



October 14, 2024

Susan Finding
 Hi Land Acres Water and Sanitation District
 9844 E 158th Ave
 Brighton, CO 80602

Subject: Sanitary Survey of Hi Land Acres Water and Sanitation District
 Public Water System Identification: CO0101075
 Adams County

Dear Susan Finding:

A sanitary survey was performed on September 18, 2024 by the Field Services Section of the Colorado Department of Public Health & Environment’s Water Quality Control Division (the department) at Hi Land Acres Water and Sanitation District (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
Gabrielle Begeman	Hi Land Acres Water and Sanitation District
James Plante and Clayton Moores	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)	Resolution Due (within 120 days of letter or department-approved alternative date)	Public Notice Required (Violations of Regulation 11)
Significant Deficiencies	1	No response required	Resolved	Not required
Violations	0	No response required	Not applicable	Not required
Observations - Recommendations	5	No response required	Not applicable	Not applicable

Failure to adequately address any significant deficiencies referenced above may result in additional violations of Regulation 11. 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 water that poses an unacceptable risk to health and welfare of the public served by the water system.

The items in this category are significant deficiencies. Please direct questions regarding resolution of the following items to the department inspector.

1. D220 - Distribution: Distribution System (SDWIS ID: DS001)

Raw Water Bypass: System had a bypass water line around the water treatment process from the raw water to the finished water.

In accordance with Regulation 11, Section 11.11(2), suppliers of water that use groundwater must supply water that is disinfected using a chemical treatment method. At the time of the sanitary survey, the department inspector observed an uncontrolled bypass water line around the free chlorine injection point used for disinfection at the North Well Water Treatment Plant. The inspector observed that the raw water from the North Well entered the treatment plant and then split into two pipes. The chlorine injection point was after the split on the side that traveled to the North Storage Tank for contact time. The other side of the split connected to the distribution system with only a closed valve protecting the distribution system from raw untreated water flowing into the distribution system (Attachment 1a). Because raw water or partially treated water can bypass treatment, this condition meets the definition of a significant deficiency as defined in Regulation 11, Section 11.3(72) and must be corrected.

After the survey, on September 18, 2024, the supplier sent photograms with a brief description stating that they relocated the chlorine injection point to before the pipe split to the storage tank and distribution system (Attachment 1b). The department considers this deficiency resolved and no further action is required.

Section II: Violations

No violations were identified.

Section III: Observations/Recommendations

The department recommends that the supplier consider the following recommendations/observations. Please direct any questions regarding any of the items below to the department inspector.

1. D990 - Distribution: Distribution System (SDWIS ID: DS001)

Other Distribution System Observations: Department inspector identified distribution system observation.

At the time of the sanitary survey, the department inspector and the supplier discussed the loss of distribution pressure the system experienced in August 2024. The supplier informed the inspector that the loss of pressure was due to low water yield from their active South Well. In response to the pressure loss, the supplier activated their emergency North Well and treatment plant. The supplier also received finished water from Todd Creek Village Metro District through a temporary connection. The supplemental water from Todd Creek Village filled the North Storage tank through a usually closed storage tank bypass pipe connected to the distribution system in the North Well Water Treatment Plant. If the supplier plans to use the bypass pipe to fill the North Storage Tank from the distribution system again in the future it would make that storage tank subject to the Storage Tank Rule (Section 11.28) which would require the supplier to develop and implement a storage tank inspection plan and conduct periodic and comprehensive inspections.

2. T995 - Treatment: South Well WTP (SDWIS ID: 004)

Other Treatment Observations: Department inspector identified treatment observation.

In accordance with Regulation 11, Section 11.11(2)(b), suppliers of water that use a groundwater source must disinfect the source water at all times that it is served to the public. The method of disinfection must be approved by the department and may include physical treatment methods but must include at least one chemical treatment method. At the time of the sanitary survey, the department inspector reviewed the weekly chlorine residual log for the South Well Water Treatment Plant and found that the supplier's tested levels of disinfectant residuals were at an acceptable range that was compliant with Regulation 11, Section 11.11. The supplier informed the inspector that the chlorine-dosing pump is energized when the South Well pump is active and the dosing is set at a constant amount and not flow-based. The inspector observed that the chlorine residuals recorded during the summer months of 2024 were as high as 8 mg/L at the entry point. A high level of chlorine residual at the entry point could lead to a distribution concentration exceeding the acceptable maximum of 4.0 mg/L. The supplier believes that the high chlorine residuals are the result of abnormally low flows from the South Well combined with the constant dosing amount of chlorine. The supplier recently installed a process control sample tap after the chlorine injection point to help observe and adjust dosing

amounts when well flows change throughout the year. The department recommends that the supplier continues to use the process control sample tap to help gauge chlorine dosing and to look into installing a flow-paced chlorine dosing system if the well flows continue to vary.

3. M990 - Management:

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

At the time of the sanitary survey, the department inspector and the supplier discussed the booster pumps at both treatment plants that supply pressure to the distribution system. The supplier indicated that the system currently has no means of providing power to the booster pumps in the event of a power outage. If a power outage were to occur, the distribution system would lose pressure and be susceptible to contamination. The department recommends the supplier evaluate options for having a secondary source of power for the pumps so the water system could continue to operate in the event of a power outage. If this secondary source is a portable emergency generator, the department further recommends that the supplier establish a standard operating procedure for operations, maintenance and emergency operation procedures for the generator. Please note that if the distribution system loses pressure the supplier must notify the department by calling the 24-Hour Incident Reporting Hotline at 1-877-518-5608.

4. M651 - Management:

Customer Metering: Customer meters and accurate accounting of water used.

At the time of the sanitary survey, the supplier indicated that all customers were metered; however, the remote recording of the meter readings was nonfunctioning. It is recommended that the supplier at least manually read all the meters periodically to ensure that all customers are metered and inaccurate water meters are replaced to allow for accurate calculation of water consumption and billing. Inaccurate meters can result in the supplier not being paid for all the water that is used, reducing income and making it difficult to properly operate and maintain the water system. Additionally, water meters at customer taps are a means to determine water system losses by comparing the metered water production to the metered water consumption. High distribution system losses may equate to potential distribution system risks.

5. R510 - Monitoring, Recordkeeping and Data Verification:

General Monitoring Plan: Monitoring plan-required content, updates for facility changes, and submittal to the department.

According to Regulation 11, Section 11.5, all suppliers of water shall develop and implement a monitoring plan. At the time of the sanitary survey, the department inspector reviewed the supplier’s monitoring plan and was informed by the supplier that the system owner’s contact information was outdated. The department recommends that the supplier update their monitoring plan to include the current contact information for the system owner.

After updating the monitoring plan, the supplier is required to submit a copy to the department via the department’s online portal, which can be accessed at <https://wqcdcompliance.com/login>. The supplier is required to create a portal account, if not done previously. For portal support, please contact Kaleb Winisko at kaleb.winisko@state.co.us or 303-691-7803.

Section IV: Field Verification/Sampling

While performing the sanitary survey, the department inspector conducted water quality sampling. Table 3 indicates the results of the water quality sampling performed on-site.

Parameter	Sample Location	Value	Units	Notes
Entry point free chlorine disinfectant residual	South Well WTP (SDWIS ID: 004)	2.50	mg/L	Supplier’s reading: 2.80 mg/L
Distribution system free chlorine disinfectant residual	16042 Highlands Cr	1.99	mg/L	

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 <https://cdphe.colorado.gov/drinking-water>.
- The department's water security toolbox at <https://cdphe.colorado.gov/dwsecurity> includes information to help water suppliers plan for, prevent and respond to security threats including cyberattacks. All suppliers with Operational Technology, Information Technology or Industrial Control System Capabilities, including but not limited to Supervisory Control and Data Acquisition (SCADA), should assess their cybersecurity with established methods such as U.S. Environmental Protection Agency's cybersecurity evaluation program or U.S. Cybersecurity and Infrastructure Security Agency toolkits. For more cybersecurity training resources, please contact the Local Assistance Unit at cdphe.wqdwtraining@state.co.us.
- At CDPHE, we want everyone in Colorado to easily access the information and resources we provide. Information regarding digital accessibility is available on the department's website at [accessibility statement and support](#).

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

If you have any questions, please contact me at james.plante@state.co.us. Thank you for your time and cooperation.

Sincerely,

James Plante
Environmental Protection Specialist
Field Services Section, Denver Office
Water Quality Control Division
Colorado Department of Public Health & Environment

ec: Adams County
Drinking Water File, PWSID No. CO0101075
Gabrielle Begeman, ORC
Clayton Moores, PE, CDPHE WQCD Field Services Unit Manager
Ellen Henrichs, PE, CDPHE WQCD Field Services Work Group Lead
Ian Ferguson, CDPHE WQCD Drinking Water Compliance Assurance Section
Emily Clark, CDPHE WQCD Drinking Water Compliance Assurance Section
Jorge Delgado, PE, CDPHE WQCD Drinking Water Compliance Assurance Section
Bob Pohl, CDPHE WQCD Drinking Water Compliance Assurance Section

Attachments:



Attachments: 1a and 1b

Severity: Significant Deficiency

SDWIS Facility ID and Name: Distribution: Distribution System (SDWIS ID: DS001)

Category: Raw Water Bypass

Attachment Comments: The injection point was after the pipe split to the distribution system and storage tank, on the storage tank connection side, which created a possible raw water bypass with the distribution system (photograph 1a). The supplier relocated the injection point to before the pipe split to ensure a possible raw water bypass could not occur.