

Groundwater Transfer Review Summary Form

Transfer/PA # T- 13380

GW Reviewer Jen Woody Date Review Completed: 7/1/2020

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.



Oregon Water Resources Department
 725 Summer Street NE, Suite A
 Salem, Oregon 97301-1271
 (503) 986-0900
 www.wrd.state.or.us

Ground Water Review Form:

- Water Right Transfer
- Permit Amendment
- GR Modification
- Other

Application: T-13380

Applicant Name: City of Newberg

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

Reviewer(s): Jen Woody

Date of Review: 7/1/2020

Date Reviewed by GW Mgr. and Returned to WRSD: JTI 7/1/2020

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: T-13380 proposes to change the POAs associated with GR-63 from Well 1 and Well 2 to Wells 7(YAMH 51996),8 (MARI 59721), 9(MARI 66282). There is some uncertainty in the water right records regarding logids associated with Wells 1 and 2; WRD research and records have tied the POAs to MARI 194 and MARI 192, respectively, and T-13380 application ties the POAs to MARI 190 and MARI 191. MARI 190,191,192,194 all describe 90 foot deep wells located within the same TRS-QQ, with 35' static water levels, drilled between 1948-1951.
2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
 Yes No Comments: The original wells (1 and 2) and Wells 7,8,9 all access alluvial sand and gravel in close proximity to the Willamette River. Similar water levels and well depths also indicate the wells share the same aquifer.
3. a) Is there more than one source developed under the right (e.g., basalt and alluvium)?
 Yes No see comments in Section 2
 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.): n/a

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: The new POAs are in closer proximity to other City of Newberg POAs than Wells 1 & 2. Their proximity to the river is expected to mitigate any minor increases in drawdown.
- 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: n/a
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: The proposed POAs are 900 to 1200 feet closer to the Willamette River than the current POAs (Wells 1 & 2).
- 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: Willamette River Minimal Significant
 Stream: _____ Minimal Significant
 Provide context for minimal/significant impact: At the currently authorized well locations, Wells 1 & 2 derive approximately 80% of their pumping from stream depletion after 120 days of pumping. Wells 7, 8 & 9 derive approximately 90% from stream depletion after 120 days. As pumping time increases, both groups of wells approach 100% stream depletion. Since this is a municipal right that is exercised year-round in close proximity to a river, it is expected that the current POAs already access most of their water at the expense of nearby surface water. The proposed change to POA locations will not significantly change the impact to the Willamette River.
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: n/a
7. What conditions or other changes in the application are necessary to address any potential issues identified above: none
8. Any additional comments: none

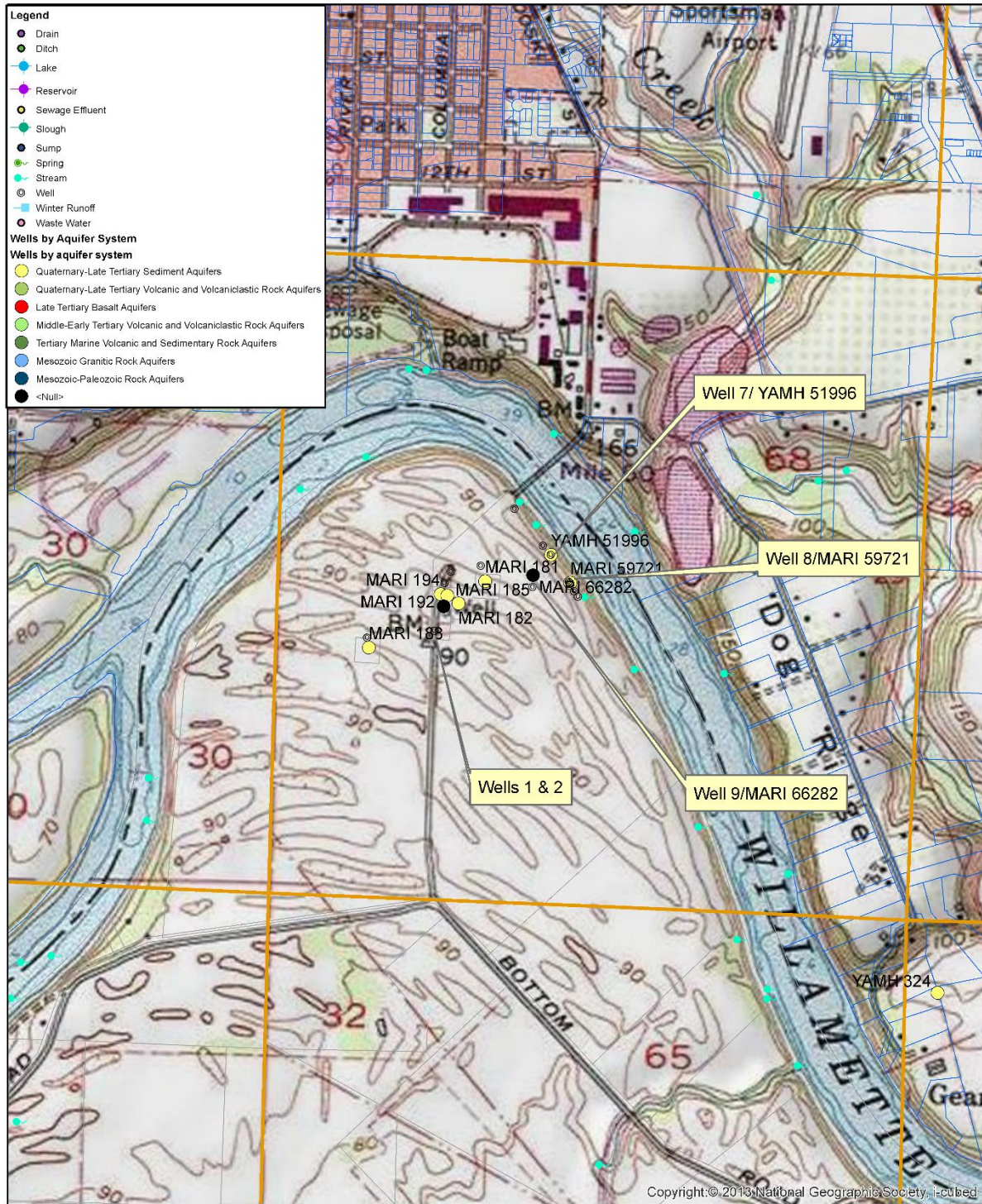
References

Ground-water hydrology of the Willamette Basin, Oregon: U.S. Geological Survey Scientific Investigations Report 2005-5168.

Woodward, D.G., Gannett, M.W., and Vaccaro, J.J., 1998, Hydrogeologic framework of the Willamette Lowland aquifer system, Oregon and Washington: U.S. Geological Survey Professional Paper 1424-B, 82 p.

OWRD Groundwater Information System, accessed 6/29/2020.

T13380 City of Newberg T3S/R2W-Section 29



Application type:	T
Application number:	13380
Well number:	1
Stream Number:	1
Pumping rate (cfs):	4.5
Pumping duration (days):	365
Pumping start month number (3=March)	1

Parameter	Symbol	Scenario 1	Scenario 2	Scenario 3	Units
Distance from well to stream	a	500	1200	900	ft
Aquifer transmissivity	T	20000	20000	20000	ft ² /day
Aquifer storativity	S	0.15	0.15	0.15	-
Aquitard vertical hydraulic conductivity	Kva	1	1	1	ft/day
Not used		10.0	20.0	30.0	
Aquitard thickness below stream	babs	3	3.0	3	ft
Not used		0.2	0.2	0.2	
Stream width	ws	500	500	500	ft

Stream depletion for Scenario 2:

Days	10	30	60	90	120	150	180	210	240	270	300	330	360
Depletion (%)	38	61	72	77	80	82	83	84	85	86	87	87	88
Depletion (cfs)	1.72	2.75	3.22	3.45	3.58	3.67	3.74	3.80	3.84	3.88	3.91	3.94	3.96

