

Approved:



MEMO

To: Kristopher Byrd, Well Construction Section Manager
From: Tommy Laird, Well Construction Program Coordinator
Subject: Review of Water Right Application G-17051
Date: November 16, 2023

The attached application was forwarded to the Well Construction Section by the Water Rights Section. Kenneth Lite reviewed the application. Please see Kenneth's Groundwater Review and the Well Report.

Applicant's Well #1 (JEFF 832): Based on a review of the Well Report, Applicant's Well #1 does not appear to comply with current minimum well construction standards (See OAR 690 Div 210). The problem is that the Well Report is an informational report that does not describe the construction of the well, and without a well report that describes in detail the construction of the well, the Department is not able to determine that the well meets minimum construction standards.

My recommendation is that the Department **not issue** a permit for Applicant's Well #1 unless it is brought into compliance with current minimum well construction standards or information is provided showing that it is constructed to meet current minimum well construction standards.

The construction of Applicant's Well #1 may not satisfy hydraulic connection issues.

STATE ENGINEER
Salem, Oregon

JEFF
832

Well Record

STATE WELL NO. 13/12-14G1
COUNTY Jefferson
APPLICATION NO.

OWNER: Crooked River Ranch
LOCATION OF WELL: Owner's No. 7
MAILING ADDRESS:
CITY AND STATE: Terrebonne, Oregon

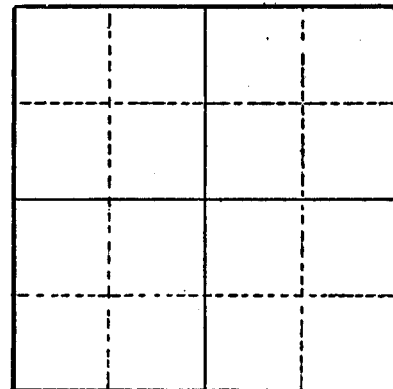
SW 1/4 NE 1/4 Sec. 14 T. 13 N. S. R. 12 E. W., W.M.

Bearing and distance from section or subdivision
corner

Altitude at well

TYPE OF WELL: Drilled Date Constructed 1944

Depth drilled 280 Depth cased



Section

CASING RECORD:

16 inch

FINISH:

AQUIFERS:

WATER LEVEL:

PUMPING EQUIPMENT: Type H.P.
Capacity G.P.M.

WELL TESTS:

Drawdown ft. after hours G.P.M.
Drawdown ft. after hours G.P.M.

USE OF WATER Temp. °F., 19

SOURCE OF INFORMATION U-286

DRILLER or DIGGER

ADDITIONAL DATA:

Log Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

OREGON STATE BOARD OF HEALTH

Mineral Content of Water13/12-14F
RECEIVED
DEC 8 1965STATE ENGINEER
SALEM, OREGON

Name of Water Supply George Bell
Source Spring
Sampling Point Catchment box at pump intake
Collected By J. E. Scova and W. S. Bartholomew Date 11-3-65
Analysis By A. W. Rose Date 11-17-65
Laboratory Number 0961

	<u>Mg/L</u>		<u>Mg/L</u>
Color	<u>2</u>	Conductance (mc mho/cm)	<u>186</u>
Turbidity	<u>2.5</u>	Chlorides	<u>6.2</u>
Solids, Total	<u>156</u>	Sodium	<u>18.4</u>
Solids, Volatile	<u>55</u>	Potassium	<u>2.5</u>
Carbon Dioxide	<u>4.7</u>	Fluoride	<u>0.31</u>
pH	<u>7.5</u>	Phosphates	<u>0.33</u>
Alkalinity, Total as CaCO ₃	<u>81</u>	Sulfates	<u>4.5</u>
Hardness as CaCO ₃	<u>63.6</u>	Silicon	<u>38</u>
Calcium	<u>9.5</u>	Aluminum	<u>0.02</u>
Magnesium	<u>9.7</u>	Nitrogen, Ammonia	<u>0.19</u>
Iron	<u>0.02</u>	Nitrogen, Nitrite	<u>0.01</u>
Manganese	<u>0.05</u>	Nitrogen, Nitrate	<u>0.25</u>
Arsenic	<u>0.005</u>		

REMARKS

WATER RESOURCES DEPARTMENT

MEMO

Date: August 27, 2008TO: Application: G-17051FROM: GW: K. Lite
(Reviewer's Name)SUBJECT: Scenic Waterway Interference & General/Local Surface Water
Evaluation for Deschutes Ground Water Study AreaThe 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:

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.

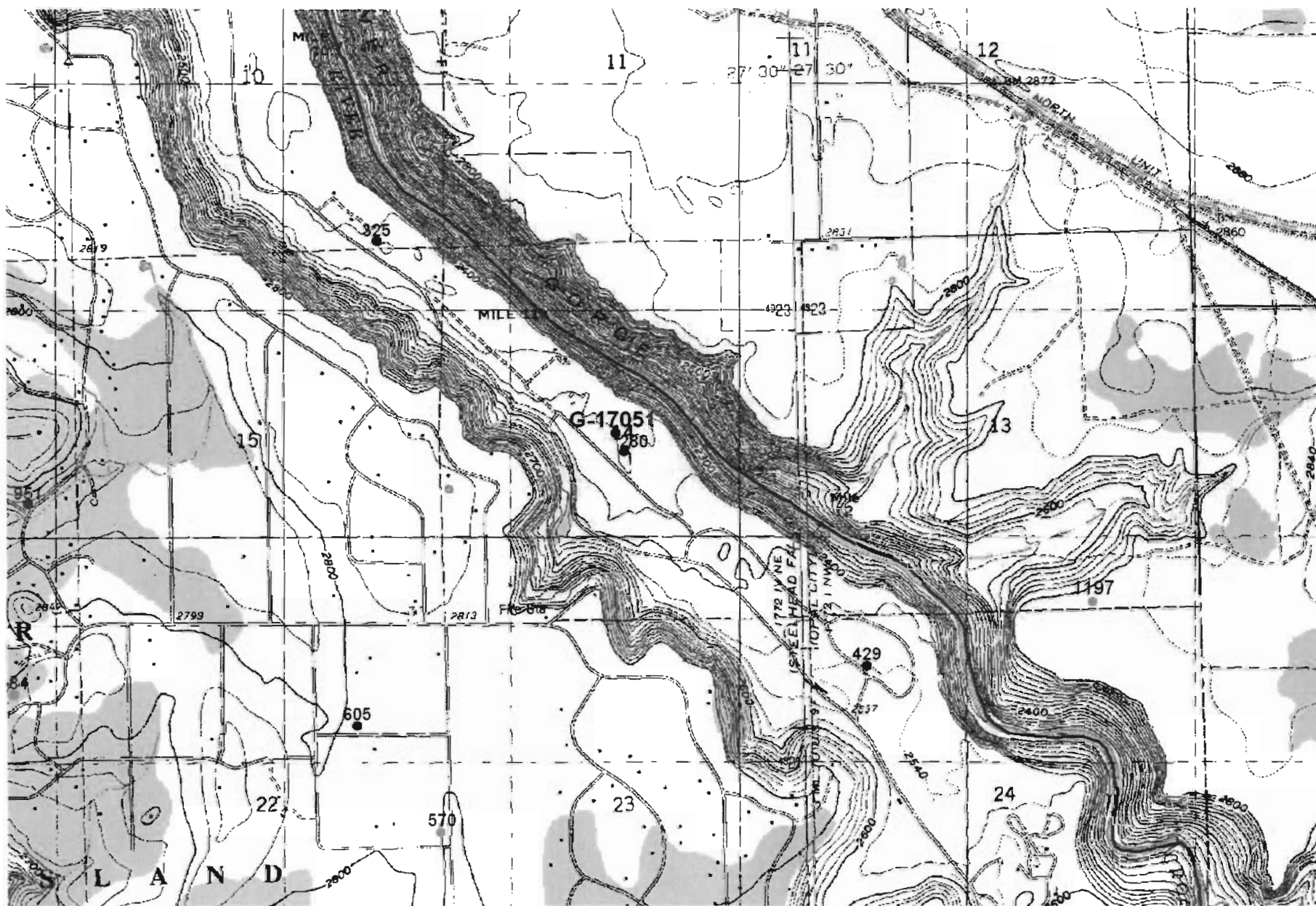
LOCALIZED IMPACT FINDING

☒ 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.

G-17051: Steelhead Falls and Opal City Quadrangles



2000 0 2000 4000 Feet

PUBLIC INTEREST REVIEW FOR GROUND WATER APPLICATIONS

TO: Water Rights Section Date 8/26/2008

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

SUBJECT: Application G- 17051 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: Crooked River Ranch Club County: Jefferson

A1. Applicant(s) seek(s) 1.82 cfs from 1 well(s) in the Deschutes Basin,
Crooked River subbasin Quad Map: Steelhead Falls

A2. Proposed use: Irrigation Seasonality: April 1 – November 1

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 832*	1	Deschutes Fm	1.82	13S/12E-14CAA	2480' N, 60' W fr S1/4 cor S14
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	2460		224.3	6/16/94	280*							

Use data from application for proposed wells.

A4. **Comments: WELL IS CONSTRUCTED INTO WATER-BEARING ZONES WITHIN THE DESCHUTES FM. *WELL REPORT IS RECONSTRUCTED FROM INFORMATION CONTAINED IN WATER RIGHT (U-286) AND CONTAINS ONLY TOTAL DEPTH. GROUND WATER FLOW IS TOWARDS THE CROOKED RIVER. GROUND-WATER LEVEL IS ABOVE THE NEAREST SURFACE WATER (CROOKED RIVER), AND IS LIKELY COINCIDENT WITH TRIBUTARY SPRINGS.**

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: Within USGS Study Area Boundary.

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

B. GROUND WATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070

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:
- ☒ The permit should contain condition #(s) 7B, 7N;
 - ☐ The permit should be conditioned as indicated in item 2 below.
 - ☐ 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;
- 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 1302 (DESC 8626), LOCATED ABOUT 4.5 MILES TO THE SOUTH. IT HAS BEEN MONITORED PERIODICALLY SINCE 1994. STATE OBSERVATION WELL 1302 HAS BEEN DECLINING STEADILY DURING THE ENTIRE PERIOD OF RECORD. THE WATER LEVEL HAS DROPPED ABOUT 4.5 FEET, IT IS LIKELY THAT MOST OF THE DECLINE IS A RESULT OF DECREASED RECHARGE.

THE PROPOSED POA WAS CONSTRUCTED IN 1944. THE INTEGRITY OF THE SURFACE SEAL IS SUSPECT. ALSO, THE PUMP TEST EXEMPTION THAT WAS GRANTED FOR THIS WELL BECAUSE OF LACK OF ACCESS HAS LEFT US WITH VIRTUALLY NO INFORMATION ABOUT THE WELL OR IT'S POTENTIAL PERFORMANCE.

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
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

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
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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?
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

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?
			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

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													
(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.

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.

C6. SW / GW Remarks and Conditions

References Used: USGS WRIR 00-4162 AND USGS WRIR 02-4015; USGS OFR 97-197. APPL. FILE G-17051; WELL REPORT JEFF 832; STATE OBSERVATION WELL 1302; STEELHEAD FALLS AND OPAL CITY QUADRANGLE MAPS; DIVISION 690-505.

D1. Well #: _____ Logid: _____

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) _____

b. ☐ I don't know if it met standards at the time of construction.

THIS SECTION TO BE COMPLETED BY ENFORCEMENT PERSONNEL

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