



November 25, 2020

THORMAHLEN, STEVEN L
27763 212TH PL
MAPLE VALLEY, WA 98038

RE: 247-20-001595-EVAL
54735 HUNTINGTON RD, BEND, OR 97707

Deschutes County Environmental Soils Division has reviewed your site evaluation application for an onsite wastewater treatment system on the property identified above. The site was evaluated on November 23, 2020, and was found suitable to install a "System" as defined in Oregon Administrative Rules for Onsite Wastewater Treatment Systems, Chapter 340, Division 71. The approved system for this site requires a nitrogen reducing treatment technology system discharging to a reduced size surface mounted bottomless sand filter system. For more information about the different types of systems, descriptions, design criteria, important links and diagrams, contact our office or visit our website at www.deschutes.org/cd. (Click on the [Onsite Waste Water Treatment Systems](#) link).

Minimum System Requirements:

System type:	Alternative Treatment Technology (ATT)
Maximum Design flow gallons per day (gpd) :	450 gpd
Tank Size:	1,000 with 500 gallon dosing
Sand Filter size (ft²):	250 ft²
Maximum Depth:	4 inches

CONDITIONS OF APPROVAL

Oregon Onsite Wastewater Treatment System Rules (OAR 340-071-0130(1)) state:

Deschutes County Environmental Soils Division "may not authorize installation or use of a system that is likely to pollute public waters or create a public health hazard. If, in the judgment of the agent, the minimum standards in this division will not adequately protect public waters or public health on a particular site, the agent must require a system to meet requirements that are protective. This may include but is not limited to ... using an alternative system."

Data and information produced during the La Pine National Decentralized Wastewater Demonstration Project shows that traditional onsite systems (standard, pressure distribution and sand filter systems) installed on individual sites pollute the groundwater under those sites to the extent that state groundwater quality and safe drinking water standards are exceeded. Cumulative impacts of this

pollution on individual sites include regional groundwater quality degradation and increased nutrient loading to rivers and streams of the region. Additionally, extensive groundwater sampling and modeling conducted by the Oregon Department of Environmental Quality (DEQ) and the US Geological Survey has identified specific standards for onsite systems in south Deschutes County that will protect and improve groundwater quality both on individual sites and on a regional basis.

DEQ has reviewed this area and determined a conventional onsite wastewater treatment system would cause a “likely adverse groundwater quality impact” as per DEQ’s groundwater quality protection rules [OAR 340-040-0030(2)]. In addition, there is risk for degrading groundwater quality or groundwater beneficial uses.

Therefore, in order to protect drinking water quality in private wells and regional groundwater and surface water resources, the onsite system on this property must meet the following specifications:

1. The system serving this site must be an alternative system that achieves the highest level of nitrogen reduction achievable at time of permit application. Nitrogen reducing systems include Alternative Treatment Technologies (ATT) and Recirculating Gravel Filters designed for nitrogen reduction or an approved add-on unit designed for nitrogen reduction.
2. The system is sized for a maximum sewage flow of **450** gallons per day; the sizing for a one to four bedroom residence.
3. The area approved for the system is very specific. The land surface in the vicinity of the approved site must not be altered. **Any alteration of the approved site or placement of a well within 100 feet of the approved site may invalidate this approval.** Technical rule changes will not invalidate a favorable site evaluation, but may require use of a different kind of system.
4. A permit must be obtained from Deschutes County prior to the installation of the system. Application for a construction permit must be accompanied by an accurately drawn plan showing the layout and components of the system. The plans must also show the replacement area, proposed location of dwelling and other structures, driveways, wells, waterlines, property lines, and any other pertinent information.
5. This site evaluation approval does not guarantee that land development permits can be issued. When applicable, the applicant must obtain land use approval from the Deschutes County Planning Division before Deschutes County Environmental Soils can issue permits.
6. Additional items that are required for Alternative Treatment Technology system permit applications are:
 - a. A copy of the service contract between the authorized maintenance service provider and the property owner.
 - b. Information regarding the specific ATT with elevations of specific components such as the treatment unit, pump vaults, valves, floats, tanks and the soil absorption system.
 - c. Profile of the proposed system in a way that shows the State DEQ approved installation method proposed.
 - d. List of materials for the proposed system**Note:** Each manufacturer certifies installers for their ATT systems.
7. This system is not eligible for a Pollution Reduction Credit in accordance with Deschutes County Code 11.12, Transferable Development Credit Program.

8. **Additional requirements and/or comments:** Maintain setbacks to property lines, wells, underground utilities, etc. There is a 25-foot setback that applies to the escarpment. A 50-foot setback applies to the wetland. Installation shall take place within the approval area. A sand filter is required due to severe space limitations. The sand filter may be counter-sunk 4 inches.

REVIEW AVAILABLE

Site Evaluation Report Review: Pursuant to OAR 340-071, you may request a site evaluation report review if you believe this report to be in violation of Oregon Department of Environmental Quality (DEQ) rules. The DEQ conducts report reviews upon submission of the appropriate application materials including a written request that includes all information you have received from Deschutes County, the reason the report is in error including the specific Oregon Administrative Rules that conflict with the report, and the application fee.

The DEQ will review the county's report and visit the site to determine the report's compliance with the applicable rules. A variance from the rules may also be requested through the DEQ. For further information regarding a report review or a variance to DEQ rules, please contact the Oregon Department of Environmental Quality at 475 NE Bellevue Dr., Suite 110, Bend OR 97701, phone 541-388-6146.

If you have any questions, please call this office at 541-388-6519.

Sincerely,
ENVIRONMENTAL SOILS DIVISION



Kevin Hesson, REHS
Registered Environmental Health Specialist

KMH/mas



SITE EVALUATION FIELD INSPECTION FORM

Applicant: Steven Thomanen

Site Evaluation # 247-20-001595

Evaluator: Kevin Hesson

Date: 11/23/20

Parcel Size: 1.42

Subdivision: Lazy River

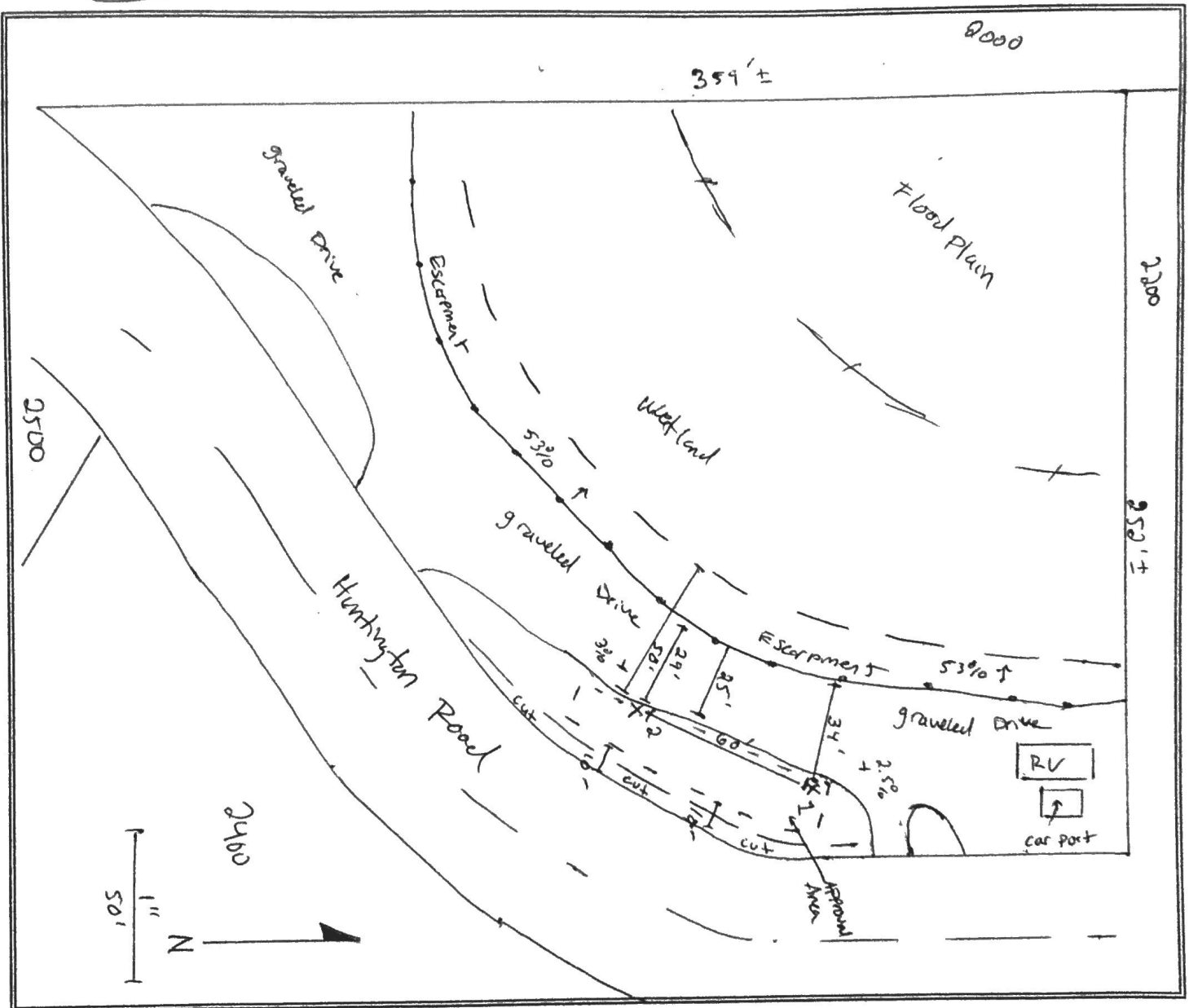
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L B

Suitable

Sketch/Not to Scale

Unsuitable



*systems approved are the **minimum** to meet current DEQ rules and are not design specifications

System type approved: ATT to SE

Absorption facility: Bottomless sand filter

Initial ATT to SE

Min. Size 250 sq ft Max. Depth 4" Min. Depth 0"

Replacement ATT to SE

Min. Size 250 sq ft Max. Depth 4" Min. Depth 0"

Tank Size 1200 gallon w/ 500 gallon dosing

Sewage Flow 450 gallons/day

Special Conditions: Maintain setbacks to property lines, wells, underground utilities, etc. There is a 25' setback that applies to the escarpment. A 50 foot setback applies to the wetland. Installation shall take place within the approval area. A sand filter is required due to severe space limitations. The sand filter may be counter-sink 4".



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Parcel Size: 1.42

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DEPTH	TEXTURE	COLOR	Notes on roots, structure, rock frag, redox, limiting layer type & depth
0-22	SL	10YR 3/3	1st, f, 2m SBK, area is compacted
22-36	LS	10YR 3/3	1st, f, 2m SBK, vtr, gravels $\geq 10\%$
36-56	grfs	10YR 2/1	no roots, Sg, gravels $\geq 25\%$, no redox observed area to west of hole is gravelled, modified
0-28			Like 1
28-53			no redox observed
			area to the west of the hole is modified, gravelled

Landscape Note: 1 $\frac{34'}{w}$ $\rightarrow$ escarpment, Driveway 20' $\rightarrow$ to fence, 2 $\frac{29'}{N300W}$ $\rightarrow$ escarpment
Slope: Aspect: Groundwater: permanant
Other site notes:

Comments:

Reason for Unsuitability: (Include Rule Reference)