



December 8, 2021

Tim Madden
Canyon City Water Department, PWS #4100165
P.O. Box 276
Canyon City, OR 97820

**RE: GROUNDWATER UNDER THE DIRECT INFLUENCE OF SURFACE WATER
DETERMINATION – CANYON CITY WATER DEPARTMENT, PWS #4100165**

Dear Tim,

Oregon Health Authority Drinking Water Services (OHA-DWS) has received the laboratory report from the Microscopic Particulate Analysis (MPA) sample collected from the Byram Gulch Spring Infiltration Gallery (SRC-AA), as required by the *MPA Sampling Requirement* letter dated November 5, 2020.

The letter referenced above required that the Canyon City Water Department collect two additional MPA samples as a result of a moderate risk score from a previous sample event. The two additional samples were needed to determine whether the water produced from the spring infiltration gallery had the potential to contain *Cryptosporidium* and *Giardia*. If so, the water system would be classified as Groundwater Under the Direct Influence of Surface Water (GWUDI). Canyon City Water Department collected one of the two required samples.

The MPA sample (listed below) was collected after a significant rainfall event that resulted in a high water flow event in the creek that has been piped around the spring collection area. The risk score for the sample is based on the relative abundance of surface water indicators (see attached Table 1 for a list of surface water indicators, scoring method and final risk score based on indicator abundance).

Well ID	Sample Date	Risk Score
Byram Gulch Spring Infiltration Gallery (SRC-AA)	October 27, 2021	41

Based on the risk score of 41, Byram Gulch Spring Infiltration Gallery (SRC-AA) is being reclassified from groundwater to GWUDI. According to Oregon Administrative Rule 333-061-0032 (7)(i)(C)(ii), if any MPA risk score is greater than 19, the water system source is classified as being under the direct influence of surface water (i.e., GWUDI).

As a result of the GWUDI classification, the Canyon City Water Department's Byram Gulch Spring Infiltration Gallery (SRC-AA) drinking water source is subject to provisions of the Surface Water Treatment Rule (SWTR). Canyon City Water Department also is no longer required to collect the second MPA sample.

The Canyon City Water Department will have 18 months from the date of this letter to meet the requirements stated in OAR 333-061-0032(1) through (5). If these requirements are not met after 18 months, The Canyon City Water Department water system may be subject to formal enforcement.

In order for Byram Gulch Spring Infiltration Gallery (SRC-AA) to comply with the SWTR, the following options are available:

1. Provide filtration and disinfection treatment as required by OAR 333-61-0032.
2. Develop a new source outside the distance-hydrogeologic setting criteria, as outlined in OAR 333-61-0032 (7)(a)(A)(i-v). Wells or springs located outside the distance criteria are typically classified as groundwater.
3. Demonstrate that the water produced from Byram Gulch Spring Infiltration Gallery (SRC-AA) can meet the criteria for exemption from filtration as outlined in OAR 333-61-032 (2) and (3). Meeting the filtration exemption criteria involves continually meeting the source water standards for total and fecal coliform, turbidity, 3-log inactivation of giardia and 4-log inactivation of viruses, 2-log removal of cryptosporidium, and a watershed control program or a certified drinking water protection plan (see OAR 340-040-0160 through 340-040-00180) that addresses both the groundwater and surface water (see OAR 333-61-032 (2)(c)(B)).
4. Suspend the use of Byram Gulch Spring Infiltration Gallery (SRC-AA) and purchase water from a nearby approved system.

Once the Canyon City Water Department has selected one of the options listed above in order to achieve compliance, the necessary water system modifications must be operational by **June 8, 2023**.

Prior to implementation of one of the options, plans will need to be submitted to OHA-DWS for review (see <http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/PlanReview/Pages/index.aspx> for plan review information). The plans submitted to OHA-DWS must also be prepared by a registered Professional Engineer.

Interim Operation Plan:

Water system sources that have been determined to be under GWUDI and have 18 months to meet the requirements of the SWTR must also meet the following Interim Standards (see OAR 333-061-0032 (1)(c)):

- The turbidity of water entering the distribution system must never exceed 5 NTU. Turbidity measurements must be taken a minimum of once per day. If continuous turbidimeters are in place, measurements should be recorded every four hours.
- Disinfection must be sufficient to reliably achieve at least 1.0 log inactivation of *Giardia lamblia* cysts prior to the first user. Daily disinfection CT values must be calculated and recorded daily, including pH and temperature measurements and disinfection residuals at the first customer.
- Reports must be submitted to OHA-DWS monthly as prescribed in OAR 333-061-0040.
- If these interim standards are not met, the owner or operator of the water system must notify customers of the failure as required in OAR 333-061-0042(2)(b)(A).

If you have any questions regarding the GWUDI determination, please contact me at (541) 599-0121. For questions regarding compliance with the SWTR or compliance with the interim operational measures, please contact Bill Goss at (541) 966-0900.

Sincerely,



Russ Kazmierczak, R.G.
Natural Resource Specialist

Enc: Table 1

CC: Compliance, OHA-DWS Portland
Bill Goss, OHA-DWS Pendleton
Canyon City Water Department (PWS ID: #4100165) Master File, OHA-DWS
Portland