

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-17190
Exam Date: 09/10/2018

1. Current Owner:
POWDERHORN BAY WATER ASSN C/O BRUCE MCEACHRAN
5110 S DEARBORN RD SPOKANE WA 99223

2. Accompanied by: Rich Meyer
Phone No: (253) 202-6686
Address: 62934 S. Powderhorn Bay Rd, Harrison, ID
Relationship to permit Holder: Applicant representative

3. **SOURCE:**
GROUND WATER

Method of Determination: Arcmap and DRG

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
95-8207	GROUND WATER	DOMESTIC	LICENSE
95-9429	LAKE COEUR D'ALENE	IRRIGATION	LICENSE

Comments: WR 95-8207 was filed by the applicant to provide water for the Powderhorn Bay Water Assn, prior to the two homes being built on lots in the subdivision. WR 95-9429 is for irrigation use from Lake Coeur D'alene for Lot 8 of the Jensen Powderhorn Bay 1st Add Subdivision.

2. Other water rights with the same point-of-diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
95-8207	GROUND WATER	DOMESTIC	LICENSE

Comments: WR 95-8207 uses same POD to provide domestic water to homes in Jensen Powderhorn Bay 1st Add Subdivision.

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER L2 (NW¼ NW¼), Sec. 23, Twp 48N, Rge 04W, B.M. KOOTENAI County

Method of Determination: Maps and GPS. POD located at -116°49.339, 47°29.735. Well drilled PRE-1987.

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
48N	04W	14											X L6						
48N	04W	22	X																
48N	04W	23						X L2											

Method of Determination: Arcmap and Field Exam.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

☒ Indicate weir size/pipe as applicable.

Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

☒☒ Aerial Photo Attached (required for irrigation of 10+ acres).☒ Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
	GOULDS	1/2			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
N/A						

2. Measurements: Unable to perform flow measurement because system pumped directly into pressure tank.

E. FLOW CALCULATIONS☒ Additional Computation Sheets Attached

Measured Method: Theoretical pumping equation estimates flow at 0.015 cfs. See attached theoretical pumping equation worksheet.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} =$$

2. Volume Calculations for Other Uses:

Domestic use for in home only = 0.6 af

2 homes x 0.6 af (domestic) = 1.2 af + 2 homes x 0.6 af (irrigation) = 2.4 af total volume

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed with the applicant's representative, Rich Meyer, showed a well being used for domestic purposes.

The well has a 0.5 HP pump which diverted water into a 3,000 gallon reservoir tank that is used for a community system. I was unable to perform a flow measurement because water was diverted directly into a reservoir tank with no proper place to perform measurement. Theoretical pumping equation was used to estimate a flow rate of 0.015 cfs. Applicant provided install documentation identifying the pump make and ½ HP. The pump was estimated to be 140 feet down and the system running at 40 psi (equation attached). The ½ HP pump will not produce 0.06 cfs applicant was permitted for, but the

applicant uses a large 3,000 gallon reservoir to compensate for peak water use between the two homes. Base on this, the license will be issued with a maximum diversion rate of 0.02 cfs.

There were two homes identified and verified during the field exam using water for in home use and up to ½ acre of irrigation. The homes are located on two separate lots in the Jensen Powderhorn Bay 1st Add Subdivision. Aerial imagery and photography were used to identify domestic water use for up to ½ irrigation around homes. The overall license will be issued for a diversion rate of 0.02 cfs and an annual volume of 2.4 af.

The applicant properly identified POU when applying in 2016 as seen by map made by IDWR staff. Since application occurred, an updated PLSS overlay layer has been applied that shows government lots differently than prior to update. 2016 application showed government lots extending into the water, and new layer shows it being inland from shore. Because applicant identified the POU on map and application grid as it was current in 2016, corrections will be made at time of licensing to show updated grid. License will show POU in government lot and same 40 acre tract not in government lot see below:

2016 Application identified in: section 14 SWSW Lot 6

Current license identified in: section 14 SWSW Lot 6 and section 14 SWSW

2016 Application identified in: section 23 NWNW Lot 2

Current license identified in: section 23 NWNW Lot 2 and section 23 NWNW

Condition 046 was removed from license. Condition F06 was added to describe the same POD for both lots (8 and 11), and WR 95-8207. A condition was added that limits lot 8 total irrigation use to ½ acre under water rights 95-9429 and 95-17190. WR95-8207 was previously licensed by the applicant for domestic water use, prior to construction of the homes on lots 8 and 11, and shares the POD with WR 95-17190.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
DOMESTIC	01/01 to 12/31	0.02 CFS	2.4 AF

Totals: 0.02 CFS 2.4 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

I. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name Adam Fink Date 4/21/2020

Reviewer Bob Date 4/24/2020

State of Idaho
Department of Water Resources

Attachment to Water Right License

95-17190

This map depicts the DOMESTIC place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.

04W



-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters

0 0.035 0.07 0.14 Miles



THEORETICAL PUMPING EQUATION FOR WR# 95-17190

Theoretical Pumping Equation is required because system did not allow for a proper measurement. Pump is estimated to be at 140 ft, and running at 40 psi.

<u>PUMP EQUATIONS</u>						
WATER RIGHT No.		95-17190				
		HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
Q =	HP*8.8*Eff/H	0.5	232.517	0.8	140	40
Q =		0.015 cfs		6.8 gpm		

H2O Well Service Inc.
582 West Hayden Avenue
Hayden Lake, Idaho 83835
(208) 772-4004

Order Number: 0014911
Order Date: 5/12/2017
Salesperson: 0001
Customer Number: COUNTER
Tax Schedule: ID KT
Phone Number:

Sold To:
Counter Sales
Counter Sales

Ship To:
Counter Sales
Counter Sales

Estimate for Powderhorn

Customer P.O.	Ship VIA	F.O.B.	Terms DUE ON RECEIPT		
Item Number	Description	Quantity	Price	Disc %	Amount
	Estimate for Powderhorn Bay Water Assc.				
	WELL:				
12GO7GS05412L	Goulds pump 7 gpm 1/2 hp	1.00	906.00	0.00	906.00
22P801TC	PVC 120 1" T&C pipe	140.00	2.20	0.00	308.00
41SW124FJ	12-4 Flat Jacket Sub Wire	150.00	1.60	0.00	240.00
51CV1C	1" Check Valve Cast Iron	1.00	24.00	0.00	24.00
30BB1141	Brass Bushing 11/4"x1"	1.00	11.50	0.00	11.50
60SPK4	#14-12-10 4 Wire Splice Kit	1.00	5.00	0.00	5.00
/100	Misc Job supply -	1.00	30.00	0.00	30.00
63SYSP231I	Symcom Saver Insider 231	1.00	160.00	0.00	160.00
	RESV:				
62S20PMU	S J E Level Control #20PMU	1.00	50.50	0.00	50.50
62MSJFW	SJ Cable Weight	1.00	11.70	0.00	11.70
62FU45EQ20AG	Furnas 2PL 240v Relay	1.00	32.10	0.00	32.10
/100	4" Well Cap	1.00	65.00	0.00	65.00
64BB1G	Bell Box 1 Gang 1" KO	1.00	28.50	0.00	28.50
/100	Bell Box 1 Gang Blank Cover	1.00	5.50	0.00	5.50
/100	Misc Electrical	1.00	100.00	0.00	100.00
/001	Pump Serv Trk/Oper- Labor	10.00	95.00	0.00	950.00
/003	Assistant Service Tech- Labor	10.00	75.00	0.00	750.00

Note: Resv./Pump System may be a "one-pipe system" / Resv. May Drain Back to Well.

Note: Direct Bury UF (Control) Wire runs from Well -to- Resv. / Unknown Condition.

Net Order: 3,677.80
Less Discount: 0.00
Freight: 0.00
Sales Tax: 0.00
Order Total: 3,677.80



95-17190

permit to... please use...
 for an extension, please use...

12-1004
 CREATION
 OKANOS
 MSN.COM
 mo. 1 yr. PRE 1987

_____ acre-feet.
 or other conditions of permit:

Yes ☐	No ☒	Yes ☐	No ☐	Yes ☐	No ☒	Yes ☐	No ☐	Yes ☐	No ☒
Yes ☐	No ☐	Yes ☐	No ☐	Yes ☐	No ☐	Yes ☐	No ☐	Yes ☐	No ☐

connection with your proof of
 tion

09/10/2018

water system.





PUMP HOUSE



PUMP ½ HP



POU – LOT 8 JENSEN POWDERHORN BAY 1ST ADD



POU – LOT 11 JENSEN POWDERHORN BAY 1ST ADD