

COUNCIL AGENDA STATEMENT



Meeting Date: November 12, 2024
To: Honorable Mayor & Members of the City Council
From: Dan Saus, Utilities Manager
Through: George Garrett, City Manager

Agenda Item: **Resolution 2024-110**, Waiving The City’s Purchasing Policies And Procedures And Approving A Sole Source Purchase Of Wastewater Treatment Membrane Upgrades For Service Area 5 Wastewater Treatment Facility From Kubota Membrane USA, In An Amount Not To Exceed \$269,183.00; Authorizing The City Manager To Execute Purchase Orders, Appropriating Budgeted Funds On Behalf Of The City; And Providing For An Effective Date

BACKGROUND & JUSTIFICATION:

The City of Marathon purchased the Service Area 5 “Little Venice” wastewater treatment plant from the FCAA and since then has continued to upgrade the facility to meet all FDEP permit requirements. The latest membrane technology has been very successful, but we recently found that the supporting structures made of 304SS are failing. After negotiations with Kubota, they have agreed to replace all of structures with 316SS along with any damaged membrane units. Approx. 90 units have already been replaced under warranty and we expect that number to rise to about 150 by the end of this upgrade. Recent king tides and development have caused us to unexpectedly need expanded hydraulic capacity at the plant. Newer membrane technology allows us replace the current ones with units that provide 50% more hydraulic capacity. Since all of the frames need replacing, this is the perfect time to upgrade to the newer units. The attached proposal will achieve this capacity expansion while also replacing all the needed structures at minimal cost to the city.

The Utilities Director and Operations staff have reviewed the proposal we received and propose recommendation of award. Kubota is the original supplier of membranes for the facility and therefore is the best supplier capable of providing this equipment and service. The membrane upgrade may qualify for grant funding.

CONSISTENCY CHECKLIST:

	Yes	No
1. Comprehensive Plan	<u>X</u>	___
2. Other – 2010 Sewer Mandate	<u>X</u>	___
3. Not applicable	<u>X</u>	___

FISCAL NOTE:

Approval of this resolution will appropriate funds in the FY25 Wastewater Utility budget for this purchase.

RECOMMENDATION: Approve Resolution

**CITY OF MARATHON, FLORIDA
RESOLUTION 2024-110**

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA, WAIVING THE CITY'S PURCHASING POLICIES AND PROCEDURES AND APPROVING A SOLE SOURCE PURCHASE OF WASTEWATER TREATMENT MEMBRANE UPGRADES FOR SERVICE AREA 5 FROM KUBOTA MEMBRANE USA, IN AN AMOUNT NOT TO EXCEED \$269,183.00; AUTHORIZING THE CITY MANAGER TO EXECUTE PURCHASE ORDERS; APPROPRIATING FUNDS ON BEHALF OF THE CITY; AND PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, pursuant to Ordinance 2015-14, the City Council of the City of Marathon, Florida (the "City"), adopted Purchasing Policies and Procedures after determining that it was fiscally prudent and in the best interests of the City's residents for the City to adopt policies and procedures for City employees and officials regarding the purchasing and acquisition of contractual services, equipment, goods, professional services and other similar types of services; and

WHEREAS, in accordance with Section 2-183 and 2-184(F), the City may waive competitive bidding procedures to obtain goods and services which cannot be acquired through the normal purchasing process, and in this case, where only one vendor possesses the unique and singularly available capability to meet the requirement for wastewater equipment and supplies which are in the City's best interest; and

WHEREAS, the City's wastewater treatment plants and collection systems consist of specialized equipment requiring products and supplies for repairs and maintenance by specified vendors, and Kubota Membrane USA is the sole source of the original membranes for the City's Service Area 5 wastewater treatment plant as provided by Exhibit "A", which are distributed solely by Kubota Membrane USA; and

WHEREAS, the City Manager recommends the City Council waive the City's purchasing policies and procedures due to the sole source status of the vendor, Kubota Membrane USA, in an amount not to exceed \$269,183.00, as provided on Exhibit "A" for the replacement membranes for Service Area 5.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA, THAT:

Section 1. The above recitals are true and correct and are incorporated herein by this reference.

Section 2. Based upon the recommendation of the City Manager the City Council finds that sole source vendor purchases of specialized equipment requiring products and supplies for repairs and maintenance of the City's wastewater treatment systems is in the best interest of the City and approves the purchase.

Section 3. The City’s purchasing policies and procedures are hereby waived and the City Council hereby approves sole source purchase of membrane replacement from Kubota Membrane USA for the City’s wastewater treatment plant five. The City Manager is hereby authorized to execute a purchase with Kubota Membrane USA as described in the proposal attached hereto as Exhibit “A,” and expend budgeted funds.

Section 4. This resolution shall take effect immediately upon its adoption.

PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA, THIS 12TH DAY OF NOVEMBER, 2024.

THE CITY OF MARATHON, FLORIDA

Mayor

AYES:
NOES:
ABSENT:
ABSTAIN:

ATTEST:

Diane Clavier, City Clerk

(City Seal)

**APPROVED AS TO FORM AND LEGALITY FOR THE USE
AND RELIANCE OF THE CITY OF MARATHON, FLORIDA ONLY:**

Steve Williams, City Attorney

Proposal for the
Marathon WRF, FL Capacity Increase
Membrane Bioreactor System



Prepared By:

KUBOTA Membrane USA
19910 North Creek Parkway, Suite 100
Bothell, WA 98011
425-898-2858

Local Representation By:

Ben Mcdorman ,Moss Kelley, Inc.
7284 West Palmetto Park Road
Suite 304 Boca Raton, FL 33433
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October 4, 2024

Dan Saus, P.E.
Utilities Director
City of Marathon
9805 Overseas Highway
Marathon, Florida 33050

Subject: Area 5 MBR system capacity increase and rebuilding existing membrane units

Dear Dan,

Thank you for your patience in preparing this proposal. As we discussed by phone, there are some moving pieces here to deal with.

Here is what we were thinking as we put this proposal together. I hope it makes sense to you.

- There is significant corrosion damage to most (if not all) of the submerged membrane wetted metal components. Some of the damage to some of the membranes is likely the result of metal rust fragments breaking off and damaging the sheets. **All of the membrane frames, diffuser cases, and guiderails will need to be replaced. They will all be replaced to 316SS for added corrosion resistance. Kubota cannot guarantee against corrosion on the wetted parts.**
- You need additional hydraulic capacity to process higher wet weather and peak season flows.
- The limitation is that we cannot fit any more units inside the tanks. We can only go deeper.
- The minimum side water depth for the SP600 unit is 15 feet. Your tank appears to be 16 feet to the top of the wall. That leaves only 1 foot of freeboard (not enough). Solution can perhaps be to add a 12-to-18-inch metal box to the top of each tank to give another 1 to 1.5 feet of freeboard. Our proposal does not include this box, but we can likely help Reynolds come up with a fabrication drawing for them to provide.
- Since all of the existing metal components are in pretty bad shape, it makes most sense to go with the SP600 units, so we will end up with 3 SP600 membrane units per train. Each train has membrane avg day hydraulic capacity of 300,000 gallons per. Total capacity is 900,000 on average day flow basis at 15.5 gfd. Peak day flows can be higher. Review of effluent piping etc., downstream of membrane tanks, should occur to consider any bottlenecks.

- To our understanding, two of the three trains have been inspected. Train 1 needs one new SP600. Train 2 is good. Train 3 should be mostly good, but there may be a few damaged ones to be found.

Please let Ben or I know if you have any questions, comments, or concerns.

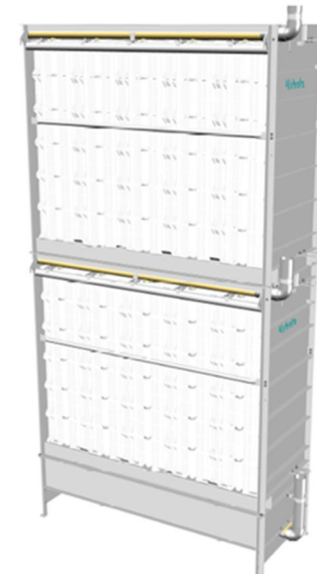
Best regards,

Damone Supica
Regional Manager MBR Systems
KUBOTA Membrane USA Corporation
Cell: 425-248-7897
Email: damone.supica@kubota.com
Cc: Ben Mcdorman, Moss Kelley

MBR Specifications

Below listed specifications of the proposed MBR system.

Description	Specification – Flamingo
Submerged Membrane Unit Model	SP600
Membrane Type	Flat Plate
Membrane Surface Area per Unit	6,458 ft ²
Design MLSS at MBR	12,000 mg/L
Number of MBR Tanks	3Tanks
Total Number of Submerged Membrane Units	9 (3 SP600 SMU per tank)
Water Temperature	60 °F to 95 °F
Influent Wastewater pH	6-8



Scope of Supply

The items included in the following scope list will be supplied by KMU and are included in the price listed below

Major Equipment and Instrumentation

Kubota will supply two new SP600 units complete along with component parts to rebuild seven (7) additional SP600 modules. All new diffuser cases and diffusers, guide pipes and guide rails will be supplied.

All interconnecting piping between the membrane units and the permeate/air headers to be supplied by installing contractor.

Name	Type	Manufacturer	Model	Materials	Motor HP	Quantity*
Membrane Bioreactor (MBR) Tank Equipment						
Submerged Membrane Unit (SMU)	Flat Plate	KUBOTA	SP600	316SS	-	2
SP300 Membrane Frames	Flat Plate	KUBOTA	SP300	316SS	-	14
SMU Guide/Stabilizer Set	Guide and Stabilizer Set	KUBOTA	-	316SS	-	9 sets
SP600 Diffuser cases with new diffusers	Medium Bubble	KUBOTA	SP600	316SS	-	7
Inspection and commissioning Services	Field Services	KUBOTA	-	-	-	1
Freight to jobsite	Freight	KUBOTA	-	-	-	1

Direct Services

Kubota will supply field support technician(s) to inspect the rebuild and reinstallation of all the SP600 modules proposed.

Product Engineering and Design Support

KMU will provide the following product engineering and design services:

- Deliverables during this phase of work will include:
 - MBR Mechanical Drawings showing dimensioned membrane arrangement plans, sections, and details including piping for the membrane basin.
 - Manufacturer cut sheets for all KMU supplied equipment.
 - MBR installation instruction manual.
 - MBR equipment list.
- Design Coordination Meetings – KMU will attend design coordination meetings at the engineer’s facility for the project kickoff.

Field Services

KMU will provide a field service technician to inspect the SP600 module rebuild process and ensure membranes are reinstalled for optimal operations.

Membrane Warranty

Kubota will provide a 5-year membrane warranty, and 1-year mechanical equipment warranty is included in the budgetary price proposed 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. Labor for membrane or equipment repair/replacement is excluded from KMU’s obligation. **KMU’s membrane warranty is governed by the Kubota Products Warranty Terms and Conditions, which are incorporated herein by reference as part of this proposal and are available upon request.**

Delivery Schedule

Typical lead times for submittals, equipment, and Submerged Membrane Units are as follows:

- Submittals: 2-4 weeks after Contractor agreement.
- Submerged Membrane Units: 16 weeks after approval of submittals.

Firm Proposal Price

Firm proposal price for the equipment and instrumentation described herein is shown below

Firm Proposal Price	
Price for attached scope of supply	\$269,183 excluding sales tax

Tax and duties are not included. Tax will be added to this total at the time of sale based on the applicable tax rate.

Payment Terms

Kubota's Payments Terms are as follows:

- 10% down with purchase order
- 10% upon delivery of submittal
- 75% upon delivery of equipment
- 5% upon MBR startup commission

Exclusions to Kubota

The following items are not currently included in the Kubota:

- Equipment classified as Class I, Division I in accordance with NFPA Standard 820 except as noted in the Scope of Supply.
- Equipment, instrumentation, piping, valves, and services not expressly listed above.
- Electrical works, MCC, VFDs, conduit, wiring, terminations, wire labeling.
- Surge protection for analog input, analog output, discrete input, discrete output signals and instrument power in the MBR PLC.
- Surge protection for field devices at the field device location, including signal and power circuits.
- Onsite internet connection is by others.
- Civil works including installation of equipment, piping, and wiring.
- All piping that is outside of the MBR basins.
- Wall pipe, link seal, sleeve, and any kind of penetration seal.
- Piping and mechanical installation.
- Installation of items shipped loose is by others.
- Equipment access platforms, walkways, ladders, and stairs.
- Covers over process and membrane tanks.
- Pump supply for transferring bulk chemical to the skid-mounted chemical tank.
- Seismic design or calculations other than for seismic anchorage of the SMUs.
- Hoist and crane equipment above the process tanks and in the equipment building for installation and removal of the submerged membrane units and ancillary equipment.
- Anchor bolts, brackets, and fasteners for equipment listed in the Scope of Supply table above.
- Heating and ventilation.
- Plant electrical distribution system.
- All interconnect Ethernet and power wiring.
- Instrumentation wiring, conduit, and other appurtenances required to provide connections as needed between the terminal boxes at the membrane equipment, pumps, blowers, etc., and the PLC control panel.
- Any material or labor for concrete work, grouting, or sealant.
- Shop priming, surface preparation, or shop or field coating, painting, cleaning, or welding for any piping.
- All wrapping tape or cathodic protection.
- Labor for equipment installation.

- Raw materials, chemicals, and utilities during equipment startup and operation.
- Laboratory services and operating and maintenance personnel during equipment checkout, startup, and operations.
- Any on-site painting or touchup painting of equipment supplied.
- Materials or labor for heat tracing or insulation.
- Utilities such as clean water and electricity during clean water test, seeding, and commissioning.
- Sludge seeding supply sourcing, transportation, pumping, or temporary filter requirements.
- Unloading and receiving equipment and instrumentation.
- Surge protection for analog input, analog output, discrete input, discrete output signals and instrument power in the MBR PLC.
- Surge protection for field devices at the field device location, including signal and power circuits.
- Equipment lifts or hoists except for Kubota SMU.
- Storage facility or area onsite that can properly store equipment and instrumentation.
- AIS and BABA requirements do not apply to this project.
- Kubota has not reviewed process tankage volumes and equipment to verify if additional upgrades are required. Verification of plant hydraulics including effluent permeate piping is required to insure sufficient capacity exists and will not create bottlenecks through the process.