



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-12227

Applicant Name: Stephany Moody

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

Reviewer(s): Aurora C Bouchier

Date of Review: February 4, 2016

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

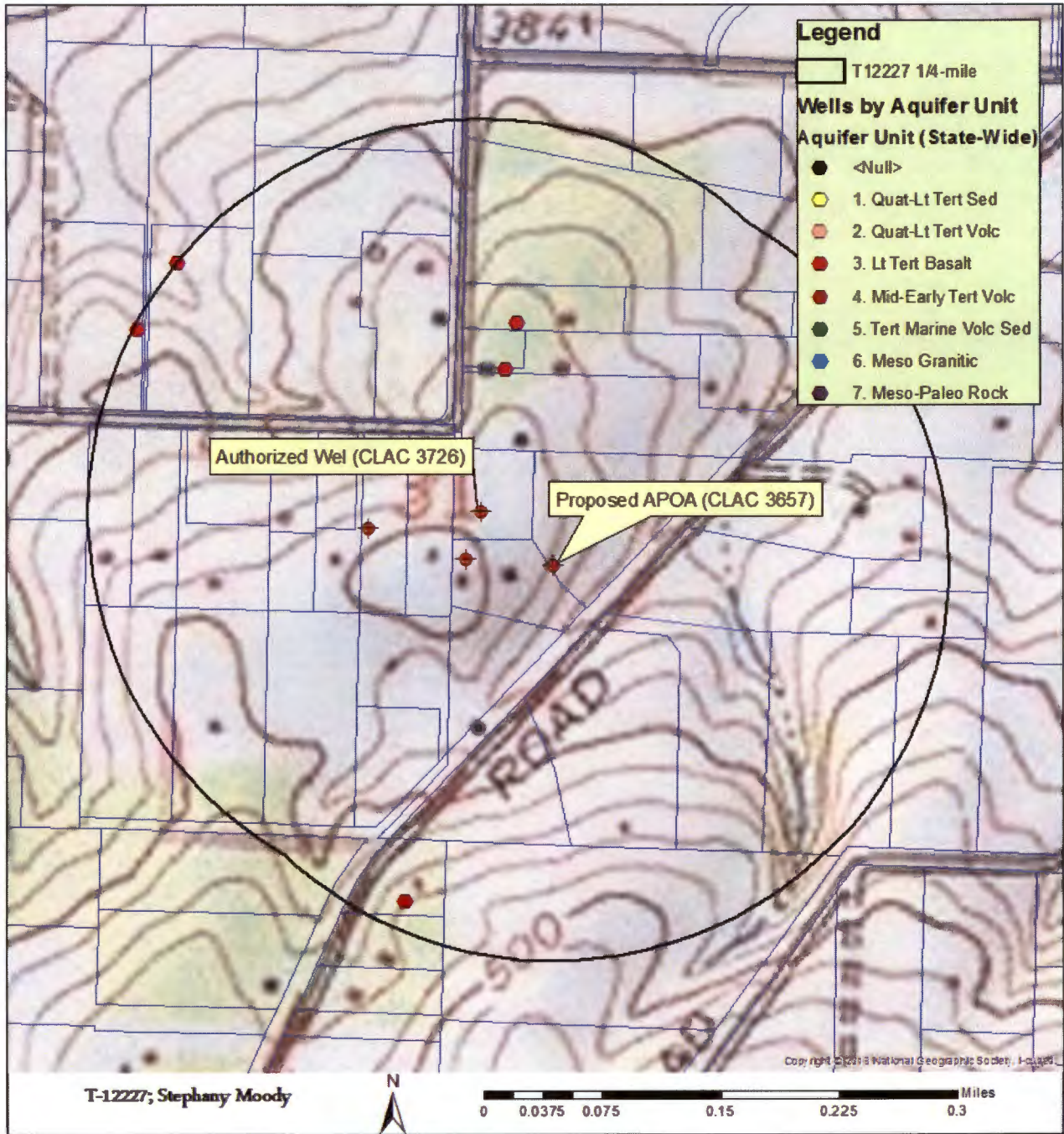
- The water well reports provided with the application do not correspond to the water rights affected by the transfer.
- The application does not include water well reports or a description of the well construction details sufficient to establish the ground water body developed or proposed to be developed.
- Other _____

1. Basic description of the changes proposed in this transfer: The applicant is requesting an additional POA to better serve the needs of Tax Lot 404.
2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
 Yes No Comments: This property is located within the Sherwood-Dammasch-Wilsonville Groundwater Limited Area. Any transfer on existing water right must be within the same aquifer. Based on the limited data available (static water levels from the well log and approximately 2 years of quarterly water levels at CLAC 3726, and a single static water level from the well log for the proposed APOA CLAC 3657), I cannot positively state that these wells are producing from the same source. The applicant could resolve this by conducting a well interference test.
3. a) Is there more than one source developed under the right (e.g., basalt and alluvium)?
 Yes No Both wells are producing from a basalt aquifer. Based on the limited available static water level data I cannot positively state that the wells are producing from the same basalt aquifer.
 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: In confined basalt aquifer systems, pumping impacts propagate outward at rapid rates and are likely to reach aquifer boundaries (streams, faults, and truncated basalt flow margins) within a few minutes. Using aquifer parameters appropriate for the basalts, it can be shown that the cone of depression from a pumped well will produce measureable impacts at a distance of 1 mile within several hours. Given the distance between the wells in question (approximately 300 feet, likely located within the same fault block (Burns et al., 1997) – see below), sharing the production by pumping from both wells, or pumping from one well or the other, should have minimal difference when compared to the certified production at the authorized well alone.
- 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: _____
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: See comment above.
- 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. What conditions or other changes in the application are necessary to address any potential issues identified above: **If the applicant wishes to contest this finding, they can conduct a well interference test. The test should be designed and conducted by an Oregon Registered Geologist, and the test design should be subject to the approval of the Groundwater Section of the Department prior to the test. At a minimum, the test should include discharge and water-level measurements in the pumping well and simultaneous water-level measurements in the other well. If practicable, water-level measurements should also be made in nearby wells. The results of the aquifer test should be presented in a report to the Department that includes an analysis of aquifer properties, and aquifer boundaries. The Department must find the report(s) acceptable before this finding could be reversed and use at the APOA could be approved.**
7. Any additional comments: In the Sherwood-Dammasch-Wilsonville Groundwater Limited Area, the basalt aquifer system consists of stacked, tabular aquifers which were in decline. This trend has largely turned around with the cessation of pumping from the Wilsonville basalt aquifer wells. Given the limited data (static water levels from the well log and approximately 2 years of quarterly water levels at CLAC 3726, and a single static water level from the well log for the proposed well (CLAC 3657)) I cannot determine that these wells are producing from the same aquifer.
8. References:
Application file: T-12227, G-6951 including T-8859 and T-9164.
-

Burns, S., Growney, L., Brodersen, B., Yeast, R.S., and Popowski, T.A., 1997. Map showing faults, bedrock geology, and sediment thickness of the western half of the Oregon City 1:100,000 quadrangle, Washington, Multnomah, Clackamas, and Marion Counties, Oregon: State of Oregon Department of Geology and Mineral Industries IMS-4.

Well logs and water level data for CLAC 3726, CLAC 3657.



Snip from: Burns, S., Growney, L., Brodersen, B., Yeast, R.S., and Popowski, T.A., 1997. Map showing faults, bedrock geology, and sediment thickness of the western half of the Oregon City 1:100,000 quadrangle, Washington, Multnomah, Clackamas, and Marion Counties, Oregon: State of Oregon Department Geology and Mineral Industries IMS-4.

