

October 17, 2024

Jeff Stewart
Knife River – NW Harrisburg
32260 Old Hwy 34
Harrisburg, Oregon 97389

sent by email only

**Re: Well (PR#101-2024)
Knife River – NW Harrisburg (PWS ID#94811)
Conditional Approval**

Dear Jeff Stewart:

Thank you for your submittal to the Oregon Health Authority's Drinking Water Services (DWS) of plan review information for the existing "Well #4" for Knife River – NW Harrisburg. On August 9th, 2024, our office received drawings, testing, photos, and a plan review fee of \$825.

The project involves the reactivation and usage of "Well #4", an existing groundwater well on the property. Based on OHA record, Well #4 active use appears to first start in 2018. "Well #4" is planned to replace "Well #1" due to that well not meeting sanitary hazard setback requirements. It was also noted in the submitted material for "Well #4" that the well will also not meet setbacks from sanitary hazards.

The plans are approved subject to the following conditions:

Well-

- The following sanitary hazards are not allowed within 100 feet of a well which serves a public water system unless waived by the Authority:
 - pressure sewer line,
 - vehicle or machinery maintenance or long-term storage.

Demonstrate this condition met prior to final approval being given by DWS. The water system may submit a waiver from construction standards application for these well construction standard deficiencies for review by DWS management. A copy of

that application has been included with this letter. Please reference OAR 333-061-0050(2)(a)(E).

- The following sanitary hazards are not allowed within 50 feet of a well which serves a public water system unless waived by the Authority:
 - No gravity sewer line or septic tank shall be permitted within 50 feet of a well which serves a public water system.

Demonstrate this condition met prior to final approval being given by DWS. The water system may submit a waiver from construction standards application for these well construction standard deficiencies for review by DWS management. A copy of that application has been included with this letter. Please reference OAR 333-061-0050(2)(a)(E).

- A casing vent shall be provided and shall be fitted with a screened return bend. Demonstrate this condition met prior to final approval being given by DWS. Please reference OAR 333-061-0050(2)(a)(K).
- Demonstrate the unapproved “Well #1” well plumbing has been physically disconnected from the public water system. If “Well #1” will no longer be actively used, permanently abandon the well per Oregon Water Resource Department construction standards. Please reference OAR 333-061-0050(2)(a)(E).

Facilities for disinfection and disinfectant residual maintenance –

- With the physical disconnection of “Well #1”, the use of the residual disinfection maintenance is no longer needed. Please reference OAR 333-061-0050.

Disinfection of facilities –

- Following construction or installation of new facilities and repairs to existing facilities, those portions of the facilities which will be in contact with water delivered to users must be cleaned and flushed with potable water and disinfected according to AWWA Standards C651 through C654 before they are placed into service. Please reference OAR 333-061-0050(10)

Comments-

- Any modifications to the wellhead plumbing should meet the applicable requirements of the plumbing code.

- The unapproved “Well #1” well plumbing should be physically disconnected from the public water system. If “Well #1” will no longer be actively used, permanently abandon the well per Oregon Water Resource Department construction standards. Please reference OAR 333-061-0050(2)(a)(E).

A DWS Hydrogeologist has reviewed the as-built nature of the well and offered the following comments for reference:

“The well was drilled to a depth of 135 feet in February 1994. A 12-inch borehole extends to a depth of 47 feet and is 8 inches in diameter beyond a depth of 47 feet. An 8-inch casing extends the full depth of the borehole, and 3/8 pea gravel was placed from 120-135 feet in depth. Twenty-two sacks of cement were utilized in the casing seal and were placed by method B to a depth of 47 feet. The well construction is considered to meet standards in terms of casing depth, casing seal depth, sealant volume, and annular spacing.”

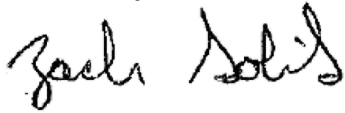
“The well is located in a parking lot which appears to consist of gravel and is less than 100 feet from Peoria Road. The well location does not meet setbacks to sanitary hazard as stated *“There is an existing City of Harrisburg owned and maintained 24-inch gravity sewer main in Peoria Road and approximately 45.3 feet from the well. There is an existing City of Harrisburg owned and maintained pressure sewer (un-known size) in Peoria Road approximately 92.8 feet from the well.”* A formal waiver from construction standards is required.”

“The well is located what is surficially mapped as Qwst (silt draped over terrace gravel deposits). The well appears to produce from Willamette aquifer with an initial water bearing zone depth of 112 feet. The aquifer appears to be confined based on the rise and static water level (12 feet) compared the initial water bearing zone 112 feet in depth. Water bearing zones appear to be overlain by cemented gravel and blue clay.”

Until we receive verification that the conditions have been met and final approval has been issued, the well is not approved for use. Upon completion of the project, the engineer must verify in writing that construction was completed according to the submitted plans. If substantial changes are made, a set of as-built drawings must be submitted. Documentation demonstrating how the above conditions were met should reference Plan Review #101-2024 and can be emailed to me at zachariah.cunningham-golik@oha.oregon.gov.

If you have any questions, please feel free to email me at call me at 541-231-9077.

Sincerely,



Zach Golik, PE
Regional Engineer
Drinking Water Services

CC: Stephen Kirkley, DWS Portland

Encl.: Waiver from Construction Standards application