

Water Right Conditions
Tracking Slip

Groundwater/Hydrology Section

FILE # # G-17588

ROUTED TO: Water Rights

TOWNSHIP/

RANGE-SECTION: 14S/13C-36

CONDITIONS ATTACHED?: ☒ yes ☐ no

REMARKS OR FURTHER INSTRUCTIONS:

w/in USGS Deschutes GW
Study Area

Reviewer: K. Lite

Oregon Water Resources Department

MEMO

02/19, 2013

TO Application G- 17588

FROM GW: K. Lite
(Reviewer's Name)

SUBJECT Scenic Waterway Interference & General/Local Surface Water Impact
Evaluation for Deschutes Ground Water Study Area

The source of appropriation is within or above the Deschutes Scenic Waterway

Use the Scenic Waterway condition (Condition 7J).

PREPONDERANCE OF EVIDENCE FINDING UNDER ORS 390.835:

The Department has found that there is a preponderance of evidence that the proposed use of ground water will measurably reduce the surface water flows necessary to maintain the free-flowing character of the Deschutes Scenic Waterway in quantities necessary for recreation, fish and wildlife.

LOCALIZED IMPACT FINDING



The proposed use of ground water will have a localized impact to surface water in the

Crooked River/~~Creek~~ Subbasin

If the localized impact box above is checked, then the water use under any right issued pursuant to this application is presumed to have a localized impact on surface water within the identified subbasin. Mitigation of the impact, originating from within the Local Zone of Impact identified by the Department, will be required before a permit may be issued for the proposed use.

If the localized impact box above is not checked, then the water use under any right issued pursuant to this application is presumed to have a general (regional) impact on surface water. Mitigation of the impact, originating anywhere within the Deschutes Basin above the Madras gage, will be required before a permit may be issued for the proposed use.

PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS CBB

TO: Water Rights Section Date 02/19/2013

FROM: Ground Water/Hydrology Section K. Lite
Reviewer's Name

SUBJECT: Application G- 17588 Supersedes review of _____
Date of Review(s)

PUBLIC INTEREST PRESUMPTION; GROUNDWATER

OAR 690-310-130 (1) *The Department shall presume that a proposed groundwater use will ensure the preservation of the public welfare, safety and health as described in ORS 537.525. Department staff review ground water applications under OAR 690-310-140 to determine whether the presumption is established. OAR 690-310-140 allows the proposed use be modified or conditioned to meet the presumption criteria. This review is based upon available information and agency policies in place at the time of evaluation.*

A. GENERAL INFORMATION: Applicant's Name: Schmidt County: Deschutes

A1. Applicant(s) seek(s) 0.0425 cfs from 1 well(s) in the Deschutes Basin,
Crooked River subbasin Quad Map: Redmond

A2. Proposed use: Irrigation Seasonality: April 1 – October 31

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	Desc 328	1	Deschutes Fm	0.0425	14S/13E-36CBB	185' S, 420' E fr N1/4 cor, S 36
2						
3						
4						
5						

* 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	2970	245	257	09/25/2012	280	0-19	+1-19			8	0	B

Use data from application for proposed wells.

A4. **Comments:** WELL IS CONSTRUCTED INTO WATER BEARING ZONES WITHIN THE DESCHUTES FORMATION. GROUND-WATER FLOW IS TOWARDS THE NORTH - NORTHWEST. THE CLOSEST GROUNDWATER / SURFACE WATER INTERACTION IS PROBABLY ON THE CROOKED RIVER BELOW TRAIL CROSSING.

A5. ☒ **Provisions of the Deschutes** _____ Basin rules relative to the development, classification and/or management of ground water hydraulically connected to surface water ☒ are, or ☐ are not, activated by this application. (Not all basin rules contain such provisions.)
Comments: WELLS ARE LOCATED WITHIN THE USGS DESCHUTES GROUND WATER STUDY AREA.

A6. ☐ **Well(s) #** _____, _____, _____, _____, tap(s) an aquifer limited by an administrative restriction.
Name of administrative area: _____
Comments: _____

B1. **Based upon available data**, I have determined that ground water* for the proposed use:

- a. ☐ is over appropriated, ☒ is not over appropriated, or ☐ cannot be determined to be over appropriated during any period of the proposed use. * This finding is limited to the ground water portion of the over-appropriation determination as prescribed in OAR 690-310-130;
- b. ☐ will not or ☐ will likely be available in the amounts requested without injury to prior water rights. * This finding is limited to the ground water portion of the injury determination as prescribed in OAR 690-310-130;
- c. ☐ will not or ☐ will likely to be available within the capacity of the ground water resource; or
- d. ☒ will, if properly conditioned, avoid injury to existing ground water rights or to the ground water resource:
- i. ☒ The permit should contain condition #(s) 7B;
- ii. ☐ The permit should be conditioned as indicated in item 2 below.
- iii. ☐ The permit should contain special condition(s) as indicated in item 3 below;

- B2.
- a. ☐ **Condition** to allow ground water production from no deeper than _____ ft. below land surface;
 - b. ☐ **Condition** to allow ground water production from no shallower than _____ ft. below land surface;
 - c. ☐ **Condition** to allow ground water production only from the _____ ground water reservoir between approximately _____ ft. and _____ ft. below land surface;
 - d. ☐ **Well reconstruction** is necessary to accomplish one or more of the above conditions. The problems that are likely to occur with this use and without reconstructing are cited below. Without reconstruction, I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Ground Water Section.

Describe injury –as related to water availability– that is likely to occur without well reconstruction (interference w/ senior water rights, not within the capacity of the resource, etc): _____

- B3. Ground water availability remarks: THE NEAREST STATE OBSERVATION WELL IS OBS WELL 1316 (DESC 3949), ABOUT 4.4 MILES TO THE SOUTH-SOUTHWEST. IT HAS BEEN MONITORED PERIODICALLY SINCE 1994. STATE OBSERVATION WELL 1316 SHOWS A SHARP DECLINE BETWEEN 1994 AND 1996, A SHALLOWER DECLINE SLOPE BETWEEN 1997 AND 2000, AND A STEEPENING SLOPE FROM 2001 TO PRESENT. THIS TREND IS GENERALLY COINCIDENT WITH CLIMATE CYCLES AND INCREASED USE IN THE AREA. SINCE 1994, THE WATER LEVEL HAS DROPPED ABOUT 20 FEET, AS A RESULT OF DECREASED RECHARGE AND INCREASED GROUNDWATER USE.

C. GROUND WATER/SURFACE WATER CONSIDERATIONS, OAR 690-09-040**C1. 690-09-040 (1):** Evaluation of aquifer confinement:

Well	Aquifer or Proposed Aquifer	Confined	Unconfined
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐

Basis for aquifer confinement evaluation: _____

C2. 690-09-040 (2) (3): Evaluation of distance to, and hydraulic connection with, surface water sources. All wells located a horizontal distance less than ¼ mile from a surface water source that produce water from an unconfined aquifer shall be assumed to be hydraulically connected to the surface water source. Include in this table any streams located beyond one mile that are evaluated for PSI.

Well	SW #	Surface Water Name	GW Elev ft msl	SW Elev ft msl	Distance (ft)	Hydraulically Connected?			Potential for Subst. Interfer. Assumed?	
						YES	NO	ASSUMED	YES	NO
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐

Basis for aquifer hydraulic connection evaluation: _____

Water Availability Basin the well(s) are located within: _____

C3a. 690-09-040 (4): Evaluation of stream impacts for each well that has been determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. Limit evaluation to instream rights and minimum stream flows that are pertinent to that surface water source, and not lower SW sources to which the stream under evaluation is tributary. Compare the requested rate against the 1% of 80% *natural* flow for the pertinent Water Availability Basin (WAB). If Q is not distributed by well, use full rate for each well. Any checked ☒ box indicates the well is assumed to have the potential to cause PSI.

Well	SW #	Well < ¼ mile?	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐

C3b. **690-09-040 (4):** Evaluation of stream impacts by total appropriation for all wells determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. **Complete only if Q is distributed among wells.** Otherwise same evaluation and limitations apply as in C3a above.

	SW #		Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐

Comments: _____

C4a. **690-09-040 (5):** Estimated impacts on **hydraulically connected surface water sources greater than one mile** as a percentage of the proposed pumping rate. Limit evaluation to the effects that will occur up to one year after pumping begins. This table encompasses the considerations required by 09-040 (5)(a), (b), (c) and (d), which are not included on this form. Use additional sheets if calculated flows from more than one WAB are required.

Non-Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
(A) = Total Interf.													
(B) = 80 % Nat. Q													
(C) = 1 % Nat. Q													
(D) = (A) > (C)													
(E) = (A / B) x 100		%	%	%	%	%	%	%	%	%	%	%	%

(A) = total interference as CFS; (B) = WAB calculated natural flow at 80% exceed. as CFS; (C) = 1% of calculated natural flow at 80% exceed. as CFS; (D) = highlight the checkmark for each month where (A) is greater than (C); (E) = total interference divided by 80% flow as percentage.

Basis for impact evaluation:

C4b. **690-09-040 (5) (b)** The potential to impair or detrimentally affect the public interest is to be determined by the Water Rights Section.

C5. ☐ **If properly conditioned**, the surface water source(s) can be adequately protected from interference, and/or ground water use under this permit can be regulated if it is found to substantially interfere with surface water:

- i. ☐ The permit should contain condition #(s) _____;
- ii. ☐ The permit should contain special condition(s) as indicated in "Remarks" below;

C6. SW / GW Remarks and Conditions

References Used: USGS WRIR 00-4162; WRIR 02-4015; OWRD STATE OBSERVATION WELL DATA (OBS WELL 1316); APPL. FILE G-17588; WELL REPORT DESC 328; 02/12/2013 MEMO FROM DAVID BATES (ASSISTANT WATERMASTER DISTRICT 11); REDMOND AND O'NEIL QUADRANGLE MAPS.

D1. Well #: 1 Logid: Croo 328

a. ☐ review of the well log;

b. ☐ field inspection by _____;

c. ☐ report of CWRE _____;

d. ☐ other: (specify) _____

a. ☐ constitutes a health threat under Division 200 rules;

b. ☐ commingles water from more than one ground water reservoir;

c. ☐ permits the loss of artesian head;

d. ☐ permits the de-watering of one or more ground water reservoirs;

e. ☐ other: (specify) _____

D4. **THE WELL construction deficiency is described as follows:** _____

D6. ☐ **Route to the Enforcement Section.** I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Enforcement Section and the Ground Water Section.

[illegible]

D8. ☐ **Route to Water Rights Section (attach well reconstruction logs to this page).**

This is a topographic map of a region in Illinois, showing various locations marked with dots and labeled with 'DESC' codes. A red dot is labeled 'G-17588' and 'POA'. The map includes contour lines, roads, and a grid system.

Key locations and features include:

- Locations marked with dots:**
 - DESC 2497, DESC 2498, DESC 2503, DESC 2511, DESC 2526, DESC 2524, DESC 2530, DESC 2542, DESC 2637, DESC 313, DESC 2638, DESC 2647, DESC 2767, DESC 2776, DESC 2770, DESC 2762, DESC 2739, DESC 2732, DESC 2730, DESC 2748, DESC 2705, DESC 2689, DESC 2703, DESC 2706, DESC 2707, DESC 2708, DESC 2709, DESC 2710, DESC 2711, DESC 2712, DESC 2713, DESC 2714, DESC 2715, DESC 2716, DESC 2717, DESC 2718, DESC 2719, DESC 2720, DESC 2721, DESC 2722, DESC 2723, DESC 2724, DESC 2725, DESC 2726, DESC 2727, DESC 2728, DESC 2729, DESC 2730, DESC 2731, DESC 2732, DESC 2733, DESC 2734, DESC 2735, DESC 2736, DESC 2737, DESC 2738, DESC 2739, DESC 2740, DESC 2741, DESC 2742, DESC 2743, DESC 2744, DESC 2745, DESC 2746, DESC 2747, DESC 2748, DESC 2749, DESC 2750, DESC 2751, DESC 2752, DESC 2753, DESC 2754, DESC 2755, DESC 2756, DESC 2757, DESC 2758, DESC 2759, DESC 2760, DESC 2761, DESC 2762, DESC 2763, DESC 2764, DESC 2765, DESC 2766, DESC 2767, DESC 2768, DESC 2769, DESC 2770, DESC 2771, DESC 2772, DESC 2773, DESC 2774, DESC 2775, DESC 2776, DESC 2777, DESC 2778, DESC 2779, DESC 2780, DESC 2781, DESC 2782, DESC 2783, DESC 2784, DESC 2785, DESC 2786, DESC 2787, DESC 2788, DESC 2789, DESC 2790, DESC 2791, DESC 2792, DESC 2793, DESC 2794, DESC 2795, DESC 2796, DESC 2797, DESC 2798, DESC 2799, DESC 2800, DESC 2801, DESC 2802, DESC 2803, DESC 2804, DESC 2805, DESC 2806, DESC 2807, DESC 2808, DESC 2809, DESC 2810, DESC 2811, DESC 2812, DESC 2813, DESC 2814, DESC 2815, DESC 2816, DESC 2817, DESC 2818, DESC 2819, DESC 2820, DESC 2821, DESC 2822, DESC 2823, DESC 2824, DESC 2825, DESC 2826, DESC 2827, DESC 2828, DESC 2829, DESC 2830, DESC 2831, DESC 2832, DESC 2833, DESC 2834, DESC 2835, DESC 2836, DESC 2837, DESC 2838, DESC 2839, DESC 2840, DESC 2841, DESC 2842, DESC 2843, DESC 2844, DESC 2845, DESC 2846, DESC 2847, DESC 2848, DESC 2849, DESC 2850, DESC 2851, DESC 2852, DESC 2853, DESC 2854, DESC 2855, DESC 2856, DESC 2857, DESC 2858, DESC 2859, DESC 2860, DESC 2861, DESC 2862, DESC 2863, DESC 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2955, DESC 2956, DESC 2957, DESC 2958, DESC 2959, DESC 2960, DESC 2961, DESC 2962, DESC 2963, DESC 2964, DESC 2965, DESC 2966, DESC 2967, DESC 2968, DESC 2969, DESC 2970, DESC 2971, DESC 2972, DESC 2973, DESC 2974, DESC 2975, DESC 2976, DESC 2977, DESC 2978, DESC 2979, DESC 2980, DESC 2981, DESC 2982, DESC 2983, DESC 2984, DESC 2985, DESC 2986, DESC 2987, DESC 2988, DESC 2989, DESC 2990, DESC 2991, DESC 2992, DESC 2993, DESC 2994, DESC 2995, DESC 2996, DESC 2997, DESC 2998, DESC 2999, DESC 3000, DESC 3001, DESC 3002, DESC 3003, DESC 3004, DESC 3005, DESC 3006, DESC 3007, DESC 3008, DESC 3009, DESC 3010, DESC 3011, DESC 3012, DESC 3013, DESC 3014, DESC 3015, DESC 3016, DESC 3017, DESC 3018, DESC 3019, DESC 3020, DESC 3021, DESC 3022, DESC 3023, DESC 3024, DESC 3025, DESC 3026, DESC 3027, DESC 3028, DESC 3029, DESC 3030, DESC 3031, DESC 3032, DESC 3033, DESC 3034, DESC 3035, DESC 3036, DESC 3037, DESC 3038, DESC 3039, DESC 3040, DESC 3041, DESC 3042, DESC 3043, DESC 3044, DESC 3045, DESC 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3137, DESC 3138, DESC 3139, DESC 3140, DESC 3141, DESC 3142, DESC 3143, DESC 3144, DESC 3145, DESC 3146, DESC 3147, DESC 3148, DESC 3149, DESC 3150, DESC 3151, DESC 3152, DESC 3153, DESC 3154, DESC 3155, DESC 3156, DESC 3157, DESC 3158, DESC 3159, DESC 3160, DESC 3161, DESC 3162, DESC 3163, DESC 3164, DESC 3165, DESC 3166, DESC 3167, DESC 3168, DESC 3169, DESC 3170, DESC 3171, DESC 3172, DESC 3173, DESC 3174, DESC 3175, DESC 3176, DESC 3177, DESC 3178, DESC 3179, DESC 3180, DESC 3181, DESC 3182, DESC 3183, DESC 3184, DESC 3185, DESC 3186, DESC 3187, DESC 3188, DESC 3189, DESC 3190, DESC 3191, DESC 3192, DESC 3193, DESC 3194, DESC 3195, DESC 3196, DESC 3197, DESC 3198, DESC 3199, DESC 3200, DESC 3201, DESC 3202, DESC 3203, DESC 3204, DESC 3205, DESC 3206, DESC 3207, DESC 3208, DESC 3209, DESC 3210, DESC 3211, DESC 3212, DESC 3213, DESC 3214, DESC 3215, DESC 3216, DESC 3217, DESC 3218, DESC 3219, DESC 3220, DESC 3221, DESC 3222, DESC 3223, DESC 3224, DESC 3225, DESC 3226, DESC 3227, DESC 3228, DESC 3229, DESC 3230, DESC 3231, DESC 3232, DESC 3233, DESC 3234, DESC 3235, DESC 3236, DESC 3237, DESC 3238, DESC 3239, DESC 3240, DESC 3241, DESC 3242, DESC 3243, DESC 3244, DESC 3245, DESC 3



Oregon Water Resources Department (OWRD) Well Location
 OWRD Logid
 OWRD Well Tag (Well ID)
 OWRD State Observation Well Number
 Total well depth (feet below land surface)
 Land surface elevation (feet above mean sea level)
 Primary use of well
 Primary aquifer system

15.00S/13.00E-21ADB1
 DESC 3949

 1316
 390
 3041
 INDUSTRIAL

