

**JUSTIFICATION AND APPROVAL FOR OTHER THAN FULL AND OPEN COMPETITION
Over \$150,000 (FAR 6.303-2)**

SEKI 317446- Rehabilitate Ash Mountain and Buckeye WWTPs

1. Identification of the Agency and the Contracting Activity:
Department of the Interior – National Park Service Denver Service Center
2. Nature and/or Description of the Action Being Approved:
Application for brand name descriptions for SEKI 317446- Rehabilitate Ash Mountain and Buckeye WWTPs (Solicitation 140P2022R0082).
3. A Description of the Supplies or Services Required to Meet the Agency’s Needs, Including the Estimated Value:
Orenco Systems, Inc. AX-MAX Proprietary Class II Sewer Treatment System using the recirculating textile fabric treatment method. The Estimated Value of this system is \$384,268.00
4. An Identification of the Statutory Authority Permitting Other Than Full and Open Competition:
41 U.S.C. 3304(a)(1), FAR 6.302-1, Only one responsible source and no other supplies and services will satisfy the agency requirements.
5. A Demonstration That the Proposed Contractor’s Unique Qualifications or the Nature of the Acquisition Requires Use of the Authority Cited:

The Orenco System meets the agency’s minimum requirements to meet permit requirements at the design flows while maintaining current class II treatment technology and Grade level II operator licensure. Additionally, the required system must be packaged and fully integrated system that could be connected to the existing primary tank and spray field disposal system without requiring further modification to those existing features without requiring licensing or royalty fees for continued use and operation. The other technologies explored as part of the VBDI (described in paragraph 8 below) could not meet these requirements. The only system meeting all the minimum requirements was the Orenco Systems, Inc. AX-MAX Proprietary Class II Sewer Treatment System using the recirculating textile fabric treatment method.

The type of treatment system technology required for the Ash Mountain wastewater treatment site is based upon the incorporation of an attached growth media (AGM) within the suspended growth reactor chamber. While several naturally occurring or synthetic media can be used for the media in the treatment unit, the Orenco system incorporates a packed bed filter treatment media using textile media fabric filters to accomplish the treatment. This design receives primary treated effluent from equalization and/or recirculation tanks to feed into the secondary or biological treatment unit before being directed to a final disposal option. The Orenco package advanced treatment systems are fully integrated and optimized for operations to create the best effluent quality possible.

The Orenco system components are standardized in size and function so that repair or

replacement of an item to keep the system in operation is creates with less downtime or potential for release of untreated effluent. A robust service and parts network also minimize the time to resolve any problem that may develop .

The application of the Orenco RTF technology does not require a license or royalty fee for its use. Its use in this project will meet treatment requirements and will not be achievable with systems from any other manufacturer.

6. A Description of Efforts Made to Ensure That Offers Are Solicited From as Many Potential Sources as is Practicable, Including Whether a Notice Was or Will Be Publicized as Required by FAR Subpart 5.2 and, If Not, Which Exception Under FAR 5.202 Applies:
A special notice was issued on SAM.gov on 22 June, 2022 with responses due on 1 July 2022 to identify potential suppliers that could meet the government’s requirement. Section 8 below addresses the information received in response to this notice.
This document will be posted with the solicitation for the construction contract on www.sam.gov, and the government will continue to monitor the market, technological advances, and alternatives to identify competition for future requirements.
7. A Determination By the contracting officer That the Anticipated Cost to the Government Will Be Fair and Reasonable:
The contracting officer anticipates the pricing to be fair and reasonable, and consistent with published catalog pricing.
8. A Description of the Market Research Conducted (see FAR Part 10) and the Results or a Statement of the Reason Market Research Was Not Conducted:

A special notice seeking sources that are able to meet the government’s minimum needs, as described above was published on SAM.gov on 22 June 2022. In response to this notice, the government received a single response; however, the response was not relevant to the brand name system the government intends to specify and did not indicate that any system, other than the Orenco system specified in this document, could meet the minimum needs of the government.

A Value-Based Decision Inventory (VDBI) analysis was performed on four (4 treatment technologies. The technologies included a conventional septic tank onsite wastewater system, and Orenco Systems, Inc. recirculating textile filter (RTF) system, a Smith & Loveless (S&L) conventional activated sludge (CAS) treatment system, and a Smith & Loveless (S&L) Titan membrane bioreactor (MBR) treatment system.

The S&L CAS system combines the principles of single sludge treatment for BOD5, TSS, and Nutrient Removal, as well as sludge blanket clarification into a single vessel, resulting in a compact system that achieves a high degree of waste removal. However, the classification of this treatment alternative according to the State of California Water Resources Control Board is a Class III facility due to the activated sludge treatment technology and a flow capacity size of less than 5.0 million gallons per day. This requires the Chief Plant Operator (CPO) to be at minimum a Grade III and the Designated Operator-

in-Charge (DOIC) to be a minimum of Grade II. This is a substantial increase in the skill of the operating personnel and treatment classification compared to the existing facility.

Additionally, the S&L Titan MBR system uses a combination of a membrane process, like microfiltration or ultrafiltration (either internal or external tank), combined with a suspended growth bioreactor. The system produces an effluent meeting permit requirements in a very short time compared to a CAS system which may take days or weeks to establish a stable effluent. However, like the CAS system, the classification of this treatment alternative according to the State of California Water Resources Control Board is a Class III facility due to the combined biofiltration and activated sludge treatment technologies being equivalent to a tertiary system with a flow capacity size of less than 1.0 million gallons per day. This requires the Chief Plant Operator (CPO) to be at minimum a Grade III and the Designated Operator-in-Charge (DOIC) to be a minimum of Grade II. Like the CAS system, this is a substantial increase in the skill of the operating personnel and treatment classification compared to the existing facility.

Based upon the consideration of treatment class, the RTF system was the only one that was capable of producing an effluent that met permit requirements and did not increase the level of treatment class or operator skill set needed to operate the new system. Additionally, the consideration of life-cycle costs (LCCs) was generated for a 25-year facility life cycle for the three (3) viable treatment system alternatives. LCCs take into consideration capital expenses (both the common alternative items and items unique to each alternative related to construction), maintenance and replacement costs, electrical costs (power costs will increase appropriately with the increase in the level of mechanization due to having more moving parts with more complex operational strategies), and the benefit of salvage (about 4 percent of the initial cost of the system). From this analysis, the LCC of the RTF system was the lowest, the CAS higher, and the MBR the most expensive.

Both the MBR and CAS systems are appropriate for much larger systems and the scale-down to the low flow value of the Ash Mountain treatment system causes a much higher cost. Conversely, the RTF system started as a technology for individual homes or businesses and has been scaled up to the larger commercial sizes appropriate for Ash Mountain which typically does not see disproportionate cost differentials. Based on LCC costs and the ability to not alter the current treatment class or required operator skill level, the RTF system was selected via the VDBI process as the best technology to be implemented to replace the Ash Mountain treatment system. This RTF system was the selected alternative as the only known system that will meet the agency's minimum requirements. and the further basis of the Ash Mountain design.

The team performed additional research to identify any systems that weren't assessed during the value analysis via internet research utilizing keywords associated with the type technology utilized in that system produced no other options that met the agency's minimum requirements. The keywords utilized were "biofiltration sewage treatment

decentralized system”, “biofiltration treatment technology”, “Packaged Aerobic Treatment System for Domestic wastewater”, “Attached Growth Media recirculating self contained sewage treatment”, “Attached Growth Media sewage treatment”, “Alternative Septic systems aerobic treatment unit”, “Alternative Septic Systems”, and “Engineered media sewage treatment systems”. The search results yielded no additional systems that met the agency’s minimum needs.

9. Any Other Facts Supporting the Use of Other Than Full and Open Competition (see FAR 6.302-2 (9) (i) – (iii) for some examples):

None

10. A Listing of the Sources, If Any, That Expressed in Writing, an Interest in the Acquisition:
See paragraph 8 for information on potential sources identified during market research.

11. A Statement of the Actions, If Any, the Agency May Take to Remove or Overcome Any Barriers to Competition Before Any Subsequent Acquisition for the Supplies or Services Required:

The government will continue to monitor the market for compatible systems with salient characteristics that meet the government’s minimum needs and ensure specifications are written to allow the use of those systems if identified.

1. Certification:

I certify that any supporting data that is the responsibility of technical or requirements personnel (i.e. verifying the Government's minimum needs or schedule requirements or other rationale for other than full and open competition) and which form a basis for the justification have been certified as complete and accurate:

(Signature) _____

(Type or Print Name): Jeannie Pham
Project Manager

I certify that the justification is accurate and complete to the best of my knowledge and belief:

(Signature) _____

(Type or Print Name): Natasha DiPietro
Contracting Officer

Reviewed for Legal Sufficiency by Solicitor's Office (over \$500,000 or as requested):

Legal Review obtained separately

**JUSTIFICATION & APPROVAL FOR OTHER THAN FULL AND OPEN COMPETITION
Over \$150,000 (FAR 6.303-2)**

PR Number TBD- SEKI 317446

Reviewed/Concur/Approved by: (if applicable)

(Signature) _____

(Type or Print Name): Shannon Blackburn
Regional or Center Chief of Contracting