

## Memorandum

---

**To:** File

**From:** Scott Schiller

**Date:** October 28, 2019

**Subject:** Sole Source Procurement Determination - Va. Code Section 2.2-4303.E  
Observatory and South Rivanna Water Treatment Plants, Rehabilitation and  
Expansion Project

**cc:** Bill Mawyer, Lonnie Wood, Jennifer Whitaker, David Tungate, Matt  
Bussell, Greg Morris

---

The purpose of this memorandum is to provide a determination regarding the suitability of sole source procurement for 4 additional granular activated carbon (GAC) contactors at the Observatory Water Treatment Plant (OBWTP) as part of the above listed project.

The OBWTP is a conventional surface water treatment plant with coagulation, flocculation, sedimentation and filtration steps. In order to remain compliant with the Stage 2 Disinfection By-Products Rule, RWSA installed GAC contactors to remove some of the disinfection byproduct (DBP) precursors from the water. The project was completed in May 2018 and ultimately installed two 40,000 pound GAC contactors (Calgon Carbon Model 12-40) with a treatment capacity of 1 MGD each and a system design of 2 MGD. At the time of these improvements, it was determined that this capacity would be sufficient as it was based on average daily flows at the OBWTP., the quality of the raw water coming in to the OBWTP, and the need to provide GAC treatment throughout the urban system as cost effectively as possible.

Following the GAC project, the OBWTP was identified for general upgrades and an increase in its capacity to 10 MGD. As design of these improvements began, the Water Department had begun evaluating the effectiveness of the GAC treatment process on DBP removal at all of our facilities. In addition, our customers (City of Charlottesville and Albemarle County Service Authority) have commented on the many benefits associated with the use of GAC, including taste, less odor and increased chlorine residual values in the distribution system. Also, more information is being identified in the regulatory and water industries about emerging contaminants such as Per- and Polyfluoroalkyl Substances (PFAS). As part of this industry discussion, GAC has been identified as the leading means to remove PFAS from water supplies. While our water supplies are not currently challenged by PFAS contributing discharges in the watersheds, we want to remain vigilant in monitoring and protecting our drinking water systems. As a result of these benefits, it was determined that increasing the GAC treatment capacity at the OBWTP from 2 MGD to 6 MGD was in the Authority's best interest.

The current OBWTP GAC treatment process consists of 2 Calgon Carbon Model 12-40 GAC contactors (1 MGD of capacity per contactor) and the associated piping and valving necessary to convey flow to and from the treatment process. In order to increase the GAC treatment capacity to 6 MGD, an additional 4 Calgon Carbon Model 12-40 GAC contactors will be required.

When evaluating the equipment needed to expand the GAC treatment capacity to 6 MGD, alternate manufacturers for GAC contactors were evaluated. While additional GAC capacity can be provided by other manufacturers, it was determined that installation of 40,000 pound capacity contactors manufactured by Calgon Carbon would be in the Authority's best interest.

Benefits associated with expansion of the existing GAC treatment process with contactors manufactured by Calgon Carbon are as follows:

- Proven reliable design that our maintenance and water department staff have experience with.
- Consistency in operations since expansion of the facility's capacity with identical contactors will minimize alternate methods and concerns and allow the operators to perform their duties in a similar fashion to their current procedures.
- Would allow for continued standardization of parts and materials associated with operations and maintenance of the system. While this is an expansion of the GAC treatment capacity at the OBWTP, GAC contactors manufactured by Calgon Carbon are installed at all of the Authority's water treatment plants. Expanding the capacity at the OBWTP with Calgon Carbon contactors, will allow the Authority to maintain a consist inventory of parts and materials as opposed to varied products an alternate manufacturer may require.
- Would minimize constructability concerns associated with unknown alternate manufacturer dimensions and requirements. The existing facility was constructed with expansion in mind and based on the size and layout of Calgon Carbon contactors.
- It would also allow for more consistent and efficient GAC removal and filling during a GAC changeout if all RWSA equipment was the same.

Sole source procurement is permitted under the Virginia Public Procurement Act, Section 2.2-4303.E upon a determination, in writing, that the goods or services required are practicably available from only one source. After discussion and review with the design engineers who are performing the GAC expansion design and RWSA staff, it is apparent that the contactors required to expand the facility's capacity, are practicably available only from one source, Calgon Carbon.

This document serves as the written determination required by Section 2.2-4303.E for sole source procurement and has been reviewed by the Authority. Once approved by the Authority's Executive Director, the Authority and its design engineers will begin negotiations with Calgon Carbon for procurement of the GAC contactors to be included in an upcoming construction project, where the labor and other materials and equipment will be competitively bid. Upon successful completion of the negotiations and inclusion in the larger project, the Authority will post a notice on its website detailing the sole source procurement.

APPROVED BY: William I. Mawyer, Jr. DATE: 10/28/19  
William I. Mawyer, Jr., P.E., Executive Director