has the meaning set forth in Section 4.4(a)(ii).

“Cash Payment” has the meaning set forth in Section 4.4(b)(iii).

“Closing” refers to the closing of the Contemplated Transactions.

“Closing Date” has the meaning set forth in Section 1.2.

“Code” means the Internal Revenue Code of 1986, as amended.

“Contemplated Transactions” means all the transactions contemplated by this Agreement and the other Transaction Documents.

“Customer Deposits” means all deposits received by Pluris from Systems customers with respect to the Systems services.

“Customer Information” has the meaning set forth in Section 4.9(a).

“Customer List” has the meaning set forth in Section 4.9(a).

“Easements” means all easements, rights of way, rights, privileges and appurtenances, including proofs of dedication, in which Pluris has any right, title or interest and which are used or held solely for use by Pluris in connection with the Systems.

“Effective Date” has the meaning set forth in the Preamble.

“Employee Liabilities” has the meaning set forth in Section 4.7

“Encumbrances” means any and all liens, charges, security interests, options, claims, mortgages,

pledges, proxies, voting trusts or agreements, obligations, covenants, easements, servitudes, rights of way, encroachments, understandings or arrangements or other restrictions on title or transfer of any nature whatsoever.

“Environmental Claim” means any Action, including any enforcement matter, investigation or notice (written or oral), by any Person alleging actual or potential liability for non-compliance, investigatory, cleanup or governmental response costs, or natural resources or property damages, or personal injuries, attorney’s fees or penalties relating to (a) the presence, release, or threatened release of any Hazardous Materials at any Owned Real Property location, (b) circumstances forming the basis of any violation of any Environmental Law by Pluris, or (c) the release or threatened release of any Hazardous Materials by Pluris.

“Environmental Law” means each and every Law relating to pollution, protection or preservation of human health, human safety or the environment including ambient air, surface water, ground water, land surface or subsurface strata, and natural resources, and including each law and regulation relating to emissions, discharges, releases or threatened releases of Hazardous Materials, or otherwise relating to the manufacturing, processing, distribution, use, treatment, generation, storage, containment (whether above ground or underground), disposal, transport or handling of Hazardous Materials, or the preservation of the environment or mitigation of adverse effects thereon and each Law with regard to, without limitation, compliance, record keeping, notification, disclosure and reporting requirements respecting Hazardous Materials.

“Financial Statements” has the meaning set forth in Section 2.4.

“Governmental Authority” means any federal, state, or local government, or any court, governmental division or department, administrative agency or commission or other governmental or quasi-governmental authority or instrumentality of any nature, domestic or foreign or any arbitral tribunal.

“Hazardous Materials” means chemicals; pollutants; contaminants; wastes; toxic or hazardous substances (including substances listed as hazardous under the United States Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Resources Conservation Recovery Act (RCRA), and the North Carolina Inactive Hazardous Substances Act), materials and wastes; petroleum and petroleum products; asbestos and asbestos-containing materials; polychlorinated biphenyls; lead and lead-based paints and materials; and radon.

“Lagoon” means the real property owned by Pluris located at Highway \_\_\_\_\_.

“Law” means any applicable federal, state, local, municipal, or other constitution, law, ordinance, principle of common law, code, regulation, rule, order or statute as amended, modified, codified, replaced or reenacted, in whole or in part, and in effect from time to time, including rules and regulations promulgated thereunder.

“Losses” means all damages, liabilities, obligations, deficiencies, Actions, judgments, interest,

awards, penalties, fines, costs and other losses and expenses of every kind and nature, including reasonable attorneys' fees; but excluding punitive, indirect, exemplary, and consequential damages.

“ONWASA” has the meaning set forth in the Preamble.

“ONWASA Revenues” has the meaning set forth in Section 4.9(c).

“ONWASA’s Knowledge” means the actual knowledge of ONWASA’s Chief Executive Officer.

“Order” means any order, injunction, judgment, decree, ruling, assessment or arbitration award of any Governmental Authority or arbitrator.

“Ordinary Course of Business” means, with respect to any action of Pluris, that such action is taken in the ordinary course of normal, day-to-day operations of Pluris and is consistent with Pluris’ past practices.

“Other Contracts” has the meaning set forth in Article 9.

“Owned Real Property” has the meaning set forth in Section 2.9(b).

“Party” or “Parties” has the meaning set forth in the Preamble.

“Permits” means all permits, licenses, consents, approvals, authorizations, certificates, registrations, variances and similar rights obtained, or required to be obtained, from Governmental Authorities.

“Permitted Encumbrances” means any equipment, software, or other leases assumed by ONWASA under the Assumption Agreement, Encumbrances for ad valorem Taxes for the then current year, and all matters of record as of the Effective Date.

“Person” means a natural person, partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture, Governmental Authority or other entity or organization.

“Pluris Revenues” has the meaning set forth in Section 4.9(c).

“Pluris’ Knowledge” and the “Knowledge of Pluris” mean the actual knowledge of: (i) with respect to Pluris, LLC, Dwight Peterson; and (ii) with respect to Pluris Webb Creek, LLC, William Andrews.

“Policies” has the meaning set forth in Section 2.14.

“Systems Assets” has the meaning set forth in Section 1.1(a).

“Real Property” has the meaning set forth in Section 2.9(a)(i).

“Required Easements” means all easements, rights of way, rights, privileges and appurtenances, including proofs of dedication, solely used in connection with the Systems operation and required by Pluris in order to use and operate the Systems Assets in the manner in which the Systems Assets are currently being used and operated.

“Schedules” means the Schedules attached to this Agreement.

“State” means the State of North Carolina.

“Tax” or “Taxes” means all taxes, charges, fees, duties, levies, penalties or other assessments imposed by any federal, state, or local Governmental Authority, including income, gross receipts, excise, property, sales, gain, use, license, custom duty, unemployment, transfer, franchise, payroll, withholding, social security, minimum estimated, profit, gift, severance, value added, disability, premium, recapture, credit, occupation, service, leasing, employment, stamp and other taxes, and shall include interest, penalties or additions attributable thereto or attributable to any failure to comply with any requirement regarding Tax Returns.

“Tax Return” means any return, declaration, report, claim for refund, or information return or statement relating to Taxes, including any such document prepared on a consolidated, combined or unitary basis and also including any schedule or attachment thereto, and including any amendment thereof.

“Transaction Document” means this Agreement, the certificates, agreements, instruments and documents delivered by a Party pursuant to Section 4.4 and all other certificates, agreements, instruments and documents executed and delivered by a Party in accordance with this Agreement.

[The remainder of this page is blank. Signature page follows.]

**IN WITNESS WHEREOF**, the undersigned have executed and delivered this Agreement as of the Effective Date.

**PLURIS:**

**Pluris, LLC**,  
a North Carolina limited liability company

By Its Manager:

Pluris Advisors, LLC,  
a Texas limited liability company

By: \_\_\_\_\_  
Name/Title: Maurice Gallarda, Manager

**Pluris Webb Creek, LLC**,  
a North Carolina limited liability company

By Its Manager:

Pluris Advisors, LLC,  
a Texas limited liability company

By: \_\_\_\_\_  
Name/Title: Maurice Gallarda, Manager

**ONWASA:**

**Onslow Water and Sewer Authority,**  
an authority organized under the North Carolina  
Water and Sewer Authorities Act

By: \_\_\_\_\_  
Name/Title:

This instrument has been preaudited in the manner required by the Local Government Budget and Fiscal Control Act.

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Finance Officer

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**EXHIBIT A**  
**BILL OF SALE FORM**

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**EXHIBIT B**  
**DEED FORM**

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**EXHIBIT C**  
**ASSUMPTION AGREEMENT FORM**

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**SCHEDULE 1.1(a)(i)**  
**List of Real Property**

**Real Property Owned By Pluris, LLC:**

**Real Property Owned By Pluris Webb Creek, LLC**

**SCHEDULE 1.1(a)(ii)**

**List of Sewer Lift Station Equipment, Booster Pump Station Equipment, and all Trunk,  
Collection and Other Pipes, Drains and Lines**

**SCHEDULE 1.1(a)(iii)**

**List of Equipment, Software, and Other Tangible Personal Property**

**SCHEDULE 1.1(a)(iv)**

**List of Supplies, Tools, Raw Materials, Parts, Work in Process and Inventories**

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**SCHEDULE 1.1(a)(v)**  
**List of Transferrable Permits**

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**SCHEDULE 1.1(a)(vi)**  
**List of Assumed Contracts**

**SCHEDULE 1.1(b)(vi)**  
**List of Excluded Assets**

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**SCHEDULE 1.1(d)**  
**Allocation of Consideration**

**Pluris, LLC:**

<b>Real Property:</b>	\$ _____
<b>Other Systems Assets:</b>	\$ _____
<b>Total:</b>	<b>\$37,500,000.00</b>

**Pluris Webb Creek, LLC**

<b>Real Property:</b>	\$ _____
<b>Other Systems Assets:</b>	\$ _____
<b>Total:</b>	<b>\$11,000,000.00</b>

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**SCHEDULE 2.4**  
**Pluris Financial Statements**

*See Attached*

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**SCHEDULE 2.8(a)**  
**Pluris Maps**

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**SCHEDULE 2.8(b)**  
**Customer Deposit List**

**SCHEDULE 2.9(c)(ii)**  
**List of Exceptions to Required Easements**

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**SCHEDULE 2.10**  
**List of Pluris Permits**

**SCHEDULE 2.12(e)(i)**  
**List of Owned Real Property Locations – Hazardous Materials**

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**SCHEDULE 2.12(e)(ii)**  
**List of Underground Storage Tanks**

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**SCHEDULE 2.14**  
**List of Insurance Policies**

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**SCHEDULE 2.16**  
**Compliance with Laws**