

CLARIFICATION TO GROUNDWATER PERMIT APPLICATION G-18717

SECTION 3: WELL DEVELOPMENT

WELL NO.	NAME OF NEAREST SURFACE WATER	IF LESS THAN 1 MILE:	
		DISTANCE TO NEAREST SURFACE WATER	ELEVATION CHANGE BETWEEN NEAREST SURFACE WATER AND WELL HEAD
Well 1 (proposed, see below)	Mosier Creek (to the southeast)	~995 ft	~85 – 360 ft
	Martin Creek (to the west)	~1225 ft	~130 – 335 ft
	Abernethy Creek (to the west)	~3,590 ft	~275 – 530 ft

Please provide any information for your existing or proposed well(s) that you believe may be helpful in evaluating your application. For existing wells, describe any previous alteration(s) or repair(s) not documented in the attached well log or other materials (*attach additional sheets if necessary*).

This update to application G-18717 proposes the development of water for nursery use from a confined water bearing zone within a gravel deposit approximately 248 and 268 feet below ground surface (measurements referenced as below ground surface (bgs) unless otherwise indicated). The original application G-18717 filed on July 16, 2018 proposed the use of the existing CLAC-17036 well (Well 1). This well is open to two water-bearing zones in the Troutdale Aquifer and the OWRD determined the well is in connection with Mosier and Martin Creeks. This amendment to application G-18717 proposes the abandonment of CLAC-17036 and the installation of a new well (Well 1) in close proximity to the location of CLAC-17036.

The existing well, MULT 17036 (De Terra well) is drilled to 445 feet below ground surface and sealed to a depth of 160 ft bgs with cement and bentonite. Water is first encountered at 180 ft in a layer of gray sandy clay, and again at 248 ft in a layer of gravel. The static water level is at 238 ft with a positive head of 10 ft, demonstrating confined conditions of the water bearing zone (WBZ) accessed by this well. The proposed new well will be drilled to a similar depth with the goal of intercepting the same WBZs. However, the well will be constructed with a cement-and-bentonite seal to a minimum depth of 228 ft so that only the lower WBZ is utilized.

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SECTION 3: WELL DEVELOPMENT, CONTINUED

Total maximum rate requested: **0.05 CFS (22.4 GPM)** (each well will be evaluated at the maximum rate unless you indicate well-specific rates and annual volumes in the table below).

The table below must be completed for each source to be evaluated or the application will be returned. If this is an existing well, the information may be found on the applicable well log. (If a well log is available, please submit it in addition to completing the table.) If this is a proposed well, or well-modification, consider consulting with a licensed well driller, geologist, or certified water right examiner to obtain the necessary information.

OWNER'S WELL NAME	PROPOSED	EXISTING	WELL ID (WELL TAG) NO.* OR WELL LOG ID**	FLOWING ARTESIAN	CASING DIAMETER	CASING INTERVALS (IN FEET)	PERFORATED OR SCREENED INTERVALS (IN FEET)	SEAL INTERVAL S (IN FEET)	MOST RECENT STATIC WATER LEVEL & DATE (IN FEET)	PROPOSED USE			
										SOURCE AQUIFER***	TOTAL WELL DEPTH	WELL- SPECIFIC RATE (GPM)	ANNUAL VOLUME (ACRE- FEET)
Well 1 (proposed new)	☒	☐	<i>Proposed</i>	☐	6 – 8"		~235-310 ft ¹	0-228 ft ²	~238 ft bgs ¹	Troutdale Formation	~310 ft	22.4 gpm ³	24.0

1. Estimated well construction based on conditions experienced during drilling of the existing well, CLAC-17036.
 2. Seal conditions outlined in the OWRD Initial Groundwater Review, 1/31/2019.
 3. Maximum pumping rate allowable defined in OWRD analysis of connectivity with Mosier and Martin Creeks in the Initial Review, 4/12/2019. The requested rate is below the maximum rate based on low-flow exceedance rates.
- * Licensed drillers are required to attach a Department-supplied Well Tag, with a unique Well ID or Well Tag Number to all new or newly altered wells. Landowners can request a Well ID for existing wells that do not have one. The Well ID is intended to serve as a unique identification number for each well.
- ** A well log ID (e.g. MARI 1234) is assigned by the Department to each log in the agency's well log database. A separate well log is required for each subsequent alteration of the well.
- *** Source aquifer examples: Troutdale Formation, gravel and sand, alluvium, basalt, bedrock, etc.

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SECTION 4: WATER USE

USE	PERIOD OF USE	ANNUAL VOLUME (ACRE-FEET)
Nursery (container)	November 1 – June 30*	24.0
Nursery (greenhouse)	November 1 – June 30*	Included in above
Nursery (in-ground)	November 1 – June 30*	Included in above

*Period of use is based on the period of available water from OWRD analysis of connectivity with Mosier and Martin Creeks, Initial Review 4/12/2019.

Exempt Uses: Please note that 15,000 gallons per day for single or group **domestic** purposes and 5,000 gallons per day for a single **industrial or commercial** purpose are exempt from permitting requirements.

For irrigation use only:

Please indicate the number of primary and supplemental acres to be irrigated (*must match map*).

Primary: **14.5 Acres** Supplemental: **0 Acres**

List the Permit or Certificate number of the underlying primary water right(s): **NA**

Indicate the maximum total number of acre-feet you expect to use in an irrigation season: **14.5**

- If the use is **municipal or quasi-municipal**, attach **Form M**
- If the use is **domestic**, indicate the number of households:
If the use is **mining**, describe what is being mined and the method(s) of extraction:

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