YAMHILL

HEALTH AND HUMAN SERVICES DEPARTMENT

PUBLIC HEALTH

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January 26, 2015

West Shannon Water System Richard Spon 16290 Mountain Home Rd Sherwood, OR 97140

Subject: Corrective Action Required for West Shannon Water System to Address Source Water Fecal Contamination at Source-AA Well L104154.

Dear Mr. Spon,

The Oregon Health Authority -Drinking Water Services (DWS) has verified recent monitoring which confirms fecal (*E. coli*) contamination at Source-AA Well L104154.

The results from recent monitoring at your water system are illustrated below and can be found at https://yourwater.oregon.gov/dcoliform.php?pwsno=05318.

Sample Date	Sample Type	Sample Location	Positive for Total	Positive for E. coli
			Coliform	
12/12/14	Assessment	Well	yes	yes
12/19/14	Confirmation	Well	yes	no
12/19/14	Confirmation	Well	yes	yes
12/19/14	Confirmation	Well	yes	no
12/19/14	Confirmation	Well	yes	no

Furthermore, DWS has reviewed the well log and found the well to be inadequately constructed.

The source evaluation by DWS found that "Due to the use of drill cuttings in the casing seal, the well is not considered to meet current WRD well construction standards (OAR 690-210-0300). The use of non-approved seal materials suggests that the casing seal could be the pathway by which the well was contaminated with E.coli. Therefore, the casing seal should be reconstructed or the well should be permanently abandoned and replaced with a new water source. Reconstruction of the current well would require a casing seal that was constructed in accordance with OAR 690-210-0155, Additional Standards for Artesian Water Supply Wells, which requires that the well be cased and sealed into the confining formation immediately overlying the artesian water-bearing zone. Based on the well log for the West Shannon Well (YAMH2002), the estimated depth of the casing and casing seal would be 487 ft., unless a special construction standard were obtained from the Oregon Water Resources Dept.".

Under the Groundwater Rule, West Shannon Water System must take corrective action to address the fecal contamination associated with the source. The water system will be required to have completed corrective action or be in compliance with an approved corrective action plan by June 5, 2015.

If the water system fails to take action within the required time frame, notification must be provided to all persons served by the water system. A repeat public notice will be required every three months until all deficiencies are corrected or the water system is in compliance with an approved corrective action plan. A copy of the public notice must be forwarded to DWS-DMCE at PO Box 14450, Portland, OR 97293-0450. You may also fax the report to (971) 673-0694 or email to dwp.dmce@state.or.us.

In order to comply with the Groundwater Rule and address the fecal contamination detected at your groundwater source, you have the following corrective action options for compliance:

- 1. Eliminate the source of fecal contamination associated with the well. In some cases, the source of fecal contamination can be identified and removed. West Shannon Water System would need to remove any obvious or suspected sources of fecal contamination, take measures to prevent the situation from recurring, and/or correct all significant deficiencies. Monthly raw water samples of the well may be required for up to 12 months afterwards to ensure the problem has been resolved.
- 2. <u>Provide an alternate source of water</u>. Either drill a new well or connect to a different well or public water system that meets all drinking water standards. Plan review is required prior to adding a new source; please contact DWS Plan Review at (971) 673-0408 to start that process. Formally abandoning the *E. coli* contaminated well may also apply.

3. Reconstructing the well. The existing well may be reconstructed to meet current construction standards. However, fecal contamination may not be eliminated by reconstruction alone. Once reconstruction is complete, DWS can determine whether additional measures – for example, 4-log disinfection and compliance monitoring – will be necessary. Plan review is required prior to well reconstruction. Please contact DWS Plan Review at (971) 673-0408 to start that process. You may also wish to contact the Oregon Water Resources Department for further assistance in reconstruction of the well. They can be reached at 503-986-0900 or at www.wrd.state.or.us.

If the water system is performing interim compliance monitoring until a final corrective action is achieved, the chlorine residual must be measured daily at the entry point to protect public health. Your regulator will determine the minimum chlorine residual to reliably provide 4-log inactivation of viruses for source AA-Well L104154. The Tier One public notice must remain posted until the interim or final corrective action is completed, and re-posted every 90 days if not yet completed.

Under the Groundwater Rule timeline, you must contact me by March 6, 2015 and inform me which method of corrective action you have selected. By June 5, 2015 you must have completed this corrective action or be on an approved schedule towards its completion.

If you have any questions or concerns, or would like this in an alternate format, please contact me at 503-434-7439 or Gary Van Der Veen at 971-241-7785. I appreciate your immediate attention to this matter.

Sincerely.

Alisa Zastoupil, REHS

Yamhill County Environmental Health

CC: Fred Kalish, Regional Engineer

Drinking Water Services, Portland files

Gary Van Der Veen, REHS Yamhill County

Encl: Boil water Notice- Tier 1 Source Evaluation form