



COLORADO

Water Quality Control Division

Department of Public Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

June 27, 2018

Mr. Joel Meggers
Forest View Acres Water District
7995 E Prentice Ave Ste 103e
Greenwood Village, CO 80111

Subject: Sanitary Survey of Forest View Acres Water District
Public Water System Identification (PWSID) No. CO0121250
El Paso County

Dear Mr. Meggers:

A sanitary survey was performed on May 31, 2018 by the Field Services Section of the Colorado Department of Public Health & Environment’s Water Quality Control Division (the department) at Forest View Acres Water 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
Clyde Penn Jr.	Forest View Acres Water District
Paul Hanson, PE	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 applicable
Violations	0	No response required	Not applicable	Not applicable
Observations - Recommendations	6	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(71), 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. F311 - Finished Water Storage: Storage Tank (SDWIS ID: 008)

Storage Access: Storage tank access. Colorado Design Criteria for Potable Water Systems (Design Criteria), Chapter 7, Section 7.0.8.

During the sanitary survey, the department inspector observed no fencing around the supplier's storage tank. The department highly recommends that the supplier restrict access to the storage tank by installing a fence to secure the perimeter. The supplier should also consider implementing additional security measures such as cameras or other alarms. Please refer to the U.S. Environmental Protection Agency's Vulnerability Assessment recommendations or other Homeland Security mandates for more direction.

2. R518 - Monitoring & Recordkeeping and Data Verification:

Total Coliform Sample Sites: Supplier's routine total coliform sample sites.

During the sanitary survey, the department inspector reviewed the supplier's May 2015 monitoring plan and recommended that the ORC include additional total coliform sample site(s) and develop an updated sample site map. The supplier is expected to submit monitoring plan updates 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. The portal can also be used for uploading non-emergency information for suppliers of water in addition to monitoring plans. For portal support, please contact Kaleb Winisko at kaleb.winisko@state.co.us or 303-691-7803. For questions regarding Monitoring Plan requirements, please contact Tim Jones of the Compliance Assurance Section at timothy.jones@state.co.us or 303-692-2085.

3. 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 department inspector identified that the supplier's Entry Point (EP) had changed from the Arapahoe treatment plant (after the plant pumps) (SDWIS ID: 003) to the booster station (prior to the booster station pumps). The ORC stated that the booster station location is prior to the first customer. The supplier is expected to update its monitoring plan (refer to Observation/Recommendation No. 2 for additional information on monitoring plan updates). The supplier is also expected to coordinate with Alex Hawley of the Drinking Water Compliance Assurance Section at (303) 691-7805 or alex.hawley@state.co.us to update the supplier's monitoring schedule to accurately reflect the EP sample location.

4. M610 - Management:

Backflow Prevention and Cross-Connection Control Program: Written backflow prevention and cross-connection control program.

During the sanitary survey, the department inspector reviewed the supplier's Backflow Prevention and

Cross-Connection Control Program (BPFCC) Plan. The supplier's plan stated that the system consisted of only single-family residential connections (along with supplier waterworks). The department inspector recommended that the supplier establish legal authority because if the supplier becomes aware of a single-family residential connection to the public water system that is a cross connection, the supplier must control the cross connection in the same manner required in Regulation 11. The plan should also reference Regulation 11, Safe Drinking Water Program Policy 7, and developed guidance (in addition to the Colorado Plumbing Code) in determining which assemblies or methods can be used for appropriate control. The Supplier may also consult the department for additional information. Please contact Jorge Delgado by phone at (303) 692-3511 or via e-mail at jorge.a.delgado@state.co.us with any questions regarding BPFCC.

5. R531 - Monitoring & Recordkeeping and Data Verification:

Disinfectant Monitoring Equipment Verification: Supplier was not using an EPA accepted test method, using an expired or incorrect DPD reagent or not verifying or operating disinfectant monitoring analytical equipment in accordance with manufacturer requirements.

At the time of the sanitary survey, the Department inspector observed that the supplier's disinfectant monitoring equipment was being verified in accordance with 40 CFR 141.74(a) and the manufacturer's recommendations. Please be aware that the Department expects the Supplier to verify or check the calibration of their online chlorine analyzers per manufacturer's recommendations or at least once weekly, in accordance with Section 11.46 of Regulation 11. The supplier's online chlorine analyzer(s) should be checked with secondary standards and the results recorded in a logbook to indicate any issues with the instruments. The Department also expects the Supplier to calibrate or check their portable chlorine analyzers per manufacturer's recommendations or at least once annually. To ensure that the Supplier properly documents calibration records for all of the Supplier's analytical equipment, the Supplier should maintain written procedures, in-house log sheets and records of equipment calibrations in accordance with manufacturer recommendations.

6. T110 - Treatment: Limbaugh Swtwp01 (SDWIS ID: 001)

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 the 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 three primary and two secondary horizontal garnet sand media pressure filters (direct filtration) that allows for 2.0-log removal credit for Giardia lamblia and 1.0-log removal credit of viruses if properly operated. Per the information provided by the Supplier, the disinfection contact time is achieved via approximately 350 feet of 12-inch pipe and 350 feet of 16-inch pipe after the surface water treatment plant and before the first customer. Residual chlorine is currently monitored by the Supplier before the contact time piping. The ORC reported that the Supplier has already been working with the Disinfection Outreach and Verification Effort (DOVE) team and has begun the bid process to move the Entry Point to after contact piping and prior to the first customer. Please continue to work with the DOVE team regarding the re-evaluation of the supplier's treatment plant for sufficient disinfection. Refer to Observation/Recommendation No. 3 for additional information on EP location changes.

Section IV: Field Verification/Sampling

While performing the sanitary survey, the inspector performed water quality sampling for free residual chlorine. 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	Arapahoe Well Entry Point	0.99	mg/L	

Distribution System Disinfectant Residual	18852 Rockbrook Dr.	0.59	mg/L	
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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.

Enclosed with this letter you will find a postage-paid Customer Satisfaction Survey Postcard. Please take a few moments to complete the survey and return it to the department. Your efforts to provide feedback to improve the sanitary survey process are appreciated.

If you have any questions, please contact me at (719) 295-5074 or paul.hanson@state.co.us. Thank you for your time and cooperation.

Sincerely,



Paul Hanson, PE, Senior Field Engineer
Field Services Section
Water Quality Control Division
Colorado Department of Public Health & Environment

cc: El Paso County
Drinking Water File, PWSID No. C00121250
Aquifer Case FS.18.INSP.04337
Joel Meggers, AC
Clyde Penn Jr, ORC
Gabrielle Begeman, ORC Water Professionals
Margaret Talbott, Compliance Unit Manager, CDPHE-WQCD-Compliance Assurance Section
Alex Hawley, CDPHE-WQCD-Compliance Assurance Section
Dan Wcislo, CDPHE-WQCD-Engineering Section
Jorge Delgado, Senior Field Engineer & BPCCC Specialist, CDPHE-WQCD-Field Services Section