

Groundwater Transfer Review Summary Form

Transfer/PA # T- 13368

GW Reviewer Aurora C Bouchier Date Review Completed: 8/5/2020

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-13368

Applicant Name: Northstar Communities LLC, Karl Ivanov

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

Reviewer(s): Aurora C Bouchier

Date of Review: 8/5/2020

Date Reviewed by GW Mgr. and Returned to WRSD: JTI 8/11/2020

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: The application proposes changing the POU for 19.0 acres (out of 39.46 acers authorized under Claim GR 305) from the existing well (MARI 4684) to a nearby well (MARI 68166). The proposed POU and the tax lot where MARI 68166 is located are both owned by the estate of the Ernest & Lola Zielinski Trust. Northstar Communities LLC owns the land the use is being transferred off from.

Note: according the Well Inspection GPS coordinates, MARI 68166 is located approximately 300 feet north of the meets and bounds on this application (and also recent transfer T13054 which moves the POD to MARI 68166 from MARI 4685 on Claim GR 334).

2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
 Yes No Comments: Both wells produce from the alluvial aquifer system (Willamette Aquifer)(Conlon and others, 2005; Woodward and others, 1998).
3. a) Is there more than one source developed under the right (e.g., basalt and alluvium)?
 Yes No _____
- 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.): _____

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: Claim GR 334 also uses MARI 68166 for primary irrigation of 20 acres with an authorized maximum rate of 1.114 cfs (approximately 500 gpm). It is not certain that MARI 68166 would be capable of producing at a combined maximum rate to cover both Claim GR 334 and the 19.0 acres under this transfer application from Claim GR 305. Of note, the place of use for both Claim GR 334 and the POU for this transfer have the same owner.
Relative to the authorized POA, the proposed POA is approximately 570 feet closer to an inspected well (MARI 69251), located on the north of Hazelgreen Road NE. The increase in proximity will likely result in an increase in interference with MARI 69251.
- 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: A drawdown estimate made using the Theis distance-drawdown indicates that up to approximately 2 feet of additional drawdown may be seen in MARI 69251 due to pumping at 120 gpm (the assumed maximum rate for the 19.0 acres involved) at MARI 68166 under this transfer. It is unlikely that this amount of additional drawdown will prevent this, and other similarly located wells, from receiving water to which they are legally entitled.
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: _____
- 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: _____
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: NA
7. What conditions or other changes in the application are necessary to address any potential issues identified above: None.
8. Any additional comments: None.

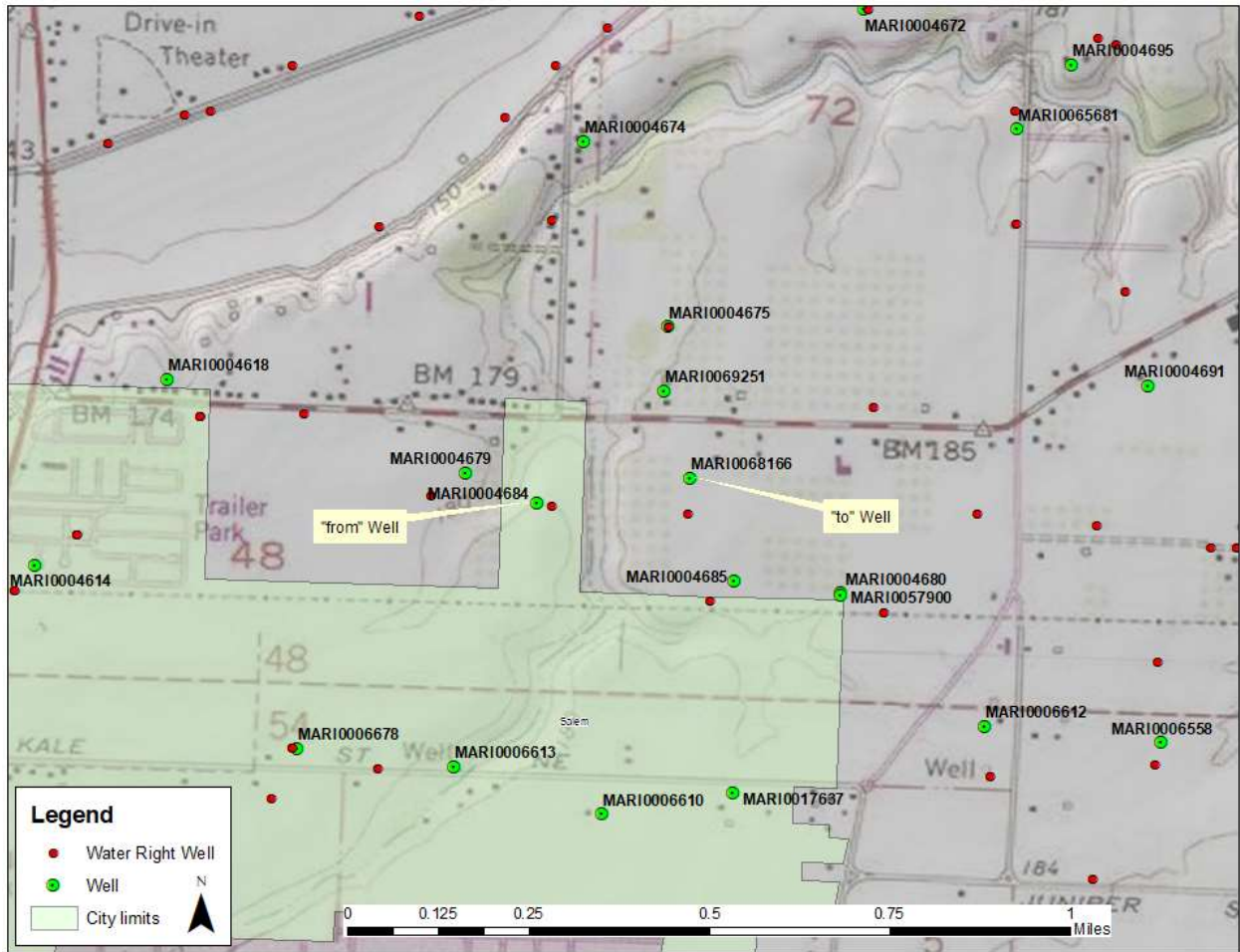
References: Application T-13368, and groundwater review for T-13054.

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.

Theis, C.V., 1941, The effect of a well on the flow of a nearby stream: American Geophysical Union Transactions, v. 22, pt. 3, p. 734-738.

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.

Location Map

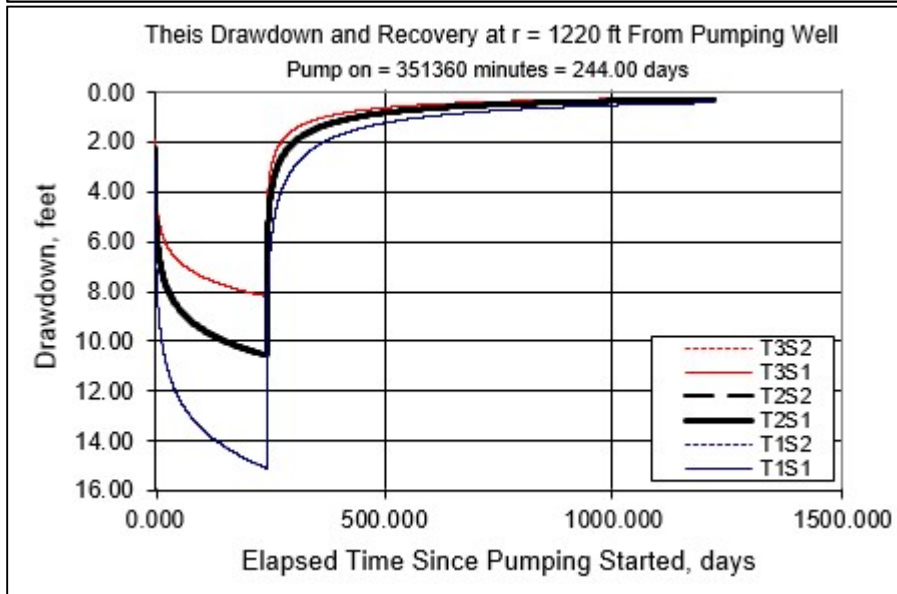


This drawdown analysis: authorized POA (MARI 4684) to nearest inspected well (MARI 69251)

This Time-Drawdown Worksheet v.3.00
 Calculates Theis nonequilibrium drawdown and recovery at any arbitrary radial distance, r, from a pumping well for 3 different T values and radial distance, r, from a pumping well for 3 different T values and 2 different S values.
 Written by Karl C. Wozniak September 1992. Last modified December 17, 2019

Input Data:	Var Name	Scenario 1	Scenario 2	Scenario 3	Units	
Total pumping time	t		244		d	
Radial distance from pumped well:	r		1220		ft	Q conversions
Pumping rate	Q		120		gpm	120.00 gpm
Hydraulic conductivity	K	40	60	80	ft/day	0.27 cfs
Aquifer thickness	b		25		ft	16.04 cfm
Storativity	S 1		0.0001			23,101.60 cfd
	S 2		0.0001			0.53 af/d
Transmissivity Conversions	T f2pd	1000	1500	2000	ft ² /day	
	T ft2pm	0.69444444	1.04166667	1.38888889	ft ² /min	
	T gpd/ft	7480	11220	14960	gpd/ft	

Use the Recalculate button if recalculation is set to manual



This drawdown analysis: proposed POA (MARI 68166) to nearest inspected well (MARI 69251)

This Time-Drawdown Worksheet v.3.00
 Calculates Theis nonequilibrium drawdown and recovery at any arbitrary radial distance, r, from a pumping well for 3 different T values and radial distance, r, from a pumping well for 3 different T values and 2 different S values.
 Written by Karl C. Wozniak September 1992. Last modified December 17, 2019

Input Data:	Var Name	Scenario 1	Scenario 2	Scenario 3	Units	
Total pumping time	t		244		d	
Radial distance from pumped well:	r		650		ft	Q conversions
Pumping rate	Q		120		gpm	120.00 gpm
Hydraulic conductivity	K	40	60	80	ft/day	0.27 cfs
Aquifer thickness	b		25		ft	16.04 cfm
Storativity	S 1		0.0001			23,101.60 cfd
	S 2		0.0001			0.53 af/d
Transmissivity Conversions	T ft ² /pd	1000	1500	2000	ft ² /day	
	T ft ² /pm	0.69444444	1.04166667	1.38888889	ft ² /min	
	T gpd/pft	7480	11220	14960	gpd/ft	

Use the Recalculate button if recalculation is set to manual

