

**Staff Report**  
**Board Meeting Date: March 27, 2025**

**TO:** District Board of Health (DBOH)  
**FROM:** David Kelly, EHS Supervisor  
775-846-6623, [dakelly@nnph.org](mailto:dakelly@nnph.org)  
**SUBJECT:** Recommendation to uphold the decision of the Sewage, Wastewater & Sanitation (SWS) Hearing Board to approve Variance Case #H25-0001VARI of the Northern Nevada Public Health Regulations Governing Sewage, Wastewater, and Sanitation, allowing a variance for multiple sections of regulation including a reduced setback to groundwater and impervious soils, mitigated through the use of an advanced treatment system, for Taylor Benedickt, owner of 17590 E Aspen Circle, Washoe County, Nevada, Assessor's Parcel Number 087-044-17.

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**SUMMARY**

This staff report summarizes the Environmental Health Services Division's (EHS) review of the variance request along with the recommendation of the Sewage, Wastewater, and Sanitation Hearing Board (SWS Board) for Variance Case #H25-0001VARI for Assessor's Parcel Number (APN) 087-044-17 as heard on March 6, 2025.

**District Health Strategic Priorities supported by this item:**

- 1. Healthy Environment:** Create a healthier environment that allows people to safely enjoy everything Washoe County has to offer.

**PREVIOUS ACTION**

The District Board of Health (DBOH) has taken no previous action on this item.

**BACKGROUND**

This variance case arose due to the fact that Northern Nevada Public Health (NNPH) regulations governing Sewage, Wastewater, and Sanitation (Regulations) require a minimum 4' separation to groundwater for any type of septic system outside of a sand filter (minimum 2' separation) and a 4' separation to impervious soils for all types of septic systems. Due to very challenging site conditions, the applicant determined that utilizing an advanced treatment system would be more cost effective and potentially provide higher quality effluent than a traditional sand filter. This was primarily due to the cost of the required gradation of septic sand that has only a single source, located a long distance from the property in question. Additionally, the applicant requested that they not be required to prep the repair area with the needed engineered fill until such a time as the repair was needed.

**ENVIRONMENTAL HEALTH SERVICES**

1001 East Ninth Street, Building B, Reno, Nevada 89512

EHS Office: 775-328-2434 | Fax: 775-328-6176 | [www.nnph.org](http://www.nnph.org)

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The variance proposed to utilize an alternative treatment technology in place of a sand filter, the Mode 3 Orenco Systems Advantex AX20 treatment system, in order to be allowed a 2' vertical setback to groundwater. This treatment system is NSF/ANSI 245 certified, which is the certification for denitrification. In order to be certified to this level, the system had to achieve a total nitrogen reduction of at least 50%. For comparison, single pass sand filters as used in Washoe County generally are considered to reduce nitrogen by approximately 40%. Nitrogen is generally considered the primary contaminant of concern from septs, but the treatment system will also treat other contaminants of concern such as Total Suspended Solids and Biochemical Oxygen Demand below what most wastewater treatment plants provide. Should the treatment system be properly maintained and function correctly, NNPH staff are comfortable that the treatment provided would be acceptable with a 2' vertical setback to groundwater.

Section 060.100 of the Regulations require approval for alternative treatment systems through the SWS Board and DBOH. This is because, as opposed to a sand filter, these types of treatment systems require regular maintenance to ensure they continue to function as intended. EHS staff is not set up to monitor these systems regularly, so having variance conditions attached to the installation of the system will ensure that property owners care for the system as needed. The SWS Board attached several conditions to the approval, including having annual maintenance and keeping records for at least 5 years, prohibiting construction or planting on or near the mound, start up sampling of influent and effluent quarterly for one year, and requiring that the variance and all conditions be recorded to the property. Staff feels these conditions will be sufficient to ensure proper function of the system and also recognizes the need to begin adopting newer technologies as alternatives to single source sand filters.

The variance also proposes only 2' of engineered fill material before hitting impervious soils, where normally a 4' vertical separation would be required. The request contends that the system was sized such that it will be able to disperse adequately, and in particular with the higher quality effluent, no issues are expected. The design also meets the treatment system manufacturer's allowed specifications. Additionally, since the fill is part of the basic design, staff felt that requiring the repair area fill to be installed at the time construction was not needed to be required.

The case was heard at the March 6, 2025, SWS Board meeting where the SWS Board voted to recommend approval of the variance to the DBOH.

Attached to this staff report is the SWS Board Report and the variance application packet.

### **FISCAL IMPACT**

There is no fiscal impact should the Board uphold the recommendation of the SWS Board to approve the variance request. All applicable permit fees will be assessed, and permits will not be granted if they are not paid.

### **RECOMMENDATION**

Staff recommends the Board uphold the decision of the SWS Board to approve variance #H25-0001VARI, with no additional conditions.

### **ALTERNATIVE**

Should the Board wish to consider an alternative to upholding the Staff recommendation, as presented, possible alternatives are:

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1. The Board may decide to not uphold the decision of the SWS Board to approve variance #H25-0001VARI.
2. The Board may decide to modify the decision of the SWS Board to approve variance #H25-0001VARI with any conditions as they see fit.

**POSSIBLE MOTION(s)**

Should the Board agree with Staff's recommendation, the motion would be:

1. "Move to uphold the decision of the SWS Board to approve variance #H25-0001VARI, with no additional conditions.

Or, should the Board consider an alternative, the possible motions may be:

2. "Move to modify the decision of the SWS Hearing Board in the following manner:"

Or

3. "Move to reverse the decision of the SWS Hearing Board"

Or

4. "Move to refer the variance back to the SWS Hearing Board for further additional consideration."