



Douglas County Planning Department Environmental Health Services Program

August 27, 2014

AUG 27 2014
Environmental Health Services
Planning Department

Mindy Porter, Superintendent
Days Creek School District 15
PO Box 10
Days Creek, OR 97429

Re: Interim Compliance Monitoring requirements for PWS# 41-92101, Correcting Significant Deficiencies at your source

Dear Ms. Porter:

Thanks for your assistance in responding to recent test findings showing the presence of E. coli bacteria in the untreated springwater serving the water supply at Days Creek School. As you already know, I conducted a site visit of the facility on August 8th with Jeff Miller to try to determine a cause for the contamination.

The level of chlorination provided by your system, when working normally, destroys bacteria that may be present in your groundwater source. However, the presence of E. coli bacteria is often associated with viral contaminants that may not be fully destroyed using the disinfection level typically employed for bacteria alone.

When E.coli is found to be present in a groundwater source, Oregon Drinking Water Program rules require that the system immediately employ a level of disinfection sufficient to kill any viruses that may also be present. Those rules also require that the source be evaluated for any significant deficiencies that could be causing the problem, and impose a timeframe for correction. These two regulatory points are addressed further below:

Disinfection and Compliance Monitoring

On the site visit, Jeff and I were able to determine that the system's disinfection equipment was working normally, delivering a chlorine residual of 0.8 ppm.

Louis Calvert has since supplied me with some operating data from your system showing typical daily water use. After reviewing the data, we have determined that your groundwater system provides at least 4-log treatment of viruses (99.99 % removal and/or inactivation using chlorination and adequate contact time) with the level of chlorination now used.

Room 104, Justice Building, Douglas County Courthouse
Roseburg, Oregon 97470
(541) 464-3820 TTY: (541) 440-3548 Fax: (541) 957-2097

Therefore, your water system will need to commence so-called Compliance Monitoring beginning in September, 2014. The requirements for Compliance Monitoring include:

- Measuring and recording the chlorine concentration of the treated water as it exits the holding tank and enters distribution. The readings should be taken daily during peak flow conditions.
- Maintaining the required minimum chlorine residual of **0.8 ppm** (mg/L) at the entry point where treated water enters distribution (EP-A); and
- Submitting a Monthly Disinfection Report (see enclosed) to the Oregon Drinking Water Program (DWP) by the 10th of the following month by:
 1. Mailing the report to DMCE at PO Box 14350, Portland, OR 97293-0350;
 2. Faxing the report to (971) 673-0694; or
 3. Emailing the report to dwp.dmce@state.or.us.

On the Monthly Disinfection Report, please record the free chlorine residual measured each day. At the end of the month, complete the bottom of the form and submit it to DWP. This form is also available at:

<http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/Rules/GWR/Documents/GWDisinfectReport.pdf>

Correction of Significant Deficiencies

I have already forwarded a copy of the Source Evaluation conducted by Shawn Stevenson of the Oregon Drinking Water Program. The report characterizes the upper springbox as a dug well and presents a list of significant deficiencies that will need to be corrected in the near term, as well as some additional reconstruction efforts that may be required if the sourcewater continues to show signs of fecal coliform.

For now, the required corrections are as follows:

1. Clean out any debris present in the upper springbox and the lower concrete reservoir.
2. Repair the leak in the lower concrete reservoir.
3. Make repairs to even up the rim of the springbox so that the lid creates a tight seal and is secured in place.
4. Seal any cracks in the mortar between the cinderblocks of the springbox to a shallow depth below gradient, so that runoff is excluded.
5. Install a gasket on the springbox lid or rim to create a tight seal when the lid is in place.
6. Construct a shallow ditch upgradient of the springbox to divert surface runoff and prevent it from pooling around the springbox.
7. Reconfigure the inlet pipe to the concrete reservoir to include a sealed 90° elbow and eliminate the current screened fitting.

8. Install a source sample tap near the source. The most favorable access point for installing a tap is where the piping surfaces just downstream of the concrete reservoir. Older pictures show a shutoff valve there. If a shutoff valve is not present, you may need to reinstall one downstream of the sample tap to enable the tap to function properly when drawing a sample.

Please determine when these corrective measures can reasonably be completed and contact me within 30 days so that we can set formal deadlines. Once the corrections are completed you will be expected to submit monthly source samples from the new tap for a period of one year.

Please contact me at the number below if you have questions about the terms of this letter. Thanks for your cooperation.

Sincerely,

Shelley Stewart, REHS
Douglas County Environmental Health Program

Enc:
Monthly Disinfection Report for Groundwater Systems
Source Evaluation Report

Cc:
Oregon Drinking Water Program
Jeff Miller