



August 28, 2020

Ms. Amber McPherson
 Upper Surface Creek Domestic WUA
 PO Box 70
 Cedaredge, CO 81413

Subject: Sanitary Survey of Upper Surface Creek Domestic WUA
 Public Water System Identification (PWSID) No. CO0115784
 Delta County

Dear Ms. McPherson:

A sanitary survey was performed on August 20, 2020 by the Field Services Section of the Colorado Department of Public Health & Environment’s Water Quality Control Division (the department) at Upper Surface Creek Domestic WUA (the supplier) in accordance with *the Colorado Primary Drinking Water Regulations, 5 CCR 1002-11* (Regulation 11), Sections 11.38(1)(b) and 11.38(2). This letter serves to provide the supplier with written notification of the sanitary survey findings, including any identified significant deficiencies and violations of Regulation 11. The assistance provided was very helpful and is greatly appreciated. Table 1 identifies the parties present during the sanitary survey.

Table 1: Parties Present

Name	Organization
Dayton Myers	Upper Surface Creek Domestic WUA
KC Kay	Colorado Department of Public Health & Environment

Table 2 summarizes the number of findings and the required written response and resolution dates.

Table 2: Sanitary Survey Findings

Severity Category	Number Identified	Written Response Due (within 45 days of letter date)	Resolution Due (within 120 days of letter, or department-approved alternate date)	Public Notice Required (Violations of Regulations 11)
Significant Deficiencies	0	No response required	Not applicable	Not required
Violations	0	No response required	Not applicable	Not required
Observations - Recommendations	3	No response required	Not applicable	Not applicable

A list of the findings for each category in Table 2 can be found in the following sections:

Section I: Significant Deficiencies

According to Regulation 11, Section 11.3(72), a significant deficiency means:



any situation, practice, or condition in a public water system with respect to design, operation, maintenance, or administration, that the state determines may result in or have the potential to result in production of finished drinking water that poses an unacceptable risk to health and welfare of the public served by the water system.

No Significant Deficiencies were identified.

Section II: Violations

No Violations were identified.

Section III: Observations/Recommendations

The department recommends the supplier follow-up and consider the following observations-recommendations. Please direct questions regarding any of the items below to the department inspector.

1. T110 - Treatment: Water Treatment Plant (SDWIS ID: 003)

Log Inactivation (Surface Water and GWUDI): Supplier demonstration of adequate disinfection at the time of the sanitary survey. Adequate disinfection is required prior to the entry point to the distribution system. Regulation 11, Section 11.8(1)(b)(i)(A).

Per Regulation 11, Section 11.8(3)(b)(i)(A), the supplier must maintain disinfection treatment sufficient to ensure that the total treatment processes, including filtration and disinfection, achieve 99.9 percent (3-log) treatment of *Giardia lamblia* cysts and 99.99 percent (4-log) treatment of viruses, as determined by the department. The supplier utilizes a Pall Aria Microza membrane system that, if properly operated, allows for 3.0-log removal credit for *Giardia lamblia* and 0-log removal credit of viruses. Per the information provided by the supplier, the disinfection contact time is achieved at the surface water treatment plant via a gaseous chlorine injection.

Regulation 11, Section 11.3(33) defines the first customer as the first potable water service connection downstream of the point where complete water treatment, including disinfection contact time, has occurred. The supplier must treat the water used for human consumption to at least 3.0 log inactivation of *Giardia lamblia* cysts and 4 log inactivation of viruses, in addition to the 3.0-log removal of *Giardia lamblia* and 0-log removal of viruses provided by filtration.

Though this requirement has been part of Regulation 11 since the U.S. Environmental Protection Agency's Surface Water Treatment Rule went into effect, the department has recently begun a statewide outreach and disinfection verification project to re-evaluate surface water treatment. The department has formed a Disinfection Outreach and Verification Effort (DOVE) team to perform this re-evaluation and assist suppliers of water in assessing their disinfection.

During the sanitary survey, the department inspector informed the supplier that the DOVE team will be providing additional information regarding the department's evaluation process under separate letter. The department has assigned Amy Zimmerman to assess the supplier's treatment plant for sufficient disinfection. If the supplier opts to proactively start addressing this issue, please contact Amy Zimmerman at 303-692-3545 or amy.zimmerman@state.co.us.

2. R997 - Monitoring & Recordkeeping and Data Verification:

Other Monitoring, Recordkeeping and Data Observations: Department inspector identified monitoring, recordkeeping and data observation.

During the sanitary survey, the supplier's Monitoring Plan was discussed. The department has a new General Monitoring Plan Wizard to assist in developing a General Monitoring Plan. The wizard can be found at: <https://www.colorado.gov/cdphe/monitoringplans>. Although the supplier has a monitoring plan, the wizard may assist in keeping the plan up-to-date.

3. M990 - Management:

Other Management Observations: Department inspector identified system management and operation observation.

The supplier’s distribution system consists of 10 pressure zones with pressures ranging from 35 psi to 400 psi. In November 2018, the Water and Wastewater Facility Operators Certification Board updated and revised the criteria for facility classification in Regulation No. 100. These revisions are important because treatment and distribution/collection system classification establishes the minimum certification level for the operator in responsible charge (ORC). Based on the criteria listed in Regulation 100, the supplier’s distribution system may be re-classified to Class 3 due to more than 3 pressure zones and pressures greater than 150 psi. Additional correspondence may come under separate cover. The current ORC holds a Class 4 license and satisfies the possible new classification. Questions regarding facility classification should be directed to Tyson Ingels at tyson.ingels@state.co.us or 303-692-3002.

Section IV: Field Verification/Sampling

While performing the sanitary survey, the inspector performed water quality sampling for chlorine residual and turbidity. Table 3 indicates the results of the water quality sampling performed on-site.

Table 3: Sampling Results

Parameter	Sample Location	Value	Units	Notes
Entry Point Disinfectant Residual	Entry point	2.28	mg/L	
Distribution System Disinfectant Residual	Water System Office	1.60	mg/L	
Turbidity	Prior to clearwell	0.07	NTU	Supplier’s calibrated HACH 1720E CFE turbidimeter.

Reminders

- Regulation 11, Section 11.4(1)(b) (Prior Approval Required) requires the department’s approval prior to commencement of construction of any improvements, treatment process modifications, or the addition of new water sources.
- Most regulations, guidance documents, and forms are available on the department’s website at <http://wqcdcompliance.com>.
- Regulation 11, Section 11.5 requires all suppliers of water to develop and implement a monitoring plan. A new version of the department’s Monitoring Plan Template is now available at <https://www.colorado.gov/cdphe/monitoringplans>. For assistance developing or updating your monitoring plan, coaching assistance can be requested via the Local Assistance Unit website at <https://www.colorado.gov/pacific/cdphe/tools-drinking-water-facilities-managers>. The supplier is required to submit a copy of the updated plan via the department’s online portal at <https://wqcdcompliance.com/login>. For portal support, please contact Kaleb Winisko at kaleb.winisko@state.co.us or 303-691-7803. The plan will then be reviewed by the Drinking Water Compliance Assurance Section. For questions regarding the Monitoring Plan requirements please contact the Compliance Assurance Section at 303-692-3556.
- In November 2018, the Water and Wastewater Facility Operators Certification Board updated and revised the criteria for facility classification in Regulation No. 100. These revisions are important because treatment and distribution/collection system classification establishes the minimum certification level for the operator in responsible charge (ORC). This may affect your facility’s operator

certification requirements. For existing facilities, the new criteria will be applied beginning March 1, 2021. For new facilities, or if your facility undergoes a design review by the department, the facility classification will be re-evaluated based on new criteria beginning March 1, 2019. More information is available at: www.colorado.gov/cdphe/wq-reg100-facility-classification.

We would appreciate any feedback that you provide so that we can improve. Please take a few moments to complete [this survey](#).

If you have any questions, please contact me at (970) 248-7154 or casey.kay@state.co.us . Thank you for your time and cooperation.

Sincerely,

KC Kay, Environmental Protection Specialist
Field Services Section
Water Quality Control Division
Colorado Department of Public Health & Environment

cc: Delta County Health Department
Drinking Water File, PWSID No. CO0115784
Aquifer Case Aquifer Case FS.20.INSP.05750

Amber McPherson, AC
Dayton Myers Jr, ORC
Tyson Ingels, Lead Drinking Water Engineer, CDPHE-WQCD