PUBLIC HEALTH DIVISION
Drinking Water Services
Tina Kotek, Governor

Oregon Health Authority

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April 21, 2023

Joel Sokoloff
Vineyard and Ranch Manager
Soter Vineyards
Via email: joel@sotervineyards.com

Re: New System and Well (PR#19-2023)
Soter Vineyards (PWS ID#95701)
Site Plan Approval

Dear Joel:

Thank you for your submittal to the Oregon Health Authority's Drinking Water Services (DWS) of plan review information for the new system and well for Soter Vineyards. On March 28, 2023, our office received a schematic and list of processes. A site plan and well log were submitted on February 27, 2023. A plan review fee of $825 was received on February 16, 2023.

The project includes a well (well ID YAMH 53009), drilled to a depth of 280 feet in May of 2002. Two 4,000 gallon storage tanks, several pressure tanks, Harmsco filters and UV are also included.

Under OAR 333-061-0060(1)(b), submittals must be prepared by a Professional Engineer registered in Oregon, unless exempted by DWS. An exemption was approved for this submittal. Note that by utilizing this exemption, the water system takes full responsibility for the project.

A regional geologist in our program reviewed the well log construction details. He noted the following:

- The well meets current construction standards.
- The well was cased to a depth of 102 feet below ground surface and the casing seal extends to a depth of 100 feet, which is 11 feet into a low permeability sandstone that overlies the aquifer. A perforated liner was placed in the well to help keep the borehole open below the casing. In 2003, the well was reconditioned and the liner was replaced

with a screened liner and sand filter pack.

- Water enters the well through the uncased portion of the well between 102 feet and 280 feet below ground surface. The well draws water from a deep confined sandstone aquifer. The water-bearing layer within the sandstone occurs at a depth of 154 feet and is overlain by 65 feet of sandstone that acts as a confining layer. Water within the water-bearing sandstone layer is under pressure, rising 80 feet above the water-bearing zone to a depth of 74 feet below ground.
- Results of a sensitivity analysis suggest that the well construction does not contribute to the overall sensitivit of this water source to local land use practices and the aquifer characteristics are not highly sensitive to local land use practices. However, no monitoring results were available at the time of the analysis. Should chemical and/or bacteriological monitoring results suggest that there is a pathway for contaminants originating at the surface to enter the aquier system, the sensitivity of the aquifer charactereristics will be re-evaluated.

The project is granted site plan approval. To continue the review, please submit:

1. The schematic submitted did not show setbacks from the well. Specifically, please provide a statement that there are no pressure sewer lines or septic drain fields within 50 feet of the well and no gravity sewer lines, or septic tanks within 100 feet of the well.
2. A roadway appears to be located within 100 feet of the well. Since the well is drilled in a confined aquifer and located near a road, OAR 333-061-0050(2)(a)(D) applies. This rule allows DWS to waive the setback requirement for a road that is located within 100' of a well. To approve this setback issue, information must be submitted that demonstrates how the well is "…protected against contamination from surface runoff or hazardous liquids which may be spilled on the roadway and is protected from unauthorized access".
3. Pump information, if available, of the pump installed in the well (manufacturer and model).
4. Raw (Untreated) Water Quality Data including coliform bacteria, IOC, SOC, and VOC. These are to be taken from the new well's raw water sample tap at the wellhead.
5. Above ground well head details must be provided (pictures may be the best way of showing these items), specifically:
    - Unless a pitless adapter was installed, a concrete slab must be provided around the well.
    - The casing height must be 12" above the slab (or 12" above grade, if a pitless adapter was installed.)
    - A watertight sanitary seal must be provided.

- A sample tap at the well head must be provided.
- Piping arrangements must include provisions for pumping the total flow of the well to waste. Pump-to-waste piping is typically installed for this, however, some systems plan to pump the flow to waste through the sample tap.
- A method of determining the total output of the well must be provided (typically a flowmeter is installed for this purpose).
- Unless a pitless adapter is installed, a well house must be provided. If the well house is not a small dog-house style, then it must be provided with light and heat. In all cases it must be lockable.
- A casing vent with a screened return bend must be provided. If a pitless adapter was installed, the caps are typically vented.

6. Details on the pressure tanks and two 4,000-gallon storage tanks must be submitted.
    - The make/model and volume of the pressure tanks must be submitted.
    - The make/model of the submersible pumps in the tanks must be submitted, as well as whether the pumps meet NSF 61 or equivalent.
    - Photos may be the best way of showing some of the details for the 4,000 gallon tanks:
        1. What are the tanks made of?
        2. Are these located partially or fully below ground?
        3. Do each of the tanks have a watertight roof?
        4. Is there a screened vent on each tank?
        5. How do the inlet and outlet pipes enter/exit the tanks?
        6. Is there a silt stop at the outlet pipe or drain?
        7. Is there a drain for each tank?
        8. Is there an overflow for each tank?
        9. Do the overflow/drain lines lead to daylight?
        10. Is there an overlapping/watertight and lockable lid for each tank?
        11. Is there a water level indicator for each tank? If not, how is the level of each tank tracked.

The above items should reference Plan Review #19-2023 and can be emailed to me at Carrie.L.Gentry@oha.oregon.gov.

Note that water rights may be required for your water system, depending on how much water is utilized out of each well per day. Oregon's Water Resources Department regulates water rights and can be contacted at (503) 986-0900. Copies of water right permits or exemptions should be provided to DWS.

If you have any questions, please feel free to call me at (971) 201-9794.
Sincerely,

Carrie Gentry, PE
Regional Engineer
Drinking Water Services

ec: Sarah Schwab, REHS, Oregon Department of Agriculture