installed and inspected. On the 1981 application materials is a clear directive that the drain field must be held 100 feet from the water supply.

At some point after the septic approval in 1981, a one-bedroom cabin was installed on the lot and connected to the septic system. However, use of the system ceased when the cabin was removed. Following his acquisition in 2007, appellant Mr. Whitsell constructed an open-sided storage structure per PDS plan check # 14-115757 AB. Mr. Whitsell subsequently converted this structure to a residence (without permits) and connected to the 1981 septic system. He also had a well drilled (without an application to SHD for an individual water supply site inspection) that was unfortunately located within the 100-foot setback at approximately 82 feet from the drain field.

In 2010, Mr. Whitsell granted an easement covering area on the subject property to an adjacent property (Lot 6) for a reserve drain field.

In 2018, Mr. Whitsell executed a shared well agreement with the adjacent property owner (Lot 6) and connected that property to his well, again without applying for SHD approval.

In August, 2022, Mr. Whitsell executed a water easement with the property owner of parcel 00544100001000, resulting in a third connection to the well located on Mr. Whitsell's property. The third connection classifies the water source as a public water system, which falls under Washington State Department of Health drinking water regulations for public systems. The water easement was terminated on October 31, 2022.

Mr. Whitsell listed the subject property for sale in August of 2022. The home was originally listed as 2118 square feet and is advertised as being built in 2018 (9905 353rd Drive NE, Granite Falls, WA 98252 | MLS #1985152 | Zillow.) He now attempts to secure Snohomish County (after the fact) approval of his residence, which requires clearance by SHD, both as to the septic system and water supply.

SHD received the clearance application on 4/10/2021. (Note that there has never been an
Application for an Individual Water Supply Site Inspection, which is necessary to move
forward with analysis of the water supply. However, it is impossible to consider the on-site
septic approval request without also analyzing the well concerns, which is done herein.)
Corinna Ong, EHS, conducted the site review in June 2021. On 6/28/2022 the application was
processed and denied for the following (directly quoted) reasons:

1. A reserve area was never designated. In addition, there is an easement granting reserve area for the benefit of parcel 00544100000600. However, it appears that a septic designer was not involved as there are no site plans depicting the location of the easement. As such, a reserve area must be designated for both lots prior to clearance approval. Please contact a licensed septic designer.

Per WAC 246-272A-0210(5)(c), to design and/or install a soil dispersal component sufficient reserve area is required for future replacement to treat and dispose one hundred percent of the design flow.

Per District Code 5.15.040(B), the Health Officer shall review all applications to determine compatibility of the proposed addition, alteration, repair, or improvement with the existing on-site sewage disposal system.

- 1. Factors that must be considered shall include, but not be limited to, the following:
 - a. Location of septic tank and drainfield in relation to existing foundation and proposed improvements;
 - b. Size of drainfield in relation to proposed use;
 - c. Condition of existing on-site sewage disposal system;
 - d. Useful anticipated life of the existing on-site sewage disposal system;

- e. Potential for reconstruction, replacement, and/or repair of the existing on-site sewage disposal system;
- f. Ultimate purpose of the remodeling;
- g. Approved source of water;
- h. Potential use of the structure after remodeling.

Note: The reserve area must be in full compliance with new system construction standards.

2. Your proposed source of water is not consistent with recommendations contained in the "Department of Ecology Availability and Adequacy Guidelines for Individual Water Supplies". Please refer to the attached report for deficiencies.

Per District Code 4.30.030, assessments for determining water acceptance for issuance of permits for new residences include the following:

- 1. SHD approval of "Application for an Individual Water Supply Site Inspection." Site criteria as established in Chapter 173-160 WAC and Chapters 4.25 through 4.40 SHDC and SHDC Title 5.
- 2. SHD approval or "Request for Review: Individual Water Supply" including the following minimum submittals:
 - a. Signed declaration of applicant;
 - b. Copy of water well report (well drillers log) verifying well construction per Chapter 173-160 WAC;
 - c. Documentation of well yield testing per WAC <u>173-160-345(1)</u> sufficient in detail to demonstrate a minimum 400 gallons per day per residential connection;
 - d. Satisfactory results of a bacteriological analysis; and
 - e. Satisfactory results of inorganic chemical analyses for the following: arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, sodium, fluoride, and nitrate.

Note: Water supply information report dated 6/28/2021 was attached with the denial.

3. Due to FEMA's reclassification of flood hazard zones, it appears that the well is within a floodway zone, which is an unacceptable location. Please submit a well site application and a statement from Department of Ecology regarding the location of the well.

Per WAC 173-160-171, the proposed water well shall be located where it is not subject to ponding and is not in the floodway.

Note: See Noel Phillip's email regarding floodway zone. Well site application still required for GMA compliance.

AS-BUILT REVIEW

On March 23, 2022, SHD received the as-built for construction clearance review. Corinna Ong, EHS, conducted the site review on 6/9/2022. On 6/10/2022 the application was processed and denied for the following (directly quoted) reasons:

1. Proposal to excavate the existing drainfield and install sand lined trenches is not acceptable. The reserve area must be a separate area of land that is protected and maintained for future replacement of the failed OSS. Please depict the proposed driplines and demonstrate the appropriate setback to the easement and to the existing drainfield trenches.

Per WAC 246-272A, the definition of "reserve area" is an area of land approved for the installation of a conforming system that is protected and maintained for replacement of the OSS upon its failure. (Page 12)

2. The well is less than 100 ft from the existing drainfield and proposed reserve area. WAC 246-272A-210(4) states that the Health Officer can reduce the setback to 75 ft. However, the Health District does not support a reduction to this setback. Per item #4 on the Step One Appeal Letter dated 8/27/2021, the 100 ft setback must be maintained. Refer to the attached letter.

WAC subsection mentioned. Step One Appeal Letter dated 8/27/2021 by Ragina Gray.

3. Neighboring wells and drainfields not depicted/addressed in the application. Please verify all appropriate setbacks are met to the existing well, drainfield, and proposed reserve area.

The Parties met prior to this Hearing in an effort to fully flesh out the issues. At the time of the appeal, SHD had received a design from a licensed septic designer that depicts a potential reserve drainfield with enhanced treatment. Additional work is necessary on the design and no design for retrofitting the existing system has been received. No application for individual water supply site inspection has been received.

Issue

SHD regulations require that a proposed on-site sewage disposal system be designed in compliance with all requirements outlined in Snohomish Health District Code Title 5, as well as Washington Administrative Code (WAC) 246-272A. As detailed in SHD's step one appeal denial letter dated August 19, 2022, the main "sticking point" in this case is item #2 of the as-built denial letter dated June 10, 2022 (directly quoted):

The well is less than 100 ft from the existing drainfield and proposed reserve area. WAC 246-272A-210(4) states that the Health Officer can reduce the setback to 75 ft. However, the Health District does not support a reduction to this setback. Per item #4 on the Step One Appeal Letter dated 8/27/2021, the 100 ft. setback must be maintained. Refer to the attached letter.

WAC 246-272A-0210(4) states as follows: The horizontal separation between an OSS dispersal component and an individual water well, individual spring, or surface water that is not a public water source can be reduced to a minimum of seventy-five feet, by the local health officer, and be described as a conforming system upon signed approval by the health officer if the applicant demonstrates:

a) Adequate protective site-specific conditions, such as physical settings with low hydrogeologic susceptibility from contaminant infiltration. Examples of such conditions include evidence of confining layers and/or aquatards separating potable water from the OSS treatment zone, excessive depth to ground water, down-gradient contamination source, or outside the zone of influence; or

b) Design and proper operation of an OSS system assuring enhanced treatment performance beyond that accomplished by meeting the vertical separation and effluent distribution requirements described in WAC 246-272A-0230 Table VI; or

c) Evidence of protective conditions involving both (a) and (b) of this subsection.

The appellant has argued the reason for the Health District's decision is based on institutional resistance to approving anything less than 100 feet under WAC 246-272A-0210 Table IV. In response SHD provides the following justification:

- 1) WAC 246-272A-0210(4) states the health officer "can" reduce the setback if either subsections (a), (b), or (c) evidence of both (a) and (b) exist. This section allows for evaluation of all relative site-specific conditions to determine the appropriateness of either subsection (a), (b), (c), or applying no reduction in the 100' setback on the basis of protection of public health. The health officer is under no obligation to reduce this setback, regardless of the evidence provided in support of either option. However, SHD has offered an option to the appellant where SHD would agree to approve the reduction if subsection (c) was satisfied.
- 2) The appellant provided SHD with 7 examples where other health jurisdictions have approved the reduction in question. To this, SHD provides the following response:
 - a. Example 1 Snohomish County 005974 000 04700: Approved setback of 75' to surface water. This example is a reduced setback to surface water and not a drinking water source. This does not represent an example of approving the reduced setback to an individual water well.
 - b. Example 2 Mason County 221055200023: The justification for approval of this example includes both increased treatment level as well as evidence of confining layers documented on both well logs provided. In each well log the surface seal of 18' extends into a clay or hardpan layer, thus representing a confining layer. As such, in relation to WAC 246-272A-0210(4) option (c) is satisfied providing evidence involving both (a) and (b) of the subsection.
 - c. Example 3 Mason County 221055100074: The justification for approval of this example includes both increased treatment level as well as evidence of confining layers supported by each of the 3 well logs provided. In addition, the disposal component was demonstrated to be downslope from the wells. The three well logs provided include surface seals of 18', 25', and 31'. Each seal extends into a documented hardpan (compact), confining layer. As such, in relation to WAC 246-272A-0210(4) option (c) is satisfied providing evidence involving both (a) and (b) of the subsection.
 - d. Example 4 Mason County 221035000035: The justification for approval of this example includes both increased treatment level as well as evidence of confining layers supported by each of the 3 well logs provided. The three well logs provided document surface seals of 18/30', 18', and 20'. Each seal is documented on their respective well logs as extending into a hardpan, or

- conglomerate, confining layer. As such, in relation to WAC 246-272A-0210(4) option (c) is satisfied providing evidence involving both (a) and (b) of the subsection.
- e. Example 5 Jefferson County 9685519973: The justification for approval of this example includes increased level of treatment as well as evaluation of hydrologic sensitivity. As stated in the application comments/conditions, "well upgradient drilled in 1982, well sealed 18', aquitard 3'-33" cemented sand w/clay on well log." A well log was not provided in this example for reference by SHD. As such, in relation to WAC 246-272A-0210(4) option (c) is satisfied providing evidence involving both (a) and (b) of the subsection.
- f. Example 6 Jefferson County 971100337: Approved setback of 75' to surface water. This example is a reduced setback to surface water and not a drinking water source. This does not represent an example of approving the reduced setback to an individual water well.
- g. Example 7 Jefferson County 996600013: Per application cover page, the work was completed under repair conditions. Based on the site plan it appears there was limited availability for locating a replacement of the septic system on the property, resulting in repairing to the greatest extent allowed by the site. This example differs from the appellant's case based on the proposed construction of a new residence, not a repair application. As such, all requirements of Snohomish Health District Code Title 5, as well as Washington Administrative Code (WAC) 246-272A must be met for Mr. Whitsell's project.

There is no support in the examples cited that suggests SHD is acting in a manner inconsistent with other jurisdictions. Based on the examples referenced above, the requirement by SHD for the appellant to satisfy WAC 246-272A-210(4)(c): evidence of protective conditions involving both (a) and (b) of this subsection, is consistent with other jurisdictions that agreed to a reduction of the setback to individual water supplies.

3) The well log submitted by the appellant for parcel 00544100000700 contains distinct differences than the examples referenced in item #2 above. A well seal of 18' exists. However, a confining layer in the soil is not documented by the log until 24'-30' of depth, "blue silty clay." Above 24' the log describes gravel, sand and boulders. The well surface seal does not extend into a confining layer to justify WAC 246-272A-210(4)(a). As such, subsection (c) is not supported where evidence of protective conditions involving both (a) and (b) of the subsection exist.

SHD reached out to Noel Philip, Washington State Department of Ecology Well Construction Coordinator, as detailed in an email dated August 5, 2022. As discussed in the

email, typical mitigation for reduced setbacks is to install a surface seal six feet into a confining layer, or to the top of the screened interval of the well, or 36 feet. This would be represented by the clay layer between 24-30' per the referenced well log. The lengthened seal provides greater protection of the groundwater resource. The well seal present in this case extends 18', or half of the recommended length.

- 4) SHD also discussed this situation with Jeremy Simmons, Washington State Department of Health Wastewater Section Manager on August 10, 2022. Per this discussion Jeremy indicated he is not aware of an example of a local health jurisdiction reducing the setback to a well from 100' to 75' based on increased treatment of the septic system alone. Email exchange between Jeremy Simmons and appellant enclosed in supporting documents. As described in this email, based on this conversation, and the information that WAC 246-272A-210(4)(a) is not supported by the site, Jeremy describes his belief that SHD took the appropriate action in this case.
- 5) Based on Snohomish County recording 201811260634, the well located on parcel 00544100000700 is a shared well with parcel 00544100000600. This increases the concern of protecting the water supply for not only the residence served by the drainfield/reserve area in question, but also for individuals residing on a neighboring parcel. Given the size of the lots in this plat, the neighboring parcels are close proximity to the subject parcel.

Conclusion

The Health District properly denied the on-site sewage system (OSS) as-built submitted by the Appellant. It will not consider a reduced drainfield setback based solely on a design concept for a proposed future reserve area. The existing on-site sewage system must also meet the enhanced treatment requirements. Both the primary system and proposed reserve area must incorporate enhanced treatment components within the space available that is unencumbered by the drain field easement. No design has been provided that would accomplish this. In addition, no water supply application has been received. The existing well must also be taken into consideration. It is not possible to consider the on-site septic system without also analyzing the well and its location. SHD's suggestions with regard to well

1	options have been provided to the Appellant for its consideration. Both water and septic must
2	be approved by SHD before Snohomish County can approve construction permits. At this
3	juncture, SHD can approve neither.
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5	THOMPSON, GUILDNER & ASSOCIATES, INC., P.S.
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7	Nikki Thompson, WSBA#37884
8	Attorney for Respondent
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