Groundwater Transfer Review Summary Form

Transfer/PA # T- _13482_

GW Reviewer _Jen Woody_   **Date Review Completed:** _7/24/2020_

Summary of Same Source Review:

☐   The proposed change in point of appropriation is not within the same aquifer as per OAR 690-380-2110(2).

Summary of Injury Review:

☐ The proposed transfer will result in another, existing water right not receiving previously available water to which it is legally entitled or result in significant interference with a surface water source as per 690-380-0100(3).

Summary of GW-SW Transfer Similarity Review:

☐ The proposed SW-GW transfer doesn't meet the definition of "similarly" as per OAR 690-380-2130.

This is only a summary. Documentation is attached and should be read thoroughly to understand the basis for determinations.

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Ground Water Review Form:

☐ **Water Right Transfer**
☒ **Permit Amendment**
☐ **GR Modification**
☐ **Other**

Application: T-<u>13482</u>　　　　　　Applicant Name: <u>18320 NE Fairview LLC</u>

Proposed Changes:　☒ POA　　☐ APOA　　☐ SW→GW　　☐ RA
　　　　　　　　　　☐ USE　　☐ POU　　☐ OTHER

Reviewer(s):　<u>Jen Woody</u>　　　　　　　　Date of Review: <u>7/24/2020</u>

Date Reviewed by GW Mgr. and Returned to WRSD: <u>JTI 7/27/2020</u>

The information provided in the application is insufficient to evaluate whether the proposed transfer may be approved because:

☐　The water well reports provided with the application do not correspond to the water rights affected by the transfer.

☐　The application does not include water well reports or a description of the well construction details sufficient to establish the ground water body developed or proposed to be developed.

☐　Other _____

- -

1.　Basic description of the changes proposed in this transfer: <u>T-13482 proposes to change the POA location associated with Permit G-18084 to the location where YAMH 58150 was drilled in 2019. YAMH 58150 was drilled approximately 500 feet southwest of the approved POA.</u>

2.　Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
　　☒ Yes　　☐ No　　Comments: <u>The depth and construction of YAMH 58150 meet the specifications reviewed for the issuance of Permit G-18084. It accesses a single aquifer within the CRBG, based on the well log and other nearby wells' data.</u>

3.　a) Is there more than one source developed under the right (e.g., basalt and alluvium)?
　　☐ Yes　　☒ No <u>See section 2 comments.</u>

　　b) If yes, estimate the portion of the right supplied by each of the sources and describe any limitations that will need to be placed on the proposed change (rate, duty, etc.): <u>n/a</u>

4.　a) Will this proposed change, at its maximum allowed rate of use, likely result in an increase in interference with **another ground water right**?
　　☒ Yes　　☐ No　　Comments: <u>YAMH 58150 is located closer to YAMH 58090 (POA on application G-18501/Permit G-18116) than the approved POA. YAMH 58150 and YAMH 58090 are approximately 300 feet apart.</u>

　　b) If yes, would this proposed change, at its maximum allowed rate of use, likely result in another groundwater right not receiving the water to which it is legally entitled?

☐ Yes   ☒ No   If yes, explain: <u>Assuming YAMH 58150 pumped at the maximum</u>
<u>allowed rate (0.12 cfs/53 gpm), the total annual duty on 7 acres of irrigation would be met in</u>
<u>approximately 12 days. Distance drawdown estimates of this worst-case scenario indicate 1</u>
<u>to 6.5 feet if drawdown at YAMH 58090. Given the available head at the well, this degree</u>
<u>of interference is not expected to prevent access to the water YAMH 58090 is legally</u>
<u>entitled.</u>

5. a) Will this proposed change, at its maximum allowed rate of use, likely result in an increase
    in interference with **another surface water source**?
    ☐ Yes   ☒ No   Comments: <u>The proximity to nearby surface water will not change.</u>

    b) If yes, at its maximum allowed rate of use, what is the expected change in degree of
    interference with any **surface water sources** resulting from the proposed change?
    Stream: _____   ☐ Minimal   ☐ Significant
    Stream: _____   ☐ Minimal   ☐ Significant
    Provide context for minimal/significant impact: <u>n/a</u>

6. For SW-GW transfers, will the proposed change in point of diversion affect the surface
    water source similarly (as per OAR 690-380-2130) to the authorized point of diversion
    specified in the water use subject to transfer?
    ☐ Yes   ☐ No   Comments: <u>n/a</u>

7. What conditions or other changes in the application are necessary to address any potential
    issues identified above: <u>none</u>

8. Any additional comments: <u>none</u>

<u>References</u>

Conlon, T.D., Wozniak, K.C., Woodcock, D., Herrera, N.B., Fisher, B.J., Morgan, D.S., Lee, K.K., and Hinkle, S.R., 2005, Ground-water hydrology of the Willamette Basin, Oregon: U.S. Geological Survey Scientific Investigations Report 2005-5168.

Reidel, S.P., Johnson, V.G., and Spane, F.A., 2002, Natural gas storage in basalt aquifers of the Columbia Basin, Pacific Northwest USA—A guide to site characterization: Richland, Wash., Pacific Northwest National Laboratory, 277 p.

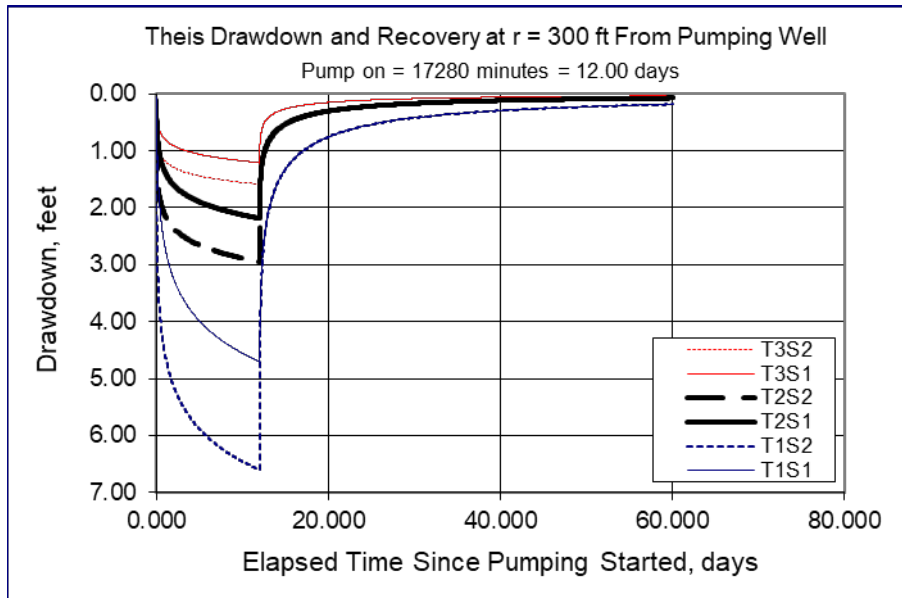US Geological Survey Topographic Map, Dundee Quadrangle.

OWRD Groundwater Information System database, includes reported water levels and pump tests, accessed 7/24/2020.

Well location map

T-13482 18320 NE Fairview T3S/R3W- Section 22

Distance drawdown estimates
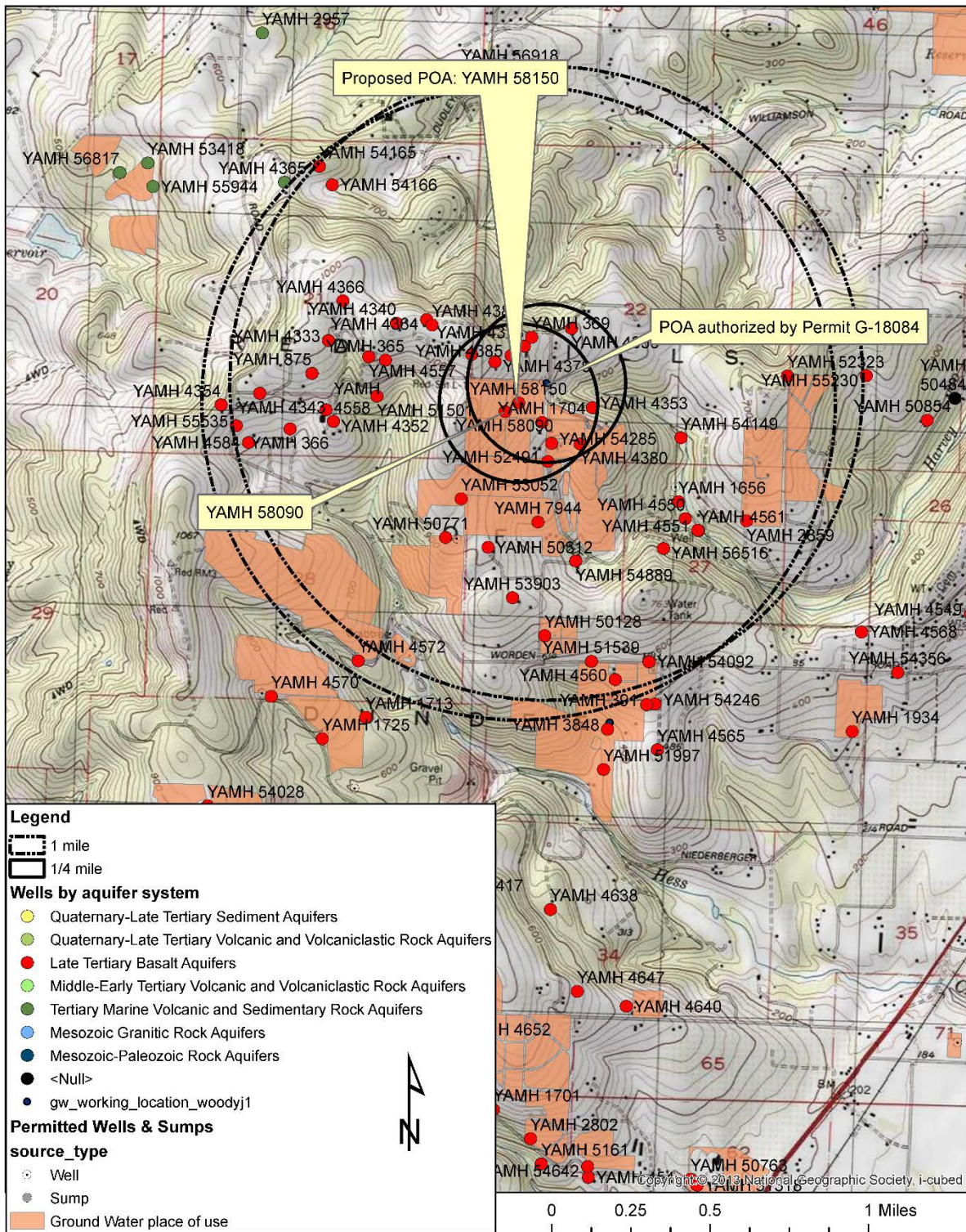
Theis Drawdown and Recovery at r = 300 ft From Pumping Well
Pump on = 17280 minutes = 12.00 days

Input Data:	Var Name	Scenario 1	Scenario 2	Scenario 3	Units	
Total pumping time	t		12		d	
Radial distance from pumped well:	r		300		ft	**Q conversions**
Pumping rate	Q		0.12		cfs	53.86 gpm
Hydraulic conductivity	K	10	25	50	ft/day	0.12 cfs
Aquifer thickness	b		100		ft	7.20 cfm
Storativity	S_1		0.001			10,368.00 cfd
	S_2		0.0001			0.24 af/d
Transmissivity Conversions	T_f2pd	1000	2500	5000	ft2/day	
	T_ft2pm	0.6944444	1.7361111	3.4722222	ft2/min	
	T_gpdpft	7480	18700	37400	gpd/ft	

Cross Section Diagram

LITHOLOGY