

July 20, 2020

Vincent Crowder Sanctuary of Peace POA 3190 Benet Lane Colorado Springs, CO 80921

RE: Acknowledgement of Drinking Water Final Plans and Specifications for Construction Sanctuary of Peace POA Water System, Sanctuary of Peace POA Public Water System Identification (PWSID) No. CO0121702, El Paso County ES Project No. ES.20.DWDR.05394

Dear Mr. Crowder:

The Colorado Department of Public Health & Environment (Department), Water Quality Control Division, Engineering Section has received and reviewed the Capacity Assessment Worksheet and Supplemental Information for the Technical, Managerial, and Financial (TMF) Capacity, and the Final Plans and Specifications for the Sanctuary of Peace POA Water System in accordance with Sections 11.4.1(a) and 11.4(1)(b) of the *Colorado Primary Drinking Water Regulations* (Regulation 11). The TMF and design has been found to be in conformance with the current requirements of the *New Public Water System Capacity Planning Manual* and the *State of Colorado Design Criteria For Potable Water Systems* (Design Criteria). At this time, Sanctuary of Peace POA does not meet the definition of a public water system as defined by Section 11.3(57) of the Colorado Primary Drinking Water Regulations (Regulation 11), and therefore, the Department does not have the authority by Regulation 11 to approve or deny the capacity assessment or the plans and specifications for construction of the water system. At such time that Sanctuary of Peace POA will meet the definition of a public water system, Sanctuary of Peace POA will meet the definition of a public water system. The Sanctuary of Peace POA will meet the definition of a public water system, Sanctuary of Peace POA must submit plans and specifications, and a capacity assessment in accordance with Sections 11.4(1)(a) and 11.4(1)(b) of Regulation 11, and receive design approval. The Sanctuary of Peace POA should anticipate being classified as a community water system.

This acknowledgement is limited to the following:

- Well (SDWIS ID: 001): Groundwater source
 - Well Permit Number 83885-F. Drilled well. Screen: 331-751 feet, total depth: 751 feet, static water level approximately 196 feet.
 - Surface improvements: sloped area away from wellhead.
 - Well improvements: casing raised to provide a minimum of 12 inch between grade and wellhead.
 - Permitted Flow: 50 gallons per minute (gpm).
 - o Pumped Flow: 25 gpm.
 - All associated piping and appurtenances.
- Treatment Plant (SDWIS ID: 002)
 - o Treatment for Well (001), Maximum flowrate of 25 gpm based on well pump rate.
 - Sodium hypochlorite treatment (421):
 - Sodium hypochlorite feed pump (design basis: diaphragm pump with anti-siphon valve), 35 gallon solution feed tank (design basis: polyethylene tank) and secondary chemical containment curb.
 - Sodium hypochlorite injection point prior to contact time storage tanks.
 - Chlorine pump electrically connected to flow meter for flow paced dosing.
 - Treatment appurtenances. Raw water sampling tap, water meter (design basis: NSF61 certified), handheld chlorine analyzer, 119 gallon pressure tank (design basis: Well-X-Trol) and finished water tap (residual chlorine monitoring location) after storage tanks in the treatment plant.



- Booster pumps: two submersible pumps located in 8-inch pits with watertight well cap next to storage tanks (003) to pump from storage tanks back to treatment plant, operating in lead/standby mode, 20 gpm each, 53-62 psi, with variable frequency drives.
- Associated piping and appurtenances.
- Storage Tanks (SDWIS ID: 003)
 - Two (2) 2,500 gallon buried HDPE storage tanks (design basis: Ace Roto-Mold ACT2500-LPG) utilized for contact time (2,000 gallons minimum operating volume between the two tanks). Tank piping and appurtenances: 4-inch inlet pipe, 4-inch vent that opens downward with 24 mesh non corrodible screen, lockable access hatch with gasket, 4-inch outlet pipe.

Deviations:

The design includes the following deviation(s) from the Design Criteria:

• Section 5.1 of the Design Criteria requires that at least two chemical feeders be provided. The response to Request for Information letter indicates spare parts will be kept on site and the system has the ability to service the pump within 24 hours. Based on the information supplied to support this deviation, the Department accepts this deviation request.

Conditions:

The design must comply with the following conditions:

General Requirements:

- Section 2.21 of the Design Criteria requires all chemicals and materials that come in contact with treated or partially treated water to be ANSI/NSF 60 and 61 certified, respectively, for potable water use.
- All wells, pipes, tanks and equipment that can convey or store water intended for potable use must be disinfected in accordance with current AWWA procedures prior to initial use as required in Sections 2.15, 6.6.2, 7.0.18 and 8.7.7 of the Design Criteria.

Monitoring Notifications:

- The project includes installation of a new well that will require completion of initial monitoring when the water system becomes a public water system.
- The design is capable of providing 4-log virus inactivation. As outlined in the Basis of Design Report, the treatment conditions that must exist to achieve 4-log inactivation of viruses are as follows:
 - The supplier must continuously maintain a chlorine residual of 1.0 mg/L at the entry point monitoring location downstream of the two storage tanks, assuming a flow rate of 25 gpm (well pumping rate), a pH between 6.0-9.0, a liquid temperature at or greater than 5-degrees Celsius, a baffle factor of 0.1 and a minimum active storage volume of 2,000-gallons.

Facility Classification under Regulation 100:

• Based on the current water treatment plant and distribution system design and in accordance with the current Colorado Operators Certification Board regulations, the water treatment plant is anticipated to be a Class "D" water treatment facility and the distribution system is anticipated to be a Class "1" distribution system.

The documents that were reviewed are as follows:

- Basis of Design Report dated February 18, 2020 titled *Sanctuary of Peace POA Water System*. Prepared by M.V.E., Inc. for Sanctuary of Peace POA.
- Capacity Planning Document (TMF) dated February 18, 2020 titled *Sanctuary of Peace POA Community Water System*. Prepared by M.V.E., Inc. and H2O Consultants for Sanctuary of Peace POA.
- Raw water quality data received April 21, 2020 and July 7, 2020.
- Response to Request for Information Letter dated June 17, 2020. Prepared by M.V.E., Inc. for Sanctuary of Peace POA.
- Email correspondence dated July 8, 2020 from M.V.E., Inc. for Sanctuary of Peace POA.
- Miscellaneous correspondence.

Please be advised of the following notifications and requirements that may apply to the project:

- Acknowledgement of this project is based only upon engineering design to provide safe potable water, as required by Regulation 11 and shall in no way influence local building department or local health department decisions on this project. This review does not relieve the owner from compliance with all Federal, State and local regulations and requirements prior to construction nor from responsibility for proper engineering, construction and operation of the facility.
- Any point source discharges of water from the facility are potentially subject to a discharge permit under the State Discharge Permit System. Any point source discharges to state waters without a permit are subject to civil or criminal enforcement action. If you have any questions regarding permit requirements contact the Permits Unit at 303-692-3500.

Please direct any further correspondence regarding the technical approval (plans and specifications/design review) to:

Kristen Harris, P.E. Colorado Department of Public Health & Environment Water Quality Control Division – Engineering Section 4300 Cherry Creek Drive South Denver, CO 80246-1530

Thank you for your time and cooperation in this matter. Please contact me by telephone at 303-692-3538 or by email at kristen.harris@state.co.us if you have any questions.

The Engineering Section is interested in gaining feedback about your experience during the engineering review process. We would appreciate your time to complete a Quality-of-Service Survey regarding your experience during the engineering review process leading up to issuance of this decision letter. The Engineering Section will use your responses and comments to identify strengths, target areas for improvement and evaluate process improvements to better serve your needs. Please take a moment to fill out our survey at the following website: http://fs8.formsite.com/cohealth/form627710151/index.html.

Sincerely,

Kristen Harris, P.E. Senior Review Engineer Engineering Section | Water Quality Control Division Colorado Department of Public Health & Environment

cc: David Gorman, M.V.E., Inc. Charles Crum, M.V.E., Inc. Lisa Lemmon, El Paso County Public Health Catherine McGarvy, El Paso County Public Health Amy Zimmerman, WQCD ES Engineering Review Unit Manager Haley Orahood, DWCAS, Compliance & Enforcement Unit South Drinking Water File (C00121702)