EMERGENCY DROUGHT APPLICATION: GROUNDWATER REVIEW

TO: Water Rights Section Date 8/12/2024

FROM: Groundwater Section Joe Kemper
Reviewer's Name

SUBJECT: Application G- **19447**

DROUGHT MITIGATION; GROUNDWATER

This review is based on authorities laid out in OAR 690-019 Drought Mitigation rules. This is an expedited review to evaluate an emergency request for groundwater use for one season under a Governor's drought declaration. Notwithstanding groundwater availability, stability of the groundwater resource, and surface water and Scenic Waterway considerations, the Department may issue a drought permit for short-term emergency use provided that there is no injury and that the use is within the public interest as per OAR 690-019-0040(3). **This review is based upon available information and agency policies in place at the time of evaluation**.

A. GENERAL INFORMATION: Applicant's Name: **Broken Top Family Farms** County: **Jefferson**

A1. Applicant(s) seek(s) 1.75 cfs from 1 well(s) in the Deschutes Basin, Lower Crooked subbasin

A2. Proposed use Supplemental Irr. (140.12 ac) Seasonality: 8/2/2024 to 10/31/2024

A3. Well and aquifer data **(attach and number logs for existing wells; mark proposed wells as such under logid)**:

Well	Logid	Applicant's Well #	Proposed Aquifer*	Proposed Rate(cfs)	Location (T/R-S QQ-Q)	Location, metes and bounds, e.g. 2250' N, 1200' E fr NW cor S 36
1	JEFF 51763	1	Volcanics	1.75	12S/12E-34 SE SW	170' N, 2550' E fr SW Cor S 34
2						

* Alluvium, CRB, Bedrock

Well	Well Elev ft msl	First Water ft bls	SWL ft bls	SWL Date	Well Depth (ft)	Seal Interval (ft)	Casing Intervals (ft)	Liner Intervals (ft)	Perforations Or Screens (ft)	Well Yield (gpm)	Draw Down (ft)	Test Type
1	2820	NA	745	6/23/2023	985	0-71	0-898	NA	None	200	NA	Air

Use data from application for proposed wells.

A4. **Comments:** The applicant's proposed POD is located within the Deschutes Ground Water Study Area as defined in rules OAR 690-505

B. GROUNDWATER/SURFACE WATER CONSIDERATIONS:

B1. Is there information that this drought groundwater use will **injure senior spring or surface water rights** during the duration of the drought declaration? (☐**Yes**) (☒**No**) If yes, explain: Although the proposed POD is within the Deschutes Ground Water Study Area (OAR 690-505-0600) and hydraulically-connected to surface water within the Deschutes Basin, there is not a preponderance of evidence that the use will injure specific surface water rights during the duration of the drought declaration.

B2. Is there information that this drought groundwater use will **injure senior groundwater rights** during the duration of the drought declaration? (☐**Yes**) (☒**No**) If yes, explain: The proposed groundwater use will not likely result in interference to adjacent groundwater users that would meet the definition of injury.

B3. Groundwater (☒ **is**) (☐ **is not**) available within the **capacity of the resource.** Comments: Water level records from adjacent observation wells do not show a preponderance of evidence that the proposed use exceeds the capacity of the resource.

B4. There (☒ **is**) (☐ **is not**) a preponderance of evidence that the proposed short-term emergency groundwater use will measurably reduce the surface water flows necessary to maintain the free-flowing character of a scenic waterway. Comments: OAR 690-505-0600 states that "*ground water appropriations within the Deschutes Ground Water Study Area…will measurably reduce scenic waterway flows as defined in OAR 380-835 unless mitigation is provided*".

B5. **Proposed Permit Conditions:** *If a permit is issued, include:*

Condition 7B (Interference Condition): Drought permits are junior to existing water rights and are subject to regulation

Condition 7P (Well Tag): If there is no existing OWRD Well ID Tag on the well, one shall be attached

Large Water Use Reporting Condition: totalizing flowmeter and reporting required. Include condition that "*the readings must be reported to the Department by December 31, 2024*."

Special Condition - Regulation: "Groundwater pumping under this permit shall discontinue or be reduced if area wells with permanent primary and/or supplemental groundwater rights are being regulated off due to groundwater level decline or interference with senior water rights unless the Department determines no action is necessary (pumping under this permit can continue) because the groundwater resource can sustain continued groundwater pumping without causing substantial interference with senior water rights."

Special Condition – Static Water Level Measurement Access: The permittee shall allow Department staff, upon reasonable notice, to access the permitted well(s) during the period of use to take static water level measurements to monitor the impact of use on the resource. To ensure accurate measurements, the permittee may be required to stop use of the well for up to 24 hours before a water level measurement.

B6. **References Used:**

Gannett, M. W., Lite Jr, K. E., Morgan, D. S., and Collins, C. A., 2001, Ground-Water Hydrology of the Upper Deschutes Basin, Oregon, USGS Water-Resources Investigations Report 00-4162, 74 p., https://pubs.usgs.gov/wri/wri004162/pdf/WRIR004162.pdf

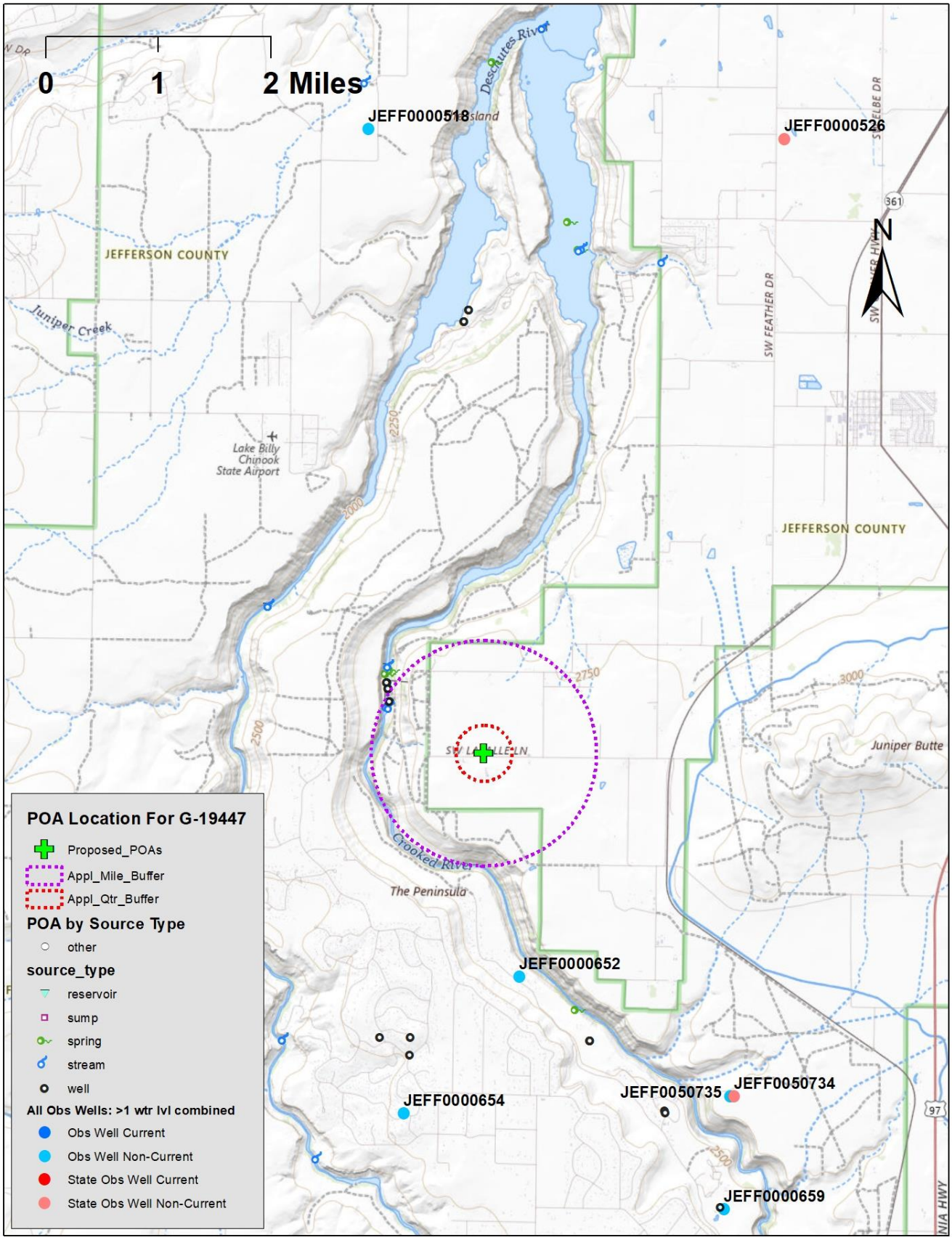
Lite, K. E. and Gannett, M. W., 2002, Geologic Framework of the Regional Ground-Water Flow System in the Upper Deschutes Basin, Oregon. USGS Water-Resources Investigation Report 02-4015, 44 p., https://pubs.er.usgs.gov/publication/wri024015

Gannett, M. W. and Lite, K. E., 2004, Simulation of Regional Ground-Water Flow in the Upper Deschutes Basin, Oregon, USGS Water Resources Investigation Report 2003-4195, 84 p., https://pubs.er.usgs.gov/publication/wri034195

Gannett, M.W., Lite, K.E., Jr., Risley, J.C., Pischel, E.M., and La Marche, J.L., 2017, Simulation of groundwater and surface-water flow in the upper Deschutes Basin, Oregon: U.S. Geological Survey Scientific Investigations Report 2017–5097, 68 p., https://doi.org/10.3133/sir20175097.

Sherrod, D. R., Taylor, E. M., Ferns, M. L., Scott, W. E., Conrey, R. M. and Smith, G. A., 2004, Geologic Map of the Bend 30-x-60-Minute Quadrangle, Central Oregon. U. S. Geological Survey Geologic Investigations Series Map I-2683. 49p., https://pubs.usgs.gov/imap/i2683/

Well Location Map



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Water-Level Measurements in Nearby Wells