



April 30, 2021

Mr. Paul DeJulio  
 Florida River Estates HOA Inc  
 PO Box 456  
 Durango, CO 81302

Subject: Sanitary Survey of Florida River Estates HOA Inc  
 Public Water System Identification No. CO0134300  
 La Plata County

Dear Mr. DeJulio:

A sanitary survey was performed on April 15, 2021 by the Field Services Section of the Colorado Department of Public Health & Environment’s Water Quality Control Division (the department) at Florida River Estates HOA Inc (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
Mark Fuson	Florida River Estates HOA Inc
Kristina Quick, EIT	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	1	June 14, 2021	August 28, 2021	Not required
Violations	0	No response required	Not applicable	Not required
Observations - Recommendations	7	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.*



The items in this category are significant deficiencies. Please direct questions regarding resolution of the following items to the department inspector. Please submit documentation regarding resolution to the drinking water portal at <https://cdphe.colorado.gov/wqcdcompliance/login> under the category "Sanitary Survey Inspection".

**1. T119 - Treatment: Florida River Estates Ywtp01 (SDWIS ID: 001)**

*Proper Operation:* Surface water or ground water under the direct influence (GWUDI) of surface water treatment operational practices. Regulation 11, Section 11.8(1)(b) and CDPHE-WQCD Policy 4.

During the sanitary survey, the department inspector discussed the GWUDI treatment process with the supplier's certified operator. The treatment process consists of roughing filters and 2-stage compliance Strainrite filtration with sodium hypochlorite disinfection. The inspector observed the following issues with the treatment operation:

**a) Monitoring Location**

The supplier's Combined Filter Effluent (CFE) turbidity and entry point chlorine residual monitoring location was located after a tee in the piping to distribution (see Attachment 1). Monitoring after a tee creates the potential to sample water that is not representative of treated water entering the entire distribution system. This constitutes a significant deficiency as defined in Regulation 11, Section 11.3(72) and must be corrected.

Due to the population served, the supplier is required to take one chlorine residual and turbidity sample per day. If the supplier wishes to continue utilizing this location for sampling, the supplier must work with the department to create a detailed SOP on how they will ensure that the measured chlorine and turbidity is representative of water entering the entire distribution. Since the supplier utilizes online analyzers, additional steps in the SOP may require comparing when the plant was running to the logged data and how much water was going to each section of the distribution system at that time. The supplier will also need to put in a request with the department's Engineering Section to update the Record of Approved Waterworks so that this deviation is appropriately documented.

Alternatively, the supplier could install a new sample tap located prior to the tee and conduct chlorine and turbidity prior to the tee.

In order to resolve this significant deficiency the supplier must either provide a detailed SOP to the department and submit a request to update the RAW or install a new sample tap prior to the tee and provide photographic documentation to the department that it has been moved.

**b) Pressure Monitoring Records**

The supplier's operational logs were reviewed as part of the sanitary survey. It was discovered that pressure differentials across the filters were available for a few days a week but were not being recorded on daily basis as is required in the *Strainrite Alternative Filtration Technology* approval letter. During the weeks prior to the sanitary survey, the supplier had begun installing a SCADA system, which has the capability of monitoring and recording the pressure differentials across each filter bank continuously (see Attachment 2). The SCADA system was still being brought online for all functions but had begun monitoring pressure differentials at the time of the sanitary survey. The supplier was coordinating with the provider of the SCADA system to ensure the data is being stored and can be kept for the required timeframes. This provides resolution to the daily pressure differential part of the significant deficiency.

**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. D901 - Distribution: Distribution System (SDWIS ID: DS001)**

*Cross Connection:* Uncontrolled cross connection that may allow contamination to enter drinking water.

In accordance with Regulation 11, Section 11.39(3)(b), suppliers of water are prohibited from installing or permitting any uncontrolled cross connections to the distribution system, an internal building water supply, or within a supplier's waterworks. Unprotected cross connections present potential sanitary hazards and health risks, which meet the definition of a significant deficiency as defined in Regulation 11, Section 11.3(72) and must be corrected. At the time of the sanitary survey, the department inspector identified an uncontrolled cross connection at the fire hydrant by the storage tank, which was being utilized to provide water for the construction of the new storage tank (see Attachment 3). Backflow protection is required for all non-emergent uses of a fire hydrant. At the time of the sanitary survey, the construction crew removed the hose and closed the fire hydrant (see Attachment 4).

Following the sanitary survey, documentation was provided demonstrating that a backflow device had been installed at the fire hydrant for use at the construction site (see Attachment 5). This provides resolution of the significant deficiency. The supplier must ensure that the device is or has been tested and include it in the cross connection annual report and tracking sheet for calendar year 2021.

### **2. D990 - Distribution: Distribution System (SDWIS ID: DS001)**

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

The supplier has been conducting a system wide distribution replacement project to replace the old leaking water lines. During previous sanitary surveys, it was discovered that the system had been experiencing a 70% water loss in the distribution, which not only creates financial strain on the system but also leaves the system extremely vulnerable to a contamination event. The distribution line replacement project is estimated to be 85% complete; the new mains are in the ground, have undergone the necessary disinfection and pressure tests had begun in the days prior to the sanitary survey. The supplier's contractor will be working on connecting homes to the new distribution system along with the new water meters and curb stops. At the time of the sanitary survey, some of the homes were already running on the new distribution system while others were still on the old system. The project also included the installation of sampling hydrants, which will allow for more control over TC sampling (see observation 5 below).

### **3. F991 - Finished Water Storage: Water Storage Tank (SDWIS ID: 003)**

*Other Storage Observations:* Department inspector identified storage observation.

The supplier is due for another comprehensive tank inspection to be performed. The last comprehensive inspection was prior to the 2016 Storage Tank Rule coming into effect. The supplier indicated that there are some updates to the tank access that need to occur prior to the diving company performing the inspection and they are working with CW Divers to complete the inspection by the deadline. Please be aware that the comprehensive inspection must be performed by December 31, 2021, failure to do so will result in a treatment technique violation of Regulation 11, Section 11.23(4)(c)(iii) and would require Tier 2 public notice.

### **4. O997 - Operator:**

*Other Operator Compliance Observations:* Department inspector identified operator compliance observation.

Regulation 100 allows the certified ORC of a water or wastewater facility to delegate tasks or activities to other facility operators when delineated by a written operating plan. During the sanitary survey, no written plan was available for review. Please develop a written operating plan in accordance with Regulation 100. The department expects that this written operating plan will be available during the next sanitary survey. More information regarding operating plans is available at: <https://cdphe.colorado.gov/ccwp-written-delegation-plan> . Please note that the operating plan must be precise in defining the limits of tasks or activities that can occur while the ORC is not on-site. Also, the operating plan must be reviewed and updated, as needed and at least once each calendar year by the certified ORC. The operating plan must be available to the facility owner and other facility operators at all times. The operating plan must be available for inspection by the department upon request. In addition, any operational activity beyond the limits defined in the operating plan

requires the immediate and direct consultation with and participation of a certified ORC or another operator holding a certificate equal to or above the classification of the facility he or she is operating.

**5. R997 - Monitoring & Recordkeeping and Data Verification:**

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

The supplier indicated that once the distribution line replacement is complete that they would be changing some of their TC sample sites due to the new sampling hydrants that were installed. The supplier is expected to update and submit a general monitoring plan with their complete TC sampling plan to the drinking water portal within 30 days of the change of sampling sites. 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>.

**6. R531 - Monitoring & Recordkeeping and Data Verification:**

*Disinfectant Monitoring Equipment Verification:* EPA accepted disinfectant residual test methods, DPD reagents, verification and operation of disinfectant monitoring analytical equipment in accordance with manufacturer requirements.

At the time of the sanitary survey, the department inspector observed that the supplier was using a HACH Cl17 online chlorine analyzer and performing weekly verifications with a handheld chlorine analyzer. Recently the comparisons have begun to drift to reach the  $\pm 10\%$  deviation threshold. The supplier has been performing secondary standard checks on the handheld device which have been reading within the allowable range, however during the side by side chlorine residual test the supplier's and the inspector's handheld devices produced significantly different readings (see Table 1). While the supplier was within 0.10 of the inspector, the documented drifting that has recently occurred appears to indicate the handheld device may be at the end of its life. The supplier discussed replacing the handheld device, as it appears the drifting is an issue with the handheld device and not the online analyzer.

In the event that the online analyzer is demonstrating a significant drift itself, it will be necessary to contact the manufacturer to either replace, repair or calibrate the analyzer. The online analyzer is roughly 5 years old and expected to have a reasonable lifespan remaining.

The inspector and supplier also discussed improvements to the clarity of the operational logs. On some occasions, chlorine and turbidity comparisons of handheld devices to online analyzers are performed during plant off cycles. There is expected to be some disturbances that occur during shutting down and starting up the plant such as air bubbles in the sampling line. Additionally, when the plant is off the water in the sample line is older and will be losing chlorine residual. When the supplier performs verifications during these plant off times, the data appears to suggest higher turbidity or lower chlorine residuals that were not being reported in the MORs. It is best practice for the supplier to run analyzer comparisons while the treatment plant is on and also ensure there are no unusual circumstances, such as someone bumping the turbidimeter resulting in a slug of air bubbles, that would impact the results of the comparison. If the supplier does perform a plant off analyzer comparison this should be indicated on the operational log where the comparisons are documented.

**7. M613 - Management:**

*Failure to Complete an Annual Backflow Report:* Written annual BPCCC program report.

In accordance with Regulation 11, Section 11.39(4), suppliers of water must complete an annual backflow prevention and cross-connection control (BPCCC) program report. At the time of the sanitary survey, the department inspector found that the supplier had a written program report for all prior calendar years but the report reflected confusion in the terminology of assemblies and methods.

All testable backflow prevention devices are considered assemblies and should be included in the "Assemblies" section of the report. Methods are a means of backflow protection through non-testable setups such as air gaps or hose bib vacuum breakers; these should be included in the "Methods" section of the report. At the time of

the sanitary survey, the supplier has two known testable backflow devices in the system; since these are both testable devices they should be accounted for in the assemblies section only and not the methods section.

Please be aware, with the recent Regulation 11 updates in the Fall of 2020 the department is in the process of updating all guidance, templates and forms associated with BPCCC. Once complete, these will be available on the department's website at: <https://cdphe.colorado.gov/bpccc>.

#### **Section IV: Field Verification/Sampling**

While performing the sanitary survey, the department inspector performed water quality sampling for free chlorine residual. 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 tap	1.27	mg/L	Inspector value
Entry Point Disinfectant Residual	Entry point tap	1.17	mg/L	ORC value
Entry Point Disinfectant Residual	Entry point tap	1.25	mg/L	Online chlorine analyzer
Turbidity	CFE Tap	0.024	NTU	Online turbidimeter
Distribution System Disinfectant Residual	Fire Station	1.13	mg/L	
Distribution System Disinfectant Residual	Lupine Circle Hydrant	0.75	mg/L	Off of the new distribution line

#### **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/wqcdcompliance>
- Regulation 11, Section 11.5 requires all suppliers of water to develop and implement a monitoring plan. The department's monitoring plan template is available at <https://cdphe.colorado.gov/monitoringplans>. For assistance developing or updating your monitoring plan, coaching assistance can be requested via the Local Assistance Unit website at <https://cdphe.colorado.gov/dwtrain>. The supplier is required to submit a copy of the updated plan via the department's online portal at <https://cdphe.colorado.gov/wqcdcompliance/login>. For portal support, please contact Kaleb Winisko at [kaleb.winisko@state.co.us](mailto: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 was applied March 1, 2021. More information is available at <https://cdphe.colorado.gov/wq-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) 248-7199 or [kristina.quick@state.co.us](mailto:kristina.quick@state.co.us). Thank you for your time and cooperation.

Sincerely,

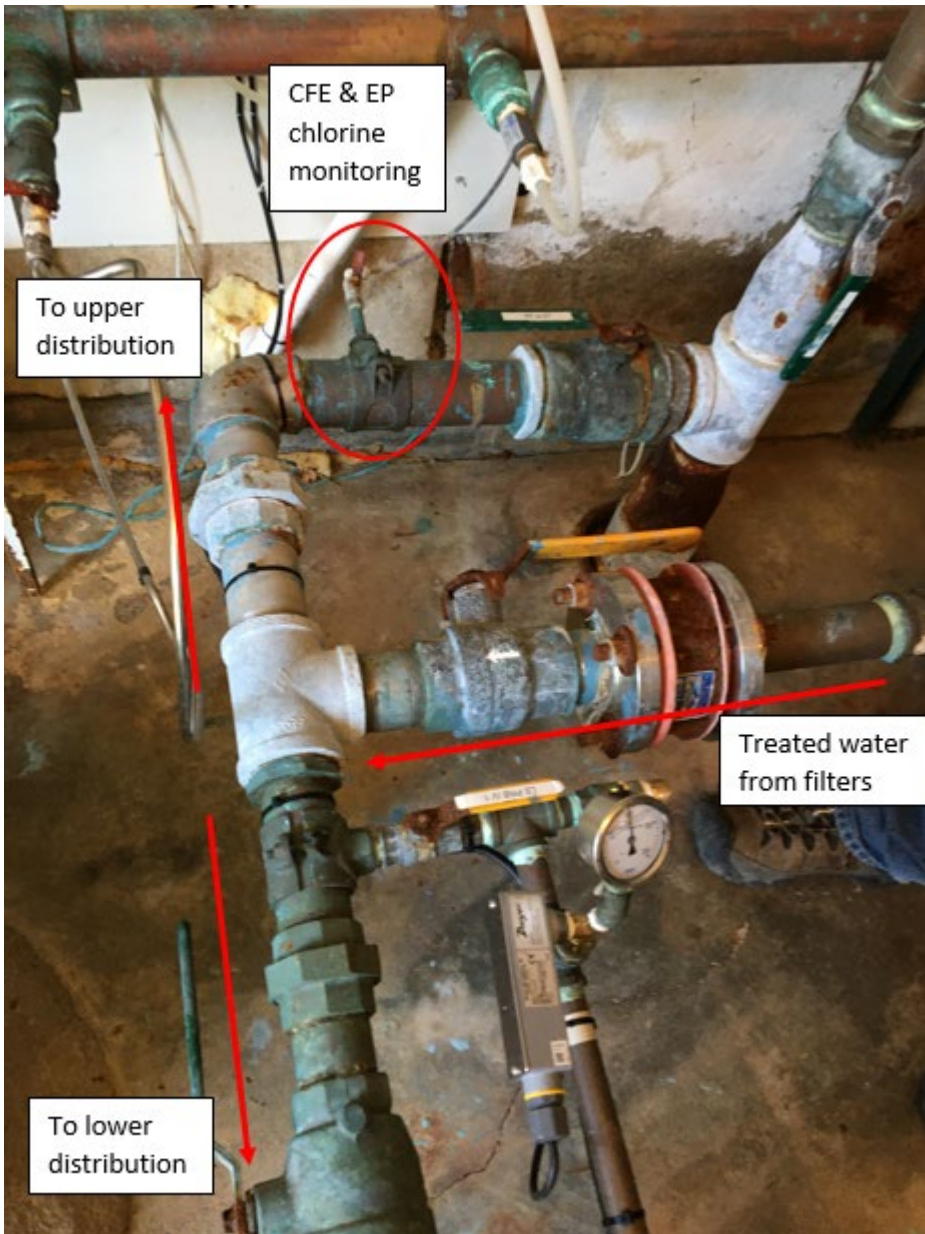
Kristina Quick, EIT  
Staff Field Engineer  
Field Services Section  
Water Quality Control Division  
Colorado Department of Public Health & Environment

Encl: Sanitary Survey Response Form

cc: La Plata County Health Department  
Drinking Water File, PWSID No. CO0134300

Paul DeJulio, AC  
Mark Fuson, ORC  
Cameron Wilkins, PE, CDPHE-FSS, Unit Manager  
Emily Clark, CDPHE-DWCAS, Enforcement & Field Findings Compliance Lead  
Margaret Talbott, PE, CDPHE-DWCAS, Unit Manager  
Ben Keilly, CDPHE-DWCAS, Compliance Specialist

**Attachments**



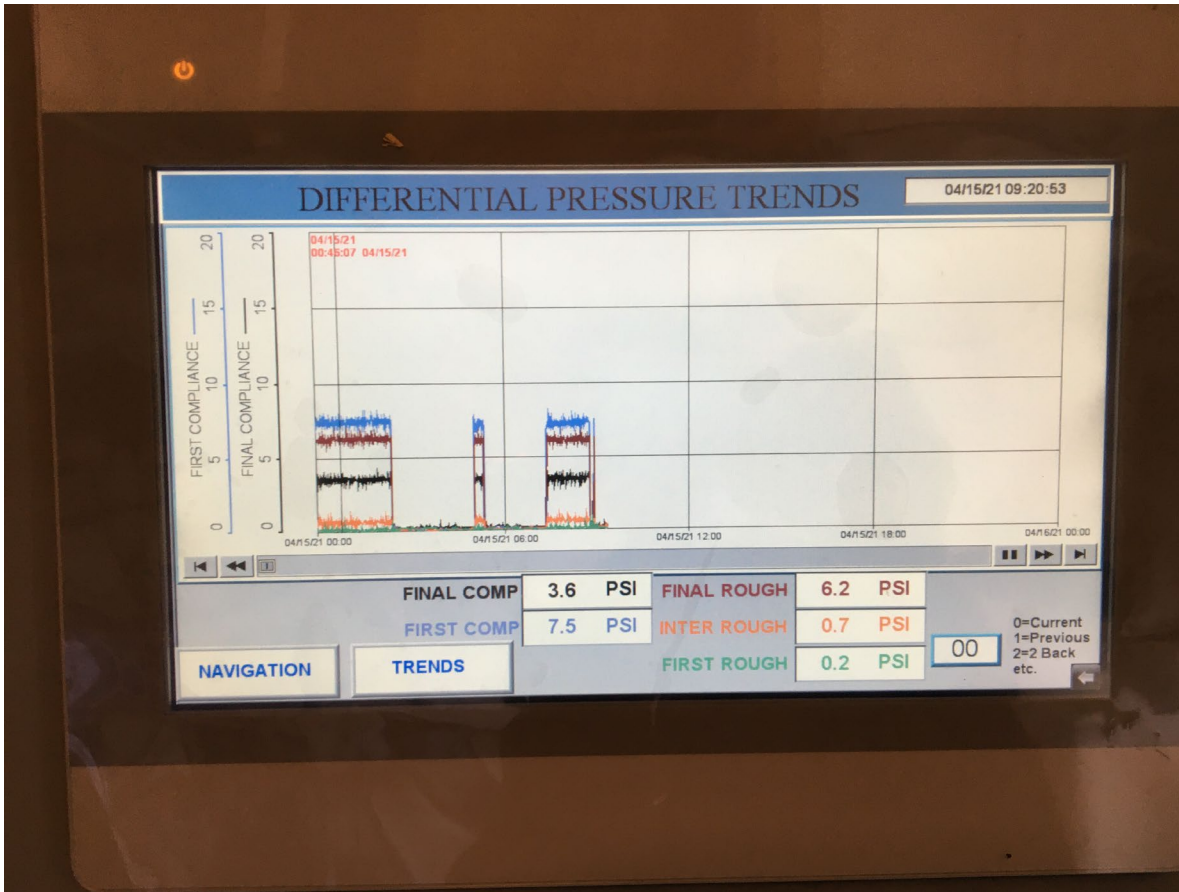
**Attachment: 1**

**Severity:** Significant Deficiency

**Facility ID:** 001

**Category:** Treatment

**Attachment Comments:** The CFE and entry point chlorine residual monitoring location is located after a tee in the system which leads to the distribution system.



**Attachment: 2**

**Severity: Significant Deficiency**

**Facility ID: 001**

**Category: Monitoring and Operation**

**Attachment Comments:** The supplier was in the process of setting up a SCADA system at the plant; at the time of the sanitary survey the SCADA system was already monitoring and recording pressure differentials on a continuous basis which meets the Strainrite monitoring requirements.





**Attachment:** 3 and 4

**Severity:** Significant Deficiency

**Facility ID:** DS001

**Category:** Cross Connection

**Attachment Comments:** The hydrant was being used for non-emergency operations and did not have an appropriate backflow device installed (left). Once identified, the connection was immediately removed (right).



**Attachment:** 5

**Severity:** Significant Deficiency

**Facility ID:** DS001

**Category:** Cross Connection

**Attachment Comments:** Following the sanitary survey, a testable fire hydrant backflow device was installed prior to use of the hydrant for non-emergency operations.

### Sanitary Survey Response Form

In accordance with Section 11.38(3) of the *Colorado Primary Drinking Water Regulations (Regulation 11)*, "No later than 45 days after receiving written notice of significant deficiencies and/or violations, the supplier must submit a written corrective action plan to the Department for approval. The corrective action plan must include the actions the supplier will take to address the significant deficiencies and/or violations and a proposed schedule for completing the actions."

Please note that this form is intended to help the supplier submit information required in Section 11 of Regulation 11. Use of the form is **not required**. Please provide documentation of any corrective actions taken (e.g., monitoring plan submitted on 1/2/2014, mesh screen fixed photo is attached).

System and Sanitary Survey Information	
System Name	
PWSID	
Date of Sanitary Survey Letter	
Inspector Name	

Brief description of deficiency or violation	Describe the corrective action(s) taken or corrective action(s) that your system plans to take	Date addressed or proposed schedule	Documentation attached (photos, documents)?

Brief description of deficiency or violation	Describe the corrective action(s) taken or corrective action(s) that your system plans to take	Date addressed or proposed schedule	Documentation attached (photos, documents)?

Typed Name and Title	Signature	Date