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June 8, 2023

Ed Butts, PE  
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4-B Engineering  
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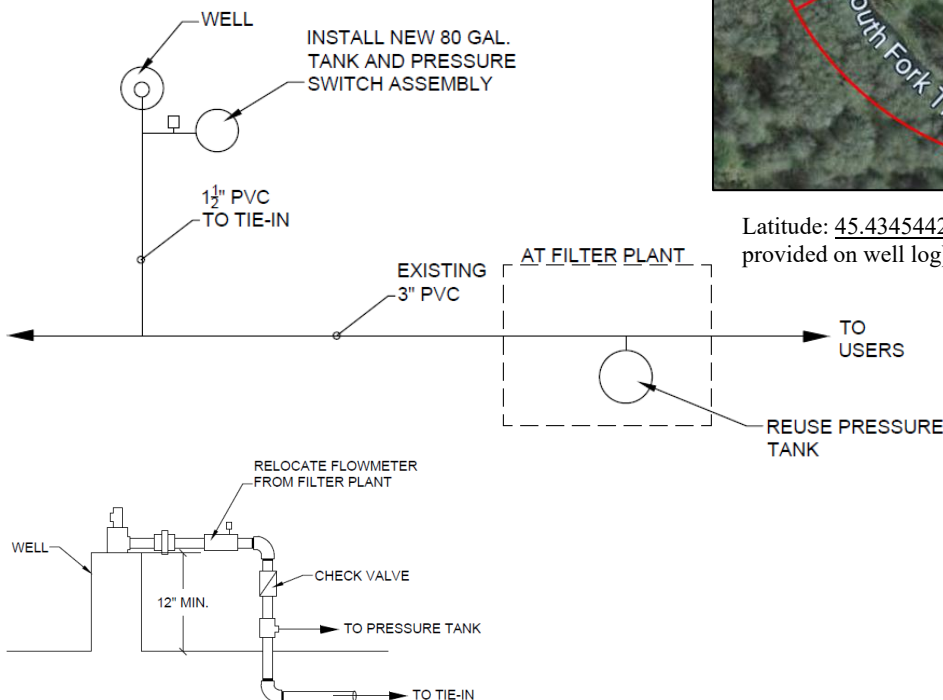
Re: **Trask River RV Park (PWS #95561) - Well #1 (L148793, TILL53275)  
Conditional Approval (PR #54-2023)**

Dear Mr. Butts:

Thank you for your plans for the new well and water system improvements to supply the Trask River RV Park (PWS ID# 95561). The well drill site location was previously approved as indicated in my Site Plan Approval letter dated April 27, 2023. The plans, pump tests, and \$825 plan review fee were received on June 6, 2023.



Latitude: [45.43454429](#) Longitude: [-123.60581246](#) (Coordinates provided on well log) [Click here for GoogleMaps](#)



June 8, 2023

**The well is approved for further development/construction provided the following conditions are met as required under [OAR 333-061-0050\(1\) - general requirements, -0050\(2\)\(a\) - wells, -0050\(6\)\(b\) - pressure tanks, -0050\(8\) - distribution piping, and -0050\(10\) - disinfection of new facilities:](#)**

*OAR 333-061-0050(1) – General:*

1. **Materials** in contact with well water are designed for potable water service and **meet NSF Standard 61.**

*OAR 333-061-0050(2)(a) – Wells:*

2. Documentation showing the RV park has been granted a **perpetual restrictive easement** within 100-ft of the well and access to the well which is constructed on property owned by Jay Williamson or other documentation showing such ownership.

*Per OAR 333-061-0050(2)(a)(B), the area within 100 feet of the well shall be owned by the water supplier, or a perpetual restrictive easement shall be obtained by the water supplier (with the exception of public rights-of-way) within 100 feet of the well. The easement shall be recorded with the county in which the well is located and with the recorded deed to the property. A certified true copy shall be filed with the Authority.*

**A land use compatibility statement (LUCS) or building permit** may be needed, depending upon the nature of the wellhouse and potential for future expansion of the RV park. In any case, obtaining a signed LUCS is recommended. If there are questions, you may want to reach out to Sarah Absher, Tillamook County Community Development (Sarah Absher has been cc'd on this letter).

*Land Use Statement*

Certain plan review approvals for drinking water projects affect land use with city and county comprehensive plans and land use regulations.

- Land Use Form  [PDF](#) or  [MSWord](#)

3. Where submersible pumps are installed, the top of the casing shall be provided with a **watertight sanitary seal.**
4. **A casing vent** shall be provided and shall be fitted with a screened return bend.

June 8, 2023

5. A port, removable plug, or other provisions are made that shall **allow for measuring the depth to water surface in the well** under pumping and static conditions.
6. A **raw water sampling tap** shall be provided on the pump discharge line, prior to treatment and as close to the wellhead as possible.
7. Piping arrangements shall include provisions for **pumping the total flow from the well to waste**.
8. A **reinforced concrete slab** shall be poured around the well casing at ground surface. The slab shall be sloped to drain away from the casing. The top of the well **casing shall extend at least 12 inches above the concrete slab**. An example would be a 4” thick reinforced concrete slab extending at least 3-ft from the well casing in all directions and sloped away from the well casing.
9. The ground surface around the well slab shall be **graded so that drainage is away from the well**.
10. Provisions shall be made for protecting pump controls and other above-ground appurtenances at the well head. Where a **wellhouse** is installed for this purpose, it shall meet applicable building codes and shall be insulated, heated and provided with lights. Where the wellhouse consists of a **small removable box-like structure** (sometimes called a “dog house”) the requirement for lights may be waived by the Authority. The wellhouse shall be constructed so that the well pump can be removed.
11. If water rights are needed, documentation (e-mail correspondence, letter, etc.) showing what water rights are needed. Nikki Hendricks, Water Master with Oregon Water Resources Department has been cc'd on this letter and is aware of the new well. Nikki has indicated that the RV Park would qualify as an exempt use provided usage did not exceed more than 5,000 gallons per day, however, if this usage is anticipated to be exceeded, Nikki should be contacted at 503-815-1967 or via e-mail at [Nikki.M.Hendricks@water.oregon.gov](mailto:Nikki.M.Hendricks@water.oregon.gov).

*OAR 333-061-0050(6)(b) – Pressure Tanks:*

**12. Make and model of the pressure tank is identified and meets the following requirements:**

- a. is installed above normal ground surface;
- b. has bypass piping around the pressure tank to permit operation of the system while the tank is being maintained or repaired;
- c. has an access manhole and water site-glass if the tank holds more than 1,000 gallons of water;
- d. is provided with a drain, a pressure gauge, an air blow-off valve, means for adding air and pressure switches for controlling the operation of the pump(s); and
- e. is constructed of steel or an alternative material that is NSF 61 certified for potable water use and is designed for pressure at least 50 percent greater than the maximum system pressure anticipated.

*OAR 333-061-0050(8) – Waterlines:*

**13. Buried waterlines made of nonconductive water pipe** (plastic or other material) that are not encased in conductive pipe or casing must have an electrically conductive **tracer wire** or other approved conductor for locating the pipe when the pipeline is underground. The wire shall be No. 18 AWG (minimum) solid copper with blue colored insulation. Ends of wire shall be accessible in water meter boxes, valve boxes or casings, or outside the foundation of buildings where the pipeline enters the building. The distance between tracer lead access locations shall not be more than 1,000 feet. Joints or splices in wire shall be waterproof.

14. Where the system facilities and the premises being served are both on the same parcel of property, requirements relating to pipe materials and pipe installation shall comply with the local and/or State **Plumbing Code**.

15. Distribution piping shall be designed and installed so that the **pressure measured at the furthest point of water use shall not be reduced below 20 psi**.

16. Distribution piping shall be carefully bedded and fully supported in material free from rocks and shall be provided with a **cover of at least 30 inches**. Select backfill material shall be tamped in layers around and over the pipe to support and protect it. Large rocks or boulders shall not be used as backfill over the pipe.

June 8, 2023

17. Provision shall be made at all bends, tees, plugs, and hydrants to **prevent movement of the pipe** or fitting (restrained joints or thrust blocks for example).
18. Wherever possible, **dead ends shall be minimized** by looping. Where dead ends are installed, or low points exist, **blow-offs** of adequate size shall be provided for flushing.
19. **Air-relief valves** shall be installed at high points where air can accumulate. The breather tube on air-relief valves shall be extended above ground surface and provided with a screened, downward facing elbow.


*OAR 333-061-0050(10) – Disinfection of New Facilities:*

20. New facilities are disinfected, flushed, and tested for the absence of coliform bacteria according to OAR 333-061-0050(10) online at:

<https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/PLANREVIEW/Documents/OAR-333-061-0050.pdf>

Procedures for disinfection (shock chlorination) of facilities are online at:

<https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/OPERATIONS/Pages/shockchlorination.aspx>

**To close out this project and request final approval**, please fill out the Project Final Approval  [request form](#) and email it me at [evan.e.hofeld@oha.oregon.gov](mailto:evan.e.hofeld@oha.oregon.gov) along with any supplemental documentation showing how the above conditions have been met (be sure to reference Plan Review #54-2023).

**Until documentation showing how these conditions have been met and Final Approval has been granted, the well is not approved for use.**

Information contained on subsequent pages of this letter includes the constructed **well evaluation results** from our geologist, a summary of **water quality test results**, and an assessment of **anticipated water usage and water rights implications**.

June 8, 2023

Thank you for your patience in this plan review process and if you have any questions, please feel free to call me at 971-200-0288 or e-mail me at [evan.e.hofeld@oha.oregon.gov](mailto:evan.e.hofeld@oha.oregon.gov).

Sincerely,



Evan Hofeld, PE  
Oregon Health Authority – Drinking Water Services

cc: Brooke Shattuck, 4B Engineering & Consulting, LLC, [brooke.4b@outlook.com](mailto:brooke.4b@outlook.com)  
Jay Williamson, Trask River RV Park, [cjexcavating@yahoo.com](mailto:cjexcavating@yahoo.com)  
Jaime Craig, Tillamook County Environmental Health, [jcraig@co.tillamook.or.us](mailto:jcraig@co.tillamook.or.us)  
Sarah Absher, Tillamook Co Dept of Community Development, [sabscher@co.tillamook.or.us](mailto:sabscher@co.tillamook.or.us)  
Tommy Laird, OWRD – Well Construction Program Coordinator [Tommy.K.LAIRD@water.oregon.gov](mailto:Tommy.K.LAIRD@water.oregon.gov)  
Nikki Hendricks, OWRD – Water Master, [nikki.m.hendricks@water.oregon.gov](mailto:nikki.m.hendricks@water.oregon.gov)

Encl.

### **Constructed Well Evaluation Results:**

The well log ([TILL53275](#)) was submitted to our geologist, Tom Pattee, for evaluation. Mr. Pattee completed his evaluation on April 25, 2023, determining that:

***“The well appears to be adequately constructed into a confined sandstone aquifer. At this time, well construction and aquifer characteristics suggest that the well is not highly sensitive to local land use practices. Should chemical and/or bacteria monitoring results suggest that there is a pathway for contaminants originating at the surface to enter the aquifer system, the aquifer sensitivity characteristics should be re-evaluated before considering a waiver from construction standards [e.g., a hazard setback waiver]. Activities such as vehicle storage, a horse coral, and private roadway/driveway, which may be present within the 100-ft sanitary setback are not considered high risk activities. Therefore, at this time, water quality from the well is not considered to be highly susceptible to contamination from these activities.”***

Furthermore, Mr. Pattee concluded that, due to the confined nature of the aquifer, **the well will not need to be further evaluated for being under the**



**influence of surface water** (Trask River located roughly 400-ft to the southwest of the well and a creek located roughly 270-ft to the northwest of the well.)

**Well Testing Water Quality Results:**

The following test results were received on 6/8/23 and demonstrate that additional treatment is not needed to address nitrate or coliform bacteria (both not detected) or arsenic detected at 0.004 mg/l, which is less than half the Maximum Contaminant Level (EPA MCL) of 0.010 mg/l:

<b>C</b> Trask River RV Park <b>L</b> Attn: - <b>I</b> 26005 Trask River Rd <b>E</b> Tillamook OR, 97141 <b>N</b> Phone: (503) 812-5077 <b>T</b>		<b>Project:</b> PO #: - Project #: N/A Sampling Location: 26005 Trask River Rd Sample Matrix: Water		Work Order: 3144011			
Lab Number	Sample Name	Method	Result	Units	MRL	EPA MCL	Analysis Date/ Time
3144011-01	-	-	-	-	-	-	-
Sampled: 5/24/23 9:30 Sample Type: Special							
	Arsenic	A EPA 200.9	0.004	mg/L	0.003	0.01	05/30/23 15:41
	Nitrate as N	A EPA 300.0	ND	mg/L	0.100	10	05/24/23 15:22
Lab Number	Sample Name	Method	Result	Analysis Date/ Time			
3144011-01	-	-	-	-			
Sampled: 5/24/23 9:30 Sample Type: Special							
	Total Coliforms	A SM 9223B (collert-18) 21st Ed.	Absent	5/24/23 15:03			
	E. coli	A SM 9223B (collert-18) 21st Ed.	Absent	5/24/23 15:03			
ND = None detected MRL = Minimum Reporting Limit MCL = Maximum Contamination Limit							

**Water usage and water rights assessment:**

Water rights are not anticipated to be needed since usage is not expected to exceed more than 5,000 gallons per day (3.47 gpm x 1,440 minutes per day or 10 gpm x 8 hours per day) allowing the RV park to be considered an “exempt use”. Typical usage for RV parks is 50 – 100 gallons per day per full hookup space and with 32 connections (cabins + RV spaces), this equates to 1,600 to 3,200 gallons per day, respectively. A typical residential use is 400 gallons per day for a single-family residence housing 4 people. At 100 gallons per day per RV connection and 400 gallons per day for residential use (e.g., for an on-site park manager or Mr. Williamson’s house), this would leave 1,400 gallons per day for irrigation/misc. uses (40 minutes of flow at 35 gpm = 1,400 gallons). **Should flows exceed 5,000 gallons per day, Nikki Hendricks with Oregon Water Resources Department (OWRD) should be consulted to ensure usage complies with OWRD requirements.** Nikki’s contact information is as follows:

*Nikki Hendricks*

District 1 Watermaster  
 4000 Blimp Blvd Ste 400  
 Tillamook, OR 97141  
 Office: 503-815-1967  
 Cell: 503-457-8989  
[Nikki.M.Hendricks@water.oregon.gov](mailto:Nikki.M.Hendricks@water.oregon.gov)